Groundwater Monitoring Report
Fourth Quarter 2023
Town and Country Dry Cleaners Site (828149)
Brighton, New York

Work Assignment No. D009806-34

Prepared for

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LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	Microgram(s) per liter
AWQS	Ambient Water Quality Standards
DCE	Dichloroethene
EA	EA Engineering, P.C. and its affiliate EA Science and Technology
EPA	U.S. Environmental Protection Agency
MACTEC	MACTEC Engineering and Consulting, P.C.
ng/L	Nanogram(s) per liter
No.	Number
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
PCE	Tetrachloroethene
PFAS	Per- and polyfluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
PFOA	Perfluorooctanoic acid
SCOs	Soil Cleanup Objectives
Site	Town and Country Dry Cleaners Site
TCE	Trichloroethene
VOC	Volatile organic compound

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1. BACKGROUND

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology (EA) under Work Assignment Number (No.) D009806-34 to perform site management activities, including annual groundwater sampling, at the Town and Country Dry Cleaners Site (NYSDEC Site No. 828149). The Site is located at 2308 and 2310 Monroe Avenue, in the town of Brighton, Monroe County, New York (**Figures 1 and 2**). The Site has operated as a dry cleaning and laundry facility from 1969 to the present. The primary dry-cleaning solvent, tetrachloroethene (PCE), was used from 1969 to May 2011, when its use was reportedly discontinued. PCE was detected at a concentration of 38,000 milligrams per kilogram in the soil/sediment immediately below the bottom of an unlined catch basin that was previously located to the rear (northeast) of the on-site building. Semivolatile organic compounds were detected in a single shallow soil sample at concentrations above the New York State (NYS) Soil Cleanup Objectives (SCOs) for commercial use (MACTEC Engineering and Consulting, P.C. [MACTEC] 2019).

1.1 SITE DESCRIPTION

The Site is located at 2308 and 2310 Monroe Avenue in the town of Brighton, Monroe County. The 0.39-acre site is located in a mixed commercial/residential area on the northeast side of the town. Most of the Site is occupied by the on-site building with a paved parking area on the north side. The on-site building is occupied by an inactive dry-cleaning business. The Site is bound by Monroe Avenue to the south, commercial properties to the west and east and a residential neighborhood to the north (NYSDEC 2020).

1.2 PROJECT BACKGROUND

During Fall 2015, an Interim Remedial Measure (shown on **Figure 2**) was conducted to remove the soil containing the greatest concentrations of volatile organic compounds (VOCs) immediately below and surrounding the catch basin, and to replace the unlined catch basin with a new sealed, concrete-lined catch basin (MACTEC 2016a). Prior to backfilling the excavation, the bottom and sides were sprayed with sodium permanganate to oxidize remaining soil contamination immediately surrounding the excavation.

A Feasibility Study (MACTEC 2016b) was completed for the Site, and the NYSDEC issued a Record of Decision for the Site remediation in March 2017 (NYSDEC 2017). The selected remedy consists of the following:

- Excavation and off-site disposal of all on-site soils which exceed the NYS SCOs for commercial use.

- Excavation and off-site disposal of all off-site soil which exceed NYS SCOs for residential use.

- In Situ Enhanced Biodegradation to treat PCE and its associated degradation products in groundwater in an area to be determined during the remedial design.

In 2017, a Pre-Design Investigation was completed for the Site. Soil sample results further delineated the extent of PCE contamination exceeding residential SCOs for the off-site property and commercial SCOs on the Site. The sample results were used during the remedial design to calculate volume estimates for excavation and off-site disposal. Groundwater sample results indicate contaminant concentrations and extent are consistent with previous investigations and display limited potential for reductive de-chlorination of PCE (MACTEC 2018).

In 2019, a round of groundwater samples were collected to assess groundwater concentrations post soil removal Interim Remedial Measure (MACTEC 2019).

In 2021, NYSDEC performed a soil removal action according to the Record of Decision (NYSDEC 2017) to remove remaining on-site soil with concentrations of contaminants (primarily PCE) greater than commercial use SCOs and to remove soil at the adjacent residential property to the south with concentrations of contaminants greater than the residential SCOs. The soil remedial action removed the largest source of groundwater contamination, as well as the areas with the greatest identified groundwater concentrations (PCE was detected at 63,000 micrograms per liter [µg/L] in 2019 within the limits of excavation). This soil removal action generally met the objectives, although some contamination exceeding SCOs for commercial use remain at depth on the north edge of the property where further excavation was not possible or practical because of excavation sloping requirements (MACTEC 2023a).

2. FIELD INVESTIGATION

Field activities included monitoring well assessments/inspections, groundwater gauging, and sampling of the existing monitoring well network (**Table 1)**. Field forms from the inspection and sample collection events are provided in **Appendix A**. Groundwater monitoring was conducted according to the Site Management Plan (MACTEC 2023b).

2.1 MONITORING WELL ASSESMENTS

During the sampling event on 27 November 2023, EA located 18 of the 25 on-site and off-site wells, three of which could not be sampled. Monitoring wells MW-2B, DP-11, DP-12, DP-14, and GEMW-1 were not found. The condition of DP-16 and MW-16B indicated that the wells were abandoned and sealed. Three monitoring wells (MW-8, MW-10, DP-20) were dry and unable to be sampled. In addition, MW-1, which was sampled, contained asphalt inside the well casing, and the polyvinyl chloride piping open to the asphalt. A completed site inspection form can be found in **Appendix B**.

2.2 GROUNDWATER GAUGING

Groundwater sampling during this event included per-and polyfluoroalkyl substances (PFAS) sampling at all wells; therefore, a site-wide gauging event was performed at the end of the sampling event to prevent PFAS contamination prior to sampling. All wells returned to static condition after sampling was complete and prior to the site-wide gauging event. Based on the November 2023 gauging data, the groundwater at the site flows in an east-southeast direction. An overburden groundwater elevation contour is shown on **Figure 3**. A bedrock groundwater elevation contour is shown on **Figure 4**.

2.3 GROUNDWATER SAMPLING

In November 2023, groundwater samples were collected from 15 of the 25 monitoring wells, as discussed in Section 2.1. Fifteen wells (i.e., 10 on-site and 5 off-site) were sampled using a peristaltic pump and the low flow sampling procedure. On 27 November 2023, DP-10 was purged dry to allow the well to recharge, and samples were collected the following day once water levels returned to static conditions. On 28 November 2023, purging of DP-20 was attempted but the well was deemed dry, and a groundwater sample was not collected. MW-8 and MW-10 were assumed dry, and samples were not collected. The remaining wells in the network were sampled over the course of the 2-day event.

2.4 LABORATORY ANALYSIS

Samples were submitted to NYSDEC contract laboratory SGS North America Inc of Dayton, New Jersey for analysis of VOCs via U.S. Environmental Protection Agency (EPA) Method 8260D, PFAS via EPA Method 1633, and 1,4-dioxane via EPA Method 8270 SIM. Analytical data were not submitted for data validation. The Category B laboratory reports are included in **Appendix C**.

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3. GROUNDWATER SAMPLING RESULTS

Eleven total overburden wells and four total bedrock wells were sampled during the November 2023 groundwater sampling event. Results from the November 2023 sampling effort are discussed separately for each of the contaminants analyzed for and presented in **Tables 2, 3, and 4**. Groundwater contours for overburden and bedrock wells are provided on **Figures 3 and 4**. Analytical results for the June (EA 2023) and November 2023 sampling effort are provided on **Figures 5 and 6**.

3.1 VOLATILE ORGANIC COMPOUND RESULTS

The laboratory analysis indicated that PCE was detected in 10 overburden wells and 3 bedrock wells. Eight overburden wells and 2 bedrock wells had concentrations exceeding NYS Ambient Water Quality Standards (AWQS) of 5 µg/L. Concentrations ranged from 3.0 to 12.9 µg/L in bedrock and from 2.4 to 3,220 µg/L in overburden wells. The 4 wells with the greatest concentrations of PCE were overburden wells DP-15, MW-1, MW-3, and MW-13, with concentrations of 2,300 µg/L, 2,570 µg/L, 3,220 µg/L, and 1,130 µg/L, respectively. The extent of PCE in groundwater is presented in **Figures 7 and 8**.

Trichloroethene (TCE) concentrations were detected in nine overburden wells and two bedrock wells. Concentrations ranged from 1.3 to 475 µg/L in the overburden and 2.3 to 9.4 µg/L in the bedrock. Results from 7 overburden monitoring wells and 1 bedrock well exceed AWQS of 5 µg/L. The overburden wells containing TCE concentrations above AWQS include DP-10, DP-15, DP-19, MW-01, MW-02, MW-03, and MW-13; and the bedrock well that showed exceedance was MW-19B. The extent of TCE in groundwater is presented in **Figures 9 and 10**.

Cis-1,2-dichloroethene (DCE) was detected in nine overburden wells and two bedrock wells. Concentrations ranged from 1.2 to 1,210 µg/L in the overburden and 4.6 to 19.3 µg/L in the bedrock. Results from 7 overburden and 1 bedrock monitoring wells exceed AWQS of 5 µg/L. The overburden wells containing *cis*-1,2-DCE concentrations above AWQS include DP-10, DP-15, DP-19, MW-01, MW-02, MW-03, and MW-13; the bedrock well that showed exceedances was MW-19B. The extent of cis-1,2-DCE in overburden groundwater is presented in **Figure 11**.

Vinyl chloride was only detected in overburden well MW-03 (52.9 µg/L) and bedrock well MW-21B (0.82 µg/L). The result from MW-03 exceeds the AWQS value of 2 µg/L.

Chloroform was detected in overburden well DP-21 (8.2 µg/L) and bedrock well MW-21B (2 µg/L). The result from DP-21 exceeds the AWQS value of 7 µg/L.

A summary of sampling results can be found in in **Figure 4**. Historical analytical results for VOC concentrations are presented in **Tables 2 and 3**.

3.2 EMERGING CONTAMINANTS RESULTS

The groundwater samples were analyzed for PFAS via EPA Method 1633 and 1,4-dioxane via EPA Method 8270 SIM. Results show that perfluorooctanesulfonic acid (PFOS) was detected in

seven overburden monitoring wells and one bedrock well, perfluorooctanoic acid (PFOA) was detected in nine overburden monitoring wells and one bedrock monitoring well. 1,4-dioxane was not detected in any well. PFOS concentrations exceeded the AWQS of 2.7 nanograms per liter (ng/L) in 4 overburden monitoring wells: DP-15, MW-01, MW-03, and MW-13, ranging from 4.8 to 26.7 ng/L. PFOA concentrations exceeded the AWQS of 6.7 ng/L in 3 overburden monitoring wells: DP-10, DP-15, and MW-13, ranging from 8.2 to 13.7 ng/L. No exceedances in PFOS or PFOA were found in the bedrock aquifer. Analytical results from the 2023 sampling effort are presented on **Figure 5**. The November 2023 laboratory reports are presented in **Appendix C**. Historical analytical results for emerging contaminants are presented in **Table 4**.

3.3 TREND EVALUATION

The Mann-Kendall test was used to statistically evaluate trends for PCE, TCE, and *cis*-1,2-DCE concentrations over time in 16 representative wells. The Mann-Kendall Test is a non-parametric test that can be used to define the stability of a solute plume (i.e., stable, diminishing, or expanding) based on concentration trends at individual wells. To evaluate plume stability, four or more independent sampling events are required.

The following steps comprise the Mann-Kendall Test:

- ***Step 1—Well Data***: Contaminant concentrations are entered for each sampling event. Only those events for which numeric or non-detect values are available are included. In the event of a non-detect value, one-half the laboratory reporting limit was used for previous sampling events.

- ***Step 2—Data Comparisons***: Compare data sequentially, comparing sample event 1 to sample events 2 through n, then sampling event 2 to sampling events 3 through n, etc. Each row is filled with a 1, 0, or -1 as follows:

  - Concentration of Event xi > Event 1: Enter +1
  - Concentration of Event xi = Event 1: Enter 0
  - Concentration of Event xi < Event 1: Enter -1

Where: n = total number of sampling events
x_i = value of given sample event, with I = 2 to n

All rows are completed in the same manner until all sampling events are included.

- ***Step 3— Mann-Kendall Statistic:*** Each row is then summed (e.g., 0+0+-1+-1+0 = -2) and the sum is recorded in the far right-hand column. The right-hand column is then summed to get the total sum. This total value represents the Mann-Kendall Statistic "S" for the data from an individual well.

- ***Step 4—Determine Probability p:*** A probability table in EPA (1998) was used to determine the probability p.

- ***Step 5—Hypothesis Testing:*** The null hypothesis (no trend) was tested against the alternative hypotheses; H1 (upward trend) and H2 (downward trend). A 95 percent confidence interval was used for hypothesis testing.

A Mann-Kendall trend analysis was performed for overburden and bedrock monitoring wells with data from the 5 most recent sampling events from July 2013 to November 2023. Contaminant concentrations were analyzed for representative wells screened in both aquifers. The following wells were selected because they have data available from the greatest number of sampling events:

- Overburden Wells – DP-10, DP-15, DP-17, DP-18, DP-19, DP-20, DP-21, GEMW-02, MW-01, MW-02, MW-03, and MW-13.

- Bedrock Wells – MW-13B, MW-17B, MW-19B, and MW-21B.

Over the 10-year span, the trend analysis indicated that most wells are either stable or decreasing in concentrations of PCE, TCE, and *cis*-1,2-DCE.One bedrock well indicated an increasing trend for TCE and *cis*-1,2-DCE. One overburden well has a probably increasing trend for TCE. Several wells showed no trend for any of the analytes. Results of the Mann-Kendall Analyses are presented in **Appendix D** and are summarized in the following sections. The Mann-Kendall Analysis utilized historical data that are presented in **Tables 2 and 3**.

3.3.1 PCE Concentration Trends

In the overburden aquifer, PCE concentrations are decreasing in GEMW-02, MW-02, and MW-13; probably decreasing in DP-15; probably increasing in DP-17; increasing in DP-19; and stable in DP-21 and MW-01. Other select wells do not show a concentration trend.

In the bedrock aquifer, PCE concentration trends are stable in MW-13B and MW-17B. The other select wells do not show a concentrations trend.

3.3.2 TCE Concentration Trends

In the overburden aquifer, TCE concentrations are decreasing in DP-15, MW-02, and MW-13; probably decreasing in MW-01; increasing in DP-19; and stable in DP-10, DP-17, DP-20, DP-21, GEMW-02, and MW-03. Monitoring well DP-18 did not show a concentration trend.

TCE concentration in the bedrock aquifer showed an increasing trend found in MW-13B and a stable trend in MW-17B. The other select wells do not show a concentration trend.

3.3.3 *Cis*-1,2-DCE Concentration Trends

In the overburden aquifer, *cis*-1,2-DCE concentrations are decreasing in GEMW-02, MW-01, and MW-02; increasing in DP-20; and stable in DP-15, DP-17, DP-18, DP-20, DP-21, MW-03, and MW-13. No trend was shown in DP-10.

Concentration trends for *cis*-1,2-DCE show a stable trend in MW-17B and increasing trend in MW-13B. No trend was identified in MW-19B and MW-21B.

4. CONCLUSIONS AND RECOMMENDATIONS

Over the course of the groundwater monitoring program from the last 10 years, the Mann-Kendall trend analysis indicates that most wells are either stable or slowly decreasing in concentrations of PCE, TCE, and *cis*-1,2-DCE. However, on-site monitoring DP-19 may have an increasing trend for TCE, PCE, and *cis*-1,2-DCE; DP-17 may have a probably increasing trend for PCE; and MW-13B may have an increasing trend of *cis*-1,2-DCE. Based on the recent groundwater sampling of November 2023, VOC concentrations are still above AWQS even after the implementation of the soil excavation in the source area. Most VOC exceedances and the highest concentrations appear to be in the overburden aquifer unit.

Many of the monitoring wells associated with the Site have been likely destroyed during the previous remedial action. The plume is not well defined downgradient from the source with the furthest sentinel clusters DP-19/MW-19B and DP-21/MW-21B showing detectable and AWQS exceedance contaminant of concern values. Six sampling events have occurred over the course of the last 10 years and have been inconsistent in frequency.

EA recommends the installation of several new monitoring wells to define the existing plume. The recommended well locations will be provided in a forthcoming workplan. These wells would supplement the current well network in both the overburden and bedrock units.

It is also recommended that the site monitoring program frequency increase to bi-annual sampling (2Q and 4Q) for the next year (2024 calendar year), with the next event set to occur in Spring 2024. This will allow for a more robust and conclusive data set to verify that the remedy was successful. If VOC concentrations continue to increase in key monitoring wells, further recommendations will be made to help manage the plume.

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Tables

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Table 1. Monitoring Well Details and Gauging Data

Location ID	Targeted Unit	Northing	Easting	Ground Elevation (ft amsl)	TOC Elevation (ft amsl)	Historic Length (ft bgs)	Screen Length (ft)	DTW[1] (ft btoc)	Groundwater Elevation (ft amsl)	DTB[1] (ft btoc)	DTB (ft amsl)	Top of Screen (ft amsl)
DP-10	Overbuden	1138737.73	1422305.44	477.84	477.53	9.8	6.0	3.89	473.64	9.25	468.80	474.10
DP-11	Overbuden	1138734.19	1422359.91	478.37	478.05	12.8	8.0	--	--	--	--	473.70
DP-12	Overbuden	1138700.85	1422352.85	477.42	477.09	20.8	10.0	--	--	--	--	466.70
DP-14	Overbuden	1138717.51	1422261.09	477.14	476.82	NA	5.0	--	--	--	--	--
DP-15	Overbuden	1138744.94	1422284.51	477.25	476.98	10.1	5.0	3.23	473.75	9.41	469.36	476.98
DP-16	Overbuden	1138766.08	1422168.18	479.06	478.77	10.4	5.0	--	--	--	--	473.8
DP-17	Overbuden	1138699.91	1422092.66	479.89	479.50	16.9	10.0	7.32	472.18	16.25	463.25	473.1
DP-18	Overbuden	1138578.39	1422161.46	478.82	478.29	10.9	6.0	6.54	471.75	10.29	468.00	474.0
DP-19	Overbuden	1138532.70	1422378.17	475.49	475.15	13.3	10.0	4.89	470.26	12.86	462.29	472.3
DP-20	Overbuden	1138477.85	1422664.27	474.21	473.80	15.1	10.0	13.44	460.36	14.67	459.13	469.2
DP-21	Overbuden	1138650.76	1422923.25	468.55	468.15	10.8	8.0	8.52	459.63	10.34	457.81	465.9
GEMW-1	Overbuden	1138768.73	1422148.96	479.70	479.57	15.0	10.0	--	--	--	--	--
GEMW-2	Overbuden	1138751.76	1422130.52	480.36	480.25	15.0	10.0	8.42	471.83	14.42	465.83	470.8
MW-1	Overbuden	1138762.61	1422240.53	477.40	477.05	NA	5.0	2.72	474.33	10.70	466.35	471.4
MW-2	Overbuden	1138726.34	1422216.42	477.13	476.87	NA	5.0	4.71	472.16	22.51	454.36	459.4
MW-2B	Bedrock	1138727.39	1422222.76	477.06	476.71	23.0	5.0	--	--	--	--	458.0
MW-3	Overbuden	1138741.96	1422179.86	478.37	478.00	NA	5.0	3.44	474.56	7.68	470.32	475.3
MW-8	Overbuden	1138868.41	1422501.18	473.10	473.04	NA	5.0	9.18	463.86	9.24	--	--
MW-10	Overbuden	1138876.06	1422009.43	482.11	481.70	NA	5.0	8.52	473.18	8.55	473.15	--
MW-13	Overbuden	1138720.92	1422285.49	477.39	480.36	10.0	5.0	6.76	473.6	12.94	467.42	472.4
MW-13B	Bedrock	1138716.73	1422294.21	477.80	480.37	23.2	5.0	8.97	471.4	25.33	455.04	459.8
MW-16B	Bedrock	1138763.12	1422164.89	478.95	478.58	20.5	5.0	--	--	--	--	463.5
MW-17B	Bedrock	1138696.71	1422088.47	479.75	479.35	27.8	5.0	7.36	471.99	27.20	452.15	457.0
MW-19B	Bedrock	1138531.53	1422373.04	475.69	475.35	21.5	5.0	5.11	470.24	20.98	454.37	459.2
MW-21B	Bedrock	1138654.47	1422923.58	468.55	468.15	20.0	5.0	8.77	459.38	19.49	448.66	453.7

Notes:

1. DTW and DTB was measured on 28 November 2023.

-- = Well not measured during monitoring event
amsl = Above mean sea level
btoc = Below top of casing
DTB = Depth to bottom
DTW = Depth to water
ft = Foot (feet)
ID = Identification
NA = Not applicable
TOC = Top of casing

Horizontal Coordinates reference to the New York State Plane Coordinate System, West Zone (3103) based on NAD 83 (2011).
Vertical Datum is NAVD88. Survey conducted by Prudent Engineering, dated 8/12/2013.

Table 2. Historical Bedrock VOC Analytical Results

		Location ID	MW-2B				
		Sample Name	828149-MW2B20	828149-MW2B20D	828149-MW02B020	828149-MW02B020	828149-MW02B020
		Parent Sample ID		828149-MW2B20			
		Sample Date	7/24/2013	7/24/2013	4/26/2016	10/12/2017	5/7/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**				
Acetone	50	µg/L	< 10 U	< 10 UJ	< 5 U	< 5.0 U	< 5 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U
Cis -1,2-Dichloroethylene	5	µg/L	3.4	3	3.9	4.9	**7.4**
Tetrachloroethylene (PCE)	5	µg/L	**16**	**16**	**12**	**8.5**	**20**
Trichloroethylene (TCE)	5	µg/L	3.2	3	3.5	3.5	**6**
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 2. Historical Bedrock VOC Analytical Results

			Location ID	MW-13B				
			Sample Name	828149-MW13B20	828149-MW013B023	828149-MW013B023	828149-MW013B023	828149-MW-13B	828149-MW-13B-20231127
			Parent Sample ID						
			Sample Date	7/24/2013	4/28/2016	10/11/2017	5/7/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**					
Acetone	50	µg/L		< 10 U	< 5 U	< 5.0 U	< 5 U	< 50 U	< 3.1 U
Carbon Disulfide	60	µg/L		0.34 J	< 1 U	< 1.0 U	4.1	< 5 U	< 1.8 U
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.50 U
Cis -1,2-Dichloroethylene	5	µg/L		0.51 J	0.93 J	2	2	**7**	4.6
Tetrachloroethylene (PCE)	5	µg/L		0.65 J	3.6	3.3	1.6	1	3
Trichloroethylene (TCE)	5	µg/L		0.38 J	0.73 J	1.3	1.2	1.9	2.3
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 2. Historical Bedrock VOC Analytical Results

			Location ID	MW-16B		
			Sample Name	828149-MW16B17	828149-MW016B023	828149-MW016B023	828149-MW16B023
			Parent Sample ID				
			Sample Date	7/22/2013	4/27/2016	10/10/2017	5/6/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**			
Acetone	50	µg/L		< 10 U	< 5 U	< 5.0 U	< 5 U
Carbon Disulfide	60	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Cis -1,2-Dichloroethylene	5	µg/L		0.45 J	0.75 J	0.42 J	0.95 J
Tetrachloroethylene (PCE)	5	µg/L		0.43 J	0.63 J	0.39 J	0.95 J
Trichloroethylene (TCE)	5	µg/L		< 1 U	0.38 J	< 1.0 U	0.45 J
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 2. Historical Bedrock VOC Analytical Results

			Location ID	MW-17B					
			Sample Name	828149-MW17B25	828149-MW017B018(	828149-MW017B018	828149-MW017B018(	828149-MW-17B	828149-MW-17B-20231127
			Parent Sample ID						
			Sample Date	7/23/2013	4/26/2016	10/11/2017	5/8/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**					
Acetone	50	µg/L		< 10 U	< 5 U	< 5.0 U	< 5 U	< 50 U	< 3.1 U
Carbon Disulfide	60	µg/L		< 1 U	< 1 U	< 1.0 U	4.5	< 5 U	< 1.8 U
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.50 U
Cis -1,2-Dichloroethylene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.51 U
Tetrachloroethylene (PCE)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.56 U
Trichloroethylene (TCE)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.53 U
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 2. Historical Bedrock VOC Analytical Results

			Location ID	MW-19B				
			Sample Name	828149-MW19B17	828149-MW019B025	828149-MW019B025	828149-MW019B025	828149-MW-19B	828149-MW-19B-20231128
			Parent Sample ID						
			Sample Date	7/23/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**					
Acetone	50	µg/L		< 10 U	< 5 U	< 5.0 U	< 5 UJ	< 50 U	< 3.1 U
Carbon Disulfide	60	µg/L		< 1 U	< 1 UJ	< 1.0 U	< 1 UJ	< 5 U	< 1.8 U
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ	0.63 J	< 0.50 U
Cis -1,2-Dichloroethylene	5	µg/L		**7.7**	**9.8**	**12**	**9.4 J**	< 1 U	**19.3**
Tetrachloroethylene (PCE)	5	µg/L		4.2	**10**	**13**	**13 J**	4.3	**12.9**
Trichloroethylene (TCE)	5	µg/L		4.4	**6.2**	**8.4**	**6.9 J**	< 1 U	**9.4**
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 2 U	0.82 J

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 2. Historical Bedrock VOC Analytical Results

			Location ID	MW-21B				
			Sample Name	828149-MW21B17	828149-MW021B019	828149-MW021B019	828149-MW021B019	828149-MW-21B	828149-MW-21B-20231128
			Parent Sample ID						
			Sample Date	7/23/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**					
Acetone	50	µg/L		< 10 U	< 5 U	2.2 J	< 5 U	< 50 U	< 3.1 U
Carbon Disulfide	60	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1.8 U
Chloroform	7	µg/L		0.74 J	1.5	3.4	< 1 U	< 2 U	2
Cis -1,2-Dichloroethylene	5	µg/L		< 1 U	< 1 U	< 1.0 U	0.38 J	**12**	< 0.51 U
Tetrachloroethylene (PCE)	5	µg/L		**6**	**5.7**	**8.3**	**6**	**9.2**	**6.4**
Trichloroethylene (TCE)	5	µg/L		0.62 J	0.5 J	0.73 J	0.59 J	**7.7**	< 0.53 U
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U	0.71 J	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	DP-010						DP-011
		Sample Name	828149-GW010019	828149-DP1007	828149-DP010008	828149-DP010008	828149-DP010008	828149-DP-10-20231128	828149-DP011012
		Parent Sample ID							
		Sample Date	5/22/2013	7/24/2013	4/26/2016	10/11/2017	5/8/2019	11/28/2023	5/8/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**						
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	1.5 J	0.5 J	1.8 J	< 1 U	< 0.54 U	< 1 U
1,1-Dichloroethane	5	µg/L	< 1 U	0.46 J	0.22 J	1.2 J	< 1 U	< 0.57 U	< 1 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.59 U	< 1 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	NA	< 40 UJ	< 200 U	< 40 U	< 0.050 U	< 40 U
Acetone	50	µg/L	4.1 J	< 20 U	1.4 J	9.4 J	< 5 U	< 3.1 U	< 5 U
Benzene	1	µg/L	0.28 J	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.43 U	< 1 U
Bromodichloromethane	50	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.45 U	< 1 U
Bromomethane	5	µg/L	< 2 UJ	< 4 U	< 1 U	< 5.0 U	< 1 U	< 1.6 U	< 1 U
Carbon Disulfide	60	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 1.8 U	< 1 U
Chloroethane	5	µg/L	< 2 U	< 4 U	< 1 U	< 5.0 U	< 1 U	< 0.73 U	< 1 U
Chloroform	7	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.50 U	< 1 U
Chloromethane	NSL	µg/L	< 2 U	< 4 U	< 1 U	< 5.0 U	< 1 U	< 0.76 U	< 1 U
Cis -1,2-Dichloroethylene	5	µg/L	3.1	**110**	**29**	**100**	**55**	**121**	< 1 U
Cyclohexane	NSL	µg/L	0.47 J	< 4 U	< 1 U	< 5.0 U	< 1 U	< 0.78 U	< 1 U
Ethylbenzene	5	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.60 U	< 1 U
m,p-Xylene	NSL	µg/L	0.63 J	< 4 U	< 2 U	< 10 U	< 2 U	< 0.78 U	< 2 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 10 U	< 5 U	< 25 U	< 5 U	< 2.7 U	< 5 U
Methylcyclohexane	NSL	µg/L	0.79 J	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.60 U	< 1 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.59 U	< 1 U
Tetrachloroethylene (PCE)	5	µg/L	0.41 J	**1500**	**530**	**5300**	**120**	**302**	0.96 J
Toluene	5	µg/L	0.6 J	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.49 U	< 1 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	1.3 J	1	< 5.0 U	0.45 J	0.61 J	< 1 U
Trichloroethylene (TCE)	5	µg/L	1	**170**	**130**	**140**	**38**	**67.2**	< 1 U
Vinyl Chloride	2	µg/L	0.38 J	< 2 U	< 1 U	< 5.0 U	< 1 U	< 0.52 U	< 1 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

			Location ID	DP-012			
			Sample Name	828149-DP1217	828149-DP012015	828149-DP012015	828149-DP012015
			Parent Sample ID				
			Sample Date	7/24/2013	4/26/2016	10/10/2017	5/8/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**			
1,1,1-Trichloroethane (TCA)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
1,1-Dichloroethane	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
1,1-Dichloroethene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
1,4-Dioxane (P-Dioxane)	0.35	µg/L		NA	< 40 UJ	< 40 U	< 40 UJ
Acetone	50	µg/L		< 10 U	5.2	< 5.0 U	< 5 UJ
Benzene	1	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Bromodichloromethane	50	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Bromomethane	5	µg/L		< 2 UJ	< 1 U	< 1.0 U	< 1 UJ
Carbon Disulfide	60	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Chloroethane	5	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 UJ
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Chloromethane	NSL	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 UJ
Cis -1,2-Dichloroethylene	5	µg/L		0.64 J	0.46 J	1.7	0.54 J
Cyclohexane	NSL	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 UJ
Ethylbenzene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
m,p-Xylene	NSL	µg/L		< 2 U	< 2 U	< 2.0 U	< 2 UJ
Methyl Ethyl Ketone (2-Butanone)	50	µg/L		< 5 U	< 5 U	< 5.0 U	< 5 UJ
Methylcyclohexane	NSL	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
O-Xylene (1,2-Dimethylbenzene)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Tetrachloroethylene (PCE)	5	µg/L		0.81 J	< 1 U	< 1.0 U	0.59 J
Toluene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Trans -1,2-Dichloroethene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Trichloroethylene (TCE)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 UJ

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	DP-014			
		Sample Name	828149-DP1407	828149-DP014009	828149-DP014009	828149-DP014009
		Parent Sample ID				
		Sample Date	7/24/2013	4/26/2016	10/11/2017	5/7/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**			
1,1,1-Trichloroethane (TCA)	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
1,1-Dichloroethane	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
1,1-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 2000 UJ	< 2000 U	< 2000 U
Acetone	50	µg/L	< 500 U	< 250 U	< 250 U	< 250 U
Benzene	1	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Bromodichloromethane	50	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Bromomethane	5	µg/L	< 100 UJ	< 50 U	< 50 U	< 50 U
Carbon Disulfide	60	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Chloroethane	5	µg/L	< 100 U	< 50 U	< 50 U	< 50 U
Chloroform	7	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Chloromethane	NSL	µg/L	< 100 U	< 50 U	< 50 U	< 50 U
Cis -1,2-Dichloroethylene	5	µg/L	**870**	**450**	**550**	**340**
Cyclohexane	NSL	µg/L	< 100 U	< 50 U	< 50 U	< 50 U
Ethylbenzene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
m,p-Xylene	NSL	µg/L	< 100 U	< 100 U	< 100 U	< 100 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 250 U	< 250 U	< 250 U	< 250 U
Methylcyclohexane	NSL	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Tetrachloroethylene (PCE)	5	µg/L	**13000**	**9400**	**12000**	**8100**
Toluene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Trans -1,2-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U
Trichloroethylene (TCE)	5	µg/L	**500**	**360**	**420**	**310**
Vinyl Chloride	2	µg/L	< 50 U	< 50 U	< 50 U	< 50 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	DP-015					
		Sample Name	828149-DP1507	828149-DP015009	828149-DP015009	828149-DP015009	828149-DP-15	828149-DP-15-20231127
		Parent Sample ID						
		Sample Date	7/24/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**					
1,1,1-Trichloroethane (TCA)	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 5.4 U
1,1-Dichloroethane	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 5.7 U
1,1-Dichloroethene	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 5.9 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 800 UJ	< 2000 U	< 200 U	< 0.21 U	< 0.050 U
Acetone	50	µg/L	< 250 U	< 100 U	< 250 U	< 25 U	< 1000 U	< 31 U
Benzene	1	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 4.3 U
Bromodichloromethane	50	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 10 U	< 4.5 U
Bromomethane	5	µg/L	< 50 UJ	< 20 U	< 50 U	< 5 U	< 40 U	< 16 U
Carbon Disulfide	60	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 100 U	< 18 U
Chloroethane	5	µg/L	< 50 U	< 20 U	< 50 U	< 5 U	< 40 U	< 7.3 U
Chloroform	7	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 40 U	< 5.0 U
Chloromethane	NSL	µg/L	< 50 U	< 20 U	< 50 U	< 5 U	< 40 U	< 7.6 U
Cis -1,2-Dichloroethylene	5	µg/L	**230**	**190**	**220**	**47**	**88**	**129**
Cyclohexane	NSL	µg/L	< 50 U	< 20 U	< 50 U	< 5 U	NA	< 7.8 U
Ethylbenzene	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 6.0 U
m,p-Xylene	NSL	µg/L	< 50 U	< 40 U	< 100 U	< 10 U	< 40 U	< 7.8 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 130 U	< 100 U	< 250 U	< 25 U	**63 J**	< 27 U
Methylcyclohexane	NSL	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 6.0 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 5.9 U
Tetrachloroethylene (PCE)	5	µg/L	**8500**	**5900**	**6800**	**1300**	**1200**	**2300**
Toluene	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 4.9 U
Trans -1,2-Dichloroethene	5	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 20 U	< 5.4 U
Trichloroethylene (TCE)	5	µg/L	**410**	**210**	**210**	**59**	**36**	**103**
Vinyl Chloride	2	µg/L	< 25 U	< 20 U	< 50 U	< 5 U	< 40 U	< 5.2 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	DP-016			
		Sample Name	828149-DP1607	828149-DP016009	828149-DP016009	828149-DP016009
		Parent Sample ID				
		Sample Date	7/23/2013	4/27/2016	10/11/2017	5/8/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**			
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
1,1-Dichloroethane	5	µg/L	0.35 J	< 1 U	0.35 J	0.44 J
1,1-Dichloroethene	5	µg/L	3.7	1.1	2.1	3.8
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 40 UJ	< 40 U	< 80 U
Acetone	50	µg/L	< 10 U	< 5 U	1.8 J	< 10 U
Benzene	1	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Bromomethane	5	µg/L	< 2 UJ	< 1 U	< 1.0 U	< 2 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Chloroethane	5	µg/L	< 2 U	< 1 U	0.59 J	< 2 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Chloromethane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 2 U
Cis -1,2-Dichloroethylene	5	µg/L	**270**	**130**	**300**	**610**
Cyclohexane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 2 U
Ethylbenzene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
m,p-Xylene	NSL	µg/L	< 2 U	< 2 U	< 2.0 U	< 4 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 5 U	< 5.0 U	< 10 U
Methylcyclohexane	NSL	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Tetrachloroethylene (PCE)	5	µg/L	**96**	**75**	**140**	**300**
Toluene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 2 U
Trans -1,2-Dichloroethene	5	µg/L	2.1	3.6	1.8	4
Trichloroethylene (TCE)	5	µg/L	**32**	**22**	**38**	**91**
Vinyl Chloride	2	µg/L	**120**	**23**	**36 J**	**32**

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

			Location ID	DP-017					
			Sample Name	828149-DP1714	828149-DP017015	828149-DP017015	828149-DP017015	828149-DP-17	828149-DP-17-20231127
			Parent Sample ID						
			Sample Date	7/23/2013	4/26/2016	10/12/2017	5/8/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**					
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 40 UJ	< 0.40 U	< 40 U	< 0.2 U	< 0.050 U
Acetone	50	µg/L	< 10 U	1.4 J	< 5.0 U	< 5 U	< 50 U	< 3.1 U
Benzene	1	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 0.5 U	< 0.45 U
Bromomethane	5	µg/L	< 2 UJ	< 1 U	< 1.0 U	< 1 UJ	< 2 U	< 1.6 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 UJ	< 1.0 U	< 1 U	< 5 U	< 1.8 U
Chloroethane	5	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.73 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.50 U
Chloromethane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.51 U
Cyclohexane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	NA	< 0.78 U
Ethylbenzene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
m,p-Xylene	NSL	µg/L	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 5 U	< 5.0 U	< 5 U	< 20 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	0.48 J	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.56 U
Toluene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.53 U
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	DP-018					
		Sample Name	828149-DP1807	828149-DP018009	828149-DP018009	828149-DP018009	828149-DP-18	828149-DP-18-20231127
		Parent Sample ID						
		Sample Date	7/23/2013	4/27/2016	10/11/2017	5/7/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**					
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 40 UJ	< 40 U	< 40 U	< 0.21 U	< 0.050 U
Acetone	50	µg/L	3.1 J	< 5 U	1.7 J	< 5 U	4.0 J	< 3.1 U
Benzene	1	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 0.5 U	< 0.45 U
Bromomethane	5	µg/L	< 2 UJ	< 1 U	< 1.0 U	< 1 U	< 2 U	< 1.6 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1.8 U
Chloroethane	5	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.73 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.50 U
Chloromethane	NSL	µg/L	< 2 U	< 1 U	0.23 J	< 1 U	< 2 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	0.78 J	1.5	< 1.0 U	< 1 U	0.58 J	1.2
Cyclohexane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	NA	< 0.78 U
Ethylbenzene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
m,p-Xylene	NSL	µg/L	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	1.7 J	< 5 U	< 5.0 U	< 5 U	< 20 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	1.4	3.7	3.1	< 1 U	1.7	4
Toluene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	0.79 J	1.5	< 1.0 U	< 1 U	0.90 J	1.8
Vinyl Chloride	2	µg/L	< 1 U	0.6 J	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

	Location ID	DP-019						
	Sample Name	828149-GW019014	828149-DP1910	828149-DP019012	828149-DP019012	828149-DP019012	828149-DP-19	828149-DP-19-20231128
	Parent Sample ID							
	Sample Date	5/23/2013	7/24/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**						
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	NA	< 40 UJ	< 40 U	< 40 UJ	< 0.21 U	< 0.050 U
Acetone	50	µg/L	< 10 U	< 10 UJ	< 5 U	< 5.0 U	< 5 UJ	< 50 U	< 3.1 U
Benzene	1	µg/L	0.2 J	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 0.5 U	< 0.45 U
Bromomethane	5	µg/L	< 2 UJ	< 2 UJ	< 1 U	< 1.0 U	< 1 UJ	< 2 U	< 1.6 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 5 U	< 1.8 U
Chloroethane	5	µg/L	< 2 U	< 2 U	< 1 U	< 1.0 U	< 1 UJ	< 2 U	< 0.73 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 2 U	< 0.50 U
Chloromethane	NSL	µg/L	< 2 U	< 2 U	< 1 U	< 1.0 U	< 1 UJ	< 2 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	**6.5**	**6.7**	**7.3**	**12**	**7.8 J**	**9.4**	**15.8**
Cyclohexane	NSL	µg/L	0.29 J	< 2 U	< 1 U	< 1.0 U	< 1 UJ	NA	< 0.78 U
Ethylbenzene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.60 U
m,p-Xylene	NSL	µg/L	0.34 J	< 2 U	< 2 U	< 2.0 U	< 2 UJ	< 2 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 5 UJ	< 5 U	< 5.0 U	< 5 UJ	< 20 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	0.48 J	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	**17**	**19**	**16**	**28**	**19 J**	**41**	**52.9**
Toluene	5	µg/L	0.44 J	< 1 U	< 1 U	< 1.0 U	< 1 UJ	< 1 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	0.21 J	< 1 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	4.4	4.9	4.9	**8.5**	**5.5 J**	**10**	**13.8**
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 UJ	0.29 J	< 0.52 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

	Location ID	DP-020						
	Sample Name	828149-GW020015	828149-GW020019	828149-DP2012	828149-DP020012	828149-DP020012	828149-DP020012	828149-DP-20
	Parent Sample ID							
	Sample Date	5/23/2013	5/23/2013	7/23/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**						
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	NA	NA	< 40 UJ	< 40 U	< 40 U	< 0.21 U
Acetone	50	µg/L	8.9 J	< 10 U	< 10 UJ	5.7	4.2 J	< 5 U	2.7 J
Benzene	1	µg/L	**1.8**	0.49 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 0.5 U
Bromomethane	5	µg/L	< 2 UJ	< 2 UJ	< 2 UJ	< 1 U	< 1.0 U	< 1 U	< 2 U
Carbon Disulfide	60	µg/L	0.41 J	0.27 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U
Chloroethane	5	µg/L	< 2 U	< 2 U	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U
Chloromethane	NSL	µg/L	< 2 U	< 2 U	< 2 U	< 1 U	< 1.0 U	0.28 J	< 2 U
Cis -1,2-Dichloroethylene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
Cyclohexane	NSL	µg/L	1.8 J	0.64 J	0.25 J	< 1 U	< 1.0 U	< 1 U	NA
Ethylbenzene	5	µg/L	0.28 J	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
m,p-Xylene	NSL	µg/L	2.7	0.78 J	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	1.6 J	< 5 U	< 5 UJ	< 5 U	< 5.0 U	< 5 U	< 20 U
Methylcyclohexane	NSL	µg/L	2.8	1.1	0.48 J	< 1 U	< 1.0 U	< 1 U	< 1 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	0.78 J	0.27 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
Tetrachloroethylene (PCE)	5	µg/L	< 1 U	< 1 U	< 1 U	0.46 J	0.78 J	< 1 U	< 1 U
Toluene	5	µg/L	3.1	0.97 J	0.26 J	< 1 U	< 1.0 U	< 1 U	< 1 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
Trichloroethylene (TCE)	5	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

	Location ID	DP-021						
	Sample Name	828149-GW021011	828149-DP2107	828149-DP021009	828149-DP021009	828149-DP021009	828149-DP-21	828149-DP-21-20231128
	Parent Sample ID							
	Sample Date	5/23/2013	7/23/2013	4/27/2016	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**						
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	NA	< 40 UJ	< 40 U	< 40 U	< 0.21 U	< 0.050 U
Acetone	50	µg/L	5.2 J	< 10 UJ	< 5 U	1.8 J	< 5 U	< 50 U	< 3.1 U
Benzene	1	µg/L	0.82 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 1 U	1.2	< 1 U	< 1.0 U	< 1 U	< 0.5 U	< 0.45 U
Bromomethane	5	µg/L	< 2 UJ	< 2 UJ	< 1 U	< 1.0 U	< 1 U	< 2 U	< 1.6 U
Carbon Disulfide	60	µg/L	0.33 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1.8 U
Chloroethane	5	µg/L	< 2 U	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.73 U
Chloroform	7	µg/L	4.2	**15**	0.55 J	**8.3**	0.3 J	2.7	**8.2**
Chloromethane	NSL	µg/L	< 2 U	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.51 U
Cyclohexane	NSL	µg/L	1.6 J	< 2 U	< 1 U	< 1.0 U	< 1 U	NA	< 0.78 U
Ethylbenzene	5	µg/L	0.21 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
m,p-Xylene	NSL	µg/L	2.4	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 5 UJ	< 5 U	< 5.0 U	< 5 U	< 20 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	2.9	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	0.66 J	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	1.9	2.1	3.8	**5.4**	1.8	1.6	2.4
Toluene	5	µg/L	2.2	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	< 1 U	< 1 U	< 1 U	0.33 J	< 1 U	< 1 U	< 0.53 U
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	GEMW-1			
		Sample Name	828149-GEMW00101-7/24/2013	828149-GEMW00101-4/27/2016	828149-GEMW00101-10/11/2017	828149-GEMW00101-5/7/2019
		Parent Sample ID				
		Sample Date	7/24/2013	4/27/2016	10/11/2017	5/7/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**			
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
1,1-Dichloroethane	5	µg/L	0.38 J	< 2 U	< 5.0 U	< 1 U
1,1-Dichloroethene	5	µg/L	5	**5.2**	**5.2**	1.1
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 80 UJ	< 200 U	< 40 U
Acetone	50	µg/L	< 10 U	4.6 J	< 25 U	< 5 U
Benzene	1	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Bromodichloromethane	50	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Bromomethane	5	µg/L	< 2 U	< 2 U	< 5.0 U	< 1 U
Carbon Disulfide	60	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Chloroethane	5	µg/L	< 2 U	< 2 U	< 5.0 U	< 1 U
Chloroform	7	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Chloromethane	NSL	µg/L	< 2 U	< 2 U	< 5.0 U	< 1 U
Cis -1,2-Dichloroethylene	5	µg/L	**310**	**600**	**520**	**150**
Cyclohexane	NSL	µg/L	< 2 U	< 2 U	< 5.0 U	< 1 U
Ethylbenzene	5	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
m,p-Xylene	NSL	µg/L	< 2 U	< 4 U	< 10 U	< 2 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 10 U	< 25 U	< 5 U
Methylcyclohexane	NSL	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Tetrachloroethylene (PCE)	5	µg/L	**76**	**200**	**250**	**93**
Toluene	5	µg/L	< 1 U	< 2 U	< 5.0 U	< 1 U
Trans -1,2-Dichloroethene	5	µg/L	2.4	5	3.5 J	1.2
Trichloroethylene (TCE)	5	µg/L	**69**	**120**	**120**	**38**
Vinyl Chloride	2	µg/L	**69**	**32**	**15 J**	**7.3**

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	GEMW-2					
		Sample Name	828149-GEMW002014	828149-GEMW002014	828149-GEMW002014	828149-GEMW002014	828149-GEMW-2	828149-GEMW-2-20231128
		Parent Sample ID						
		Sample Date	7/24/2013	4/26/2016	10/10/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**					
1,1,1-Trichloroethane (TCA)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 40 UJ	< 40 U	< 40 U	< 0.21 U	< 0.050 U
Acetone	50	µg/L	< 10 U	1.7 J	< 5.0 U	< 5 U	< 50 U	< 3.1 U
Benzene	1	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 0.5 U	< 0.45 U
Bromomethane	5	µg/L	< 2 U	< 1 U	0.31 J	< 1 U	< 2 U	< 1.6 U
Carbon Disulfide	60	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1.8 U
Chloroethane	5	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.73 U
Chloroform	7	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.50 U
Chloromethane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	**14**	4	3.3	0.94 J	0.27 J	< 0.51 U
Cyclohexane	NSL	µg/L	< 2 U	< 1 U	< 1.0 U	< 1 U	NA	< 0.78 U
Ethylbenzene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
m,p-Xylene	NSL	µg/L	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 5 U	< 5 U	< 5.0 U	< 5 U	< 20 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	**230**	**130**	**150**	**81**	**67**	**71**
Toluene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	5	2.2	3.3	0.93 J	1.1	1.3
Vinyl Chloride	2	µg/L	< 1 U	< 1 U	< 1.0 U	< 1 U	< 2 U	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	MW-1							
		Sample Name	828149-MW001010	828149-MW001010	828149-MW001010D	828149-MW001010	828149-MW001010D	828149-MW001010	828149-MW001010D	28149-MW-1-2023112
		Parent Sample ID			828149-MW001010		828149-MW001010		828149-MW001010	
		Sample Date	7/24/2013	4/26/2016	4/26/2016	10/10/2017	10/10/2017	5/7/2019	5/7/2019	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**							
1,1,1-Trichloroethane (TCA)	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.4 U
1,1-Dichloroethane	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.7 U
1,1-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.9 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 2000 UJ	< 2000 UJ	< 2000 U	< 2000 U	< 800 U	< 800 U	< 0.050 U
Acetone	50	µg/L	< 500 U	< 250 U	< 250 U	< 250 U	< 250 U	< 100 U	< 100 U	< 31 U
Benzene	1	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 4.3 U
Bromodichloromethane	50	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 4.5 U
Bromomethane	5	µg/L	< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 UJ	< 20 UJ	< 16 U
Carbon Disulfide	60	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 18 U
Chloroethane	5	µg/L	< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 7.3 U
Chloroform	7	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.0 U
Chloromethane	NSL	µg/L	< 100 U	< 50 U	< 50 U	13 J	< 50 U	< 20 U	< 20 U	< 7.6 U
Cis -1,2-Dichloroethylene	5	µg/L	**660**	**320**	**330**	**340**	**310**	**34**	**38**	**27.6**
Cyclohexane	NSL	µg/L	< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 7.8 U
Ethylbenzene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 6.0 U
m,p-Xylene	NSL	µg/L	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 40 U	< 40 U	< 7.8 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 100 U	< 100 U	< 27 U
Methylcyclohexane	NSL	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 6.0 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.9 U
Tetrachloroethylene (PCE)	5	µg/L	**11000**	**8400**	**8500**	**9700**	**9600**	**1900 J+**	**2000 J+**	**2570**
Toluene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 4.9 U
Trans -1,2-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.4 U
Trichloroethylene (TCE)	5	µg/L	**260**	**180**	**190**	**260**	**240**	**34**	**35**	**21.1**
Vinyl Chloride	2	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 20 U	< 20 U	< 5.2 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

	Location ID	MW-2							
	Sample Name	828149-MW002010	828149-MW002010	828149-MW002010	828149-MW002010	828149-MW-2	828149-FD-01	28149-MW-2-2023112	828149-FD-01-20231127
	Parent Sample ID						828149-MW-2		828149-MW-2-20231127
	Sample Date	7/24/2013	4/27/2016	10/11/2017	5/8/2019	6/5/2023	6/5/2023	11/27/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**							
1,1,1-Trichloroethane (TCA)	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.54 U	< 0.54 U
1,1-Dichloroethane	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.57 U	< 0.57 U
1,1-Dichloroethene	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.59 U	< 0.59 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 20000 UJ	< 20000 U	< 20000 U	< 0.2 U	< 0.21 U	< 0.050 U	< 0.050 U
Acetone	50	µg/L	< 2500 UJ	< 2500 U	< 2500 U	< 2500 U	< 50 U	< 50 U	< 3.1 U	< 3.1 U
Benzene	1	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.43 U	< 0.43 U
Bromodichloromethane	50	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 0.5 U	< 0.5 U	< 0.45 U	< 0.45 U
Bromomethane	5	µg/L	< 500 UJ	< 500 U	< 500 U	< 500 U	< 2 U	< 2 U	< 1.6 U	< 1.6 U
Carbon Disulfide	60	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 5 U	< 5 U	< 1.8 U	< 1.8 U
Chloroethane	5	µg/L	< 500 U	< 500 U	< 500 U	< 500 U	< 2 U	< 2 U	< 0.73 U	< 0.73 U
Chloroform	7	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 2 U	< 2 U	< 0.50 U	< 0.50 U
Chloromethane	NSL	µg/L	< 500 U	< 500 U	< 500 U	< 500 U	< 2 U	< 2 U	< 0.76 U	< 0.76 U
Cis -1,2-Dichloroethylene	5	µg/L	**260**	< 500 U	< 500 U	< 500 U	**22**	**21**	**21.1**	**21.2**
Cyclohexane	NSL	µg/L	< 500 U	< 500 U	< 500 U	< 500 U	NA	NA	< 0.78 U	< 0.78 U
Ethylbenzene	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.60 U	< 0.60 U
m,p-Xylene	NSL	µg/L	< 500 U	< 1000 U	< 1000 U	< 1000 U	< 2 U	< 2 U	< 0.78 U	< 0.78 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 1300 UJ	< 2500 U	< 2500 U	< 2500 U	< 20 U	< 20 U	< 2.7 U	< 2.7 U
Methylcyclohexane	NSL	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.60 U	< 0.60 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.59 U	< 0.59 U
Tetrachloroethylene (PCE)	5	µg/L	**90000**	**85000**	**69000**	**63000**	**69**	**70**	**65.2**	**70.3**
Toluene	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 1 U	< 1 U	< 0.49 U	< 0.49 U
Trans -1,2-Dichloroethene	5	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	0.31 J	0.36 J	< 0.54 U	< 0.54 U
Trichloroethylene (TCE)	5	µg/L	**410**	**240 J**	**170 J**	**160 J**	**18**	**17**	**17.5**	**17.6**
Vinyl Chloride	2	µg/L	< 250 U	< 500 U	< 500 U	< 500 U	< 2 U	< 2 U	< 0.52 U	< 0.52 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
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NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

		Location ID	MW-3									
		Sample Name	828149-MW003010	828149-MW003010D	828149-MW003009	828149-MW003009D	828149-MW003009	828149-MW003009D	828149-MW003009	828149-MW003009D	828149-MW-3	828149-MW-3-20231127
		Parent Sample ID		828149-MW003010		828149-MW003009		828149-MW003009		828149-MW003009		
		Sample Date	7/23/2013	7/23/2013	4/27/2016	4/27/2016	10/12/2017	10/12/2017	5/6/2019	5/6/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**									
1,1,1-Trichloroethane (TCA)	5	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 11 U
1,1-Dichloroethane	5	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 11 U
1,1-Dichloroethene	5	µg/L	**16**	**15**	**11**	**11**	**8.5**	**8.2**	**6.2**	**6.3**	< 40 U	< 12 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	NA	< 200 UJ	< 200 UJ	**1.1**	< 200 U	< 200 U	< 200 U	< 0.2 U	< 0.050 U
Acetone	50	µg/L	< 50 U	< 100 UJ	7 J	7.1 J	< 25 U	< 25 U	< 25 U	< 25 U	< 2000 U	< 61 U
Benzene	1	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 8.5 U
Bromodichloromethane	50	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 20 U	< 9.0 U
Bromomethane	5	µg/L	< 10 U	< 20 UJ	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 80 U	< 33 U
Carbon Disulfide	60	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 200 U	< 36 U
Chloroethane	5	µg/L	< 10 U	< 20 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 80 U	< 15 U
Chloroform	7	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 80 U	< 10 U
Chloromethane	NSL	µg/L	< 10 U	< 20 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 80 U	< 15 U
Cis -1,2-Dichloroethylene	5	µg/L	**890**	**840**	**850**	**710**	**670**	**690**	**530**	**530**	**330**	**1210**
Cyclohexane	NSL	µg/L	< 10 U	< 20 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	NA	< 16 U
Ethylbenzene	5	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 12 U
m,p-Xylene	NSL	µg/L	< 10 U	< 20 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 80 U	< 16 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 25 U	16 J	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 800 U	< 55 U
Methylcyclohexane	NSL	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 12 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 12 U
Tetrachloroethylene (PCE)	5	µg/L	**2200**	**1800**	**790**	**790**	**650**	**670**	**390**	**380**	**2000**	**3220**
Toluene	5	µg/L	< 5 U	< 10 U	< 5 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5 U	< 40 U	< 9.8 U
Trans -1,2-Dichloroethene	5	µg/L	**7.1**	**6 J**	**12**	**12**	**5.1**	**5.3**	3.6 J	3.6 J	< 40 U	< 11 U
Trichloroethylene (TCE)	5	µg/L	**450**	**410**	**320**	**240**	**310**	**320**	**220**	**220**	**160**	**475**
Vinyl Chloride	2	µg/L	**260**	**260**	**200**	**160**	**200 J**	**200 J**	**190**	**190**	< 80 U	**52.9**

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

			Location ID	MW-10			
			Sample Name	828149-MW010010	828149-MW010010	828149-MW010010	828149-MW010010
			Parent Sample ID				
			Sample Date	7/24/2013	4/28/2016	10/11/2017	5/9/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**		**Method SW8260**			
1,1,1-Trichloroethane (TCA)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
1,1-Dichloroethane	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
1,1-Dichloroethene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L		NA	< 40 UJ	< 40 U	< 40 U
Acetone	50	µg/L		< 10 U	1.6 J	1.4 J	< 5 U
Benzene	1	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Bromodichloromethane	50	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Bromomethane	5	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 U
Carbon Disulfide	60	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Chloroethane	5	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 U
Chloroform	7	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Chloromethane	NSL	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 U
Cis -1,2-Dichloroethylene	5	µg/L		< 1 U	< 1 U	4.5	< 1 U
Cyclohexane	NSL	µg/L		< 2 U	< 1 U	< 1.0 U	< 1 U
Ethylbenzene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
m,p-Xylene	NSL	µg/L		< 2 U	< 2 U	< 2.0 U	< 2 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L		< 5 U	< 5 U	< 5.0 U	< 5 U
Methylcyclohexane	NSL	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Tetrachloroethylene (PCE)	5	µg/L		**28**	< 1 U	**130**	< 1 U
Toluene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Trans -1,2-Dichloroethene	5	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U
Trichloroethylene (TCE)	5	µg/L		0.38 J	< 1 U	3	< 1 U
Vinyl Chloride	2	µg/L		< 1 U	< 1 U	< 1.0 U	< 1 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 3. Historical Overburden VOC Analytical Results

			MW-13					
Location ID								
Sample Name			828149-MW1307	828149-MW013012	828149-MW013012	828149-MW013012	828149-MW-13	828149-MW-13-20231127
Parent Sample ID								
Sample Date			7/24/2013	4/28/2016	10/12/2017	5/7/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**Method SW8260**					
1,1,1-Trichloroethane (TCA)	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 2.7 U
1,1-Dichloroethane	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 2.8 U
1,1-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 3.0 U
1,4-Dioxane (P-Dioxane)	0.35	µg/L	NA	< 2000 UJ	0.26 J	< 400 U	< 0.2 U	< 0.050 U
Acetone	50	µg/L	< 500 U	< 250 U	< 250 U	< 50 U	< 2500 U	< 15 U
Benzene	1	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 2.1 U
Bromodichloromethane	50	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 25 U	< 2.3 U
Bromomethane	5	µg/L	< 100 UJ	< 50 U	< 50 U	< 10 U	< 100 U	< 8.2 U
Carbon Disulfide	60	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 250 U	< 9.0 U
Chloroethane	5	µg/L	< 100 U	< 50 U	< 50 U	< 10 U	< 100 U	< 3.6 U
Chloroform	7	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 100 U	< 2.5 U
Chloromethane	NSL	µg/L	< 100 U	< 50 U	< 50 U	< 10 U	< 100 U	< 3.8 U
Cis -1,2-Dichloroethylene	5	µg/L	**680**	**590**	**770**	**160**	**170**	**195**
Cyclohexane	NSL	µg/L	< 100 U	< 50 U	< 50 U	< 10 U	NA	< 3.9 U
Ethylbenzene	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 3.0 U
m,p-Xylene	NSL	µg/L	NA	< 100 U	< 100 U	< 20 U	< 100 U	< 3.9 U
Methyl Ethyl Ketone (2-Butanone)	50	µg/L	< 250 U	< 250 U	< 250 U	< 50 U	< 1000 U	< 14 U
Methylcyclohexane	NSL	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 3.0 U
O-Xylene (1,2-Dimethylbenzene)	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 3.0 U
Tetrachloroethylene (PCE)	5	µg/L	**14000**	**12000**	**4100**	**2300**	**3200**	**1130**
Toluene	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 2.5 U
Trans -1,2-Dichloroethene	5	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 50 U	< 2.7 U
Trichloroethylene (TCE)	5	µg/L	**380**	**350**	**200**	**190**	**120**	**71.8**
Vinyl Chloride	2	µg/L	< 50 U	< 50 U	< 50 U	< 10 U	< 100 U	< 2.6 U

Notes:

1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
µg/L = Microgram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
J+ = Concentration is estimated, biased high.
NA = Not analyzed.
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	DP-010			DP-011	DP-012	
		Sample Name	828149-DP010008	828149-DP010008	828149-DP-10-20231127	828149-DP011012	828149-DP012015	828149-DP012015
		Parent Sample ID						
		Sample Date	10/11/2017	5/8/2019	11/27/2023	5/8/2019	10/10/2017	5/8/2019
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	< 0.89 U	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	9.3	NA	NA	NA
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	24.6	NA	NA	NA
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	0.74 J	NA	NA	NA
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	2.3	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	2.7	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	12.3	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	6.5	NA	NA	NA
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	0.74 J	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 0.67 U	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 0.42 U	NA	NA	NA
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	**13.7**	NA	NA	NA
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 0.98 U	NA	NA	NA
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	10.6	NA	NA	NA
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 100 U	< 13 U	< 0.050 U	< 13 U	< 20 U	< 13 UJ

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	DP-014		DP-015			
		Sample Name	828149-DP014009	828149-DP014009	828149-DP015009	828149-DP015009	828149-DP-15	828149-DP-15-20231127
		Parent Sample ID						
		Sample Date	10/11/2017	5/7/2019	10/11/2017	5/8/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 400 U	< 0.87 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	NA	NA	< 100 U	4.7
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	NA	NA	< 400 U	9.8
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	NA	NA	< 100 U	< 0.60 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	NA	NA	< 100 U	0.99 J
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	NA	NA	< 100 U	2.4
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	NA	NA	< 100 U	4.9
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	NA	NA	< 100 U	3
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	NA	NA	< 100 U	0.77 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	NA	NA	< 100 U	< 0.66 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	NA	NA	< 100 U	**26.7**
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	NA	NA	< 100 U	**9.4**
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 100 U	< 0.97 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	NA	NA	< 200 U	4.1
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 1000 U	< 650 U	< 1000 U	< 65 U	< 0.034 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	DP-016		DP-017			
		Sample Name	828149-DP016009	828149-DP016009	828149-DP017015	828149-DP017015	828149-DP-17	828149-DP-17-20231127
		Parent Sample ID						
		Sample Date	10/11/2017	5/8/2019	10/12/2017	5/8/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 3.9 U	< 0.86 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	4.9	NA	3.4	3.4
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	2.6	NA	6	2.7 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 2.0 U	NA	< 0.98 U	< 0.58 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 2.0 U	NA	< 0.98 U	< 0.92 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	< 2.0 U	NA	0.36 J	< 0.47 U
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	< 2.0 U	NA	< 0.98 U	< 1.0 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	< 2.0 U	NA	0.47 J	< 0.27 U
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 2.0 U	NA	< 0.98 U	< 0.38 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 41 UJ	NA	< 0.98 U	< 0.65 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 2.0 U	NA	< 0.98 U	< 0.41 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	< 2.0 U	NA	0.68 J	< 0.71 U
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 0.98 U	< 0.95 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	< 2.0 U	NA	0.89 J	2.1 J
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 26 U	< 0.20 U	< 13 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden			
		Location ID	DP-018			
		Sample Name	828149-DP018009	828149-DP018009	828149-DP-18	828149-DP-18-20231127
		Parent Sample ID				
		Sample Date	10/11/2017	5/7/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**			
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	520	< 0.96 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	< 100 U	5.4
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	< 400 U	6.3 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 100 U	< 0.65 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 100 U	< 1.0 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	< 100 U	2.2
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	< 100 U	1.7 J
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	< 100 U	1.2 J
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 100 U	0.72 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 100 U	< 0.73 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 100 U	1.9 J
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	< 100 U	3.4
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 100 U	< 1.1 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	< 200 U	2.7 J
			Method 8270-SIM			
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).

This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden			
		Location ID	DP-019			
		Sample Name	828149-DP019012	828149-DP019012	828149-DP-19	828149-DP-19-20231128
		Parent Sample ID				
		Sample Date	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**			
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	< 20 U	< 0.89 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	2.2 J	< 0.64 U
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	8.0 J	< 0.91 U
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 5 U	< 0.60 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 5 U	< 0.96 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	< 5 U	< 0.49 U
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	< 5 U	< 1.1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	1.2 J	< 0.28 U
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 5 U	< 0.39 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 5 U	< 0.67 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 5 U	< 0.42 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	1.3 J	< 0.73 U
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 5 U	< 0.98 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	< 10 U	< 0.71 U
			Method 8270-SIM			
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 UJ	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden						
		Location ID	DP-020			DP-021			
		Sample Name	828149-DP020012	828149-DP020012	828149-DP-20	828149-DP021009	828149-DP021009	828149-DP-21	828149-DP-21-20231128
		Parent Sample ID							
		Sample Date	10/11/2017	5/8/2019	6/6/2023	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**						
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	1.1 J	NA	NA	< 4.1 U	< 0.87 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	4.6	NA	NA	5.9	3.4
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	7.4	NA	NA	10	3.5 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 0.99 U	NA	NA	< 1 U	< 0.59 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 0.99 U	NA	NA	< 1 U	< 0.94 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	0.45 J	NA	NA	1.3	0.85 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	0.60 J	NA	NA	5.5	1.5 J
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	1.7	NA	NA	3.2	0.61 J
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 0.99 U	NA	NA	< 1 U	< 0.38 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 0.99 U	NA	NA	< 1 U	< 0.66 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	**3.6**	NA	NA	1.3	1.2 J
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	1.1	NA	NA	4	1.4 J
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 0.99 U	NA	NA	0.26 J	< 0.97 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	1.5 J	NA	NA	2.1	1 J
			Method 8270-SIM						
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 U	< 0.034 U	< 20 U	< 13 U	< 0.034 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	GEMW-1		GEMW-2			
		Sample Name	828149-GEMW001014	828149-GEMW001014	828149-GEMW002014	828149-GEMW002014	828149-GEMW-2	828149-GEMW-2-20231127
		Parent Sample ID						
		Sample Date	10/11/2017	5/7/2019	10/10/2017	5/8/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 40 U	< 0.92 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	NA	NA	< 10 U	1.1 J
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	NA	NA	< 40 U	< 0.95 U
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 0.63 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 1.0 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	NA	NA	< 10 U	0.93 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 1.1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 0.29 U
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	NA	NA	< 10 U	0.67 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 0.70 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	NA	NA	< 10 U	0.86 J
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	NA	NA	< 10 U	1.1 J
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 10 U	< 1.0 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	NA	NA	< 20 U	< 0.74 U
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 100 U	< 13 U	< 20 U	< 13 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden				
		Location ID	MW-1				
		Sample Name	828149-MW001010	828149-MW001010D	828149-MW001010	828149-MW001010D	828149-MW-1-20231127
		Parent Sample ID		828149-MW001010		828149-MW001010	
		Sample Date	10/10/2017	10/10/2017	5/7/2019	5/7/2019	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**				
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 0.84 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	NA	NA	2.6
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	NA	NA	2.7 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	NA	NA	0.69 J
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	NA	NA	< 0.90 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	NA	NA	1.2 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	NA	NA	1.4 J
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	NA	NA	0.8 J
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	NA	NA	< 0.37 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	NA	NA	< 0.63 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	NA	NA	**22.2**
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	NA	NA	3.5
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 0.93 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	NA	NA	0.75 J
			Method 8270-SIM				
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 1000 U	< 1000 U	< 260 U	< 260 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	MW-2					
		Sample Name	828149-MW002010	828149-MW002010	828149-MW-2	828149-FD-01	828149-MW-2-20231127	828149-FD-01-20231127
		Parent Sample ID				828149-MW-2		828149-MW-2-20231127
		Sample Date	10/11/2017	5/8/2019	6/5/2023	6/5/2023	11/27/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	< 4 U	< 4.1 U	< 0.87 U	< 0.85 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	1.5	1.5	1.9	1.8 J
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	4.0 J	4.3	6.6 J	6.5 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 0.59 U	< 0.58 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 0.93 U	< 0.92 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	< 1 U	< 1 U	0.7 J	1.1 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 1.1 U	< 1.0 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	0.36 J	0.44 J	1.5 J	1.6 J
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 0.38 U	< 0.37 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 0.66 U	< 0.65 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 1 U	< 1 U	< 0.41 U	< 0.40 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	0.27 J	0.27 J	0.87 J	1 J
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 1 U	< 1 U	< 0.96 U	< 0.95 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	0.68 J	0.76 J	2.3 J	2.5 J
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 10000 U	< 6500 U	< 0.033 U	< 0.033 U	< 0.050 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	MW-3					
		Sample Name	828149-MW003009	828149-MW003009D	828149-MW003009	828149-MW003009D	828149-MW-3	828149-MW-3-20231127
		Parent Sample ID		828149-MW003009		828149-MW003009		
		Sample Date	10/12/2017	10/12/2017	5/6/2019	5/6/2019	6/6/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 4.1 U	< 0.87 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	8.8	NA	NA	NA	2.4	2.1
Perfluorobutanoic Acid	NSL	ng/L	7.5	NA	NA	NA	8.9	5 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	3.4	NA	NA	NA	< 1 U	< 0.59 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	1 J	NA	NA	NA	< 1 U	< 0.94 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	< 2.0 U	NA	NA	NA	1.8	2.4
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	3.4	NA	NA	NA	0.62 J	< 1.1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	9.6	NA	NA	NA	2.8	2.3
Perfluorononanoic acid (PFNA)	NSL	ng/L	5.1	NA	NA	NA	0.25 J	0.69 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	2.4 J	NA	NA	NA	< 1 U	< 0.66 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	**87**	NA	NA	NA	1.4	**4.8**
Perfluorooctanoic acid (PFOA)	6.7	ng/L	**17**	NA	NA	NA	3.7	4.6
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 1 U	< 0.96 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	11	NA	NA	NA	2.5	2.5 J
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	**1.1**	< 100 U	< 65 U	< 65 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Overburden					
		Location ID	MW-10		MW-13			
		Sample Name	828149-MW010010	828149-MW010010	828149-MW013012	828149-MW013012	828149-MW-13	828149-MW-13-20231127
		Parent Sample ID						
		Sample Date	10/11/2017	5/9/2019	10/12/2017	5/7/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 4.1 U	< 0.88 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	4.3	NA	4	3.6
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	8.9	NA	16	9.2
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 2.1 U	NA	< 1 U	< 0.60 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 2.1 U	NA	< 1 U	< 0.95 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	2.3	NA	2.8	2.4
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	2.9	NA	2.2	2.4
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	3.8	NA	4.5	3.2
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 2.1 U	NA	0.22 J	1.1 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 41 UJ	NA	< 1 U	< 0.67 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	**6.3**	NA	**12**	**19.2**
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	**7.4**	NA	**10**	**8.2**
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	0.64 J	< 0.98 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	3.9	NA	5.5	3.1 J
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 U	0.26 J	< 130 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Bedrock					
		Location ID	MW-2B		MW-13B			
		Sample Name	828149-MW02B020	828149-MW02B020	828149-MW013B023	828149-MW013B023	828149-MW-13B	828149-MW-13B-20231127
		Parent Sample ID						
		Sample Date	10/12/2017	5/7/2019	10/11/2017	5/7/2019	6/5/2023	11/27/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 4 U	< 0.87 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	1.6 J	NA	NA	NA	< 0.99 U	< 0.63 U
Perfluorobutanoic Acid	NSL	ng/L	4.9	NA	NA	NA	2.3 J	2.2 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.59 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.93 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.48 U
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 1.1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	< 2.0 U	NA	NA	NA	0.31 J	< 0.28 U
Perfluorononanoic acid (PFNA)	NSL	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.38 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	0.72 J	NA	NA	NA	< 0.99 U	< 0.66 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.41 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	< 2.0 U	NA	NA	NA	< 0.99 U	< 0.71 U
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 0.99 U	< 0.96 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	< 2.0 U	NA	NA	NA	0.37 J	< 0.69 U
			Method 8270-SIM					
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 0.20 U	< 13 U	< 20 U	< 13 U	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Bedrock				
		Location ID	MW-16B		MW-17B		
		Sample Name	828149-MW016B023	828149-MW16B023	828149-MW017B018	828149-MW017B0180	828149-MW-17B
		Parent Sample ID					
		Sample Date	10/10/2017	5/6/2019	10/11/2017	5/8/2019	6/5/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**				
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	NA	NA	< 4 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	NA	NA	0.41 J
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	NA	NA	1.5 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	NA	NA	< 1 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	NA	NA	< 1 U
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	NA	NA	< 1 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	NA	NA	< 2 U
			Method 8270-SIM				
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 U	< 20 U	< 13 U	< 0.032 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Bedrock				
		Location ID		MW-19B			
		Sample Name	828149-MW-17B-20231127	828149-MW019B025	828149-MW019B025	828149-MW-19B	828149-MW-19B-20231128
		Parent Sample ID					
		Sample Date	11/27/2023	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**				
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	< 0.88 U	NA	NA	< 4 U	< 0.89 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	< 0.64 U	NA	NA	1.4	1.5 J
Perfluorobutanoic Acid	NSL	ng/L	1.5 J	NA	NA	5.4	5.4 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	< 0.60 U	NA	NA	< 1 U	< 0.61 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	< 0.95 U	NA	NA	< 1 U	< 0.96 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	< 0.48 U	NA	NA	0.27 J	0.93 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	< 1.1 U	NA	NA	0.23 J	< 1.1 U
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	< 0.28 U	NA	NA	0.84 J	1.2 J
Perfluorononanoic acid (PFNA)	NSL	ng/L	< 0.39 U	NA	NA	< 1 U	0.56 J
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	< 0.67 U	NA	NA	< 1 U	< 0.67 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	< 0.42 U	NA	NA	< 1 U	< 0.42 U
Perfluorooctanoic acid (PFOA)	6.7	ng/L	< 0.72 U	NA	NA	0.37 J	< 0.73 U
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	< 0.97 U	NA	NA	< 1 U	< 0.99 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	< 0.70 U	NA	NA	1.3 J	1.4 J
			Method 8270-SIM				
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 0.050 U	< 20 U	< 13 UJ	< 0.033 U	< 0.050 U

Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

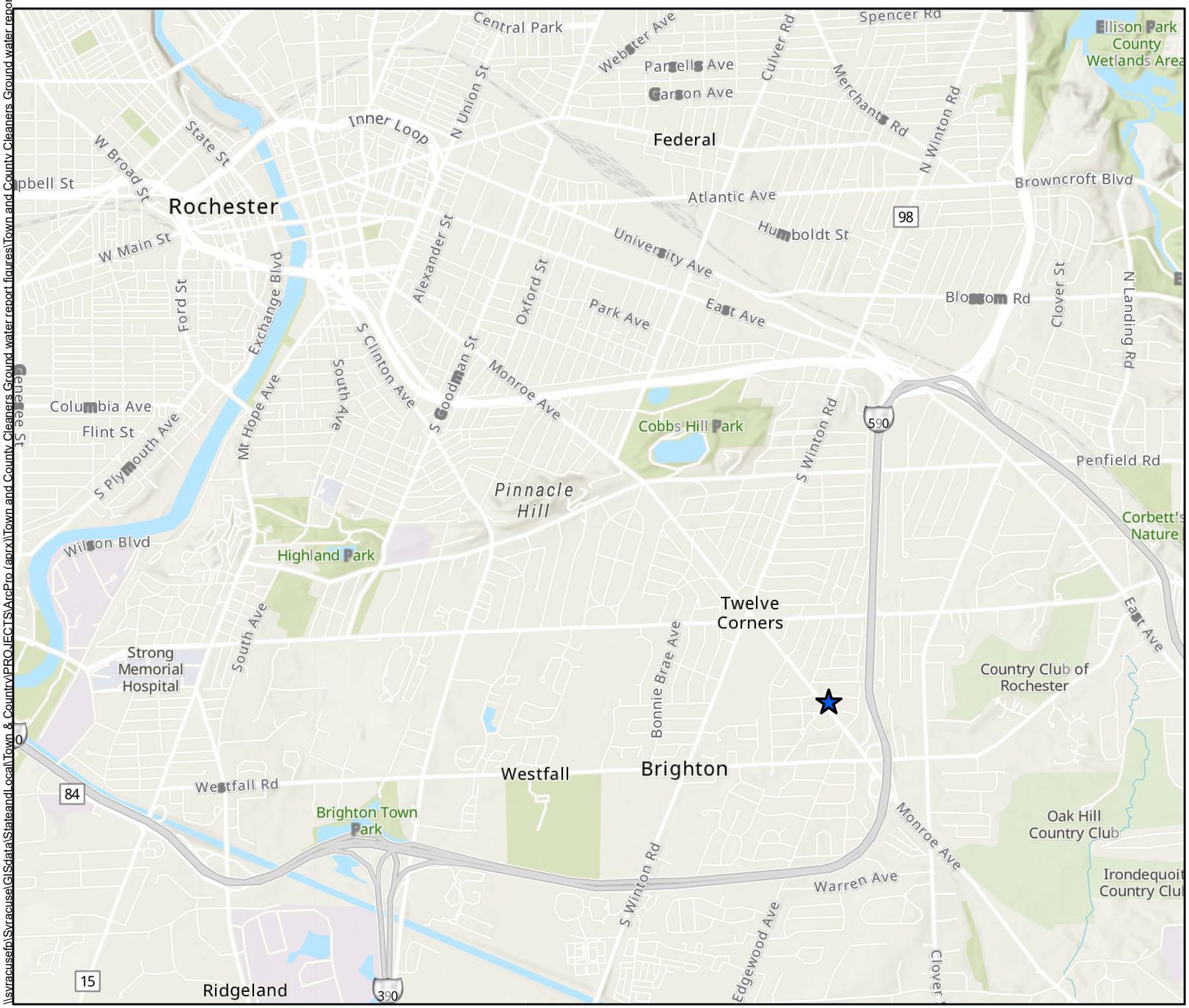
Table 4. Historical Emerging Contaminants Analytical Results

		Targeted Unit	Bedrock			
		Location ID	MW-21B			
		Sample Name	828149-MW021B019	828149-MW021B019	828149-MW-21B	828149-MW-21B-20231128
		Parent Sample ID				
		Sample Date	10/11/2017	5/8/2019	6/6/2023	11/28/2023
Analyte	**NYSDEC AWQS[1]**	**Unit**	**EPA Method 1633 and 537**			
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NSL	ng/L	NA	NA	< 4.1 U	< 0.85 U
Perfluorobutanesulfonic acid (PFBS)	NSL	ng/L	NA	NA	7.8	6.6
Perfluorobutanoic Acid	NSL	ng/L	NA	NA	6.5	6.5 J
Perfluorodecanoic acid (PFDA)	NSL	ng/L	NA	NA	< 1 U	< 0.58 U
Perfluoroheptanesulfonic acid (PFHpS)	NSL	ng/L	NA	NA	< 1 U	< 0.91 U
Perfluoroheptanoic acid (PFHpA)	NSL	ng/L	NA	NA	0.89 J	1.3 J
Perfluorohexanesulfonic acid (PFHxS)	NSL	ng/L	NA	NA	5.6	3.7
Perfluorohexanoic acid (PFHxA)	NSL	ng/L	NA	NA	1.7	2.2
Perfluorononanoic acid (PFNA)	NSL	ng/L	NA	NA	< 1 U	< 0.37 U
Perfluorooctane Sulfonamide (FOSA)	NSL	ng/L	NA	NA	< 1 U	< 0.64 U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/L	NA	NA	< 1 U	1.6 J
Perfluorooctanoic acid (PFOA)	6.7	ng/L	NA	NA	3	2.8
Perfluoropentanesulfonic Acid (PFPeS)	NSL	ng/L	NA	NA	< 1 U	< 0.94 U
Perfluoropentanoic Acid (PFPeA)	NSL	ng/L	NA	NA	1.6 J	2.3 J
			Method 8270-SIM			
1,4-Dioxane (P-Dioxane)	0.35	µg/L	< 20 U	< 13 U	< 0.034 U	< 0.050 U

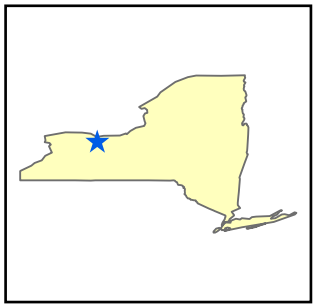
Notes:
1. Screening level is the NYSDEC Class GA AWQS and Guidance Values (TOGS 1.1.1 and 6 NYCRR Part 703).
This table shows detected analytes only.
ng/L = Nanogram(s) per liter
AWQS = Ambient water quality standards
EPA = U.S. Environmental Protection Agency
ID = Identification
U = Analyte not detected.
J = Concentration is estimated.
NA = Not analyzed
NSL = No screening level available.
NYSCRR = New York Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = Volatile organic compounds
Bold and Shaded values indicate that the analyte was detected greater than the NYSDEC AWQS

Figures

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VICINITY MAP



Legend

Site Location

N

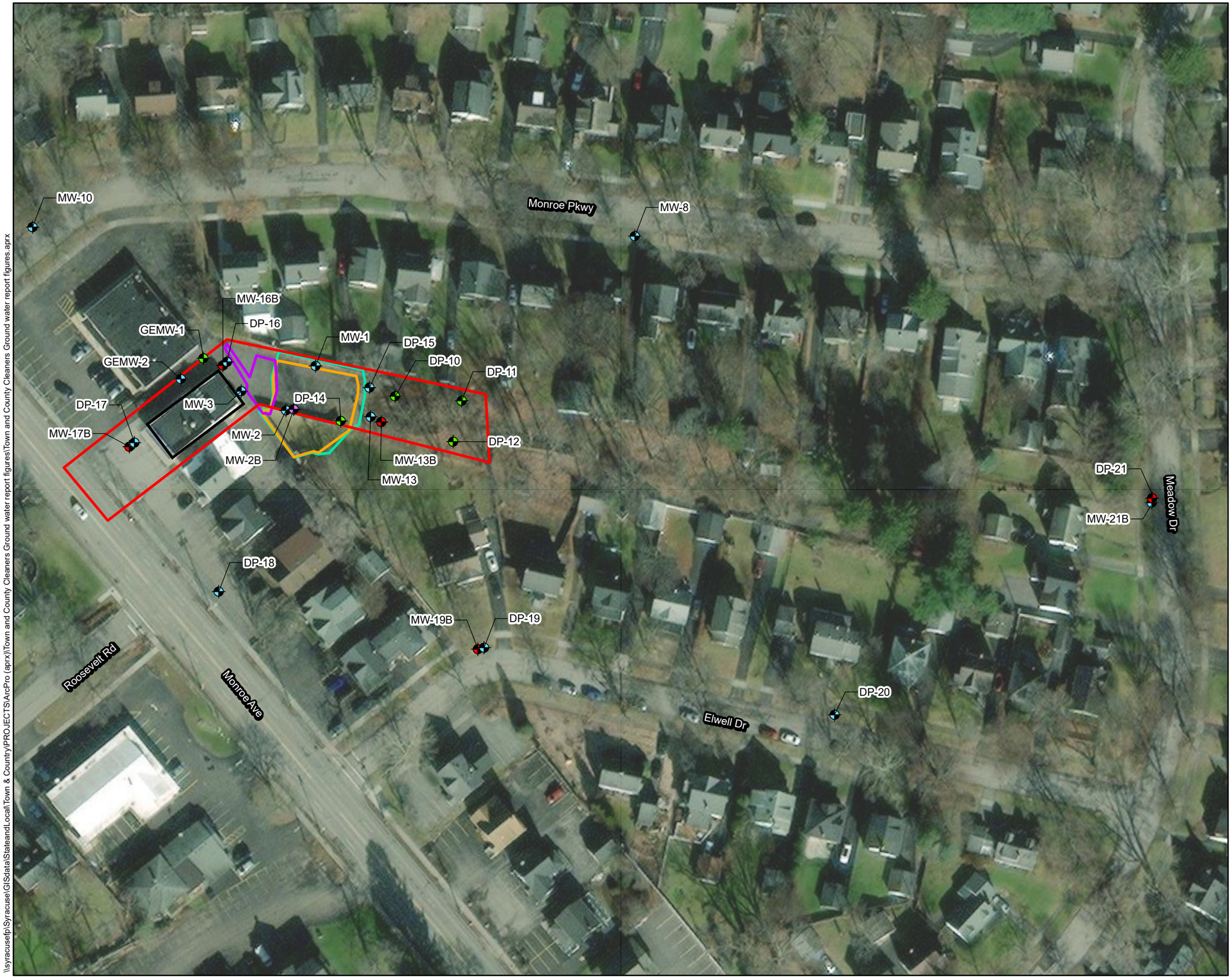
0 0.5 1 Miles

Map Date: 8/3/2023
Projection: WGS 1984 Web Mercator (auxiliary sphere)

NEW YORK STATE Department of Environmental Conservation

Figure 1
General Site Location
Town and Country Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well Not Found
- Bedrock Well Not Found
- Site Building
- Site Boundary
- Approximate Limit of Completed Hazardous Excavation
- Approximate Limit of Completed Non-Hazardous Evacuation
- Limit of IRM Excavation

Notes:
IRM: Interim Remedial Measure

Map Date: 9/18/2023
Projection: NAD83 New York State Plane West US Feet
Source: ESRI 2022, NYS

N

0 50 100
Feet

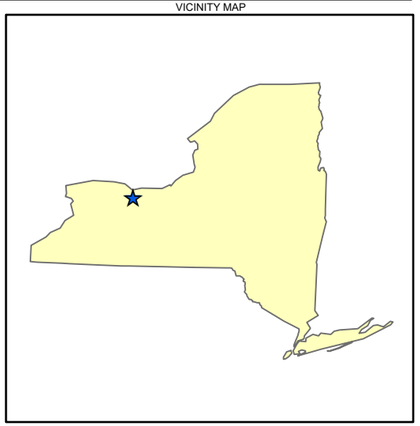
NEW YORK STATE Department of Environmental Conservation

Figure 2
Site Layout
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary
- Approximate Limit of Completed Hazardous Excavation
- Approximate Limit of Completed Non-Hazardous Evacuation
- Limit of IRM Excavation
- Overburden Groundwater Elevation
- Direction of Groundwater Flow

Notes:
IRM: Interim Remedial Measure
A: Abandoned
NA: Not Applicable (Bedrock Wells)
NF: Not Found

Elevation contours are shown in feet above mean sea level.
Highlighted wells were considered when drawing contours.
GEMW-2 was not included for consistency.

Map Date: 2/22/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

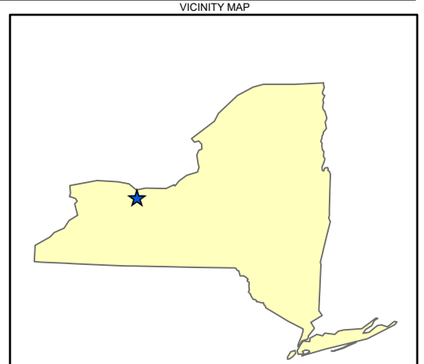
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Figure 3
November 2023 Overburden Groundwater Elevation Contour
Town and Country Dry Cleaners
Brighton, New York

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MW-10
NA
Monroe Pkwy
MW-8
NA
MW-16B
A
DP-16
A
MW-1
NA
GEMW-1
NF
MW-3
NA
GEMW-2
NA
DP-15
NA
DP-10
NA
DP-11
NA
DP-17
NA
DP-14
NF
MW-17B
471.99
MW-2
NA
DP-12
NF
MW-2B
NF
MW-13B
471.4
MW-13
NA
Meadow Dr
MW-21B
459.38
DP-21
NA
DP-18
NA
DP-19
NA
MW-19B
470.24
Monroe Ave
Roosevelt Rd
DP-20
NA
Elwell Dr
471
470
469
468
467
466
465
464
463
462
461
460

VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary
- Limit of IRM Excavation
- Approximate Limit of Completed Hazardous Excavation
- Approximate Limit of Completed Non-Hazardous Evacuation
- Bedrock Groundwater Elevation
- Inferred Bedrock Groundwater Elevation
- Direction of Groundwater Flow

Notes:
IRM: Interim Remedial Measure
NF: Not Found
A: Abandoned
NA: Not Applicable (Overburden Wells)

Elevation contours are shown in feet above mean sea level.
Highlighted wells were considered when drawing contours.

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

NEW YORK STATE | Department of Environmental Conservation

Figure 4
November 2023 Bedrock Groundwater Elevation Contour
Town and Country Dry Cleaners
Brighton, New York

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DP-17		
	6/5/2023	11/27/2023
Cis-1,2-DCE	< 0.14 U	< 0.51 U
PCE	< 0.17 U	< 0.56 U
TCE	< 0.17 U	< 0.53 U
VC	< 0.24 U	< 0.52 U

MW-2		
	6/5/2023	11/27/2023
Cis-1,2-DCE	**22**	**21.1**
PCE	**69**	**65.2**
TCE	**18**	**17.5**
VC	< 0.24 U	< 0.52 U

MW-1		
	6/2023	11/27/2023
Cis-1,2-DCE	NS	**27.6**
PCE	NS	**2570**
TCE	NS	**21.1**
VC	NS	< 5.2 U

GEMW-2		
	6/6/2023	11/28/2023
Cis-1,2-DCE	0.27 J	< 0.51 U
PCE	**67**	**71**
TCE	1.1	1.3
VC	< 0.24 U	< 0.52 U

DP-15		
	6/6/2023	11/27/2023
Cis-1,2-DCE	**88**	**129**
PCE	**1200**	**2300**
TCE	**36**	**103**
VC	< 4.7 U	< 5.2 U

DP-10		
	6/2023	11/28/2023
Cis-1,2-DCE	NS	**121**
PCE	NS	**302**
TCE	NS	**67.2**
VC	NS	< 0.52 U

MW-17B		
	6/5/2023	11/27/2023
Cis-1,2-DCE	< 0.14 U	< 0.51 U
PCE	< 0.17 U	< 0.56 U
TCE	< 0.17 U	< 0.53 U
VC	< 0.24 U	< 0.52 U

MW-13B		
	6/5/2023	11/27/2023
Cis-1,2-DCE	**7**	4.6
PCE	1	3
TCE	1.9	2.3
VC	< 0.24 U	< 0.52 U

DP-21		
	6/6/2023	11/28/2023
Cis-1,2-DCE	< 0.14 U	< 0.51 U
PCE	1.6	2.4
TCE	< 0.17 U	< 0.53 U
VC	< 0.24 U	< 0.52 U

MW-13		
	6/5/2023	11/27/2023
Cis-1,2-DCE	**170**	**195**
PCE	**3200**	**1130**
TCE	**120**	**71.8**
VC	< 12 U	< 2.6 U

MW-3		
	6/6/2023	11/27/2023
Cis-1,2-DCE	**330**	**1210**
PCE	**2000**	**3220**
TCE	**160**	**475**
VC	< 9.5 U	**52.9**

MW-21B		
	6/6/2023	11/28/2023
Cis-1,2-DCE	**12**	< 0.51 U
PCE	**9.2**	**6.4**
TCE	**7.7**	< 0.53 U
VC	0.71 J	< 0.52 U

DP-18		
	6/6/2023	11/27/2023
Cis-1,2-DCE	0.58 J	1.2
PCE	1.7	4
TCE	0.90 J	1.8
VC	< 0.24 U	< 0.52 U

MW-19B		
	6/6/2023	11/28/2023
Cis-1,2-DCE	< 0.14 U	**19.3**
PCE	4.3	**12.9**
TCE	< 0.17 U	**9.4**
VC	< 0.24 U	0.82 J

DP-19		
	6/6/2023	11/28/2023
Cis-1,2-DCE	**9.4**	**15.8**
PCE	**41**	**52.9**
TCE	**10**	**13.8**
VC	0.29 J	< 0.52 U

DP-20		
	6/6/2023	11/2023
Cis-1,2-DCE	< 0.14 U	NS
PCE	< 0.17 U	NS
TCE	< 0.17 U	NS
VC	< 0.24 U	NS

AWQS Parameters	
Cis-1,2-DCE	5
PCE	5
TCE	5
VC	2

Monroe Pkwy
Meadow Dr
Monroe Ave
Roosevelt Rd
Elwell Dr
MW-10
MW-8
GEMW-1
MW-16B
DP-16
MW-2B
DP-11
DP-14
DP-12

VICINITY MAP

Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary
- Limit of IRM Excavation
- Approximate Limit of Completed Hazardous Excavation
- Approximate Limit of Completed Non-Hazardous Evacuation

Notes:
Shaded and bolded values exceed NYSDEC AWQS
Sample results are in micrograms per liter (µg/L)
AWQS: Ambient Water Quality Standards
DCE: Dichloroethylene
IRM: Interim Remedial Measure
J: Value is is estimated.
PCE: Tetrachloroethylene
TCE: Trichloroethylene
U: Value not detected.
VC: Vinyl Chloride
Wells sampled: DP-10, DP-15, DP-17, DP-18, DP-19, DP-20, DP-21, GEMW-02, MW-1, MW-2, MW-3, MW-13, MW-13B, MW-17B, MW-19B, MW-21B

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

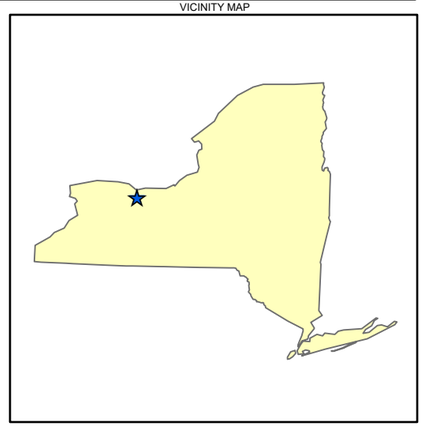
NEW YORK STATE Department of Environmental Conservation

Figure 5
2023 VOC Analytical Results
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary
- Limit of IRM Excavation
- Approximate Limit of Completed Hazardous Excavation
- Approximate Limit of Completed Non-Hazardous Evacuation

Notes:
Shaded and bolded values exceed NYSDEC AWQS
Samples are in nanogram(s) per liter (ng/L)
AWQS: Ambient Water Quality Standards
IRM: Interim Remedial Measure
J: Value is estimated.
NS: Not Sampled
PFOS: Perfluorooctanesulfonic acid
PFOA: Perfluorooctanoic acid
U: Value is not detected.
Sampled wells include: DP-15, DP-17, DP-18, DP-19, DP-20, DP-21, GEMW-02, MW-02, MW-03, MW-13, MW-13B, MW-17B, MW-19B, MW-21B

Map Date: 2/22/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

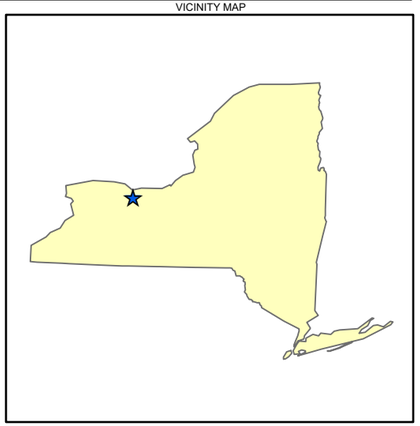
NEW YORK STATE Department of Environmental Conservation

Figure 6
2023 Emerging Contaminants Analytical Results
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary

PCE Concentration (µg/L)

- 5-10
- 10-100
- 100-1000
- 1000+

Notes:
NA: Not Applicable (Bedrock Wells)
NF: Not Found
NS: Not Sampled
A: Abandoned
ND: Not Detected

Concentrations are in micrograms per liter (µg/L)
Highlighted wells were considered when drawing plumes.

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

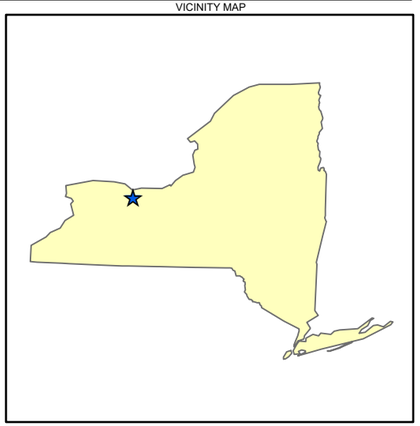
NEW YORK STATE Department of Environmental Conservation

Figure 7
November 2023 PCE Concentrations in Overburden
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary

PCE Concentration (µg/L)

- 5-10
- 10+

Notes:
NA: Not Applicable (Overburden Wells)
A: Abandoned
NS: Not Sampled
ND: Not Detected
NF: Not Found

Concentrations are in micrograms per liter (µg/L)
Highlighted wells were considered when drawing plumes.

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

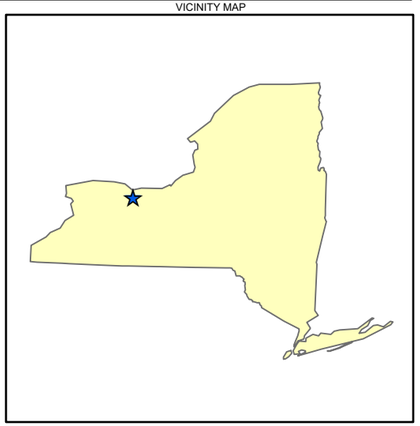
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Figure 8
November 2023 PCE Concentrations in Bedrock
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary

TCE Concentration (µg/L)

- 5-10
- 10-100
- 100+

Notes:
A: Abandoned
NF: Not Found
NS: Not Sampled
NA: Not Applicable (Overburden Wells)
ND: Not Detected

Concentrations are in micrograms per liter (µg/L)
Highlighted wells were considered when drawing plumes.

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

NEW YORK STATE Department of Environmental Conservation

Figure 9
November 2023 TCE Concentrations in Overburden
Town and Country Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary

TCE Concentration (µg/L)

- 5-10

Notes:
A: Abandoned
NS: Not Sampled
NA: Not Applicable (Overburden Wells)
ND: Not Detected
NF: Not Found

Concentrations are in micrograms per liter (µg/L)
Highlighted wells were considered when drawing plumes.

Map Date: 2/23/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

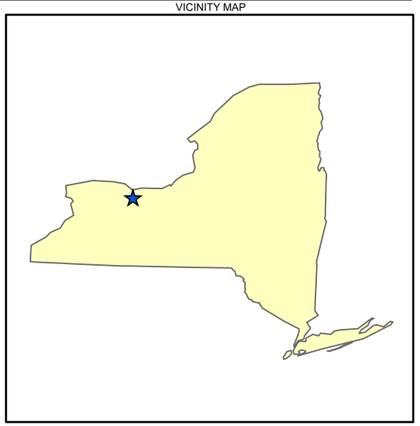
NEW YORK STATE Department of Environmental Conservation

Figure 10
November 2023 TCE Concentrations in Bedrock
Town and County Dry Cleaners
Brighton, New York

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VICINITY MAP



Legend

- Site Location
- Overburden Well
- Bedrock Well
- Overburden Well - Not Found
- Bedrock Well - Not Found
- Site Building
- Site Boundary

Cis-1,2-DCE Concentration (µg/L)

- 5-10
- 10-100
- 100-1000
- 1000+

Notes:
A: Abandoned
NF: Not Found
NS: Not Sampled
NA: Not Applicable (Bedrock Wells)
ND: Not Detected

Concentrations are in micrograms per liter (µg/L)
Highlighted wells were considered when drawing plumes.

Map Date: 5/31/2024
Projection: NAD83 New York State Plane West US Feet
Source: ESRI, NYS

0 50 100
Feet

N

NEW YORK STATE | Department of Environmental Conservation

Figure 11
November 2023 Cis-1,2-DCE Concentrations in Overburden
Town and Country Dry Cleaners
Brighton, New York

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Appendix A

Field Forms

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EA Engineering, P.C.
EA Science and Technology

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-15	EA Personnel: H.Bedell, M.Gilkey	Client: NYSDEC
Location: Town & Country Cleaners Rochester, NY	Well Condition: Good	Weather: 38°F, Cloudy, Snow
Sounding Method: Heron Dipper-T bWLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 1145	Well Diameter (in): 1

Purge Date: 11/27/23	Purge Time: 0850
Purge Method: Low-flow	Field Technician: H.Bedell

Well Volume

A. Well Depth (ft): 9.41	D. Well Volume (ft)^3: 0.034	Depth/Height of Top of PVC:
B. Depth to Water (ft): 3.23	E. Well Volume (gal) C*D: 0.252	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 6.18	F. Three Well Volumes (gal) (E3): 0.756	Pump Intake Depth: Mid Screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0851	12.81	5.81	239	1.30	0.0	2.58	*	0.28	—
0854	12.72	5.94	240	1.29	0.0	1.95			0.84
0857	12.86	6.09	238	1.28	741	1.54			1.68
0900	13.05	6.28	236	1.30	615	1.35			2.52
0903	13.13	6.14	233	1.31	429	1.28			3.36
0906	13.20	6.13	230	1.28	286	1.23			4.20
0909	13.27	6.23	228	1.28	237	1.26			5.04
0912	13.32	6.27	225	1.28	230	1.22			5.88
0915	13.35	6.18	223	1.28	292	1.21			6.72
0918	13.36	6.20	221	1.28	330	1.20			7.56
0921	13.33	6.29	198	1.27	315	1.27			8.40
0924	13.33	6.25	199	1.27	307	1.22			9.24
0927	13.29	6.34	199	1.27	295	1.15		↓	10.08

Total Quantity of Water Removed (gal):	2.646	Sampling Time:	0927
Samplers:	H.Bedell, M.Gilkey, C.Derrick	Split Sample With:	X
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: PID = 3.2 ppm *DTW not recorded due to PFAS sampling

Sample I.D: 828149-DP-15-20231127

Analysis: VOCs, PFAS, 1,4-Dioxane

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: GEMW-2	EA Personnel: M. Gilkey/C. Derrick/H. Bedell	Client: NYSDEC Site No.
Location: Rochester, NY (Bitron Site/Commerce)	Well Condition: Good	Weather: 39°F; Light snow;
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 1145	Well Diameter (in): 1" PVC

Purge Date: 11/27/23	Purge Time: 0909
Purge Method: Low flow- peri pump	Field Technician: M. Gilkey/C. Derrick/H. Bedell

Well Volume

A. Well Depth (ft): 14.42	D. Well Volume (ft)^3: 0.033	Depth/Height of Top of PVC:
B. Depth to Water (ft): 8.42	E. Well Volume (gal) C*D: 0.245	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 6.0	F. Three Well Volumes (gal) (E3): 0.734	Pump Intake Depth: Mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0909	12.77	6.25	260	1.05	0.0	6.24	*	0.25	0
0912	13.28	6.64	241	1.00	0.0	5.00			0.75
0915	15.20	6.72	232	0.974	0.0	3.63			1.5
0918	15.22	6.83	226	0.9616	0.0	4.69			2.25
0921				DRY					
0924									

Total Quantity of Water Removed (gal):	0.59	Sampling Time:	1515
Samplers:	M. Gilkey	Split Sample With:	*
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:

PID = 0.0 ppm
SAMPLE ID: S28149-GEMW-2-20231127
Analysis: 1,4D, VOC, PFAS

* Water level recorded due to PFAS sampling

*Well

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-18	EA Personnel: M. Gilkey/C. Derrick/H. Bedell	Client: NYSDEC (Site No. C828149)
Location: Rochester, NY	Well Condition: good	Weather: 39°F, light snow
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): flush	Gauge Time: 1145	Well Diameter (in): 1" PVC

Purge Date: 11/27/23	Purge Time: 0942
Purge Method: low-flow peri pump	Field Technician: M. Gilkey/C. Derrick/H. Bedell

Well Volume

A. Well Depth (ft): 10.29	D. Well Volume (ft)^3: 0.020	Depth/Height of Top of PVC:
B. Depth to Water (ft): 6.54	E. Well Volume (gal) C*D): 0.153	Pump Type: Perristaltic Pump
C. Liquid Depth (ft) (A-B): 3.75	F. Three Well Volumes (gal) (E3): 0.459	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0942	13.78	6.77	37	3.62	>1000	0.98	*	0.25	—
0945	14.06	6.73	10	3.63	>1000	0.84			0.75
0948	13.90	6.65	-7	4.14	>1000	0.68			1.50
0951	14.25	6.62	-3	4.26	>1000	0.65			2.25
0954	14.84	6.60	-1	4.35	>1000	0.63			3.00
0957	14.55	6.60	1	4.32	858	0.63			3.75
1000	14.45	6.60	3	4.36	688	0.61			4.50
1003	14.55	6.60	3	4.36	607	0.61			5.25
1006	14.63	6.60	2	4.36	559	0.60			6.00
1009	14.54	6.60	5	4.37	537	0.59			6.75
1012	14.91	6.60	7	4.34	524	0.58			7.50

Total Quantity of Water Removed (gal):	1.98	Sampling Time:	1012
Samplers:	M. Gilkey/C. Derrick	Split Sample With:	Y
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:
PID: 0.5 ppm
SAMPLE ID: 828149-DP-18-20231127
Analysis: VOCs, PFAS, 1,4-D

* Water level not recorded due to PFAS sampling

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-13	EA Personnel: H.Bedell, M.Gilkey	Client: NYSDEC
Location: Town&Country Cleaners Rochester, NY	Well Condition: Good	Weather: 35° F, Cloudy, Snow
Sounding Method: Heron Dipper-T WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): ~3	Gauge Time: 1145	Well Diameter (in): 2

Purge Date: 11/27/23	Purge Time: 0953
Purge Method: Low-flow	Field Technician: H.B Bedell

Well Volume

A. Well Depth (ft): 12.94	D. Well Volume (ft)3: 0.134	Depth/Height of Top of PVC:
B. Depth to Water (ft): 6.76	E. Well Volume (gal) C*D: 1.01	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 6.18	F. Three Well Volumes (gal) (E3): 3.025	Pump Intake Depth: Mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0955	11.67	6.74	211	1.42	144	4.02	*	0.25	—
0958	11.73	6.68	208	1.46	43.2	2.08			0.75
1001	11.76	6.56	208	1.47	40.3	2.06			1.50
1004	11.79	6.70	207	1.52	38.7	2.35			2.25
1007	11.69	6.65	205	1.53	33.4	2.05			3.00
1010	11.80	6.56	203	1.57	25.5	1.83			3.75
1013	11.64	6.51	203	1.57	22.0	1.95			4.50
1016	11.64	6.68	202	1.59	18.5	1.65			5.25
1019	11.75	6.55	201	1.59	17.8	2.04			6.00
1022	11.70	6.58	200	1.58	14.8	2.52			6.75
1025	11.70	6.68	200	1.58	14.3	2.40			7.50
1028	11.70	6.62	200	1.58	14.1	2.32		↓	8.25

Total Quantity of Water Removed (gal): 2.18
Samplers: H.Bedell, M.Gilkey, C. Derrick
Sampling Date: 11/27/23

Sampling Time: 1028
Split Sample With: MS/MSD
Sample Type: GRAB

COMMENTS AND OBSERVATIONS: PID = 35.7 ppm *DTW not recorded due to PFAS sampling
Sample ID: 828149-MW-13-20231127
Analysis: PFAS, VOC, 1,4-Dioxane

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-17	EA Personnel: M. Gilkey/C. Derrick	Client: NYSDEC (Site No: 828149)
Location: Rochester, NY (In front of Site)	Well Condition: (Good)	Weather: 39°F; Light Snow;
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 1145	Well Diameter (in): 1" PVC

Purge Date: 11/27/23	Purge Time: 1042
Purge Method: Low-flow-peri. pump	Field Technician: M. Gilkey/C. Derrick

Well Volume

A. Well Depth (ft): 16.25	D. Well Volume (ft)³: 0.049	Depth/Height of Top of PVC:
B. Depth to Water (ft): 7.32	E. Well Volume (gal) C*D: 0.364	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 8.93	F. Three Well Volumes (gal) (E3): 1.093	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units) ✓	ORP (mV) ✓	Conductivity (S/m) ✓	Turbidity (ntu)	DO (mg/L) ✓*	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1042	13.95	6.78	138	3.33	0.0	1.37	*	0.25	0
1045	14.92	6.56	134	3.24	1000X	0.77	*		0.75
1048	15.06	6.54	134	3.24	523	0.85			1.5
1051	15.21	6.52	133	3.25	207	0.72			2.25
1054	15.36	6.52	133	3.26	228	0.60			3.0
1057	15.46	6.52	133	3.28	200	0.56			3.75
1100	15.54	6.51	133	3.30	170	0.58			4.5
1103	15.76	6.51	134	3.33	189	0.56			5.25
1106	15.86	6.51	135	3.34	305	0.54			6.0
1109	15.95	6.51	136	3.35	329	0.52			6.75
1112	15.94	6.51	136	3.36	292	0.53			7.5
1115	15.90	6.51	136	3.39	352	0.52			8.25
1118	15.81	6.51	137	3.41	368	0.50			9.0
1121	15.82	6.51	137	3.40	378	0.49			9.75
1124	15.90	6.50	136	3.43	270	0.47			10.5
1127	15.90	6.50	135	3.42	235	0.47			11.25
1130	15.90	6.50	134	3.42	195	0.46			12.00

Total Quantity of Water Removed (gal):	H445:20 4.16	Sampling Time:	1145
Samplers:	M. Gilkey/C. Derrick/H. Bodell	Split Sample With:	X
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:

SAMPLE ID: 828149-DP-17-20231127
Analysis: VOCs, PFAS, 1,4-D
PID: 0.7 ppm

*Water level of recorded due to PFAS sample; will recover after sampling

1000X: Turbidity >1000 NTUs

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GROUNDWATER SAMPLING PURGE FORM

Purge 2 of 2

Well I.D.: DP-17	EA Personnel:	Client: NYSDEC
Location:	Well Condition: See purge 1	Weather:
Sounding Method:	Gauge Date:	Measurement Ref:
Stick Up/Down (ft):	Gauge Time:	Well Diameter (in):

Purge Date: See purge 1	Purge Time:
Purge Method:	Field Technician:

Well Volume

A. Well Depth (ft):	D. Well Volume (ft):	Depth/Height of Top of PVC:
B. Depth to Water (ft):	E. Well Volume (gal) C*D):	Pump Type:
C. Liquid Depth (ft) (A-B):	F. Three Well Volumes (gal) (E3):	Pump Intake Depth:

Water Quality Parameters

Time (hrs)	Temperature (oC) ✓	pH (pH units) ✓	ORP (mV) ✓	Conductivity (S/m) ✓	Turbidity (ntu) ✓	DO (mg/L) ✓	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1133	15.95	6.50	131	3.43	180	0.46	↓	0.25	12.75
1136	15.98	6.50	128	3.43	150	0.47			13.5
1139	15.98	6.50	124	3.44	127	0.46			14.25
1142	16.00	6.50	122	3.44	120	0.49			15.0
1145	16.03	6.50	120	3.44	129	0.49			15.75

Total Quantity of Water Removed (gal): _____ Sampling Time: _____

Samplers: _____ Split Sample With: _____

Sampling Date: _____ Sample Type: _____

COMMENTS AND OBSERVATIONS: _____

See Page 1

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-13B	EA Personnel: H. Bedell, M. Gilkey, C. Derrick	Client: NYSDEC
Location: Town and Country Cleaners Rochester, NY	Well Condition: good	Weather: 38°F, cloudy
Sounding Method: Heron Dipper-T WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): ~3 ft	Gauge Time: 1145	Well Diameter (in): 2"

Purge Date: 11/27/23	Purge Time: 1109
Purge Method: low-flow	Field Technician: H. Bedell

Well Volume

A. Well Depth (ft): 28.33	D. Well Volume (ft)3: 0.422	Depth/Height of Top of PVC: —
B. Depth to Water (ft): 8.97	E. Well Volume (gal) C*D): 3.16	Pump Type: peristaltic
C. Liquid Depth (ft) (A-B): 19.36	F. Three Well Volumes (gal) (E3): 9.48	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1109	12.33	7.01	-53	1.21	>1000	1.75	*	0.25	—
1112	12.39	6.92	-67	1.20	990	1.40			0.75
1115	12.47	6.78	-75	1.20	289	1.29			1.50
1118	12.68	6.74	-82	1.19	69.2	1.14			2.25
1121	12.72	6.87	-90	1.17	30.7	1.05			3.00
1124	12.67	6.76	-99	1.15	9.4	1.00			3.75
1127	12.56	6.74	-107	1.14	0.0	1.01			4.50
1130	12.62	6.77	-115	1.13	0.0	1.01			5.25
1133	12.62	6.81	-119	1.13	0.0	1.03			6.00
1136	12.72	6.81	-122	1.12	0.0	1.09		↓	6.75

Total Quantity of Water Removed (gal):	1.78	Sampling Time:	1136
Samplers:	H. Bedell, M. Gilkey, C. Derrick	Split Sample With:	X
Sampling Date:	11/27/23	Sample Type:	grab

COMMENTS AND OBSERVATIONS: * DTW not taken due to PFAS sampling
PID = 4.3 ppm
SAMPLE ID: 8285149 - MW-13B - 20231127
Analysis: PFAS, 1,4-Dioxane, VOCs

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-2	**EA Personnel:** H.Bedell, M.Gilkey	**Client:** NYSDEC
Location: Town&Country Cleaners Rochester, NY	**Well Condition:** Good	**Weather:** 40°F, Partly cloudy
Sounding Method: Heron Dipper-T WL-M	**Gauge Date:** 11/28/23	**Measurement Ref:** TOC
Stick Up/Down (ft): Flush	**Gauge Time:** 1145	**Well Diameter (in):** 2

Purge Date: 11/27/23	**Purge Time:** 1214
Purge Method: Low-flow	**Field Technician:** H.Bedell

Well Volume

A. Well Depth (ft): 22.51	**D. Well Volume (ft)3:** 0.388	**Depth/Height of Top of PVC:** —
B. Depth to Water (ft): 4.71	**E. Well Volume (gal) C*D):** 2.905	**Pump Type:** Peristaltic
C. Liquid Depth (ft) (A-B): 17.8	**F. Three Well Volumes (gal) (E3):** 8.715	**Pump Intake Depth:** Mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1215	11.99	7.06	29	1.30	420	6.67	*	0.25	—
1218	12.76	6.90	19	1.30	92.1	3.01			0.75
1221	13.10	6.81	16	1.29	11.2	2.32			1.50
1224	13.30	6.89	15	1.29	0.0	2.16			2.25
1227	13.47	6.76	13	1.29	0.0	1.82			3.00
1230	13.41	6.70	10	1.29	0.0	1.50			3.75
1233	13.55	6.67	8	1.28	0.0	1.51			4.50
1236	13.59	6.77	6	1.28	0.0	1.38			5.25
1239	13.68	6.65	4	1.27	0.0	1.42			6.00
1242	13.86	6.65	2	1.27	0.0	1.42			6.75

Total Quantity of Water Removed (gal):	1.78	**Sampling Time:**	1242
Samplers:	N.Bedell, M.Gilkey, C.Dennark	**Split Sample With:**	DUP
Sampling Date:	11/27/23	**Sample Type:**	GRAB

COMMENTS AND OBSERVATIONS: PID: 1.5ppm

* DTW not recorded due to PFAS sampling.

Sample ID: 828149-MW-2-20231127

Analysis: VOC, PFAS, 1,4-Dioxane

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-17B	EA Personnel: M. Gilkey/C. Derrick/H. Bedell	Client: NYSDEC
Location: Rochester, NY Town and Country Cleaners	Well Condition: good	Weather: 41°F, cloudy
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): flush	Gauge Time: 1145	Well Diameter (in): 2" PVC

Purge Date: 11/27/23	Purge Time: 1245
Purge Method: low flow	Field Technician: M. Gilkey/C. Derrick

Well Volume

A. Well Depth (ft): 27.59	D. Well Volume (ft)§ 0.441	Depth/Height of Top of PVC:
B. Depth to Water (ft): 7.36	E. Well Volume (gal) C*D): 3.30	Pump Type: peristaltic
C. Liquid Depth (ft) (A-B): 20.23	F. Three Well Volumes (gal) (E3): 9.905	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1245	14.45	7.10	42	0.748	773	1.67	*	0.25	—
1248	14.67	6.99	53	0.712	194	0.98			0.75
1251	14.71	6.95	-89	0.571	57.8	1.42			1.50
1254	14.77	6.88	-71	0.664	25.2	1.61			2.25
1257	14.87	6.86	-88	0.724	23.1	1.33			3.00
1300	14.82	6.86	-98	0.766	21.5	1.05			3.75
1303	14.87	6.86	-104	0.809	23.0	0.89			4.50
1306	14.83	6.86	-110	0.856	23.2	0.82			5.25
1309	14.73	6.86	-114	0.899	23.2	0.77			6.00
1312	14.79	6.86	-117	0.918	24.1	0.68			6.75
1315	14.80	6.86	-121	0.932	22.1	0.74			7.50
1318	14.88	6.86	-123	0.940	21.9	0.63			8.25
1321	14.84	6.86	-125	0.950	25.6	0.60			9.00
1324	14.90	6.86	-127	0.960	22.2	0.58			9.75
1327	14.88	6.86	-128	0.965	21.3	0.56			10.50
1330	14.96	6.86	-129	0.969	21.4	0.55		↓	11.25

Total Quantity of Water Removed (gal):	2.97	Sampling Time:	1330
Samplers:	M. Gilkey/C. Derrick	Split Sample With:	—
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: * DTW not recorded due to PFAS sampling

PID: 0.0 ppm

SAMPLE ID: 828149-MW-17B-20231127

Analysis: VOCs, PFAS, 1,4-D

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-3	EA Personnel: H.Bedell M.Gilkey	Client: NYSDEC
Location: Town & Country Cleaners Rochester, NY	Well Condition: Good	Weather: 40°F, cloudy
Sounding Method: Heron Dipper-T M.M	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 1145	Well Diameter (in): 4

Purge Date: 11/27/23	Purge Time: 135
Purge Method: Low-flow	Field Technician: H.Bedell

Well Volume

A. Well Depth (ft): 7.68	D. Well Volume (ft)§ 0.37	Depth/Height of Top of PVC:
B. Depth to Water (ft): 3.44	E. Well Volume (gal) C*D: 2.768	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 4.24	F. Three Well Volumes (gal) (E3): 8.304	Pump Intake Depth: Mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1316	12.59	7.28	62	1.20	116	2.05	*	0.25	—
1319	12.88	7.11	44	1.20	11.9	1.30			0.75
1322	13.02	7.00	28	1.20	0.0	1.14			1.50
1325	12.97	6.95	18	1.20	0.0	1.03			2.25
1328	13.04	7.00	11	1.20	0.0	0.96			3.00
1331	13.03	6.90	6	1.20	0.0	0.90			3.75
1334	13.10	6.87	1	1.20	0.0	0.91			4.50
1337	13.14	6.97	0	1.20	0.0	0.90			5.25
1340	13.08	6.98	-2	1.20	0.0	0.89		↓	6.00

Total Quantity of Water Removed (gal):	1.59	Sampling Time:	1340
Samplers:	H.Bedell, M.Gilkey, C.Derrick	Split Sample With:	X
Sampling Date:	11/27/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS: PID: 94.5ppm * DTW not recorded due to PFAS sampling
Sample ID: 828149-MW-3-20231127
Analysis: VOCs, PFAS, 1,4-Dioxane.

EA Engineering, P.C.
EA Science and Technology

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-10	EA Personnel: M. Gilkey/C. Derrick/M. Bedell	Client: NYSDEC
Location: Town and Country Cleaners Rochester, NY	Well Condition: good	Weather: 37°F, cloudy
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): flush	Gauge Time: 1145	Well Diameter (in): 1" PVC

Purge Date: 11/27/23	Purge Time: 1406
Purge Method: low flow peri pump	Field Technician: M. Gilkey/C. Derrick

Well Volume

A. Well Depth (ft): 9.25	D. Well Volume (ft)^3: 0.029	Depth/Height of Top of PVC:
B. Depth to Water (ft): 3.89	E. Well Volume (gal) C*D): 0.219	Pump Type: peristaltic pump
C. Liquid Depth (ft) (A-B): 5.36	F. Three Well Volumes (gal) (E3): 0.656	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1406	11.23	6.67	57	1.53	740	2.31	*	0.25	—
1409	11.20	6.69	71	1.56	601	3.21			0.75
1412	11.16	6.69	86	1.57	530	3.21			1.50
1415	11.29	6.66	99	1.55	468	3.61			2.25
1418	11.25	6.68	108	1.55	417	4.77			3.00
1421	11.21	6.69	113	1.56	260	5.12			3.75
1424	11.17	6.70	117	1.56	143	5.26			4.50
1427	11.11	6.71	120	1.56	103	5.28			5.25
1430	11.09	6.71	122	1.56	53.2	5.41			6.00
1433	11.04	6.71	124	1.56	43.2	5.46			6.75
1436	11.01	6.71	127	1.56	37.3	5.46			7.50
1439	11.00	6.71	129	1.55	31.0	5.57			8.25
1442	10.98	6.71	130	1.55	27.3	5.65			9.00
1445	10.99	6.72	132	1.55	26.8	5.67			9.75
1448	10.97	6.72	134	1.55	23.5	5.66			10.50
1451	10.93	6.73	135	1.55	21.7	5.80			11.25
1454	10.88	6.74	136	1.55	19.0	5.81			12.00

Total Quantity of Water Removed (gal):	3.76	Sampling Time:	1140
Samplers:	M. Bedell, M. Gilkey, C. Derrick	Split Sample With:	X
Sampling Date:	11/28/23	Sample Type:	GRAB

COMMENTS AND OBSERVATIONS:

PID: 0.0

SAMPLE ID: 828149-DP-10-20231128

Analysis: VOCs, PFAS, 1,4-D

* DTW not recorded due to PFAS sampling

EA Engineering, P.C.
EA Science and Technology

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-10	EA Personnel:	Client: NYSDEC
Location:	Well Condition:	Weather:
Sounding Method:	Gauge Date:	Measurement Ref:
Stick Up/Down (ft):	Gauge Time:	Well Diameter (in):

Purge Date:	Purge Time:
Purge Method:	Field Technician:

Same as Page 1

Well Volume

A. Well Depth (ft):	D. Well Volume (ft):	Depth/Height of Top of PVC:
B. Depth to Water (ft):	E. Well Volume (gal) C*D):	Pump Type:
C. Liquid Depth (ft) (A-B):	F. Three Well Volumes (gal) (E3):	Pump Intake Depth:

Same as Page 1

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1457	16.80	6.74	137	1.55	17.7	5.85	~~X~~	0.25	12.75
1500	10.79	6.74	138	1.55	16.1	5.85			13.50
1503	10.79	6.74	139	1.55	14.3	5.79			14.25
1506	—	—	—	DRY	—	—	—	—	—

Same as Page 1

Total Quantity of Water Removed (gal): _____ Sampling Time: _____

Samplers: _____ Split Sample With: _____

Sampling Date: _____ Sample Type: _____

COMMENTS AND OBSERVATIONS: _____

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-1	EA Personnel: H.Bedell, M.Gilkey	Client: NYSDEC
Location: Town & Country Cleaners Rochester, NY	Well Condition: Good	Weather: 40°F, cloud
Sounding Method: Heron Dipper-T WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: ~~1145~~ 1145	Well Diameter (in): 1

Purge Date: 11/27/2023	Purge Time: 1416
Purge Method: low-flow	Field Technician: H.Bedell

Well Volume

A. Well Depth (ft): 10.10	D. Well Volume (ft)^3: 0.044	Depth/Height of Top of PVC:
B. Depth to Water (ft): 2.72	E. Well Volume (gal) C*D: 0.326	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 7.98	F. Three Well Volumes (gal) (E3): 0.977	Pump Intake Depth: Mid-Screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1417	11.28	7.08	71	0.749	0.0	3.09	~~DTW~~	0.25	—
1420	11.33	6.94	71	0.795	0.0	2.38			0.75
1423	11.69	6.81	71	0.812	0.0	2.27			1.50
1426	12.05	6.77	72	0.879	0.0	2.46			2.25
1429	12.17	6.89	74	0.902	0.0	2.64			3.00
1432	12.23	6.76	76	0.926	579	2.73			3.75
1435	12.45	6.74	76	0.915	925	1.98			4.50
1438	12.51	6.73	77	0.886	>1000	1.77			5.25
1441	12.48	6.76	77	0.889	>1000	1.77			6.00
1444	12.40	6.74	77	0.866	783	1.74			6.75
1447	12.36	6.76	78	0.871	618	1.67			7.50
1450	12.27	6.88	78	0.864	592	1.57			8.25
1453	12.20	6.78	78	0.868	563	1.56			9.00

Total Quantity of Water Removed (gal): 2.38
Samplers: H.Bedell, M.Gilkey, C.Derrick
Sampling Date: 11/27/23
Sampling Time: 1453
Split Sample With: X
Sample Type: GRAB

COMMENTS AND OBSERVATIONS: PID: 0.0 ppm *Asphalt in casing and well
Sample ID: 828149-MW-1-20231127 **DTW not recorded due to
Analysis: VOCs, PFAS, 1,4-Dioxane PFAS sampling

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-21	**EA Personnel:** H.Bedell, M.Gilkey	**Client:** NYSDEC
Location: Rochester, NY Town & Country Cleaners	**Well Condition:** Good	**Weather:** 25°F, Cloudy
Sounding Method: Heron Dipper-T WLM	**Gauge Date:** 11/28/23	**Measurement Ref:** TOC
Stick Up/Down (ft): Flush	**Gauge Time:** 1215	**Well Diameter (in):** 1

Purge Date: 11/28/23	**Purge Time:** 0900
Purge Method: Low-flow	**Field Technician:** H.Bedell

Well Volume

A. Well Depth (ft): 10.34	**D. Well Volume (ft)§** 0.0099	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 8.52	**E. Well Volume (gal) C*D):** 0.074	**Pump Type:** Peristaltic
C. Liquid Depth (ft) (A-B): 1.82	**F. Three Well Volumes (gal) (E3):** 0.223	**Pump Intake Depth:** Mid screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0900	8.80	5.48	219	0.986	0.0	5.06	*	0.25	—
0903	10.50	5.81	208	0.956	331	4.86			0.75
0906	11.14	5.99	202	0.961	151	4.72			1.50
0909	11.46	6.07	197	0.952	121	4.65			2.25
0912	11.58	6.12	194	0.954	87.9	4.63			3.00
0915	11.83	6.20	191	0.953	44.9	4.63			3.75
0918	11.91	6.32	188	0.951	35.4	4.53			4.50
0921	12.05	6.32	186	0.949	14.5	4.56			5.25
0924	12.12	6.30	184	0.949	9.4	4.56		↓	6.00

Total Quantity of Water Removed (gal):	1.59	**Sampling Time:**	0924
Samplers:	M.Gilkey, H.Bedell, C.Derrick	**Split Sample With:**	X
Sampling Date:	11/28/23	**Sample Type:**	GRAB

COMMENTS AND OBSERVATIONS: PID=0.0ppm *DTW not recorded due to PFAS sampling

Sample ID: 828149-DP-21-20231128

Analysis: VOC, PFAS, 1,4-Dioxane

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DP-19	EA Personnel: C. Derrick / M. Bedell (M. Gilkey / ~~N. Robinson~~)	Client: 828149 NYSDEC NYSDEC #~~622017~~ CO
Location: Town and Country Cleaners ~~Rose Valley Landfill, Russia, NY~~ Rochester, NY	Well Condition: good	Weather: 27 °F, partly cloudy
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): flush	Gauge Time: 1215	Well Diameter (in): 1" PVC

Purge Date: 11/28/23	Purge Time: 0911
Purge Method: low flow peri pump	Field Technician: M. Gilkey / C. Derrick

Well Volume

A. Well Depth (ft): 12.86	D. Well Volume (ft)^3: 0.943	Depth/Height of Top of PVC: —
B. Depth to Water (ft): 4.89	E. Well Volume (gal) C*D: 0.325	Pump Type: peristaltic pump
C. Liquid Depth (ft) (A-B): 7.97	F. Three Well Volumes (gal) (E3): 0.976	Pump Intake Depth: mid screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0911	10.60	6.25	186	1.71	>1000	0.83	*	0.25	—
0914	11.25	6.35	176	1.68	>1000	0.74			0.75
0917	11.64	6.38	170	1.68	454	0.69			1.50
0920	11.80	6.40	164	1.68	197	0.68			2.25
0923	11.40	6.42	159	1.69	135	0.68			3.00
0926	11.72	6.44	155	1.68	306	0.63			3.75
0929	12.08	6.45	150	1.68	42.0	0.64			4.50
0932	12.20	6.46	147	1.69	28.1	0.62			5.25
0935	12.46	6.46	143	1.68	3.8	0.61			6.00
0938	12.44	6.47	141	1.67	0.0	0.61			6.75
0941	12.29	6.48	138	1.68	0.0	0.60			7.50
0944	12.60	6.48	136	1.68	0.0	0.58			8.25

Total Quantity of Water Removed (gal):	2.18	Sampling Time:	0944
Samplers:	M. Gilkey, C. Derrick	Split Sample With:	✓
Sampling Date:	11/28/23	Sample Type:	grab

COMMENTS AND OBSERVATIONS:
PID: 0.4 ppm
SAMPLE ID: 828149-DP-19-20231128
Analysis: PFAs, VOCs, 1,4-D

* DTW not recorded due to PFAS sampling

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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-21B	EA Personnel: H.Bedell, M.Gilkey	Client: NYSDEC
Location: Tenn Ecounty Cleaners Rochester, NY	Well Condition: Good	Weather: 27°F, Cloudy
Sounding Method: Hero Dipper-T WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): Flush	Gauge Time: 1015	Well Diameter (in): 2

Purge Date: 11/28/23	Purge Time: 0940
Purge Method: Low-flow	Field Technician: H.Bedell

Well Volume

A. Well Depth (ft): 19.49	D. Well Volume (ft)§ 0.234	Depth/Height of Top of PVC: —
B. Depth to Water (ft): 8.77	E. Well Volume (gal) C*D: 1.75	Pump Type: Peristaltic
C. Liquid Depth (ft) (A-B): 10.72	F. Three Well Volumes (gal) (E3): 5.25	Pump Intake Depth: Midscreen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
0940	12.54	6.20	-20	1.45	193	2.21	*	0.25	—
0943	12.93	6.16	-45	1.39	85.7	1.91			0.75
0946	13.30	6.17	-47	1.29	26.3	1.68			1.50
0949	13.32	6.21	-34	1.28	11.0	1.61			2.25
0952	13.42	6.24	-15	1.28	2.5	1.52			3.00
0955	13.41	6.20	-6	1.28	1.3	1.48			3.75
0958	13.45	6.18	3	1.28	0.0	1.43			4.50
1001	13.49	6.23	11	1.28	0.0	1.40			5.25
1004	13.54	6.26	18	1.28	0.0	1.38			6.00
1007	13.58	6.20	21	1.27	1.4	1.36		↓	6.75

Total Quantity of Water Removed (gal): 1.78
Samplers: [redacted] H.Bedell, M.Gilkey, C.Denzick
Sampling Date: 11/28/23

Sampling Time: 1007
Split Sample With: X
Sample Type: 6-AAB

COMMENTS AND OBSERVATIONS: PID = 0.0 ppm * DTW not recorded due to PFAS Sampling
Sample ID: 828149-MW-21B-20231128
Analysis: VOCs, PFAS, 1,4-Dioxane

EA Engineering, P.C.
EA Science and Technology

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-19B	EA Personnel: M. Gilkey, C. Derrick, H. Bedell	Client: NYSDEC NYSDEC #828149
Location: Rochester, NY Town and Country Cleaners	Well Condition: good	Weather: 28°F, mostly cloudy
Sounding Method: Heron WLM	Gauge Date: 11/28/23	Measurement Ref: TOC
Stick Up/Down (ft): flush	Gauge Time: 1215	Well Diameter (in): 2" PVC

Purge Date: 11/28/23	Purge Time: 1007
Purge Method: low flow peri pump	Field Technician: M. Gilkey / C. Derrick

Well Volume

A. Well Depth (ft): 20.98	D. Well Volume (ft)³: 0.346	Depth/Height of Top of PVC:
B. Depth to Water (ft): 5.11	E. Well Volume (gal) C*D: 2.59	Pump Type: peristaltic pump
C. Liquid Depth (ft) (A-B): 15.87	F. Three Well Volumes (gal) (E3): 7.77	Pump Intake Depth: mid-screen

Water Quality Parameters

Time (hrs)	Temperature (oC)	pH (pH units)	ORP (mV)	Conductivity (S/m)	Turbidity (ntu)	DO (mg/L)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1007	12.05	6.59	-38	1.58	31.2	1.09	*	0.25	—
1010	12.39	6.54	-53	1.57	3.2	0.81			0.75
1013	12.66	6.52	-63	1.58	0.0	0.69			1.50
1016	12.84	6.51	-69	1.59	0.0	0.64			2.25
1019	12.83	6.51	-74	1.61	0.0	0.60			3.00
1022	12.72	6.50	-76	1.62	0.0	0.58			3.75
1025	12.71	6.50	-77	1.62	0.0	0.57			4.50
1028	12.75	6.50	-76	1.63	0.0	0.56			5.25
1031	12.74	6.50	-78	1.64	0.0	0.54			6.00
1034	12.70	6.50	-78	1.66	0.0	0.53			6.75

Total Quantity of Water Removed (gal):	1.98	Sampling Time:	1034
Samplers:	M. Gilkey / C. Derrick	Split Sample With:	∅
Sampling Date:	11/28/23	Sample Type:	grab

COMMENTS AND OBSERVATIONS:
PID: 1.4 ppm
SAMPLE ID: 828149-MW-19B-20231128
Analysis: VOCs, PFAS, 1,4-D

*DTW not recorded due to PFAS sampling

MM

MONITORING WELL GAUGING LOG

Site Name: Town & Country Cleaners

Inspector(s): Moriah Gilkey, Hannah Bedell, Kathryn Katzer

Date/Time: 11/28/23 1145

Weather Conditions: 28°F, Partly Cloudy

Well ID	PID Reading ~~(ppb)~~ (ppm)	DTW (ft. below TOC)	DTB (ft. below TOC)	Well Condition / Notes
MW-13B	4.3	8.97	25.33	
MW-13	35.7	6.76	12.94	
DP-15	3.2	3.23	9.41	
MW-1	4.0	2.72	10.70	
MW-2	1.2	4.71	22.51	
MW-3	94.5	3.44	7.68	
GEMW-2	0.0	8.42	14.42	
MW-17B	0.6	7.36	27.59	
DP-17	0.7	7.32	16.25	
DP-18	0.5	6.54	10.29	Digitize This in Excel
DP-19	0.4	4.89	12.96	
MW-19B	1.4	5.11	20.95	
DP-20	0.0	13.44	14.67	
DP-21	0.0	9.52	10.34	
MW-21B	0.0	8.77	19.49	
MW-8	0.0	9.18	9.24	
MW-10	0.0	9.52	9.55	
DP-10	9.9	3.89	9.25	

MONITORING WELL GAUGING LOG

Site Name: Town and Country Cleaners

Inspector(s): M. Gilkey, H. Bedell

Date/Time: 11/28/2023

Weather Conditior 28 F, Partly Cloudy

Well ID	PID Reading (ppm)	DTW (ft. below TOC)	DTB (ft. below TOC)	Well Condition / Notes
MW-13B	4.3	8.97	25.33	
MW-13	35.7	6.76	12.94	
DP-15	3.2	3.23	9.41	
MW-1	4	2.72	10.7	
MW-2	1.2	4.71	22.51	
MW-3	94.5	3.44	7.68	
GEMW-2	0	8.42	14.42	
MW-17B	0.6	7.36	27.59	
DP-17	0.7	7.32	16.25	
DP-18	0.5	6.54	10.29	
DP-19	0.4	4.89	12.86	
MW-19B	1.4	5.11	20.98	
DP-20	0	13.44	14.67	
DP-21	0	8.52	10.34	
MW-21B	0	8.77	19.49	
MW-8	0	9.18	9.24	
MW-10	0	8.52	8.55	
DP-10	9.9	3.89	9.25	

Appendix B

Daily Inspection Reports

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NYSDEC
Division of Environmental Remediation

NEW YORK STATE | Department of Environmental Conservation

Contract No. D009806
DEC PM – J.Stefansky
Engineer PM – J.Oliver
Engineer Insp. – H. Bedell

Site Location: 2310 Monroe Ave, Brighton 14618

Weather Conditions

General Description	Snow	AM	Cloudy	PM
Temperature	38F	AM	40F	PM
Wind	13 mph W	AM	15 mph W	PM

Health & Safety
If any box below is checked "Yes", provide explanation under "Health & Safety Comments".

Were there any changes to the Health & Safety Plan?	*Yes	No X	NA
Were there any exceedances of the perimeter air monitoring reported on this date?	*Yes	No	NA X
Were there any nuisance issues reported/observed on this date?	*Yes	No X	NA

Health & Safety Comments

NA

Summary of Work Performed	Arrived at site:	0800	Departed Site:	1615

(0800) H. Bedell (EA) onsite for groundwater sampling. (0815) M. Gilkey and C. Derrick (EA) onsite. (0825) EA calibrates PID and Horibas. (0850) Begin purging and sampling wells. Groundwater sampling includes PFAS sampling at all wells. Therefore, a site wide gauging event will be performed at the end of the sampling event to prevent PFAS contamination prior to sampling. All wells that were sampled had 3/8" OD HDPE tubing placed in the wells. Purge and sample times are presented in the table below. (0900) Located 6 SSD systems on site and at the two adjacent properties. 1 at 2314 Monroe Ave that was operating, 2 at 2308 Monroe Ave that were not running, and 3 at 2294 Monroe Ave that were not running. (0921) GEMW-2 goes dry and will be sampled once recharged. (1445) Collected field blank. (1500) Collected equipment blank. (1506) DP-10 goes dry and will be sampled once recharged. (1615) M. Gilkey, H. Bedell, and C. Derrick (EA) offsite.

Well ID	Purge Start Time	Sample Time	QA/QC	DRY?
MW-13	0953	1028	MS/MSD	No
MW-13B	1109	1136		No
DP-15	0850	0927		No
DP-17	1042	1145		No
GEMW-2	0909	1515		Yes
MW-2	1214	1242	FD-01	No
MW-17B	1244	1330		No
MW-1	1416	1453		No
DP-10	1406	---		Yes

Equipment/Material Tracking
If any box below is checked "Yes", provide explanation under "Material Tracking Comments".

Were there any vehicles which did not display proper D.O.T numbers and placards?	*Yes	No	NA X
Were there any vehicles which were not tarped?	* Yes	No	NA X
Were there any vehicles which were not decontaminated prior to exiting the work site?	* Yes	No	NA X

Personnel and Equipment

Individual	Company	Trade	Total Hours
Moriah Gilkey	EA	Engineer	8.25
Hannah Bedell	EA	Engineer	8.25
Cassandra Derrick	EA	Geologist	8.25

Equipment Description	Contractor/Vendor	Quantity	Used
Horiba	Pine Environmental	2	Y
Honeywell MiniRAE	Pine Environmental	1	Y
Peristaltic Pumps	Pine Environmental	2	Y
Heron Water Level Meters	Pine Environmental	2	N
Hand Tools	EA	NA	Y

Chevy Silverado	Enterprise	2	Y

Material Description	Imported/ Delivered to Site	Exported off Site	Waste Profile (If Applicable)	Source or Disposal Facility (If Applicable)	Daily Loads	Daily Weight (tons)*

*On-Site scale for off-site shipment, delivery ticket for material received

Equipment/Material Tracking Comments:

Visitors to Site

Name	Representing	Entered Exclusion/CRZ Zone	
None		**Yes**	**No**
		Yes	**No**

Site Representatives

Name	Representing
Moriah Gilkey	**EA**
Hannah Bedell	**EA**

Project Schedule Comments

None.

Issues Pending

- None.

Interaction with Public, Property Owners, Media, etc.

None.

Site Photographs (Descriptions Below)	
	
MW-1 with asphalt inside casing	GEMW-2
	
SSDS systems at 2294 Monroe Ave (Commercial property west of site)	Middle SSDS at 2294 Monroe Ave

	
SSDS at west end of 2294 Monroe Ave property	2 SSD systems at onsite building (2308 Monroe Ave)
	
Operating SSDS at 2314 Monroe Ave (Property east of the site)	

Site Inspector(s): Moriah Gilkey, Hannah Bedell	**Date: 11/27/23**

Videos of discreet operations have been provided to the DEC Project Manager to facilitate understanding of the ongoing work? Yes ☐ No ☐ N/A ☒

REMEDIAL ACTIVITIES AT PROPERTIES

1. Does anyone at this location have any symptoms of a respiratory infection (e.g., cough, sore throat, fever, or shortness of breath)?	Yes ☐	No ☒
2. Have anyone at this location been tested and confirmed to have COVID-19?	Yes ☐	No ☒
3. Were personal protective gloves, masks, and eye protection being used?	Yes ☐	No ☒
4. Does the Department and its contractors have your permission to enter the property at this time?	Yes ☐	No ☐
5. If Yes to 1 or 2, follow the latest NYSDOH COVID-19 guidance: https://coronavirus.health.ny.gov/home	Yes ☐	No ☐
Comments: N/A		

ON-SITE WASTE STORAGE

Drums, roll offs and piles are staged in secure areas?	Yes ☐	No ☐	N/A☒
Liners and berms have been installed if necessary to prevent cross contamination of clean areas?	Yes ☐	No ☐	N/A☒
Containers are in good condition or properly overpacked?	Yes ☐	No ☐	N/A☒
Waste materials are scheduled to be properly characterized and disposed of prior to demobilization?	Yes ☐	No ☐	N/A☒
Complying with RCRA 90 day storage limitation for hazardous waste?	Yes ☐	No ☐	N/A☒
Piles are securely covered when not in use?	Yes ☐	No ☐	N/A☒
Containers are closed when not in use?	Yes ☐	No ☐	N/A☒
Staging areas should be inspected periodically and any issues addressed immediately?	Yes ☐	No ☐	N/A☒
Signage and labeling comply with RCRA requirements for all staging areas and containers?	Yes ☐	No ☐	N/A☒
If any issues noted, has Contractor been notified?	Yes ☐	No ☐	N/A☒
Comments: NA			

NUISANCE CHECKLIST

Were there any community complaints related to work on this date?	Yes ☐	No ☒	N/A☐
Were there any odors detected on this date?	Yes ☐	No ☒	N/A☐
Was noise outside specification and/or above background on this date?	Yes ☐	No ☒	N/A☐
Were vibration readings outside specification and/or above background on this date?	Yes ☐	No ☐	N/A☒
Any visible dust observed beyond the work perimeter on this date?	Yes ☐	No ☐	N/A☒
Any visible contrast (turbidity) beyond engineering controls observed on this date?	Yes ☐	No ☐	N/A☒
Was turbidity checked at the outfall(s)?	AM ☐	PM ☐	N/A☒
Were any property owners NOT provided advance notice for work performed on this property on this date?	Yes ☐	No ☐	N/A☒

Was the temporary fabric structure closed at the end of the day?	Yes ☐	No ☐	N/A☒
Has Contractor failed to protect all foundations and structures adjacent to and adjoining the site which are affected by the excavations or other operations connected with performance of the Work?	Yes ☐	No ☐	N/A☒
If yes, has Contractor been notified?	Yes ☐	No ☐	N/A☒
Comments: N/A			

RESILIENCE/GREEN REMEDIATION CHECKLIST

Is site power procured from renewable energy sources (e.g., solar, wind, geothermal, biomass and biogas)?	Yes ☐	No ☐	N/A☒
Is the Contractor employing 2007 or newer or retrofitted (BART*) diesel on-road trucks and non-road equipment?	Yes ☐	No ☐	N/A☒
Is vehicle idling adequately reduced per 6NYCRR Part 217-3?	Yes ☐	No ☐	N/A☒
Have equipment operators been trained in the idling requirements of 6NYCRR Part 217-3?	Yes ☐	No ☐	N/A☒
Is BART-equipped equipment properly maintained and working?	Yes ☐	No ☐	N/A☒
Is work being sequenced to avoid double handling?	Yes ☐	No ☐	N/A☒
Is there an onsite recycling program for CONTRACTOR-generated wastes and is it complied with?	Yes ☐	No ☐	N/A☒
Are office trailer heating and cooling systems maintained at efficient set points, have programable thermostats been installed?	Yes ☐	No ☐	N/A☒
Are products and materials used in performance of the work appropriately certified (e.g., LEED, Energy Star, Sustainable Forestry Initiative®, etc.)?	Yes ☐	No ☐	N/A☒
Are resiliency features included in the design, or completed remedy properly installed and/or maintained (flood control, storm water controls, erosion measures, etc.)?	Yes ☐	No ☐	N/A☒
Are green remediation elements included in the design, or completed remedy properly installed and/or maintained (e.g., porous pavement, geothermal, variable speed drives, native plantings, natural stream bank restoration, etc.)?	Yes ☐	No ☐	N/A☒
Has Contractor been notified of any deficiencies?	Yes ☐	No ☐	N/A☒
Are remote/call in job meetings being held in lieu of meeting in person where possible?	Yes ☐	No ☐	N/A☒
Comments: N/A			

* BART – Best Available Retrofit Technology

NYSDEC
Division of Environmental Remediation

NEW YORK STATE | Department of Environmental Conservation

Contract No. D009806
DEC PM – J. Stefansky
Engineer PM – J. Oliver
Engineer Insp. – H. Bedell

Site Location: 2310 Monroe Ave, Brighton 14618

Weather Conditions

General Description	Cloudy	AM	Cloudy	PM
Temperature	24F	AM	27F	PM
Wind	13 mph W	AM	15 mph W	PM

Health & Safety
If any box below is checked "Yes", provide explanation under "Health & Safety Comments".

Were there any changes to the Health & Safety Plan?	*Yes	No X	NA
Were there any exceedances of the perimeter air monitoring reported on this date?	*Yes	No	NA X
Were there any nuisance issues reported/observed on this date?	*Yes	No X	NA

Health & Safety Comments

NA

Summary of Work Performed | Arrived at site: 0745 | Departed Site: 1315

(0745) H. Bedell (EA) onsite for groundwater sampling. (0815) M. Gilkey and C. Derrick (EA) onsite. (0820) EA calibrates PID and Horibas. (0900) Begin purging and sampling wells. Groundwater sampling includes PFAS sampling at all wells. Therefore, a site wide gauging event will be performed at the end of the sampling event to prevent PFAS contamination prior to sampling. All wells that were sampled had 3/8" OD HDPE tubing placed in the wells. Purge and sample times are presented in the table below. (1145) Gauged onsite wells. (1215) Gauged offsite wells. (1315) M. Gilkey, H. Bedell, and C. Derrick (EA) offsite.

Well ID	Sample Date	Purge Start Time	Sample Time	QA/QC	DRY?
MW-13	11/27/2023	0953	1028	MS/MSD	No
MW-13B	11/27/2023	1109	1136		No
DP-15	11/27/2023	0850	0927		No
DP-17	11/27/2023	1042	1145		No
GEMW-2	11/27/2023	0909	1515		Yes
MW-2	11/27/2023	1214	1242	FD-01	No
MW-17B	11/27/2023	1244	1330		No
MW-1	11/27/2023	1416	1453		No
DP-10	11/28/2023	1406	1140		Yes
DP-21	11/28/2023	0900	0924		No
MW-21B	11/28/2023	0940	1007		No
DP-19	11/28/2023	0911	0944		No
MW-19B	11/28/2023	1007	1034		No
DP-20	NA	1103	--		Yes

Equipment/Material Tracking
If any box below is checked "Yes", provide explanation under "Material Tracking Comments".

Were there any vehicles which did not display proper D.O.T numbers and placards?	*Yes	No	NA X
Were there any vehicles which were not tarped?	* Yes	No	NA X
Were there any vehicles which were not decontaminated prior to exiting the work site?	* Yes	No	NA X

Personnel and Equipment

Individual	Company	Trade	Total Hours
Moriah Gilkey	EA	Engineer	5.0
Hannah Bedell	EA	Engineer	5.5
Cassandra Derrick	EA	Geologist	5.0

Equipment Description	Contractor/Vendor	Quantity	Used

Horiba	Pine Environmental	2	Y
Honeywell MiniRAE	Pine Environmental	1	Y
Peristaltic Pumps	Pine Environmental	2	Y
Heron Water Level Meters	Pine Environmental	2	N
Hand Tools	EA	NA	Y
Chevy Silverado	Enterprise	2	Y

Material Description	Imported/ Delivered to Site	Exported off Site	Waste Profile (If Applicable)	Source or Disposal Facility (If Applicable)	Daily Loads	Daily Weight (tons)*

*On-Site scale for off-site shipment, delivery ticket for material received

Equipment/Material Tracking Comments:

Visitors to Site

Name	Representing	Entered Exclusion/CRZ Zone	
None		**Yes**	**No**
		Yes	**No**

Site Representatives

Name	Representing
Moriah Gilkey	**EA**
Hannah Bedell	**EA**

Project Schedule Comments

None.

Issues Pending

- None.

Interaction with Public, Property Owners, Media, etc.

None.

Site Photographs (Descriptions Below)



Former excavation area looking west



Former excavation area looking east



Purge water drums in back west corner of the site



Labeled drums with purge water

Site Inspector(s): Moriah Gilkey, Hannah Bedell

Date: 11/28/23

Videos of discreet operations have been provided to the DEC Project Manager to facilitate understanding of the ongoing work? Yes ☐ No ☐ N/A ☒

REMEDIAL ACTIVITIES AT PROPERTIES

1. Does anyone at this location have any symptoms of a respiratory infection (e.g., cough, sore throat, fever, or shortness of breath)?	Yes ☐	No ☒
2. Have anyone at this location been tested and confirmed to have COVID-19?	Yes ☐	No ☒
3. Were personal protective gloves, masks, and eye protection being used?	Yes ☐	No ☒
4. Does the Department and its contractors have your permission to enter the property at this time?	Yes ☐	No ☐
5. If Yes to 1 or 2, follow the latest NYSDOH COVID-19 guidance: https://coronavirus.health.ny.gov/home	Yes ☐	No ☐
Comments: N/A		

ON-SITE WASTE STORAGE

Drums, roll offs and piles are staged in secure areas?	Yes ☐	No ☐	N/A☒
Liners and berms have been installed if necessary to prevent cross contamination of clean areas?	Yes ☐	No ☐	N/A☒
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Complying with RCRA 90 day storage limitation for hazardous waste?	Yes ☐	No ☐	N/A☒
Piles are securely covered when not in use?	Yes ☐	No ☐	N/A☒
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Comments: NA			

NUISANCE CHECKLIST

Were there any community complaints related to work on this date?	Yes ☐	No ☒	N/A☐
Were there any odors detected on this date?	Yes ☐	No ☒	N/A☐
Was noise outside specification and/or above background on this date?	Yes ☐	No ☒	N/A☐
Were vibration readings outside specification and/or above background on this date?	Yes ☐	No ☐	N/A☒
Any visible dust observed beyond the work perimeter on this date?	Yes ☐	No ☐	N/A☒
Any visible contrast (turbidity) beyond engineering controls observed on this date?	Yes ☐	No ☐	N/A☒
Was turbidity checked at the outfall(s)?	AM ☐	PM ☐	N/A☒
Were any property owners NOT provided advance notice for work performed on this property on this date?	Yes ☐	No ☐	N/A☒

Was the temporary fabric structure closed at the end of the day?	Yes ☐	No ☐	N/A☒
Has Contractor failed to protect all foundations and structures adjacent to and adjoining the site which are affected by the excavations or other operations connected with performance of the Work?	Yes ☐	No ☐	N/A☒
If yes, has Contractor been notified?	Yes ☐	No ☐	N/A☒
Comments: N/A			

RESILIENCE/GREEN REMEDIATION CHECKLIST

Is site power procured from renewable energy sources (e.g., solar, wind, geothermal, biomass and biogas)?	Yes ☐	No ☐	N/A☒
Is the Contractor employing 2007 or newer or retrofitted (BART*) diesel on-road trucks and non-road equipment?	Yes ☐	No ☐	N/A☒
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Has Contractor been notified of any deficiencies?	Yes ☐	No ☐	N/A☒
Are remote/call in job meetings being held in lieu of meeting in person where possible?	Yes ☐	No ☐	N/A☒
Comments: N/A			

* BART – Best Available Retrofit Technology

Appendix C

Laboratory Reports

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The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

EA Engineering

NYSDEC Town and Country Cleaners, NY

NYSDEC 828149/EA 1602534/0020

SGS Job Number: JD77815

Sampling Dates: 11/27/23 - 11/28/23



Report to:

EA Engineering
269 West Jefferson Street
Syracuse, NY 13202
mgilkey@EAEst.com; joliver@eaest.com;
kkatzer@eaest.com
ATTN: Moriah Gilkey

Total number of pages in report: **100**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

David Chastain
General Manager

Client Service contact: Kelly Ramos 732-329-0200
Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA(68-00408), RI, SC, TX, UT, VA, WV

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Test results relate only to samples analyzed.

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

EA Engineering

Job No: JD77815

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC 828149/EA 1602534/0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD77815-1	11/27/23	14:53	HB	11/30/23	AQ	Ground Water	828149-MW-1-20231127
JD77815-2	11/27/23	12:42	HB	11/30/23	AQ	Ground Water	828149-MW-2-20231127
JD77815-3	11/27/23	13:40	HB	11/30/23	AQ	Ground Water	828149-MW-3-20231127
JD77815-4	11/28/23	11:40	MG	11/30/23	AQ	Ground Water	828149-DP-10-20231128
JD77815-5	11/27/23	10:28	HB	11/30/23	AQ	Ground Water	828149-MW-13-20231127
JD77815-5D	11/27/23	10:28	HB	11/30/23	AQ	Water Dup/MSD	828149-MW-13-20231127
JD77815-5S	11/27/23	10:28	HB	11/30/23	AQ	Water Matrix Spike	828149-MW-13-20231127
JD77815-6	11/27/23	11:36	HB	11/30/23	AQ	Ground Water	828149-MW-13B-20231127
JD77815-7	11/27/23	09:27	HB	11/30/23	AQ	Ground Water	828149-DP-15-20231127
JD77815-8	11/27/23	11:45	MG	11/30/23	AQ	Ground Water	828149-DP-17-20231127
JD77815-9	11/27/23	13:30	MG	11/30/23	AQ	Ground Water	828149-MW-17B-20231127
JD77815-10	11/27/23	10:12	MG	11/30/23	AQ	Ground Water	828149-DP-18-20231127

Sample Summary
(continued)

EA Engineering

Job No: JD77815

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC 828149/EA 1602534/0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JD77815-11	11/28/23	09:44	MG	11/30/23	AQ	Ground Water	828149-DP-19-20231128
JD77815-12	11/28/23	10:34	MG	11/30/23	AQ	Ground Water	828149-MW-19B-20231128
JD77815-13	11/28/23	09:24	HB	11/30/23	AQ	Ground Water	828149-DP-21-20231128
JD77815-14	11/28/23	10:07	HB	11/30/23	AQ	Ground Water	828149-MW-21B-20231128
JD77815-15	11/28/23	15:15	MG	11/30/23	AQ	Ground Water	828149-GEMW-2-20231128
JD77815-16	11/27/23	00:00		11/30/23	AQ	Ground Water	828149-FD-01-20231127
JD77815-17	11/27/23	14:45	MG	11/30/23	AQ	Field Blank Water	828149-FB-1-20231127
JD77815-18	11/28/23	14:40	MG	11/30/23	AQ	Field Blank Water	828149-FB-2-20231128
JD77815-19	11/28/23	15:15		11/30/23	AQ	Trip Blank Water	828149-TB-20231128

Summary of Hits

Job Number: JD77815
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD77815-1	**828149-MW-1-20231127**					
cis-1,2-Dichloroethene [a]		27.6	10	5.1	ug/l	SW846 8260D
Tetrachloroethene [b]		2570	100	56	ug/l	SW846 8260D
Trichloroethene [a]		21.1	10	5.3	ug/l	SW846 8260D
JD77815-2	**828149-MW-2-20231127**					
cis-1,2-Dichloroethene		21.1	1.0	0.51	ug/l	SW846 8260D
Tetrachloroethene		65.2	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		17.5	1.0	0.53	ug/l	SW846 8260D
JD77815-3	**828149-MW-3-20231127**					
cis-1,2-Dichloroethene [c]		1210	20	10	ug/l	SW846 8260D
Tetrachloroethene [c]		3220	20	11	ug/l	SW846 8260D
Trichloroethene [c]		475	20	11	ug/l	SW846 8260D
Vinyl chloride [c]		52.9	20	10	ug/l	SW846 8260D
JD77815-4	**828149-DP-10-20231128**					
cis-1,2-Dichloroethene [d]		121	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene [d]		0.61 J	1.0	0.54	ug/l	SW846 8260D
Tetrachloroethene [e]		302	10	5.6	ug/l	SW846 8260D
Trichloroethene [d]		67.2	1.0	0.53	ug/l	SW846 8260D
JD77815-5	**828149-MW-13-20231127**					
cis-1,2-Dichloroethene [c]		195	5.0	2.5	ug/l	SW846 8260D
Tetrachloroethene		1130	50	28	ug/l	SW846 8260D
Trichloroethene [c]		71.8	5.0	2.6	ug/l	SW846 8260D
JD77815-6	**828149-MW-13B-20231127**					
cis-1,2-Dichloroethene		4.6	1.0	0.51	ug/l	SW846 8260D
Tetrachloroethene		3.0	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		2.3	1.0	0.53	ug/l	SW846 8260D
JD77815-7	**828149-DP-15-20231127**					
cis-1,2-Dichloroethene [c]		129	10	5.1	ug/l	SW846 8260D
Tetrachloroethene		2300	100	56	ug/l	SW846 8260D
Trichloroethene [c]		103	10	5.3	ug/l	SW846 8260D

Summary of Hits

Job Number: JD77815
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD77815-8	**828149-DP-17-20231127**					
No hits reported in this sample.						
JD77815-9	**828149-MW-17B-20231127**					
No hits reported in this sample.						
JD77815-10	**828149-DP-18-20231127**					
cis-1,2-Dichloroethene [b]		1.2	1.0	0.51	ug/l	SW846 8260D
Tetrachloroethene [b]		4.0	1.0	0.56	ug/l	SW846 8260D
Trichloroethene [b]		1.8	1.0	0.53	ug/l	SW846 8260D
JD77815-11	**828149-DP-19-20231128**					
cis-1,2-Dichloroethene		15.8	1.0	0.51	ug/l	SW846 8260D
Tetrachloroethene		52.9	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		13.8	1.0	0.53	ug/l	SW846 8260D
JD77815-12	**828149-MW-19B-20231128**					
cis-1,2-Dichloroethene		19.3	1.0	0.51	ug/l	SW846 8260D
Tetrachloroethene		12.9	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		9.4	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		0.82 J	1.0	0.52	ug/l	SW846 8260D
JD77815-13	**828149-DP-21-20231128**					
Chloroform		8.2	1.0	0.50	ug/l	SW846 8260D
Tetrachloroethene		2.4	1.0	0.56	ug/l	SW846 8260D
JD77815-14	**828149-MW-21B-20231128**					
Chloroform		2.0	1.0	0.50	ug/l	SW846 8260D
Tetrachloroethene		6.4	1.0	0.56	ug/l	SW846 8260D
JD77815-15	**828149-GEMW-2-20231128**					
Tetrachloroethene		71.0	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		1.3	1.0	0.53	ug/l	SW846 8260D
JD77815-16	**828149-FD-01-20231127**					
cis-1,2-Dichloroethene		21.2	1.0	0.51	ug/l	SW846 8260D

Summary of Hits

Job Number: JD77815
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Tetrachloroethene		70.3	1.0	0.56	ug/l	SW846 8260D
Trichloroethene		17.6	1.0	0.53	ug/l	SW846 8260D

JD77815-17 828149-FB-1-20231127

No hits reported in this sample.

JD77815-18 828149-FB-2-20231128

No hits reported in this sample.

JD77815-19 828149-TB-20231128

No hits reported in this sample.

(a) (pH= 6)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of target compound.
(b) (pH= 6)Sample pH did not satisfy field preservation criteria.
(c) Dilution required due to high concentration of target compound.
(d) (pH= 4)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of target compound.
(e) (pH= 4)Sample pH did not satisfy field preservation criteria.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	828149-MW-1-20231127		
Lab Sample ID:	JD77815-1	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2N5907.D	10	12/04/23 13:43	LD	n/a	n/a	V2N159
Run #2 [b]	2N5921.D	100	12/04/23 16:56	LD	n/a	n/a	V2N159

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	31	ug/l	
71-43-2	Benzene	ND	5.0	4.3	ug/l	
74-97-5	Bromochloromethane	ND	10	4.8	ug/l	
75-27-4	Bromodichloromethane	ND	10	4.5	ug/l	
75-25-2	Bromoform	ND	10	6.3	ug/l	
74-83-9	Bromomethane [c]	ND	20	16	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	27	ug/l	
75-15-0	Carbon disulfide	ND	20	18	ug/l	
56-23-5	Carbon tetrachloride	ND	10	5.5	ug/l	
108-90-7	Chlorobenzene	ND	10	5.6	ug/l	
75-00-3	Chloroethane	ND	10	7.3	ug/l	
67-66-3	Chloroform	ND	10	5.0	ug/l	
74-87-3	Chloromethane [c]	ND	10	7.6	ug/l	
110-82-7	Cyclohexane	ND	50	7.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	5.3	ug/l	
124-48-1	Dibromochloromethane	ND	10	5.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	4.8	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	5.3	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	5.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	5.1	ug/l	
75-71-8	Dichlorodifluoromethane [c]	ND	20	5.6	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	5.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	6.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	5.9	ug/l	
156-59-2	cis-1,2-Dichloroethene	27.6	10	5.1	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	5.4	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	5.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	4.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	4.3	ug/l	
100-41-4	Ethylbenzene	ND	10	6.0	ug/l	
76-13-1	Freon 113	ND	50	5.8	ug/l	
591-78-6	2-Hexanone	ND	50	48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-1-20231127		
Lab Sample ID:	JD77815-1	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	10	6.5	ug/l	
79-20-9	Methyl Acetate	ND	50	8.0	ug/l	
108-87-2	Methylcyclohexane	ND	50	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	5.1	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	49	ug/l	
75-09-2	Methylene chloride	ND	20	10	ug/l	
100-42-5	Styrene	ND	10	4.9	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	6.5	ug/l	
127-18-4	Tetrachloroethene	2570 [d]	100	56	ug/l	
108-88-3	Toluene	ND	10	4.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	5.4	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	5.3	ug/l	
79-01-6	Trichloroethene	21.1	10	5.3	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	10	5.2	ug/l	
	m,p-Xylene	ND	10	7.8	ug/l	
95-47-6	o-Xylene	ND	10	5.9	ug/l	
1330-20-7	Xylene (total)	ND	10	5.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	99%	80-120%
2037-26-5	Toluene-D8	101%	101%	80-120%
460-00-4	4-Bromofluorobenzene	99%	100%	82-114%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of target compound.
(b) (pH= 6)Sample pH did not satisfy field preservation criteria.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-1-20231127
Lab Sample ID: JD77815-1
Matrix: AQ - Ground Water
Method: SW846 8270E BY SIM SW846 3510C
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120623.D	1	12/05/23 15:19	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		23-127%
321-60-8	2-Fluorobiphenyl	71%		23-114%
1718-51-0	Terphenyl-d14	66%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-2-20231127		
Lab Sample ID:	JD77815-2	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1N5908.D	1	12/04/23 13:57	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	21.1	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-2-20231127		
Lab Sample ID:	JD77815-2	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	65.2	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-2-20231127		
Lab Sample ID:	JD77815-2	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120624.D	1	12/05/23 15:43	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		23-127%
321-60-8	2-Fluorobiphenyl	67%		23-114%
1718-51-0	Terphenyl-d14	54%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-3-20231127		
Lab Sample ID:	JD77815-3	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1N5914.D	20	12/04/23 15:19	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	200	61	ug/l	
71-43-2	Benzene	ND	10	8.5	ug/l	
74-97-5	Bromochloromethane	ND	20	9.6	ug/l	
75-27-4	Bromodichloromethane	ND	20	9.0	ug/l	
75-25-2	Bromoform	ND	20	13	ug/l	
74-83-9	Bromomethane [b]	ND	40	33	ug/l	
78-93-3	2-Butanone (MEK)	ND	200	55	ug/l	
75-15-0	Carbon disulfide	ND	40	36	ug/l	
56-23-5	Carbon tetrachloride	ND	20	11	ug/l	
108-90-7	Chlorobenzene	ND	20	11	ug/l	
75-00-3	Chloroethane	ND	20	15	ug/l	
67-66-3	Chloroform	ND	20	10	ug/l	
74-87-3	Chloromethane [b]	ND	20	15	ug/l	
110-82-7	Cyclohexane	ND	100	16	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	11	ug/l	
124-48-1	Dibromochloromethane	ND	20	11	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	9.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	20	11	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	20	11	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	10	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	40	11	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	11	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	12	ug/l	
75-35-4	1,1-Dichloroethene	ND	20	12	ug/l	
156-59-2	cis-1,2-Dichloroethene	1210	20	10	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	20	11	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	10	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	20	9.4	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	20	8.6	ug/l	
100-41-4	Ethylbenzene	ND	20	12	ug/l	
76-13-1	Freon 113	ND	100	12	ug/l	
591-78-6	2-Hexanone	ND	100	96	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-3-20231127		
Lab Sample ID:	JD77815-3	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	20	13	ug/l	
79-20-9	Methyl Acetate	ND	100	16	ug/l	
108-87-2	Methylcyclohexane	ND	100	12	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	20	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	100	97	ug/l	
75-09-2	Methylene chloride	ND	40	20	ug/l	
100-42-5	Styrene	ND	20	9.7	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	13	ug/l	
127-18-4	Tetrachloroethene	3220	20	11	ug/l	
108-88-3	Toluene	ND	20	9.8	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	10	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	10	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	11	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	11	ug/l	
79-01-6	Trichloroethene	475	20	11	ug/l	
75-69-4	Trichlorofluoromethane	ND	40	8.0	ug/l	
75-01-4	Vinyl chloride	52.9	20	10	ug/l	
	m,p-Xylene	ND	20	16	ug/l	
95-47-6	o-Xylene	ND	20	12	ug/l	
1330-20-7	Xylene (total)	ND	20	12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) Dilution required due to high concentration of target compound.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-3-20231127		
Lab Sample ID:	JD77815-3	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120625.D	1	12/05/23 16:07	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	87%		23-127%
321-60-8	2-Fluorobiphenyl	75%		23-114%
1718-51-0	Terphenyl-d14	58%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-10-20231128		
Lab Sample ID:	JD77815-4	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1N5916.D	1	12/04/23 15:47	LD	n/a	n/a	V1N159
Run #2 [b]	1N5922.D	10	12/04/23 17:09	LD	n/a	n/a	V1N159

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [c]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [c]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [c]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	121	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.61	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-10-20231128		
Lab Sample ID:	JD77815-4	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	302 [d]	10	5.6	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	67.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	80-120%
2037-26-5	Toluene-D8	102%	101%	80-120%
460-00-4	4-Bromofluorobenzene	100%	100%	82-114%

(a) (pH= 4)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of target compound.
(b) (pH= 4)Sample pH did not satisfy field preservation criteria.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(d) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-10-20231128		
Lab Sample ID:	JD77815-4	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120626.D	1	12/05/23 16:31	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		23-127%
321-60-8	2-Fluorobiphenyl	54%		23-114%
1718-51-0	Terphenyl-d14	39%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13-20231127		
Lab Sample ID:	JD77815-5	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1N5906.D	5	12/04/23 13:29	LD	n/a	n/a	V1N159
Run #2	1N5924.D	50	12/04/23 17:37	LD	n/a	n/a	V1N159

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/l	
71-43-2	Benzene	ND	2.5	2.1	ug/l	
74-97-5	Bromochloromethane	ND	5.0	2.4	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	2.3	ug/l	
75-25-2	Bromoform	ND	5.0	3.2	ug/l	
74-83-9	Bromomethane [b]	ND	10	8.2	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	14	ug/l	
75-15-0	Carbon disulfide	ND	10	9.0	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	2.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.8	ug/l	
75-00-3	Chloroethane	ND	5.0	3.6	ug/l	
67-66-3	Chloroform	ND	5.0	2.5	ug/l	
74-87-3	Chloromethane [b]	ND	5.0	3.8	ug/l	
110-82-7	Cyclohexane	ND	25	3.9	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.6	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	2.8	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	2.4	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.7	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.7	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	10	2.8	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	2.8	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	3.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	3.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	195	5.0	2.5	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	2.7	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.5	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	2.4	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	2.2	ug/l	
100-41-4	Ethylbenzene	ND	5.0	3.0	ug/l	
76-13-1	Freon 113	ND	25	2.9	ug/l	
591-78-6	2-Hexanone	ND	25	24	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13-20231127		
Lab Sample ID:	JD77815-5	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	5.0	3.2	ug/l	
79-20-9	Methyl Acetate	ND	25	4.0	ug/l	
108-87-2	Methylcyclohexane	ND	25	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	25	24	ug/l	
75-09-2	Methylene chloride	ND	10	5.0	ug/l	
100-42-5	Styrene	ND	5.0	2.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	3.3	ug/l	
127-18-4	Tetrachloroethene	1130 [c]	50	28	ug/l	
108-88-3	Toluene	ND	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	2.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	2.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	2.7	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.7	ug/l	
79-01-6	Trichloroethene	71.8	5.0	2.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	5.0	2.6	ug/l	
	m,p-Xylene	ND	5.0	3.9	ug/l	
95-47-6	o-Xylene	ND	5.0	3.0	ug/l	
1330-20-7	Xylene (total)	ND	5.0	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	102%	80-120%
2037-26-5	Toluene-D8	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	101%	82-114%

(a) Dilution required due to high concentration of target compound.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(c) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-13-20231127
Lab Sample ID: JD77815-5
Matrix: AQ - Ground Water
Method: SW846 8270E BY SIM SW846 3510C
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120627.D	1	12/05/23 16:54	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	87%		23-127%
321-60-8	2-Fluorobiphenyl	74%		23-114%
1718-51-0	Terphenyl-d14	56%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13B-20231127		
Lab Sample ID:	JD77815-6	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5909.D	1	12/04/23 14:10	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13B-20231127		
Lab Sample ID:	JD77815-6	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	3.0	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.3	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	99%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13B-20231127		
Lab Sample ID:	JD77815-6	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120628.D	1	12/05/23 17:18	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	86%		23-127%
321-60-8	2-Fluorobiphenyl	74%		23-114%
1718-51-0	Terphenyl-d14	49%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-15-20231127		
Lab Sample ID:	JD77815-7	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2N5915.D	10	12/04/23 15:33	LD	n/a	n/a	V2N159
Run #2	1N6008.D	100	12/05/23 13:55	LD	n/a	n/a	V1N161

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	31	ug/l	
71-43-2	Benzene	ND	5.0	4.3	ug/l	
74-97-5	Bromochloromethane	ND	10	4.8	ug/l	
75-27-4	Bromodichloromethane	ND	10	4.5	ug/l	
75-25-2	Bromoform	ND	10	6.3	ug/l	
74-83-9	Bromomethane [b]	ND	20	16	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	27	ug/l	
75-15-0	Carbon disulfide	ND	20	18	ug/l	
56-23-5	Carbon tetrachloride	ND	10	5.5	ug/l	
108-90-7	Chlorobenzene	ND	10	5.6	ug/l	
75-00-3	Chloroethane	ND	10	7.3	ug/l	
67-66-3	Chloroform	ND	10	5.0	ug/l	
74-87-3	Chloromethane [b]	ND	10	7.6	ug/l	
110-82-7	Cyclohexane	ND	50	7.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	5.3	ug/l	
124-48-1	Dibromochloromethane	ND	10	5.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	4.8	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	5.3	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	5.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	5.1	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	20	5.6	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	5.7	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	6.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	5.9	ug/l	
156-59-2	cis-1,2-Dichloroethene	129	10	5.1	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	5.4	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	5.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	4.7	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	4.3	ug/l	
100-41-4	Ethylbenzene	ND	10	6.0	ug/l	
76-13-1	Freon 113	ND	50	5.8	ug/l	
591-78-6	2-Hexanone	ND	50	48	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-15-20231127		
Lab Sample ID:	JD77815-7	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	10	6.5	ug/l	
79-20-9	Methyl Acetate	ND	50	8.0	ug/l	
108-87-2	Methylcyclohexane	ND	50	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	5.1	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	49	ug/l	
75-09-2	Methylene chloride	ND	20	10	ug/l	
100-42-5	Styrene	ND	10	4.9	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	6.5	ug/l	
127-18-4	Tetrachloroethene	2300 [c]	100	56	ug/l	
108-88-3	Toluene	ND	10	4.9	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	5.4	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	5.3	ug/l	
79-01-6	Trichloroethene	103	10	5.3	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	10	5.2	ug/l	
	m,p-Xylene	ND	10	7.8	ug/l	
95-47-6	o-Xylene	ND	10	5.9	ug/l	
1330-20-7	Xylene (total)	ND	10	5.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	102%	96%	80-120%
2037-26-5	Toluene-D8	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	99%	82-114%

(a) Dilution required due to high concentration of target compound.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(c) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-15-20231127		
Lab Sample ID:	JD77815-7	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120629.D	1	12/05/23 17:41	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		23-127%
321-60-8	2-Fluorobiphenyl	61%		23-114%
1718-51-0	Terphenyl-d14	50%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-17-20231127		
Lab Sample ID:	JD77815-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1N5910.D	1	12/04/23 14:24	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-17-20231127		
Lab Sample ID:	JD77815-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	101%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-17-20231127		
Lab Sample ID:	JD77815-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120630.D	1	12/05/23 18:04	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		23-127%
321-60-8	2-Fluorobiphenyl	69%		23-114%
1718-51-0	Terphenyl-d14	45%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-17B-20231127		
Lab Sample ID:	JD77815-9	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5911.D	1	12/04/23 14:38	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-17B-20231127		
Lab Sample ID:	JD77815-9	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		80-120%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	98%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-17B-20231127
Lab Sample ID: JD77815-9
Matrix: AQ - Ground Water
Method: SW846 8270E BY SIM SW846 3510C
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120631.D	1	12/05/23 18:27	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		23-127%
321-60-8	2-Fluorobiphenyl	64%		23-114%
1718-51-0	Terphenyl-d14	48%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77815-10	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1N5912.D	1	12/04/23 14:52	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [b]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.2	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77815-10	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	4.0	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	1.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		80-120%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77815-10	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120632.D	1	12/05/23 18:50	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		23-127%
321-60-8	2-Fluorobiphenyl	65%		23-114%
1718-51-0	Terphenyl-d14	49%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77815-11	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5913.D	1	12/04/23 15:06	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	15.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77815-11	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	52.9	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	13.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		80-120%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	98%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77815-11	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120633.D	1	12/05/23 19:13	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	88%		23-127%
321-60-8	2-Fluorobiphenyl	74%		23-114%
1718-51-0	Terphenyl-d14	59%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-19B-20231128		
Lab Sample ID:	JD77815-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5927.D	1	12/04/23 18:18	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	19.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-19B-20231128		
Lab Sample ID:	JD77815-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	12.9	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	9.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	0.82	1.0	0.52	ug/l	J
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		80-120%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-19B-20231128		
Lab Sample ID:	JD77815-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120634.D	1	12/05/23 19:35	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	102%		23-127%
321-60-8	2-Fluorobiphenyl	85%		23-114%
1718-51-0	Terphenyl-d14	68%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-21-20231128		
Lab Sample ID:	JD77815-13	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1N5928.D	1	12/04/23 18:32	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	8.2	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-21-20231128		
Lab Sample ID:	JD77815-13	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	2.4	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-DP-21-20231128
Lab Sample ID: JD77815-13
Matrix: AQ - Ground Water
Method: SW846 8270E BY SIM SW846 3510C
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120635.D	1	12/05/23 19:58	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	91%		23-127%
321-60-8	2-Fluorobiphenyl	75%		23-114%
1718-51-0	Terphenyl-d14	57%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-21B-20231128		
Lab Sample ID:	JD77815-14	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5929.D	1	12/04/23 18:46	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	2.0	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-21B-20231128		
Lab Sample ID:	JD77815-14	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	6.4	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-21B-20231128
Lab Sample ID: JD77815-14
Matrix: AQ - Ground Water
Method: SW846 8270E BY SIM SW846 3510C
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120636.D	1	12/05/23 20:21	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		23-127%
321-60-8	2-Fluorobiphenyl	60%		23-114%
1718-51-0	Terphenyl-d14	73%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-GEMW-2-20231128		
Lab Sample ID:	JD77815-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1N5930.D	1	12/04/23 18:59	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-GEMW-2-20231128		
Lab Sample ID:	JD77815-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	71.0	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	1.3	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		80-120%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	102%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-GEMW-2-20231128		
Lab Sample ID:	JD77815-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120637.D	1	12/05/23 20:44	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		23-127%
321-60-8	2-Fluorobiphenyl	55%		23-114%
1718-51-0	Terphenyl-d14	52%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77815-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5931.D	1	12/04/23 19:13	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	21.2	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77815-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	70.3	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		80-120%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77815-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120638.D	1	12/05/23 21:06	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	84%		23-127%
321-60-8	2-Fluorobiphenyl	68%		23-114%
1718-51-0	Terphenyl-d14	62%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-FB-1-20231127
Lab Sample ID: JD77815-17
Matrix: AQ - Field Blank Water
Method: SW846 8260D
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5903.D	1	12/04/23 12:48	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-1-20231127		
Lab Sample ID:	JD77815-17	**Date Sampled:**	11/27/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	99%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-1-20231127		
Lab Sample ID:	JD77815-17	**Date Sampled:**	11/27/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120639.D	1	12/05/23 21:29	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		23-127%
321-60-8	2-Fluorobiphenyl	55%		23-114%
1718-51-0	Terphenyl-d14	66%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-2-20231128		
Lab Sample ID:	JD77815-18	**Date Sampled:**	11/28/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1N5904.D	1	12/04/23 13:02	LD	n/a	n/a	V1N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-2-20231128		
Lab Sample ID:	JD77815-18	**Date Sampled:**	11/28/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	100%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-2-20231128		
Lab Sample ID:	JD77815-18	**Date Sampled:**	11/28/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	SW846 8270E BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4M120640.D	1	12/05/23 21:52	JY	12/04/23 07:50	OP50818A	E4M5646
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		23-127%
321-60-8	2-Fluorobiphenyl	62%		23-114%
1718-51-0	Terphenyl-d14	62%		10-121%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-TB-20231128		
Lab Sample ID:	JD77815-19	**Date Sampled:**	11/28/23
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2N5905.D	1	12/04/23 13:15	LD	n/a	n/a	V2N159
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-TB-20231128		
Lab Sample ID:	JD77815-19	**Date Sampled:**	11/28/23
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/30/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GW
FB
TB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200
www.sgs.com/ehsusa

7742-8319-8016 Page 1 of 2

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: JD77815

Client / Reporting Information

Company Name: EA Engineering
Street Address: 2614 W Jefferson St
City: Syracuse State: NY Zip: 13202
Project Contact: Josh Oliver E-mail: joliver@eaest.com
Phone #: 2158575793
Sampler(s) Name(s): Matthew Calkins 315 350 1346, Hannah Fedell 315 730 6972

Project Information

Project Name: Town & Country Dry Cleaner Site (828149)
Street: Monroe
City: Rochester State: NY
Project # (PM/SAP): 828149 / EA 16025341.0000
Client Purchase Order #:
Project Manager: Josh Oliver

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

VOCs - 8260 (3270 SIM)
1,4-Dioxane

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; ER - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH Vial #	Collection Date	Collection Time	Sampled by	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	pH Check (Lab Use Only)		LAB USE ONLY
1	828149 MW-1 20231127		11/27/23	1453	MB	5	3				2				X	X	
2	828149-MW-2-20231127		11/27/23	1242	MB	5	3				2				X	X	
3	828149-MW-3-20231127		11/27/23	1340	MB	5	3				2				X	X	
4	828149-DP-10 20231128		11/28/23	1140	MG	5	3				2				X	X	
5	828149-MW-13-20231127		11/27/23	1028	MB	15	9				6				X	X	
6	828149-MW-13B 20231127		11/27/23	1136	MB	5	3				2				X	X	
7	828149-DP-15-20231127		11/27/23	0927	MB	5	3				2				X	X	
8	828149-DP-17-20231127		11/27/23	1145	MG	5	3				2				X	X	
9	828149-MW-17B 20231127		11/27/23	1330	MG	5	3				2				X	X	
10	828149-DP-18 20231127		11/27/23	1012	MG	5	3				2				X	X	
11	828149-DP-19-20231128		11/28/23	0944	MG	5	3				2				X	X	
12	828149-MW-19B-20231128		11/28/23	1034	MG	5	3				2				X	X	

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

- [X] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via SGS Engage. * Approval needed for 1-3 BD TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [X] EDD Format NYSDEC V4

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

*Extra Volume provided w/ 828149-MW-13-20231127 for MS/MSD
*Chain Accounts for Assessment
4 coolers

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1 Matthew Calkins	11/29/23 1130	1	2	11/29/23 1700	2 Jeanne
3	Date / Time:	3	4	Date / Time:	4
5	Date / Time:	5	Custody Seal #	Intact / Not Intact / Absent	Therm ID: On Ice / Cooler Temp: °C

See Sample Receipt Summary

EHSA-QAC-0023-05 Rev Date 8-5-22

7.0, 5.0, 3.2, 4.0
2.2, 4.0 11.0

GW
FB
TB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200
www.sgs.com/ehsusa

Page 2 of 2

FED-EX Tracking #:
SGS Quote #:
SGS Job #: JD77815

Client / Reporting Information

Company Name: same as page 1
Street Address:
City / State / Zip:
Project Contact: E-mail:
Phone #:
Sampler(s) Name(s): Phone #:

Project Information

Project Name:
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

VOCs - 8260C (8270 SIM) 1,4-Dioxane

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SOL - Miscellaneous Solid
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH Vial #	Collection Date	Collection Time	Sampled by	Grab (G) or Comp (C)	Source Code (Drinking Water Only)	Matrix	Number of Bottles: # of bottles	HCl	NaOH	HNO3	H2SO4	None	DI Water	MeOH	Encore	pH Check (Lab Use Only)		LAB USE ONLY
~~823149-DP-20-20231128~~		(MW)																		
13	823149-DP-21-20231128		11/28/23	0924	MG	G		GW	5	3				2				X	X	
14	823149-MW-28-20231128		11/28/23	1007	MG	G		GW	5	3				2				X	X	
15	823149-DEMW-2-20231128		11/28/23	1515	MG	G		GW	5	3				2				X	X	
16	823149-FD-01-20231127		11/27/23	—	—	G		GW	5	3				2				X	X	
17	823149-FB-1-20231127		11/27/23	1445	MG	FB		FB	4	2				2				X	X	
18	823149-FB-2-20231128		11/28/23	1440	MG	FB		FB	4	2				2				X	X	
19	823149-TB-20231128		Lab Prepped						3	3								X		

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

- [X] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via SGS Engage

* Approval needed for 1-3 BD TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [X] EDD Format NYSDEC V4

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions:

- Extra Volume included w/ 823149-MW-13-20231127 for MS/MSD
- Chain Accounts for 4 coolers

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1	Michael Dolkey	11/29/23 1130	Fedex	Fedex	11/30/23 10:50	Jcanning
2						
3						
4						
5						

Custody Seal #: [ ] Intact [ ] Not Intact [ ] Absent
Therm ID: On Ice: Cooler Temp: °C
Use Sample Receipt Summary

EHSA-QAC-0023-05 Rev Date 8/5/22

SGS Sample Receipt Summary

Job Number: JD77815 **Client:** EA ENGINEERING **Project:** TOWN & COUNTRY DRY CLEANER SITE

Date / Time Received: 11/30/2023 10:50:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 774283198016

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0); Cooler 2: (4.0); Cooler 3: (4.0); Cooler 4: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.0); Cooler 2: (4.0); Cooler 3: (4.0); Cooler 4: (2.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	4		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2N159-MB	2N5899.D	1	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2N159-MB	2N5899.D	1	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	80-120%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	99%	82-114%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N159-MB	1N5900.D	1	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.7	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	4.8	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N159-MB	1N5900.D	1	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	4.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	
108-88-3	Toluene	ND	1.0	0.49	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.52	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	80-120%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	101%	82-114%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N161-MB	1N5996.D	1	12/05/23	LD	n/a	n/a	V1N161

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-7

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.56	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	80-120%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	99%	82-114%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N159-BS	1N5896.D	1	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	231	116	27-175
71-43-2	Benzene	50	48.2	96	80-115
74-97-5	Bromochloromethane	50	49.2	98	83-122
75-27-4	Bromodichloromethane	50	47.9	96	82-119
75-25-2	Bromoform	50	49.8	100	77-135
74-83-9	Bromomethane	50	32.3	65	40-162
78-93-3	2-Butanone (MEK)	200	225	113	61-150
75-15-0	Carbon disulfide	50	48.0	96	64-130
56-23-5	Carbon tetrachloride	50	50.5	101	75-127
108-90-7	Chlorobenzene	50	47.0	94	80-115
75-00-3	Chloroethane	50	46.4	93	56-144
67-66-3	Chloroform	50	45.2	90	75-116
74-87-3	Chloromethane	50	39.3	79	41-153
110-82-7	Cyclohexane	50	50.6	101	66-129
96-12-8	1,2-Dibromo-3-chloropropane	50	49.4	99	69-134
124-48-1	Dibromochloromethane	50	48.7	97	81-123
106-93-4	1,2-Dibromoethane	50	49.0	98	67-138
95-50-1	1,2-Dichlorobenzene	50	45.4	91	81-117
541-73-1	1,3-Dichlorobenzene	50	46.3	93	81-115
106-46-7	1,4-Dichlorobenzene	50	46.9	94	80-114
75-71-8	Dichlorodifluoromethane	50	38.7	77	43-152
75-34-3	1,1-Dichloroethane	50	48.5	97	75-125
107-06-2	1,2-Dichloroethane	50	45.5	91	73-117
75-35-4	1,1-Dichloroethene	50	50.8	102	70-124
156-59-2	cis-1,2-Dichloroethene	50	46.9	94	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.8	96	77-121
78-87-5	1,2-Dichloropropane	50	47.8	96	79-121
10061-01-5	cis-1,3-Dichloropropene	50	51.9	104	83-123
10061-02-6	trans-1,3-Dichloropropene	50	51.4	103	83-122
100-41-4	Ethylbenzene	50	45.6	91	78-116
76-13-1	Freon 113	50	48.3	97	68-134
591-78-6	2-Hexanone	200	208	104	66-136
98-82-8	Isopropylbenzene	50	47.5	95	78-121
79-20-9	Methyl Acetate	50	50.4	101	60-143
108-87-2	Methylcyclohexane	50	46.9	94	71-123
1634-04-4	Methyl Tert Butyl Ether	50	49.7	99	76-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N159-BS	1N5896.D	1	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	200	100	73-134
75-09-2	Methylene chloride	50	45.7	91	73-123
100-42-5	Styrene	50	49.1	98	81-125
79-34-5	1,1,2,2-Tetrachloroethane	50	48.9	98	73-126
127-18-4	Tetrachloroethene	50	46.6	93	73-119
108-88-3	Toluene	50	46.0	92	79-116
87-61-6	1,2,3-Trichlorobenzene	50	46.2	92	63-137
120-82-1	1,2,4-Trichlorobenzene	50	45.5	91	68-135
71-55-6	1,1,1-Trichloroethane	50	49.8	100	76-124
79-00-5	1,1,2-Trichloroethane	50	48.3	97	83-117
79-01-6	Trichloroethene	50	48.6	97	80-118
75-69-4	Trichlorofluoromethane	50	46.3	93	67-134
75-01-4	Vinyl chloride	50	43.5	87	52-146
	m,p-Xylene	100	93.5	94	79-119
95-47-6	o-Xylene	50	46.8	94	81-119
1330-20-7	Xylene (total)	150	140	93	80-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	80-120%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	100%	82-114%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2N159-BS	2N5897.D	1	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	228	114	27-175
71-43-2	Benzene	50	47.0	94	80-115
74-97-5	Bromochloromethane	50	49.0	98	83-122
75-27-4	Bromodichloromethane	50	47.6	95	82-119
75-25-2	Bromoform	50	48.0	96	77-135
74-83-9	Bromomethane	50	31.1	62	40-162
78-93-3	2-Butanone (MEK)	200	226	113	61-150
75-15-0	Carbon disulfide	50	49.0	98	64-130
56-23-5	Carbon tetrachloride	50	50.6	101	75-127
108-90-7	Chlorobenzene	50	46.1	92	80-115
75-00-3	Chloroethane	50	46.1	92	56-144
67-66-3	Chloroform	50	45.7	91	75-116
74-87-3	Chloromethane	50	38.1	76	41-153
110-82-7	Cyclohexane	50	50.9	102	66-129
96-12-8	1,2-Dibromo-3-chloropropane	50	49.7	99	69-134
124-48-1	Dibromochloromethane	50	47.1	94	81-123
106-93-4	1,2-Dibromoethane	50	47.9	96	67-138
95-50-1	1,2-Dichlorobenzene	50	46.8	94	81-117
541-73-1	1,3-Dichlorobenzene	50	45.7	91	81-115
106-46-7	1,4-Dichlorobenzene	50	47.0	94	80-114
75-71-8	Dichlorodifluoromethane	50	39.0	78	43-152
75-34-3	1,1-Dichloroethane	50	48.7	97	75-125
107-06-2	1,2-Dichloroethane	50	44.1	88	73-117
75-35-4	1,1-Dichloroethene	50	50.4	101	70-124
156-59-2	cis-1,2-Dichloroethene	50	46.9	94	80-120
156-60-5	trans-1,2-Dichloroethene	50	49.4	99	77-121
78-87-5	1,2-Dichloropropane	50	46.8	94	79-121
10061-01-5	cis-1,3-Dichloropropene	50	49.7	99	83-123
10061-02-6	trans-1,3-Dichloropropene	50	51.2	102	83-122
100-41-4	Ethylbenzene	50	44.7	89	78-116
76-13-1	Freon 113	50	50.7	101	68-134
591-78-6	2-Hexanone	200	202	101	66-136
98-82-8	Isopropylbenzene	50	47.5	95	78-121
79-20-9	Methyl Acetate	50	51.7	103	60-143
108-87-2	Methylcyclohexane	50	45.8	92	71-123
1634-04-4	Methyl Tert Butyl Ether	50	48.4	97	76-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2N159-BS	2N5897.D	1	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	202	101	73-134
75-09-2	Methylene chloride	50	45.0	90	73-123
100-42-5	Styrene	50	48.3	97	81-125
79-34-5	1,1,2,2-Tetrachloroethane	50	48.8	98	73-126
127-18-4	Tetrachloroethene	50	47.1	94	73-119
108-88-3	Toluene	50	44.6	89	79-116
87-61-6	1,2,3-Trichlorobenzene	50	45.6	91	63-137
120-82-1	1,2,4-Trichlorobenzene	50	45.2	90	68-135
71-55-6	1,1,1-Trichloroethane	50	50.2	100	76-124
79-00-5	1,1,2-Trichloroethane	50	48.4	97	83-117
79-01-6	Trichloroethene	50	48.5	97	80-118
75-69-4	Trichlorofluoromethane	50	46.7	93	67-134
75-01-4	Vinyl chloride	50	42.6	85	52-146
	m,p-Xylene	100	92.4	92	79-119
95-47-6	o-Xylene	50	45.9	92	81-119
1330-20-7	Xylene (total)	150	138	92	80-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	80-120%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	82-114%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1N161-BS	1N5992.D	1	12/05/23	LD	n/a	n/a	V1N161

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
127-18-4	Tetrachloroethene	50	49.9	100	73-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	80-120%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	99%	82-114%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77881-19MS	1N6020.D	1	12/05/23	LD	n/a	n/a	V1N161
JD77881-19	1N6010.D	1	12/05/23	LD	n/a	n/a	V1N161

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-7

CAS No.	Compound	JD77881-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
127-18-4	Tetrachloroethene	3.8		50	55.9	104	58-132

CAS No.	Surrogate Recoveries	MS	JD77881-19	Limits
1868-53-7	Dibromofluoromethane	96%	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	94%	80-120%
2037-26-5	Toluene-D8	99%	101%	80-120%
460-00-4	4-Bromofluorobenzene	99%	100%	82-114%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77815-1MS [a]	2N5917.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1MSD [a]	2N5919.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1 [b]	2N5907.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1 [a]	2N5921.D	100	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	JD77815-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		2000	1390	70	2000	1320	66	5	22-134/19
71-43-2	Benzene	ND		500	505	101	500	488	98	3	49-137/12
74-97-5	Bromochloromethane	ND		500	510	102	500	496	99	3	78-122/12
75-27-4	Bromodichloromethane	ND		500	512	102	500	494	99	4	76-121/12
75-25-2	Bromoform	ND		500	506	101	500	486	97	4	70-133/13
74-83-9	Bromomethane	ND		500	256	51	500	297	59	15	27-164/38
78-93-3	2-Butanone (MEK)	ND		2000	1840	92	2000	1790	90	3	52-137/17
75-15-0	Carbon disulfide	ND		500	501	100	500	486	97	3	54-136/16
56-23-5	Carbon tetrachloride	ND		500	517	103	500	501	100	3	70-132/13
108-90-7	Chlorobenzene	ND		500	491	98	500	476	95	3	68-123/12
75-00-3	Chloroethane	ND		500	461	92	500	437	87	5	48-152/17
67-66-3	Chloroform	ND		500	512	102	500	481	96	6	68-120/13
74-87-3	Chloromethane	ND		500	354	71	500	348	70	2	35-156/18
110-82-7	Cyclohexane	ND		500	461	92	500	443	89	4	53-146/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		500	520	104	500	499	100	4	63-134/16
124-48-1	Dibromochloromethane	ND		500	490	98	500	475	95	3	75-122/12
106-93-4	1,2-Dibromoethane	ND		500	500	100	500	489	98	2	63-134/12
95-50-1	1,2-Dichlorobenzene	ND		500	503	101	500	472	94	6	74-119/12
541-73-1	1,3-Dichlorobenzene	ND		500	496	99	500	465	93	6	75-117/12
106-46-7	1,4-Dichlorobenzene	ND		500	491	98	500	462	92	6	72-117/12
75-71-8	Dichlorodifluoromethane	ND		500	344	69	500	353	71	3	34-163/16
75-34-3	1,1-Dichloroethane	ND		500	522	104	500	506	101	3	68-129/13
107-06-2	1,2-Dichloroethane	ND		500	472	94	500	452	90	4	66-120/13
75-35-4	1,1-Dichloroethene	ND		500	515	103	500	506	101	2	59-133/15
156-59-2	cis-1,2-Dichloroethene	27.6		500	528	100	500	507	96	4	52-140/12
156-60-5	trans-1,2-Dichloroethene	ND		500	529	106	500	516	103	2	70-125/13
78-87-5	1,2-Dichloropropane	ND		500	501	100	500	484	97	3	73-124/12
10061-01-5	cis-1,3-Dichloropropene	ND		500	518	104	500	502	100	3	75-125/13
10061-02-6	trans-1,3-Dichloropropene	ND		500	543	109	500	524	105	4	75-122/12
100-41-4	Ethylbenzene	ND		500	481	96	500	456	91	5	37-144/12
76-13-1	Freon 113	ND		500	486	97	500	485	97	0	61-142/14
591-78-6	2-Hexanone	ND		2000	1990	100	2000	1890	95	5	56-132/16
98-82-8	Isopropylbenzene	ND		500	507	101	500	476	95	6	71-126/13
79-20-9	Methyl Acetate	ND		500	535	107	500	507	101	5	51-139/18
108-87-2	Methylcyclohexane	ND		500	474	95	500	439	88	8	59-137/16
1634-04-4	Methyl Tert Butyl Ether	ND		500	506	101	500	494	99	2	66-124/12

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77815-1MS [a]	2N5917.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1MSD [a]	2N5919.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1 [b]	2N5907.D	10	12/04/23	LD	n/a	n/a	V2N159
JD77815-1 [a]	2N5921.D	100	12/04/23	LD	n/a	n/a	V2N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-1, JD77815-6, JD77815-7, JD77815-9, JD77815-11, JD77815-12, JD77815-14, JD77815-16, JD77815-17, JD77815-19

CAS No.	Compound	JD77815-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		2000	2050	103	2000	1950	98	5	65-135/14
75-09-2	Methylene chloride	ND		500	470	94	500	451	90	4	66-125/14
100-42-5	Styrene	ND		500	519	104	500	501	100	4	71-133/12
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	531	106	500	501	100	6	68-127/14
127-18-4	Tetrachloroethene	2570 [d]		500	2830	40* [c]	500	2820	38* [c]	0	58-132/13
108-88-3	Toluene	ND		500	480	96	500	464	93	3	46-139/12
87-61-6	1,2,3-Trichlorobenzene	ND		500	475	95	500	444	89	7	57-136/17
120-82-1	1,2,4-Trichlorobenzene	ND		500	475	95	500	442	88	7	61-137/16
71-55-6	1,1,1-Trichloroethane	ND		500	528	106	500	511	102	3	67-132/13
79-00-5	1,1,2-Trichloroethane	ND		500	517	103	500	489	98	6	75-120/12
79-01-6	Trichloroethene	21.1		500	517	99	500	501	96	3	56-136/12
75-69-4	Trichlorofluoromethane	ND		500	445	89	500	435	87	2	61-145/16
75-01-4	Vinyl chloride	ND		500	393	79	500	389	78	1	41-156/16
	m,p-Xylene	ND		1000	982	98	1000	946	95	4	32-151/12
95-47-6	o-Xylene	ND		500	495	99	500	471	94	5	50-139/12
1330-20-7	Xylene (total)	ND		1500	1480	99	1500	1420	95	4	38-147/12

CAS No.	Surrogate Recoveries	MS	MSD	JD77815-1	JD77815-1	Limits
1868-53-7	Dibromofluoromethane	101%	102%	102%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	98%	101%	99%	80-120%
2037-26-5	Toluene-D8	100%	100%	101%	101%	80-120%
460-00-4	4-Bromofluorobenzene	100%	100%	99%	100%	82-114%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria.
(b) (pH= 6)Sample pH did not satisfy field preservation criteria. Dilution required due to high concentration of target compound.
(c) Outside control limits due to high level in sample relative to spike amount.
(d) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77815-5MS	1N5918.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5MSD	1N5920.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5 [a]	1N5906.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5	1N5924.D	50	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	JD77815-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		1000	726	73	1000	739	74	2	22-134/19
71-43-2	Benzene	ND		250	247	99	250	250	100	1	49-137/12
74-97-5	Bromochloromethane	ND		250	250	100	250	256	102	2	78-122/12
75-27-4	Bromodichloromethane	ND		250	247	99	250	252	101	2	76-121/12
75-25-2	Bromoform	ND		250	249	100	250	260	104	4	70-133/13
74-83-9	Bromomethane	ND		250	170	68	250	181	72	6	27-164/38
78-93-3	2-Butanone (MEK)	ND		1000	893	89	1000	922	92	3	52-137/17
75-15-0	Carbon disulfide	ND		250	251	100	250	252	101	0	54-136/16
56-23-5	Carbon tetrachloride	ND		250	268	107	250	275	110	3	70-132/13
108-90-7	Chlorobenzene	ND		250	239	96	250	247	99	3	68-123/12
75-00-3	Chloroethane	ND		250	229	92	250	235	94	3	48-152/17
67-66-3	Chloroform	ND		250	241	96	250	234	94	3	68-120/13
74-87-3	Chloromethane	ND		250	204	82	250	202	81	1	35-156/18
110-82-7	Cyclohexane	ND		250	254	102	250	260	104	2	53-146/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	250	100	250	259	104	4	63-134/16
124-48-1	Dibromochloromethane	ND		250	239	96	250	250	100	4	75-122/12
106-93-4	1,2-Dibromoethane	ND		250	244	98	250	254	102	4	63-134/12
95-50-1	1,2-Dichlorobenzene	ND		250	236	94	250	240	96	2	74-119/12
541-73-1	1,3-Dichlorobenzene	ND		250	238	95	250	244	98	2	75-117/12
106-46-7	1,4-Dichlorobenzene	ND		250	240	96	250	247	99	3	72-117/12
75-71-8	Dichlorodifluoromethane	ND		250	204	82	250	207	83	1	34-163/16
75-34-3	1,1-Dichloroethane	ND		250	256	102	250	258	103	1	68-129/13
107-06-2	1,2-Dichloroethane	ND		250	234	94	250	236	94	1	66-120/13
75-35-4	1,1-Dichloroethene	ND		250	265	106	250	270	108	2	59-133/15
156-59-2	cis-1,2-Dichloroethene	195		250	430	94	250	425	92	1	52-140/12
156-60-5	trans-1,2-Dichloroethene	ND		250	255	102	250	257	103	1	70-125/13
78-87-5	1,2-Dichloropropane	ND		250	248	99	250	246	98	1	73-124/12
10061-01-5	cis-1,3-Dichloropropene	ND		250	264	106	250	267	107	1	75-125/13
10061-02-6	trans-1,3-Dichloropropene	ND		250	256	102	250	262	105	2	75-122/12
100-41-4	Ethylbenzene	ND		250	236	94	250	239	96	1	37-144/12
76-13-1	Freon 113	ND		250	255	102	250	265	106	4	61-142/14
591-78-6	2-Hexanone	ND		1000	954	95	1000	984	98	3	56-132/16
98-82-8	Isopropylbenzene	ND		250	247	99	250	250	100	1	71-126/13
79-20-9	Methyl Acetate	ND		250	260	104	250	262	105	1	51-139/18
108-87-2	Methylcyclohexane	ND		250	247	99	250	246	98	0	59-137/16
1634-04-4	Methyl Tert Butyl Ether	ND		250	255	102	250	259	104	2	66-124/12

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77815-5MS	1N5918.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5MSD	1N5920.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5 [a]	1N5906.D	5	12/04/23	LD	n/a	n/a	V1N159
JD77815-5	1N5924.D	50	12/04/23	LD	n/a	n/a	V1N159

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-8, JD77815-10, JD77815-13, JD77815-15, JD77815-18

CAS No.	Compound	JD77815-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		1000	973	97	1000	987	99	1	65-135/14
75-09-2	Methylene chloride	ND		250	241	96	250	244	98	1	66-125/14
100-42-5	Styrene	ND		250	248	99	250	256	102	3	71-133/12
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	259	104	250	261	104	1	68-127/14
127-18-4	Tetrachloroethene	1130 [c]		250	1200	-12* [b]	250	1210	-8* [b]	1	58-132/13
108-88-3	Toluene	ND		250	237	95	250	243	97	3	46-139/12
87-61-6	1,2,3-Trichlorobenzene	ND		250	230	92	250	237	95	3	57-136/17
120-82-1	1,2,4-Trichlorobenzene	ND		250	232	93	250	240	96	3	61-137/16
71-55-6	1,1,1-Trichloroethane	ND		250	261	104	250	265	106	2	67-132/13
79-00-5	1,1,2-Trichloroethane	ND		250	244	98	250	248	99	2	75-120/12
79-01-6	Trichloroethene	71.8		250	309	95	250	320	99	3	56-136/12
75-69-4	Trichlorofluoromethane	ND		250	239	96	250	245	98	2	61-145/16
75-01-4	Vinyl chloride	ND		250	227	91	250	229	92	1	41-156/16
	m,p-Xylene	ND		500	476	95	500	487	97	2	32-151/12
95-47-6	o-Xylene	ND		250	239	96	250	246	98	3	50-139/12
1330-20-7	Xylene (total)	ND		750	716	95	750	733	98	2	38-147/12

CAS No.	Surrogate Recoveries	MS	MSD	JD77815-5	JD77815-5	Limits
1868-53-7	Dibromofluoromethane	104%	103%	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	97%	100%	102%	80-120%
2037-26-5	Toluene-D8	99%	99%	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	102%	102%	100%	101%	82-114%

(a) Dilution required due to high concentration of target compound.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD77881-21DUP	1N6024.D	1	12/05/23	LD	n/a	n/a	V1N161
JD77881-21	1N6012.D	1	12/05/23	LD	n/a	n/a	V1N161

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD77815-7

CAS No.	Compound	JD77881-21 ug/l	Q	DUP ug/l	Q	RPD	Limits
127-18-4	Tetrachloroethene	ND		ND		nc	10

CAS No.	Surrogate Recoveries	DUP	JD77881-21	Limits
1868-53-7	Dibromofluoromethane	99%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	99%	80-120%
2037-26-5	Toluene-D8	99%	100%	80-120%
460-00-4	4-Bromofluorobenzene	98%	99%	82-114%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: V1N152-BFB
Lab File ID: 1N5613.D
Instrument ID: GCMS1N
Injection Date: 11/21/23
Injection Time: 18:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	54683	17.1		Pass
75	30.0 - 60.0% of mass 95	166528	52.1		Pass
95	Base peak, 100% relative abundance	319488	100.0		Pass
96	5.0 - 9.0% of mass 95	21363	6.69		Pass
173	Less than 2.0% of mass 174	2090	0.65	(0.82) [a]	Pass
174	50.0 - 120.0% of mass 95	254784	79.7		Pass
175	5.0 - 9.0% of mass 174	19175	6.00	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	247936	77.6	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	16240	5.08	(6.55) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1N152-IC152	1N5615.D	11/21/23	19:47	00:50	Initial cal 0.2
V1N152-IC152	1N5617.D	11/21/23	20:15	01:18	Initial cal 0.5
V1N152-IC152	1N5619.D	11/21/23	20:42	01:45	Initial cal 1
V1N152-IC152	1N5621.D	11/21/23	21:10	02:13	Initial cal 2
V1N152-IC152	1N5623.D	11/21/23	21:38	02:41	Initial cal 4
V1N152-IC152	1N5625.D	11/21/23	22:05	03:08	Initial cal 8
V1N152-IC152	1N5627.D	11/21/23	22:33	03:36	Initial cal 20
V1N152-ICC152	1N5629.D	11/21/23	23:00	04:03	Initial cal 50
V1N152-IC152	1N5631.D	11/21/23	23:28	04:31	Initial cal 100
V1N152-IC152	1N5633.D	11/21/23	23:56	04:59	Initial cal 200
V1N152-ICV152	1N5639.D	11/22/23	01:18	06:21	Initial cal verification 50
V1N152-ICV152	1N5641.D	11/22/23	01:46	06:49	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: V1N159-BFB
Lab File ID: 1N5890.D
Instrument ID: GCMS1N
Injection Date: 12/04/23
Injection Time: 09:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	75557	16.4		Pass
75	30.0 - 60.0% of mass 95	232533	50.6		Pass
95	Base peak, 100% relative abundance	459605	100.0		Pass
96	5.0 - 9.0% of mass 95	31613	6.88		Pass
173	Less than 2.0% of mass 174	2965	0.65	(0.88) [a]	Pass
174	50.0 - 120.0% of mass 95	338731	73.7		Pass
175	5.0 - 9.0% of mass 174	24558	5.34	(7.25) [a]	Pass
176	95.0 - 101.0% of mass 174	322731	70.2	(95.3) [a]	Pass
177	5.0 - 9.0% of mass 176	21150	4.60	(6.55) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1N159-CC152	1N5890.D	12/04/23	09:26	00:00	Continuing cal 20
V1N159-CC152	1N5892.D	12/04/23	10:15	00:49	Continuing cal 1
V1N159-CC152	1N5894.D	12/04/23	10:42	01:16	Continuing cal 2
V1N159-BS	1N5896.D	12/04/23	11:10	01:44	Blank Spike
V1N159-MB	1N5900.D	12/04/23	12:05	02:39	Method Blank
ZZZZZZ	1N5902.D	12/04/23	12:34	03:08	(unrelated sample)
JD77815-18	1N5904.D	12/04/23	13:02	03:36	828149-FB-2-20231128
JD77815-5	1N5906.D	12/04/23	13:29	04:03	828149-MW-13-20231127
JD77815-2	1N5908.D	12/04/23	13:57	04:31	828149-MW-2-20231127
JD77815-8	1N5910.D	12/04/23	14:24	04:58	828149-DP-17-20231127
JD77815-10	1N5912.D	12/04/23	14:52	05:26	828149-DP-18-20231127
JD77815-3	1N5914.D	12/04/23	15:19	05:53	828149-MW-3-20231127
JD77815-4	1N5916.D	12/04/23	15:47	06:21	828149-DP-10-20231128
JD77815-5MS	1N5918.D	12/04/23	16:14	06:48	Matrix Spike
JD77815-5MSD	1N5920.D	12/04/23	16:42	07:16	Matrix Spike Duplicate
JD77815-4	1N5922.D	12/04/23	17:09	07:43	828149-DP-10-20231128
JD77815-5	1N5924.D	12/04/23	17:37	08:11	828149-MW-13-20231127
ZZZZZZ	1N5926.D	12/04/23	18:04	08:38	(unrelated sample)
JD77815-13	1N5928.D	12/04/23	18:32	09:06	828149-DP-21-20231128
JD77815-15	1N5930.D	12/04/23	18:59	09:33	828149-GEMW-2-20231128
ZZZZZZ	1N5932.D	12/04/23	19:27	10:01	(unrelated sample)
ZZZZZZ	1N5934.D	12/04/23	19:54	10:28	(unrelated sample)
ZZZZZZ	1N5936.D	12/04/23	20:22	10:56	(unrelated sample)
ZZZZZZ	1N5938.D	12/04/23	20:49	11:23	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: V1N159-BFB
Lab File ID: 1N5890.D
Instrument ID: GCMS1N
Injection Date: 12/04/23
Injection Time: 09:26

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1N160-CC152	1N5942.D	12/04/23	21:44	12:18	Continuing cal 50
V1N160-CC152	1N5944.D	12/04/23	22:12	12:46	Continuing cal 1
V1N160-BS	1N5946.D	12/04/23	22:39	13:13	Blank Spike
V1N160-MB	1N5950.D	12/04/23	23:34	14:08	Method Blank
ZZZZZZ	1N5954.D	12/05/23	00:29	15:03	(unrelated sample)
JD77974-10MS	1N5956.D	12/05/23	00:56	15:30	Matrix Spike
JD77974-10MSD	1N5958.D	12/05/23	01:24	15:58	Matrix Spike Duplicate
ZZZZZZ	1N5960.D	12/05/23	01:51	16:25	(unrelated sample)
ZZZZZZ	1N5962.D	12/05/23	02:19	16:53	(unrelated sample)
ZZZZZZ	1N5964.D	12/05/23	02:46	17:20	(unrelated sample)
ZZZZZZ	1N5966.D	12/05/23	03:13	17:47	(unrelated sample)
ZZZZZZ	1N5968.D	12/05/23	03:41	18:15	(unrelated sample)
ZZZZZZ	1N5970.D	12/05/23	04:08	18:42	(unrelated sample)
ZZZZZZ	1N5972.D	12/05/23	04:36	19:10	(unrelated sample)
ZZZZZZ	1N5974.D	12/05/23	05:04	19:38	(unrelated sample)
ZZZZZZ	1N5976.D	12/05/23	05:31	20:05	(unrelated sample)
ZZZZZZ	1N5978.D	12/05/23	05:59	20:33	(unrelated sample)
ZZZZZZ	1N5980.D	12/05/23	06:26	21:00	(unrelated sample)
ZZZZZZ	1N5982.D	12/05/23	06:54	21:28	(unrelated sample)
ZZZZZZ	1N5984.D	12/05/23	07:21	21:55	(unrelated sample)
V1N161-CC152	1N5987.D	12/05/23	08:21	22:55	Continuing cal 20
V1N161-CC152	1N5990.D	12/05/23	09:24	23:58	Continuing cal 2
V1N161-BS	1N5992.D	12/05/23	10:07	24:41	Blank Spike

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: V2N152-BFB
Lab File ID: 2N5614.D
Instrument ID: GCMS2N
Injection Date: 11/21/23
Injection Time: 19:11

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	54435	16.8		Pass
75	30.0 - 60.0% of mass 95	161728	49.9		Pass
95	Base peak, 100% relative abundance	324160	100.0		Pass
96	5.0 - 9.0% of mass 95	21112	6.51		Pass
173	Less than 2.0% of mass 174	2115	0.65	(0.85) [a]	Pass
174	50.0 - 120.0% of mass 95	248555	76.7		Pass
175	5.0 - 9.0% of mass 174	18797	5.80	(7.56) [a]	Pass
176	95.0 - 101.0% of mass 174	241109	74.4	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	16349	5.04	(6.78) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2N152-IC152	2N5616.D	11/21/23	20:01	00:50	Initial cal 0.2
V2N152-IC152	2N5618.D	11/21/23	20:29	01:18	Initial cal 0.5
V2N152-IC152	2N5620.D	11/21/23	20:56	01:45	Initial cal 1
V2N152-IC152	2N5622.D	11/21/23	21:24	02:13	Initial cal 2
V2N152-IC152	2N5624.D	11/21/23	21:51	02:40	Initial cal 4
V2N152-IC152	2N5626.D	11/21/23	22:19	03:08	Initial cal 8
V2N152-IC152	2N5628.D	11/21/23	22:47	03:36	Initial cal 20
V2N152-ICC152	2N5630.D	11/21/23	23:14	04:03	Initial cal 50
V2N152-IC152	2N5632.D	11/21/23	23:42	04:31	Initial cal 100
V2N152-IC152	2N5634.D	11/22/23	00:09	04:58	Initial cal 200
V2N152-ICV152	2N5640.D	11/22/23	01:32	06:21	Initial cal verification 50
V2N152-ICV152	2N5642.D	11/22/23	02:00	06:49	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: V2N159-BFB
Lab File ID: 2N5891.D
Instrument ID: GCMS2N
Injection Date: 12/04/23
Injection Time: 09:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	81288	16.0		Pass
75	30.0 - 60.0% of mass 95	256939	50.5		Pass
95	Base peak, 100% relative abundance	508437	100.0		Pass
96	5.0 - 9.0% of mass 95	34899	6.86		Pass
173	Less than 2.0% of mass 174	3157	0.62	(0.83) [a]	Pass
174	50.0 - 120.0% of mass 95	380843	74.9		Pass
175	5.0 - 9.0% of mass 174	28816	5.67	(7.57) [a]	Pass
176	95.0 - 101.0% of mass 174	363776	71.5	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	23786	4.68	(6.54) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2N159-CC152	2N5891.D	12/04/23	09:40	00:00	Continuing cal 20
V2N159-CC152	2N5893.D	12/04/23	10:28	00:48	Continuing cal 1
V2N159-CC152	2N5895.D	12/04/23	10:56	01:16	Continuing cal 2
V2N159-BS	2N5897.D	12/04/23	11:23	01:43	Blank Spike
V2N159-MB	2N5899.D	12/04/23	11:51	02:11	Method Blank
JD77815-17	2N5903.D	12/04/23	12:48	03:08	828149-FB-1-20231127
JD77815-19	2N5905.D	12/04/23	13:15	03:35	828149-TB-20231128
JD77815-1	2N5907.D	12/04/23	13:43	04:03	828149-MW-1-20231127
JD77815-6	2N5909.D	12/04/23	14:10	04:30	828149-MW-13B-20231127
JD77815-9	2N5911.D	12/04/23	14:38	04:58	828149-MW-17B-20231127
JD77815-11	2N5913.D	12/04/23	15:06	05:26	828149-DP-19-20231128
JD77815-7	2N5915.D	12/04/23	15:33	05:53	828149-DP-15-20231127
JD77815-1MS	2N5917.D	12/04/23	16:01	06:21	Matrix Spike
JD77815-1MSD	2N5919.D	12/04/23	16:28	06:48	Matrix Spike Duplicate
JD77815-1	2N5921.D	12/04/23	16:56	07:16	828149-MW-1-20231127
ZZZZZZ	2N5923.D	12/04/23	17:23	07:43	(unrelated sample)
ZZZZZZ	2N5925.D	12/04/23	17:51	08:11	(unrelated sample)
JD77815-12	2N5927.D	12/04/23	18:18	08:38	828149-MW-19B-20231128
JD77815-14	2N5929.D	12/04/23	18:46	09:06	828149-MW-21B-20231128
JD77815-16	2N5931.D	12/04/23	19:13	09:33	828149-FD-01-20231127
ZZZZZZ	2N5933.D	12/04/23	19:41	10:01	(unrelated sample)
ZZZZZZ	2N5935.D	12/04/23	20:08	10:28	(unrelated sample)
ZZZZZZ	2N5937.D	12/04/23	20:36	10:56	(unrelated sample)
ZZZZZZ	2N5939.D	12/04/23	21:03	11:23	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample:	V2N159-BFB	**Injection Date:**	12/04/23
Lab File ID:	2N5891.D	**Injection Time:**	09:40
Instrument ID:	GCMS2N		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2N160-CC152	2N5943.D	12/04/23	21:58	12:18	Continuing cal 50
V2N160-CC152	2N5945.D	12/04/23	22:26	12:46	Continuing cal 1
V2N160-BS	2N5947.D	12/04/23	22:53	13:13	Blank Spike
V2N160-MB	2N5949.D	12/04/23	23:20	13:40	Method Blank
JD77974-9	2N5951.D	12/04/23	23:48	14:08	(used for QC only; not part of job JD77815)
ZZZZZZ	2N5953.D	12/05/23	00:15	14:35	(unrelated sample)
ZZZZZZ	2N5955.D	12/05/23	00:43	15:03	(unrelated sample)
JD77974-9MS	2N5957.D	12/05/23	01:10	15:30	Matrix Spike
JD77974-9MSD	2N5959.D	12/05/23	01:38	15:58	Matrix Spike Duplicate
ZZZZZZ	2N5961.D	12/05/23	02:05	16:25	(unrelated sample)
ZZZZZZ	2N5963.D	12/05/23	02:32	16:52	(unrelated sample)
ZZZZZZ	2N5965.D	12/05/23	03:00	17:20	(unrelated sample)
ZZZZZZ	2N5967.D	12/05/23	03:27	17:47	(unrelated sample)
ZZZZZZ	2N5969.D	12/05/23	03:55	18:15	(unrelated sample)
ZZZZZZ	2N5971.D	12/05/23	04:22	18:42	(unrelated sample)
ZZZZZZ	2N5973.D	12/05/23	04:50	19:10	(unrelated sample)
ZZZZZZ	2N5975.D	12/05/23	05:18	19:38	(unrelated sample)
ZZZZZZ	2N5977.D	12/05/23	05:45	20:05	(unrelated sample)
ZZZZZZ	2N5979.D	12/05/23	06:13	20:33	(unrelated sample)
ZZZZZZ	2N5981.D	12/05/23	06:40	21:00	(unrelated sample)
ZZZZZZ	2N5983.D	12/05/23	07:08	21:28	(unrelated sample)
V2N161-CC152	2N5988.D	12/05/23	08:35	22:55	Continuing cal 20
V2N161-CC152	2N5989.D	12/05/23	09:11	23:31	Continuing cal 1
V2N161-CC152	2N5991.D	12/05/23	09:53	24:13	Continuing cal 2
V2N161-BS	2N5993.D	12/05/23	10:20	24:40	Blank Spike

Surrogate Recovery Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD77815-1	2N5921.D	101	99	101	100
JD77815-1	2N5907.D	102	101	101	99
JD77815-2	1N5908.D	102	98	100	100
JD77815-3	1N5914.D	104	101	101	100
JD77815-4	1N5922.D	102	101	101	100
JD77815-4	1N5916.D	102	101	102	100
JD77815-5	1N5924.D	102	102	99	101
JD77815-5	1N5906.D	103	100	101	100
JD77815-6	2N5909.D	101	103	101	99
JD77815-7	1N6008.D	100	96	99	99
JD77815-7	2N5915.D	101	102	101	100
JD77815-8	1N5910.D	103	104	101	101
JD77815-9	2N5911.D	102	102	102	98
JD77815-10	1N5912.D	104	101	99	100
JD77815-11	2N5913.D	102	102	102	98
JD77815-12	2N5927.D	101	102	102	99
JD77815-13	1N5928.D	104	101	100	100
JD77815-14	2N5929.D	102	103	101	100
JD77815-15	1N5930.D	102	99	102	102
JD77815-16	2N5931.D	102	100	102	99
JD77815-17	2N5903.D	99	100	100	99
JD77815-18	1N5904.D	100	98	100	100
JD77815-19	2N5905.D	101	101	100	101
JD77815-1MS	2N5917.D	101	100	100	100
JD77815-1MSD	2N5919.D	102	98	100	100
JD77815-5MS	1N5918.D	104	100	99	102
JD77815-5MSD	1N5920.D	103	97	99	102
JD77881-19MS	1N6020.D	96	88	99	99
JD77881-21DUP	1N6024.D	99	96	99	98
V1N159-BS	1N5896.D	101	97	98	100
V1N159-MB	1N5900.D	102	101	100	101
V1N161-BS	1N5992.D	100	96	98	99
V1N161-MB	1N5996.D	102	98	98	99
V2N159-BS	2N5897.D	101	99	99	100
V2N159-MB	2N5899.D	100	99	99	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%

Surrogate Recovery Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
S2 = 1,2-Dichloroethane-D4	80-120%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	82-114%

MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50818A-MB1	4M120619.D	1	12/05/23	JY	12/04/23	OP50818A	E4M5646

The QC reported here applies to the following samples: **Method:** SW846 8270E BY SIM

JD77815-1, JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-6, JD77815-7, JD77815-8, JD77815-9, JD77815-10, JD77815-11, JD77815-12, JD77815-13, JD77815-14, JD77815-15, JD77815-16, JD77815-17, JD77815-18

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	86%	23-127%
321-60-8	2-Fluorobiphenyl	72%	23-114%
1718-51-0	Terphenyl-d14	86%	10-121%

Blank Spike Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50818A-BS12	4M120620.D	1	12/05/23	JY	12/04/23	OP50818A	E4M5646

The QC reported here applies to the following samples: **Method:** SW846 8270E BY SIM

JD77815-1, JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-6, JD77815-7, JD77815-8, JD77815-9, JD77815-10, JD77815-11, JD77815-12, JD77815-13, JD77815-14, JD77815-15, JD77815-16, JD77815-17, JD77815-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	1	0.487	49	10-70

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	85%	23-127%
321-60-8	2-Fluorobiphenyl	73%	23-114%
1718-51-0	Terphenyl-d14	79%	10-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50818A-MSA	4M120621.D	1	12/05/23	JY	12/04/23	OP50818A	E4M5646
OP50818A-MSDA	4M120622.D	1	12/05/23	JY	12/04/23	OP50818A	E4M5646
JD77815-5	4M120627.D	1	12/05/23	JY	12/04/23	OP50818A	E4M5646

The QC reported here applies to the following samples: **Method:** SW846 8270E BY SIM

JD77815-1, JD77815-2, JD77815-3, JD77815-4, JD77815-5, JD77815-6, JD77815-7, JD77815-8, JD77815-9, JD77815-10, JD77815-11, JD77815-12, JD77815-13, JD77815-14, JD77815-15, JD77815-16, JD77815-17, JD77815-18

CAS No.	Compound	JD77815-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		1	0.429	43	1	1.83	183* [a]	124* [b]	10-94/81

CAS No.	Surrogate Recoveries	MS	MSD	JD77815-5	Limits
4165-60-0	Nitrobenzene-d5	79%	95%	87%	23-127%
321-60-8	2-Fluorobiphenyl	69%	82%	74%	23-114%
1718-51-0	Terphenyl-d14	61%	106%	56%	10-121%

(a) Outside of in house control limits.
(b) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample:	E4M5633-DFTPP	**Injection Date:**	11/20/23
Lab File ID:	4M120357.D	**Injection Time:**	16:25
Instrument ID:	GCMS4M		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	45112	33.3		Pass
68	Less than 2.0% of mass 69	877	0.65	(1.78) [a]	Pass
69	Mass 69 relative abundance	49179	36.3		Pass
70	Less than 2.0% of mass 69	261	0.19	(0.53) [a]	Pass
127	40.0 - 60.0% of mass 198	65749	48.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	135477	100.0		Pass
199	5.0 - 9.0% of mass 198	9188	6.78		Pass
275	10.0 - 30.0% of mass 198	37146	27.4		Pass
365	1.0 - 100.0% of mass 198	4670	3.45		Pass
441	Present, but less than mass 443	15818	11.7	(83.4) [b]	Pass
442	40.0 - 100.0% of mass 198	89543	66.1		Pass
443	17.0 - 23.0% of mass 442	18976	14.0	(21.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M5633-ICC5633	4M120361.D	11/20/23	18:16	01:51	Initial cal 1
E4M5633-IC5633	4M120362.D	11/20/23	18:39	02:14	Initial cal 2.5
E4M5633-IC5633	4M120363.D	11/20/23	19:03	02:38	Initial cal 5
E4M5633-IC5633	4M120364.D	11/20/23	19:26	03:01	Initial cal 0.5
E4M5633-IC5633	4M120365.D	11/20/23	19:49	03:24	Initial cal 0.2
E4M5633-IC5633	4M120366.D	11/20/23	20:12	03:47	Initial cal 0.1
E4M5633-IC5633	4M120367.D	11/20/23	20:36	04:11	Initial cal 0.05
E4M5633-IC5633	4M120368.D	11/20/23	20:59	04:34	Initial cal 0.02
E4M5633-IC5633	4M120369.D	11/20/23	21:22	04:57	Initial cal 0.01

Instrument Performance Check (DFTPP)

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: E4M5634-DFTPP
Lab File ID: 4M120379.D
Instrument ID: GCMS4M
Injection Date: 11/21/23
Injection Time: 13:15

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	45557	32.5		Pass
68	Less than 2.0% of mass 69	151	0.11	(0.30) [a]	Pass
69	Mass 69 relative abundance	49899	35.6		Pass
70	Less than 2.0% of mass 69	311	0.22	(0.62) [a]	Pass
127	40.0 - 60.0% of mass 198	67875	48.4		Pass
197	Less than 1.0% of mass 198	347	0.25		Pass
198	Base peak, 100% relative abundance	140109	100.0		Pass
199	5.0 - 9.0% of mass 198	9462	6.75		Pass
275	10.0 - 30.0% of mass 198	37537	26.8		Pass
365	1.0 - 100.0% of mass 198	4585	3.27		Pass
441	Present, but less than mass 443	16809	12.0	(88.8) [b]	Pass
442	40.0 - 100.0% of mass 198	93560	66.8		Pass
443	17.0 - 23.0% of mass 442	18920	13.5	(20.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E4M5634-ICV5633	4M120380.D	11/21/23	13:27	00:12	Initial cal verification 1
E4M5634-ICV5633	4M120384.D	11/21/23	14:48	01:33	Initial cal verification 5
E4M5634-ICV5633	4M120385.D	11/21/23	15:29	02:14	Initial cal verification 1
E4M5634-CC5633	4M120387.D	11/21/23	16:19	03:04	Continuing cal 1
OP50462A-MB1	4M120388.D	11/21/23	16:54	03:39	Method Blank
OP50462A-BS1	4M120389.D	11/21/23	17:17	04:02	Blank Spike
OP50462A-BSD	4M120390.D	11/21/23	17:40	04:25	Blank Spike Duplicate
ZZZZZZ	4M120391.D	11/21/23	18:03	04:48	(unrelated sample)
E4M5635-CC5633	4M120392.D	11/22/23	09:29	20:14	Continuing cal 1
OP50610A-MB1	4M120394.D	11/22/23	10:32	21:17	Method Blank
OP50610A-BS12	4M120395.D	11/22/23	10:55	21:40	Blank Spike
OP50610A-BSD12	4M120396.D	11/22/23	11:17	22:02	Blank Spike Duplicate
OP50611A-MB1	4M120397.D	11/22/23	11:40	22:25	Method Blank
OP50611A-BS12	4M120398.D	11/22/23	12:03	22:48	Blank Spike
OP50611A-BSD12	4M120399.D	11/22/23	12:26	23:11	Blank Spike Duplicate
ZZZZZZ	4M120400.D	11/22/23	12:48	23:33	(unrelated sample)
ZZZZZZ	4M120401.D	11/22/23	13:11	23:56	(unrelated sample)
ZZZZZZ	4M120402.D	11/22/23	13:34	24:19	(unrelated sample)
ZZZZZZ	4M120403.D	11/22/23	13:57	24:42	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD77815
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: SW846 8270E BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JD77815-1	4M120623.D	81	71	66
JD77815-2	4M120624.D	82	67	54
JD77815-3	4M120625.D	87	75	58
JD77815-4	4M120626.D	64	54	39
JD77815-5	4M120627.D	87	74	56
JD77815-6	4M120628.D	86	74	49
JD77815-7	4M120629.D	70	61	50
JD77815-8	4M120630.D	83	69	45
JD77815-9	4M120631.D	77	64	48
JD77815-10	4M120632.D	75	65	49
JD77815-11	4M120633.D	88	74	59
JD77815-12	4M120634.D	102	85	68
JD77815-13	4M120635.D	91	75	57
JD77815-14	4M120636.D	72	60	73
JD77815-15	4M120637.D	65	55	52
JD77815-16	4M120638.D	84	68	62
JD77815-17	4M120639.D	66	55	66
JD77815-18	4M120640.D	75	62	62
OP50818A-BS12	4M120620.D	85	73	79
OP50818A-MB1	4M120619.D	86	72	86
OP50818A-MSA	4M120621.D	79	69	61
OP50818A-MSDA	4M120622.D	95	82	106

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	23-127%
S2 = 2-Fluorobiphenyl	23-114%
S3 = Terphenyl-d14	10-121%

The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

EA Engineering

NYSDEC Town and Country Cleaners, NY

NYSDEC:828149; EA:1602534/0020

SGS Job Number: JD77804

Sampling Dates: 11/27/23 - 11/28/23



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Total number of pages in report: **916**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

David Chastain
General Manager

Client Service contact: Kelly Ramos 732-329-0200
Certifications: NJ(12129),NY(10983),CA,CO,CT,FL,HI,IL,IN,KY,LA (120428),MA,MD,ME,MN,NC,NH,NV, AK (UST-103),AZ (AZ0786),PA(68-00408),RI,SC,TX (T104704234),UT,VA,WA,WV

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SGS North America Inc.

Sample Summary

EA Engineering

Job No: JD77804

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC:828149; EA:1602534/0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD77804-1	11/27/23	14:53	HB	11/30/23	AQ	Ground Water	828149-MW-1-20231127
JD77804-2	11/27/23	12:42	HB	11/30/23	AQ	Ground Water	828149-MW-2-20231127
JD77804-3	11/27/23	13:40	HB	11/30/23	AQ	Ground Water	828149-MW-3-20231127
JD77804-4	11/27/23	11:40	MG	11/30/23	AQ	Ground Water	828149-DP-10-20231127
JD77804-5	11/27/23	10:28	HB	11/30/23	AQ	Ground Water	828149-MW-13-20231127
JD77804-5D	11/27/23	10:28	HB	11/30/23	AQ	Water Dup/MSD	828149-MW-13-20231127
JD77804-5S	11/27/23	10:28	HB	11/30/23	AQ	Water Matrix Spike	828149-MW-13-20231127
JD77804-6	11/27/23	11:36	HB	11/30/23	AQ	Ground Water	828149-MW-13B-20231127
JD77804-7	11/27/23	09:27	HB	11/30/23	AQ	Ground Water	828149-DP-15-20231127
JD77804-8	11/27/23	15:15	MG	11/30/23	AQ	Ground Water	828149-GEMW-2-20231127
JD77804-9	11/27/23	11:45	MG	11/30/23	AQ	Ground Water	828149-DP-17-20231127
JD77804-10	11/27/23	13:30	MG	11/30/23	AQ	Ground Water	828149-MW-17B-20231127

Sample Summary
(continued)

EA Engineering

Job No: JD77804

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC:828149; EA:1602534/0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JD77804-11	11/27/23	10:12	MG	11/30/23	AQ	Ground Water	828149-DP-18-20231127
JD77804-12	11/28/23	09:44	MG	11/30/23	AQ	Ground Water	828149-DP-19-20231128
JD77804-13	11/28/23	10:34	MG	11/30/23	AQ	Ground Water	828149-MW-19B-20231128
JD77804-14	11/28/23	09:24	HB	11/30/23	AQ	Ground Water	828149-DP-21-20231128
JD77804-15	11/28/23	10:07	MG	11/30/23	AQ	Ground Water	828149-MW-21B-20231128
JD77804-16	11/27/23	00:00		11/30/23	AQ	Ground Water	828149-FD-01-20231127
JD77804-17	11/27/23	14:45	MG	11/30/23	AQ	Field Blank Water	828149-FB-1-20231127
JD77804-18	11/27/23	15:00	MG	11/30/23	AQ	Equipment Blank	828149-EB-1-20231128
JD77804-19	11/28/23	14:40	MG	11/30/23	AQ	Field Blank Water	828149-FB-2-20231128
JD77804-20	11/28/23	14:45	MG	11/30/23	AQ	Equipment Blank	828149-EB-2-20231128

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	EA Engineering	**Job No:**	JD77804
Site:	NYSDEC Town and Country Cleaners, NY	**Report Date**	12/12/2023 8:02:56 A

On 11/30/2023, 16 sample(s), 0 Trip Blank(s), 2 Equip. Blank(s) and 2 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 3 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JD77804 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Semi-volatiles By Method EPA DRAFT 1633

Matrix: AQ **Batch ID:** OP50811

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD77804-5MS, JD77804-5MSD were used as the QC samples indicated.
- The RPD(s) for the MS and MSD recoveries of 6:2 Fluorotelomer sulfonate, EtFOSAA, MeFOSAA are outside control limits for sample OP50811-MSD. Probable cause due to sample homogeneity.
- Sample(s) JD77804-11 have surrogates outside control limits. Probable cause due to matrix interference.
- JD77804-11 for 13C2-PFTeDA: Outside control limits due to possible matrix interference.Confirmed by poor compound peak on chromatogram

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: JD77804
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD77804-1	**828149-MW-1-20231127**					
Perfluorobutanoic acid		0.0027 J	0.0074	0.00085	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.00075 J	0.0037	0.00067	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.00080 J	0.0018	0.00027	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0012 J	0.0018	0.00046	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0035	0.0018	0.00069	ug/l	EPA DRAFT 1633
Perfluorodecanoic acid		0.00069 J	0.0018	0.00057	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0026	0.0018	0.00061	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0014 J	0.0018	0.0010	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0222	0.0018	0.00040	ug/l	EPA DRAFT 1633
JD77804-2	**828149-MW-2-20231127**					
Perfluorobutanoic acid		0.0066 J	0.0076	0.00088	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0023 J	0.0038	0.00069	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0015 J	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.00070 J	0.0019	0.00048	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.00087 J	0.0019	0.00071	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0019	0.0019	0.00063	ug/l	EPA DRAFT 1633
JD77804-3	**828149-MW-3-20231127**					
Perfluorobutanoic acid		0.0050 J	0.0076	0.00089	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0025 J	0.0038	0.00070	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0023	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0024	0.0019	0.00048	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0046	0.0019	0.00072	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00069 J	0.0019	0.00038	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0021	0.0019	0.00063	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0048	0.0019	0.00041	ug/l	EPA DRAFT 1633
JD77804-4	**828149-DP-10-20231127**					
Perfluorobutanoic acid		0.0246	0.0078	0.00090	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0106	0.0039	0.00071	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0065	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0027	0.0019	0.00049	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0137	0.0019	0.00073	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00074 J	0.0019	0.00039	ug/l	EPA DRAFT 1633
Perfluorodecanoic acid		0.00074 J	0.0019	0.00060	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0093	0.0019	0.00064	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0123	0.0019	0.0011	ug/l	EPA DRAFT 1633
Perfluoroheptanesulfonic acid		0.0023	0.0019	0.00095	ug/l	EPA DRAFT 1633

Summary of Hits

Job Number: JD77804
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD77804-5	**828149-MW-13-20231127**					
Perfluorobutanoic acid		0.0092	0.0078	0.00090	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0031 J	0.0039	0.00071	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0032	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0024	0.0019	0.00048	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0082	0.0019	0.00073	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.0011 J	0.0019	0.00039	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0036	0.0019	0.00064	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0024	0.0019	0.0011	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0192	0.0019	0.00042	ug/l	EPA DRAFT 1633
JD77804-6	**828149-MW-13B-20231127**					
Perfluorobutanoic acid		0.0022 J	0.0076	0.00088	ug/l	EPA DRAFT 1633
JD77804-7	**828149-DP-15-20231127**					
Perfluorobutanoic acid		0.0098	0.0077	0.00089	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0041	0.0038	0.00070	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0030	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0024	0.0019	0.00048	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0094	0.0019	0.00072	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00077 J	0.0019	0.00038	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0047	0.0019	0.00063	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0049	0.0019	0.0011	ug/l	EPA DRAFT 1633
Perfluoroheptanesulfonic acid		0.00099 J	0.0019	0.00094	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0267	0.0019	0.00041	ug/l	EPA DRAFT 1633
JD77804-8	**828149-GEMW-2-20231127**					
Perfluoroheptanoic acid		0.00093 J	0.0020	0.00051	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0011 J	0.0020	0.00076	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00067 J	0.0020	0.00041	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0011 J	0.0020	0.00067	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.00086 J	0.0020	0.00044	ug/l	EPA DRAFT 1633
JD77804-9	**828149-DP-17-20231127**					
Perfluorobutanoic acid		0.0027 J	0.0075	0.00088	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0021 J	0.0038	0.00069	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0034	0.0019	0.00062	ug/l	EPA DRAFT 1633

Summary of Hits

Job Number: JD77804
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD77804-10	**828149-MW-17B-20231127**					
Perfluorobutanoic acid		0.0015 J	0.0077	0.00090	ug/l	EPA DRAFT 1633
JD77804-11	**828149-DP-18-20231127**					
Perfluorobutanoic acid		0.0063 J	0.0084	0.00098	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0027 J	0.0042	0.00077	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0012 J	0.0021	0.00031	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0022	0.0021	0.00053	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0034	0.0021	0.00079	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00072 J	0.0021	0.00042	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0054	0.0021	0.00069	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0017 J	0.0021	0.0012	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0019 J	0.0021	0.00045	ug/l	EPA DRAFT 1633
JD77804-12	**828149-DP-19-20231128**					
No hits reported in this sample.						
JD77804-13	**828149-MW-19B-20231128**					
Perfluorobutanoic acid		0.0054 J	0.0078	0.00091	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0014 J	0.0039	0.00071	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0012 J	0.0020	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.00093 J	0.0020	0.00049	ug/l	EPA DRAFT 1633
Perfluorononanoic acid		0.00056 J	0.0020	0.00039	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0015 J	0.0020	0.00064	ug/l	EPA DRAFT 1633
JD77804-14	**828149-DP-21-20231128**					
Perfluorobutanoic acid		0.0035 J	0.0077	0.00089	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0010 J	0.0038	0.00070	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.00061 J	0.0019	0.00028	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.00085 J	0.0019	0.00048	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0014 J	0.0019	0.00072	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0034	0.0019	0.00063	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0015 J	0.0019	0.0011	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0012 J	0.0019	0.00041	ug/l	EPA DRAFT 1633
JD77804-15	**828149-MW-21B-20231128**					
Perfluorobutanoic acid		0.0065 J	0.0074	0.00087	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0023 J	0.0037	0.00068	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0022	0.0019	0.00027	ug/l	EPA DRAFT 1633

Summary of Hits

Job Number: JD77804
Account: EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Collected: 11/27/23 thru 11/28/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Perfluoroheptanoic acid		0.0013 J	0.0019	0.00047	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0028	0.0019	0.00070	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0066	0.0019	0.00061	ug/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid		0.0037	0.0019	0.0010	ug/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid		0.0016 J	0.0019	0.00040	ug/l	EPA DRAFT 1633
JD77804-16	**828149-FD-01-20231127**					
Perfluorobutanoic acid		0.0065 J	0.0075	0.00087	ug/l	EPA DRAFT 1633
Perfluoropentanoic acid		0.0025 J	0.0037	0.00068	ug/l	EPA DRAFT 1633
Perfluorohexanoic acid		0.0016 J	0.0019	0.00027	ug/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.0011 J	0.0019	0.00047	ug/l	EPA DRAFT 1633
Perfluorooctanoic acid		0.0010 J	0.0019	0.00070	ug/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid		0.0018 J	0.0019	0.00062	ug/l	EPA DRAFT 1633
JD77804-17	**828149-FB-1-20231127**					
Perfluorononanoic acid		0.00060 J	0.0021	0.00043	ug/l	EPA DRAFT 1633
JD77804-18	**828149-EB-1-20231128**					
No hits reported in this sample.						
JD77804-19	**828149-FB-2-20231128**					
No hits reported in this sample.						
JD77804-20	**828149-EB-2-20231128**					
Perfluorohexanoic acid		0.00044 J	0.0020	0.00028	ug/l	EPA DRAFT 1633

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-1-20231127		
Lab Sample ID:	JD77804-1	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5392.D	1	12/02/23 03:13	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	544 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0027	0.0074	0.00085	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.00075	0.0037	0.00067	ug/l	J
307-24-4	Perfluorohexanoic acid	0.00080	0.0018	0.00027	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.0012	0.0018	0.00046	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0035	0.0018	0.00069	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0018	0.00037	ug/l	
335-76-2	Perfluorodecanoic acid	0.00069	0.0018	0.00057	ug/l	J
2058-94-8	Perfluoroundecanoic acid	ND	0.0018	0.00051	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0018	0.00071	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0018	0.00073	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0018	0.00070	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0026	0.0018	0.00061	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0018	0.00093	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0014	0.0018	0.0010	ug/l	J
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0018	0.00090	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0222	0.0018	0.00040	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0018	0.0013	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0018	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0018	0.00037	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0074	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0074	0.00084	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0074	0.0013	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0018	0.00063	ug/l	
31506-32-8	MeFOSA	ND	0.0018	0.00059	ug/l	
4151-50-2	EtFOSA	ND	0.0018	0.00049	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-1-20231127		
Lab Sample ID:	JD77804-1	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0018	0.00047	ug/l	
2991-50-6	EtFOSAA	ND	0.0018	0.00084	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.018	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.018	0.0034	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0074	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0074	0.0011	ug/l	
377-73-1	PFMPA	ND	0.0037	0.00028	ug/l	
863090-89-5	PFMBA	ND	0.0037	0.00051	ug/l	
151772-58-6	NFDHA	ND	0.0037	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0074	0.0022	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0074	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0037	0.00025	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0092	0.0022	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.046	0.0065	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.046	0.0057	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	77%		5-130%
	13C5-PFPeA	87%		40-130%
	13C5-PFHxA	84%		40-130%
	13C4-PFHpA	86%		40-130%
	13C8-PFOA	83%		40-130%
	13C9-PFNA	69%		40-130%
	13C6-PFDA	79%		40-130%
	13C7-PFUnDA	65%		30-130%
	13C2-PFDoDA	51%		10-130%
	13C2-PFTeDA	40%		10-130%
	13C3-PFBS	86%		40-135%
	13C3-PFHxS	77%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-1-20231127		
Lab Sample ID:	JD77804-1	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	88%		40-130%
	13C8-FOSA	84%		40-130%
	d3-MeFOSA	53%		10-130%
	d5-EtFOSA	45%		10-130%
	d3-MeFOSAA	79%		40-170%
	d5-EtFOSAA	67%		25-135%
	d7-MeFOSE	53%		10-130%
	d9-EtFOSE	48%		10-130%
	13C2-4:2FTS	97%		40-200%
	13C2-6:2FTS	94%		40-200%
	13C2-8:2FTS	100%		40-300%
	13C3-HFPO-DA	87%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-2-20231127		
Lab Sample ID:	JD77804-2	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5393.D	1	12/02/23 03:28	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	526 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0066	0.0076	0.00088	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0023	0.0038	0.00069	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0015	0.0019	0.00028	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.00070	0.0019	0.00048	ug/l	J
335-67-1	Perfluorooctanoic acid	0.00087	0.0019	0.00071	ug/l	J
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00038	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00059	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00052	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00073	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00075	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00072	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0019	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00096	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00093	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0076	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0076	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0076	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00061	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00050	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-2-20231127		
Lab Sample ID:	JD77804-2	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00048	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0076	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0076	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00053	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0076	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0076	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0095	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	69%		5-130%
	13C5-PFPeA	103%		40-130%
	13C5-PFHxA	99%		40-130%
	13C4-PFHpA	101%		40-130%
	13C8-PFOA	99%		40-130%
	13C9-PFNA	98%		40-130%
	13C6-PFDA	96%		40-130%
	13C7-PFUnDA	88%		30-130%
	13C2-PFDoDA	97%		10-130%
	13C2-PFTeDA	88%		10-130%
	13C3-PFBS	92%		40-135%
	13C3-PFHxS	91%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-2-20231127
Lab Sample ID: JD77804-2
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	101%		40-130%
	13C8-FOSA	94%		40-130%
	d3-MeFOSA	84%		10-130%
	d5-EtFOSA	83%		10-130%
	d3-MeFOSAA	110%		40-170%
	d5-EtFOSAA	113%		25-135%
	d7-MeFOSE	90%		10-130%
	d9-EtFOSE	92%		10-130%
	13C2-4:2FTS	108%		40-200%
	13C2-6:2FTS	109%		40-200%
	13C2-8:2FTS	113%		40-300%
	13C3-HFPO-DA	103%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-3-20231127		
Lab Sample ID:	JD77804-3	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5394.D	1	12/02/23 03:43	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	524 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0050	0.0076	0.00089	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0025	0.0038	0.00070	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0023	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0024	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	0.0046	0.0019	0.00072	ug/l	
375-95-1	Perfluorononanoic acid	0.00069	0.0019	0.00038	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00059	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00052	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00073	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00075	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00073	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0021	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00096	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00094	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0048	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0076	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0076	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0076	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00061	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-3-20231127		
Lab Sample ID:	JD77804-3	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0076	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0076	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00053	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0076	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0076	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0095	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	79%		5-130%
	13C5-PFPeA	103%		40-130%
	13C5-PFHxA	106%		40-130%
	13C4-PFHpA	102%		40-130%
	13C8-PFOA	98%		40-130%
	13C9-PFNA	99%		40-130%
	13C6-PFDA	97%		40-130%
	13C7-PFUnDA	94%		30-130%
	13C2-PFDoDA	94%		10-130%
	13C2-PFTeDA	86%		10-130%
	13C3-PFBS	91%		40-135%
	13C3-PFHxS	90%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-3-20231127
Lab Sample ID: JD77804-3
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	104%		40-130%
	13C8-FOSA	106%		40-130%
	d3-MeFOSA	85%		10-130%
	d5-EtFOSA	88%		10-130%
	d3-MeFOSAA	117%		40-170%
	d5-EtFOSAA	117%		25-135%
	d7-MeFOSE	94%		10-130%
	d9-EtFOSE	96%		10-130%
	13C2-4:2FTS	143%		40-200%
	13C2-6:2FTS	111%		40-200%
	13C2-8:2FTS	119%		40-300%
	13C3-HFPO-DA	96%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-10-20231127		
Lab Sample ID:	JD77804-4	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5395.D	1	12/02/23 03:59	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	514 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0246	0.0078	0.00090	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0106	0.0039	0.00071	ug/l	
307-24-4	Perfluorohexanoic acid	0.0065	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0027	0.0019	0.00049	ug/l	
335-67-1	Perfluorooctanoic acid	0.0137	0.0019	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	0.00074	0.0019	0.00039	ug/l	J
335-76-2	Perfluorodecanoic acid	0.00074	0.0019	0.00060	ug/l	J
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00054	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00074	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0093	0.0019	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00098	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0123	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	0.0023	0.0019	0.00095	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00089	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00052	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-10-20231127		
Lab Sample ID:	JD77804-4	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00050	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00089	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0097	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.049	0.0069	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.049	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	75%		5-130%
	13C5-PFPeA	98%		40-130%
	13C5-PFHxA	95%		40-130%
	13C4-PFHpA	100%		40-130%
	13C8-PFOA	95%		40-130%
	13C9-PFNA	85%		40-130%
	13C6-PFDA	84%		40-130%
	13C7-PFUnDA	81%		30-130%
	13C2-PFDoDA	66%		10-130%
	13C2-PFTeDA	65%		10-130%
	13C3-PFBS	88%		40-135%
	13C3-PFHxS	85%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-10-20231127		
Lab Sample ID:	JD77804-4	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	81%		40-130%
	13C8-FOSA	91%		40-130%
	d3-MeFOSA	76%		10-130%
	d5-EtFOSA	64%		10-130%
	d3-MeFOSAA	96%		40-170%
	d5-EtFOSAA	88%		25-135%
	d7-MeFOSE	79%		10-130%
	d9-EtFOSE	76%		10-130%
	13C2-4:2FTS	95%		40-200%
	13C2-6:2FTS	91%		40-200%
	13C2-8:2FTS	110%		40-300%
	13C3-HFPO-DA	97%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	828149-MW-13-20231127		
Lab Sample ID:	JD77804-5	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5399.D	1	12/02/23 05:00	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	516 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0092	0.0078	0.00090	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0031	0.0039	0.00071	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0032	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0024	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	0.0082	0.0019	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	0.0011	0.0019	0.00039	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00060	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00053	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00074	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0036	0.0019	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00098	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0024	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00095	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0192	0.0019	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00088	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13-20231127		
Lab Sample ID:	JD77804-5	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00088	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0097	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0069	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	78%		5-130%
	13C5-PFPeA	103%		40-130%
	13C5-PFHxA	99%		40-130%
	13C4-PFHpA	104%		40-130%
	13C8-PFOA	92%		40-130%
	13C9-PFNA	96%		40-130%
	13C6-PFDA	96%		40-130%
	13C7-PFUnDA	89%		30-130%
	13C2-PFDoDA	84%		10-130%
	13C2-PFTeDA	69%		10-130%
	13C3-PFBS	94%		40-135%
	13C3-PFHxS	92%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-13-20231127
Lab Sample ID: JD77804-5
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	92%		40-130%
	13C8-FOSA	97%		40-130%
	d3-MeFOSA	90%		10-130%
	d5-EtFOSA	88%		10-130%
	d3-MeFOSAA	100%		40-170%
	d5-EtFOSAA	99%		25-135%
	d7-MeFOSE	94%		10-130%
	d9-EtFOSE	96%		10-130%
	13C2-4:2FTS	120%		40-200%
	13C2-6:2FTS	112%		40-200%
	13C2-8:2FTS	118%		40-300%
	13C3-HFPO-DA	96%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-13B-20231127		
Lab Sample ID:	JD77804-6	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5400.D	1	12/02/23 05:15	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	526 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0022	0.0076	0.00088	ug/l	J
2706-90-3	Perfluoropentanoic acid	ND	0.0038	0.00069	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00071	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00038	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00059	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00052	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00073	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00075	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00072	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00096	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00093	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0076	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0076	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0076	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00061	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00050	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-13B-20231127		
Lab Sample ID:	JD77804-6	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00048	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0076	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0076	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00053	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0076	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0076	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0095	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	84%		5-130%
	13C5-PFPeA	102%		40-130%
	13C5-PFHxA	100%		40-130%
	13C4-PFHpA	98%		40-130%
	13C8-PFOA	99%		40-130%
	13C9-PFNA	104%		40-130%
	13C6-PFDA	97%		40-130%
	13C7-PFUnDA	84%		30-130%
	13C2-PFDoDA	85%		10-130%
	13C2-PFTeDA	75%		10-130%
	13C3-PFBS	110%		40-135%
	13C3-PFHxS	102%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-13B-20231127
Lab Sample ID: JD77804-6
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	106%		40-130%
	13C8-FOSA	104%		40-130%
	d3-MeFOSA	80%		10-130%
	d5-EtFOSA	84%		10-130%
	d3-MeFOSAA	101%		40-170%
	d5-EtFOSAA	108%		25-135%
	d7-MeFOSE	93%		10-130%
	d9-EtFOSE	94%		10-130%
	13C2-4:2FTS	95%		40-200%
	13C2-6:2FTS	112%		40-200%
	13C2-8:2FTS	132%		40-300%
	13C3-HFPO-DA	102%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-15-20231127		
Lab Sample ID:	JD77804-7	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5401.D	1	12/02/23 05:31	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	520 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0098	0.0077	0.00089	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0041	0.0038	0.00070	ug/l	
307-24-4	Perfluorohexanoic acid	0.0030	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0024	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	0.0094	0.0019	0.00072	ug/l	
375-95-1	Perfluorononanoic acid	0.00077	0.0019	0.00038	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00060	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00053	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00074	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00076	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00073	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0047	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00097	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0049	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	0.00099	0.0019	0.00094	ug/l	J
1763-23-1	Perfluorooctanesulfonic acid	0.0267	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0077	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0077	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0077	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-DP-15-20231127
Lab Sample ID: JD77804-7
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0077	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0077	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0077	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0077	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0096	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	20%		5-130%
	13C5-PFPeA	97%		40-130%
	13C5-PFHxA	97%		40-130%
	13C4-PFHpA	99%		40-130%
	13C8-PFOA	99%		40-130%
	13C9-PFNA	85%		40-130%
	13C6-PFDA	88%		40-130%
	13C7-PFUnDA	83%		30-130%
	13C2-PFDoDA	89%		10-130%
	13C2-PFTeDA	74%		10-130%
	13C3-PFBS	106%		40-135%
	13C3-PFHxS	100%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-15-20231127		
Lab Sample ID:	JD77804-7	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	97%		40-130%
	13C8-FOSA	87%		40-130%
	d3-MeFOSA	80%		10-130%
	d5-EtFOSA	78%		10-130%
	d3-MeFOSAA	94%		40-170%
	d5-EtFOSAA	97%		25-135%
	d7-MeFOSE	84%		10-130%
	d9-EtFOSE	80%		10-130%
	13C2-4:2FTS	110%		40-200%
	13C2-6:2FTS	106%		40-200%
	13C2-8:2FTS	112%		40-300%
	13C3-HFPO-DA	95%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	828149-GEMW-2-20231127		
Lab Sample ID:	JD77804-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5402.D	1	12/02/23 05:46	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	492 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0081	0.00095	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0041	0.00074	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00029	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00093	0.0020	0.00051	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0011	0.0020	0.00076	ug/l	J
375-95-1	Perfluorononanoic acid	0.00067	0.0020	0.00041	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00063	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00056	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00078	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00080	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00077	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0011	0.0020	0.00067	ug/l	J
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00086	0.0020	0.00044	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0015	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00041	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0081	0.0023	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0081	0.00092	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0081	0.0015	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0020	0.00070	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00065	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00054	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-GEMW-2-20231127		
Lab Sample ID:	JD77804-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0020	0.00052	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00092	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.020	0.0028	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0038	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0081	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0081	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0041	0.00030	ug/l	
863090-89-5	PFMBA	ND	0.0041	0.00057	ug/l	
151772-58-6	NFDHA	ND	0.0041	0.0013	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0081	0.0025	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0081	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0041	0.00027	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0025	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.051	0.0072	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.051	0.0063	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	86%		5-130%
	13C5-PFPeA	107%		40-130%
	13C5-PFHxA	100%		40-130%
	13C4-PFHpA	106%		40-130%
	13C8-PFOA	95%		40-130%
	13C9-PFNA	86%		40-130%
	13C6-PFDA	78%		40-130%
	13C7-PFUnDA	68%		30-130%
	13C2-PFDoDA	49%		10-130%
	13C2-PFTeDA	45%		10-130%
	13C3-PFBS	110%		40-135%
	13C3-PFHxS	97%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-GEMW-2-20231127		
Lab Sample ID:	JD77804-8	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	85%		40-130%
	13C8-FOSA	89%		40-130%
	d3-MeFOSA	49%		10-130%
	d5-EtFOSA	47%		10-130%
	d3-MeFOSAA	69%		40-170%
	d5-EtFOSAA	63%		25-135%
	d7-MeFOSE	52%		10-130%
	d9-EtFOSE	50%		10-130%
	13C2-4:2FTS	113%		40-200%
	13C2-6:2FTS	91%		40-200%
	13C2-8:2FTS	101%		40-300%
	13C3-HFPO-DA	108%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-17-20231127		
Lab Sample ID:	JD77804-9	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5403.D	1	12/02/23 06:01	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	530 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0027	0.0075	0.00088	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0021	0.0038	0.00069	ug/l	J
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00027	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00047	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00071	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00038	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00058	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00052	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00073	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00075	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00072	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0034	0.0019	0.00062	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00095	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00092	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0075	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0075	0.00086	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0075	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00065	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00060	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00050	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-17-20231127		
Lab Sample ID:	JD77804-9	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00048	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00086	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0035	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0075	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0075	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00028	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00053	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0075	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0075	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00025	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0094	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.047	0.0067	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.047	0.0058	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	61%		5-130%
	13C5-PFPeA	100%		40-130%
	13C5-PFHxA	98%		40-130%
	13C4-PFHpA	98%		40-130%
	13C8-PFOA	95%		40-130%
	13C9-PFNA	87%		40-130%
	13C6-PFDA	89%		40-130%
	13C7-PFUnDA	90%		30-130%
	13C2-PFDoDA	78%		10-130%
	13C2-PFTeDA	77%		10-130%
	13C3-PFBS	98%		40-135%
	13C3-PFHxS	89%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-DP-17-20231127
Lab Sample ID: JD77804-9
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	116%		40-130%
	13C8-FOSA	105%		40-130%
	d3-MeFOSA	77%		10-130%
	d5-EtFOSA	83%		10-130%
	d3-MeFOSAA	100%		40-170%
	d5-EtFOSAA	105%		25-135%
	d7-MeFOSE	98%		10-130%
	d9-EtFOSE	96%		10-130%
	13C2-4:2FTS	125%		40-200%
	13C2-6:2FTS	95%		40-200%
	13C2-8:2FTS	131%		40-300%
	13C3-HFPO-DA	100%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-17B-20231127
Lab Sample ID:	JD77804-10
Matrix:	AQ - Ground Water
Method:	EPA DRAFT 1633 EPA 1633 DRAFT
Project:	NYSDEC Town and Country Cleaners, NY
Date Sampled:	11/27/23
Date Received:	11/30/23
Percent Solids:	n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5404.D	1	12/02/23 06:17	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	518 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0015	0.0077	0.00090	ug/l	J
2706-90-3	Perfluoropentanoic acid	ND	0.0039	0.00070	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00072	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00039	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00060	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00053	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00074	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00076	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00073	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0019	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00097	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00095	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0077	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0077	0.00088	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0077	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-17B-20231127		
Lab Sample ID:	JD77804-10	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00088	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0077	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0077	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0077	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0077	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0097	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0069	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	87%		5-130%
	13C5-PFPeA	99%		40-130%
	13C5-PFHxA	96%		40-130%
	13C4-PFHpA	97%		40-130%
	13C8-PFOA	93%		40-130%
	13C9-PFNA	91%		40-130%
	13C6-PFDA	96%		40-130%
	13C7-PFUnDA	83%		30-130%
	13C2-PFDoDA	86%		10-130%
	13C2-PFTeDA	69%		10-130%
	13C3-PFBS	98%		40-135%
	13C3-PFHxS	99%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-17B-20231127		
Lab Sample ID:	JD77804-10	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	94%		40-130%
	13C8-FOSA	88%		40-130%
	d3-MeFOSA	76%		10-130%
	d5-EtFOSA	82%		10-130%
	d3-MeFOSAA	98%		40-170%
	d5-EtFOSAA	95%		25-135%
	d7-MeFOSE	86%		10-130%
	d9-EtFOSE	83%		10-130%
	13C2-4:2FTS	105%		40-200%
	13C2-6:2FTS	99%		40-200%
	13C2-8:2FTS	126%		40-300%
	13C3-HFPO-DA	96%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77804-11	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5405.D	1	12/02/23 06:32	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	475 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0063	0.0084	0.00098	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0027	0.0042	0.00077	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0012	0.0021	0.00031	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.0022	0.0021	0.00053	ug/l	
335-67-1	Perfluorooctanoic acid	0.0034	0.0021	0.00079	ug/l	
375-95-1	Perfluorononanoic acid	0.00072	0.0021	0.00042	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0021	0.00065	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0021	0.00058	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0021	0.00081	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0021	0.00083	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0021	0.00080	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0054	0.0021	0.00069	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0021	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0017	0.0021	0.0012	ug/l	J
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0021	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0019	0.0021	0.00045	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	ND	0.0021	0.0015	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0021	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0021	0.00042	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0084	0.0024	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0084	0.00096	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0084	0.0015	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0021	0.00073	ug/l	
31506-32-8	MeFOSA	ND	0.0021	0.00067	ug/l	
4151-50-2	EtFOSA	ND	0.0021	0.00056	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77804-11	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0021	0.00054	ug/l	
2991-50-6	EtFOSAA	ND	0.0021	0.00096	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.021	0.0029	ug/l	
1691-99-2	EtFOSE	ND	0.021	0.0039	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0084	0.0019	ug/l	
919005-14-4	ADONA	ND	0.0084	0.0013	ug/l	
377-73-1	PFMPA	ND	0.0042	0.00032	ug/l	
863090-89-5	PFMBA	ND	0.0042	0.00059	ug/l	
151772-58-6	NFDHA	ND	0.0042	0.0013	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0084	0.0026	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0084	0.0019	ug/l	
113507-82-7	PFEESA	ND	0.0042	0.00028	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.011	0.0025	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.053	0.0075	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.053	0.0065	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	89%		5-130%
	13C5-PFPeA	98%		40-130%
	13C5-PFHxA	96%		40-130%
	13C4-PFHpA	91%		40-130%
	13C8-PFOA	86%		40-130%
	13C9-PFNA	82%		40-130%
	13C6-PFDA	84%		40-130%
	13C7-PFUnDA	61%		30-130%
	13C2-PFDoDA	25%		10-130%
	13C2-PFTeDA	0% [a]		10-130%
	13C3-PFBS	102%		40-135%
	13C3-PFHxS	81%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-18-20231127		
Lab Sample ID:	JD77804-11	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	100%		40-130%
	13C8-FOSA	95%		40-130%
	d3-MeFOSA	39%		10-130%
	d5-EtFOSA	22%		10-130%
	d3-MeFOSAA	92%		40-170%
	d5-EtFOSAA	75%		25-135%
	d7-MeFOSE	44%		10-130%
	d9-EtFOSE	31%		10-130%
	13C2-4:2FTS	136%		40-200%
	13C2-6:2FTS	98%		40-200%
	13C2-8:2FTS	80%		40-300%
	13C3-HFPO-DA	90%		40-130%

(a) Outside control limits due to possible matrix interference.Confirmed by poor compound peak on chromatogram

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77804-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5546.D	1	12/05/23 22:20	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	513 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0078	0.00091	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0039	0.00071	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00049	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00039	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00060	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00054	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00074	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0019	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00098	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00096	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00089	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00052	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77804-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00050	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00089	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0037	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00055	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0097	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.049	0.0069	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.049	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	102%		5-130%
	13C5-PFPeA	104%		40-130%
	13C5-PFHxA	103%		40-130%
	13C4-PFHpA	98%		40-130%
	13C8-PFOA	102%		40-130%
	13C9-PFNA	98%		40-130%
	13C6-PFDA	110%		40-130%
	13C7-PFUnDA	110%		30-130%
	13C2-PFDoDA	100%		10-130%
	13C2-PFTeDA	101%		10-130%
	13C3-PFBS	96%		40-135%
	13C3-PFHxS	97%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-19-20231128		
Lab Sample ID:	JD77804-12	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	118%		40-130%
	13C8-FOSA	116%		40-130%
	d3-MeFOSA	108%		10-130%
	d5-EtFOSA	116%		10-130%
	d3-MeFOSAA	127%		40-170%
	d5-EtFOSAA	127%		25-135%
	d7-MeFOSE	114%		10-130%
	d9-EtFOSE	119%		10-130%
	13C2-4:2FTS	105%		40-200%
	13C2-6:2FTS	91%		40-200%
	13C2-8:2FTS	119%		40-300%
	13C3-HFPO-DA	114%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-19B-20231128		
Lab Sample ID:	JD77804-13	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5407.D	1	12/02/23 07:02	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	512 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0054	0.0078	0.00091	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0014	0.0039	0.00071	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0012	0.0020	0.00028	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.00093	0.0020	0.00049	ug/l	J
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	0.00056	0.0020	0.00039	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00061	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00054	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00074	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0015	0.0020	0.00064	ug/l	J
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.00099	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.00096	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00089	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0020	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00063	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00052	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-19B-20231128		
Lab Sample ID:	JD77804-13	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0020	0.00050	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00089	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.020	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0037	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00055	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0013	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0098	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.049	0.0070	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.049	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	58%		5-130%
	13C5-PFPeA	81%		40-130%
	13C5-PFHxA	80%		40-130%
	13C4-PFHpA	82%		40-130%
	13C8-PFOA	78%		40-130%
	13C9-PFNA	81%		40-130%
	13C6-PFDA	83%		40-130%
	13C7-PFUnDA	76%		30-130%
	13C2-PFDoDA	84%		10-130%
	13C2-PFTeDA	80%		10-130%
	13C3-PFBS	93%		40-135%
	13C3-PFHxS	101%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-MW-19B-20231128
Lab Sample ID: JD77804-13
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	85%		40-130%
	13C8-FOSA	62%		40-130%
	d3-MeFOSA	62%		10-130%
	d5-EtFOSA	55%		10-130%
	d3-MeFOSAA	92%		40-170%
	d5-EtFOSAA	92%		25-135%
	d7-MeFOSE	55%		10-130%
	d9-EtFOSE	59%		10-130%
	13C2-4:2FTS	104%		40-200%
	13C2-6:2FTS	84%		40-200%
	13C2-8:2FTS	110%		40-300%
	13C3-HFPO-DA	79%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-DP-21-20231128		
Lab Sample ID:	JD77804-14	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5408.D	1	12/02/23 07:18	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	522 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0035	0.0077	0.00089	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0010	0.0038	0.00070	ug/l	J
307-24-4	Perfluorohexanoic acid	0.00061	0.0019	0.00028	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.00085	0.0019	0.00048	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0014	0.0019	0.00072	ug/l	J
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00038	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00059	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00053	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00074	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00076	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00073	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0034	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00097	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0015	0.0019	0.0011	ug/l	J
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00094	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0012	0.0019	0.00041	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0077	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0077	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0077	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00061	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-DP-21-20231128		
Lab Sample ID:	JD77804-14	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0077	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0077	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0077	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0077	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0096	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	68%		5-130%
	13C5-PFPeA	102%		40-130%
	13C5-PFHxA	98%		40-130%
	13C4-PFHpA	108%		40-130%
	13C8-PFOA	93%		40-130%
	13C9-PFNA	88%		40-130%
	13C6-PFDA	99%		40-130%
	13C7-PFUnDA	94%		30-130%
	13C2-PFDoDA	84%		10-130%
	13C2-PFTeDA	84%		10-130%
	13C3-PFBS	95%		40-135%
	13C3-PFHxS	102%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-DP-21-20231128
Lab Sample ID: JD77804-14
Matrix: AQ - Ground Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	97%		40-130%
	13C8-FOSA	97%		40-130%
	d3-MeFOSA	66%		10-130%
	d5-EtFOSA	73%		10-130%
	d3-MeFOSAA	92%		40-170%
	d5-EtFOSAA	89%		25-135%
	d7-MeFOSE	79%		10-130%
	d9-EtFOSE	74%		10-130%
	13C2-4:2FTS	89%		40-200%
	13C2-6:2FTS	96%		40-200%
	13C2-8:2FTS	106%		40-300%
	13C3-HFPO-DA	107%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-MW-21B-20231128		
Lab Sample ID:	JD77804-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5412.D	1	12/02/23 08:19	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	537 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0065	0.0074	0.00087	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0023	0.0037	0.00068	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0022	0.0019	0.00027	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0013	0.0019	0.00047	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0028	0.0019	0.00070	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00037	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00058	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00051	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00072	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00074	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00071	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0066	0.0019	0.00061	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00094	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0037	0.0019	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00091	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0016	0.0019	0.00040	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0013	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00037	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0074	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0074	0.00085	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0074	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00064	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00060	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00049	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-21B-20231128		
Lab Sample ID:	JD77804-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00047	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00085	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0035	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0074	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0074	0.0011	ug/l	
377-73-1	PFMPA	ND	0.0037	0.00028	ug/l	
863090-89-5	PFMBA	ND	0.0037	0.00052	ug/l	
151772-58-6	NFDHA	ND	0.0037	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0074	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0074	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0037	0.00025	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0093	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.047	0.0066	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.047	0.0058	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	87%		5-130%
	13C5-PFPeA	99%		40-130%
	13C5-PFHxA	97%		40-130%
	13C4-PFHpA	98%		40-130%
	13C8-PFOA	95%		40-130%
	13C9-PFNA	91%		40-130%
	13C6-PFDA	95%		40-130%
	13C7-PFUnDA	99%		30-130%
	13C2-PFDoDA	92%		10-130%
	13C2-PFTeDA	88%		10-130%
	13C3-PFBS	98%		40-135%
	13C3-PFHxS	92%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-MW-21B-20231128		
Lab Sample ID:	JD77804-15	**Date Sampled:**	11/28/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	102%		40-130%
	13C8-FOSA	88%		40-130%
	d3-MeFOSA	80%		10-130%
	d5-EtFOSA	83%		10-130%
	d3-MeFOSAA	102%		40-170%
	d5-EtFOSAA	100%		25-135%
	d7-MeFOSE	86%		10-130%
	d9-EtFOSE	91%		10-130%
	13C2-4:2FTS	107%		40-200%
	13C2-6:2FTS	93%		40-200%
	13C2-8:2FTS	121%		40-300%
	13C3-HFPO-DA	96%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77804-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5413.D	1	12/02/23 08:34	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	534 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0065	0.0075	0.00087	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0025	0.0037	0.00068	ug/l	J
307-24-4	Perfluorohexanoic acid	0.0016	0.0019	0.00027	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.0011	0.0019	0.00047	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0010	0.0019	0.00070	ug/l	J
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00037	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00058	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00051	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00072	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00074	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00071	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	0.0018	0.0019	0.00062	ug/l	J
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00095	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00092	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00040	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0013	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00037	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0075	0.0021	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0075	0.00085	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0075	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0019	0.00065	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00060	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00050	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77804-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0019	0.00048	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00085	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.019	0.0026	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0035	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0075	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0075	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0037	0.00028	ug/l	
863090-89-5	PFMBA	ND	0.0037	0.00052	ug/l	
151772-58-6	NFDHA	ND	0.0037	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0075	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0075	0.0017	ug/l	
113507-82-7	PFEESA	ND	0.0037	0.00025	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0094	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.047	0.0067	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.047	0.0058	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	79%		5-130%
	13C5-PFPeA	100%		40-130%
	13C5-PFHxA	94%		40-130%
	13C4-PFHpA	93%		40-130%
	13C8-PFOA	93%		40-130%
	13C9-PFNA	87%		40-130%
	13C6-PFDA	104%		40-130%
	13C7-PFUnDA	91%		30-130%
	13C2-PFDoDA	91%		10-130%
	13C2-PFTeDA	92%		10-130%
	13C3-PFBS	84%		40-135%
	13C3-PFHxS	93%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FD-01-20231127		
Lab Sample ID:	JD77804-16	**Date Sampled:**	11/27/23
Matrix:	AQ - Ground Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	106%		40-130%
	13C8-FOSA	97%		40-130%
	d3-MeFOSA	81%		10-130%
	d5-EtFOSA	88%		10-130%
	d3-MeFOSAA	101%		40-170%
	d5-EtFOSAA	107%		25-135%
	d7-MeFOSE	91%		10-130%
	d9-EtFOSE	90%		10-130%
	13C2-4:2FTS	109%		40-200%
	13C2-6:2FTS	97%		40-200%
	13C2-8:2FTS	109%		40-300%
	13C3-HFPO-DA	96%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-FB-1-20231127		
Lab Sample ID:	JD77804-17	**Date Sampled:**	11/27/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5414.D	1	12/02/23 08:49	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	468 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0085	0.00099	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0043	0.00078	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0021	0.00031	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0021	0.00053	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0021	0.00080	ug/l	
375-95-1	Perfluorononanoic acid	0.00060	0.0021	0.00043	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	0.0021	0.00066	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0021	0.00059	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0021	0.00082	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0021	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0021	0.00081	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0021	0.00071	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0021	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0021	0.0012	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0021	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0021	0.00046	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0021	0.0015	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0021	0.0012	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0021	0.00043	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0085	0.0024	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0085	0.00097	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0085	0.0015	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0021	0.00074	ug/l	
31506-32-8	MeFOSA	ND	0.0021	0.00068	ug/l	
4151-50-2	EtFOSA	ND	0.0021	0.00057	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-1-20231127		
Lab Sample ID:	JD77804-17	**Date Sampled:**	11/27/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0021	0.00054	ug/l	
2991-50-6	EtFOSAA	ND	0.0021	0.00097	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.021	0.0030	ug/l	
1691-99-2	EtFOSE	ND	0.021	0.0040	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0085	0.0019	ug/l	
919005-14-4	ADONA	ND	0.0085	0.0013	ug/l	
377-73-1	PFMPA	ND	0.0043	0.00032	ug/l	
863090-89-5	PFMBA	ND	0.0043	0.00060	ug/l	
151772-58-6	NFDHA	ND	0.0043	0.0014	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0085	0.0026	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0085	0.0019	ug/l	
113507-82-7	PFEESA	ND	0.0043	0.00029	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.011	0.0026	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.053	0.0076	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.053	0.0066	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	102%		5-130%
	13C5-PFPeA	106%		40-130%
	13C5-PFHxA	105%		40-130%
	13C4-PFHpA	109%		40-130%
	13C8-PFOA	111%		40-130%
	13C9-PFNA	93%		40-130%
	13C6-PFDA	102%		40-130%
	13C7-PFUnDA	85%		30-130%
	13C2-PFDoDA	87%		10-130%
	13C2-PFTeDA	81%		10-130%
	13C3-PFBS	97%		40-135%
	13C3-PFHxS	89%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-FB-1-20231127
Lab Sample ID: JD77804-17
Matrix: AQ - Field Blank Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/27/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	123%		40-130%
	13C8-FOSA	108%		40-130%
	d3-MeFOSA	95%		10-130%
	d5-EtFOSA	89%		10-130%
	d3-MeFOSAA	127%		40-170%
	d5-EtFOSAA	118%		25-135%
	d7-MeFOSE	98%		10-130%
	d9-EtFOSE	99%		10-130%
	13C2-4:2FTS	112%		40-200%
	13C2-6:2FTS	101%		40-200%
	13C2-8:2FTS	116%		40-300%
	13C3-HFPO-DA	108%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-EB-1-20231128		
Lab Sample ID:	JD77804-18	**Date Sampled:**	11/27/23
Matrix:	AQ - Equipment Blank	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5415.D	1	12/02/23 09:05	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	493 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0081	0.00094	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0041	0.00074	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00029	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00051	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00076	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00041	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00063	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00056	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00078	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00080	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00077	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.00067	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.00099	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.00044	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0015	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00041	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0081	0.0023	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0081	0.00092	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0081	0.0015	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0020	0.00070	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00065	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00054	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-EB-1-20231128		
Lab Sample ID:	JD77804-18	**Date Sampled:**	11/27/23
Matrix:	AQ - Equipment Blank	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0020	0.00052	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00092	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.020	0.0028	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0038	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0081	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0081	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0041	0.00030	ug/l	
863090-89-5	PFMBA	ND	0.0041	0.00057	ug/l	
151772-58-6	NFDHA	ND	0.0041	0.0013	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0081	0.0025	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0081	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0041	0.00027	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0025	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.051	0.0072	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.051	0.0063	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	98%		5-130%
	13C5-PFPeA	101%		40-130%
	13C5-PFHxA	95%		40-130%
	13C4-PFHpA	96%		40-130%
	13C8-PFOA	92%		40-130%
	13C9-PFNA	99%		40-130%
	13C6-PFDA	96%		40-130%
	13C7-PFUnDA	84%		30-130%
	13C2-PFDoDA	80%		10-130%
	13C2-PFTeDA	90%		10-130%
	13C3-PFBS	100%		40-135%
	13C3-PFHxS	103%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-EB-1-20231128		
Lab Sample ID:	JD77804-18	**Date Sampled:**	11/27/23
Matrix:	AQ - Equipment Blank	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	89%		40-130%
	13C8-FOSA	80%		40-130%
	d3-MeFOSA	77%		10-130%
	d5-EtFOSA	84%		10-130%
	d3-MeFOSAA	101%		40-170%
	d5-EtFOSAA	97%		25-135%
	d7-MeFOSE	83%		10-130%
	d9-EtFOSE	85%		10-130%
	13C2-4:2FTS	141%		40-200%
	13C2-6:2FTS	102%		40-200%
	13C2-8:2FTS	111%		40-300%
	13C3-HFPO-DA	100%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-FB-2-20231128		
Lab Sample ID:	JD77804-19	**Date Sampled:**	11/28/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5416.D	1	12/02/23 09:20	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	555 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0072	0.00084	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0036	0.00066	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0018	0.00026	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0018	0.00045	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0018	0.00068	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0018	0.00036	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0018	0.00056	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0018	0.00050	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0018	0.00069	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0018	0.00071	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0018	0.00068	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0018	0.00059	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0018	0.00091	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0018	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0018	0.00088	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0018	0.00039	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0018	0.0013	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0018	0.00098	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0018	0.00036	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0072	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0072	0.00082	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0072	0.0013	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0018	0.00062	ug/l	
31506-32-8	MeFOSA	ND	0.0018	0.00058	ug/l	
4151-50-2	EtFOSA	ND	0.0018	0.00048	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-FB-2-20231128		
Lab Sample ID:	JD77804-19	**Date Sampled:**	11/28/23
Matrix:	AQ - Field Blank Water	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0018	0.00046	ug/l	
2991-50-6	EtFOSAA	ND	0.0018	0.00082	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.018	0.0025	ug/l	
1691-99-2	EtFOSE	ND	0.018	0.0034	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0072	0.0016	ug/l	
919005-14-4	ADONA	ND	0.0072	0.0011	ug/l	
377-73-1	PFMPA	ND	0.0036	0.00027	ug/l	
863090-89-5	PFMBA	ND	0.0036	0.00050	ug/l	
151772-58-6	NFDHA	ND	0.0036	0.0012	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0072	0.0022	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0072	0.0016	ug/l	
113507-82-7	PFEESA	ND	0.0036	0.00024	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0090	0.0022	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.045	0.0064	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.045	0.0056	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	102%		5-130%
	13C5-PFPeA	105%		40-130%
	13C5-PFHxA	103%		40-130%
	13C4-PFHpA	105%		40-130%
	13C8-PFOA	103%		40-130%
	13C9-PFNA	92%		40-130%
	13C6-PFDA	101%		40-130%
	13C7-PFUnDA	88%		30-130%
	13C2-PFDoDA	75%		10-130%
	13C2-PFTeDA	66%		10-130%
	13C3-PFBS	95%		40-135%
	13C3-PFHxS	95%		40-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-FB-2-20231128
Lab Sample ID: JD77804-19
Matrix: AQ - Field Blank Water
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	96%		40-130%
	13C8-FOSA	94%		40-130%
	d3-MeFOSA	75%		10-130%
	d5-EtFOSA	73%		10-130%
	d3-MeFOSAA	103%		40-170%
	d5-EtFOSAA	104%		25-135%
	d7-MeFOSE	90%		10-130%
	d9-EtFOSE	88%		10-130%
	13C2-4:2FTS	104%		40-200%
	13C2-6:2FTS	95%		40-200%
	13C2-8:2FTS	108%		40-300%
	13C3-HFPO-DA	108%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	828149-EB-2-20231128		
Lab Sample ID:	JD77804-20	**Date Sampled:**	11/28/23
Matrix:	AQ - Equipment Blank	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q5417.D	1	12/02/23 09:35	PC	12/01/23 03:27	OP50811	T2Q96
Run #2							

	Initial Volume	Final Volume
Run #1	512 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYL CARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0078	0.00091	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0039	0.00071	ug/l	
307-24-4	Perfluorohexanoic acid	0.00044	0.0020	0.00028	ug/l	J
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00049	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00039	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00061	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00054	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00074	ug/l	
PERFLUOROALKYL SULFONIC ACIDS						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.00099	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.00096	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00039	ug/l	
FLUOROTELOMER SULFONIC ACIDS						
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00089	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
PERFLUOROOCTANE SULFONAMIDES						
754-91-6	PFOSA	ND	0.0020	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00063	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00052	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	828149-EB-2-20231128		
Lab Sample ID:	JD77804-20	**Date Sampled:**	11/28/23
Matrix:	AQ - Equipment Blank	**Date Received:**	11/30/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	**Percent Solids:**	n/a
Project:	NYSDEC Town and Country Cleaners, NY		

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROOCTANE SULFONAMIDOACETIC ACIDS						
2355-31-9	MeFOSAA	ND	0.0020	0.00050	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00089	ug/l	
PERFLUOROOCTANE SULFONAMIDO ETHANOLS						
24448-09-7	MeFOSE	ND	0.020	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0037	ug/l	
PER and POLYFLUOROETHER CARBOXYLIC ACIDS						
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00055	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0013	ug/l	
PER and POLYFLUOROETHER SULFONIC ACIDS						
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0018	ug/l	
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
FLUOROTELOMER CARBOXYLIC ACIDS						
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0098	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.049	0.0070	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.049	0.0060	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	97%		5-130%
	13C5-PFPeA	98%		40-130%
	13C5-PFHxA	97%		40-130%
	13C4-PFHpA	98%		40-130%
	13C8-PFOA	96%		40-130%
	13C9-PFNA	93%		40-130%
	13C6-PFDA	85%		40-130%
	13C7-PFUnDA	80%		30-130%
	13C2-PFDoDA	75%		10-130%
	13C2-PFTeDA	66%		10-130%
	13C3-PFBS	82%		40-135%
	13C3-PFHxS	93%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 828149-EB-2-20231128
Lab Sample ID: JD77804-20
Matrix: AQ - Equipment Blank
Method: EPA DRAFT 1633 EPA 1633 DRAFT
Project: NYSDEC Town and Country Cleaners, NY

Date Sampled: 11/28/23
Date Received: 11/30/23
Percent Solids: n/a

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	98%		40-130%
	13C8-FOSA	78%		40-130%
	d3-MeFOSA	69%		10-130%
	d5-EtFOSA	67%		10-130%
	d3-MeFOSAA	95%		40-170%
	d5-EtFOSAA	84%		25-135%
	d7-MeFOSE	77%		10-130%
	d9-EtFOSE	73%		10-130%
	13C2-4:2FTS	108%		40-200%
	13C2-6:2FTS	95%		40-200%
	13C2-8:2FTS	97%		40-300%
	13C3-HFPO-DA	99%		40-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

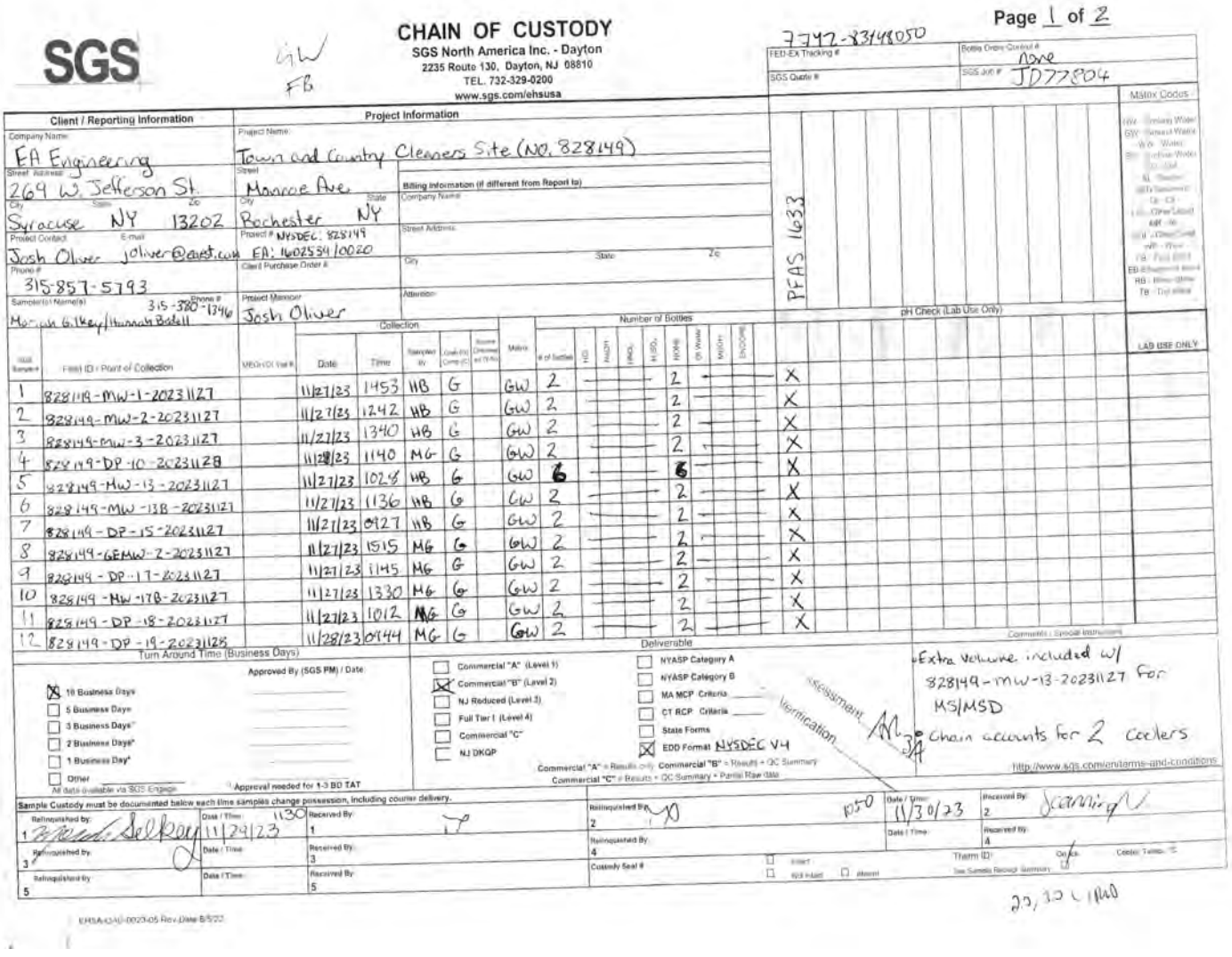
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



SGS

GW
FB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200
www.sgs.com/ehsusa

Page 1 of 2

7742-8348050

FED-EX Tracking #

Bottle Order Control #: None

SGS Quote #

SGS Job #: JD77804

Client / Reporting Information

Company Name: EA Engineering
Street Address: 269 W. Jefferson St.
City: Syracuse State: NY Zip: 13202
Project Contact: Josh Oliver E-mail: joliver@eaest.com
Phone #: 315-857-5793
Sampler(s) Name(s): Morgan Gilkey/Hannah Bodell Phone #: 315-380-1946

Project Information

Project Name: Town and Country Cleaners Site (NO. 828149)
Street: Monroe Ave
City: Rochester State: NY
Project # NYSDEC: 828149 EA: 14025341.0020
Client Purchase Order #:
Project Manager: Josh Oliver

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip
Attention:

PFAS 1633

Matrix Codes

#	Field ID / Point of Collection	MEOH Vol #	Collection Date	Collection Time	Sampled By	Grab (G) / Comp (C)	Matrix	# of Bottles	HCl	H2SO4	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	pH Check (Lab Use Only)	LAB USE ONLY
1	828149-MW-1-20231127		11/27/23	1453	HB	G	GW	2					2				X	
2	828149-MW-2-20231127		11/27/23	1242	HB	G	GW	2					2				X	
3	828149-MW-3-20231127		11/27/23	1340	HB	G	GW	2					2				X	
4	828149-DP-10-20231128		11/28/23	1140	MG	G	GW	2					2				X	
5	828149-MW-13-20231127		11/27/23	1028	HB	G	GW	6					6				X	
6	828149-MW-13B-20231127		11/27/23	1136	HB	G	GW	2					2				X	
7	828149-DP-15-20231127		11/27/23	0927	HB	G	GW	2					2				X	
8	828149-GEMW-2-20231127		11/27/23	1515	MG	G	GW	2					2				X	
9	828149-DP-17-20231127		11/27/23	1145	MG	G	GW	2					2				X	
10	828149-MW-17B-20231127		11/27/23	1330	MG	G	GW	2					2				X	
11	828149-DP-18-20231127		11/27/23	1012	MG	G	GW	2					2				X	
12	828149-DP-19-20231128		11/28/23	0944	MG	G	GW	2					2				X	

Turn Around Time (Business Days)

Approved By (SGS PM) / Date

- [X] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via SGS Engage

*Approval needed for 1-3 BD TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [X] EDD Format NYSDEC V4

Commercial "A" = Results only Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Assessment
Verification

Comments / Special Instructions

*Extra volume included w/ 828149-MW-13-20231127 for MS/MSD
*Chain accounts for 2 coolers

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by	Date / Time	Received By	Date / Time
1	[signature]	11/29/23 1130	1	
2			2	1050 11/30/23
3			3	
4			4	
5			5	

Custody Seal #: Intact / Not Intact / Absent

Therm ID: On Ice: Cooler Temp:

See Sample Receipt Summary

EHSA-CAI-0023-05 Rev. Date 8/5/22

22, 32 C IMD

CHAIN OF CUSTODY

SGS

Page 2 of 2

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200
www.sgs.com/ehsusa

GW
FB

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: JD77804

Client / Reporting Information

Company Name: EA Engineering
Street Address: 269 W. Jefferson St.
City: Syracuse State: NY Zip: 13202
Project Contact: Josh Oliver E-mail: joliver@eaest.com
Phone #: 315-857-5793
Sampler(s) Name(s): Micah G. Ikay/Hunter Bedell Phone #: 315-580-1346

Project Information

Project Name: Townand Country Cleaners Site (No. 828149)
Street: Monroe Ave
City: Rochester State: NY
Project # NYSDEC: 828149
EA: 16025584/0020
Client Purchase Order #:
Project Manager: Josh Oliver

Billing Information (if different from Report to):
Company Name:
Street Address:
City: State: Zip:
Attention:

PFAS 1633

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) / Comp (C)	Matrix Discharge (Y/N)	Matrix	Number of Bottles: # of bottles	HCl	NaOH	UNPRES	H2SO4	NONE	DI Water	MEOH	ENCORE	pH Check (Lab Use Only)	LAB USE ONLY
13	828149 - MW-19B-20231128		11/28/23	1034	MG	G		GW	2					2				X	
14	828149 - DP-21-20231128		11/28/23	0924	MB	G		GW	2					2				X	
15	828149 - MW-21B-20231128		11/28/23	1001	MG	G		GW	2					2				X	
16	828149 - FD #1-20231127		11/27/23	—	—	G		GW	2					2				X	
17	828149 - FB-1-20231127		11/27/23	1445	MG	G	FB	GW	2					2				X	
18	828149 - EB-1-20231127		11/27/23	1500	MG	G	EB	GW	2					2				X	
19	828149 - FB-2-20231128		11/28/23	1440	MG	G	FB	GW	2					2				X	
20	828149 - EB-2-20231128		11/28/23	1445	MG	G		EB	2					2				X	

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

- [x] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via SGS Engage
* Approval needed for 1-3 BD TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [x] EDD Format NYSDEC V4

Commercial "A" = Results only Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions:
Same as page 1

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by	Date / Time	Received By		Relinquished By	Date / Time	Received By
1	Micah Ikay	11/29/23 1130	Fedex	2	Fedex	11/30/23 10:50	JCAMING
3				4			
5							

Custody Seal #: Intact / Not Intact / Absent
Therm ID: Cooler Temp:

EHSA-CAC-0023-05 Rev Date 8/5/22

SGS Sample Receipt Summary

Job Number: JD77804 **Client:** EA ENGINEERING **Project:** TOWN AND COUNTRY CLEANERS SITE

Date / Time Received: 11/30/2023 10:50:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 774283148050

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0); Cooler 2: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (2.0); Cooler 2: (3.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

EA Engineering

Job No: JD77804

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC:828149; EA:1602534/0020

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD77804-1	Collected: 27-NOV-23 14:53 By: HB			Received: 30-NOV-23	By: JW	
828149-MW-1-20231127						
JD77804-1	EPA DRAFT 1633	02-DEC-23 03:13	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-2	Collected: 27-NOV-23 12:42 By: HB			Received: 30-NOV-23	By: JW	
828149-MW-2-20231127						
JD77804-2	EPA DRAFT 1633	02-DEC-23 03:28	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-3	Collected: 27-NOV-23 13:40 By: HB			Received: 30-NOV-23	By: JW	
828149-MW-3-20231127						
JD77804-3	EPA DRAFT 1633	02-DEC-23 03:43	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-4	Collected: 27-NOV-23 11:40 By: MG			Received: 30-NOV-23	By: JW	
828149-DP-10-20231127						
JD77804-4	EPA DRAFT 1633	02-DEC-23 03:59	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-5	Collected: 27-NOV-23 10:28 By: HB			Received: 30-NOV-23	By: JW	
828149-MW-13-20231127						
JD77804-5	EPA DRAFT 1633	02-DEC-23 05:00	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-6	Collected: 27-NOV-23 11:36 By: HB			Received: 30-NOV-23	By: JW	
828149-MW-13B-20231127						
JD77804-6	EPA DRAFT 1633	02-DEC-23 05:15	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-7	Collected: 27-NOV-23 09:27 By: HB			Received: 30-NOV-23	By: JW	
828149-DP-15-20231127						
JD77804-7	EPA DRAFT 1633	02-DEC-23 05:31	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-8	Collected: 27-NOV-23 15:15 By: MG			Received: 30-NOV-23	By: JW	
828149-GEMW-2-20231127						
JD77804-8	EPA DRAFT 1633	02-DEC-23 05:46	PC	01-DEC-23	JA	LCID1633LIST40

Internal Sample Tracking Chronicle

EA Engineering

Job No: JD77804

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC:828149; EA:1602534/0020

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD77804-9	Collected: 27-NOV-23 11:45 By: MG 828149-DP-17-20231127			Received: 30-NOV-23	By: JW	
JD77804-9	EPA DRAFT 1633	02-DEC-23 06:01	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-10	Collected: 27-NOV-23 13:30 By: MG 828149-MW-17B-20231127			Received: 30-NOV-23	By: JW	
JD77804-10	EPA DRAFT 1633	02-DEC-23 06:17	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-11	Collected: 27-NOV-23 10:12 By: MG 828149-DP-18-20231127			Received: 30-NOV-23	By: JW	
JD77804-11	EPA DRAFT 1633	02-DEC-23 06:32	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-12	Collected: 28-NOV-23 09:44 By: MG 828149-DP-19-20231128			Received: 30-NOV-23	By: JW	
JD77804-12	EPA DRAFT 1633	05-DEC-23 22:20	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-13	Collected: 28-NOV-23 10:34 By: MG 828149-MW-19B-20231128			Received: 30-NOV-23	By: JW	
JD77804-13	EPA DRAFT 1633	02-DEC-23 07:02	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-14	Collected: 28-NOV-23 09:24 By: HB 828149-DP-21-20231128			Received: 30-NOV-23	By: JW	
JD77804-14	EPA DRAFT 1633	02-DEC-23 07:18	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-15	Collected: 28-NOV-23 10:07 By: MG 828149-MW-21B-20231128			Received: 30-NOV-23	By: JW	
JD77804-15	EPA DRAFT 1633	02-DEC-23 08:19	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-16	Collected: 27-NOV-23 00:00 By: 828149-FD-01-20231127			Received: 30-NOV-23	By: JW	
JD77804-16	EPA DRAFT 1633	02-DEC-23 08:34	PC	01-DEC-23	JA	LCID1633LIST40

Internal Sample Tracking Chronicle

EA Engineering

Job No: JD77804

NYSDEC Town and Country Cleaners, NY
Project No: NYSDEC:828149; EA:1602534/0020

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD77804-17 Collected: 27-NOV-23 14:45 By: MG 828149-FB-1-20231127				Received: 30-NOV-23	By: JW	
JD77804-17	EPA DRAFT 1633	02-DEC-23 08:49	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-18 Collected: 27-NOV-23 15:00 By: MG 828149-EB-1-20231128				Received: 30-NOV-23	By: JW	
JD77804-18	EPA DRAFT 1633	02-DEC-23 09:05	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-19 Collected: 28-NOV-23 14:40 By: MG 828149-FB-2-20231128				Received: 30-NOV-23	By: JW	
JD77804-19	EPA DRAFT 1633	02-DEC-23 09:20	PC	01-DEC-23	JA	LCID1633LIST40
JD77804-20 Collected: 28-NOV-23 14:45 By: MG 828149-EB-2-20231128				Received: 30-NOV-23	By: JW	
JD77804-20	EPA DRAFT 1633	02-DEC-23 09:35	PC	01-DEC-23	JA	LCID1633LIST40

SGS Internal Chain of Custody

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Received: 11/30/23

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD77804-1.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-1.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-2.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-2.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-3.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-3.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-4.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-4.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.3	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.4	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.5	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-5.6	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-6.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-6.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-7.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-7.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-8.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-8.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-9.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-9.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage

SGS Internal Chain of Custody

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY
Received: 11/30/23

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD77804-10.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-10.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-11.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-11.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-12.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-12.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-13.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-13.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-14.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-14.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-15.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-15.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-16.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-16.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-17.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-17.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-18.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-18.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-19.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-19.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-20.1	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage
JD77804-20.2	Bilaal Nazar	Secured Storage	11/30/23 17:02	Return to Storage

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Injection Standard Area Summaries
- Ion Ratio Summaries
- Isotope Dilution Standard Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-IBLK	2Q5271.D	1	11/30/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.00093	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.00073	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00029	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00075	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00040	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00062	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00055	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00077	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00079	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00076	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.00066	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.00098	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.00043	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00040	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0023	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.00091	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0015	ug/l	
754-91-6	PFOSA	ND	0.0020	0.00069	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00064	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00053	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.00051	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00091	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.0028	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0038	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0040	0.00030	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.00056	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0013	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-IBLK	2Q5271.D	1	11/30/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.00027	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.050	0.0071	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.050	0.0062	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	102%	5-130%
	13C5-PFPeA	104%	40-130%
	13C5-PFHxA	102%	40-130%
	13C4-PFHpA	104%	40-130%
	13C8-PFOA	96%	40-130%
	13C9-PFNA	91%	40-130%
	13C6-PFDA	106%	40-130%
	13C7-PFUnDA	113%	30-130%
	13C2-PFDoDA	95%	10-130%
	13C2-PFTeDA	105%	10-130%
	13C3-PFBS	101%	40-135%
	13C3-PFHxS	88%	40-130%
	13C8-PFOS	106%	40-130%
	13C8-FOSA	112%	40-130%
	d3-MeFOSA	113%	10-130%
	d5-EtFOSA	113%	10-130%
	d3-MeFOSAA	121%	40-170%
	d5-EtFOSAA	124%	25-135%
	d7-MeFOSE	115%	10-130%
	d9-EtFOSE	119%	10-130%
	13C2-4:2FTS	100%	40-200%
	13C2-6:2FTS	111%	40-200%
	13C2-8:2FTS	130%	40-300%
	13C3-HFPO-DA	106%	40-130%

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-ICCB	2Q5398.D	1	12/02/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-13, JD77804-14

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0078	0.00090	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0039	0.00071	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00049	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00073	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00039	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00060	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00054	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00075	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00077	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00074	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0019	0.00064	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00098	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00095	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00042	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00039	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0078	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0078	0.00089	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0078	0.0014	ug/l	
754-91-6	PFOSA	ND	0.0019	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00062	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00052	ug/l	
2355-31-9	MeFOSAA	ND	0.0019	0.00050	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00089	ug/l	
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0078	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0078	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0039	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0039	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0039	0.0012	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0078	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0078	0.0018	ug/l	

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-ICCB	2Q5398.D	1	12/02/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-13, JD77804-14

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0039	0.00026	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0097	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.049	0.0069	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.049	0.0060	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	102%	5-130%
	13C5-PFPeA	104%	40-130%
	13C5-PFHxA	101%	40-130%
	13C4-PFHpA	102%	40-130%
	13C8-PFOA	100%	40-130%
	13C9-PFNA	111%	40-130%
	13C6-PFDA	100%	40-130%
	13C7-PFUnDA	101%	30-130%
	13C2-PFDoDA	93%	10-130%
	13C2-PFTeDA	91%	10-130%
	13C3-PFBS	97%	40-135%
	13C3-PFHxS	93%	40-130%
	13C8-PFOS	99%	40-130%
	13C8-FOSA	104%	40-130%
	d3-MeFOSA	98%	10-130%
	d5-EtFOSA	93%	10-130%
	d3-MeFOSAA	118%	40-170%
	d5-EtFOSAA	109%	25-135%
	d7-MeFOSE	100%	10-130%
	d9-EtFOSE	102%	10-130%
	13C2-4:2FTS	119%	40-200%
	13C2-6:2FTS	96%	40-200%
	13C2-8:2FTS	116%	40-300%
	13C3-HFPO-DA	108%	40-130%

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-ICCB	2Q5411.D	1	12/02/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0077	0.00089	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0038	0.00070	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0019	0.00028	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0019	0.00048	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0019	0.00072	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0019	0.00038	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0019	0.00059	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0019	0.00053	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0019	0.00074	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0019	0.00076	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0019	0.00073	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0019	0.00063	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0019	0.00097	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0019	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0019	0.00094	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0019	0.00041	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0019	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0019	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0019	0.00038	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0077	0.0022	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0077	0.00087	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0077	0.0014	ug/l	
754-91-6	PFOSA	ND	0.0019	0.00066	ug/l	
31506-32-8	MeFOSA	ND	0.0019	0.00061	ug/l	
4151-50-2	EtFOSA	ND	0.0019	0.00051	ug/l	
2355-31-9	MeFOSAA	ND	0.0019	0.00049	ug/l	
2991-50-6	EtFOSAA	ND	0.0019	0.00087	ug/l	
24448-09-7	MeFOSE	ND	0.019	0.0027	ug/l	
1691-99-2	EtFOSE	ND	0.019	0.0036	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0077	0.0017	ug/l	
919005-14-4	ADONA	ND	0.0077	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0038	0.00029	ug/l	
863090-89-5	PFMBA	ND	0.0038	0.00054	ug/l	
151772-58-6	NFDHA	ND	0.0038	0.0012	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0077	0.0023	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0077	0.0017	ug/l	

Instrument Blank

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2Q96-ICCB	2Q5411.D	1	12/02/23	PC	n/a	n/a	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0038	0.00026	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.0096	0.0023	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.048	0.0068	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.048	0.0059	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	102%	5-130%
	13C5-PFPeA	107%	40-130%
	13C5-PFHxA	102%	40-130%
	13C4-PFHpA	104%	40-130%
	13C8-PFOA	102%	40-130%
	13C9-PFNA	103%	40-130%
	13C6-PFDA	111%	40-130%
	13C7-PFUnDA	96%	30-130%
	13C2-PFDoDA	99%	10-130%
	13C2-PFTeDA	97%	10-130%
	13C3-PFBS	95%	40-135%
	13C3-PFHxS	97%	40-130%
	13C8-PFOS	91%	40-130%
	13C8-FOSA	105%	40-130%
	d3-MeFOSA	106%	10-130%
	d5-EtFOSA	99%	10-130%
	d3-MeFOSAA	111%	40-170%
	d5-EtFOSAA	115%	25-135%
	d7-MeFOSE	103%	10-130%
	d9-EtFOSE	105%	10-130%
	13C2-4:2FTS	114%	40-200%
	13C2-6:2FTS	115%	40-200%
	13C2-8:2FTS	119%	40-300%
	13C3-HFPO-DA	104%	40-130%

Method Blank Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-MB	2Q5387.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.00093	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.00073	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00029	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00075	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00040	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00062	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00055	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00077	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00079	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00076	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.00066	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0011	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.00098	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.00043	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0014	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0011	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.00040	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0023	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.00091	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0015	ug/l	
754-91-6	PFOSA	ND	0.0020	0.00069	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.00064	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.00053	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.00051	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.00091	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.0028	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.0038	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0018	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0012	ug/l	
377-73-1	PFMPA	ND	0.0040	0.00030	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.00056	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0013	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0024	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

Method Blank Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-MB	2Q5387.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.00027	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0024	ug/l	
914637-49-3	5:3 Fluorotelomer carboxylate	ND	0.050	0.0071	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.050	0.0062	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	108%	5-130%
	13C5-PFPeA	117%	40-130%
	13C5-PFHxA	110%	40-130%
	13C4-PFHpA	114%	40-130%
	13C8-PFOA	106%	40-130%
	13C9-PFNA	98%	40-130%
	13C6-PFDA	108%	40-130%
	13C7-PFUnDA	104%	30-130%
	13C2-PFDoDA	95%	10-130%
	13C2-PFTeDA	96%	10-130%
	13C3-PFBS	117%	40-135%
	13C3-PFHxS	101%	40-130%
	13C8-PFOS	120%	40-130%
	13C8-FOSA	113%	40-130%
	d3-MeFOSA	76%	10-130%
	d5-EtFOSA	92%	10-130%
	d3-MeFOSAA	135%	40-170%
	d5-EtFOSAA	130%	25-135%
	d7-MeFOSE	112%	10-130%
	d9-EtFOSE	114%	10-130%
	13C2-4:2FTS	134%	40-200%
	13C2-6:2FTS	116%	40-200%
	13C2-8:2FTS	141%	40-300%
	13C3-HFPO-DA	118%	40-130%

Blank Spike Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-LLBS	2Q5388.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.016	0.0153	96	70-140
2706-90-3	Perfluoropentanoic acid	0.008	0.0073	91	65-135
307-24-4	Perfluorohexanoic acid	0.004	0.0041	103	70-145
375-85-9	Perfluoroheptanoic acid	0.004	0.0042	105	70-150
335-67-1	Perfluorooctanoic acid	0.004	0.0037	93	70-150
375-95-1	Perfluorononanoic acid	0.004	0.0042	105	70-150
335-76-2	Perfluorodecanoic acid	0.004	0.0036	90	70-140
2058-94-8	Perfluoroundecanoic acid	0.004	0.0045	113	70-145
307-55-1	Perfluorododecanoic acid	0.004	0.0036	90	70-140
72629-94-8	Perfluorotridecanoic acid	0.004	0.0039	98	65-140
376-06-7	Perfluorotetradecanoic acid	0.004	0.0044	110	60-140
375-73-5	Perfluorobutanesulfonic acid	0.00355	0.0043	121	60-145
2706-91-4	Perfluoropentanesulfonic acid	0.00376	0.0046	122	65-140
355-46-4	Perfluorohexanesulfonic acid	0.00366	0.0035	96	65-145
375-92-8	Perfluoroheptanesulfonic acid	0.00381	0.0042	110	70-150
1763-23-1	Perfluorooctanesulfonic acid	0.00371	0.0029	78	55-150
68259-12-1	Perfluorononanesulfonic acid	0.00385	0.0026	68	65-145
335-77-3	Perfluorodecanesulfonic acid	0.00386	0.0038	98	60-145
79780-39-5	Perfluorododecanesulfonic aci	0.00388	0.0034	88	50-145
757124-72-4	4:2 Fluorotelomer sulfonate	0.015	0.0143	95	70-145
27619-97-2	6:2 Fluorotelomer sulfonate	0.0152	0.0129	85	65-155
39108-34-4	8:2 Fluorotelomer sulfonate	0.0154	0.0174	113	60-150
754-91-6	PFOSA	0.008	0.0068	85	70-145
31506-32-8	MeFOSA	0.008	0.0070	88	60-150
4151-50-2	EtFOSA	0.008	0.0062	78	65-145
2355-31-9	MeFOSAA	0.004	0.0040	100	50-140
2991-50-6	EtFOSAA	0.004	0.0044	110	70-145
24448-09-7	MeFOSE	0.02	0.0164	82	70-145
1691-99-2	EtFOSE	0.02	0.0159	80	70-135
13252-13-6	HFPO-DA (GenX)	0.016	0.0159	99	70-140
919005-14-4	ADONA	0.0151	0.0134	89	65-145
377-73-1	PFMPA	0.008	0.0076	95	55-140
863090-89-5	PFMBA	0.008	0.0075	94	60-150
151772-58-6	NFDHA	0.008	0.0097	121	50-150
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.015	0.0132	88	70-155
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.0151	0.0131	87	50-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-LLBS	2Q5388.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.00712	0.0077	108	70-140
356-02-5	3:3 Fluorotelomer carboxylate	0.02	0.0168	84	65-130
914637-49-3	5:3 Fluorotelomer carboxylate	0.1	0.0819	82	70-135
812-70-4	7:3 Fluorotelomer carboxylate	0.1	0.0732	73	50-145

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	99%	5-130%
	13C5-PFPeA	101%	40-130%
	13C5-PFHxA	99%	40-130%
	13C4-PFHpA	97%	40-130%
	13C8-PFOA	89%	40-130%
	13C9-PFNA	93%	40-130%
	13C6-PFDA	108%	40-130%
	13C7-PFUnDA	99%	30-130%
	13C2-PFDoDA	98%	10-130%
	13C2-PFTeDA	82%	10-130%
	13C3-PFBS	93%	40-135%
	13C3-PFHxS	83%	40-130%
	13C8-PFOS	104%	40-130%
	13C8-FOSA	100%	40-130%
	d3-MeFOSA	72%	10-130%
	d5-EtFOSA	79%	10-130%
	d3-MeFOSAA	102%	40-170%
	d5-EtFOSAA	108%	25-135%
	d7-MeFOSE	93%	10-130%
	d9-EtFOSE	90%	10-130%
	13C2-4:2FTS	119%	40-200%
	13C2-6:2FTS	124%	40-200%
	13C2-8:2FTS	105%	40-300%
	13C3-HFPO-DA	103%	40-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-BS	2Q5389.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0972	97	70-140
2706-90-3	Perfluoropentanoic acid	0.05	0.0479	96	65-135
307-24-4	Perfluorohexanoic acid	0.025	0.0249	100	70-145
375-85-9	Perfluoroheptanoic acid	0.025	0.0226	90	70-150
335-67-1	Perfluorooctanoic acid	0.025	0.0247	99	70-150
375-95-1	Perfluorononanoic acid	0.025	0.0225	90	70-150
335-76-2	Perfluorodecanoic acid	0.025	0.0261	104	70-140
2058-94-8	Perfluoroundecanoic acid	0.025	0.0254	102	70-145
307-55-1	Perfluorododecanoic acid	0.025	0.0252	101	70-140
72629-94-8	Perfluorotridecanoic acid	0.025	0.0238	95	65-140
376-06-7	Perfluorotetradecanoic acid	0.025	0.0246	98	60-140
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0230	104	60-145
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0238	101	65-140
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0223	98	65-145
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0249	105	70-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0237	102	55-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0194	81	65-145
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0255	106	60-145
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0214	88	50-145
757124-72-4	4:2 Fluorotelomer sulfonate	0.0938	0.110	117	70-145
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0970	102	65-155
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.103	107	60-150
754-91-6	PFOSA	0.05	0.0516	103	70-145
31506-32-8	MeFOSA	0.05	0.0484	97	60-150
4151-50-2	EtFOSA	0.05	0.0453	91	65-145
2355-31-9	MeFOSAA	0.025	0.0224	90	50-140
2991-50-6	EtFOSAA	0.025	0.0248	99	70-145
24448-09-7	MeFOSE	0.125	0.111	89	70-145
1691-99-2	EtFOSE	0.125	0.110	88	70-135
13252-13-6	HFPO-DA (GenX)	0.1	0.0840	84	70-140
919005-14-4	ADONA	0.0945	0.0834	88	65-145
377-73-1	PFMPA	0.05	0.0486	97	55-140
863090-89-5	PFMBA	0.05	0.0498	100	60-150
151772-58-6	NFDHA	0.05	0.0473	95	50-150
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.0935	0.0855	91	70-155
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.0945	0.0836	88	50-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-BS	2Q5389.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0506	114	70-140
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.108	86	65-130
914637-49-3	5:3 Fluorotelomer carboxylate	0.625	0.569	91	70-135
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.575	92	50-145

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	100%	5-130%
	13C5-PFPeA	105%	40-130%
	13C5-PFHxA	101%	40-130%
	13C4-PFHpA	103%	40-130%
	13C8-PFOA	96%	40-130%
	13C9-PFNA	97%	40-130%
	13C6-PFDA	83%	40-130%
	13C7-PFUnDA	87%	30-130%
	13C2-PFDoDA	86%	10-130%
	13C2-PFTeDA	77%	10-130%
	13C3-PFBS	101%	40-135%
	13C3-PFHxS	97%	40-130%
	13C8-PFOS	102%	40-130%
	13C8-FOSA	94%	40-130%
	d3-MeFOSA	70%	10-130%
	d5-EtFOSA	74%	10-130%
	d3-MeFOSAA	118%	40-170%
	d5-EtFOSAA	105%	25-135%
	d7-MeFOSE	94%	10-130%
	d9-EtFOSE	96%	10-130%
	13C2-4:2FTS	102%	40-200%
	13C2-6:2FTS	113%	40-200%
	13C2-8:2FTS	121%	40-300%
	13C3-HFPO-DA	113%	40-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-MS	2Q5390.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96
OP50811-MSD	2Q5391.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96
JD77804-5	2Q5399.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	JD77804-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.0092		0.0911	0.102	102	0.0973	0.112	106	9	70-140/30
2706-90-3	Perfluoropentanoic acid	0.0031	J	0.0455	0.0486	100	0.0486	0.0542	105	11	65-135/30
307-24-4	Perfluorohexanoic acid	0.0032		0.0228	0.0270	105	0.0243	0.0288	105	6	70-145/30
375-85-9	Perfluoroheptanoic acid	0.0024		0.0228	0.0221	87	0.0243	0.0269	101	20	70-150/30
335-67-1	Perfluorooctanoic acid	0.0082		0.0228	0.0298	95	0.0243	0.0324	100	8	70-150/30
375-95-1	Perfluorononanoic acid	0.0011	J	0.0228	0.0226	94	0.0243	0.0228	89	1	70-150/30
335-76-2	Perfluorodecanoic acid	ND		0.0228	0.0235	103	0.0243	0.0277	114	16	70-140/30
2058-94-8	Perfluoroundecanoic acid	ND		0.0228	0.0219	96	0.0243	0.0239	98	9	70-145/30
307-55-1	Perfluorododecanoic acid	ND		0.0228	0.0217	95	0.0243	0.0254	104	16	70-140/30
72629-94-8	Perfluorotridecanoic acid	ND		0.0228	0.0227	100	0.0243	0.0261	107	14	65-140/30
376-06-7	Perfluorotetradecanoic acid	ND		0.0228	0.0234	103	0.0243	0.0255	105	9	60-140/30
375-73-5	Perfluorobutanesulfonic acid	0.0036		0.0202	0.0261	111	0.0216	0.0259	103	1	60-145/30
2706-91-4	Perfluoropentanesulfonic acid	ND		0.0214	0.0223	104	0.0229	0.0229	100	3	65-140/30
355-46-4	Perfluorohexanesulfonic acid	0.0024		0.0208	0.0249	108	0.0222	0.0249	101	0	65-145/30
375-92-8	Perfluoroheptanesulfonic acid	ND		0.0217	0.0237	109	0.0232	0.0267	115	12	70-150/30
1763-23-1	Perfluorooctanesulfonic acid	0.0192		0.0211	0.0392	95	0.0226	0.0401	93	2	55-150/30
68259-12-1	Perfluorononanesulfonic acid	ND		0.0219	0.0184	84	0.0234	0.0226	97	20	65-145/30
335-77-3	Perfluorodecanesulfonic acid	ND		0.022	0.0165	75	0.0235	0.0208	89	23	60-145/30
79780-39-5	Perfluorododecanesulfonic aci	ND		0.0221	0.0206	93	0.0236	0.0212	90	3	50-145/30
757124-72-4	4:2 Fluorotelomer sulfonate	ND		0.0854	0.0827	97	0.0912	0.0972	107	16	70-145/30
27619-97-2	6:2 Fluorotelomer sulfonate	ND		0.0865	0.0752	87	0.0924	0.115	124	42* [a]	65-155/30
39108-34-4	8:2 Fluorotelomer sulfonate	ND		0.0874	0.0979	112	0.0934	0.117	125	18	60-150/30
754-91-6	PFOSA	ND		0.0455	0.0445	98	0.0486	0.0497	102	11	70-145/30
31506-32-8	MeFOSA	ND		0.0455	0.0425	93	0.0486	0.0477	98	12	60-150/30
4151-50-2	EtFOSA	ND		0.0455	0.0407	89	0.0486	0.0483	99	17	65-145/30
2355-31-9	MeFOSAA	ND		0.0228	0.0181	79	0.0243	0.0255	105	34* [a]	50-140/30
2991-50-6	EtFOSAA	ND		0.0228	0.0187	82	0.0243	0.0269	111	36* [a]	70-145/30
24448-09-7	MeFOSE	ND		0.114	0.106	93	0.122	0.111	91	5	70-145/30
1691-99-2	EtFOSE	ND		0.114	0.107	94	0.122	0.114	94	6	70-135/30
13252-13-6	HFPO-DA (GenX)	ND		0.0911	0.0807	89	0.0973	0.0909	93	12	70-140/30
919005-14-4	ADONA	ND		0.0861	0.0813	94	0.0919	0.0999	109	21	65-145/30
377-73-1	PFMPA	ND		0.0455	0.0393	86	0.0486	0.0473	97	18	55-140/30
863090-89-5	PFMBA	ND		0.0455	0.0474	104	0.0486	0.0521	107	9	60-150/30
151772-58-6	NFDHA	ND		0.0455	0.0470	103	0.0486	0.0549	113	16	50-150/30
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND		0.0852	0.0895	105	0.091	0.101	111	12	70-155/30
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND		0.0861	0.0870	101	0.0919	0.0983	107	12	50-150/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50811-MS	2Q5390.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96
OP50811-MSD	2Q5391.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96
JD77804-5	2Q5399.D	1	12/02/23	PC	12/01/23	OP50811	T2Q96

The QC reported here applies to the following samples: **Method:** EPA DRAFT 1633

JD77804-1, JD77804-2, JD77804-3, JD77804-4, JD77804-5, JD77804-6, JD77804-7, JD77804-8, JD77804-9, JD77804-10, JD77804-11, JD77804-12, JD77804-13, JD77804-14, JD77804-15, JD77804-16, JD77804-17, JD77804-18, JD77804-19, JD77804-20

CAS No.	Compound	JD77804-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
113507-82-7	PFEESA	ND		0.0405	0.0465	115	0.0433	0.0510	118	9	70-140/30
356-02-5	3:3 Fluorotelomer carboxylate	ND		0.114	0.0909	80	0.122	0.113	93	22	65-130/30
914637-49-3	5:3 Fluorotelomer carboxylate	ND		0.569	0.542	95	0.608	0.618	102	13	70-135/30
812-70-4	7:3 Fluorotelomer carboxylate	ND		0.569	0.558	98	0.608	0.591	97	6	50-145/30

CAS No.	ID Standard Recoveries	MS	MSD	JD77804-5	Limits
	13C4-PFBA	52%	73%	78%	5-130%
	13C5-PFPeA	87%	101%	103%	40-130%
	13C5-PFHxA	85%	98%	99%	40-130%
	13C4-PFHpA	93%	99%	104%	40-130%
	13C8-PFOA	95%	96%	92%	40-130%
	13C9-PFNA	86%	96%	96%	40-130%
	13C6-PFDA	84%	89%	96%	40-130%
	13C7-PFUnDA	90%	90%	89%	30-130%
	13C2-PFDoDA	87%	82%	84%	10-130%
	13C2-PFTeDA	84%	78%	69%	10-130%
	13C3-PFBS	92%	104%	94%	40-135%
	13C3-PFHxS	97%	104%	92%	40-130%
	13C8-PFOS	91%	101%	92%	40-130%
	13C8-FOSA	78%	101%	97%	40-130%
	d3-MeFOSA	67%	80%	90%	10-130%
	d5-EtFOSA	69%	75%	88%	10-130%
	d3-MeFOSAA	98%	112%	100%	40-170%
	d5-EtFOSAA	94%	103%	99%	25-135%
	d7-MeFOSE	70%	92%	94%	10-130%
	d9-EtFOSE	73%	91%	96%	10-130%
	13C2-4:2FTS	112%	122%	120%	40-200%
	13C2-6:2FTS	127%	105%	112%	40-200%
	13C2-8:2FTS	113%	110%	118%	40-300%
	13C3-HFPO-DA	91%	95%	96%	40-130%

(a) Outside of control limits, but within reasonable method recovery limits.

* = Outside of Control Limits.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/01/23
Lab File ID:	2Q5379.D	**Injection Time:**	23:55
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal [b]	78919	3.34	59320	5.96	79272	7.40	39155	7.91	31818	8.40
Check Std [c]	80535	3.32	59578	5.93	78116	7.36	39249	7.88	33765	8.35
Upper Limit [d]	157838	3.72	118640	6.33	158544	7.76	78310	8.28	63636	8.75
Lower Limit [e]	31568	2.92	23728	5.53	31709	6.96	15662	7.48	12727	7.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	DF [a]
T2Q96-ICCB	63393	3.32	45097	5.93	62374	7.37	33233	7.88	24637	8.35	1
ZZZZZZ	75720	3.33	51590	5.93	68250	7.37	34420	7.88	33200	8.35	10
ZZZZZZ	66340	3.32	44280	5.93	65420	7.37	28030	7.88	23260	8.35	10
ZZZZZZ	61570	3.32	44400	5.93	55980	7.37	25830	7.88	25140	8.35	10
ZZZZZZ	69890	3.32	49580	5.93	66840	7.37	33380	7.89	28790	8.35	10
ZZZZZZ	68870	3.32	47210	5.93	66220	7.37	29920	7.89	21100	8.35	10
ZZZZZZ	62670	3.32	44070	5.93	55530	7.37	26440	7.89	24540	8.35	10
OP50811-MB	67208	3.31	45019	5.93	62943	7.37	32341	7.88	25588	8.35	1
OP50811-LLBS	74226	3.32	51776	5.93	74710	7.37	35443	7.88	26849	8.35	1
OP50811-BS	71606	3.32	49100	5.93	69043	7.37	35229	7.88	29724	8.35	1
OP50811-MS	68194	3.31	48934	5.93	62567	7.37	32899	7.88	26941	8.35	1
OP50811-MSD	70243	3.31	50166	5.93	68661	7.37	36405	7.88	28415	8.35	1
JD77804-1	66316	3.32	47721	5.93	62362	7.37	35106	7.88	25943	8.35	1
JD77804-2	67505	3.31	46923	5.93	63134	7.36	32568	7.88	24796	8.35	1
JD77804-3	71512	3.31	49917	5.93	68960	7.36	36749	7.88	28833	8.35	1
JD77804-4	64424	3.31	47229	5.92	62963	7.36	32171	7.88	27337	8.35	1

IS 1 = 13C3-PFBA
IS 2 = 13C2-PFHxA
IS 3 = 13C4-PFOA
IS 4 = 13C5-PFNA
IS 5 = 13C2-PFDA

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/01/23
Lab File ID:	2Q5379.D	**Injection Time:**	23:55
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 6 AREA	RT	IS 7 AREA	RT
Initial Cal [b]	7269	7.51	13439	8.55
Check Std [c]	8104	7.47	12490	8.51
Upper Limit [d]	14538	7.87	26878	8.91
Lower Limit [e]	2908	7.07	5376	8.11

Lab Sample ID	IS 6 AREA	RT	IS 7 AREA	RT	DF [a]
T2Q96-ICCB	6733	7.47	10830	8.51	1
ZZZZZZ	4940	7.47	16920	8.51	10
ZZZZZZ	6750	7.47	11750	8.50	10
ZZZZZZ	5350	7.47	14390	8.51	10
ZZZZZZ	6210	7.48	14080	8.51	10
ZZZZZZ	6120	7.47	10370	8.52	10
ZZZZZZ	5810	7.47	8270	8.51	10
OP50811-MB	5841	7.47	9734	8.51	1
OP50811-LLBS	6819	7.47	11736	8.51	1
OP50811-BS	6246	7.47	11670	8.51	1
OP50811-MS	5608	7.47	12058	8.50	1
OP50811-MSD	5894	7.47	11490	8.51	1
JD77804-1	6021	7.47	10371	8.51	1
JD77804-2	6058	7.47	10559	8.50	1
JD77804-3	7115	7.47	11546	8.51	1
JD77804-4	6257	7.47	10956	8.50	1

IS 6 = 18O2-PFHXS
IS 7 = 13C4-PFOS

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/02/23
Lab File ID:	2Q5397.D	**Injection Time:**	04:29
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal [b]	78919	3.34	59320	5.96	79272	7.40	39155	7.91	31818	8.40
Check Std [c]	80918	3.32	61538	5.93	77028	7.37	37008	7.88	32223	8.35
Upper Limit [d]	157838	3.72	118640	6.33	158544	7.77	78310	8.28	63636	8.75
Lower Limit [e]	31568	2.92	23728	5.53	31709	6.97	15662	7.48	12727	7.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	DF [a]
T2Q96-ICCB	66381	3.32	48273	5.93	64953	7.36	30183	7.88	25675	8.35	1
JD77804-5	69309	3.32	47824	5.93	68414	7.37	31652	7.88	27530	8.35	1
JD77804-6	66289	3.32	45905	5.93	63288	7.36	29464	7.88	25511	8.35	1
JD77804-7	67448	3.31	50599	5.93	67664	7.37	36137	7.89	28178	8.35	1
JD77804-8	73103	3.32	51232	5.93	68601	7.36	37660	7.88	29285	8.35	1
JD77804-9	70035	3.33	49320	5.93	67872	7.36	34539	7.88	28340	8.35	1
JD77804-10	70734	3.32	49892	5.93	67684	7.36	32841	7.89	25792	8.35	1
JD77804-11	69443	3.34	48827	5.93	66088	7.37	31028	7.89	21381	8.35	1
JD77804-13	69556	3.31	49751	5.92	68936	7.36	31947	7.88	26030	8.35	1
JD77804-14	70223	3.32	48117	5.93	68067	7.36	35387	7.88	24930	8.35	1

IS 1 = 13C3-PFBA
IS 2 = 13C2-PFHxA
IS 3 = 13C4-PFOA
IS 4 = 13C5-PFNA
IS 5 = 13C2-PFDA

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/02/23
Lab File ID:	2Q5397.D	**Injection Time:**	04:29
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 6 AREA	RT	IS 7 AREA	RT
Initial Cal [b]	7269	7.51	13439	8.55
Check Std [c]	7811	7.47	14053	8.51
Upper Limit [d]	14538	7.87	26878	8.91
Lower Limit [e]	2908	7.07	5376	8.11

Lab Sample ID	IS 6 AREA	RT	IS 7 AREA	RT	DF [a]
T2Q96-ICCB	6043	7.47	11421	8.51	1
JD77804-5	6061	7.47	11005	8.51	1
JD77804-6	5806	7.47	10695	8.51	1
JD77804-7	6048	7.47	12280	8.51	1
JD77804-8	6380	7.47	12651	8.51	1
JD77804-9	6593	7.47	11101	8.50	1
JD77804-10	5874	7.47	10765	8.51	1
JD77804-11	5890	7.47	7947	8.51	1
JD77804-13	5878	7.47	11070	8.50	1
JD77804-14	6533	7.47	12142	8.50	1

IS 6 = 18O2-PFHXS
IS 7 = 13C4-PFOS

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/02/23
Lab File ID:	2Q5409.D	**Injection Time:**	07:33
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal [b]	78919	3.34	59320	5.96	79272	7.40	39155	7.91	31818	8.40
Check Std [c]	84664	3.33	61329	5.93	86001	7.36	45495	7.88	33491	8.35
Upper Limit [d]	157838	3.73	118640	6.33	158544	7.76	78310	8.28	63636	8.75
Lower Limit [e]	31568	2.93	23728	5.53	31709	6.96	15662	7.48	12727	7.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	DF [a]
T2Q96-ICCB	66290	3.32	46765	5.93	61666	7.37	30814	7.88	25485	8.35	1
JD77804-15	69060	3.32	49563	5.93	65936	7.37	35631	7.88	26150	8.35	1
JD77804-16	68506	3.32	48269	5.93	68632	7.36	32427	7.88	26362	8.35	1
JD77804-17	74739	3.32	51981	5.93	67258	7.36	35534	7.88	28728	8.35	1
JD77804-18	74850	3.32	52181	5.93	72981	7.36	33183	7.88	28031	8.35	1
JD77804-19	72009	3.32	49680	5.93	63779	7.36	34568	7.88	26849	8.35	1
JD77804-20	65181	3.32	46318	5.93	61690	7.37	31056	7.88	23575	8.35	1

IS 1 = 13C3-PFBA
IS 2 = 13C2-PFHxA
IS 3 = 13C4-PFOA
IS 4 = 13C5-PFNA
IS 5 = 13C2-PFDA

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q96-CC96	**Injection Date:**	12/02/23
Lab File ID:	2Q5409.D	**Injection Time:**	07:33
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 6 AREA	RT	IS 7 AREA	RT
Initial Cal [b]	7269	7.51	13439	8.55
Check Std [c]	8402	7.47	13131	8.51
Upper Limit [d]	14538	7.87	26878	8.91
Lower Limit [e]	2908	7.07	5376	8.11

Lab Sample ID	IS 6 AREA	RT	IS 7 AREA	RT	DF [a]
T2Q96-ICCB	6320	7.47	11163	8.50	1
JD77804-15	6099	7.47	11453	8.51	1
JD77804-16	6533	7.47	10847	8.50	1
JD77804-17	6906	7.47	10764	8.50	1
JD77804-18	6643	7.47	12427	8.51	1
JD77804-19	6817	7.47	10323	8.51	1
JD77804-20	6592	7.47	10074	8.51	1

IS 6 = 18O2-PFHXS
IS 7 = 13C4-PFOS

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q97-CC96	**Injection Date:**	12/05/23
Lab File ID:	2Q5531.D	**Injection Time:**	18:32
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal [b]	78919	3.34	59320	5.96	79272	7.40	39155	7.91	31818	8.40
Check Std [c]	77164	3.32	56299	5.93	77233	7.36	38929	7.88	32159	8.35
Upper Limit [d]	157838	3.72	118640	6.33	158544	7.76	78310	8.28	63636	8.75
Lower Limit [e]	31568	2.92	23728	5.53	31709	6.96	15662	7.48	12727	7.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	DF [a]
T2Q97-ICCB	63259	3.32	44874	5.93	60439	7.36	31347	7.88	24477	8.35	1
OP50781-MB	66637	3.33	46067	5.93	62443	7.36	30577	7.88	23592	8.35	1
ZZZZZZ	64060	3.32	45459	5.93	63737	7.36	32233	7.88	28339	8.35	1
OP50890-MB	67287	3.32	47937	5.93	63943	7.36	33270	7.88	27055	8.34	1
OP50890-LLBS	66179	3.32	46882	5.92	64588	7.36	34143	7.88	27559	8.34	1
OP50890-BS	66687	3.32	45677	5.93	62709	7.36	33809	7.88	24447	8.35	1
OP50890-BSD	65904	3.32	48696	5.93	65178	7.36	32621	7.88	26126	8.35	1
ZZZZZZ	66654	3.32	47401	5.93	62433	7.36	33063	7.88	27132	8.35	1
ZZZZZZ	66676	3.32	46303	5.93	66945	7.36	32672	7.88	26322	8.34	1
ZZZZZZ	66570	3.32	46960	5.93	60975	7.36	31553	7.88	24467	8.34	1
ZZZZZZ	68171	3.32	47856	5.93	62298	7.37	30367	7.88	26580	8.35	1
ZZZZZZ	61279	3.32	41707	5.93	54248	7.36	28923	7.88	24432	8.35	1
ZZZZZZ	67659	3.32	47320	5.93	64489	7.36	32698	7.88	23815	8.34	1
ZZZZZZ	62586	3.32	45409	5.93	60229	7.36	30243	7.88	24609	8.35	1
JD77804-12	68546	3.32	49268	5.93	64453	7.36	34413	7.88	25154	8.34	1

IS 1 = 13C3-PFBA
IS 2 = 13C2-PFHxA
IS 3 = 13C4-PFOA
IS 4 = 13C5-PFNA
IS 5 = 13C2-PFDA

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Injection Standard Area Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Check Std:	T2Q97-CC96	**Injection Date:**	12/05/23
Lab File ID:	2Q5531.D	**Injection Time:**	18:32
Instrument ID:	GCMS2Q	**Method:**	EPA DRAFT 1633

	IS 6 AREA	RT	IS 7 AREA	RT
Initial Cal [b]	7269	7.51	13439	8.55
Check Std [c]	7538	7.47	12991	8.50
Upper Limit [d]	14538	7.87	26878	8.90
Lower Limit [e]	2908	7.07	5376	8.10

Lab Sample ID	IS 6 AREA	RT	IS 7 AREA	RT	DF [a]
T2Q97-ICCB	6107	7.47	10849	8.50	1
OP50781-MB	6811	7.48	11566	8.50	1
ZZZZZZ	5544	7.47	10044	8.50	1
OP50890-MB	5830	7.47	10813	8.50	1
OP50890-LLBS	6871	7.47	11122	8.50	1
OP50890-BS	6324	7.47	10582	8.50	1
OP50890-BSD	6544	7.47	10810	8.50	1
ZZZZZZ	5793	7.47	10926	8.51	1
ZZZZZZ	5603	7.47	10848	8.50	1
ZZZZZZ	6770	7.47	9840	8.50	1
ZZZZZZ	6944	7.47	10658	8.50	1
ZZZZZZ	5534	7.47	9902	8.50	1
ZZZZZZ	6306	7.47	11614	8.50	1
ZZZZZZ	5979	7.47	10470	8.50	1
JD77804-12	6767	7.47	10554	8.50	1

IS 6 = 18O2-PFHXS
IS 7 = 13C4-PFOS

(a) Sample areas corrected for dilution where applicable.
(b) Initial Cal is: T2Q96-ICC96 2Q5266.D 11/30/23 18:06. Area is AVERAGE of initial cal points.
(c) Check Std Limit = -60 to + 100% of initial cal area.
(d) Upper Limit = + 100% of initial standard area; Retention time + 0.4 minutes of check standard.
(e) Lower Limit = -60% of initial standard area; Retention time -0.4 minutes of check standard.

Ion Ratio Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96 **Method:** EPA DRAFT 1633

Lab Sample ID	Lab File ID	Ion Ratios (Set 1) PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA
T2Q96-ICC96	2Q5266.D	0	0	2.9	16.4	19.2	16	15.2
JD77804-1	2Q5392.D	0	0	2.6	13.2	23.4		1.7
JD77804-2	2Q5393.D	0	0	6	24.4	18.9		
JD77804-3	2Q5394.D	0	0	4.1	15.1	19.9	15.4	
JD77804-4	2Q5395.D	0	0	2.7	17.4	20.6	12.1	2.9
JD77804-5	2Q5399.D	0	0	3.4	18.8	21.7	11.3	
JD77804-6	2Q5400.D	0						
JD77804-7	2Q5401.D	0	0	5.1	22.4	20.9	15.1	
JD77804-8	2Q5402.D				24.1	16.9	4.1	
JD77804-9	2Q5403.D	0	0					
JD77804-10	2Q5404.D	0						
JD77804-11	2Q5405.D	0	0	2.1	17.5	26.4	20.1	
JD77804-13	2Q5407.D	0	0	1.1	16		12.4	
JD77804-14	2Q5408.D	0	0	1.7	16.2	22.6		
JD77804-15	2Q5412.D	0	0	1.8	21.2	25.3		
JD77804-16	2Q5413.D	0	0	2.3	9.6	12.3		
JD77804-17	2Q5414.D						10.2	
JD77804-18	2Q5415.D							
JD77804-19	2Q5416.D							
JD77804-20	2Q5417.D			8.6				
JD77804-12	2Q5546.D							

Ion Ratio Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96 **Method:** EPA DRAFT 1633

Lab Sample ID	Lab File ID	Ion Ratios (Set 2) PFBS	PFHxS	PFHpS	PFOS
T2Q96-ICC96	2Q5266.D	42.3	57.7	52.5	42.6
JD77804-1	2Q5392.D	35.1	73.1		24.9
JD77804-2	2Q5393.D	43.7			
JD77804-3	2Q5394.D	43.5			34.5
JD77804-4	2Q5395.D	44.6	37.9	49.4	
JD77804-5	2Q5399.D	42.4	29.7		20.5
JD77804-6	2Q5400.D				
JD77804-7	2Q5401.D	41.1	60.6	67.2	18.3
JD77804-8	2Q5402.D	29.2			6.6
JD77804-9	2Q5403.D	44.9			
JD77804-10	2Q5404.D				
JD77804-11	2Q5405.D	46.2	45.6		38.9
JD77804-13	2Q5407.D	26.2			
JD77804-14	2Q5408.D	45.7	36.9		55.7
JD77804-15	2Q5412.D	44.6	51		32.2
JD77804-16	2Q5413.D	45.9			
JD77804-17	2Q5414.D				
JD77804-18	2Q5415.D				
JD77804-19	2Q5416.D				
JD77804-20	2Q5417.D				
JD77804-12	2Q5546.D				

Isotope Dilution Standard Recovery Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: EPA DRAFT 1633 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6	S7	S8
JD77804-1	2Q5392.D	77	87	84	86	83	69	79	65
JD77804-2	2Q5393.D	69	103	99	101	99	98	96	88
JD77804-3	2Q5394.D	79	103	106	102	98	99	97	94
JD77804-4	2Q5395.D	75	98	95	100	95	85	84	81
JD77804-5	2Q5399.D	78	103	99	104	92	96	96	89
JD77804-6	2Q5400.D	84	102	100	98	99	104	97	84
JD77804-7	2Q5401.D	20	97	97	99	99	85	88	83
JD77804-8	2Q5402.D	86	107	100	106	95	86	78	68
JD77804-9	2Q5403.D	61	100	98	98	95	87	89	90
JD77804-10	2Q5404.D	87	99	96	97	93	91	96	83
JD77804-11	2Q5405.D	89	98	96	91	86	82	84	61
JD77804-12	2Q5546.D	102	104	103	98	102	98	110	110
JD77804-13	2Q5407.D	58	81	80	82	78	81	83	76
JD77804-14	2Q5408.D	68	102	98	108	93	88	99	94
JD77804-15	2Q5412.D	87	99	97	98	95	91	95	99
JD77804-16	2Q5413.D	79	100	94	93	93	87	104	91
JD77804-17	2Q5414.D	102	106	105	109	111	93	102	85
JD77804-18	2Q5415.D	98	101	95	96	92	99	96	84
JD77804-19	2Q5416.D	102	105	103	105	103	92	101	88
JD77804-20	2Q5417.D	97	98	97	98	96	93	85	80
OP50811-BS	2Q5389.D	100	105	101	103	96	97	83	87
OP50811-LLBS	2Q5388.D	99	101	99	97	89	93	108	99
OP50811-MB	2Q5387.D	108	117	110	114	106	98	108	104
OP50811-MS	2Q5390.D	52	87	85	93	95	86	84	90
OP50811-MSD	2Q5391.D	73	101	98	99	96	96	89	90
T2Q96-IBLK	2Q5271.D	102	104	102	104	96	91	106	113
T2Q96-ICCB	2Q5398.D	102	104	101	102	100	111	100	101
T2Q96-ICCB	2Q5411.D	102	107	102	104	102	103	111	96

Isotope Dilution Standards	Recovery Limits
S1 = 13C4-PFBA	5-130%
S2 = 13C5-PFPeA	40-130%
S3 = 13C5-PFHxA	40-130%
S4 = 13C4-PFHpA	40-130%
S5 = 13C8-PFOA	40-130%
S6 = 13C9-PFNA	40-130%
S7 = 13C6-PFDA	40-130%
S8 = 13C7-PFUnDA	30-130%

Isotope Dilution Standard Recovery Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: EPA DRAFT 1633 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S9	S10	S11	S12	S13	S14	S15	S16
JD77804-1	2Q5392.D	51	40	86	77	88	84	53	45
JD77804-2	2Q5393.D	97	88	92	91	101	94	84	83
JD77804-3	2Q5394.D	94	86	91	90	104	106	85	88
JD77804-4	2Q5395.D	66	65	88	85	81	91	76	64
JD77804-5	2Q5399.D	84	69	94	92	92	97	90	88
JD77804-6	2Q5400.D	85	75	110	102	106	104	80	84
JD77804-7	2Q5401.D	89	74	106	100	97	87	80	78
JD77804-8	2Q5402.D	49	45	110	97	85	89	49	47
JD77804-9	2Q5403.D	78	77	98	89	116	105	77	83
JD77804-10	2Q5404.D	86	69	98	99	94	88	76	82
JD77804-11	2Q5405.D	25	0* [a]	102	81	100	95	39	22
JD77804-12	2Q5546.D	100	101	96	97	118	116	108	116
JD77804-13	2Q5407.D	84	80	93	101	85	62	62	55
JD77804-14	2Q5408.D	84	84	95	102	97	97	66	73
JD77804-15	2Q5412.D	92	88	98	92	102	88	80	83
JD77804-16	2Q5413.D	91	92	84	93	106	97	81	88
JD77804-17	2Q5414.D	87	81	97	89	123	108	95	89
JD77804-18	2Q5415.D	80	90	100	103	89	80	77	84
JD77804-19	2Q5416.D	75	66	95	95	96	94	75	73
JD77804-20	2Q5417.D	75	66	82	93	98	78	69	67
OP50811-BS	2Q5389.D	86	77	101	97	102	94	70	74
OP50811-LLBS	2Q5388.D	98	82	93	83	104	100	72	79
OP50811-MB	2Q5387.D	95	96	117	101	120	113	76	92
OP50811-MS	2Q5390.D	87	84	92	97	91	78	67	69
OP50811-MSD	2Q5391.D	82	78	104	104	101	101	80	75
T2Q96-IBLK	2Q5271.D	95	105	101	88	106	112	113	113
T2Q96-ICCB	2Q5398.D	93	91	97	93	99	104	98	93
T2Q96-ICCB	2Q5411.D	99	97	95	97	91	105	106	99

Isotope Dilution Standards	Recovery Limits
S9 = 13C2-PFDoDA	10-130%
S10 = 13C2-PFTeDA	10-130%
S11 = 13C3-PFBS	40-135%
S12 = 13C3-PFHxS	40-130%
S13 = 13C8-PFOS	40-130%
S14 = 13C8-FOSA	40-130%
S15 = d3-MeFOSA	10-130%
S16 = d5-EtFOSA	10-130%

Isotope Dilution Standard Recovery Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: EPA DRAFT 1633	**Matrix:** AQ

Samples and QC shown here apply to the above method

Isotope Dilution Standards	**Recovery Limits**

(a) Outside control limits due to possible matrix interference.Confirmed by poor compound peak on chromatogram

Isotope Dilution Standard Recovery Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Method: EPA DRAFT 1633 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S17	S18	S19	S20	S21	S22	S23	S24
JD77804-1	2Q5392.D	79	67	53	48	97	94	100	87
JD77804-2	2Q5393.D	110	113	90	92	108	109	113	103
JD77804-3	2Q5394.D	117	117	94	96	143	111	119	96
JD77804-4	2Q5395.D	96	88	79	76	95	91	110	97
JD77804-5	2Q5399.D	100	99	94	96	120	112	118	96
JD77804-6	2Q5400.D	101	108	93	94	95	112	132	102
JD77804-7	2Q5401.D	94	97	84	80	110	106	112	95
JD77804-8	2Q5402.D	69	63	52	50	113	91	101	108
JD77804-9	2Q5403.D	100	105	98	96	125	95	131	100
JD77804-10	2Q5404.D	98	95	86	83	105	99	126	96
JD77804-11	2Q5405.D	92	75	44	31	136	98	80	90
JD77804-12	2Q5546.D	127	127	114	119	105	91	119	114
JD77804-13	2Q5407.D	92	92	55	59	104	84	110	79
JD77804-14	2Q5408.D	92	89	79	74	89	96	106	107
JD77804-15	2Q5412.D	102	100	86	91	107	93	121	96
JD77804-16	2Q5413.D	101	107	91	90	109	97	109	96
JD77804-17	2Q5414.D	127	118	98	99	112	101	116	108
JD77804-18	2Q5415.D	101	97	83	85	141	102	111	100
JD77804-19	2Q5416.D	103	104	90	88	104	95	108	108
JD77804-20	2Q5417.D	95	84	77	73	108	95	97	99
OP50811-BS	2Q5389.D	118	105	94	96	102	113	121	113
OP50811-LLBS	2Q5388.D	102	108	93	90	119	124	105	103
OP50811-MB	2Q5387.D	135	130	112	114	134	116	141	118
OP50811-MS	2Q5390.D	98	94	70	73	112	127	113	91
OP50811-MSD	2Q5391.D	112	103	92	91	122	105	110	95
T2Q96-IBLK	2Q5271.D	121	124	115	119	100	111	130	106
T2Q96-ICCB	2Q5398.D	118	109	100	102	119	96	116	108
T2Q96-ICCB	2Q5411.D	111	115	103	105	114	115	119	104

Isotope Dilution Standards	Recovery Limits
S17 = d3-MeFOSAA	40-170%
S18 = d5-EtFOSAA	25-135%
S19 = d7-MeFOSE	10-130%
S20 = d9-EtFOSE	10-130%
S21 = 13C2-4:2FTS	40-200%
S22 = 13C2-6:2FTS	40-200%
S23 = 13C2-8:2FTS	40-300%
S24 = 13C3-HFPO-DA	40-130%

Initial Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICC96
Lab FileID: 2Q5266.D

Initial Calibration Report

Method Path
Method File
Batch Name D:\MassHunter\Data\1633\T2Q96\QuantResults\T2Q96.batch.bin
Last Calib Update 12/1/2023 8:56:55 AM

Level Name	Calibration Files	Acq. Date-Time	Level Last Update Time
1	D:\MassHunter\Data\1633\T2Q96\2Q5263.d	11/30/2023 5:20:43 PM	12/1/2023 8:56:55 AM
2	D:\MassHunter\Data\1633\T2Q96\2Q5264.d	11/30/2023 5:35:56 PM	12/1/2023 8:56:55 AM
3	D:\MassHunter\Data\1633\T2Q96\2Q5265.d	11/30/2023 5:51:09 PM	12/1/2023 8:56:55 AM
4	D:\MassHunter\Data\1633\T2Q96\2Q5266.d	11/30/2023 6:06:23 PM	12/1/2023 8:56:55 AM
5	D:\MassHunter\Data\1633\T2Q96\2Q5267.d	11/30/2023 6:21:38 PM	12/1/2023 8:56:55 AM
6	D:\MassHunter\Data\1633\T2Q96\2Q5268.d	11/30/2023 6:36:51 PM	12/1/2023 8:56:55 AM
7	D:\MassHunter\Data\1633\T2Q96\2Q5269.d	11/30/2023 6:52:04 PM	12/1/2023 8:56:55 AM
8	D:\MassHunter\Data\1633\T2Q96\2Q5270.d	11/30/2023 7:07:19 PM	12/1/2023 8:56:55 AM

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
I M4-PFBA						ISTD					
T PFBA	Avg RF	0.2431	0.2359	0.2316	0.2406	0.2531	0.2643	0.2657	0.2748	0.2511	6.265
I M5-PFPeA						ISTD					
T PFMPA	Avg RF	0.4839	0.4840	0.4967	0.4969	0.5022	0.5278	0.5311	0.5577	0.5100	5.133
T 3:3FTCA	Avg RF	0.0532	0.0566	0.0521	0.0539	0.0527	0.0575	0.0579	0.0632	0.0559	6.671
T PFPeA	Avg RF	0.8469	0.8567	0.8624	0.8709	0.9072	0.9430	0.9406	0.9809	0.9011	5.475
T PFMBA	Avg RF	0.4910	0.4611	0.5064	0.5137	0.5147	0.5412	0.5399	0.5549	0.5154	5.891
I M5-PFHxA						ISTD					
T NFDHA	Avg RF	0.0260	0.0369	0.0283	0.0313	0.0294	0.0307	0.0311	0.0294	0.0304	10.311
T PFHxA	Avg RF	0.4699	0.5227	0.4464	0.4812	0.4961	0.5134	0.5075	0.5169	0.4943	5.362
T PFEESA	Avg RF	0.3089	0.3305	0.3263	0.3422	0.3566	0.3609	0.3497	0.3368	0.3390	5.061
T 5:3FTCA	Avg RF	0.0778	0.0862	0.0841	0.0871	0.0904	0.0898	0.0884	0.0878	0.0865	4.640
T 7:3FTCA	Avg RF	0.0868	0.0949	0.0851	0.0907	0.0934	0.0961	0.0954	0.0951	0.0922	4.569
I M4-PFHpA						ISTD					
T PFHpA	Quadratic	1.2490	1.4896	1.4325	1.5646	1.5713	1.5699	1.5800	1.5864	1.5054	7.757
I M8-PFOA						ISTD					
T PFOA	Avg RF	0.8999	0.8351	0.9011	0.9929	1.0129	1.0754	1.0472	1.0702	0.9794	9.183
I M9-PFNA						ISTD					
T PFNA	Avg RF	0.8339	0.9185	0.8899	1.0076	0.9069	1.0043	0.9398	1.0124	0.9392	6.883
I M6-PFDA						ISTD					
T PFDA	Quadratic	1.7854	1.9507	1.9934	2.1134	2.1352	1.9879	2.0905	2.0260	2.0103	5.572
I M7-PFUnDA						ISTD					
T PFUnDA	Avg RF	1.1443	1.1403	1.2086	1.1627	1.3655	1.2507	1.3720	1.3714	1.2519	8.295
T PFDS	Avg RF	0.1216	0.1890	0.1309	0.1469	0.1304	0.1461	0.1605	0.1715	0.1496	15.320

Generated at 8:58 AM on 12/1/2023

Initial Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICC96
Lab FileID: 2Q5266.D

Initial Calibration Report

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
I M2-PFDoDA						ISTD					
T PFDoDA	Avg RF	1.0664	0.8248	0.9603	0.9310	0.8890	1.0279	0.9900	0.9800	0.9587	8.020
T PFTrDA	Avg RF	0.7562	0.9692	0.8547	0.8787	0.9671	0.9607	0.9970	0.9593	0.9179	8.881
I M2-PFTeDA						ISTD					
T PFTeDA	Avg RF	1.0059	0.9320	0.9636	1.0174	1.0071	1.1108	1.0496	1.0043	1.0113	5.293
I M8-FOSA						ISTD					
T FOSA	Avg RF	0.7840	0.8597	0.8186	0.9366	0.9051	0.9685	0.9142	1.0122	0.8999	8.458
I M3-PFBS						ISTD					
T PFBS	Avg RF	2.4728	2.6772	2.5527	2.3126	2.6080	2.8258	2.5712	2.8091	2.6037	6.532
T PFPeS	Avg RF	1.7869	1.2542	1.3974	1.3720	1.5044	1.5598	1.5129	1.5916	1.4974	10.761
I M3-PFHxS						ISTD					
T PFHxS	Avg RF	1.9274	1.7146	1.5868	1.5525	1.7088	1.8944	1.7707	1.7939	1.7436	7.599
T PFHpS	Avg RF	1.6937	1.3762	1.3047	1.5599	1.5832	1.7553	1.6437	1.7422	1.5824	10.459
I M8-PFOS						ISTD					
T PFOS	Avg RF	2.2445	2.7035	1.7877	2.0078	1.8986	2.2580	2.1198	2.0779	2.1372	13.073
T PFNS	Avg RF	1.3263	1.4979	0.9577	0.9673	0.9375	1.1527	1.1080	1.0573	1.1256	17.551
T PFDoDS	Avg RF	0.8674	1.2713	0.8885	1.0545	1.0291	1.2102	1.1403	1.1103	1.0715	13.322
I M2-4:2FTS						ISTD					
T 4:2FTS	Avg RF	7.7884	8.1169	8.0699	8.7132	7.8654	8.9841	9.1130	7.8977	8.3186	6.419
I M2-6:2FTS						ISTD					
T 6:2FTS	Avg RF	6.2941	6.4968	7.5398	6.9983	7.7728	8.6614	8.4020	6.5269	7.3365	12.283
I M2-8:2FTS						ISTD					
T 8:2FTS	Avg RF	3.1344	4.7380	4.3901	4.3894	4.7485	4.6880	4.7391	5.3357	4.5204	13.979
I M3-MeFOSAA						ISTD					
T MeFOSAA	Quadratic	0.7662	0.8202	0.7277	0.7387	0.8494	0.9085	0.8739	0.9796	0.8330	10.519
I M3-HFPO-DA						ISTD					
T HFPO-DA	Avg RF	1.1194	1.0556	1.0343	0.9658	1.0268	1.1570	1.1855	1.0756	1.0775	6.759
T ADONA	Avg RF	14.56	15.79	14.97	15.25	15.52	16.83	17.68	16.21	15.85	6.468
T 9Cl-PF3ONS	Avg RF	5.6962	5.9591	5.5925	6.3509	6.4672	6.5955	6.8620	6.0460	6.1962	7.200
T 11Cl-PF3OUdS	Avg RF	8.8214	8.5826	8.3574	8.8528	8.6943	9.6048	9.8762	9.2136	9.0004	5.809
I M5-EtFOSAA						ISTD					
T EtFOSAA	Avg RF	0.7990	0.7767	0.7064	0.8594	0.9137	0.8208	0.9177	0.9260	0.8400	9.346
I M7-MeFOSE						ISTD					
T MeFOSE	Avg RF	0.9862	1.0712	0.9371	1.0333	1.0627	1.1659	1.1570	1.1931	1.0758	8.441
I M9-EtFOSE						ISTD					

Generated at 8:58 AM on 12/1/2023

Initial Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICC96
Lab FileID: 2Q5266.D

Initial Calibration Report

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
T EtFOSE	Avg RF	0.9595	0.9960	0.9836	1.0269	1.0605	1.1068	1.1053	1.1240	1.0453	6.022
I M5-EtFOSA						ISTD					
T EtFOSA	Avg RF	0.9693	0.9855	1.1289	1.0850	1.1294	1.1789	1.1597	1.2561	1.1116	8.681
I M3-MeFOSA						ISTD					
T MeFOSA	Avg RF	1.3873	1.3680	1.1934	1.3858	1.3955	1.3837	1.3782	1.2498	1.3427	5.708
I 13C4-PFOS						ISTD					
S d3-MeFOSAA	Avg RF	1.5802	1.7738	1.6861	1.6412	1.6969	1.4953	1.7321	1.4120	1.6272	7.595
S 13C8-PFOS	Avg RF	0.5619	0.5079	0.5675	0.5257	0.6213	0.4800	0.5794	0.5115	0.5444	8.470
S d5-EtFOSAA	Avg RF	1.3031	1.3525	1.2884	1.3316	1.4237	1.3242	1.4326	1.2985	1.3443	4.137
S 13C8-FOSA	Avg RF	1.7188	1.8275	1.7354	1.5710	1.8457	1.5643	1.8173	1.4634	1.6929	8.457
S d7-MeFOSE	Avg RF	0.7422	0.7958	0.7333	0.7147	0.7930	0.6901	0.7902	0.6990	0.7448	5.813
S d3-MeFOSA	Avg RF	1.0811	1.2090	1.1185	1.0001	1.1514	1.0260	1.2083	1.1650	1.1199	7.035
S d9-EtFOSE	Avg RF	0.9636	1.0749	0.9939	0.9424	1.0440	0.9268	1.0404	0.9042	0.9863	6.283
S d5-EtFOSA	Avg RF	1.2670	1.3622	1.1077	1.1285	1.2804	1.1110	1.2751	1.0736	1.2007	8.928
I 13C3-PFBA						ISTD					
S 13C4-PFBA	Avg RF	1.1520	1.1240	1.1184	1.1254	1.1155	1.1139	1.1220	1.1342	1.1257	1.103
I 18O2-PFHxS						ISTD					
S 13C2-4:2FTS	Avg RF	0.0889	0.1009	0.1024	0.0930	0.1031	0.0893	0.0788	0.0738	0.0913	11.916
S 13C3-PFBS	Avg RF	0.8812	0.9367	0.9480	0.9899	0.9304	0.9320	0.9795	0.8390	0.9296	5.313
S 13C2-6:2FTS	Avg RF	0.2087	0.2254	0.2151	0.2124	0.2081	0.1888	0.1786	0.1816	0.2023	8.443
S 13C3-PFHxS	Avg RF	0.9741	0.9673	1.0131	1.0248	1.0001	0.9429	0.9946	0.8855	0.9753	4.594
S 13C2-8:2FTS	Avg RF	0.2754	0.2682	0.3182	0.2999	0.2947	0.3113	0.2671	0.2069	0.2802	12.600
I 13C4-PFOA						ISTD					
S 13C8-PFOA	Avg RF	1.0510	1.0485	1.0415	1.0090	1.0634	1.0459	1.0003	1.0216	1.0352	2.149
I 13C2-PFDA						ISTD					
S 13C6-PFDA	Avg RF	0.5099	0.4900	0.5626	0.4526	0.5142	0.5582	0.4994	0.5873	0.5218	8.507
S 13C7-PFUnDA	Avg RF	0.9993	0.7912	0.9189	0.8598	0.8900	0.8628	0.7447	0.8193	0.8607	9.155
S 13C2-PFDoDA	Avg RF	1.0327	0.9715	1.0395	0.9422	1.0575	0.9890	0.8999	1.0502	0.9978	5.708
S 13C2-PFTeDA	Avg RF	0.6910	0.7257	0.8050	0.6463	0.7187	0.7255	0.6954	0.8469	0.7318	8.820
I 13C5-PFNA						ISTD					
S 13C9-PFNA	Avg RF	0.9656	0.9647	1.0139	0.9295	1.0351	0.9858	0.9891	0.9418	0.9782	3.609
I 13C2-PFHxA						ISTD					
S 13C5-PFPeA	Avg RF	0.9886	0.9580	0.9496	0.9154	0.9413	0.9343	0.9300	0.8788	0.9370	3.421
S 13C5-PFHxA	Avg RF	1.0870	0.9987	1.0690	1.0148	1.0270	1.0337	1.0442	1.0351	1.0387	2.729
S 13C3-HFPO-DA	Avg RF	0.1286	0.1216	0.1266	0.1200	0.1219	0.1138	0.1065	0.1095	0.1186	6.685
S 13C4-PFHpA	Avg RF	0.8462	0.7932	0.8400	0.7743	0.7890	0.8124	0.8349	0.8095	0.8125	3.218

(RedFont and #) = Outlier Flag; (I) = Internal Standard; (T) = Target; (S) = Surrogate; (M) = Matrix Spike

Generated at 8:58 AM on 12/1/2023

Initial Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICC96
Lab FileID: 2Q5266.D

Initial Calibration Report

Compounds with Curve fitting not using Avg Response Factor:

Compound	Curve Fit	Curve Fit Formula	%RSE
T PFHpA	Quadratic	y = 5.104915E-004 * x ^ 2 + 1.575003 * x - 0.025637	3.3931
T PFDA	Quadratic	y = -0.001402 * x ^ 2 + 2.095237 * x - 0.049289	2.7778
T MeFOSAA	Quadratic	y = 0.015896 * x ^ 2 + 0.795126 * x - 9.841713E-004	7.0114

(RedFont and #) = Outlier Flag; (I) = Internal Standard; (T) = Target; (S) = Surrogate; (M) = Matrix Spike

Initial Calibration Verification

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICV96
Lab FileID: 2Q5274.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5274
Type : QC
Level : 5

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.314	6.3	106.3
13C2-6:2FTS	5.000	4.131	-17.4	82.6
13C2-8:2FTS	5.000	5.628	12.6	112.6
13C2-PFDoDA	1.250	1.078	-13.7	86.3
13C2-PFTeDA	1.250	1.009	-19.3	80.7
13C3-PFBS	2.500	2.373	-5.1	94.9
13C3-PFHxS	2.500	2.008	-19.7	80.3
13C4-PFBA	10.000	9.836	-1.6	98.4
13C4-PFHpA	2.500	2.461	-1.6	98.4
13C5-PFHxA	2.500	2.377	-4.9	95.1
13C5-PFPeA	5.000	4.975	-0.5	99.5
13C6-PFDA	1.250	1.196	-4.4	95.6
13C7-PFUnDA	1.250	1.164	-6.9	93.1
13C8-FOSA	2.500	2.522	0.9	100.9
13C8-PFOA	2.500	2.411	-3.5	96.5
13C8-PFOS	2.500	2.131	-14.7	85.3
13C9-PFNA	1.250	1.140	-8.8	91.2
4:2FTS	20.000	17.662	-11.7	88.3
6:2FTS	20.000	24.213	21.1	121.1
8:2FTS	20.000	18.585	-7.1	92.9
d3-MeFOSAA	5.000	5.133	2.7	102.7
EtFOSAA	5.000	5.458	9.2	109.2
FOSA	10.000	10.314	3.1	103.1
MeFOSAA	5.000	5.116	2.3	102.3
PFBA	20.000	20.226	1.1	101.1
PFBS	5.000	4.833	-3.3	96.7
PFDA	5.000	4.610	-7.8	92.2
PFDoDA	5.000	4.969	-0.6	99.4
PFDS	5.000	4.793	-4.1	95.9
PFHpA	5.000	4.679	-6.4	93.6
PFHpS	5.000	5.713	14.3	114.3
PFHxA	5.000	5.221	4.4	104.4
PFHxS	5.000	5.293	5.9	105.9
PFNA	5.000	5.372	7.4	107.4
PFNS	5.000	5.043	0.9	100.9
PFOA	5.000	5.286	5.7	105.7
PFOS	5.000	5.236	4.7	104.7

Initial Calibration Verification

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-ICV96
Lab FileID: 2Q5274.D

PFPeA	10.000	10.130	1.3	101.3
PFPeS	5.000	4.292	-14.2	85.8
PFTeDA	5.000	5.453	9.1	109.1
PFTrDA	5.000	5.329	6.6	106.6
PFUnDA	5.000	5.221	4.4	104.4
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	19.708	-1.5	98.5
13C3-HFPO-DA	10.000	10.351	3.5	103.5
9Cl-PF3ONS	20.000	20.420	2.1	102.1
ADONA	20.000	19.599	-2.0	98.0
HFPO-DA	20.000	18.727	-6.4	93.6
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	24.960	23.904	-4.2	95.8
5:3FTCA	124.800	131.544	5.4	105.4
7:3FTCA	124.800	129.691	3.9	103.9
d3-MeFOSA	2.500	2.412	-3.5	96.5
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	10.000	9.672	-3.3	96.7
EtFOSE	25.000	26.196	4.8	104.8
MeFOSA	10.000	9.775	-2.3	97.7
MeFOSE	25.000	25.640	2.6	102.6
PFDoDS	5.000	5.769	15.4	115.4
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	4.895	-2.1	97.9
d7-MeFOSE	25.000	24.964	-0.1	99.9
d9-EtFOSE	25.000	24.338	-2.6	97.4
d5-EtFOSA	2.500	2.518	0.7	100.7
NFDHA	10.000	11.005	10.0	110.0
PFMBA	10.000	10.495	4.9	104.9
PFMPA	10.000	10.096	1.0	101.0
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	10.000	10.863	8.6	108.6

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5276.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5276
Type : QC
Level : 1

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.907	18.1	118.1
13C2-6:2FTS	5.000	6.198	24.0	124.0
13C2-8:2FTS	5.000	5.305	6.1	106.1
13C2-PFDoDA	1.250	1.401	12.1	112.1
13C2-PFTeDA	1.250	1.255	0.4	100.4
13C3-PFBS	2.500	2.360	-5.6	94.4
13C3-PFHxS	2.500	2.287	-8.5	91.5
13C4-PFBA	10.000	10.143	1.4	101.4
13C4-PFHpA	2.500	2.664	6.5	106.5
13C5-PFHxA	2.500	2.545	1.8	101.8
13C5-PFPeA	5.000	5.128	2.6	102.6
13C6-PFDA	1.250	1.337	7.0	107.0
13C7-PFUnDA	1.250	1.407	12.5	112.5
13C8-FOSA	2.500	2.593	3.7	103.7
13C8-PFOA	2.500	2.593	3.7	103.7
13C8-PFOS	2.500	2.595	3.8	103.8
13C9-PFNA	1.250	1.243	-0.6	99.4
4:2FTS	0.800	0.691	-13.7	86.3
6:2FTS	0.800	0.576	-27.9	72.1
8:2FTS	0.800	0.745	-6.8	93.2
d3-MeFOSAA	5.000	5.374	7.5	107.5
EtFOSAA	0.200	0.160	-20.1	79.9
FOSA	0.400	0.375	-6.3	93.7
MeFOSAA	0.200	0.153	-23.3	76.7
PFBA	0.800	0.731	-8.6	91.4
PFBS	0.200	0.205	2.3	102.3
PFDA	0.200	0.208	3.8	103.8
PFDoDA	0.200	0.182	-9.1	90.9
PFDS	0.200	0.202	0.9	100.9
PFHpA	0.200	0.229	14.4	114.4
PFHpS	0.200	0.181	-9.6	90.4
PFHxA	0.200	0.201	0.5	100.5
PFHxS	0.200	0.215	7.3	107.3
PFNA	0.200	0.191	-4.4	95.6
PFNS	0.200	0.233	16.6	116.6
PFOA	0.200	0.187	-6.3	93.7
PFOS	0.200	0.189	-5.3	94.7

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5276.D

PFPeA	0.400	0.371	-7.3	92.7
PFPeS	0.200	0.219	9.7	109.7
PFTeDA	0.200	0.218	9.2	109.2
PFTrDA	0.200	0.147	-26.7	73.3
PFUnDA	0.200	0.143	-28.3	71.7
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	0.800	0.711	-11.1	88.9
13C3-HFPO-DA	10.000	9.793	-2.1	97.9
9Cl-PF3ONS	0.800	0.844	5.5	105.5
ADONA	0.800	0.796	-0.5	99.5
HFPO-DA	0.800	0.841	5.1	105.1
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	0.998	0.924	-7.4	92.6
5:3FTCA	4.992	4.586	-8.1	91.9
7:3FTCA	4.992	4.610	-7.7	92.3
d3-MeFOSA	2.500	2.360	-5.6	94.4
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	0.400	0.372	-7.0	93.0
EtFOSE	1.000	0.952	-4.8	95.2
MeFOSA	0.400	0.413	3.3	103.3
MeFOSE	1.000	0.937	-6.3	93.7
PFDoDS	0.200	0.211	5.6	105.6
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.592	11.8	111.8
d7-MeFOSE	25.000	25.500	2.0	102.0
d9-EtFOSE	25.000	25.507	2.0	102.0
d5-EtFOSA	2.500	2.558	2.3	102.3
NFDHA	0.400	0.312	-21.9	78.1
PFMBA	0.400	0.390	-2.5	97.5
PFMPA	0.400	0.356	-10.9	89.1
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	0.400	0.381	-4.8	95.2

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5379.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5379
Type : QC
Level : 5

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.228	4.6	104.6
13C2-6:2FTS	5.000	4.762	-4.8	95.2
13C2-8:2FTS	5.000	5.288	5.8	105.8
13C2-PFDoDA	1.250	1.203	-3.8	96.2
13C2-PFTeDA	1.250	1.097	-12.3	87.7
13C3-PFBS	2.500	2.089	-16.4	83.6
13C3-PFHxS	2.500	2.291	-8.3	91.7
13C4-PFBA	10.000	9.929	-0.7	99.3
13C4-PFHpA	2.500	2.384	-4.6	95.4
13C5-PFHxA	2.500	2.433	-2.7	97.3
13C5-PFPeA	5.000	5.038	0.8	100.8
13C6-PFDA	1.250	1.116	-10.8	89.2
13C7-PFUnDA	1.250	1.153	-7.7	92.3
13C8-FOSA	2.500	2.720	8.8	108.8
13C8-PFOA	2.500	2.549	1.9	101.9
13C8-PFOS	2.500	2.564	2.6	102.6
13C9-PFNA	1.250	1.279	2.3	102.3
4:2FTS	20.000	17.629	-11.9	88.1
6:2FTS	20.000	20.250	1.2	101.2
8:2FTS	20.000	20.879	4.4	104.4
d3-MeFOSAA	5.000	6.272	25.4	125.4
EtFOSAA	5.000	5.018	0.4	100.4
FOSA	10.000	10.572	5.7	105.7
MeFOSAA	5.000	5.161	3.2	103.2
PFBA	20.000	20.370	1.9	101.9
PFBS	5.000	5.264	5.3	105.3
PFDA	5.000	5.377	7.5	107.5
PFDoDA	5.000	5.245	4.9	104.9
PFDS	5.000	5.225	4.5	104.5
PFHpA	5.000	5.067	1.3	101.3
PFHpS	5.000	5.045	0.9	100.9
PFHxA	5.000	5.166	3.3	103.3
PFHxS	5.000	4.704	-5.9	94.1
PFNA	5.000	5.202	4.0	104.0
PFNS	5.000	5.284	5.7	105.7
PFOA	5.000	5.114	2.3	102.3
PFOS	5.000	5.217	4.3	104.3

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5379.D

PFPeA	10.000	10.126	1.3	101.3
PFPeS	5.000	4.896	-2.1	97.9
PFTeDA	5.000	5.358	7.2	107.2
PFTrDA	5.000	4.962	-0.8	99.2
PFUnDA	5.000	5.257	5.1	105.1
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	21.369	6.8	106.8
13C3-HFPO-DA	10.000	9.855	-1.5	98.5
9Cl-PF3ONS	20.000	21.279	6.4	106.4
ADONA	20.000	20.510	2.5	102.5
HFPO-DA	20.000	20.025	0.1	100.1
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	24.960	23.853	-4.4	95.6
5:3FTCA	124.800	126.409	1.3	101.3
7:3FTCA	124.800	126.154	1.1	101.1
d3-MeFOSA	2.500	2.721	8.8	108.8
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	10.000	10.606	6.1	106.1
EtFOSE	25.000	25.356	1.4	101.4
MeFOSA	10.000	9.668	-3.3	96.7
MeFOSE	25.000	24.318	-2.7	97.3
PFDoDS	5.000	5.508	10.2	110.2
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.942	18.8	118.8
d7-MeFOSE	25.000	28.588	14.4	114.4
d9-EtFOSE	25.000	28.358	13.4	113.4
d5-EtFOSA	2.500	2.671	6.8	106.8
NFDHA	10.000	10.312	3.1	103.1
PFMBA	10.000	10.733	7.3	107.3
PFMPA	10.000	10.202	2.0	102.0
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	10.000	10.617	6.2	106.2

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5397.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5397
Type : QC
Level : 5

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.379	7.6	107.6
13C2-6:2FTS	5.000	4.906	-1.9	98.1
13C2-8:2FTS	5.000	4.860	-2.8	97.2
13C2-PFDoDA	1.250	1.226	-1.9	98.1
13C2-PFTeDA	1.250	1.214	-2.9	97.1
13C3-PFBS	2.500	2.248	-10.1	89.9
13C3-PFHxS	2.500	2.227	-10.9	89.1
13C4-PFBA	10.000	9.875	-1.3	98.7
13C4-PFHpA	2.500	2.409	-3.6	96.4
13C5-PFHxA	2.500	2.355	-5.8	94.2
13C5-PFPeA	5.000	4.855	-2.9	97.1
13C6-PFDA	1.250	1.373	9.8	109.8
13C7-PFUnDA	1.250	1.226	-1.9	98.1
13C8-FOSA	2.500	2.325	-7.0	93.0
13C8-PFOA	2.500	2.519	0.8	100.8
13C8-PFOS	2.500	2.362	-5.5	94.5
13C9-PFNA	1.250	1.299	4.0	104.0
4:2FTS	20.000	17.927	-10.4	89.6
6:2FTS	20.000	20.715	3.6	103.6
8:2FTS	20.000	23.796	19.0	119.0
d3-MeFOSAA	5.000	5.027	0.5	100.5
EtFOSAA	5.000	4.739	-5.2	94.8
FOSA	10.000	11.062	10.6	110.6
MeFOSAA	5.000	5.285	5.7	105.7
PFBA	20.000	20.355	1.8	101.8
PFBS	5.000	5.380	7.6	107.6
PFDA	5.000	4.643	-7.1	92.9
PFDoDA	5.000	5.134	2.7	102.7
PFDS	5.000	4.694	-6.1	93.9
PFHpA	5.000	4.691	-6.2	93.8
PFHpS	5.000	4.859	-2.8	97.2
PFHxA	5.000	5.212	4.2	104.2
PFHxS	5.000	5.092	1.8	101.8
PFNA	5.000	5.187	3.7	103.7
PFNS	5.000	4.892	-2.2	97.8
PFOA	5.000	5.164	3.3	103.3
PFOS	5.000	4.836	-3.3	96.7

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5397.D

PFPeA	10.000	10.192	1.9	101.9
PFPeS	5.000	5.011	0.2	100.2
PFTeDA	5.000	4.943	-1.1	98.9
PFTrDA	5.000	5.297	5.9	105.9
PFUnDA	5.000	5.078	1.6	101.6
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	19.800	-1.0	99.0
13C3-HFPO-DA	10.000	9.884	-1.2	98.8
9Cl-PF3ONS	20.000	20.473	2.4	102.4
ADONA	20.000	19.795	-1.0	99.0
HFPO-DA	20.000	19.956	-0.2	99.8
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	24.960	23.955	-4.0	96.0
5:3FTCA	124.800	125.544	0.6	100.6
7:3FTCA	124.800	123.757	-0.8	99.2
d3-MeFOSA	2.500	2.372	-5.1	94.9
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	10.000	10.038	0.4	100.4
EtFOSE	25.000	25.582	2.3	102.3
MeFOSA	10.000	9.907	-0.9	99.1
MeFOSE	25.000	25.277	1.1	101.1
PFDoDS	5.000	4.863	-2.7	97.3
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.393	7.9	107.9
d7-MeFOSE	25.000	24.226	-3.1	96.9
d9-EtFOSE	25.000	24.661	-1.4	98.6
d5-EtFOSA	2.500	2.429	-2.8	97.2
NFDHA	10.000	10.803	8.0	108.0
PFMBA	10.000	10.798	8.0	108.0
PFMPA	10.000	10.217	2.2	102.2
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	10.000	10.481	4.8	104.8

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5409.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5409
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	4.465	-10.7	89.3
13C2-6:2FTS	5.000	4.485	-10.3	89.7
13C2-8:2FTS	5.000	4.899	-2.0	98.0
13C2-PFDoDA	1.250	1.206	-3.5	96.5
13C2-PFTeDA	1.250	1.131	-9.5	90.5
13C3-PFBS	2.500	2.389	-4.4	95.6
13C3-PFHxS	2.500	2.020	-19.2	80.8
13C4-PFBA	10.000	9.965	-0.4	99.6
13C4-PFHpA	2.500	2.427	-2.9	97.1
13C5-PFHxA	2.500	2.355	-5.8	94.2
13C5-PFPeA	5.000	5.093	1.9	101.9
13C6-PFDA	1.250	1.165	-6.8	93.2
13C7-PFUnDA	1.250	1.165	-6.8	93.2
13C8-FOSA	2.500	2.609	4.4	104.4
13C8-PFOA	2.500	2.351	-6.0	94.0
13C8-PFOS	2.500	2.829	13.1	113.1
13C9-PFNA	1.250	1.082	-13.4	86.6
4:2FTS	10.000	10.782	7.8	107.8
6:2FTS	10.000	10.782	7.8	107.8
8:2FTS	10.000	10.984	9.8	109.8
d3-MeFOSAA	5.000	5.633	12.7	112.7
EtFOSAA	2.500	2.422	-3.1	96.9
FOSA	5.000	5.371	7.4	107.4
MeFOSAA	2.500	2.684	7.4	107.4
PFBA	10.000	9.910	-0.9	99.1
PFBS	2.500	2.325	-7.0	93.0
PFDA	2.500	2.495	-0.2	99.8
PFDoDA	2.500	2.267	-9.3	90.7
PFDS	2.500	2.428	-2.9	97.1
PFHpA	2.500	2.420	-3.2	96.8
PFHpS	2.500	2.496	-0.2	99.8
PFHxA	2.500	2.494	-0.2	99.8
PFHxS	2.500	2.620	4.8	104.8
PFNA	2.500	2.516	0.7	100.7
PFNS	2.500	1.995	-20.2	79.8
PFOA	2.500	2.505	0.2	100.2
PFOS	2.500	2.250	-10.0	90.0

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5409.D

PFPeA	5.000	4.749	-5.0	95.0
PFPeS	2.500	2.102	-15.9	84.1
PFTeDA	2.500	2.597	3.9	103.9
PFTrDA	2.500	2.586	3.4	103.4
PFUnDA	2.500	2.606	4.2	104.2
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	10.000	9.823	-1.8	98.2
13C3-HFPO-DA	10.000	9.966	-0.3	99.7
9Cl-PF3ONS	10.000	10.064	0.6	100.6
ADONA	10.000	10.106	1.1	101.1
HFPO-DA	10.000	9.485	-5.1	94.9
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	12.480	11.223	-10.1	89.9
5:3FTCA	62.400	62.894	0.8	100.8
7:3FTCA	62.400	63.600	1.9	101.9
d3-MeFOSA	2.500	2.486	-0.5	99.5
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	5.000	5.211	4.2	104.2
EtFOSE	12.500	12.632	1.1	101.1
MeFOSA	5.000	4.988	-0.2	99.8
MeFOSE	12.500	12.512	0.1	100.1
PFDoDS	2.500	2.192	-12.3	87.7
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	6.084	21.7	121.7
d7-MeFOSE	25.000	26.531	6.1	106.1
d9-EtFOSE	25.000	27.008	8.0	108.0
d5-EtFOSA	2.500	2.658	6.3	106.3
NFDHA	5.000	5.548	11.0	111.0
PFMBA	5.000	5.192	3.8	103.8
PFMPA	5.000	4.865	-2.7	97.3
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	5.000	5.481	9.6	109.6

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5419.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q96\T2Q96.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5419
Type : QC
Level : 5

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	4.308	-13.8	86.2
13C2-6:2FTS	5.000	4.725	-5.5	94.5
13C2-8:2FTS	5.000	5.806	16.1	116.1
13C2-PFDoDA	1.250	1.234	-1.2	98.8
13C2-PFTeDA	1.250	1.129	-9.7	90.3
13C3-PFBS	2.500	2.485	-0.6	99.4
13C3-PFHxS	2.500	2.282	-8.7	91.3
13C4-PFBA	10.000	9.933	-0.7	99.3
13C4-PFHpA	2.500	2.564	2.5	102.5
13C5-PFHxA	2.500	2.461	-1.6	98.4
13C5-PFPeA	5.000	5.002	0.0	100.0
13C6-PFDA	1.250	1.151	-7.9	92.1
13C7-PFUnDA	1.250	1.122	-10.2	89.8
13C8-FOSA	2.500	2.551	2.1	102.1
13C8-PFOA	2.500	2.439	-2.5	97.5
13C8-PFOS	2.500	2.341	-6.4	93.6
13C9-PFNA	1.250	1.145	-8.4	91.6
4:2FTS	20.000	23.447	17.2	117.2
6:2FTS	20.000	21.689	8.4	108.4
8:2FTS	20.000	18.533	-7.3	92.7
d3-MeFOSAA	5.000	5.499	10.0	110.0
EtFOSAA	5.000	4.788	-4.2	95.8
FOSA	10.000	10.592	5.9	105.9
MeFOSAA	5.000	5.015	0.3	100.3
PFBA	20.000	20.198	1.0	101.0
PFBS	5.000	4.849	-3.0	97.0
PFDA	5.000	5.130	2.6	102.6
PFDoDA	5.000	4.840	-3.2	96.8
PFDS	5.000	4.794	-4.1	95.9
PFHpA	5.000	4.654	-6.9	93.1
PFHpS	5.000	5.337	6.7	106.7
PFHxA	5.000	4.997	-0.1	99.9
PFHxS	5.000	4.793	-4.1	95.9
PFNA	5.000	4.894	-2.1	97.9
PFNS	5.000	5.253	5.1	105.1
PFOA	5.000	5.165	3.3	103.3
PFOS	5.000	5.069	1.4	101.4

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q96-CC96
Lab FileID: 2Q5419.D

PFPeA	10.000	10.154	1.5	101.5
PFPeS	5.000	4.428	-11.4	88.6
PFTeDA	5.000	5.255	5.1	105.1
PFTrDA	5.000	4.919	-1.6	98.4
PFUnDA	5.000	5.387	7.7	107.7
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	19.541	-2.3	97.7
13C3-HFPO-DA	10.000	10.334	3.3	103.3
9Cl-PF3ONS	20.000	20.083	0.4	100.4
ADONA	20.000	19.546	-2.3	97.7
HFPO-DA	20.000	19.729	-1.4	98.6
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	24.960	23.935	-4.1	95.9
5:3FTCA	124.800	122.773	-1.6	98.4
7:3FTCA	124.800	122.205	-2.1	97.9
d3-MeFOSA	2.500	2.492	-0.3	99.7
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	10.000	10.457	4.6	104.6
EtFOSE	25.000	25.312	1.2	101.2
MeFOSA	10.000	9.671	-3.3	96.7
MeFOSE	25.000	25.950	3.8	103.8
PFDoDS	5.000	5.523	10.5	110.5
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.796	15.9	115.9
d7-MeFOSE	25.000	25.544	2.2	102.2
d9-EtFOSE	25.000	25.505	2.0	102.0
d5-EtFOSA	2.500	2.546	1.9	101.9
NFDHA	10.000	11.261	12.6	112.6
PFMBA	10.000	10.739	7.4	107.4
PFMPA	10.000	10.139	1.4	101.4
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	10.000	10.371	3.7	103.7

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q97-CC96
Lab FileID: 2Q5531.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q97\T2Q97.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5531
Type : QC
Level : 5

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.350	7.0	107.0
13C2-6:2FTS	5.000	4.870	-2.6	97.4
13C2-8:2FTS	5.000	5.390	7.8	107.8
13C2-PFDoDA	1.250	1.240	-0.8	99.2
13C2-PFTeDA	1.250	1.171	-6.4	93.6
13C3-PFBS	2.500	2.634	5.4	105.4
13C3-PFHxS	2.500	2.295	-8.2	91.8
13C4-PFBA	10.000	9.913	-0.9	99.1
13C4-PFHpA	2.500	2.459	-1.6	98.4
13C5-PFHxA	2.500	2.582	3.3	103.3
13C5-PFPeA	5.000	5.029	0.6	100.6
13C6-PFDA	1.250	1.116	-10.8	89.2
13C7-PFUnDA	1.250	1.215	-2.8	97.2
13C8-FOSA	2.500	2.595	3.8	103.8
13C8-PFOA	2.500	2.454	-1.8	98.2
13C8-PFOS	2.500	2.781	11.2	111.2
13C9-PFNA	1.250	1.138	-8.9	91.1
4:2FTS	20.000	19.214	-3.9	96.1
6:2FTS	20.000	21.068	5.3	105.3
8:2FTS	20.000	20.682	3.4	103.4
d3-MeFOSAA	5.000	5.495	9.9	109.9
EtFOSAA	5.000	5.343	6.9	106.9
FOSA	10.000	9.889	-1.1	98.9
MeFOSAA	5.000	5.448	9.0	109.0
PFBA	20.000	20.252	1.3	101.3
PFBS	5.000	4.420	-11.6	88.4
PFDA	5.000	5.262	5.2	105.2
PFDoDA	5.000	4.996	-0.1	99.9
PFDS	5.000	4.774	-4.5	95.5
PFHpA	5.000	4.880	-2.4	97.6
PFHpS	5.000	5.458	9.2	109.2
PFHxA	5.000	4.784	-4.3	95.7
PFHxS	5.000	5.022	0.4	100.4
PFNA	5.000	4.900	-2.0	98.0
PFNS	5.000	4.291	-14.2	85.8
PFOA	5.000	4.937	-1.3	98.7
PFOS	5.000	4.359	-12.8	87.2

Continuing Calibration Summary

Job Number: JD77804 **Sample:** T2Q97-CC96
Account: EAENYS EA Engineering **Lab FileID:** 2Q5531.D
Project: NYSDEC Town and Country Cleaners, NY

PFPeA	10.000	10.173	1.7	101.7
PFPeS	5.000	4.046	-19.1	80.9
PFTeDA	5.000	5.622	12.4	112.4
PFTrDA	5.000	5.340	6.8	106.8
PFUnDA	5.000	5.336	6.7	106.7
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	19.292	-3.5	96.5
13C3-HFPO-DA	10.000	11.215	12.2	112.2
9Cl-PF3ONS	20.000	19.089	-4.6	95.4
ADONA	20.000	18.403	-8.0	92.0
HFPO-DA	20.000	19.502	-2.5	97.5
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	24.960	23.399	-6.3	93.7
5:3FTCA	124.800	118.284	-5.2	94.8
7:3FTCA	124.800	117.721	-5.7	94.3
d3-MeFOSA	2.500	2.519	0.8	100.8
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	10.000	10.303	3.0	103.0
EtFOSE	25.000	25.696	2.8	102.8
MeFOSA	10.000	10.416	4.2	104.2
MeFOSE	25.000	24.460	-2.2	97.8
PFDoDS	5.000	4.660	-6.8	93.2
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.860	17.2	117.2
d7-MeFOSE	25.000	26.231	4.9	104.9
d9-EtFOSE	25.000	26.179	4.7	104.7
d5-EtFOSA	2.500	2.578	3.1	103.1
NFDHA	10.000	10.743	7.4	107.4
PFMBA	10.000	10.843	8.4	108.4
PFMPA	10.000	10.377	3.8	103.8
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	10.000	10.040	0.4	100.4

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Sample: T2Q97-CC96
Lab FileID: 2Q5547.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1633\T2Q97\T2Q97.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\1633\T2Q96\2Q5263.d
2:D:\MassHunter\Data\1633\T2Q96\2Q5264.d
3:D:\MassHunter\Data\1633\T2Q96\2Q5265.d
4:D:\MassHunter\Data\1633\T2Q96\2Q5266.d
5:D:\MassHunter\Data\1633\T2Q96\2Q5267.d
6:D:\MassHunter\Data\1633\T2Q96\2Q5268.d
7:D:\MassHunter\Data\1633\T2Q96\2Q5269.d
8:D:\MassHunter\Data\1633\T2Q96\2Q5270.d

Data File: 2Q5547
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	5.000	5.615	12.3	112.3
13C2-6:2FTS	5.000	4.905	-1.9	98.1
13C2-8:2FTS	5.000	5.793	15.9	115.9
13C2-PFDoDA	1.250	1.205	-3.6	96.4
13C2-PFTeDA	1.250	1.170	-6.4	93.6
13C3-PFBS	2.500	2.504	0.2	100.2
13C3-PFHxS	2.500	2.264	-9.4	90.6
13C4-PFBA	10.000	9.997	0.0	100.0
13C4-PFHpA	2.500	2.554	2.2	102.2
13C5-PFHxA	2.500	2.412	-3.5	96.5
13C5-PFPeA	5.000	5.105	2.1	102.1
13C6-PFDA	1.250	1.085	-13.2	86.8
13C7-PFUnDA	1.250	1.318	5.5	105.5
13C8-FOSA	2.500	2.502	0.1	100.1
13C8-PFOA	2.500	2.458	-1.7	98.3
13C8-PFOS	2.500	2.321	-7.2	92.8
13C9-PFNA	1.250	1.137	-9.0	91.0
4:2FTS	10.000	9.102	-9.0	91.0
6:2FTS	10.000	9.838	-1.6	98.4
8:2FTS	10.000	9.587	-4.1	95.9
d3-MeFOSAA	5.000	5.502	10.0	110.0
EtFOSAA	2.500	2.567	2.7	102.7
FOSA	5.000	4.471	-10.6	89.4
MeFOSAA	2.500	2.730	9.2	109.2
PFBA	10.000	9.889	-1.1	98.9
PFBS	2.500	2.275	-9.0	91.0
PFDA	2.500	2.708	8.3	108.3
PFDoDA	2.500	2.542	1.7	101.7
PFDS	2.500	2.485	-0.6	99.4
PFHpA	2.500	2.288	-8.5	91.5
PFHpS	2.500	2.627	5.1	105.1
PFHxA	2.500	2.469	-1.2	98.8
PFHxS	2.500	2.368	-5.3	94.7
PFNA	2.500	2.639	5.6	105.6
PFNS	2.500	2.918	16.7	116.7
PFOA	2.500	2.321	-7.2	92.8
PFOS	2.500	2.274	-9.0	91.0

Continuing Calibration Summary

Job Number: JD77804 **Sample:** T2Q97-CC96
Account: EAENYS EA Engineering **Lab FileID:** 2Q5547.D
Project: NYSDEC Town and Country Cleaners, NY

PFPeA	5.000	4.807	-3.9	96.1
PFPeS	2.500	2.178	-12.9	87.1
PFTeDA	2.500	2.572	2.9	102.9
PFTrDA	2.500	2.490	-0.4	99.6
PFUnDA	2.500	2.311	-7.6	92.4
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	10.000	9.292	-7.1	92.9
13C3-HFPO-DA	10.000	11.093	10.9	110.9
9Cl-PF3ONS	10.000	9.292	-7.1	92.9
ADONA	10.000	8.997	-10.0	90.0
HFPO-DA	10.000	9.282	-7.2	92.8
M3-HFPO-DA	---	--ISTD--		
3:3FTCA	12.480	11.335	-9.2	90.8
5:3FTCA	62.400	59.877	-4.0	96.0
7:3FTCA	62.400	58.431	-6.4	93.6
d3-MeFOSA	2.500	2.369	-5.3	94.7
M5-EtFOSAA	---	--ISTD--		
M7-MeFOSE	---	--ISTD--		
M9-EtFOSE	---	--ISTD--		
M5-EtFOSA	---	--ISTD--		
EtFOSA	5.000	4.984	-0.3	99.7
EtFOSE	12.500	12.750	2.0	102.0
MeFOSA	5.000	5.173	3.5	103.5
MeFOSE	12.500	10.017	-19.9	80.1
PFDoDS	2.500	2.829	13.1	113.1
M3-MeFOSA	---	--ISTD--		
d5-EtFOSAA	5.000	5.650	13.0	113.0
d7-MeFOSE	25.000	24.760	-1.0	99.0
d9-EtFOSE	25.000	24.890	-0.4	99.6
d5-EtFOSA	2.500	2.570	2.8	102.8
NFDHA	5.000	5.966	19.3	119.3
PFMBA	5.000	5.130	2.6	102.6
PFMPA	5.000	4.799	-4.0	96.0
13C4-PFOS	---	--ISTD--		
13C3-PFBA	---	--ISTD--		
18O2-PFHxS	---	--ISTD--		
13C4-PFOA	---	--ISTD--		
13C2-PFDA	---	--ISTD--		
13C5-PFNA	---	--ISTD--		
13C2-PFHxA	---	--ISTD--		
PFEESA	5.000	5.376	7.5	107.5

CC Criteria: +/- 30%

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96 **Method:** EPA DRAFT 1633 **Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
T2Q96-ICCB	2Q5262.D	11/30/23 17:05	n/a	Instrument Blank
T2Q96-IC96	2Q5263.D	11/30/23 17:20	n/a	Initial cal 1
T2Q96-IC96	2Q5264.D	11/30/23 17:35	n/a	Initial cal 2
T2Q96-IC96	2Q5265.D	11/30/23 17:51	n/a	Initial cal 3
T2Q96-ICC96	2Q5266.D	11/30/23 18:06	n/a	Initial cal 4
T2Q96-IC96	2Q5267.D	11/30/23 18:21	n/a	Initial cal 5
T2Q96-IC96	2Q5268.D	11/30/23 18:36	n/a	Initial cal 6
T2Q96-IC96	2Q5269.D	11/30/23 18:52	n/a	Initial cal 7
T2Q96-IC96	2Q5270.D	11/30/23 19:07	n/a	Initial cal 8
T2Q96-IBLK	2Q5271.D	11/30/23 19:22	n/a	Instrument Blank
T2Q96-IC96	2Q5272.D	11/30/23 19:37	n/a	Mass Calibration Verification
T2Q96-ICV96	2Q5274.D	11/30/23 20:07	n/a	Initial cal verification 5
T2Q96-ICCB	2Q5275.D	11/30/23 20:22	n/a	Instrument Blank
T2Q96-CC96	2Q5276.D	11/30/23 20:37	n/a	Continuing cal 1.0LL
T2Q96-RT	2Q5278.D	11/30/23 21:07	n/a	Retention Time Marker
T2Q96-CCV96	2Q5281.D	11/30/23 21:53	n/a	CCV Metals Analytical QC
T2Q96-ICCB	2Q5282.D	11/30/23 22:08	n/a	Instrument Blank
OP50767-MB	2Q5283.D	11/30/23 22:24	OP50767	Method Blank
OP50767-LLBS	2Q5284.D	11/30/23 22:39	OP50767	Blank Spike
OP50767-BS	2Q5285.D	11/30/23 22:54	OP50767	Blank Spike
OP50767-MS	2Q5286.D	11/30/23 23:09	OP50767	Matrix Spike
OP50767-MSD	2Q5287.D	11/30/23 23:25	OP50767	Matrix Spike Duplicate
ZZZZZZ	2Q5288.D	11/30/23 23:40	OP50767	(unrelated sample)
ZZZZZZ	2Q5289.D	11/30/23 23:55	OP50767	(unrelated sample)
ZZZZZZ	2Q5290.D	12/01/23 00:10	OP50767	(unrelated sample)
ZZZZZZ	2Q5291.D	12/01/23 00:25	OP50767	(unrelated sample)
ZZZZZZ	2Q5292.D	12/01/23 00:41	OP50767	(unrelated sample)
ZZZZZZ	2Q5293.D	12/01/23 00:56	OP50767	(unrelated sample)
ZZZZZZ	2Q5294.D	12/01/23 01:11	OP50767	(unrelated sample)
ZZZZZZ	2Q5295.D	12/01/23 01:26	OP50767	(unrelated sample)
ZZZZZZ	2Q5296.D	12/01/23 01:42	OP50767	(unrelated sample)
JD77753-8	2Q5297.D	12/01/23 01:57	OP50767	(used for QC only; not part of job JD77804)
T2Q96-CC96	2Q5299.D	12/01/23 02:27	n/a	Continuing cal 5
T2Q96-ICCB	2Q5300.D	12/01/23 02:42	n/a	Instrument Blank
ZZZZZZ	2Q5301.D	12/01/23 02:58	OP50767	(unrelated sample)
ZZZZZZ	2Q5302.D	12/01/23 03:13	OP50767	(unrelated sample)
ZZZZZZ	2Q5303.D	12/01/23 03:28	OP50767	(unrelated sample)
ZZZZZZ	2Q5304.D	12/01/23 03:43	OP50767	(unrelated sample)
OP50781-MS	2Q5306.D	12/01/23 04:14	OP50781	Matrix Spike
OP50781-BS	2Q5307.D	12/01/23 04:29	OP50781	Blank Spike
OP50781-BSD	2Q5308.D	12/01/23 04:44	OP50781	Blank Spike Duplicate
OP50781-LLBS	2Q5309.D	12/01/23 04:59	OP50781	Blank Spike
JD77754-1	2Q5310.D	12/01/23 05:15	OP50781	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5311.D	12/01/23 05:30	OP50781	(unrelated sample)
ZZZZZZ	2Q5312.D	12/01/23 05:45	OP50781	(unrelated sample)
ZZZZZZ	2Q5313.D	12/01/23 06:00	OP50781	(unrelated sample)

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96 **Method:** EPA DRAFT 1633 **Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
ZZZZZZ	2Q5314.D	12/01/23 06:16	OP50781	(unrelated sample)
ZZZZZZ	2Q5315.D	12/01/23 06:31	OP50781	(unrelated sample)
T2Q96-CC96	2Q5317.D	12/01/23 07:01	n/a	Continuing cal 5
T2Q96-ICCB	2Q5318.D	12/01/23 07:16	n/a	Instrument Blank
ZZZZZZ	2Q5319.D	12/01/23 07:32	OP50781	(unrelated sample)
ZZZZZZ	2Q5320.D	12/01/23 07:47	OP50781	(unrelated sample)
ZZZZZZ	2Q5321.D	12/01/23 08:02	OP50781	(unrelated sample)
ZZZZZZ	2Q5322.D	12/01/23 08:17	OP50781	(unrelated sample)
ZZZZZZ	2Q5323.D	12/01/23 08:33	OP50781	(unrelated sample)
ZZZZZZ	2Q5324.D	12/01/23 08:48	OP50781	(unrelated sample)
ZZZZZZ	2Q5325.D	12/01/23 09:03	OP50781	(unrelated sample)
ZZZZZZ	2Q5326.D	12/01/23 09:18	OP50781	(unrelated sample)
ZZZZZZ	2Q5327.D	12/01/23 09:33	OP50781	(unrelated sample)
T2Q96-CC96	2Q5329.D	12/01/23 10:04	n/a	Continuing cal 5
T2Q96-ICCB	2Q5330.D	12/01/23 10:19	n/a	Instrument Blank
ZZZZZZ	2Q5331.D	12/01/23 10:34	OP50781	(unrelated sample)
OP50766-MB	2Q5332.D	12/01/23 10:50	OP50766	Method Blank
OP50766-LLBS	2Q5333.D	12/01/23 11:05	OP50766	Blank Spike
OP50766-BS	2Q5334.D	12/01/23 11:20	OP50766	Blank Spike
OP50766-MS	2Q5335.D	12/01/23 11:36	OP50766	Matrix Spike
OP50766-MSD	2Q5336.D	12/01/23 11:51	OP50766	Matrix Spike Duplicate
ZZZZZZ	2Q5337.D	12/01/23 12:56	OP50766	(unrelated sample)
ZZZZZZ	2Q5338.D	12/01/23 13:11	OP50766	(unrelated sample)
ZZZZZZ	2Q5339.D	12/01/23 13:26	OP50766	(unrelated sample)
ZZZZZZ	2Q5341.D	12/01/23 13:58	OP50766	(unrelated sample)
ZZZZZZ	2Q5344.D	12/01/23 14:44	OP50766	(unrelated sample)
ZZZZZZ	2Q5345.D	12/01/23 14:59	OP50766	(unrelated sample)
JD77742-9	2Q5346.D	12/01/23 15:14	OP50766	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5347.D	12/01/23 15:29	OP50766	(unrelated sample)
T2Q96-CC96	2Q5349.D	12/01/23 16:00	n/a	Continuing cal 5
T2Q96-ICCB	2Q5350.D	12/01/23 16:16	n/a	Instrument Blank
ZZZZZZ	2Q5351.D	12/01/23 16:31	OP50766	(unrelated sample)
ZZZZZZ	2Q5352.D	12/01/23 16:46	OP50766	(unrelated sample)
ZZZZZZ	2Q5353.D	12/01/23 17:02	OP50766	(unrelated sample)
ZZZZZZ	2Q5340.D	12/01/23 17:18	OP50766	(unrelated sample)
ZZZZZZ	2Q5354.D	12/01/23 17:33	OP50766	(unrelated sample)
ZZZZZZ	2Q5355.D	12/01/23 17:49	OP50766	(unrelated sample)
ZZZZZZ	2Q5356.D	12/01/23 18:04	OP50766	(unrelated sample)
ZZZZZZ	2Q5357.D	12/01/23 18:19	OP50766	(unrelated sample)
ZZZZZZ	2Q5358.D	12/01/23 18:34	OP50766	(unrelated sample)
OP50745-MB	2Q5359.D	12/01/23 18:50	OP50745	Method Blank
ZZZZZZ	2Q5360.D	12/01/23 19:05	OP50766	(unrelated sample)
T2Q96-CC96	2Q5362.D	12/01/23 19:35	n/a	Continuing cal 5
OP50765-MB	2Q5363.D	12/01/23 19:51	OP50765	Method Blank
OP50765-LLBS	2Q5364.D	12/01/23 20:06	OP50765	Blank Spike
OP50765-BS	2Q5365.D	12/01/23 20:21	OP50765	Blank Spike

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96	**Method:** EPA DRAFT 1633	**Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
OP50765-MS	2Q5366.D	12/01/23 20:37	OP50765	Matrix Spike
ZZZZZZ	2Q5367.D	12/01/23 20:52	OP50765	(unrelated sample)
OP50765-MSD	2Q5368.D	12/01/23 21:07	OP50765	Matrix Spike Duplicate
ZZZZZZ	2Q5369.D	12/01/23 21:22	OP50765	(unrelated sample)
ZZZZZZ	2Q5370.D	12/01/23 21:38	OP50765	(unrelated sample)
ZZZZZZ	2Q5371.D	12/01/23 21:53	OP50765	(unrelated sample)
ZZZZZZ	2Q5372.D	12/01/23 22:08	OP50765	(unrelated sample)
JD77742-25	2Q5373.D	12/01/23 22:23	OP50765	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5374.D	12/01/23 22:38	OP50765	(unrelated sample)
ZZZZZZ	2Q5375.D	12/01/23 22:54	OP50765	(unrelated sample)
ZZZZZZ	2Q5376.D	12/01/23 23:09	OP50765	(unrelated sample)
ZZZZZZ	2Q5377.D	12/01/23 23:24	OP50765	(unrelated sample)
T2Q96-CC96	2Q5379.D	12/01/23 23:55	n/a	Continuing cal 5
T2Q96-ICCB	2Q5380.D	12/02/23 00:10	n/a	Instrument Blank
ZZZZZZ	2Q5381.D	12/02/23 00:25	OP50767	(unrelated sample)
ZZZZZZ	2Q5382.D	12/02/23 00:41	OP50781	(unrelated sample)
ZZZZZZ	2Q5383.D	12/02/23 00:56	OP50781	(unrelated sample)
ZZZZZZ	2Q5384.D	12/02/23 01:11	OP50781	(unrelated sample)
ZZZZZZ	2Q5385.D	12/02/23 01:26	OP50781	(unrelated sample)
ZZZZZZ	2Q5386.D	12/02/23 01:42	OP50781	(unrelated sample)
OP50811-MB	2Q5387.D	12/02/23 01:57	OP50811	Method Blank
OP50811-LLBS	2Q5388.D	12/02/23 02:12	OP50811	Blank Spike
OP50811-BS	2Q5389.D	12/02/23 02:27	OP50811	Blank Spike
OP50811-MS	2Q5390.D	12/02/23 02:43	OP50811	Matrix Spike
OP50811-MSD	2Q5391.D	12/02/23 02:58	OP50811	Matrix Spike Duplicate
JD77804-1	2Q5392.D	12/02/23 03:13	OP50811	828149-MW-1-20231127
JD77804-2	2Q5393.D	12/02/23 03:28	OP50811	828149-MW-2-20231127
JD77804-3	2Q5394.D	12/02/23 03:43	OP50811	828149-MW-3-20231127
JD77804-4	2Q5395.D	12/02/23 03:59	OP50811	828149-DP-10-20231127
T2Q96-CC96	2Q5397.D	12/02/23 04:29	n/a	Continuing cal 5
T2Q96-ICCB	2Q5398.D	12/02/23 04:45	n/a	Instrument Blank
JD77804-5	2Q5399.D	12/02/23 05:00	OP50811	828149-MW-13-20231127
JD77804-6	2Q5400.D	12/02/23 05:15	OP50811	828149-MW-13B-20231127
JD77804-7	2Q5401.D	12/02/23 05:31	OP50811	828149-DP-15-20231127
JD77804-8	2Q5402.D	12/02/23 05:46	OP50811	828149-GEMW-2-20231127
JD77804-9	2Q5403.D	12/02/23 06:01	OP50811	828149-DP-17-20231127
JD77804-10	2Q5404.D	12/02/23 06:17	OP50811	828149-MW-17B-20231127
JD77804-11	2Q5405.D	12/02/23 06:32	OP50811	828149-DP-18-20231127
JD77804-13	2Q5407.D	12/02/23 07:02	OP50811	828149-MW-19B-20231128
JD77804-14	2Q5408.D	12/02/23 07:18	OP50811	828149-DP-21-20231128
T2Q96-CC96	2Q5409.D	12/02/23 07:33	n/a	Continuing cal 4
T2Q96-ICCB	2Q5411.D	12/02/23 08:03	n/a	Instrument Blank
JD77804-15	2Q5412.D	12/02/23 08:19	OP50811	828149-MW-21B-20231128
JD77804-16	2Q5413.D	12/02/23 08:34	OP50811	828149-FD-01-20231127
JD77804-17	2Q5414.D	12/02/23 08:49	OP50811	828149-FB-1-20231127
JD77804-18	2Q5415.D	12/02/23 09:05	OP50811	828149-EB-1-20231128

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q96	**Method:** EPA DRAFT 1633	**Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
JD77804-19	2Q5416.D	12/02/23 09:20	OP50811	828149-FB-2-20231128
JD77804-20	2Q5417.D	12/02/23 09:35	OP50811	828149-EB-2-20231128
T2Q96-CC96	2Q5419.D	12/02/23 10:06	n/a	Continuing cal 5
OP50781-MB	2Q5533.D	12/05/23 19:02	OP50781	Method Blank
JD77804-12	2Q5546.D	12/05/23 22:20	OP50811	828149-DP-19-20231128

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q97 **Method:** EPA DRAFT 1633 **Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
T2Q97-ICCB	2Q5422.D	12/04/23 16:05	n/a	Instrument Blank
T2Q97-CC96	2Q5423.D	12/04/23 16:21	n/a	Continuing cal 1.0LL
T2Q97-RT	2Q5425.D	12/04/23 16:51	n/a	Retention Time Marker
T2Q97-CCV96	2Q5427.D	12/04/23 17:22	n/a	CCV Metals Analytical QC
T2Q97-ICCB	2Q5429.D	12/04/23 17:53	n/a	Instrument Blank
OP50851-MB	2Q5430.D	12/04/23 18:08	OP50851	Method Blank
OP50851-LLBS	2Q5431.D	12/04/23 18:23	OP50851	Blank Spike
OP50851-BS	2Q5432.D	12/04/23 18:38	OP50851	Blank Spike
OP50851-BSD	2Q5433.D	12/04/23 18:54	OP50851	Blank Spike Duplicate
OP50851-MS	2Q5434.D	12/04/23 19:09	OP50851	Matrix Spike
ZZZZZZ	2Q5435.D	12/04/23 19:24	OP50851	(unrelated sample)
JD77972-2	2Q5436.D	12/04/23 19:39	OP50851	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5437.D	12/04/23 19:55	OP50851	(unrelated sample)
ZZZZZZ	2Q5438.D	12/04/23 20:10	OP50851	(unrelated sample)
ZZZZZZ	2Q5439.D	12/04/23 20:25	OP50851	(unrelated sample)
ZZZZZZ	2Q5440.D	12/04/23 20:40	OP50851	(unrelated sample)
ZZZZZZ	2Q5441.D	12/04/23 20:56	OP50851	(unrelated sample)
ZZZZZZ	2Q5442.D	12/04/23 21:11	OP50851	(unrelated sample)
ZZZZZZ	2Q5443.D	12/04/23 21:26	OP50851	(unrelated sample)
ZZZZZZ	2Q5444.D	12/04/23 21:41	OP50851	(unrelated sample)
T2Q97-CC96	2Q5446.D	12/04/23 22:12	n/a	Continuing cal 5
T2Q97-ICCB	2Q5447.D	12/04/23 22:27	n/a	Instrument Blank
OP50852-MB	2Q5448.D	12/04/23 22:42	OP50852	Method Blank
OP50852-LLBS	2Q5449.D	12/04/23 22:57	OP50852	Blank Spike
OP50852-BS	2Q5450.D	12/04/23 23:13	OP50852	Blank Spike
OP50852-BSD	2Q5451.D	12/04/23 23:28	OP50852	Blank Spike Duplicate
OP50852-MS	2Q5452.D	12/04/23 23:43	OP50852	Matrix Spike
ZZZZZZ	2Q5453.D	12/04/23 23:58	OP50852	(unrelated sample)
ZZZZZZ	2Q5454.D	12/05/23 00:13	OP50852	(unrelated sample)
ZZZZZZ	2Q5455.D	12/05/23 00:29	OP50852	(unrelated sample)
ZZZZZZ	2Q5456.D	12/05/23 00:44	OP50852	(unrelated sample)
ZZZZZZ	2Q5457.D	12/05/23 00:59	OP50852	(unrelated sample)
JD77966-9	2Q5458.D	12/05/23 01:14	OP50852	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5459.D	12/05/23 01:29	OP50852	(unrelated sample)
ZZZZZZ	2Q5460.D	12/05/23 01:45	OP50852	(unrelated sample)
ZZZZZZ	2Q5461.D	12/05/23 02:00	OP50852	(unrelated sample)
ZZZZZZ	2Q5462.D	12/05/23 02:15	OP50852	(unrelated sample)
T2Q97-CC96	2Q5464.D	12/05/23 02:46	n/a	Continuing cal 5
T2Q97-ICCB	2Q5465.D	12/05/23 03:01	n/a	Instrument Blank
ZZZZZZ	2Q5466.D	12/05/23 03:16	OP50852	(unrelated sample)
ZZZZZZ	2Q5467.D	12/05/23 03:31	OP50852	(unrelated sample)
ZZZZZZ	2Q5468.D	12/05/23 03:47	OP50852	(unrelated sample)
OP50850-MB	2Q5469.D	12/05/23 04:02	OP50850	Method Blank
OP50850-LLBS	2Q5470.D	12/05/23 04:17	OP50850	Blank Spike
OP50850-BS	2Q5471.D	12/05/23 04:32	OP50850	Blank Spike
OP50850-MS	2Q5472.D	12/05/23 04:47	OP50850	Matrix Spike

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q97	**Method:** EPA DRAFT 1633	**Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
OP50850-MSD	2Q5473.D	12/05/23 05:03	OP50850	Matrix Spike Duplicate
ZZZZZZ	2Q5474.D	12/05/23 05:18	OP50850	(unrelated sample)
ZZZZZZ	2Q5478.D	12/05/23 05:33	OP50850	(unrelated sample)
JD77883-19	2Q5479.D	12/05/23 05:48	OP50850	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5480.D	12/05/23 06:03	OP50850	(unrelated sample)
ZZZZZZ	2Q5481.D	12/05/23 06:19	OP50850	(unrelated sample)
ZZZZZZ	2Q5482.D	12/05/23 06:34	OP50850	(unrelated sample)
ZZZZZZ	2Q5483.D	12/05/23 06:49	OP50850	(unrelated sample)
T2Q97-CC96	2Q5485.D	12/05/23 07:20	n/a	Continuing cal 5
T2Q97-ICCB	2Q5486.D	12/05/23 07:35	n/a	Instrument Blank
ZZZZZZ	2Q5487.D	12/05/23 07:51	OP50850	(unrelated sample)
ZZZZZZ	2Q5488.D	12/05/23 08:06	OP50850	(unrelated sample)
ZZZZZZ	2Q5489.D	12/05/23 08:21	OP50850	(unrelated sample)
ZZZZZZ	2Q5490.D	12/05/23 08:37	OP50850	(unrelated sample)
ZZZZZZ	2Q5491.D	12/05/23 08:52	OP50850	(unrelated sample)
ZZZZZZ	2Q5492.D	12/05/23 09:07	OP50850	(unrelated sample)
ZZZZZZ	2Q5493.D	12/05/23 09:22	OP50850	(unrelated sample)
ZZZZZZ	2Q5494.D	12/05/23 09:38	OP50850	(unrelated sample)
ZZZZZZ	2Q5495.D	12/05/23 09:53	OP50850	(unrelated sample)
ZZZZZZ	2Q5496.D	12/05/23 10:08	OP50850	(unrelated sample)
T2Q97-CC96	2Q5498.D	12/05/23 10:39	n/a	Continuing cal 5
T2Q97-ICCB	2Q5499.D	12/05/23 10:54	n/a	Instrument Blank
ZZZZZZ	2Q5500.D	12/05/23 11:09	OP50850	(unrelated sample)
ZZZZZZ	2Q5501.D	12/05/23 11:25	OP50850	(unrelated sample)
OP50866-MB	2Q5504.D	12/05/23 11:40	OP50866	Method Blank
OP50866-LLBS	2Q5505.D	12/05/23 11:55	OP50866	Blank Spike
OP50866-BS	2Q5506.D	12/05/23 12:10	OP50866	Blank Spike
OP50866-MS	2Q5507.D	12/05/23 12:26	OP50866	Matrix Spike
OP50866-MSD	2Q5508.D	12/05/23 12:41	OP50866	Matrix Spike Duplicate
ZZZZZZ	2Q5509.D	12/05/23 12:56	OP50866	(unrelated sample)
ZZZZZZ	2Q5510.D	12/05/23 13:11	OP50866	(unrelated sample)
ZZZZZZ	2Q5511.D	12/05/23 13:27	OP50866	(unrelated sample)
ZZZZZZ	2Q5512.D	12/05/23 13:42	OP50866	(unrelated sample)
ZZZZZZ	2Q5513.D	12/05/23 13:57	OP50866	(unrelated sample)
ZZZZZZ	2Q5514.D	12/05/23 14:12	OP50866	(unrelated sample)
ZZZZZZ	2Q5515.D	12/05/23 14:27	OP50866	(unrelated sample)
ZZZZZZ	2Q5516.D	12/05/23 14:43	OP50866	(unrelated sample)
T2Q97-CC96	2Q5518.D	12/05/23 15:13	n/a	Continuing cal 5
T2Q97-ICCB	2Q5519.D	12/05/23 15:29	n/a	Instrument Blank
ZZZZZZ	2Q5520.D	12/05/23 15:44	OP50866	(unrelated sample)
ZZZZZZ	2Q5521.D	12/05/23 15:59	OP50866	(unrelated sample)
JD77883-8	2Q5522.D	12/05/23 16:15	OP50866	(used for QC only; not part of job JD77804)
ZZZZZZ	2Q5523.D	12/05/23 16:30	OP50866	(unrelated sample)
ZZZZZZ	2Q5524.D	12/05/23 16:45	OP50866	(unrelated sample)
ZZZZZZ	2Q5525.D	12/05/23 17:00	OP50866	(unrelated sample)
ZZZZZZ	2Q5526.D	12/05/23 17:15	OP50866	(unrelated sample)

Run Sequence Report

Job Number: JD77804
Account: EAENYS EA Engineering
Project: NYSDEC Town and Country Cleaners, NY

Run ID: T2Q97	**Method:** EPA DRAFT 1633	**Instrument ID:** GCMS2Q

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
ZZZZZZ	2Q5527.D	12/05/23 17:31	OP50866	(unrelated sample)
ZZZZZZ	2Q5528.D	12/05/23 17:46	OP50866	(unrelated sample)
ZZZZZZ	2Q5529.D	12/05/23 18:01	OP50866	(unrelated sample)
T2Q97-CC96	2Q5531.D	12/05/23 18:32	n/a	Continuing cal 5
T2Q97-ICCB	2Q5532.D	12/05/23 18:47	n/a	Instrument Blank
ZZZZZZ	2Q5534.D	12/05/23 19:18	OP50866	(unrelated sample)
OP50890-MB	2Q5535.D	12/05/23 19:33	OP50890	Method Blank
OP50890-LLBS	2Q5536.D	12/05/23 19:48	OP50890	Blank Spike
OP50890-BS	2Q5537.D	12/05/23 20:03	OP50890	Blank Spike
OP50890-BSD	2Q5538.D	12/05/23 20:19	OP50890	Blank Spike Duplicate
ZZZZZZ	2Q5539.D	12/05/23 20:34	OP50890	(unrelated sample)
ZZZZZZ	2Q5540.D	12/05/23 20:49	OP50890	(unrelated sample)
ZZZZZZ	2Q5541.D	12/05/23 21:04	OP50890	(unrelated sample)
ZZZZZZ	2Q5542.D	12/05/23 21:20	OP50890	(unrelated sample)
ZZZZZZ	2Q5543.D	12/05/23 21:35	OP50890	(unrelated sample)
ZZZZZZ	2Q5544.D	12/05/23 21:50	OP50890	(unrelated sample)
ZZZZZZ	2Q5545.D	12/05/23 22:05	OP50890	(unrelated sample)
T2Q97-CC96	2Q5547.D	12/05/23 22:36	n/a	Continuing cal 4

MS Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5392.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 3:13:30 AM
Sample Name : JD77804-1
Vial : P2-F5
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,544,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
Internal Standards							
M4-PFBA	3.314	217.0 -> 172.0	115504	10.00	µg/L		-0.025
M5-PFPeA	4.785	268.0 -> 223.0	77380	5.00	µg/L		-0.025
M5-PFHxA	5.930	318.0 -> 273.0	41431	1.25	µg/L		-0.025
M4-PFHpA	6.770	367.0 -> 322.0	33249	2.50	µg/L		-0.025
M8-PFOA	7.372	421.0 -> 376.0	53391	2.50	µg/L		-0.025
M9-PFNA	7.875	472.0 -> 427.0	23746	1.25	µg/L		-0.037
M6-PFDA	8.352	519.0 -> 474.0	10703	1.25	µg/L		-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	14501	1.25	µg/L		-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	13119	1.25	µg/L		-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	7604	1.25	µg/L		-0.049
M8-FOSA	9.653	506.0 -> 78.0	14747	2.50	µg/L		0.000
M3-PFBS	5.846	302.0 -> 99.0	4802	2.50	µg/L		-0.037
		302.0 -> 80.0	11819				
M3-PFHxS	7.472	402.0 -> 99.0	4538	2.50	µg/L		-0.037
M8-PFOS	8.499	507.0 -> 99.0	4952	2.50	µg/L		-0.049
M2-4:2FTS	5.631	329.0 -> 81.0	1063	5.00	µg/L		-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2296	5.00	µg/L		-0.025
M2-8:2FTS	8.155	529.0 -> 81.0	3369	5.00	µg/L		-0.037
M3-MeFOSAA	8.398	573.0 -> 419.0	26532	5.00	µg/L		-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	19776	10.00	µg/L		-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	18633	5.00	µg/L		-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	40645	25.00	µg/L		-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	49382	25.00	µg/L		0.000
M5-EtFOSA	11.141	531.0 -> 169.0	5562	2.50	µg/L		0.000
M3-MeFOSA	10.871	515.0 -> 169.0	6103	2.50	µg/L		0.000
13C4-PFOS	8.512	503.0 -> 80.0	10371	2.50	µg/L	m	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	66316	5.00	µg/L		-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6021	2.50	µg/L		-0.037
13C4-PFOA	7.372	417.0 -> 372.0	62362	2.50	µg/L		-0.025
13C2-PFDA	8.352	515.0 -> 470.0	25943	1.25	µg/L		-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35106	1.25	µg/L		-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	47721	2.50	µg/L		-0.025
System Monitoring Compounds							
13C2-4:2FTS	5.631	329.0 -> 81.0	1063	4.84	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.7%			
13C2-6:2FTS	7.149	429.0 -> 81.0	2296	4.71	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.2%			
13C2-8:2FTS	8.155	529.0 -> 81.0	3369	4.99	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.8%			
13C2-PFDoDA	9.219	615.0 -> 570.0	13119	0.63	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 50.7%			
13C2-PFTeDA	9.964	715.0 -> 670.0	7604	0.50	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 40.1%			
13C3-PFBS	5.846	302.0 -> 99.0	4802	2.14	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.8%			

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	4538	1.93	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 77.3%			
13C4-PFBA	3.314	217.0 -> 172.0	115504	7.74	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 77.4%			
13C4-PFHpA	6.770	367.0 -> 322.0	33249	2.14	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.8%			
13C5-PFHxA	5.930	318.0 -> 273.0	41431	2.09	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 83.6%			
13C5-PFPeA	4.785	268.0 -> 223.0	77380	4.33	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 86.5%			
13C6-PFDA	8.352	519.0 -> 474.0	10703	0.99	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 79.1%			
13C7-PFUnDA	8.803	570.0 -> 525.0	14501	0.81	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 64.9%			
13C8-FOSA	9.653	506.0 -> 78.0	14747	2.10	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.0%			
13C8-PFOA	7.372	421.0 -> 376.0	53391	2.07	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.7%			
13C8-PFOS	8.499	507.0 -> 99.0	4952	2.19	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 87.7%			
13C9-PFNA	7.875	472.0 -> 427.0	23746	0.86	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 69.1%			
d3-MeFOSAA	8.398	573.0 -> 419.0	26532	3.93	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 78.6%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	19776	8.74	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 87.4%			
d3-MeFOSA	10.871	515.0 -> 169.0	6103	1.31	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 52.5%			
d5-EtFOSAA	8.593	589.0 -> 419.0	18633	3.34	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 66.8%			
d7-MeFOSE	10.753	623.0 -> 59.0	40645	13.15	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 52.6%			
d9-EtFOSE	11.049	639.0 -> 59.0	49382	12.07	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 48.3%			
d5-EtFOSA	11.141	531.0 -> 169.0	5562	1.12	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 44.7%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.137	427.0 -> 407.0	152	0.05	µg/L		77
		427.0 -> 81.0	69				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.569	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	8.411	570.0 -> 419.0	179	0.05	µg/L	m	88
		570.0 -> 512.0	77				
PFBA	3.308	213.0 -> 169.0	842	0.29	µg/L		100
PFBS	5.847	299.0 -> 80.0	1434	0.29	µg/L		89
		299.0 -> 99.0	504				
PFDA	8.413	513.0 -> 469.0	811	0.07	µg/L	#	68
		513.0 -> 219.0	14				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

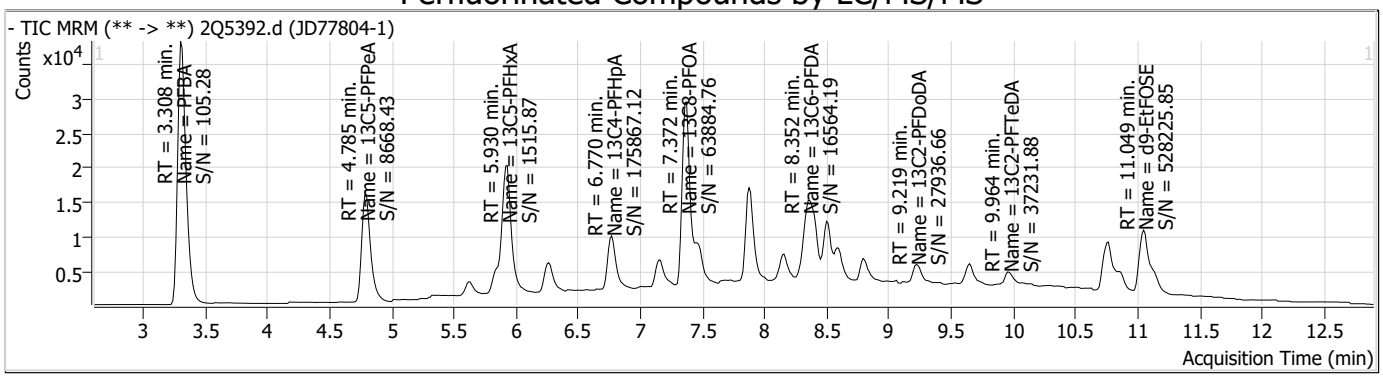
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	1765	0.13	µg/L		93
		363.0 -> 169.0	233				
PFHpS	8.035	449.0 -> 80.0	119	0.04	µg/L	#	45
		449.0 -> 99.0	16				
PFHxA	5.932	313.0 -> 269.0	1430	0.09	µg/L		99
		313.0 -> 119.0	37				
PFHxS	7.485	399.0 -> 80.0	472	0.15	µg/L	m	81
		399.0 -> 99.0	345				
PFNA	7.888	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	7938	0.38	µg/L	m	91
		413.0 -> 169.0	1858				
PFOS	8.328	499.0 -> 80.0	10190	2.41	µg/L	#m	61
		499.0 -> 99.0	2538				
PFPeA	4.799	263.0 -> 219.0	1130	0.08	µg/L	m	100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.823	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

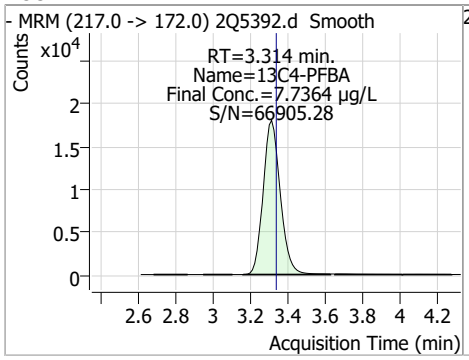
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

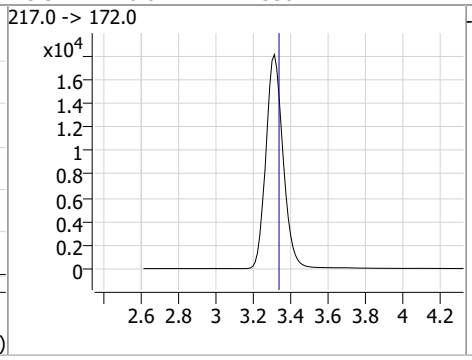
= Qualifier out of range, m = manually integrated, + = Area summed

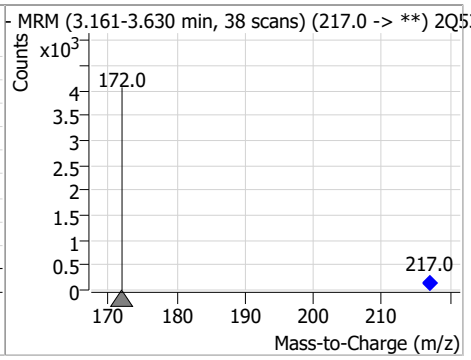
Perfluorinated Compounds by LC/MS/MS



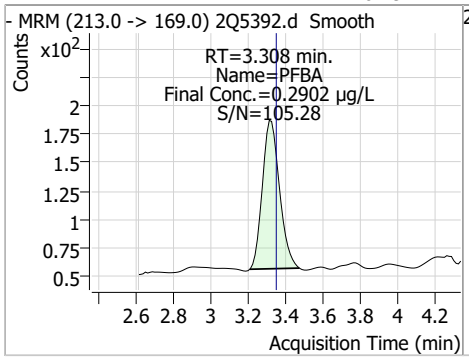
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.74	3.31	-0.02	115504				

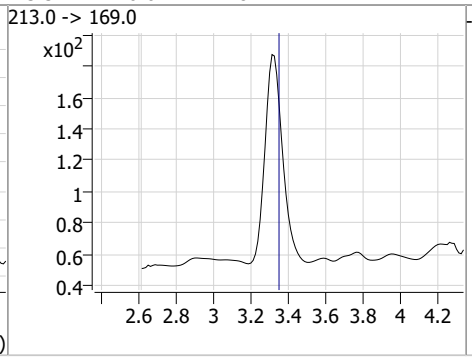


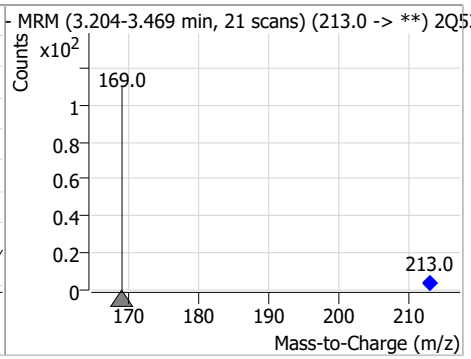




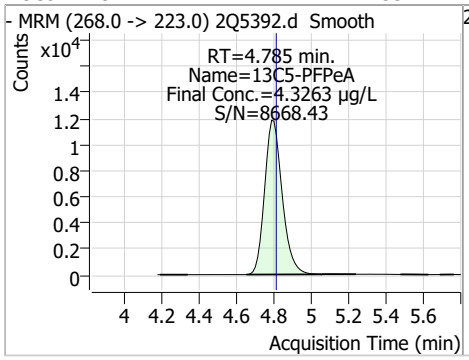
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.29	3.31	-0.04	842				

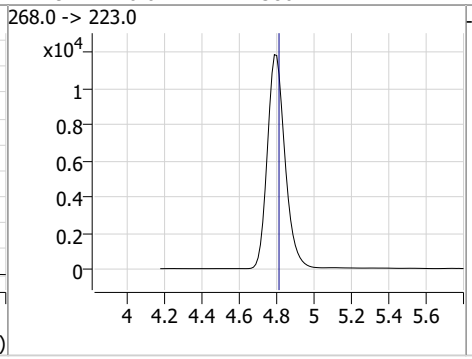


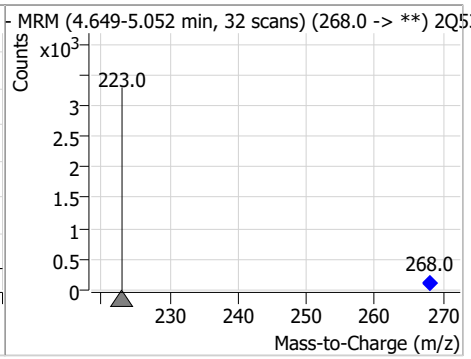




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.33	4.79	-0.02	77380				

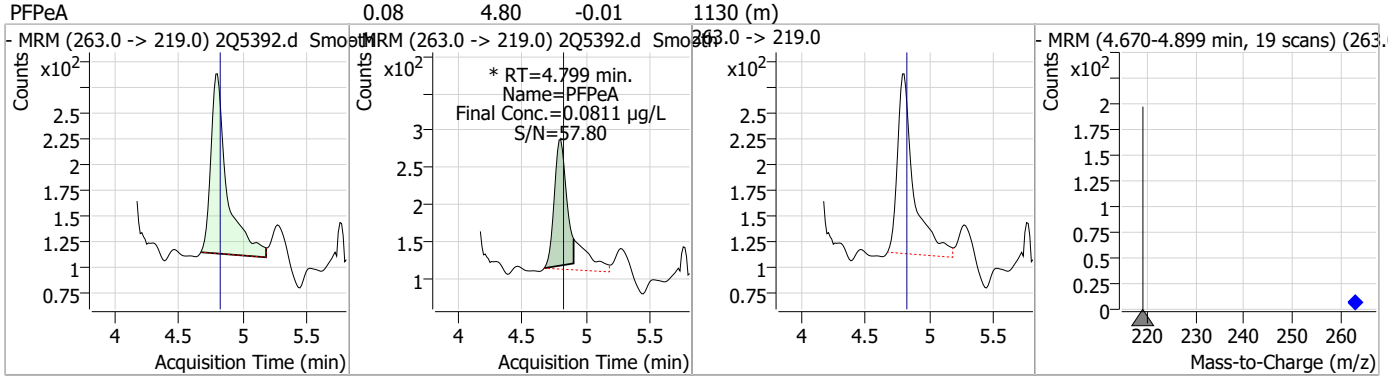




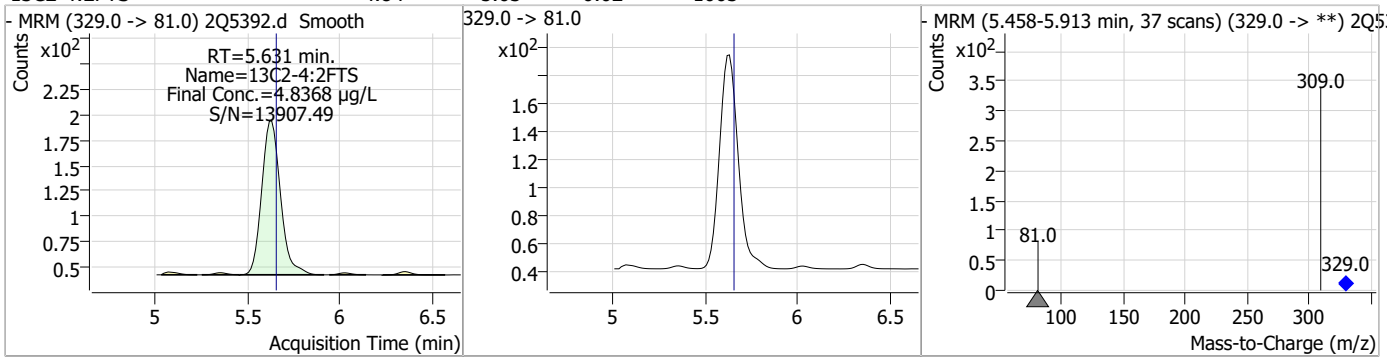


Perfluorinated Compounds by LC/MS/MS

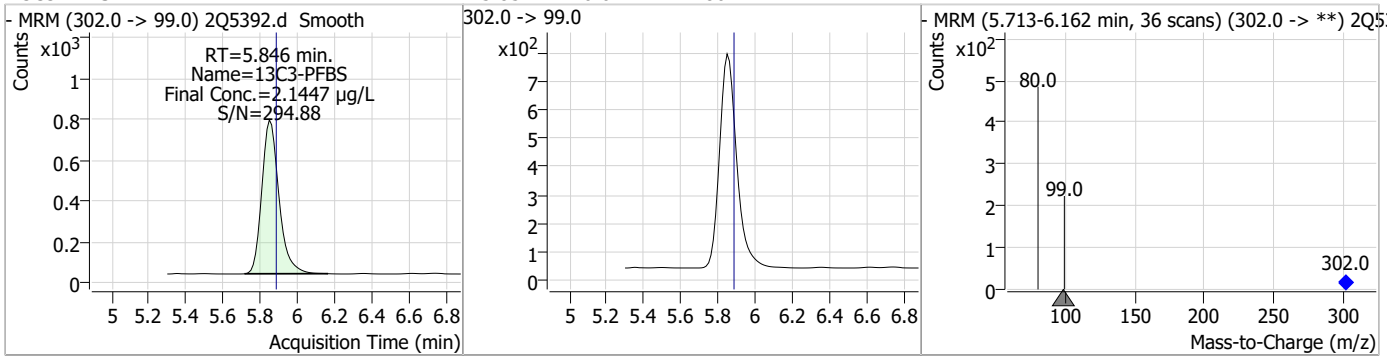
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.08	4.80	-0.01	1130 (m)				



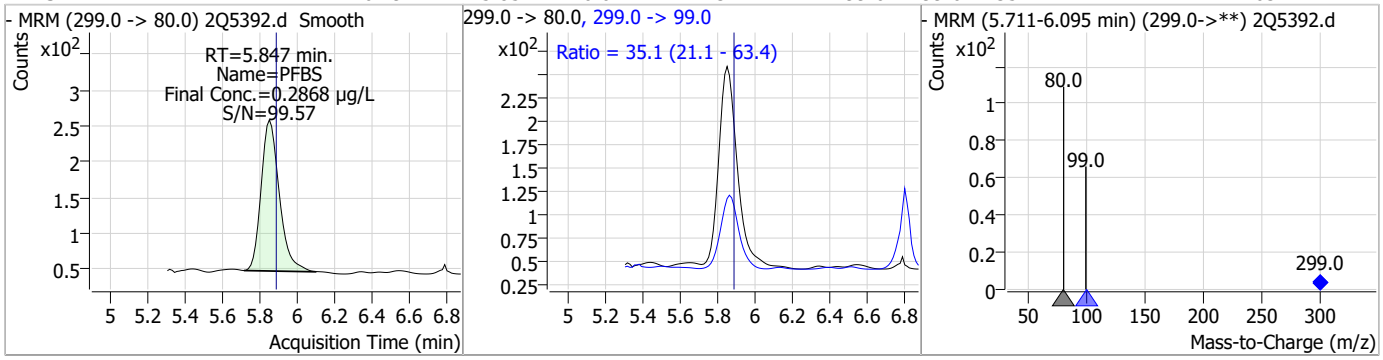
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.84	5.63	-0.02	1063				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.14	5.85	-0.04	4802				

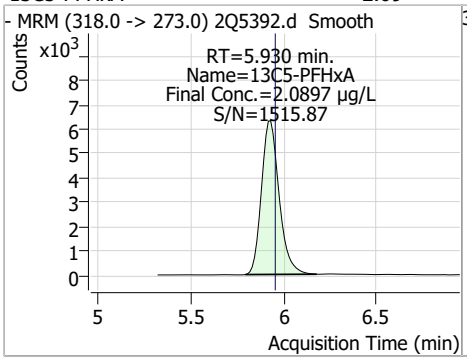


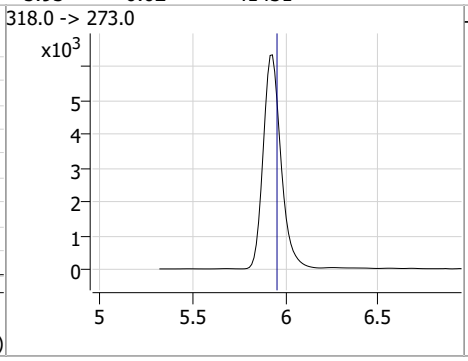
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.29	5.85	-0.04	1434	299.0 -> 99.0	35.1	21.1	63.4

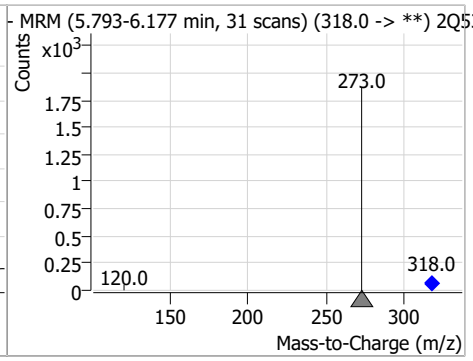


Perfluorinated Compounds by LC/MS/MS

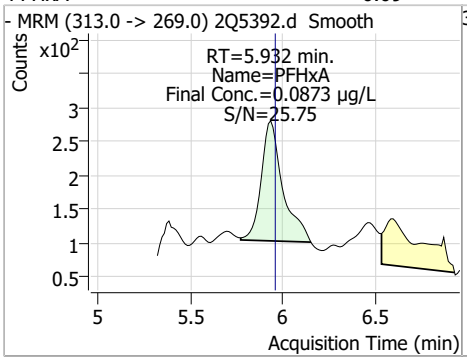
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.09	5.93	-0.02	41431				

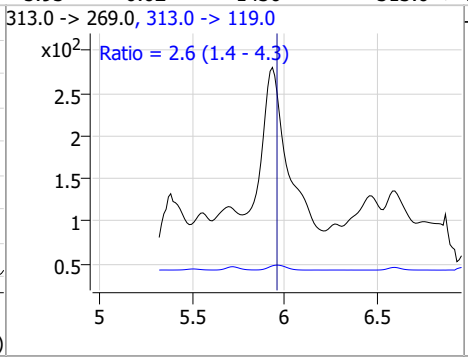


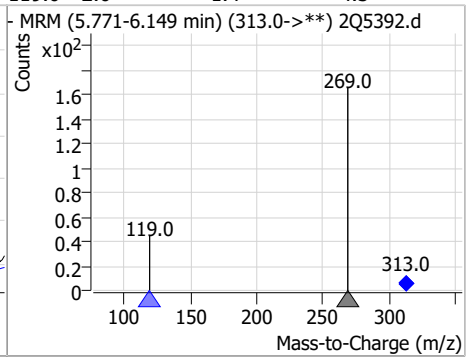




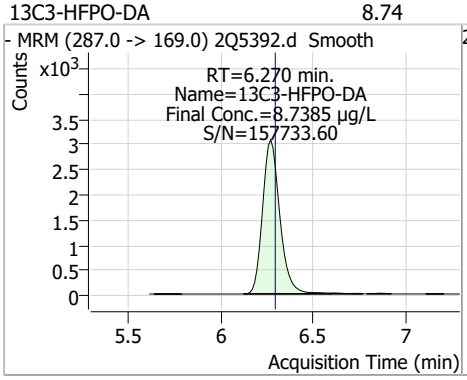
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.09	5.93	-0.02	1430	313.0 -> 119.0	2.6	1.4	4.3

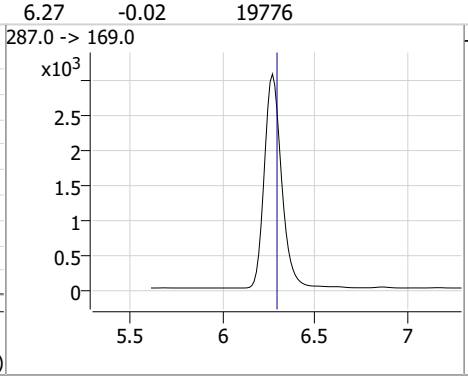


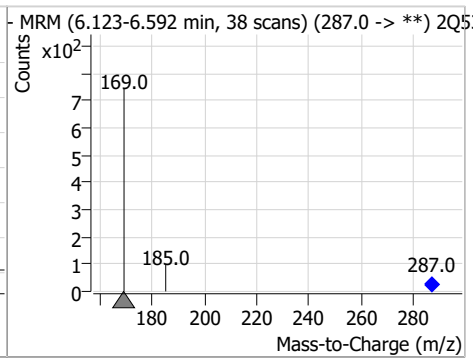




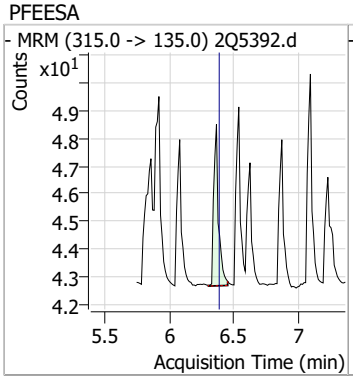
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	8.74	6.27	-0.02	19776				

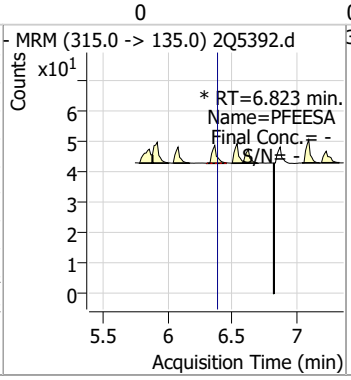


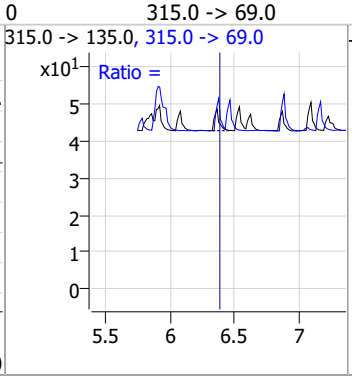


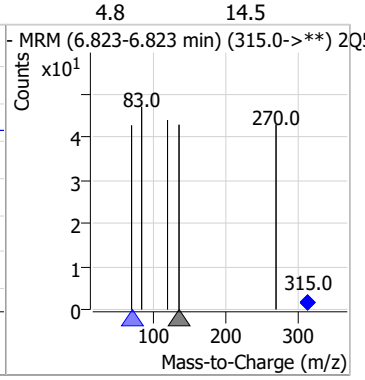


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



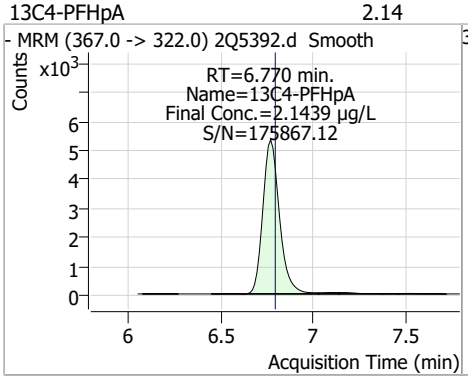


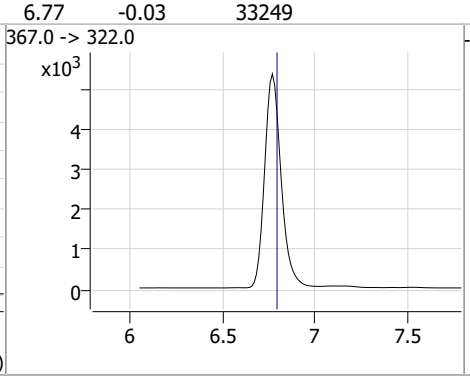


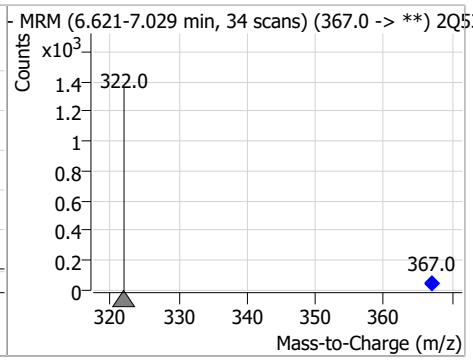


Perfluorinated Compounds by LC/MS/MS

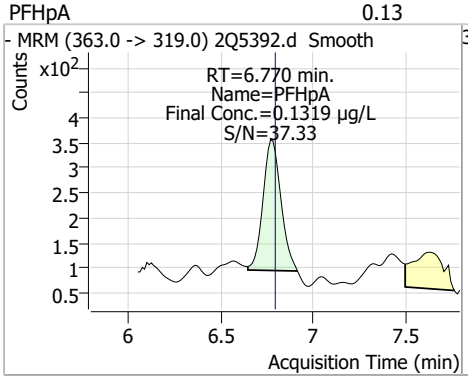
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.14	6.77	-0.03	33249				

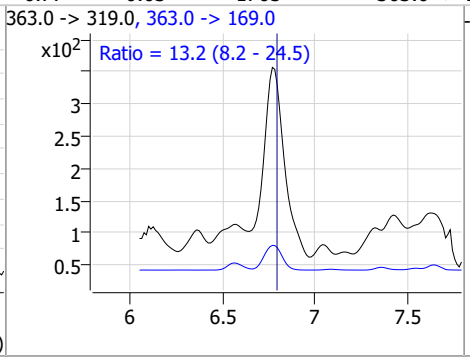


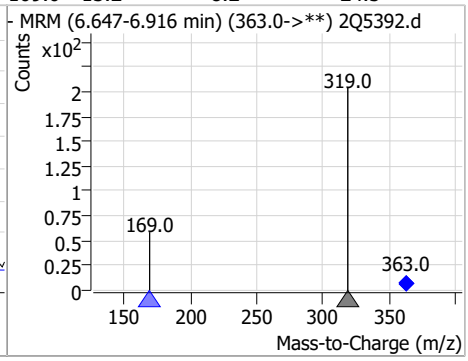




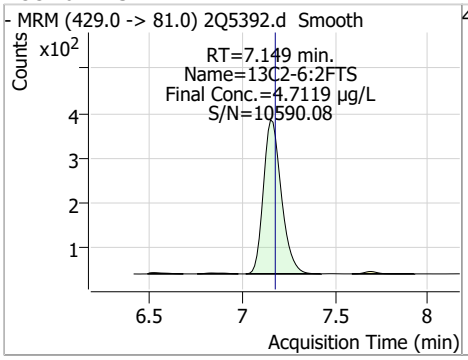
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.13	6.77	-0.03	1765	363.0 -> 169.0	13.2	8.2	24.5

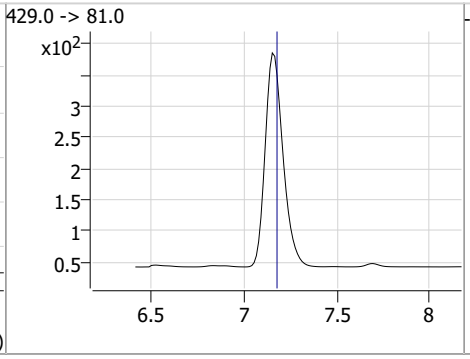


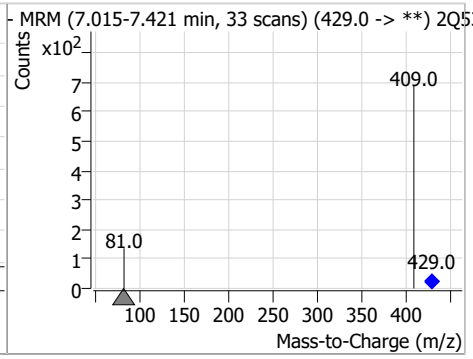




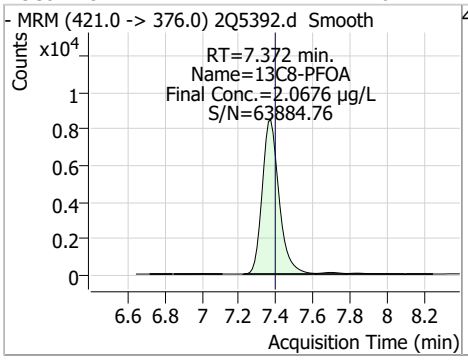
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.71	7.15	-0.03	2296				

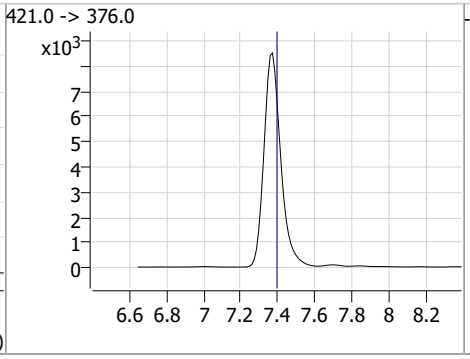


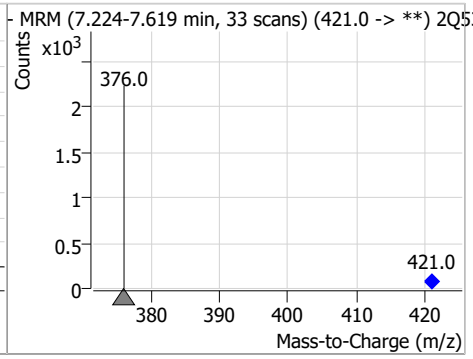




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.07	7.37	-0.02	53391				

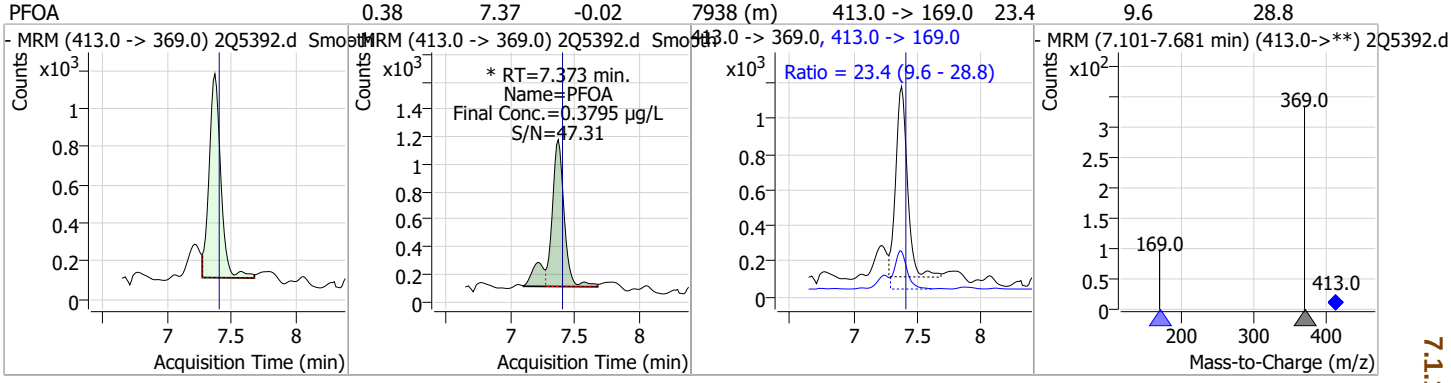




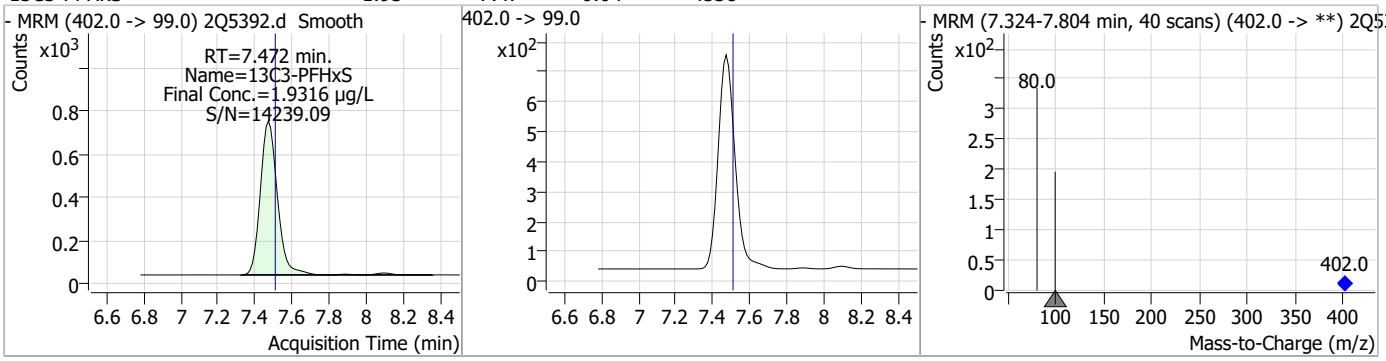


Perfluorinated Compounds by LC/MS/MS

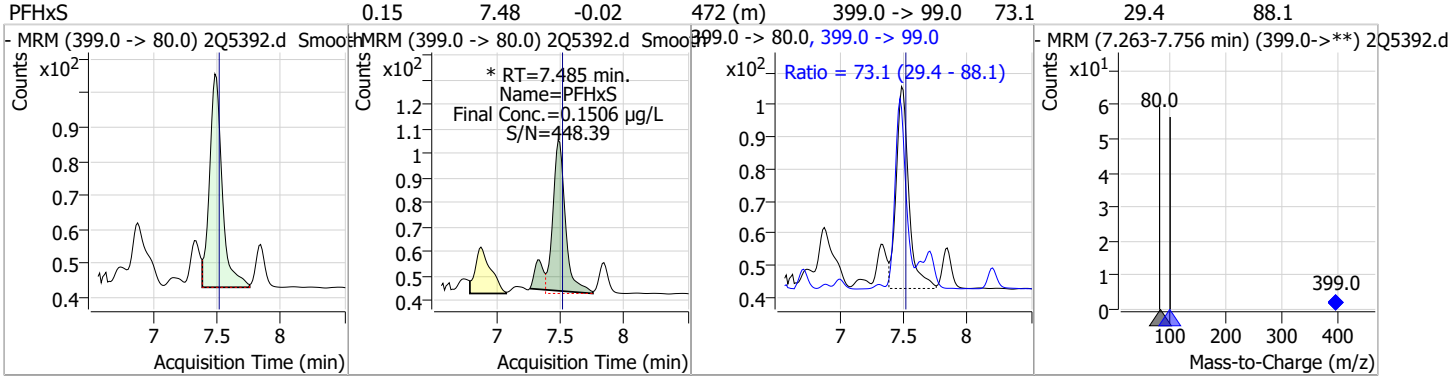
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.38	7.37	-0.02	7938 (m)	413.0 -> 169.0	23.4	9.6	28.8



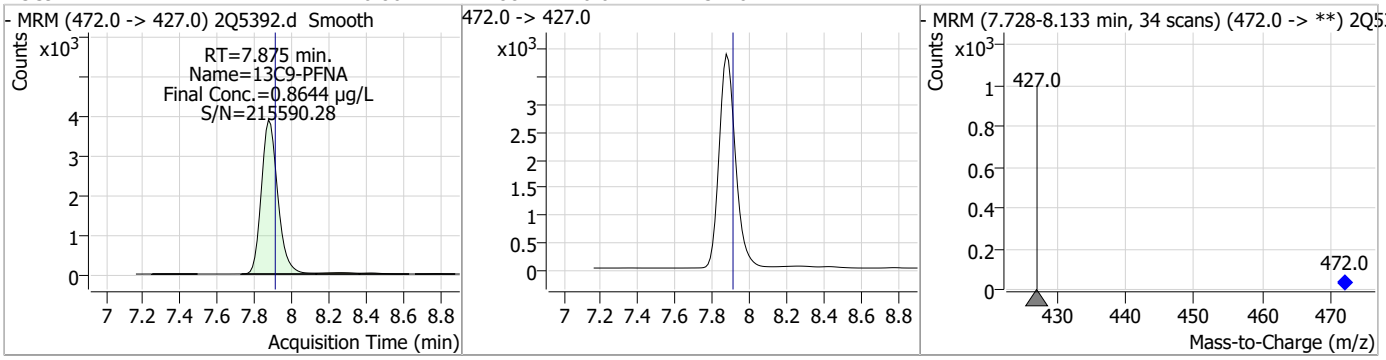
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	1.93	7.47	-0.04	4538				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.15	7.48	-0.02	472 (m)	399.0 -> 99.0	73.1	29.4	88.1

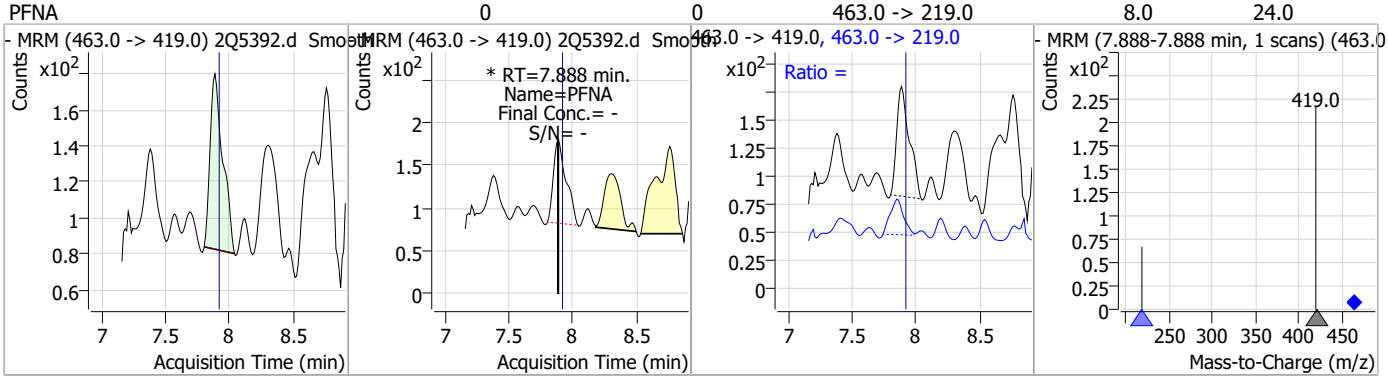


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	0.86	7.88	-0.04	23746				

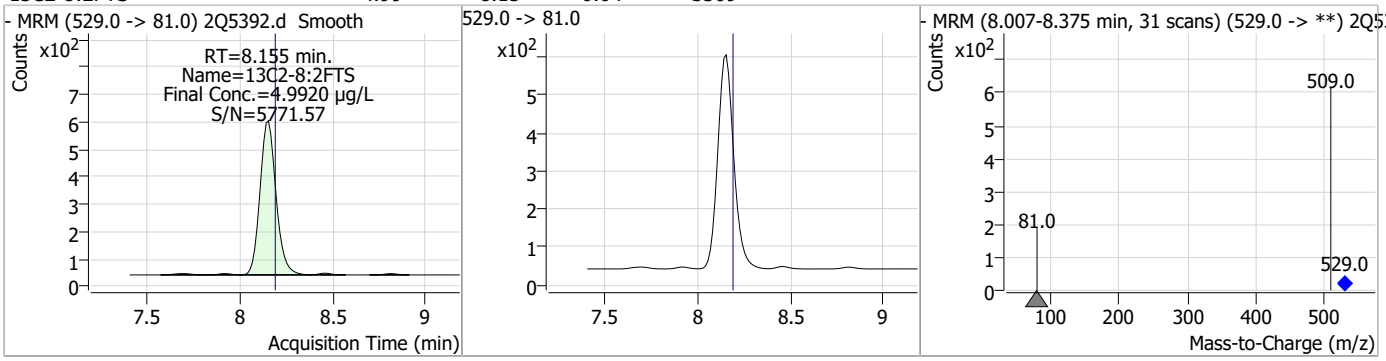


Perfluorinated Compounds by LC/MS/MS

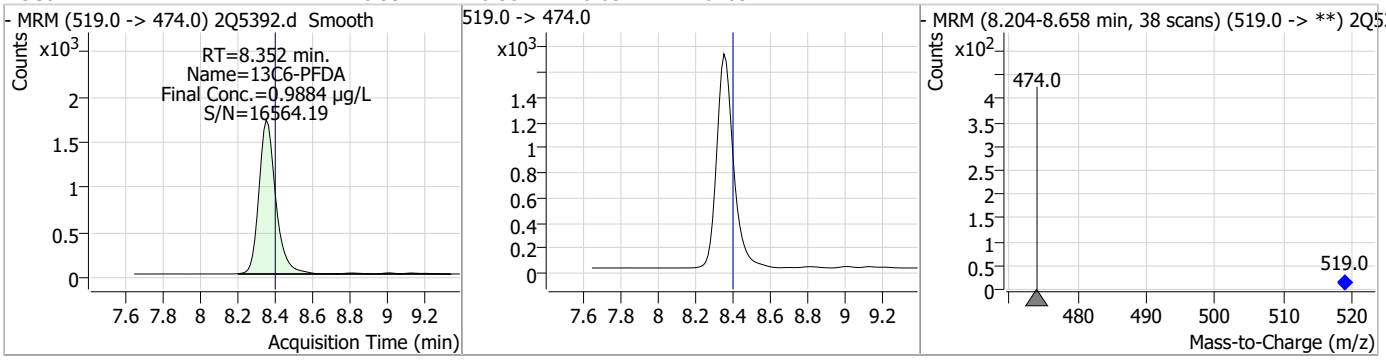
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



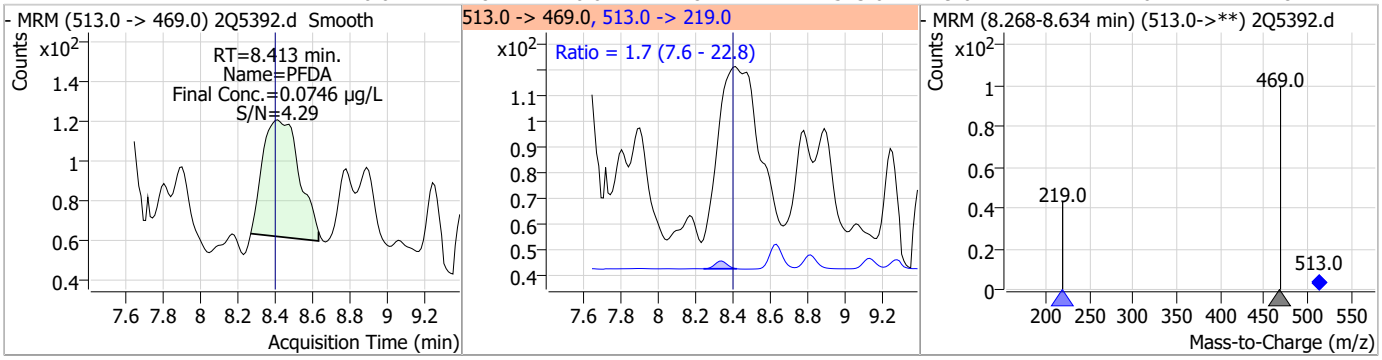
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.99	8.15	-0.04	3369				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	0.99	8.35	-0.05	10703				

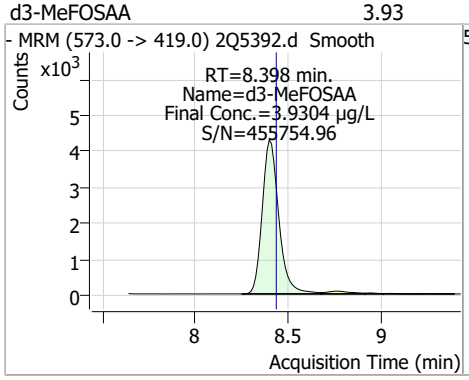


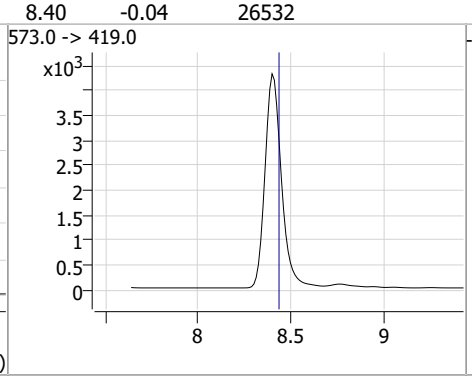
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.07	8.41	0.01	811	513.0 -> 219.0	1.7	7.6	22.8

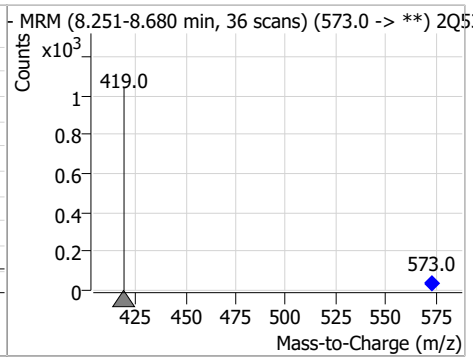


Perfluorinated Compounds by LC/MS/MS

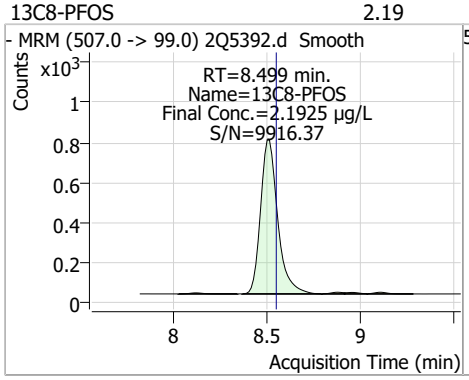
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	3.93	8.40	-0.04	26532				

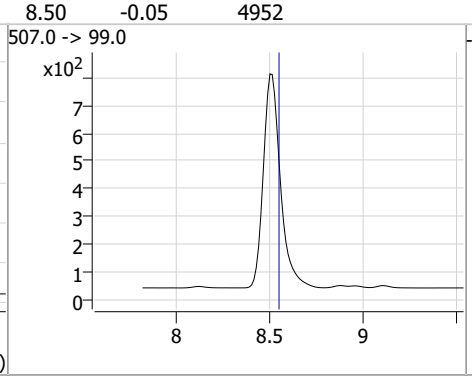


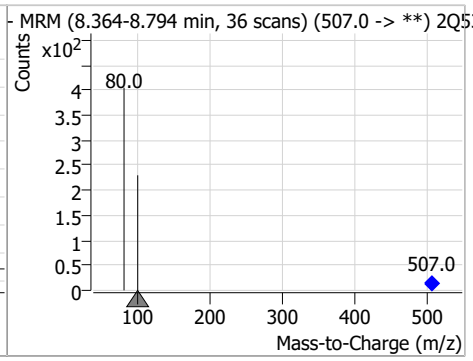




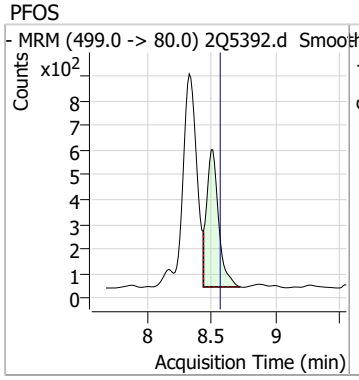
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.19	8.50	-0.05	4952				

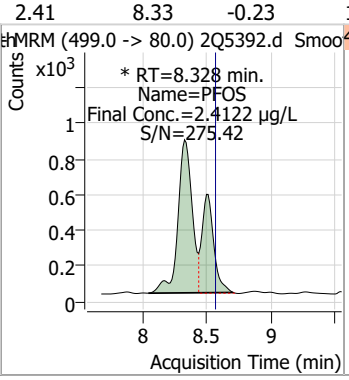


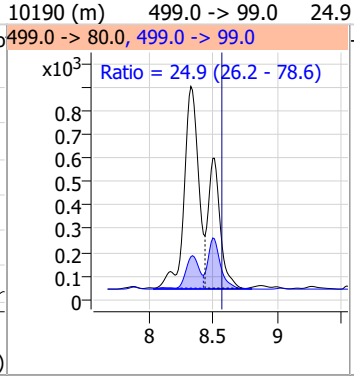


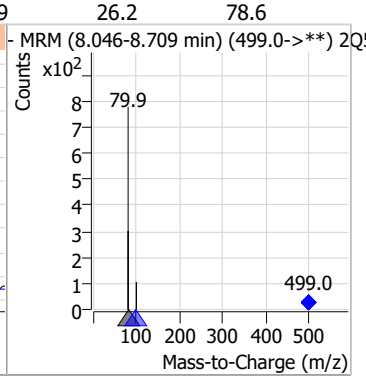


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.41	8.33	-0.23	10190 (m)	499.0 -> 99.0	24.9	26.2	78.6

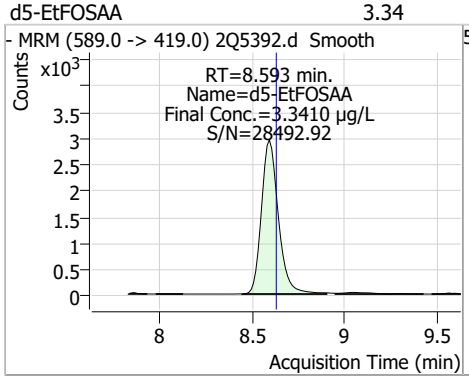


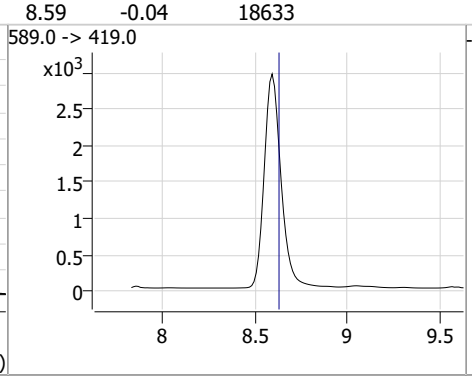


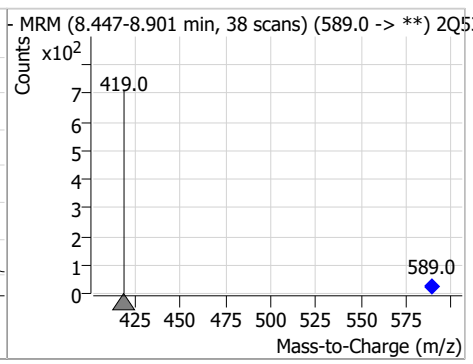




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	3.34	8.59	-0.04	18633				

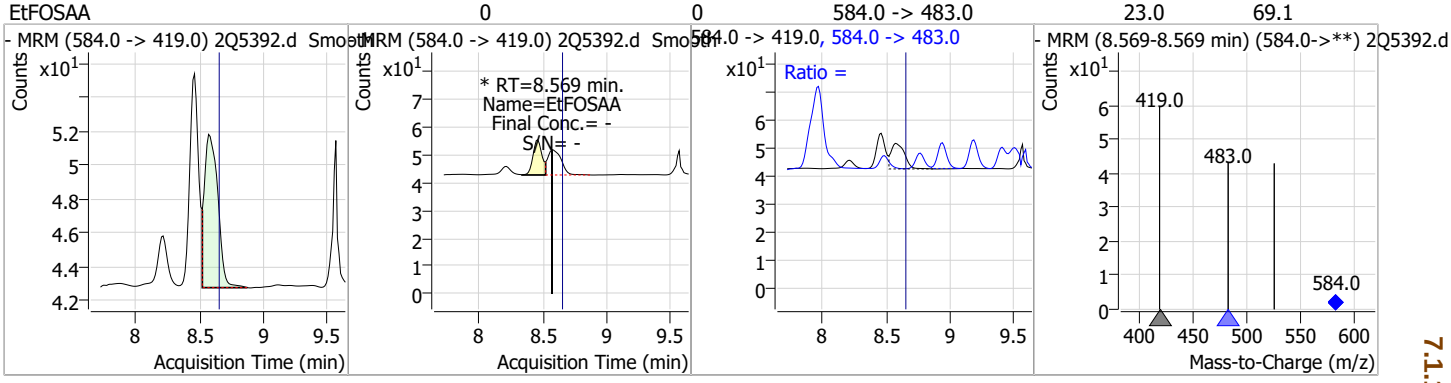




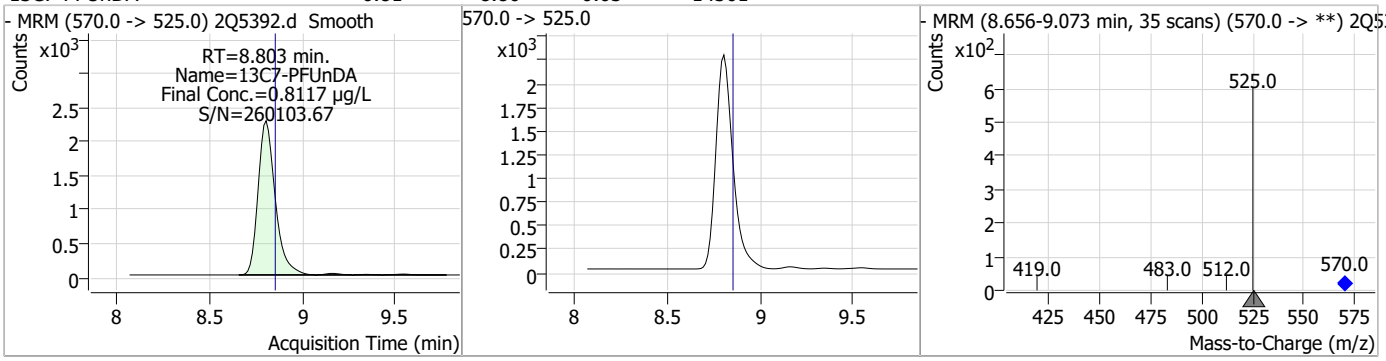


Perfluorinated Compounds by LC/MS/MS

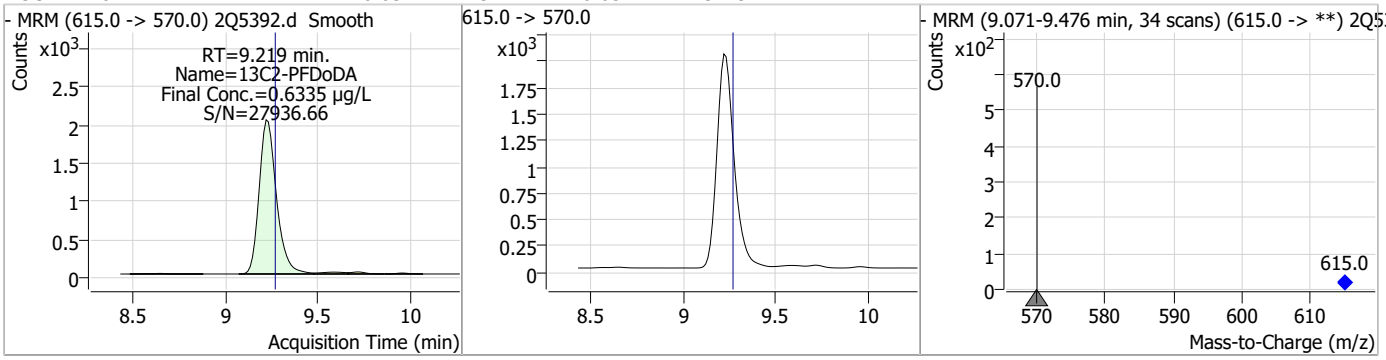
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1



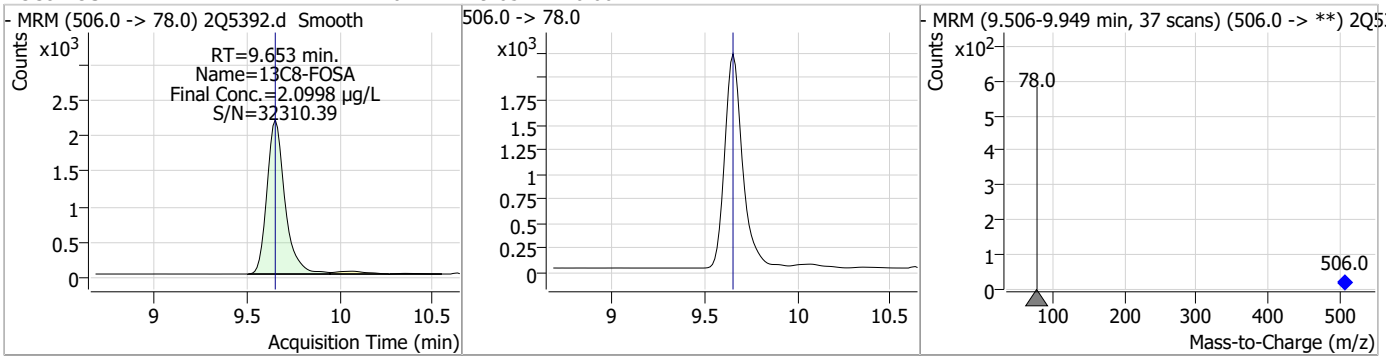
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	0.81	8.80	-0.05	14501				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.63	9.22	-0.05	13119				

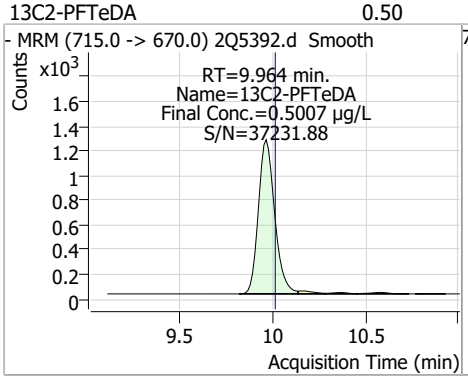


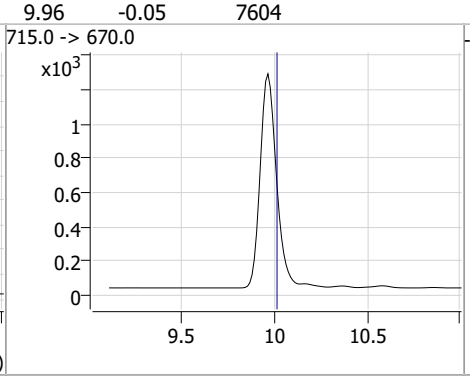
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.10	9.65	0.00	14747				

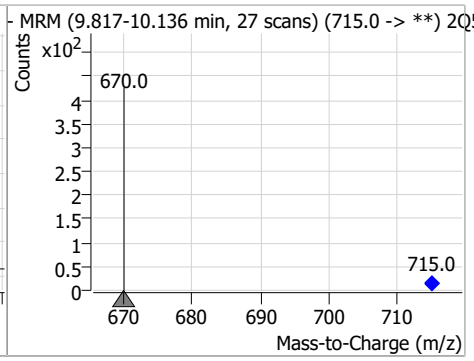


Perfluorinated Compounds by LC/MS/MS

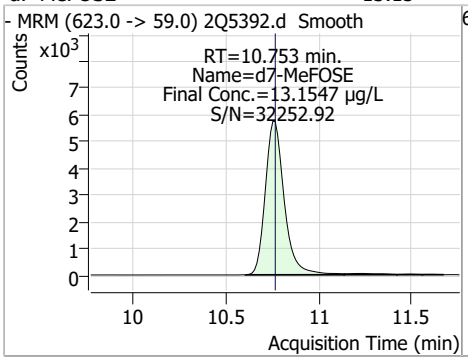
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.50	9.96	-0.05	7604				

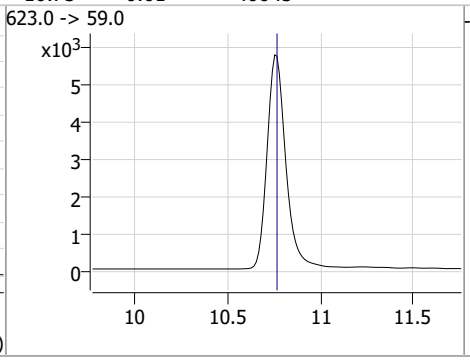


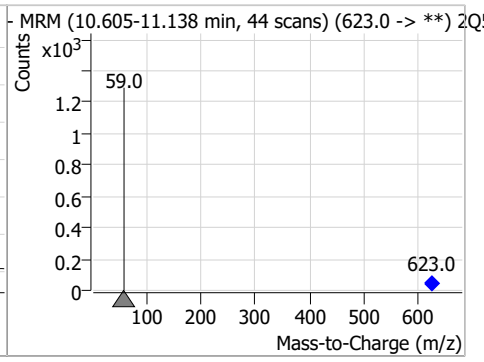




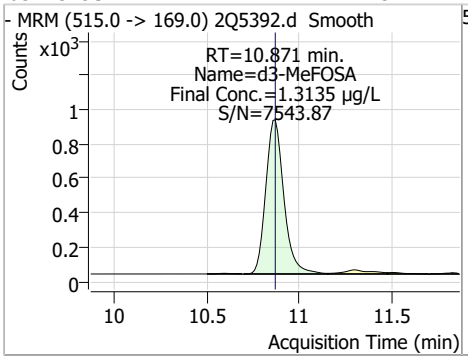
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	13.15	10.75	-0.01	40645				

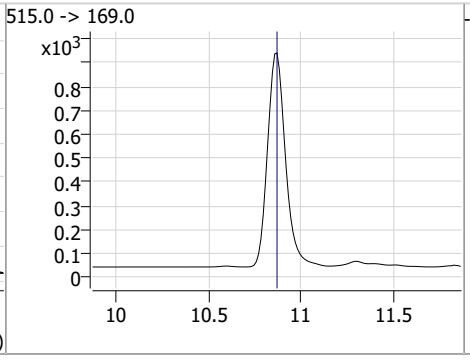


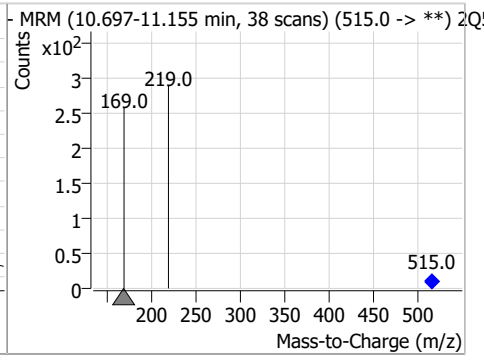




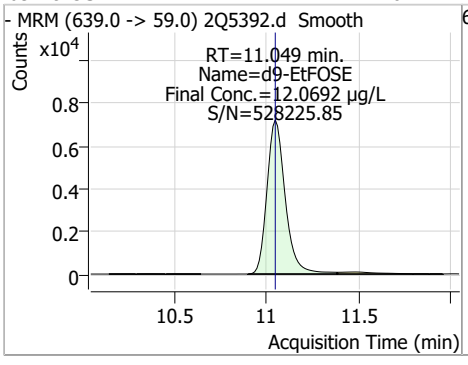
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.31	10.87	0.00	6103				

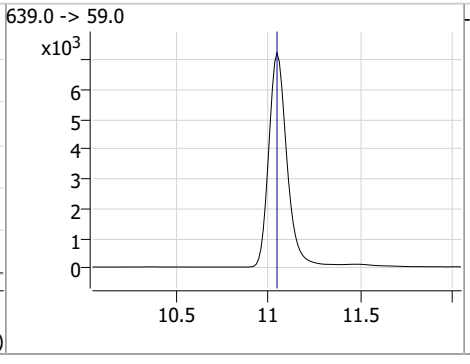


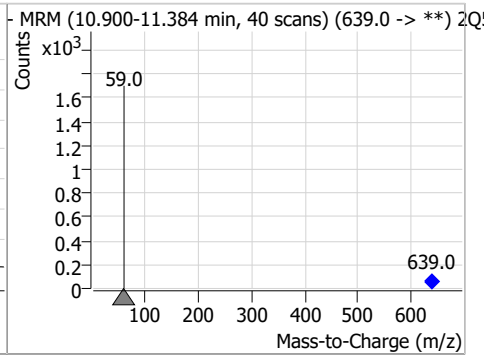




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	12.07	11.05	0.00	49382				

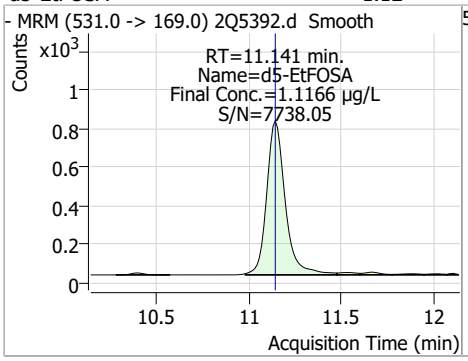


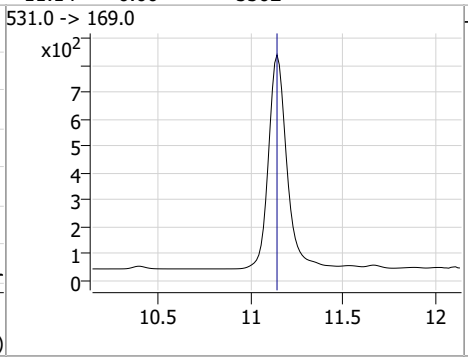


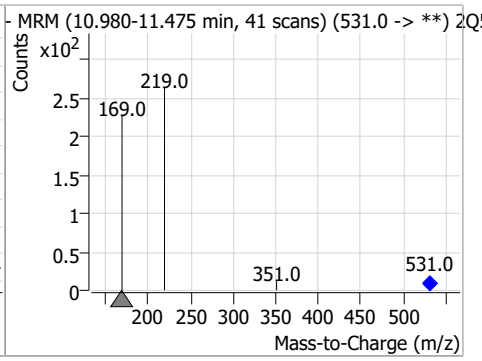


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.12	11.14	0.00	5562				







Manual Integration Approval Summary

Sample Number: JD77804-1
Lab FileID: 2Q5392.D
Injection Time: 12/02/23 03:13
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluoropentanoic acid	2706-90-3		4.80	Poorly defined baseline
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.49	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.33	Split peak
MeFOSAA	2355-31-9		8.41	Split peak
13C4-PFOS			8.51	Poorly defined baseline

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5393.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 3:28:44 AM
Sample Name : JD77804-2
Vial : P2-F6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,526,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	105259	10.00	µg/L	-0.037
M5-PFPeA	4.785	268.0 -> 223.0	90488	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	48403	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	38523	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	65014	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	31146	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12412	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	18849	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23900	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	15886	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	16818	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5187	2.50	µg/L	-0.037
		302.0 -> 80.0	13892			
M3-PFHxS	7.472	402.0 -> 99.0	5389	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	5778	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1199	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2684	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3850	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	37665	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22824	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	32090	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	70741	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	96033	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10466	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	9991	2.50	µg/L	-0.012
13C4-PFOS	8.500	503.0 -> 80.0	10559	2.50	µg/L	-0.049
13C3-PFBA	3.305	216.0 -> 172.0	67505	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	6058	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	63134	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	24796	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	32568	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	46923	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1199	5.42	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 108.4%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2684	5.47	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3850	5.67	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.4%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23900	1.21	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.6%		
13C2-PFTeDA	9.964	715.0 -> 670.0	15886	1.09	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.5%		
13C3-PFBS	5.846	302.0 -> 99.0	5187	2.30	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.1%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5389	2.28	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.2%			
13C4-PFBA	3.302	217.0 -> 172.0	105259	6.93	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 69.3%			
13C4-PFHpA	6.770	367.0 -> 322.0	38523	2.53	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.1%			
13C5-PFHxA	5.930	318.0 -> 273.0	48403	2.48	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.3%			
13C5-PFPeA	4.785	268.0 -> 223.0	90488	5.15	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.9%			
13C6-PFDA	8.352	519.0 -> 474.0	12412	1.20	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.9%			
13C7-PFUnDA	8.803	570.0 -> 525.0	18849	1.10	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.3%			
13C8-FOSA	9.653	506.0 -> 78.0	16818	2.35	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.1%			
13C8-PFOA	7.372	421.0 -> 376.0	65014	2.49	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.5%			
13C8-PFOS	8.512	507.0 -> 99.0	5778	2.51	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C9-PFNA	7.875	472.0 -> 427.0	31146	1.22	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	37665	5.48	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.6%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22824	10.26	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.6%			
d3-MeFOSA	10.858	515.0 -> 169.0	9991	2.11	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.5%			
d5-EtFOSAA	8.593	589.0 -> 419.0	32090	5.65	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.0%			
d7-MeFOSE	10.753	623.0 -> 59.0	70741	22.49	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 90.0%			
d9-EtFOSE	11.049	639.0 -> 59.0	96033	23.05	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 92.2%			
d5-EtFOSA	11.141	531.0 -> 169.0	10466	2.06	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.5%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.175	427.0 -> 407.0	172	0.04	µg/L		99
		427.0 -> 81.0	57				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.308	213.0 -> 169.0	1829	0.69	µg/L		100
PFBS	5.847	299.0 -> 80.0	1079	0.20	µg/L		98
		299.0 -> 99.0	471				
PFDA	8.757	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

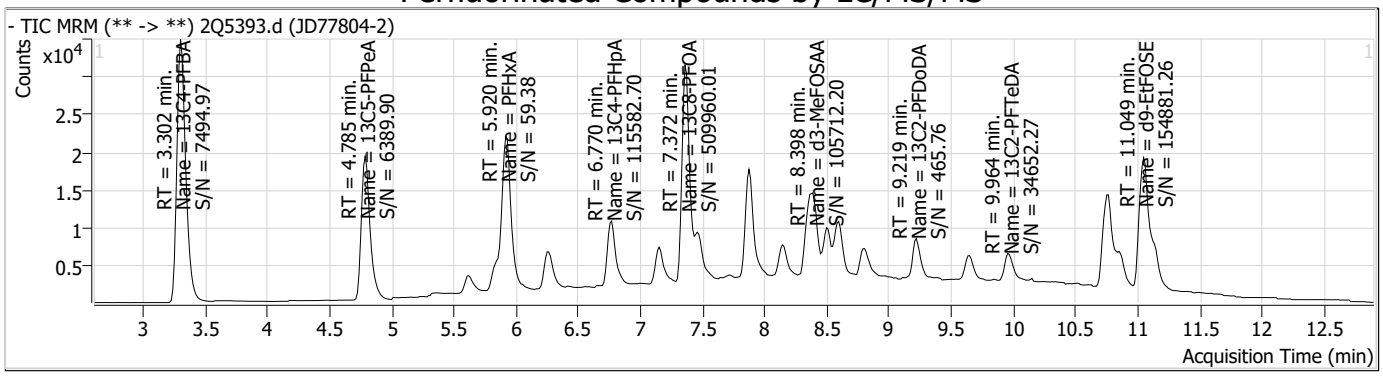
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	622	0.07	µg/L		81
		363.0 -> 169.0	152				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.920	313.0 -> 269.0	3048	0.16	µg/L	#m	91
		313.0 -> 119.0	184				
PFHxS	7.473	399.0 -> 80.0	143	0.04	µg/L	m	21
		399.0 -> 99.0					
PFNA	7.863	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	2329	0.09	µg/L	m	99
		413.0 -> 169.0	441				
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.787	263.0 -> 219.0	3983	0.24	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	9.316	699.0 -> 80.0	0		µg/L	m	1
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.340	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

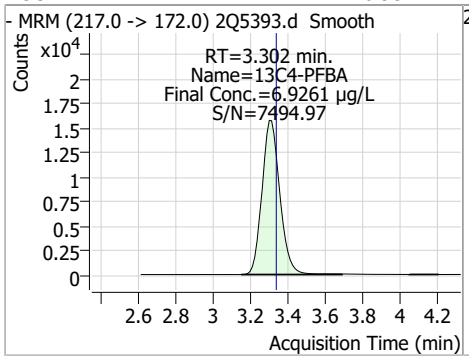
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

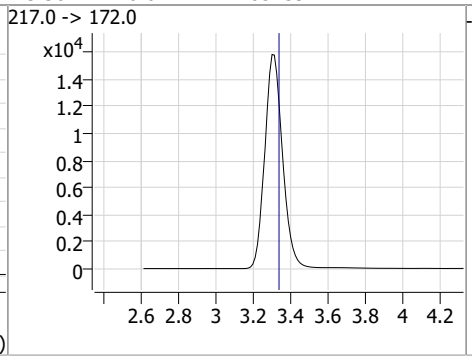
= Qualifier out of range, m = manually integrated, + = Area summed

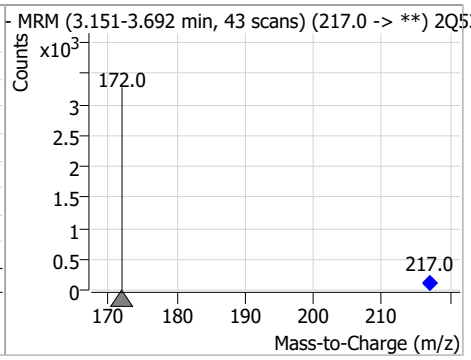
Perfluorinated Compounds by LC/MS/MS



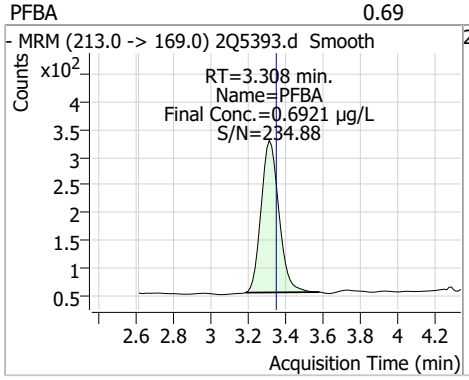
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	6.93	3.30	-0.04	105259				

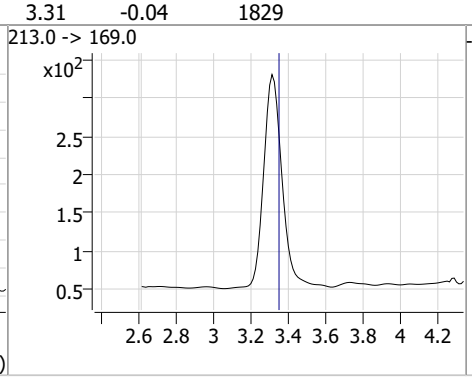


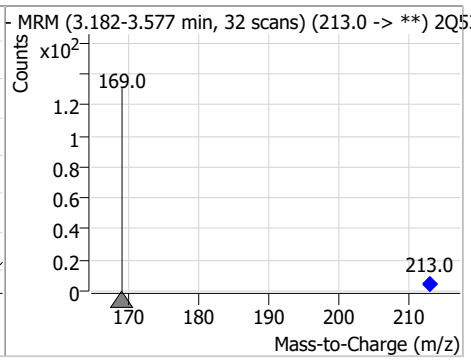




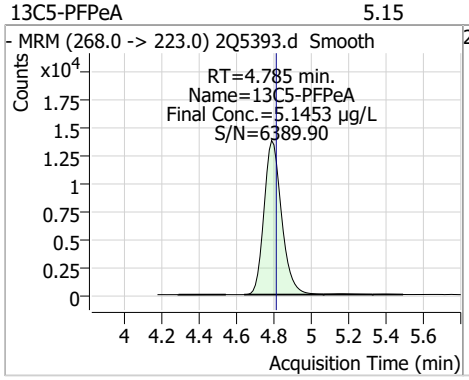
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.69	3.31	-0.04	1829				

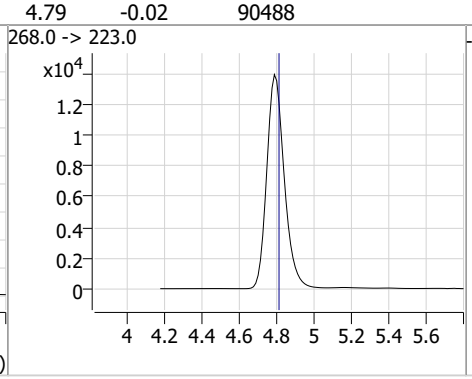


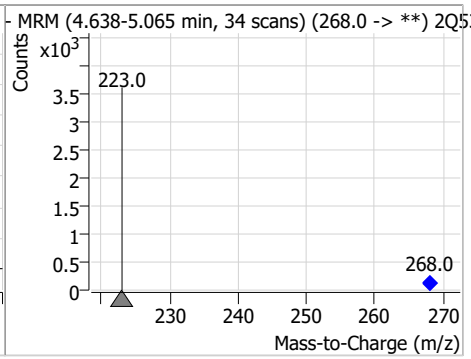




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.15	4.79	-0.02	90488				

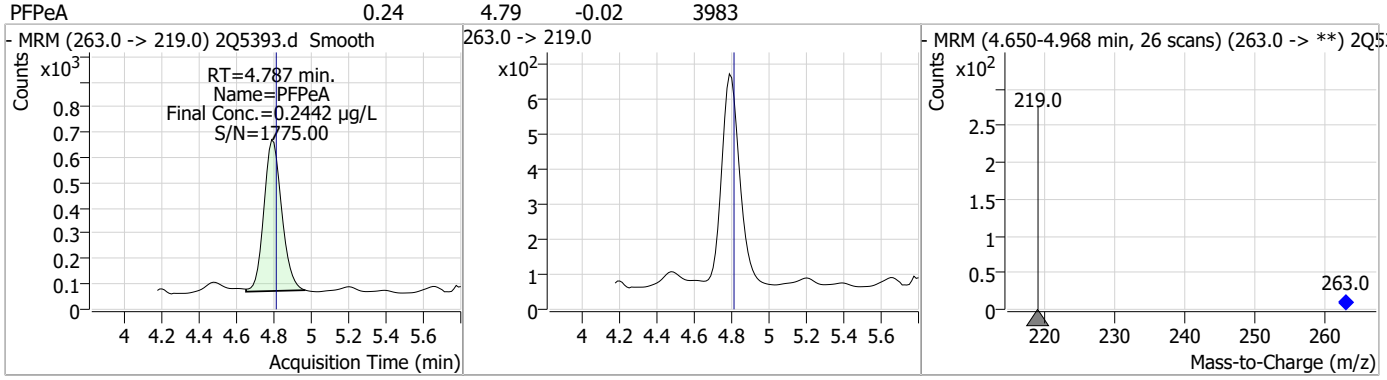




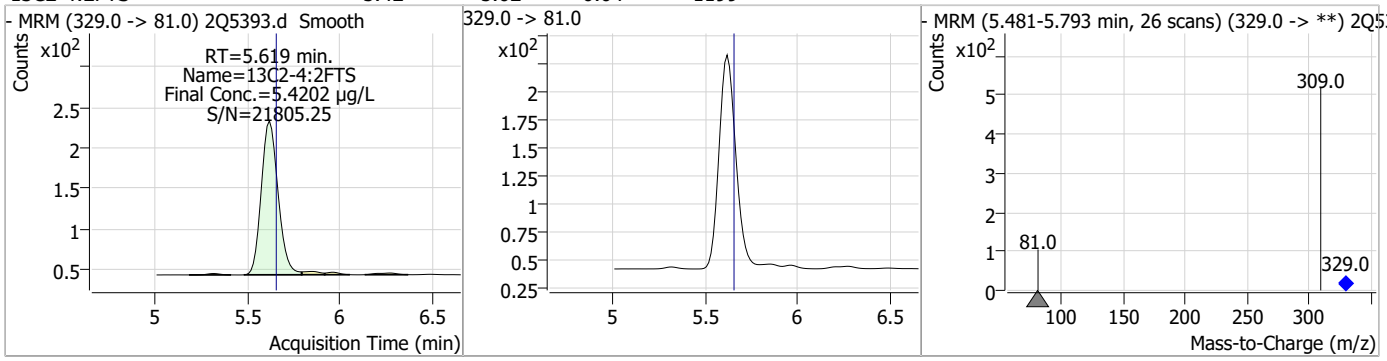


Perfluorinated Compounds by LC/MS/MS

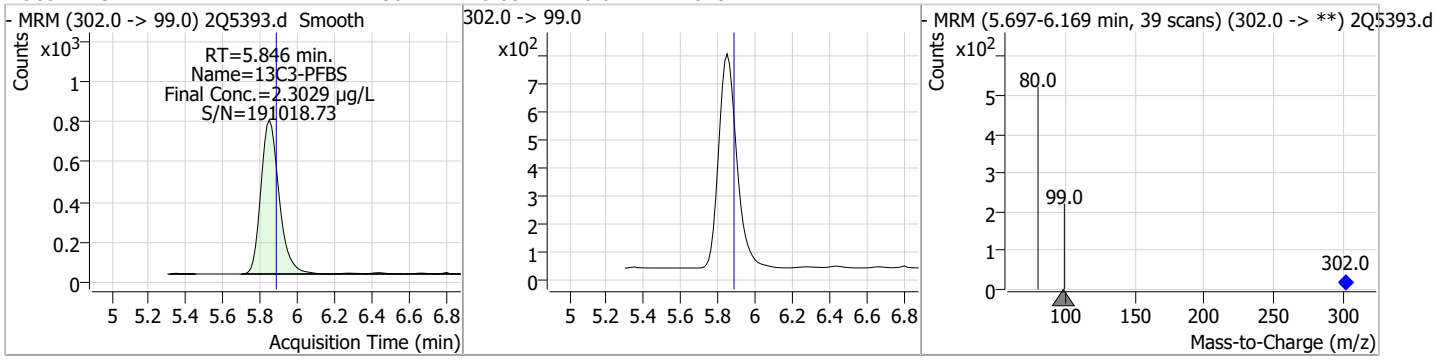
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.24	4.79	-0.02	3983				



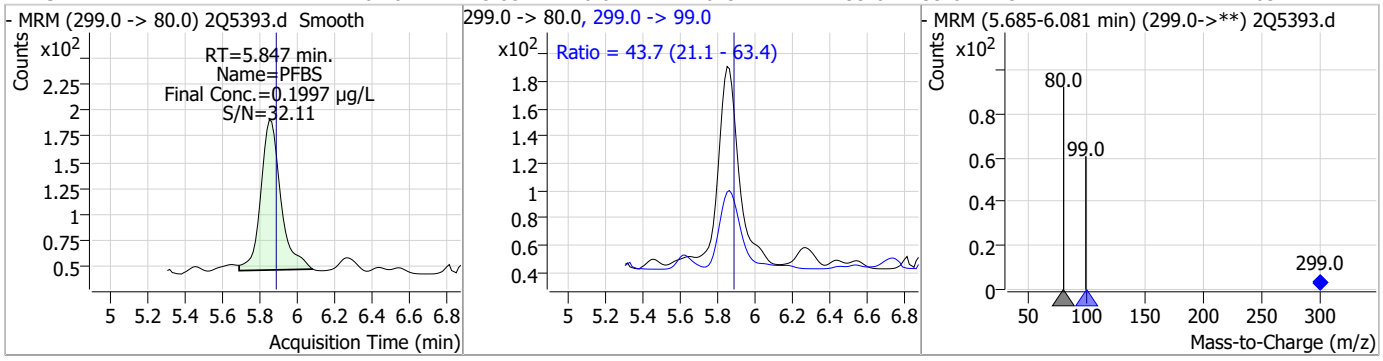
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.42	5.62	-0.04	1199				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.30	5.85	-0.04	5187				

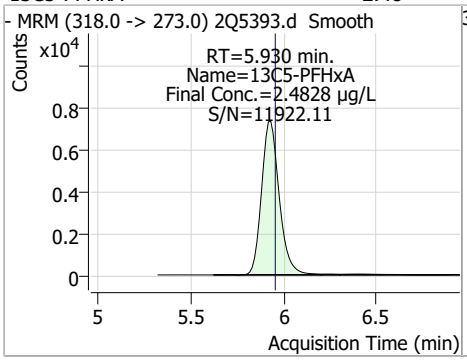


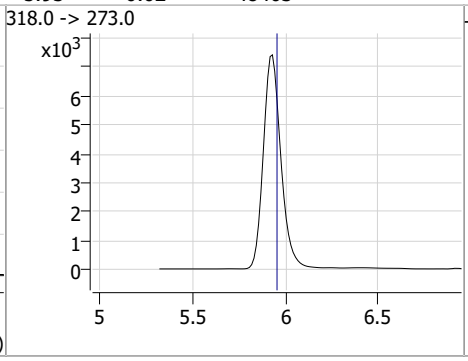
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.20	5.85	-0.04	1079	299.0 -> 99.0	43.7	21.1	63.4

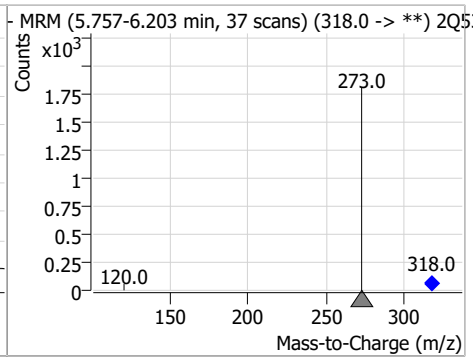


Perfluorinated Compounds by LC/MS/MS

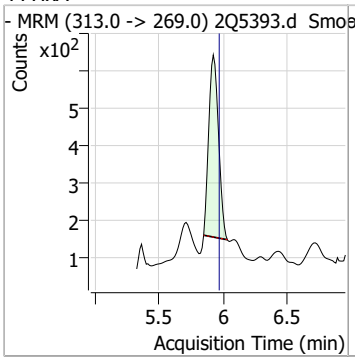
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.48	5.93	-0.02	48403				

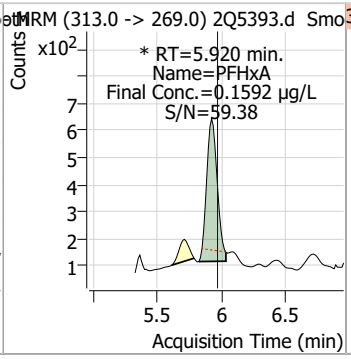


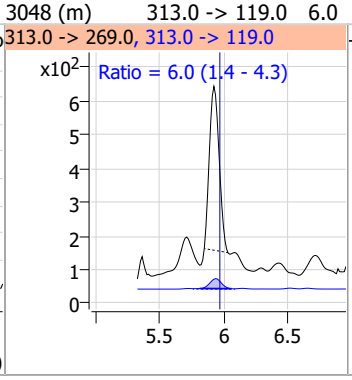


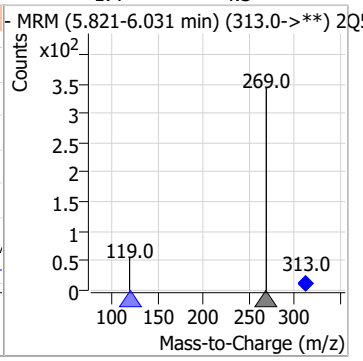


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.16	5.92	-0.04	3048 (m)	313.0 -> 119.0	6.0	1.4	4.3

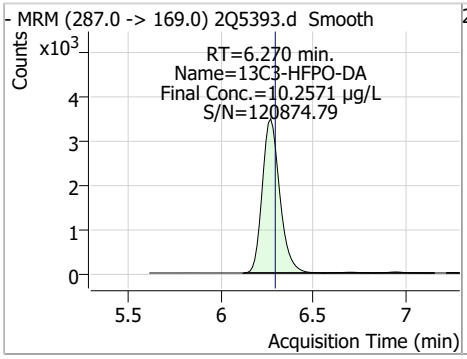


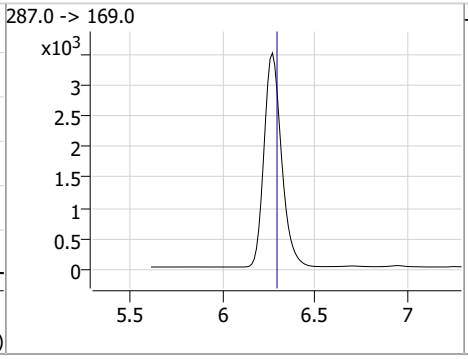


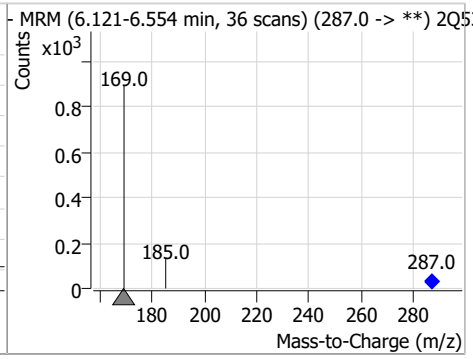




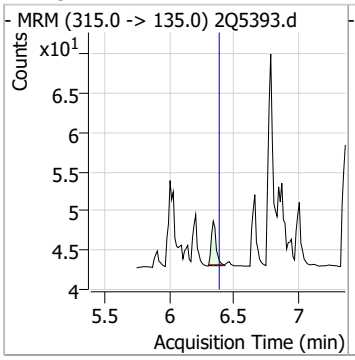
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.26	6.27	-0.02	22824				

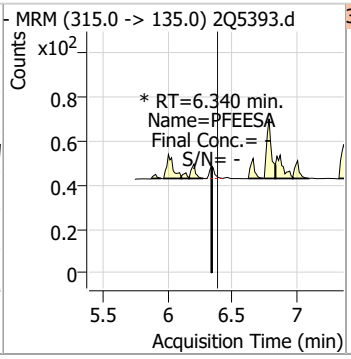


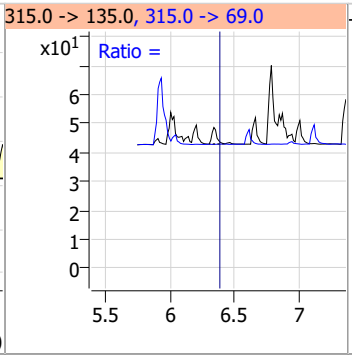


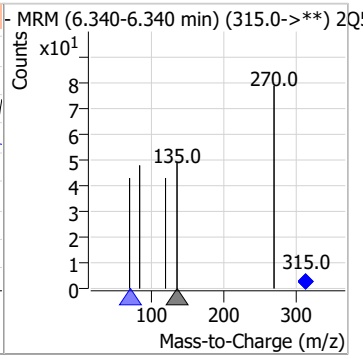


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



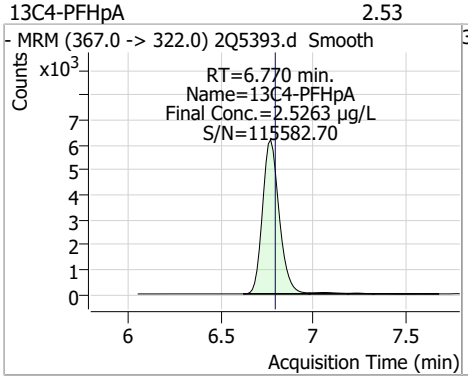


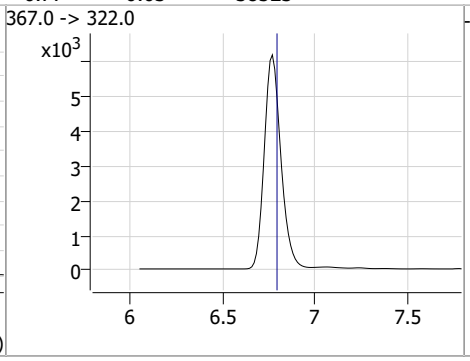


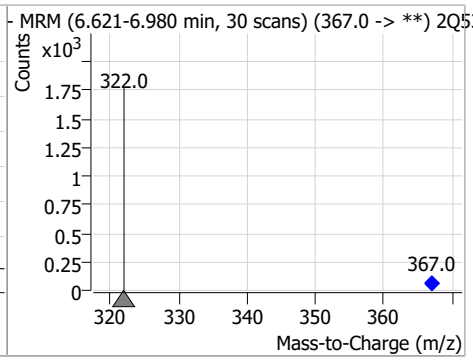


Perfluorinated Compounds by LC/MS/MS

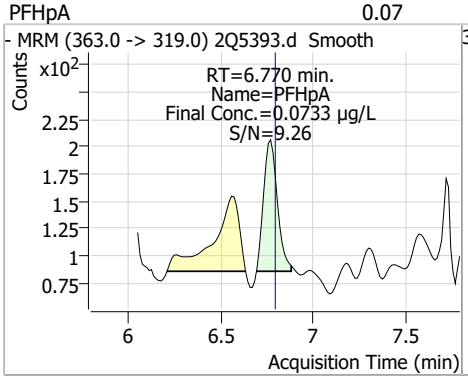
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.53	6.77	-0.03	38523				

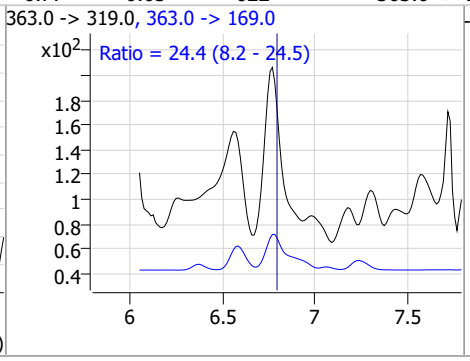


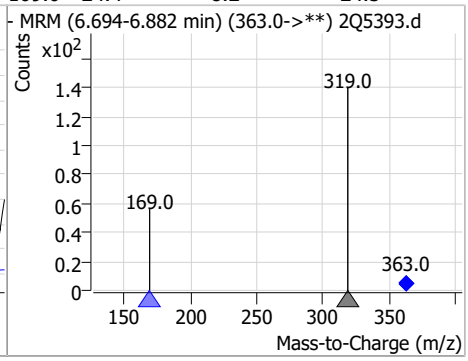




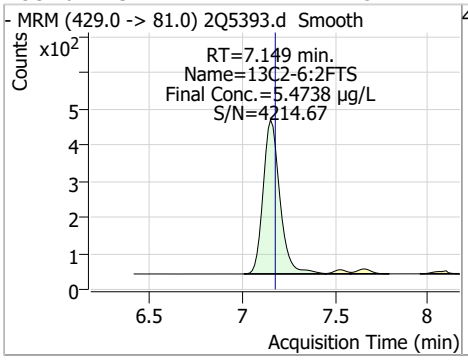
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.07	6.77	-0.03	622	363.0 -> 169.0	24.4	8.2	24.5

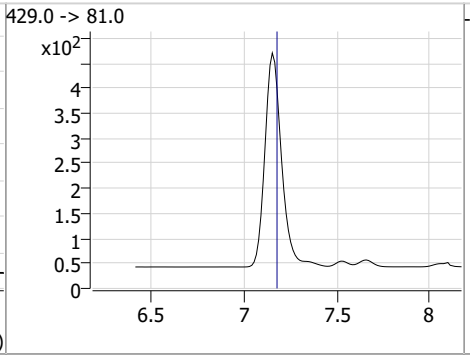


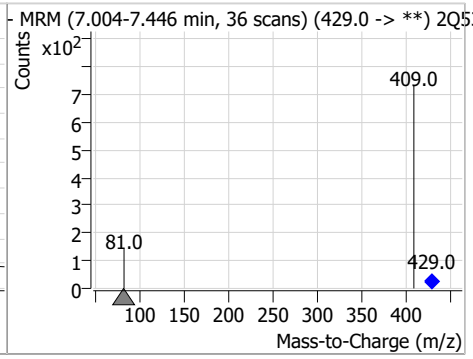




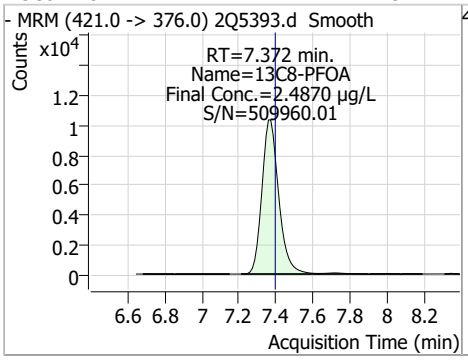
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.47	7.15	-0.03	2684				

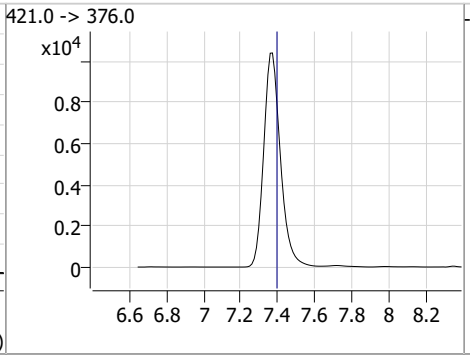


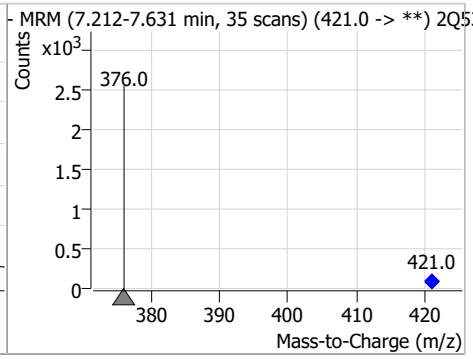




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.49	7.37	-0.02	65014				

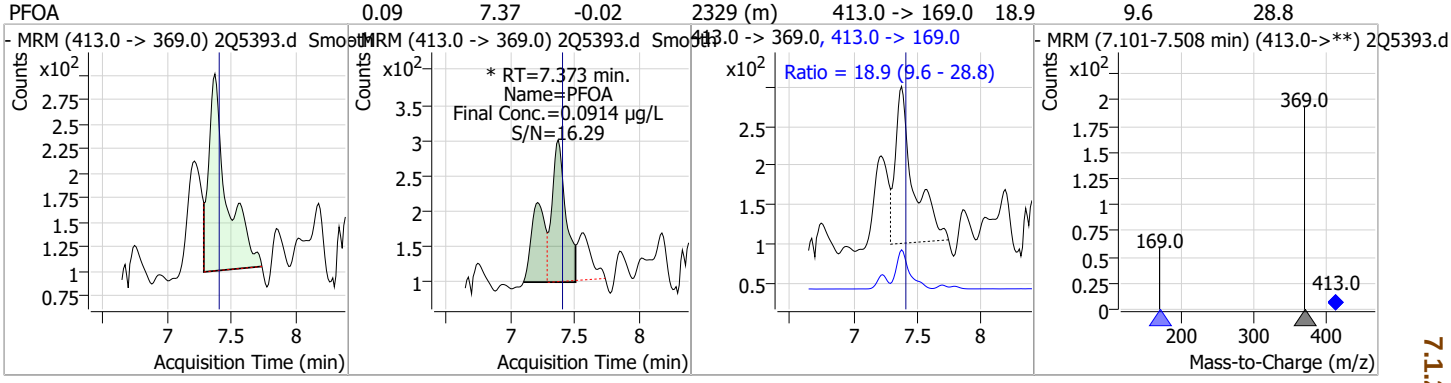




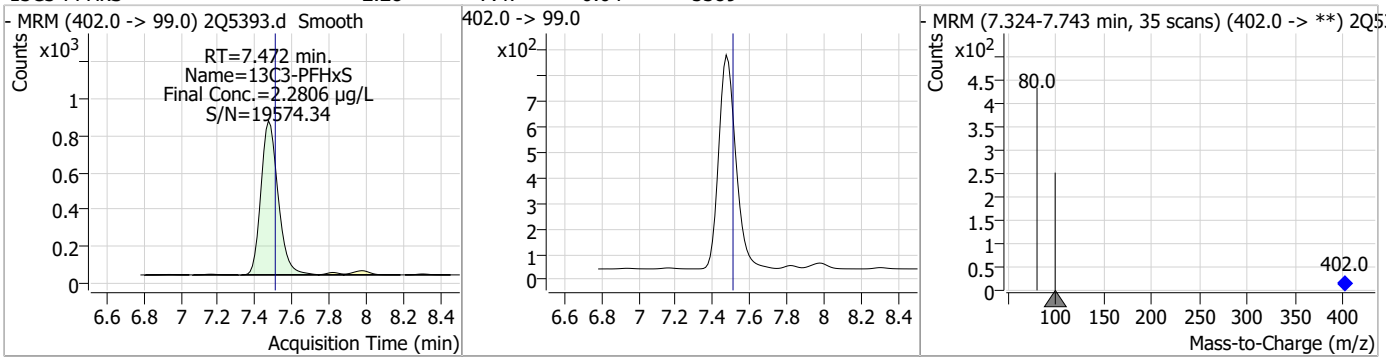


Perfluorinated Compounds by LC/MS/MS

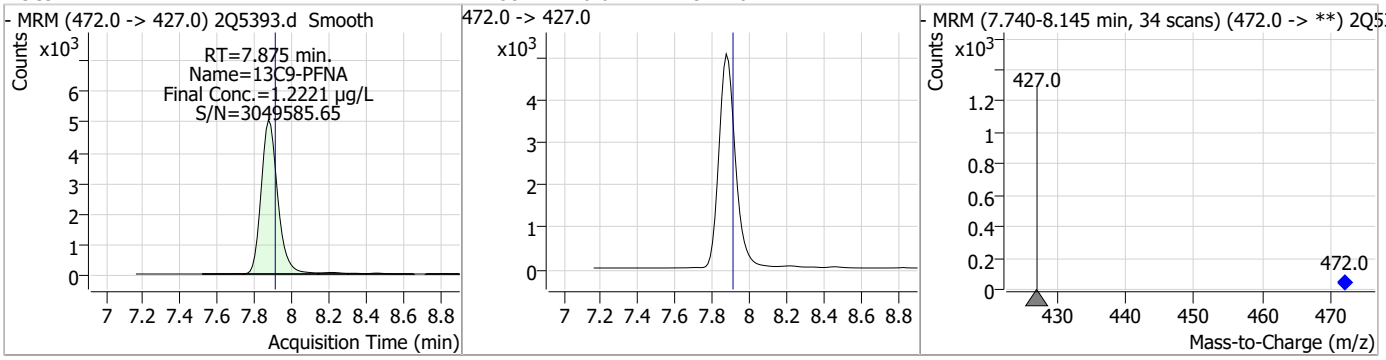
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.09	7.37	-0.02	2329 (m)	413.0 -> 169.0	18.9	9.6	28.8



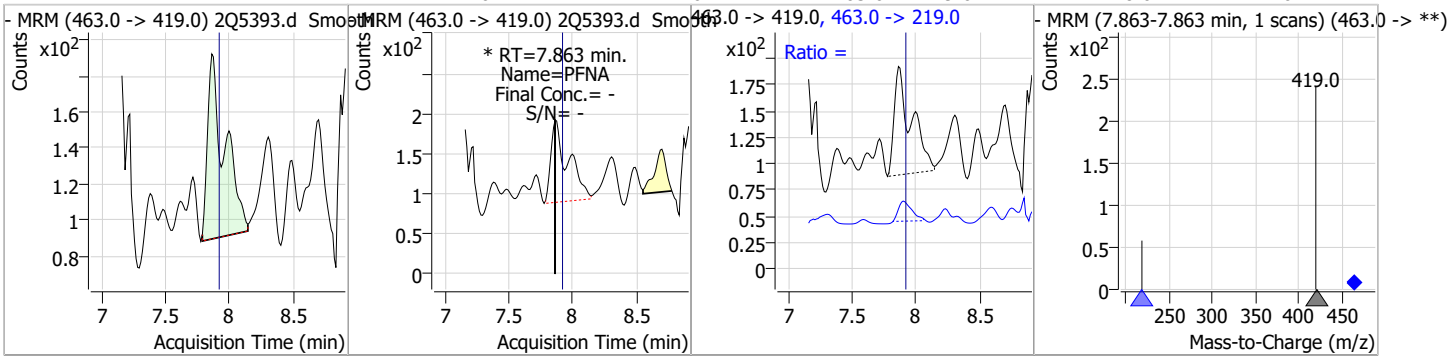
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.28	7.47	-0.04	5389				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.22	7.88	-0.04	31146				

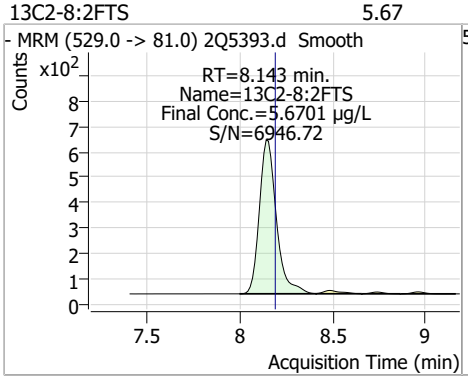


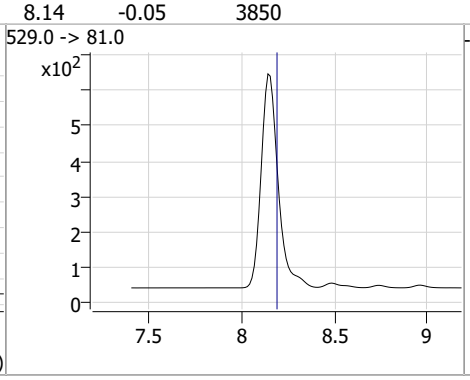
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0

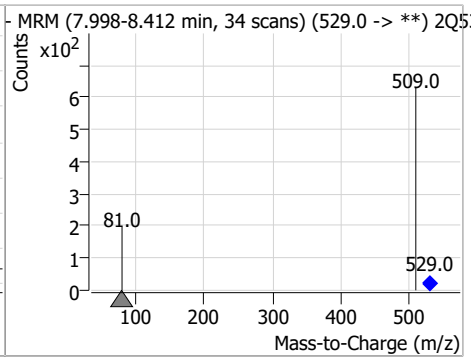


Perfluorinated Compounds by LC/MS/MS

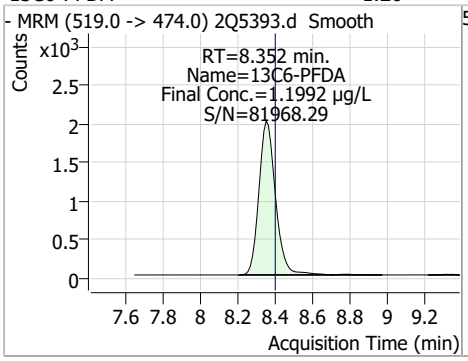
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.67	8.14	-0.05	3850				

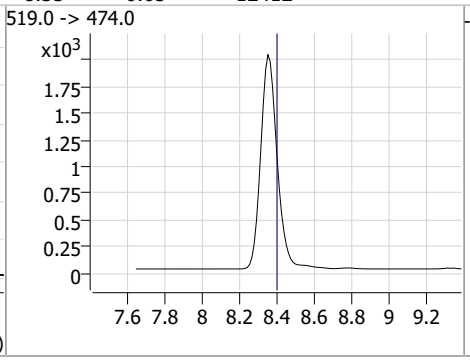


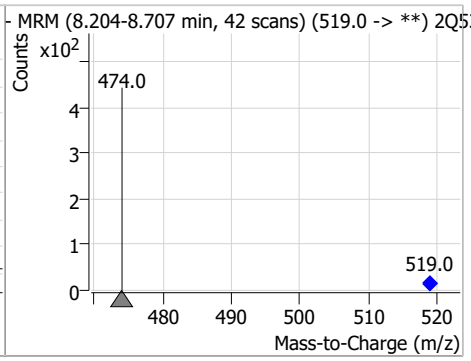




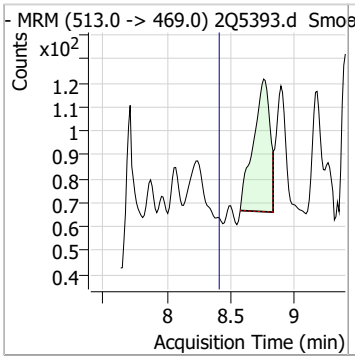
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.35	-0.05	12412				

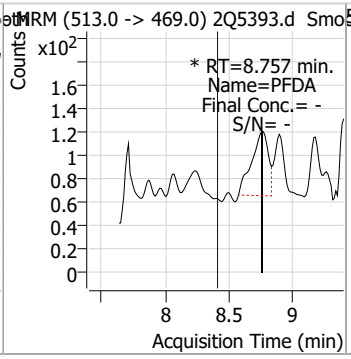


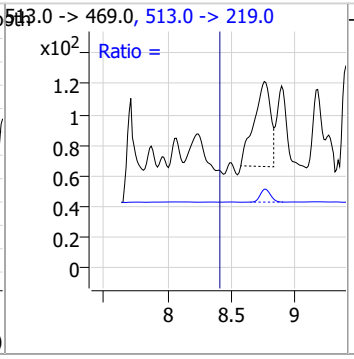


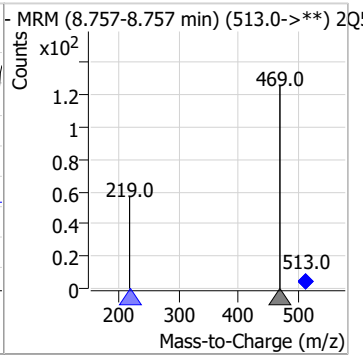


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8

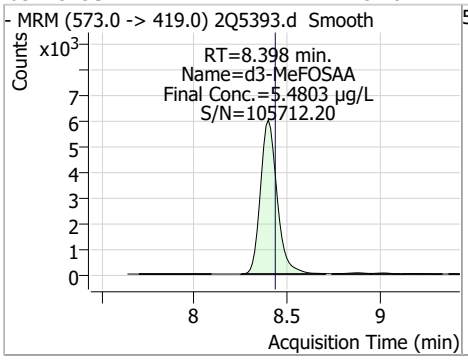


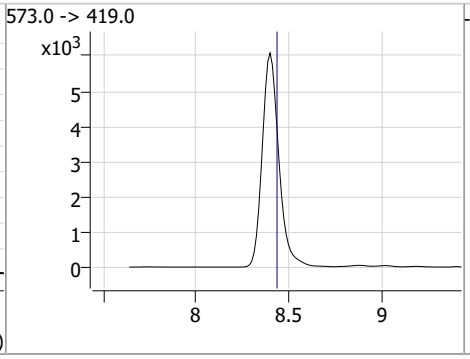


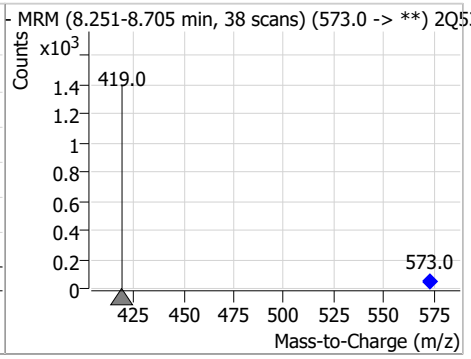




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.48	8.40	-0.04	37665				

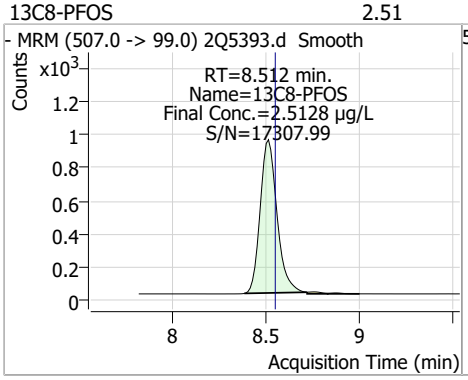


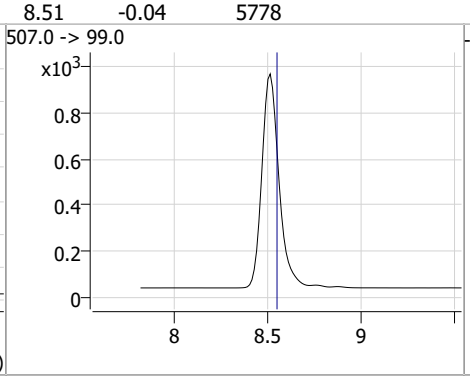


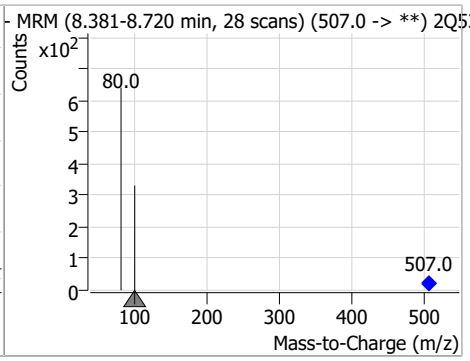


Perfluorinated Compounds by LC/MS/MS

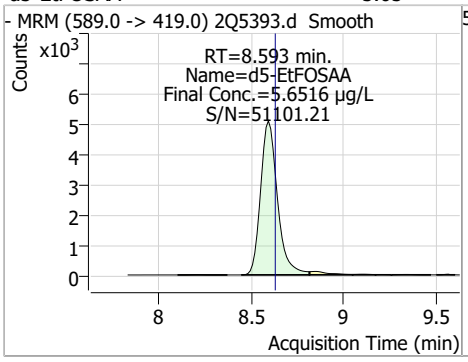
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.51	8.51	-0.04	5778				

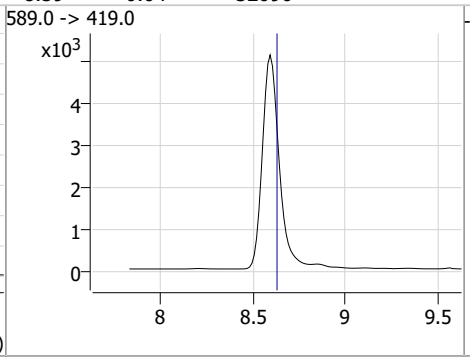


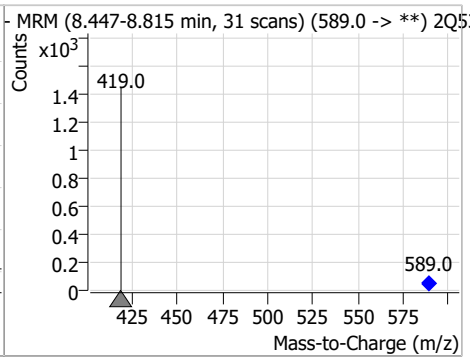




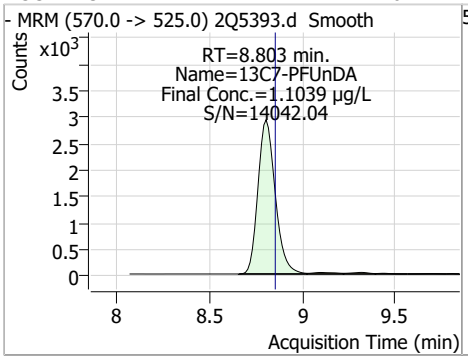
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.65	8.59	-0.04	32090				

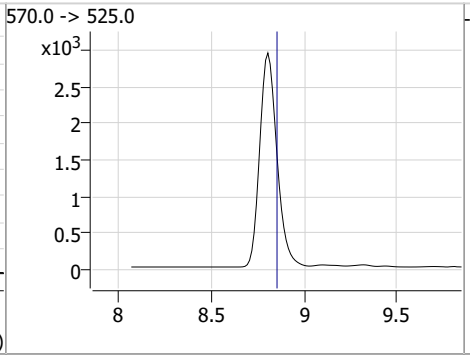


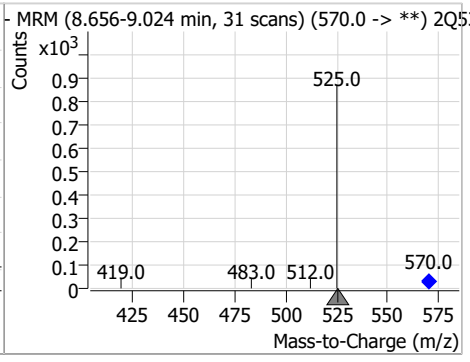




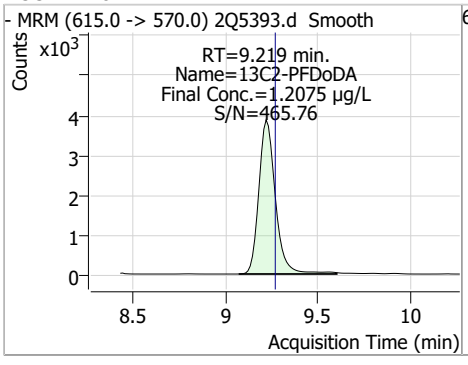
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.10	8.80	-0.05	18849				

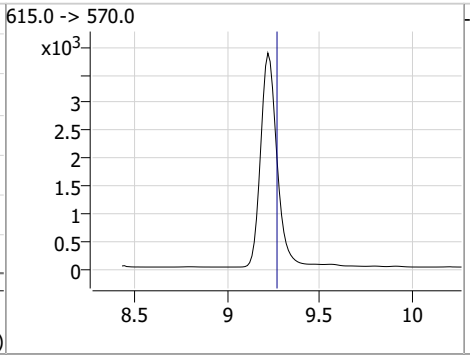


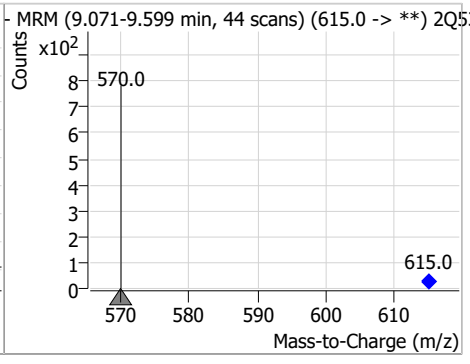




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.21	9.22	-0.05	23900				

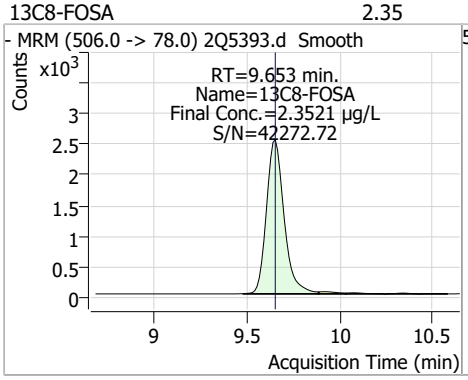


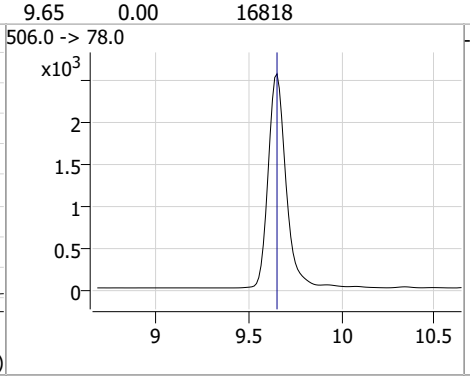


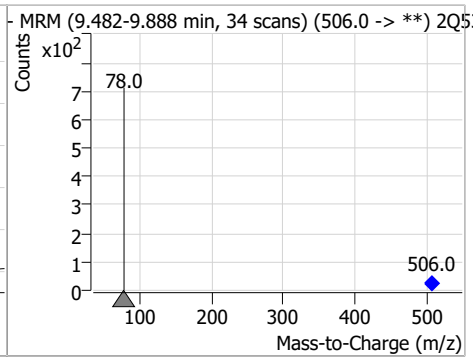


Perfluorinated Compounds by LC/MS/MS

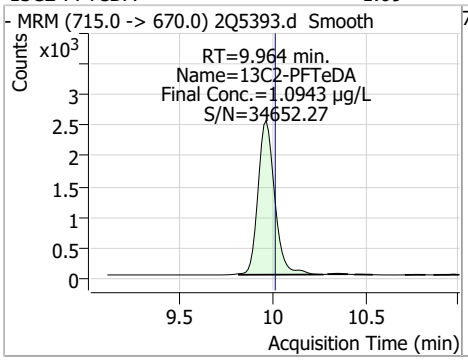
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.35	9.65	0.00	16818				

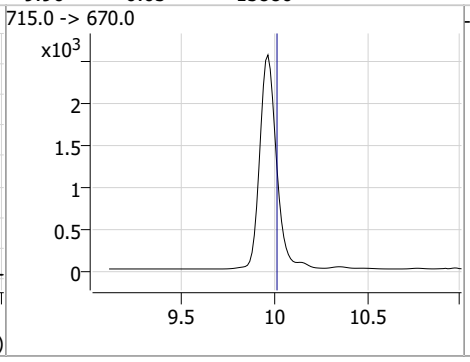


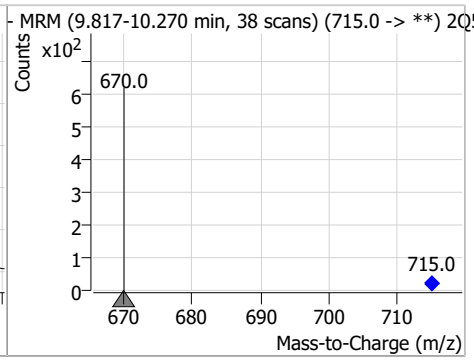




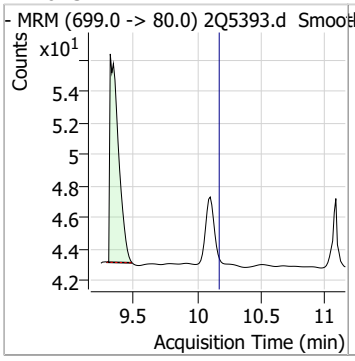
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.09	9.96	-0.05	15886				

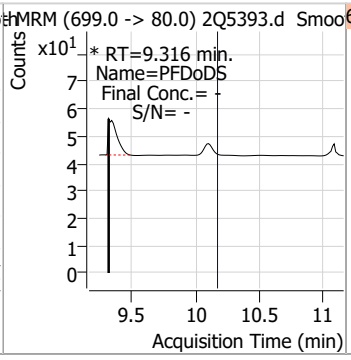


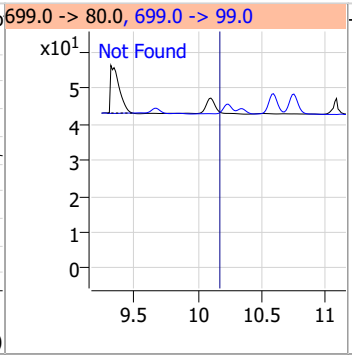


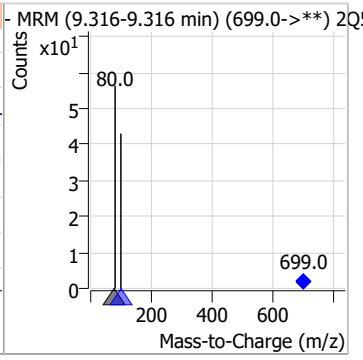


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS		0		0	699.0 -> 99.0		23.7	71.2

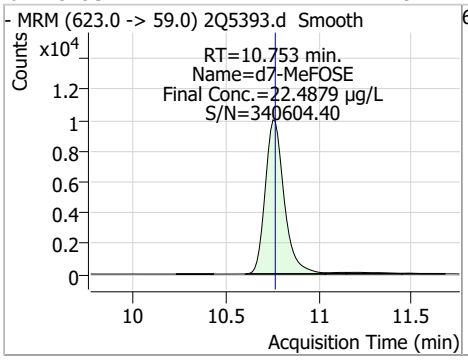


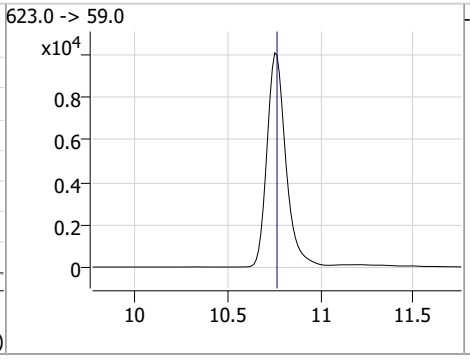


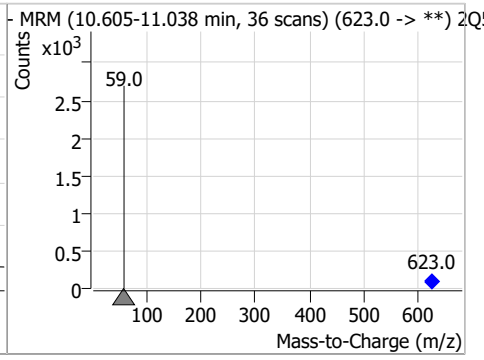




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	22.49	10.75	-0.01	70741				

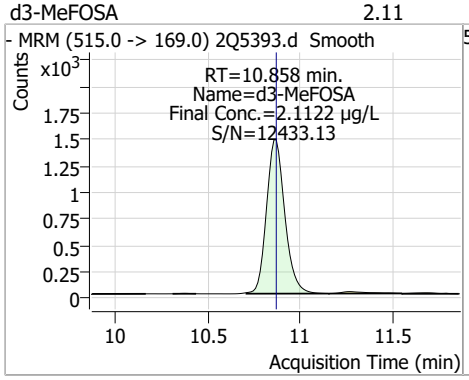


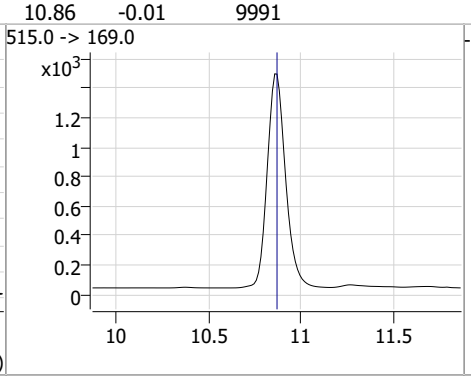


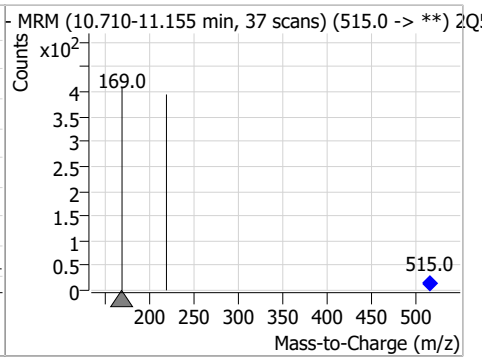


Perfluorinated Compounds by LC/MS/MS

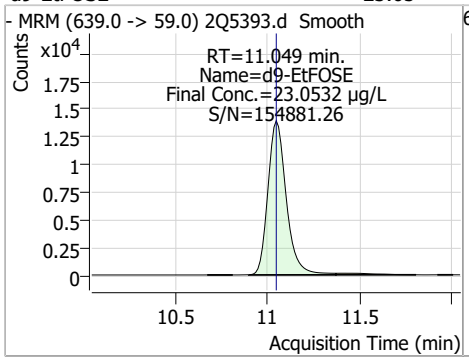
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.11	10.86	-0.01	9991				

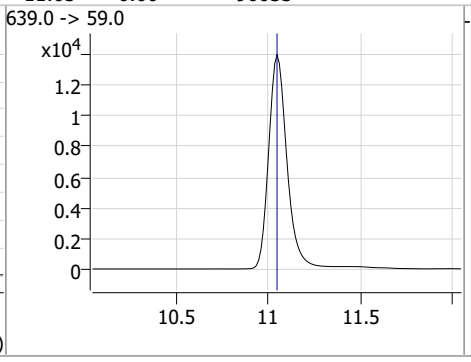


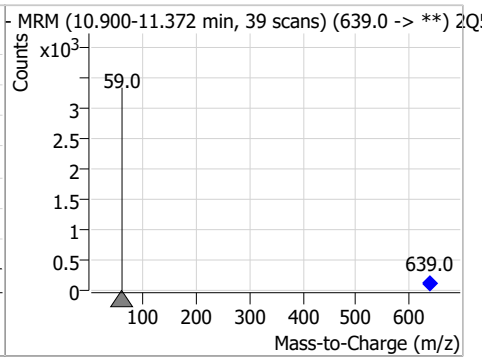




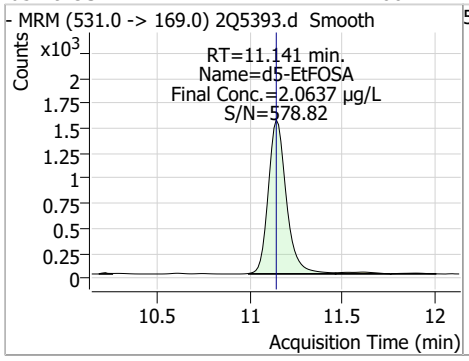
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	23.05	11.05	0.00	96033				

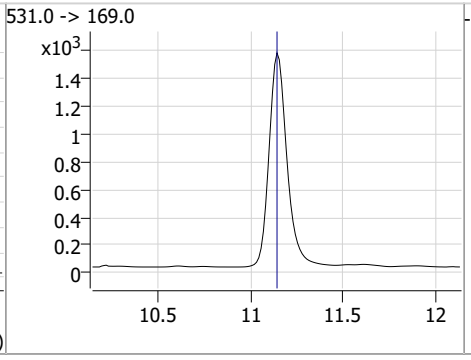


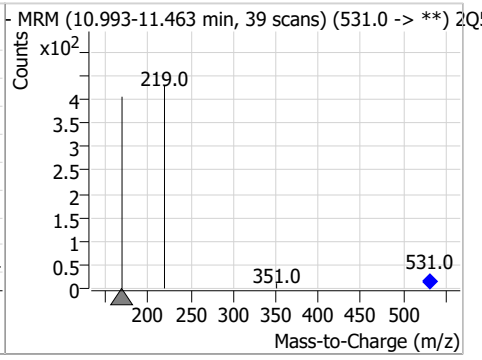




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.06	11.14	0.00	10466				







Manual Integration Approval Summary

Sample Number: JD77804-2
Lab FileID: 2Q5393.D
Injection Time: 12/02/23 03:28
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanoic acid	307-24-4		5.92	Poorly defined baseline
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5394.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 3:43:56 AM
Sample Name : JD77804-3
Vial : P2-F7
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,524,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	127086	10.00	µg/L	-0.037
M5-PFPeA	4.785	268.0 -> 223.0	96339	5.00	µg/L	-0.025
M5-PFHxA	5.917	318.0 -> 273.0	54899	1.25	µg/L	-0.037
M4-PFHpA	6.770	367.0 -> 322.0	41312	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	70150	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	35723	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	14611	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	23277	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	27010	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	18057	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	20690	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5995	2.50	µg/L	-0.037
		302.0 -> 80.0	14282			
M3-PFHxS	7.472	402.0 -> 99.0	6255	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6548	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1852	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	3193	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4762	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	44058	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22668	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	36204	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	80740	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	108946	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	12268	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	11004	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	11546	2.50	µg/L	-0.037
13C3-PFBA	3.305	216.0 -> 172.0	71512	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	7115	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	68960	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	28833	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	36749	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	49917	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1852	7.13	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 142.6%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3193	5.55	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.9%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4762	5.97	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 119.4%		
13C2-PFDoDA	9.219	615.0 -> 570.0	27010	1.17	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.9%		
13C2-PFTeDA	9.964	715.0 -> 670.0	18057	1.07	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.6%		
13C3-PFBS	5.846	302.0 -> 99.0	5995	2.27	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.6%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6255	2.25	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.1%			
13C4-PFBA	3.302	217.0 -> 172.0	127086	7.89	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 78.9%			
13C4-PFHpA	6.770	367.0 -> 322.0	41312	2.55	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.9%			
13C5-PFHxA	5.917	318.0 -> 273.0	54899	2.65	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.9%			
13C5-PFPeA	4.785	268.0 -> 223.0	96339	5.15	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.0%			
13C6-PFDA	8.352	519.0 -> 474.0	14611	1.21	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C7-PFUnDA	8.803	570.0 -> 525.0	23277	1.17	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.8%			
13C8-FOSA	9.653	506.0 -> 78.0	20690	2.65	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.9%			
13C8-PFOA	7.372	421.0 -> 376.0	70150	2.46	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.3%			
13C8-PFOS	8.512	507.0 -> 99.0	6548	2.60	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.2%			
13C9-PFNA	7.875	472.0 -> 427.0	35723	1.24	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.4%			
d3-MeFOSAA	8.398	573.0 -> 419.0	44058	5.86	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 117.3%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22668	9.58	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 95.8%			
d3-MeFOSA	10.871	515.0 -> 169.0	11004	2.13	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.1%			
d5-EtFOSAA	8.593	589.0 -> 419.0	36204	5.83	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 116.6%			
d7-MeFOSE	10.753	623.0 -> 59.0	80740	23.47	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 93.9%			
d9-EtFOSE	11.049	639.0 -> 59.0	108946	23.92	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 95.7%			
d5-EtFOSA	11.141	531.0 -> 169.0	12268	2.21	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.5%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.149	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.582	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	8.386	570.0 -> 419.0	188	0.03	µg/L		84
		570.0 -> 512.0	49				
PFBA	3.308	213.0 -> 169.0	1659	0.52	µg/L		100
PFBS	5.835	299.0 -> 80.0	1355	0.22	µg/L		98
		299.0 -> 99.0	590				
PFDA	8.364	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

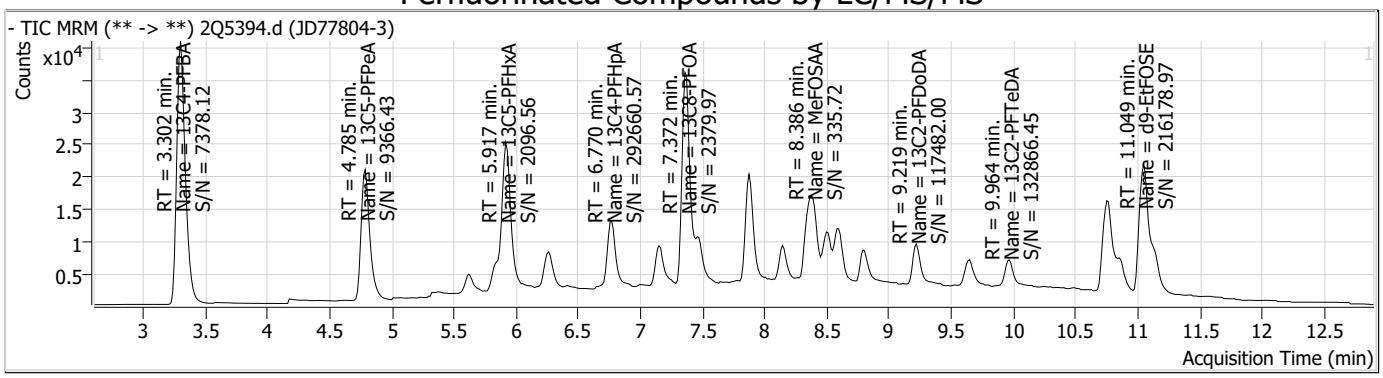
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	5315	0.25	µg/L		97
		363.0 -> 169.0	801				
PFHpS	8.968	449.0 -> 80.0	0		µg/L	m	1
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	5279	0.24	µg/L		96
		313.0 -> 119.0	217				
PFHxS	7.460	399.0 -> 80.0	422	0.10	µg/L	m	64
		399.0 -> 99.0	135				
PFNA	7.876	463.0 -> 419.0	1948	0.07	µg/L		99
		463.0 -> 219.0	300				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	13218	0.48	µg/L	m	99
		413.0 -> 169.0	2627				
PFOS	8.512	499.0 -> 80.0	2826	0.51	µg/L	m	75
		499.0 -> 99.0	975				
PFPeA	4.787	263.0 -> 219.0	4513	0.26	µg/L		100
PFPeS	6.833	349.0 -> 80.0	0		µg/L	m	1
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.328	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

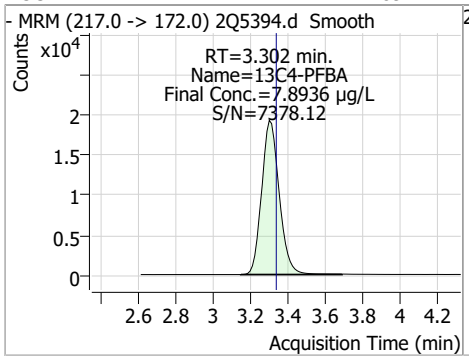
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

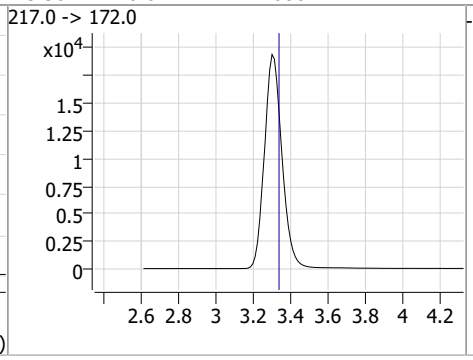
= Qualifier out of range, m = manually integrated, + = Area summed

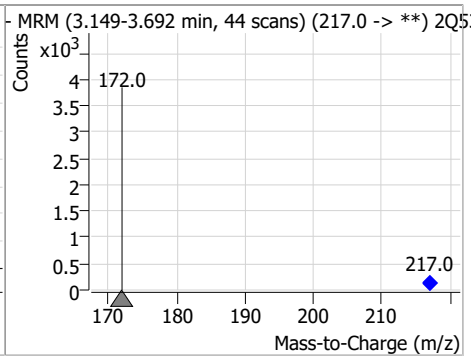
Perfluorinated Compounds by LC/MS/MS



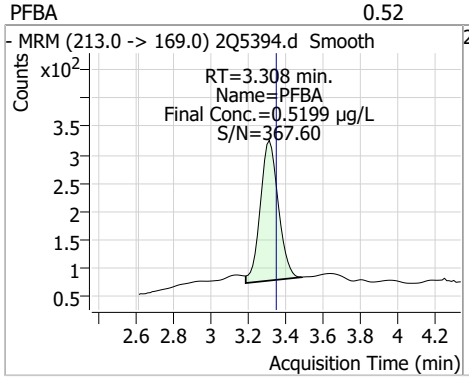
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.89	3.30	-0.04	127086				

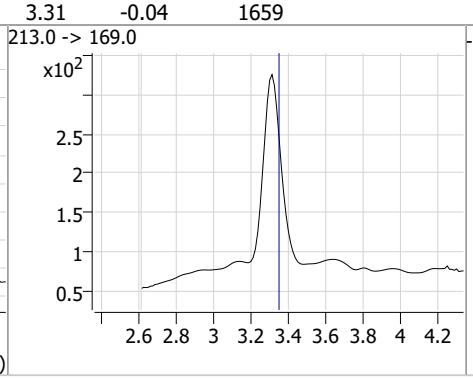


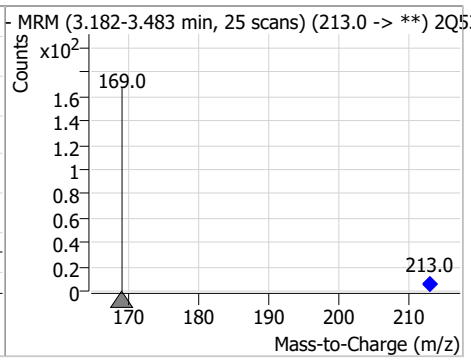




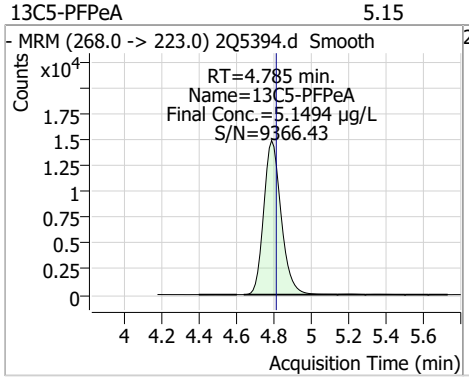
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.52	3.31	-0.04	1659				

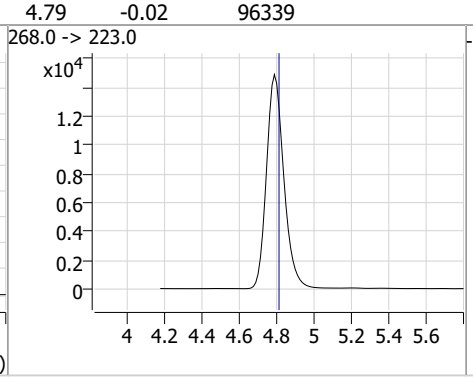


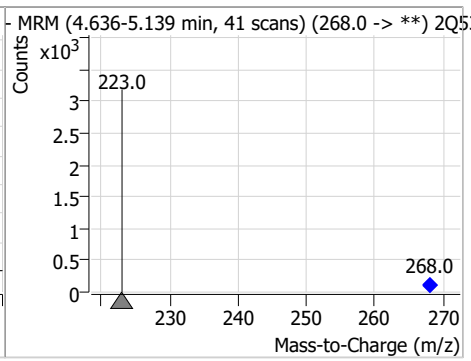




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.15	4.79	-0.02	96339				

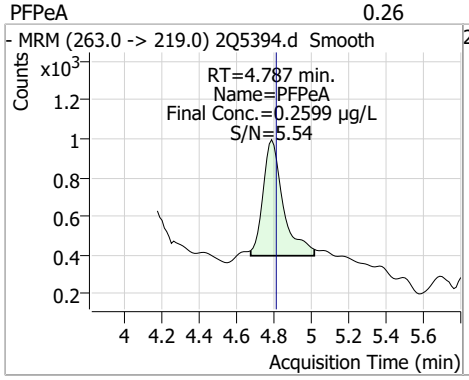


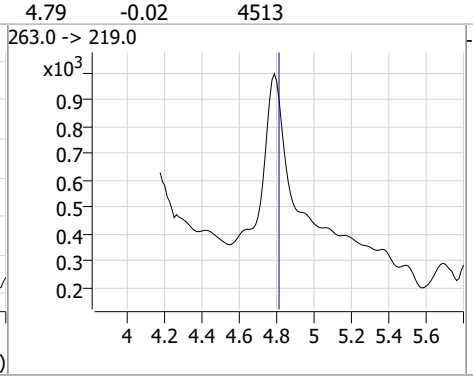


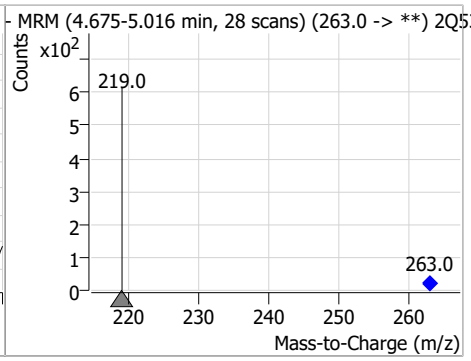


Perfluorinated Compounds by LC/MS/MS

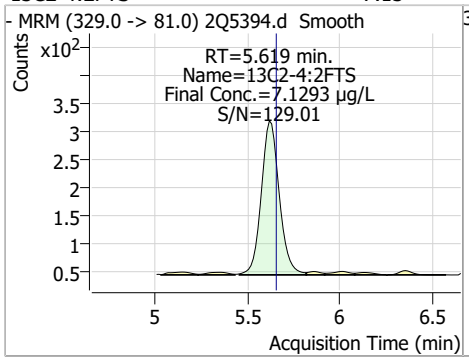
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.26	4.79	-0.02	4513				

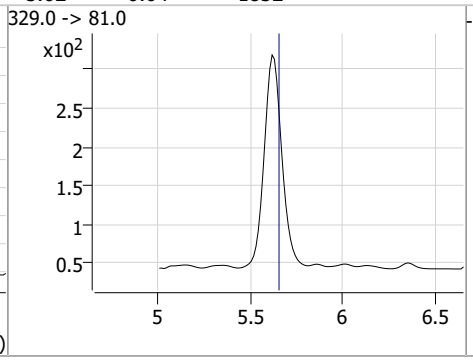


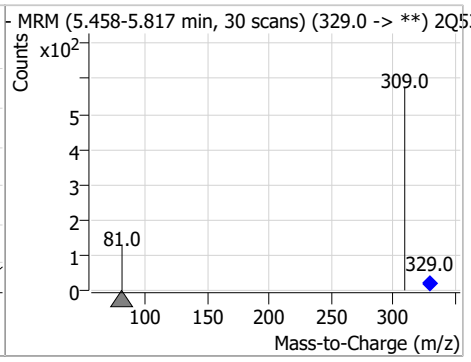




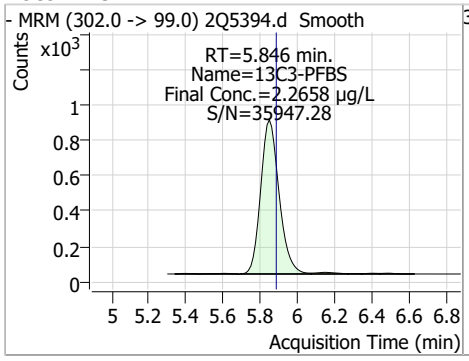
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	7.13	5.62	-0.04	1852				

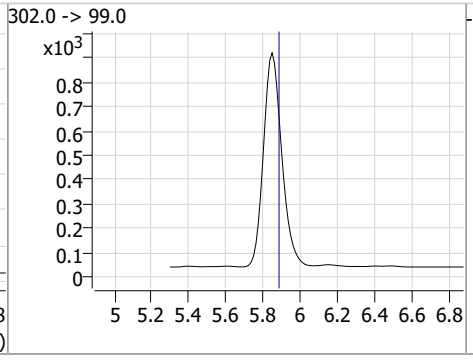


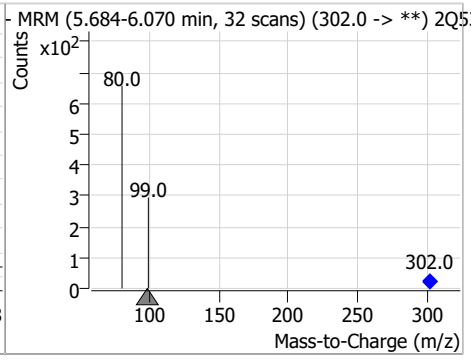




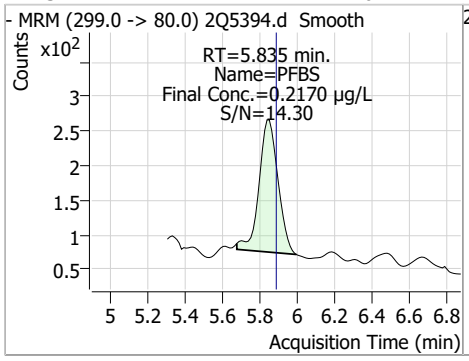
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.27	5.85	-0.04	5995				

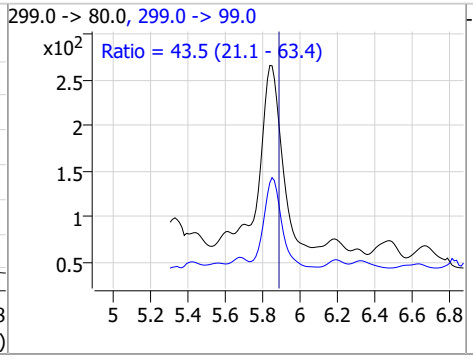


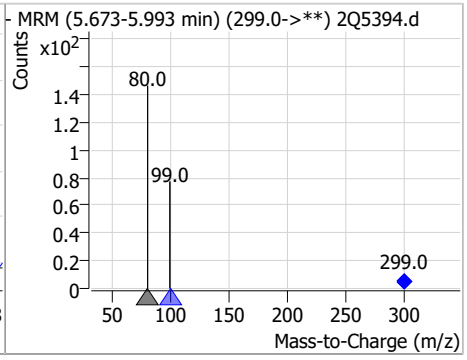




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.22	5.84	-0.05	1355	299.0 -> 99.0	43.5	21.1	63.4

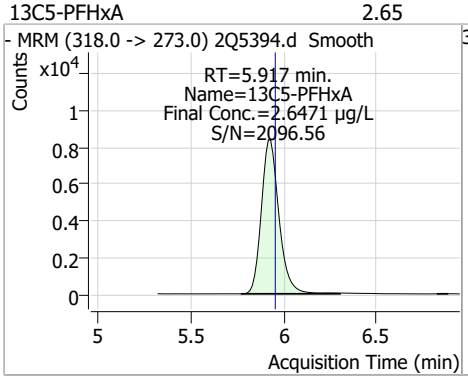


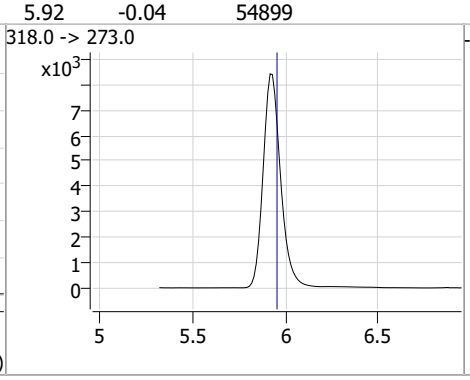


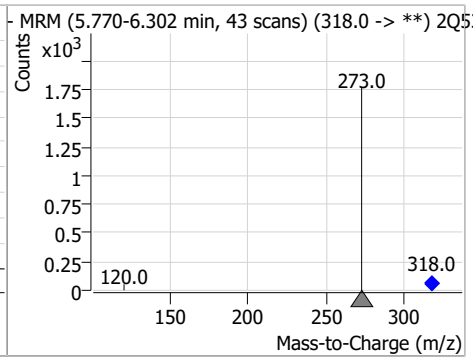


Perfluorinated Compounds by LC/MS/MS

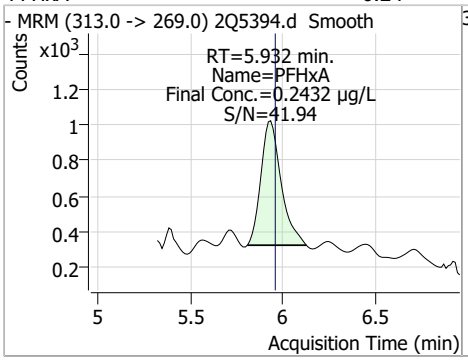
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.65	5.92	-0.04	54899				

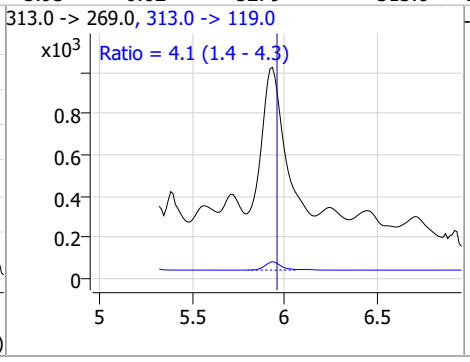


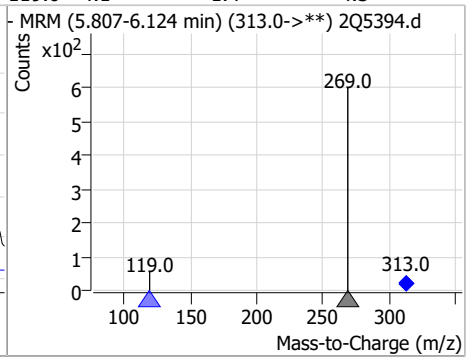




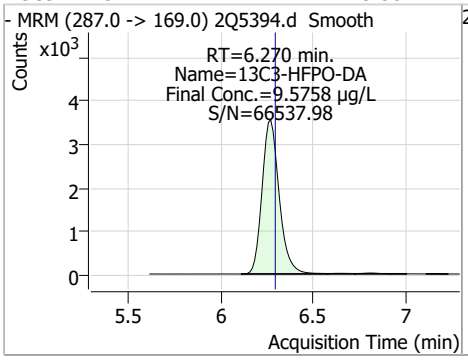
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.24	5.93	-0.02	5279	313.0 -> 119.0	4.1	1.4	4.3

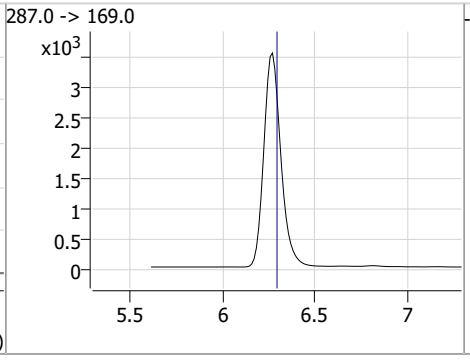


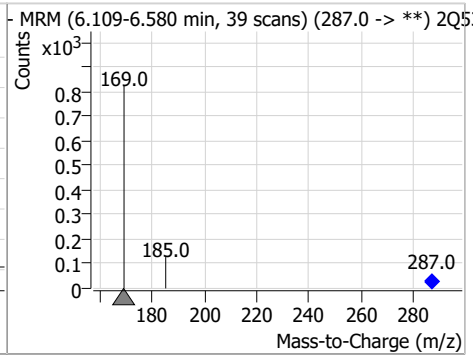




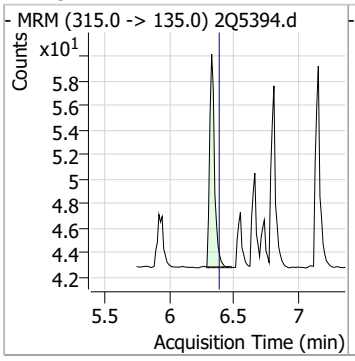
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.58	6.27	-0.02	22668				

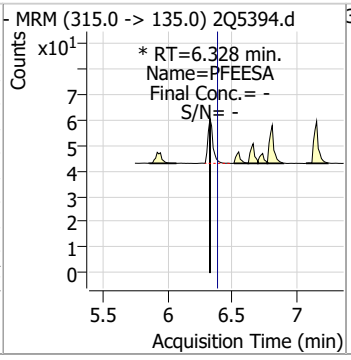


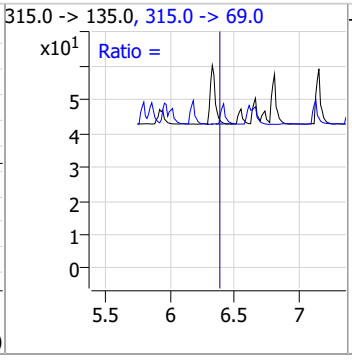


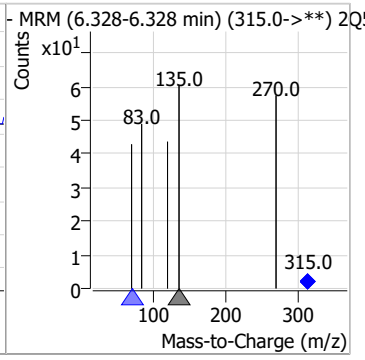


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



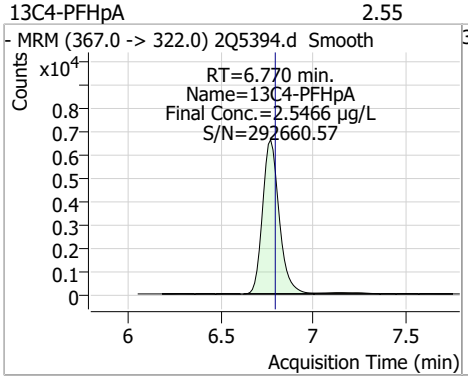


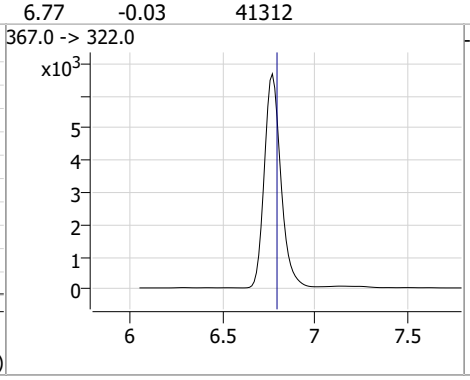


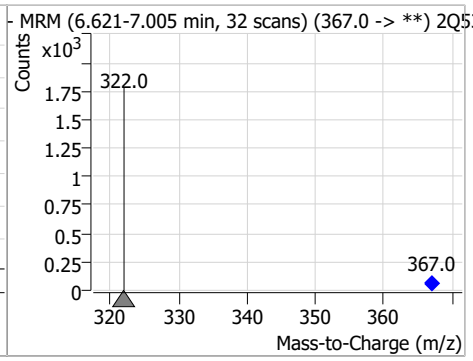


Perfluorinated Compounds by LC/MS/MS

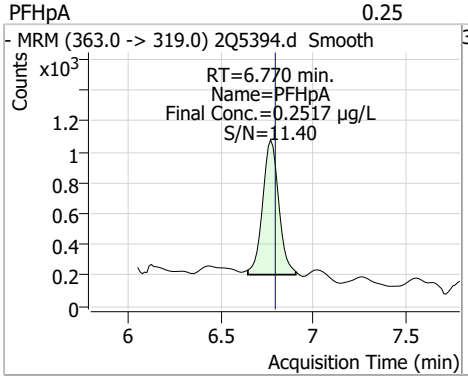
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.55	6.77	-0.03	41312				

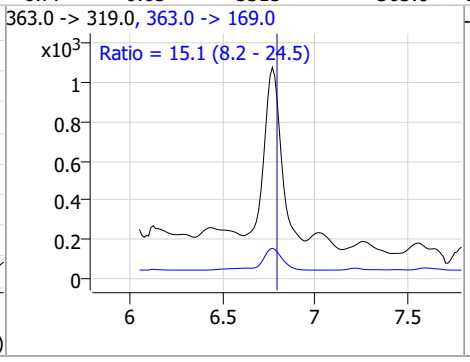


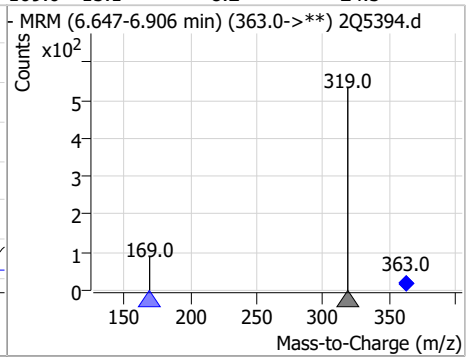




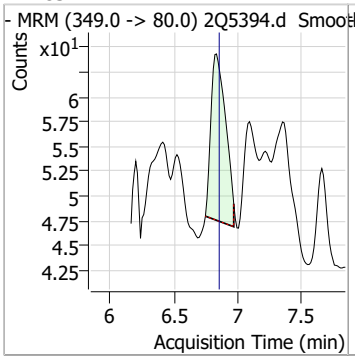
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.25	6.77	-0.03	5315	363.0 -> 169.0	15.1	8.2	24.5

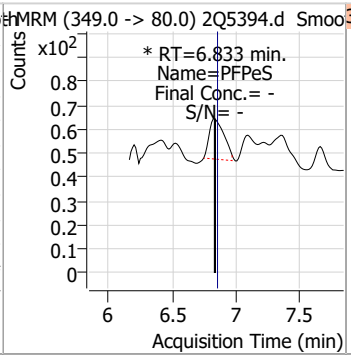


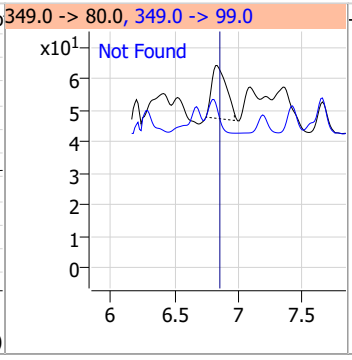


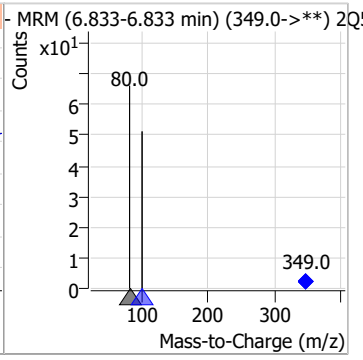


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0	0		0	349.0 -> 99.0		21.5	64.4

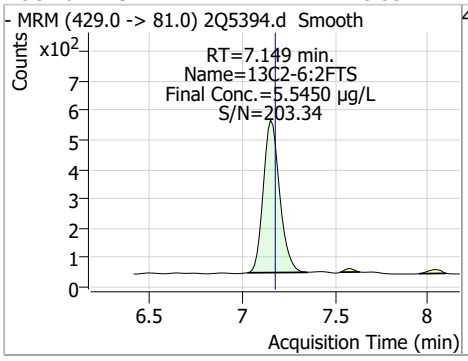


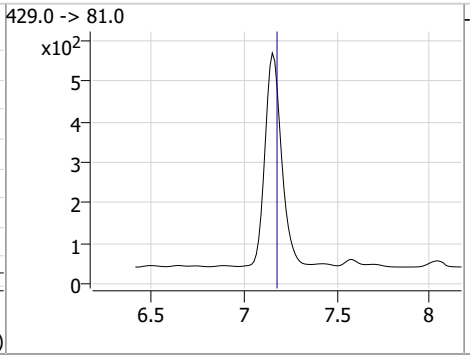


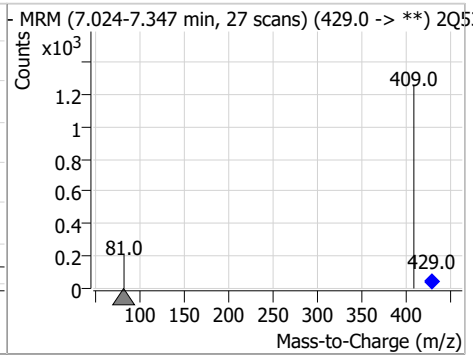




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.55	7.15	-0.03	3193				

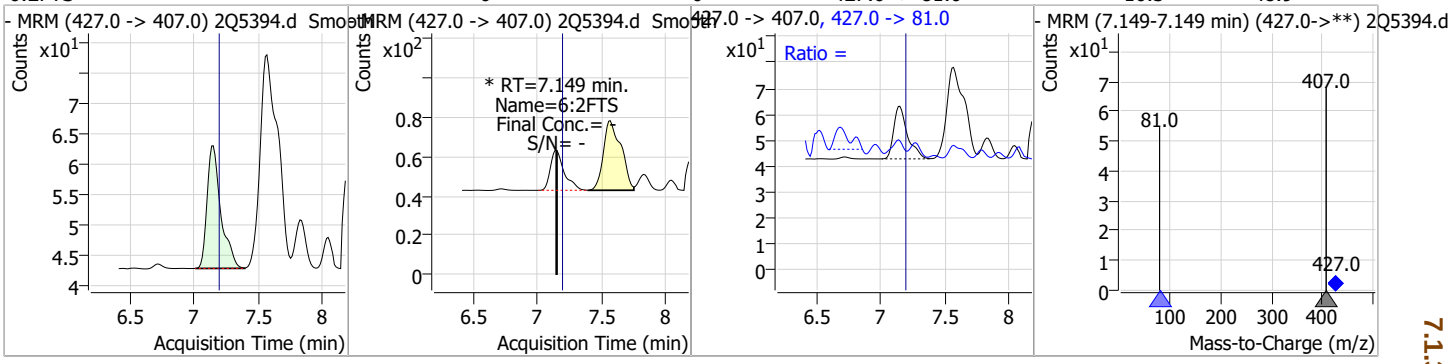




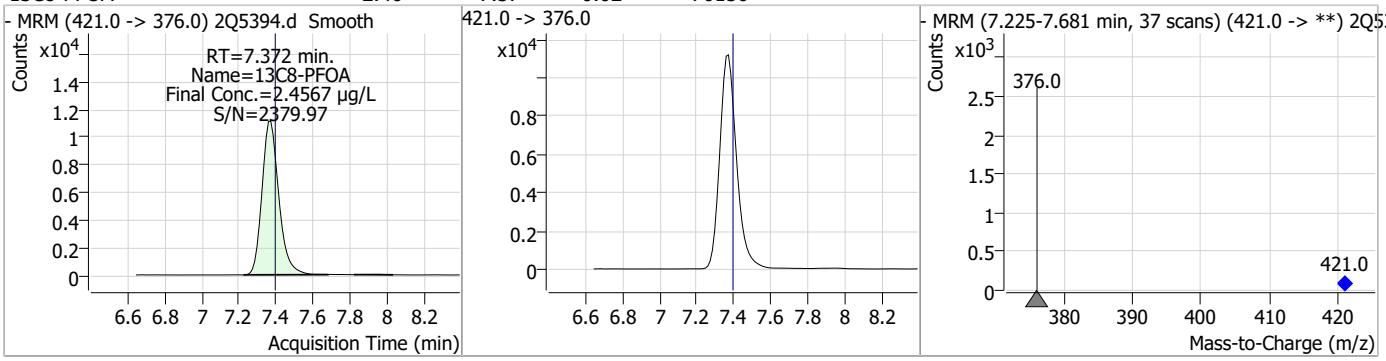


Perfluorinated Compounds by LC/MS/MS

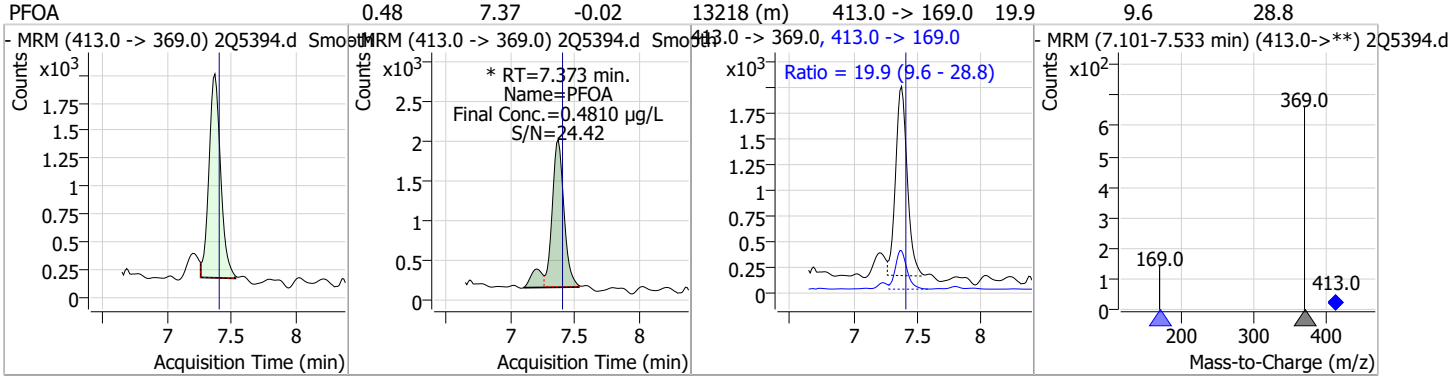
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9



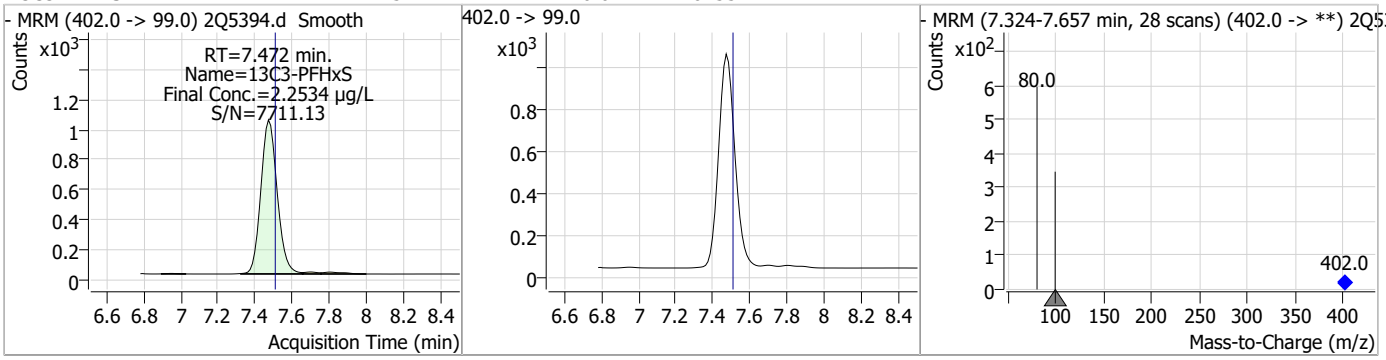
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.46	7.37	-0.02	70150				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.48	7.37	-0.02	13218 (m)	413.0 -> 169.0	19.9	9.6	28.8

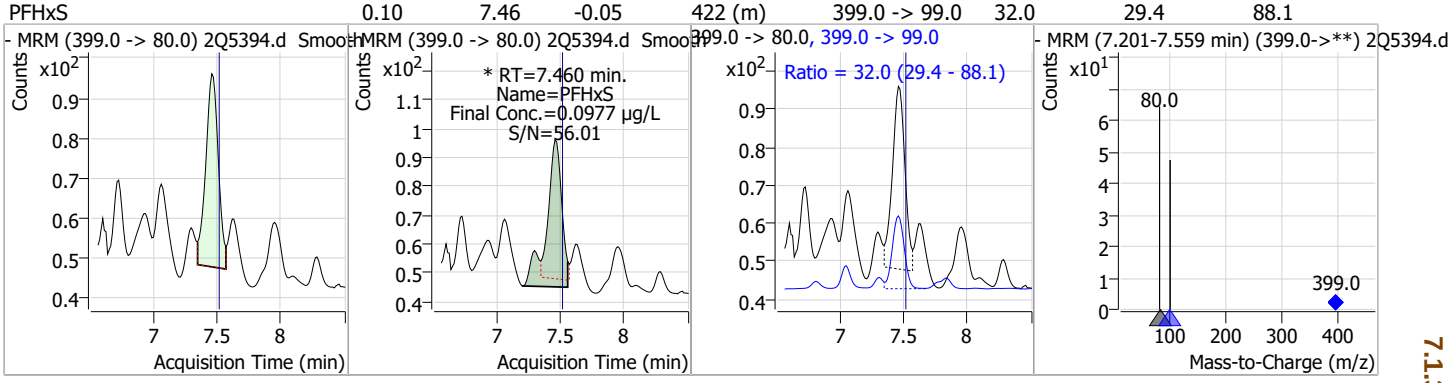


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.25	7.47	-0.04	6255				

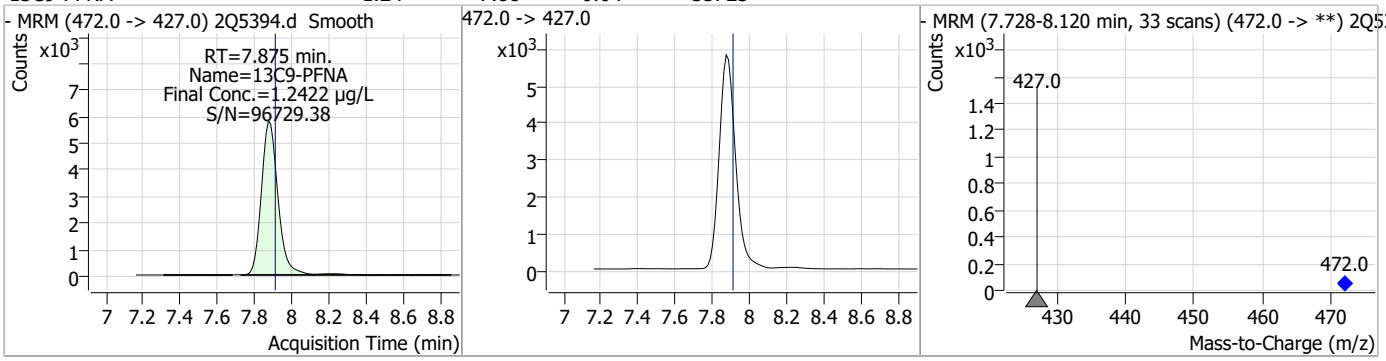


Perfluorinated Compounds by LC/MS/MS

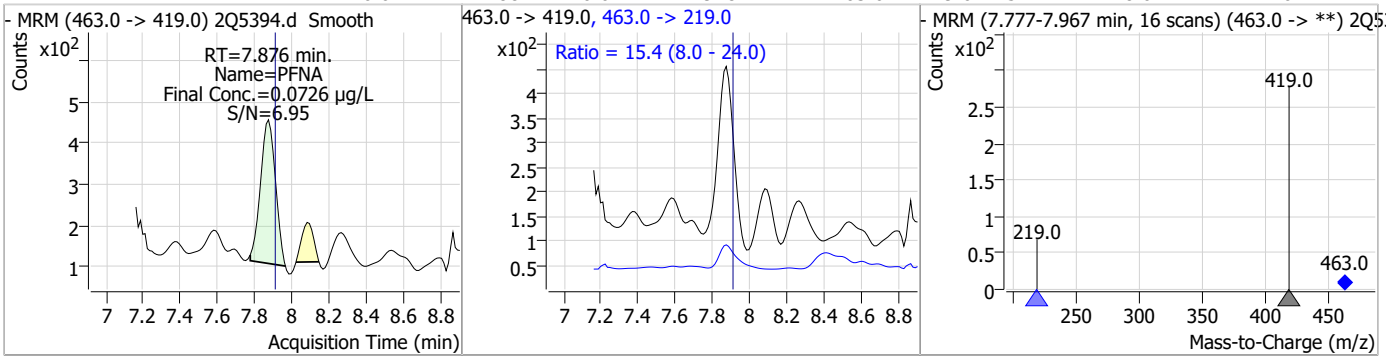
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.10	7.46	-0.05	422 (m)	399.0 -> 99.0	32.0	29.4	88.1



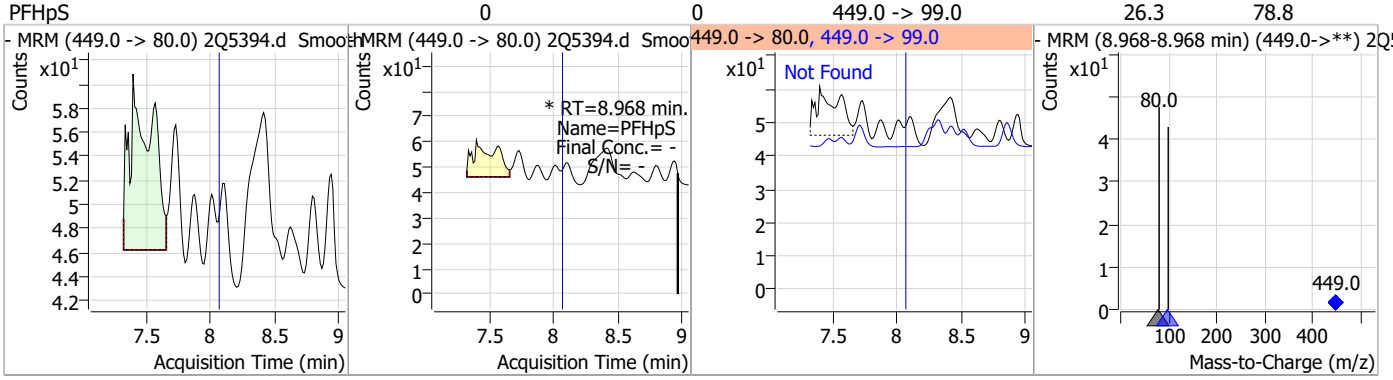
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.24	7.88	-0.04	35723				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.07	7.88	-0.04	1948	463.0 -> 219.0	15.4	8.0	24.0

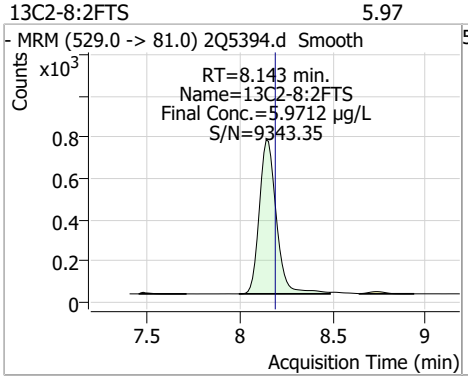


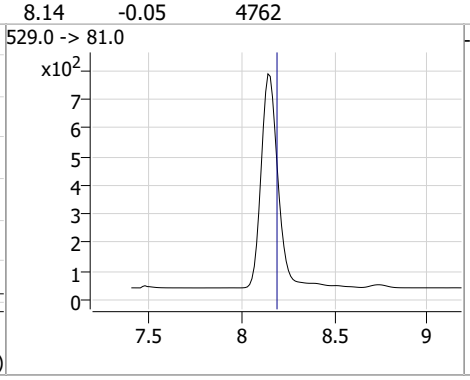
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS		0		0	449.0 -> 99.0		26.3	78.8

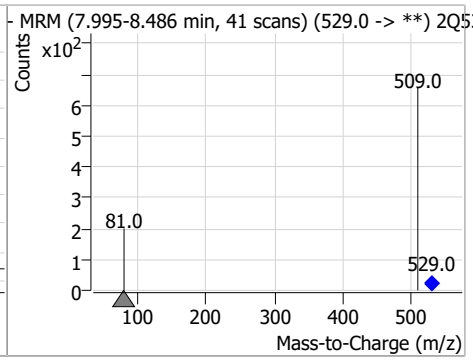


Perfluorinated Compounds by LC/MS/MS

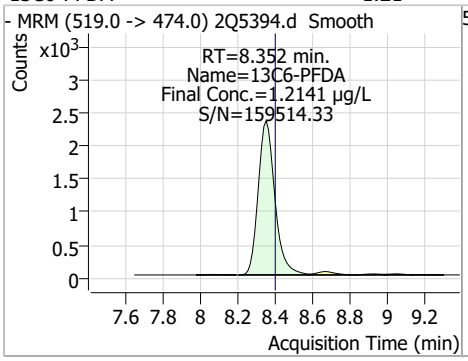
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.97	8.14	-0.05	4762				

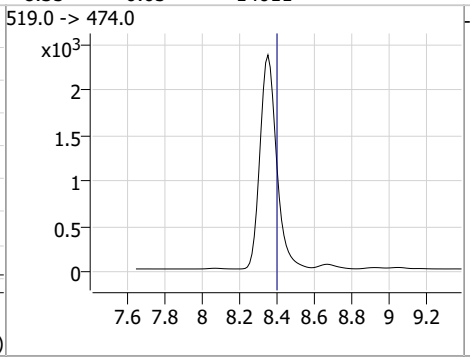


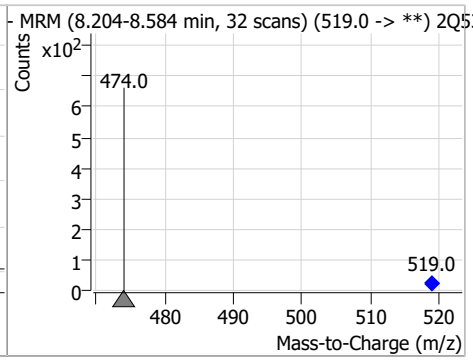




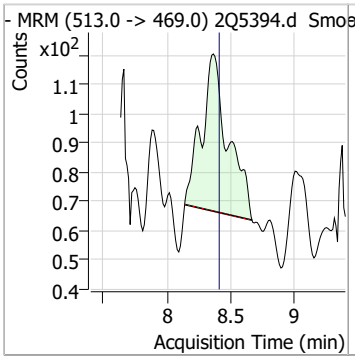
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.21	8.35	-0.05	14611				

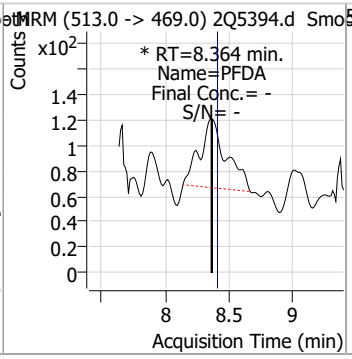


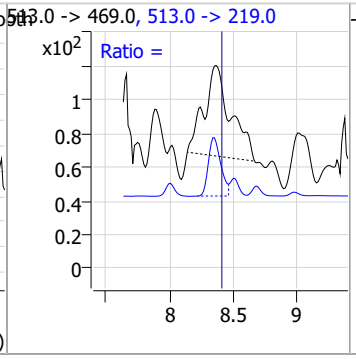


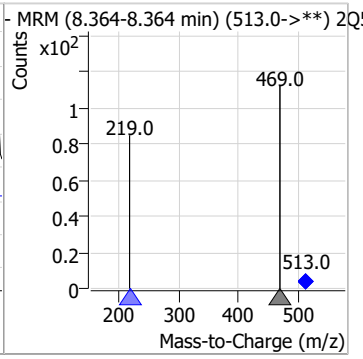


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8

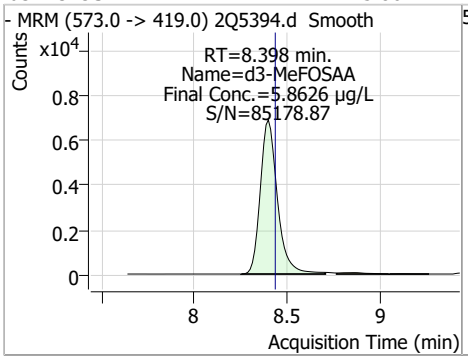


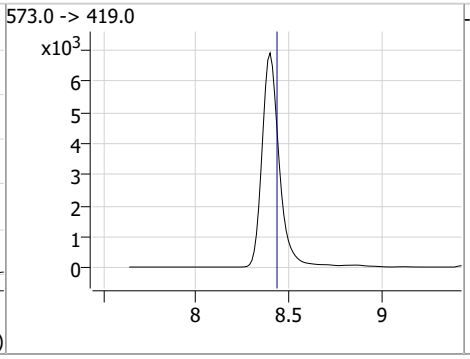


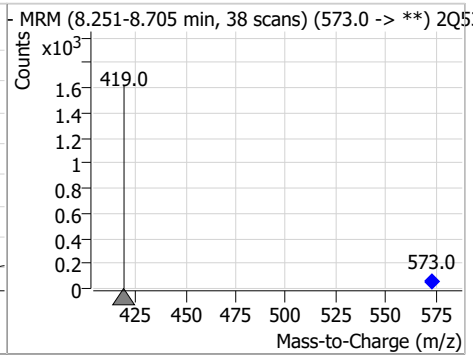




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.86	8.40	-0.04	44058				

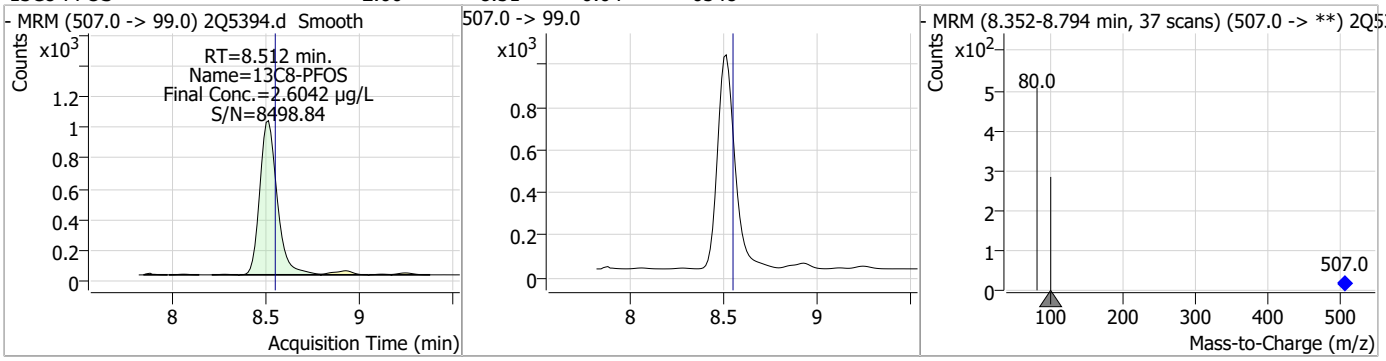




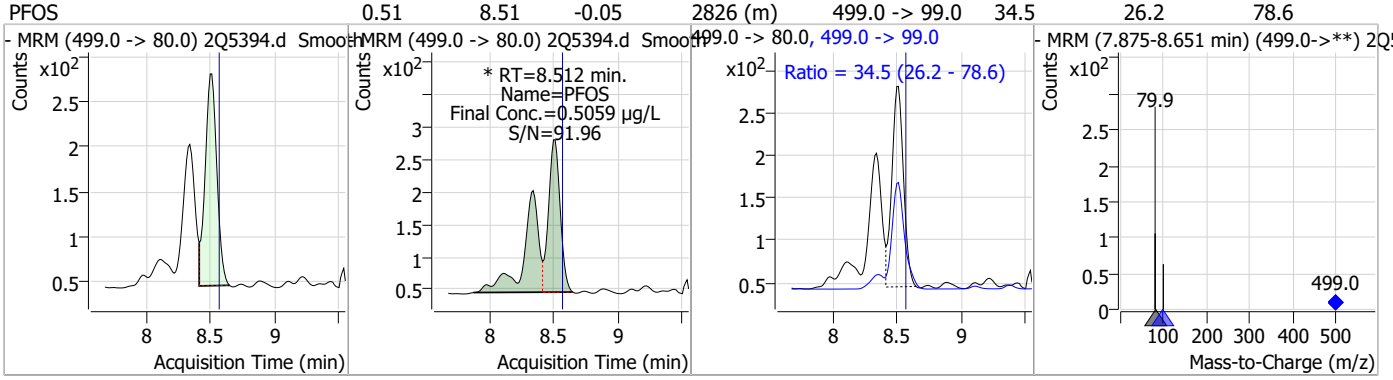


Perfluorinated Compounds by LC/MS/MS

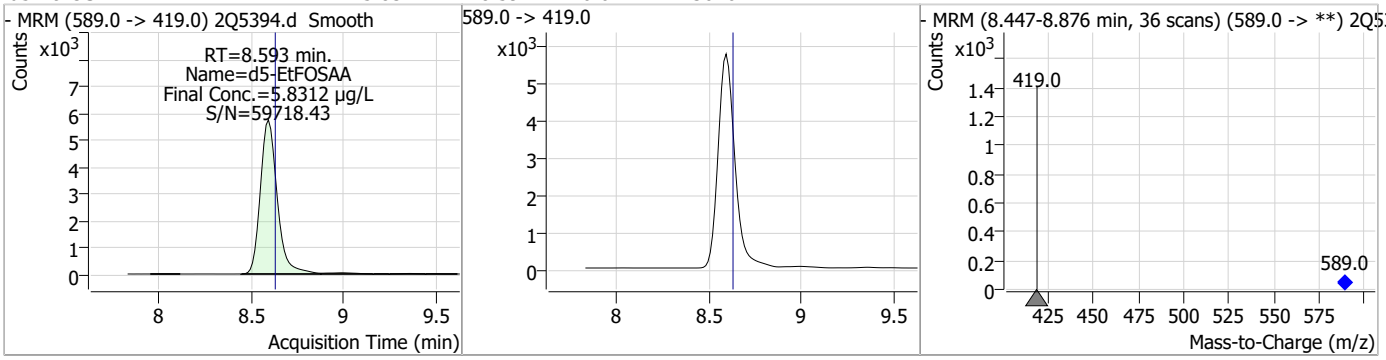
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.60	8.51	-0.04	6548				



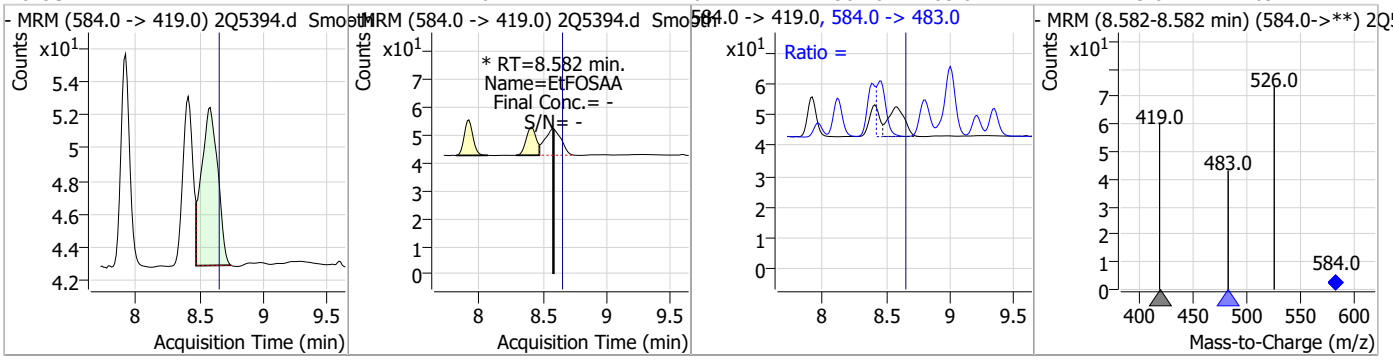
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.51	8.51	-0.05	2826 (m)	499.0 -> 99.0	34.5	26.2	78.6



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.83	8.59	-0.04	36204				

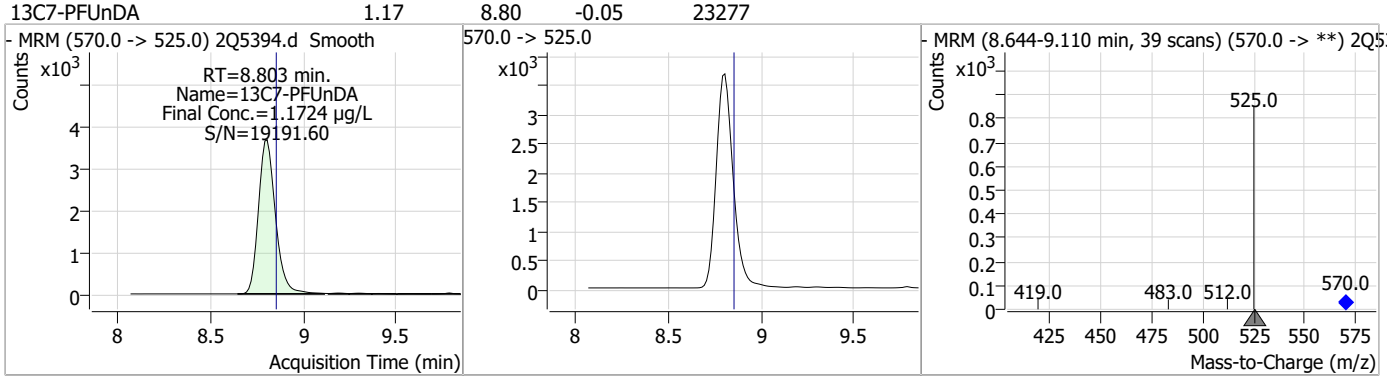


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1

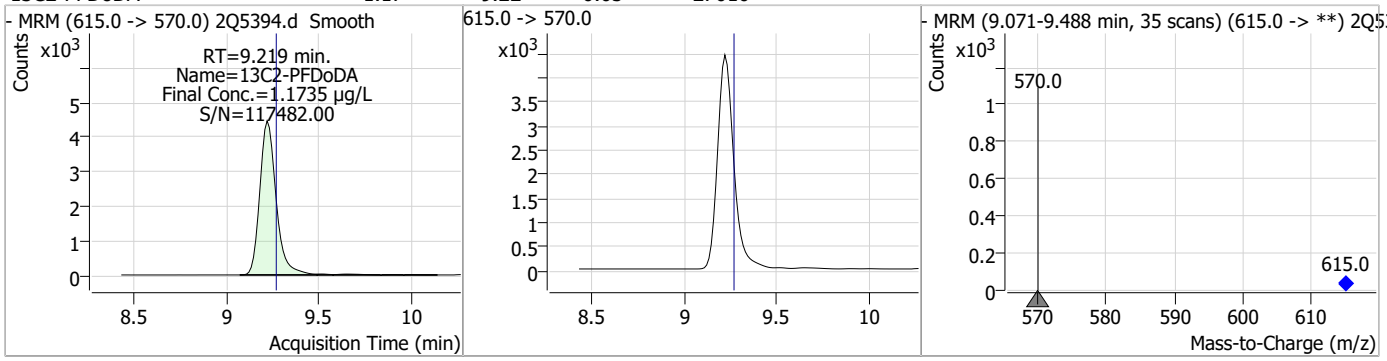


Perfluorinated Compounds by LC/MS/MS

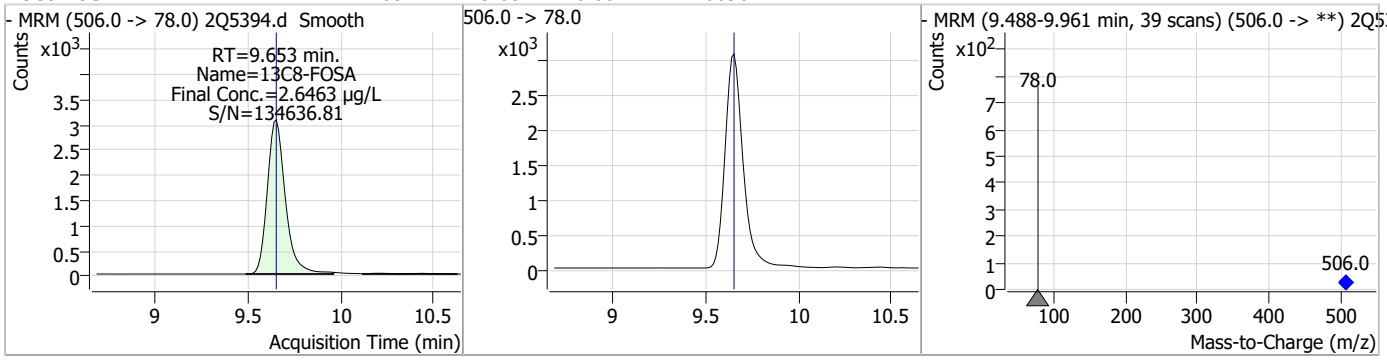
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.17	8.80	-0.05	23277				



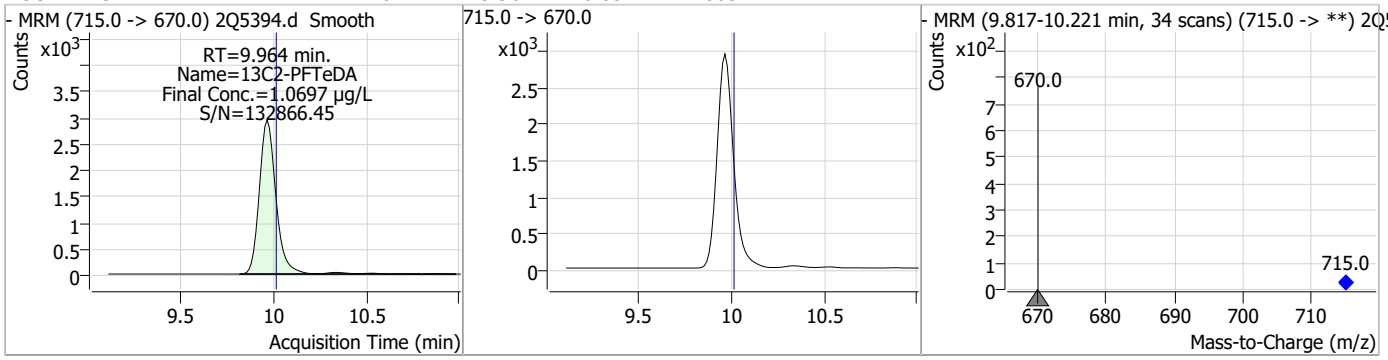
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.17	9.22	-0.05	27010				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.65	9.65	0.00	20690				

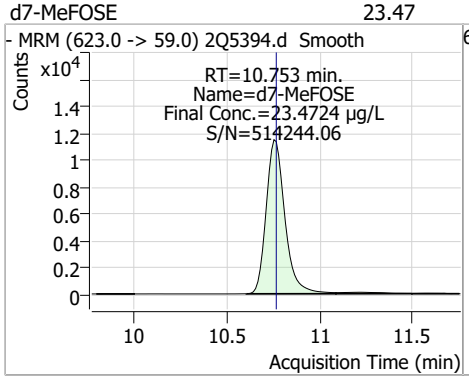


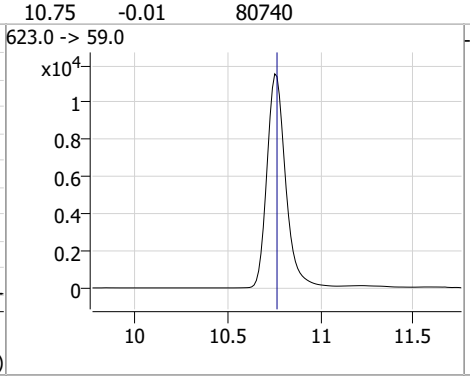
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.07	9.96	-0.05	18057				

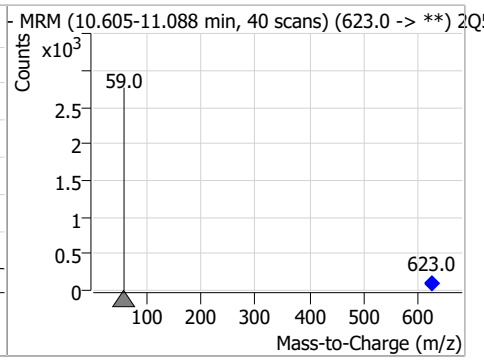


Perfluorinated Compounds by LC/MS/MS

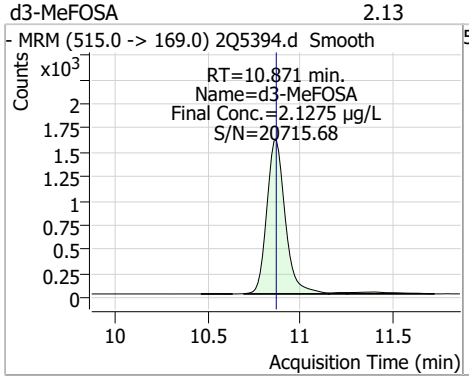
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.47	10.75	-0.01	80740				

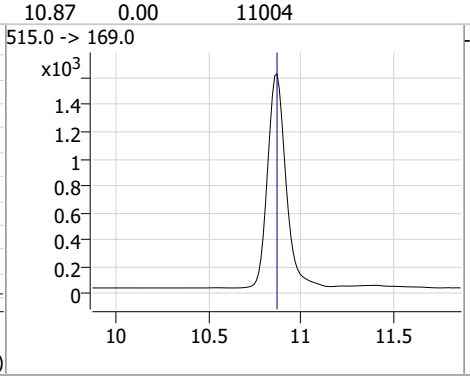


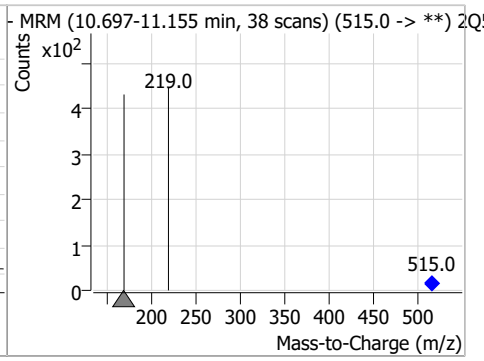




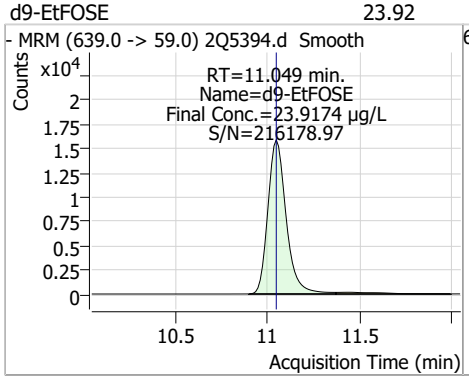
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.13	10.87	0.00	11004				

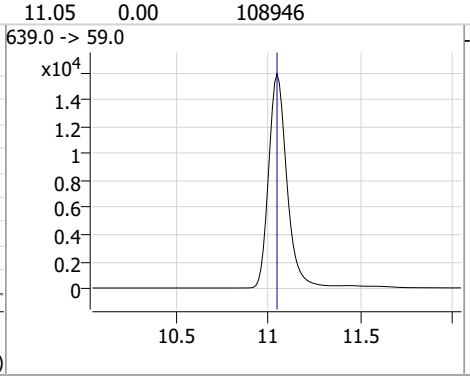


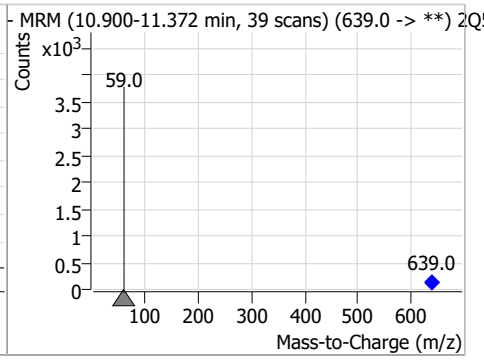




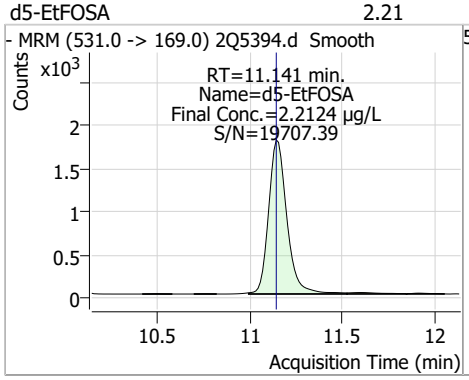
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	23.92	11.05	0.00	108946				

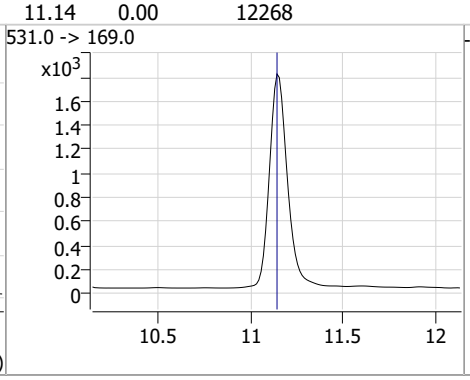


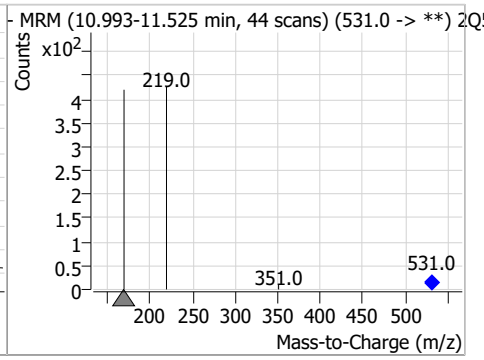




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.21	11.14	0.00	12268				







Manual Integration Approval Summary

Sample Number: JD77804-3
Lab FileID: 2Q5394.D
Injection Time: 12/02/23 03:43
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.46	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5395.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 3:59:09 AM
Sample Name : JD77804-4
Vial : P2-F8
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,514,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	108609	10.00	µg/L	-0.037
M5-PFPeA	4.785	268.0 -> 223.0	87108	5.00	µg/L	-0.025
M5-PFHxA	5.917	318.0 -> 273.0	46638	1.25	µg/L	-0.037
M4-PFHpA	6.770	367.0 -> 322.0	38184	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	61756	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	26876	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	11988	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	19035	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	18074	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	13048	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	16831	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5132	2.50	µg/L	-0.037
		302.0 -> 80.0	13165			
M3-PFHxS	7.472	402.0 -> 99.0	5161	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	4821	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1080	5.00	µg/L	-0.037
M2-6:2FTS	7.137	429.0 -> 81.0	2292	5.00	µg/L	-0.038
M2-8:2FTS	8.143	529.0 -> 81.0	3871	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	34226	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	21707	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	25895	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	64782	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	82074	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	8413	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	9294	2.50	µg/L	-0.012
13C4-PFOS	8.500	503.0 -> 80.0	10956	2.50	µg/L	-0.049
13C3-PFBA	3.305	216.0 -> 172.0	64424	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	6257	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	62963	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	27337	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	32171	1.25	µg/L	-0.037
13C2-PFHxA	5.918	315.0 -> 270.0	47229	2.50	µg/L	-0.037
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1080	4.73	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.6%		
13C2-6:2FTS	7.137	429.0 -> 81.0	2292	4.53	µg/L	-0.038
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 90.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3871	5.52	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.4%		
13C2-PFDoDA	9.219	615.0 -> 570.0	18074	0.83	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 66.3%		
13C2-PFTeDA	9.964	715.0 -> 670.0	13048	0.82	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 65.2%		
13C3-PFBS	5.846	302.0 -> 99.0	5132	2.21	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.2%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5161	2.11	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.6%			
13C4-PFBA	3.302	217.0 -> 172.0	108609	7.49	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 74.9%			
13C4-PFHpA	6.770	367.0 -> 322.0	38184	2.49	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.5%			
13C5-PFHxA	5.917	318.0 -> 273.0	46638	2.38	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.1%			
13C5-PFPeA	4.785	268.0 -> 223.0	87108	4.92	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.4%			
13C6-PFDA	8.352	519.0 -> 474.0	11988	1.05	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.0%			
13C7-PFUnDA	8.803	570.0 -> 525.0	19035	1.01	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 80.9%			
13C8-FOSA	9.653	506.0 -> 78.0	16831	2.27	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.7%			
13C8-PFOA	7.360	421.0 -> 376.0	61756	2.37	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.8%			
13C8-PFOS	8.512	507.0 -> 99.0	4821	2.02	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.8%			
13C9-PFNA	7.875	472.0 -> 427.0	26876	1.07	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.4%			
d3-MeFOSAA	8.398	573.0 -> 419.0	34226	4.80	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.0%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	21707	9.69	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.9%			
d3-MeFOSA	10.858	515.0 -> 169.0	9294	1.89	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 75.7%			
d5-EtFOSAA	8.593	589.0 -> 419.0	25895	4.40	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 87.9%			
d7-MeFOSE	10.753	623.0 -> 59.0	64782	19.85	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 79.4%			
d9-EtFOSE	11.049	639.0 -> 59.0	82074	18.99	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 76.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	8413	1.60	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 64.0%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.149	427.0 -> 407.0	152	0.05	µg/L	#	66
		427.0 -> 81.0	78				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.308	213.0 -> 169.0	6902	2.53	µg/L		100
PFBS	5.847	299.0 -> 80.0	5092	0.95	µg/L		96
		299.0 -> 99.0	2273				
PFDA	8.389	513.0 -> 469.0	929	0.08	µg/L	#	71
		513.0 -> 219.0	27				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

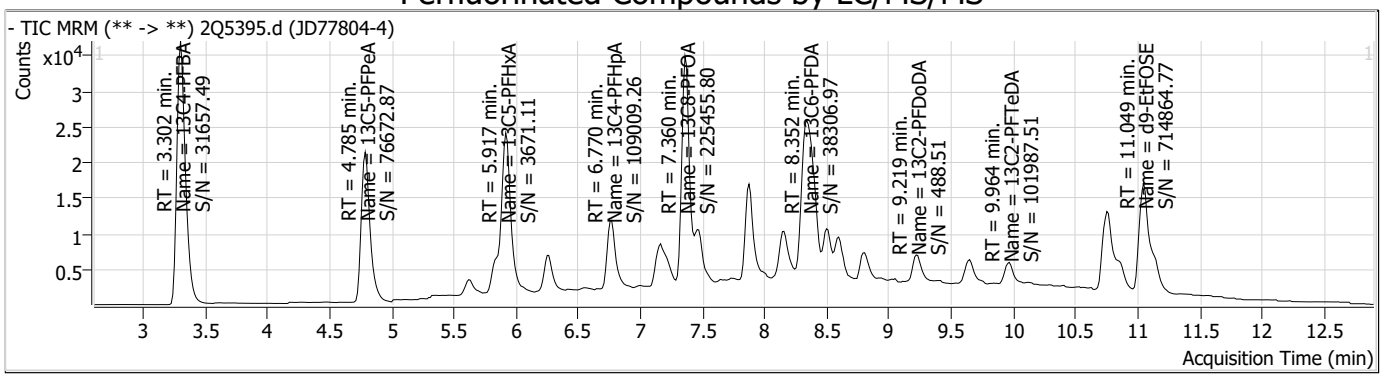
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	5613	0.28	µg/L		98
		363.0 -> 169.0	979				
PFHpS	8.010	449.0 -> 80.0	766	0.23	µg/L		96
		449.0 -> 99.0	378				
PFHxA	5.920	313.0 -> 269.0	12336	0.67	µg/L		100
		313.0 -> 119.0	338				
PFHxS	7.473	399.0 -> 80.0	4504	1.26	µg/L	m	72
		399.0 -> 99.0	1706				
PFNA	7.876	463.0 -> 419.0	1533	0.08	µg/L	m	91
		463.0 -> 219.0	185				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	34032	1.41	µg/L	m	97
		413.0 -> 169.0	6994				
PFOS	8.844	499.0 -> 80.0	0		µg/L	m	1
		499.0 -> 99.0	0				
PFPeA	4.787	263.0 -> 219.0	17080	1.09	µg/L		100
PFPeS	6.809	349.0 -> 80.0	0		µg/L	m	1
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.365	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

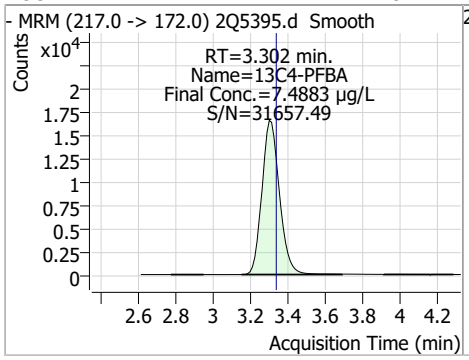
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

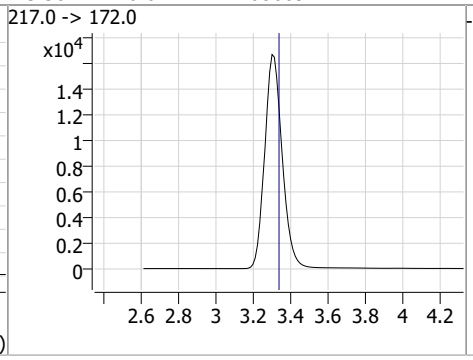
= Qualifier out of range, m = manually integrated, + = Area summed

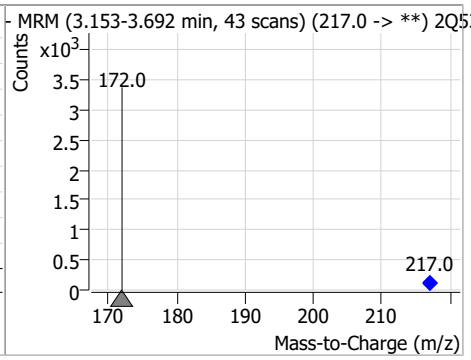
Perfluorinated Compounds by LC/MS/MS



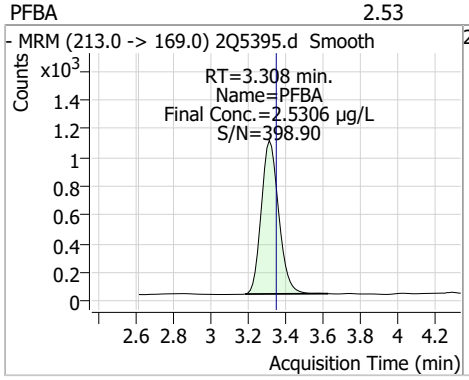
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.49	3.30	-0.04	108609				

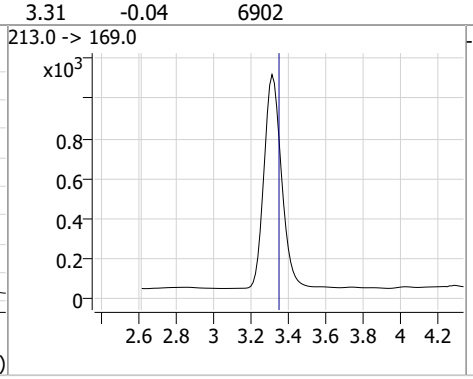


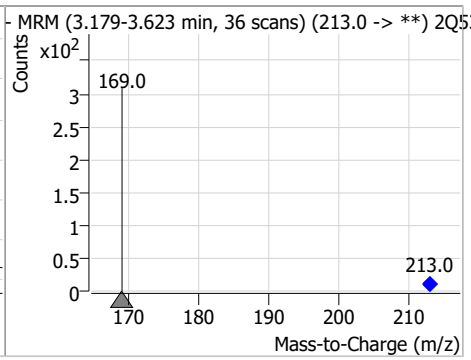




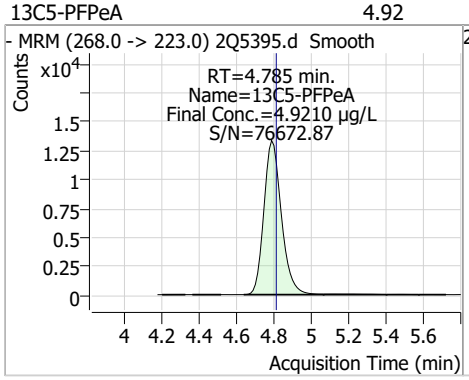
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	2.53	3.31	-0.04	6902				

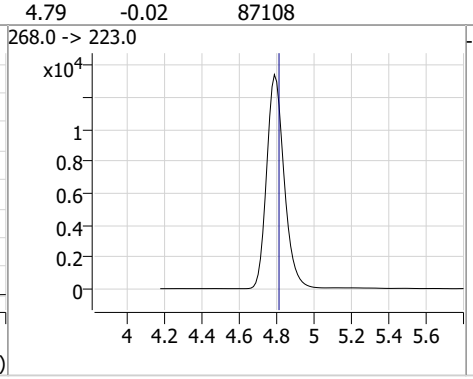


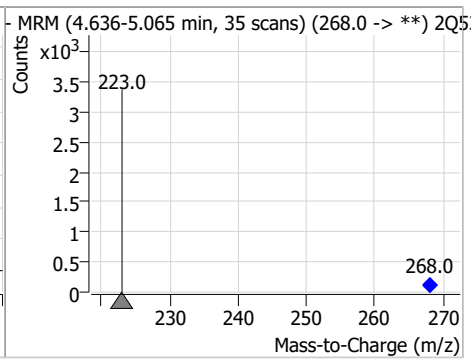




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.92	4.79	-0.02	87108				

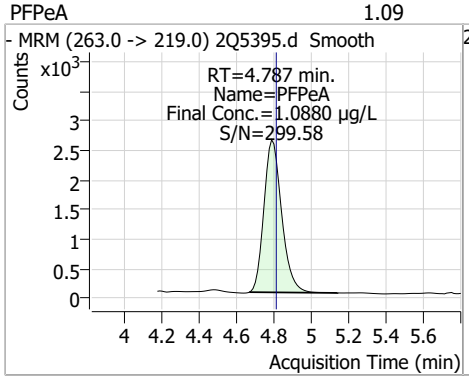


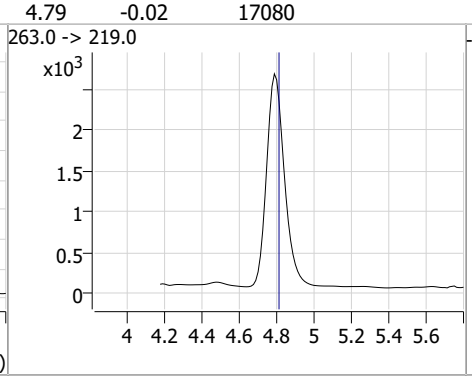


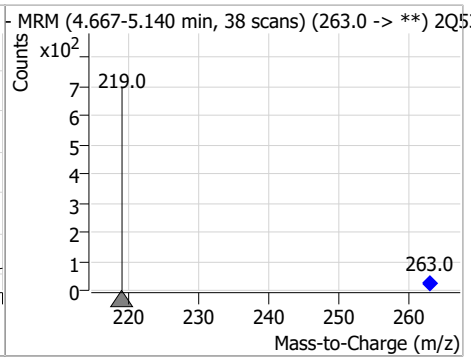


Perfluorinated Compounds by LC/MS/MS

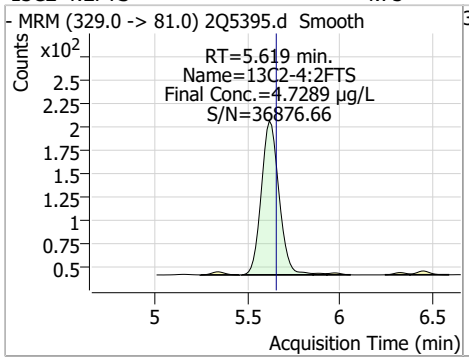
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	1.09	4.79	-0.02	17080				

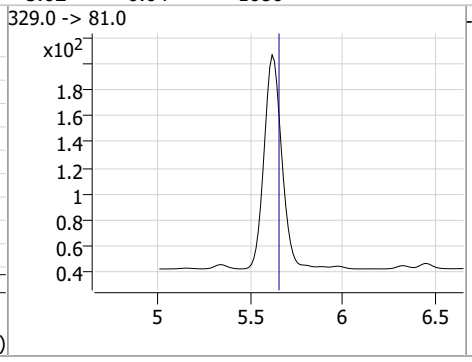


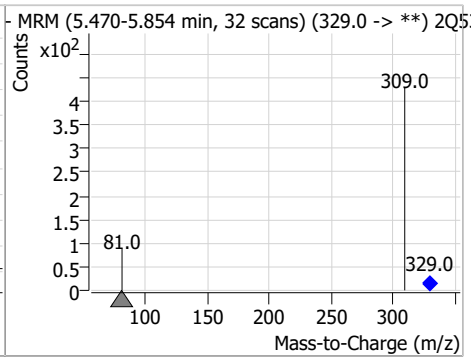




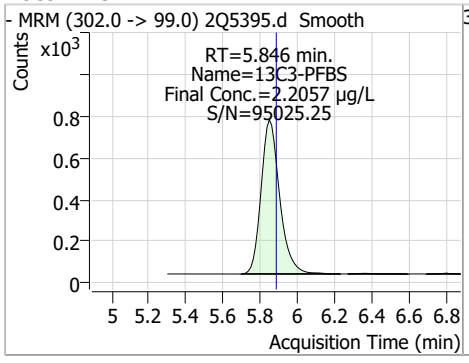
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.73	5.62	-0.04	1080				

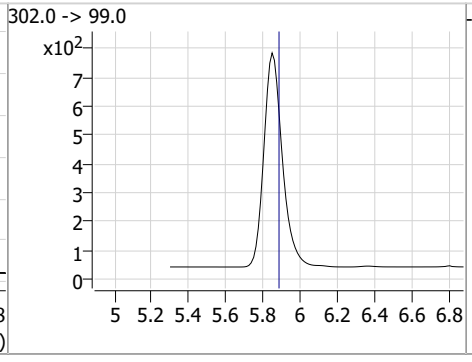


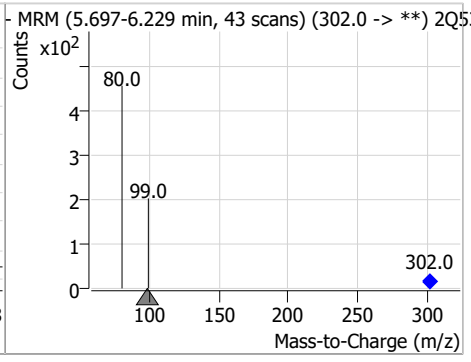




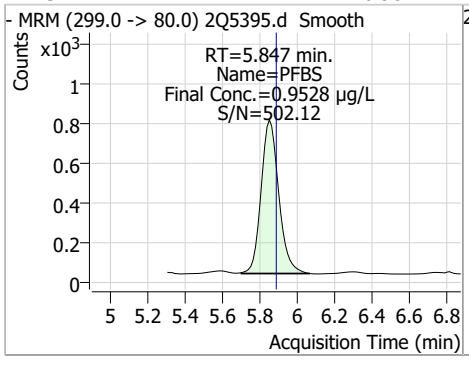
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.21	5.85	-0.04	5132				

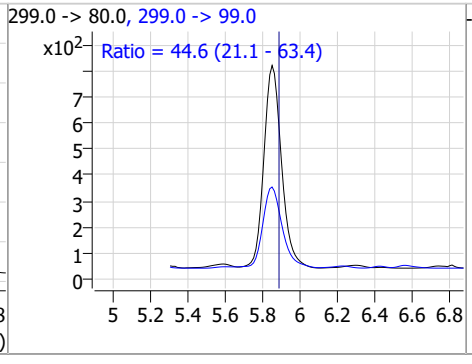


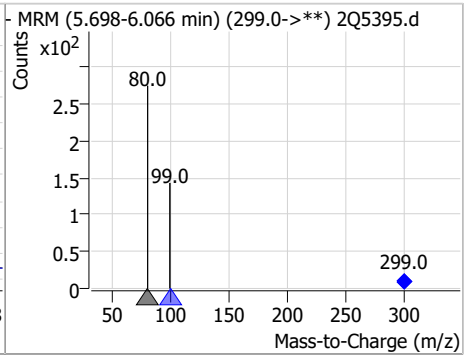




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.95	5.85	-0.04	5092	299.0 -> 99.0	44.6	21.1	63.4

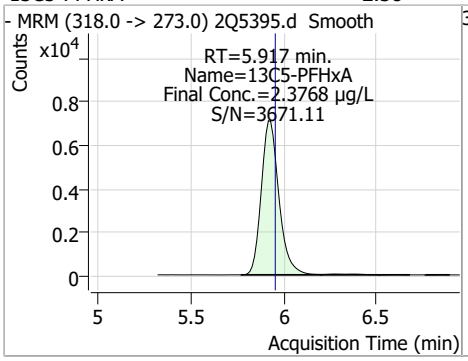


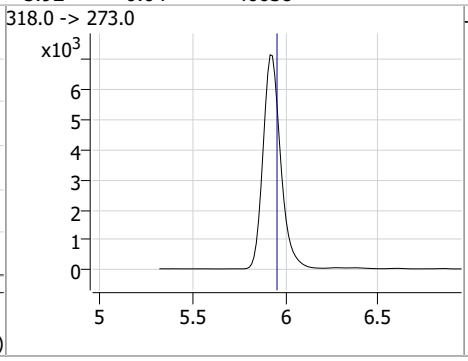


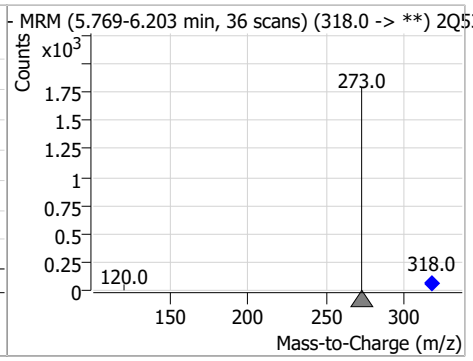


Perfluorinated Compounds by LC/MS/MS

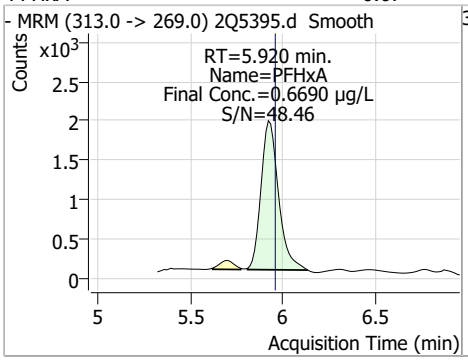
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.38	5.92	-0.04	46638				

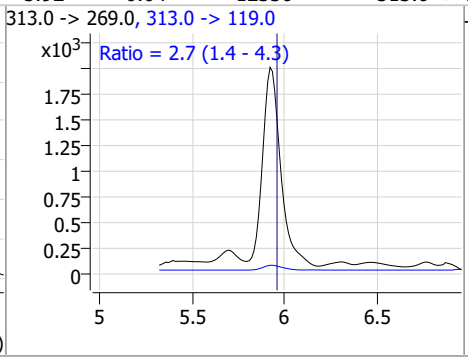


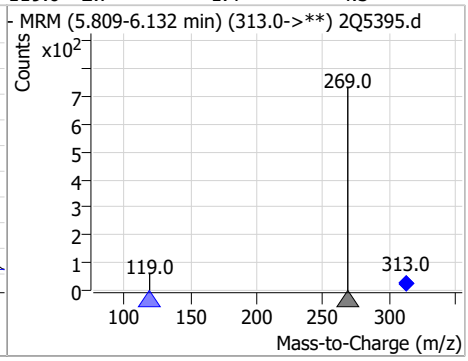




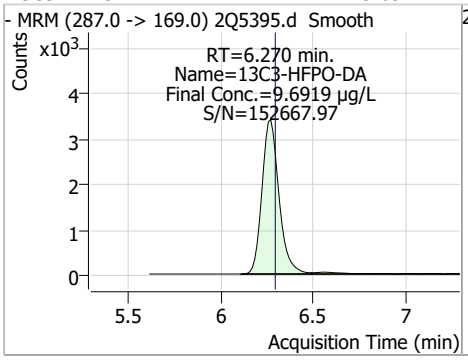
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.67	5.92	-0.04	12336	313.0 -> 119.0	2.7	1.4	4.3

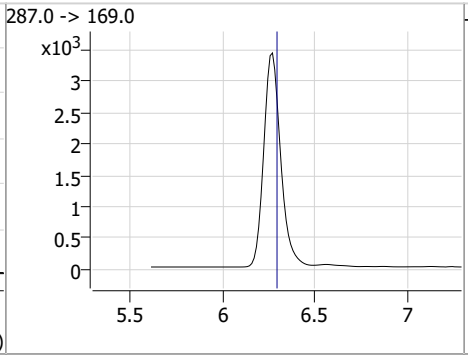


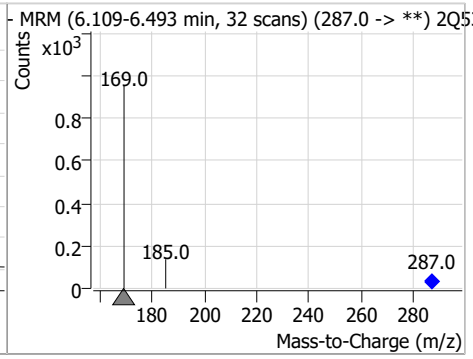




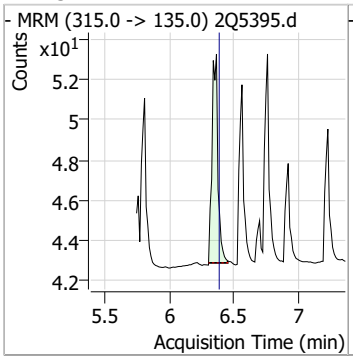
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.69	6.27	-0.02	21707				

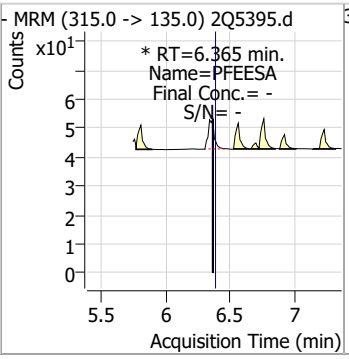


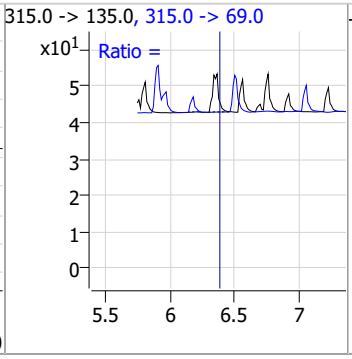


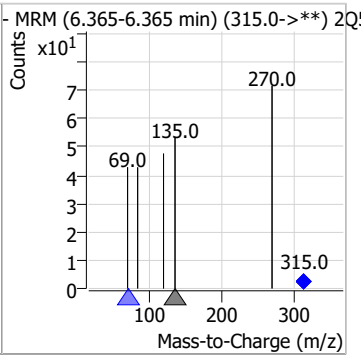


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



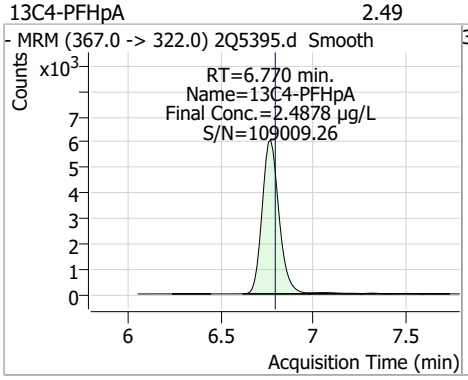


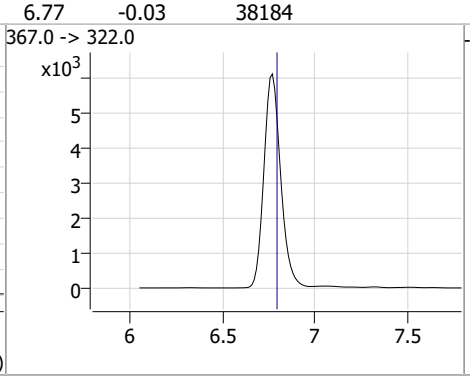


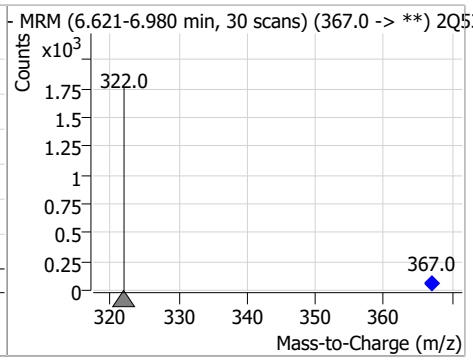


Perfluorinated Compounds by LC/MS/MS

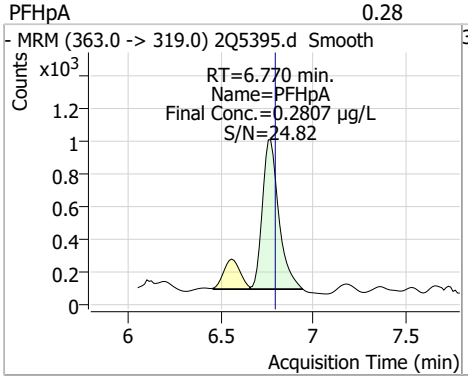
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.49	6.77	-0.03	38184				

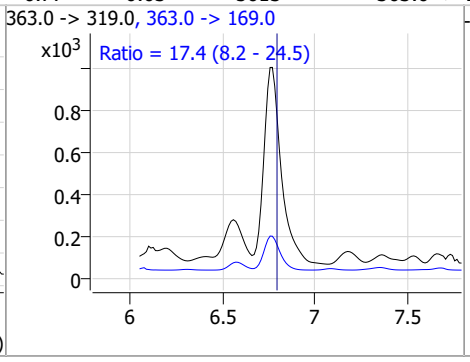


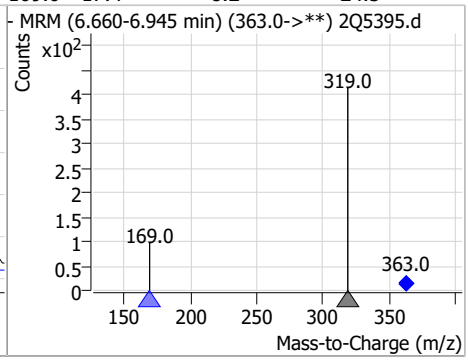




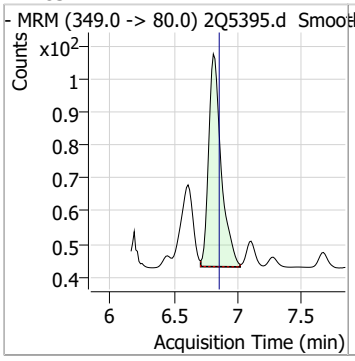
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.28	6.77	-0.03	5613	363.0 -> 169.0	17.4	8.2	24.5

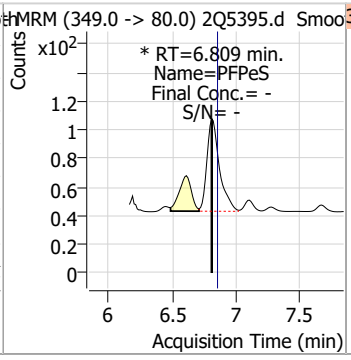


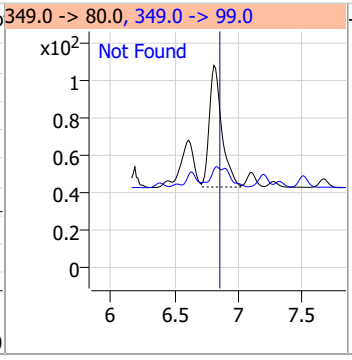


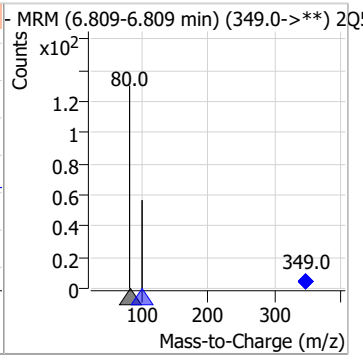


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0	0		0	349.0 -> 99.0		21.5	64.4

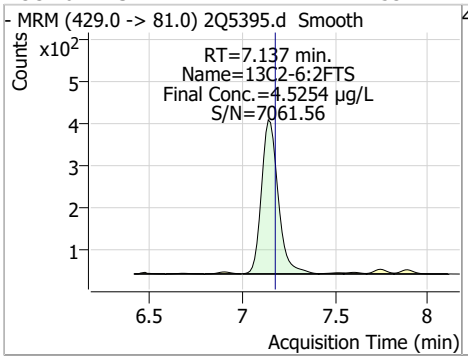


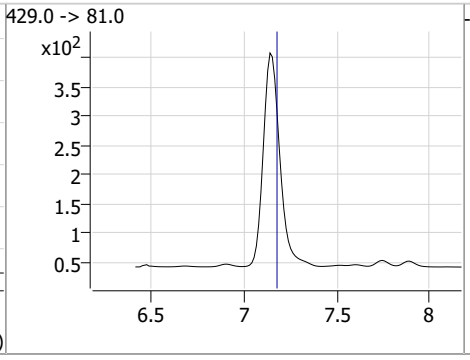


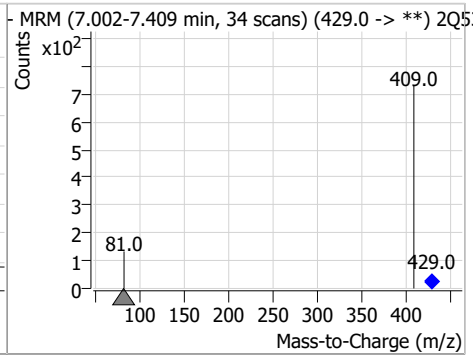




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.53	7.14	-0.04	2292				

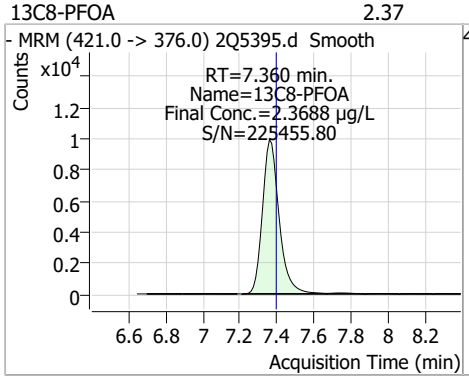


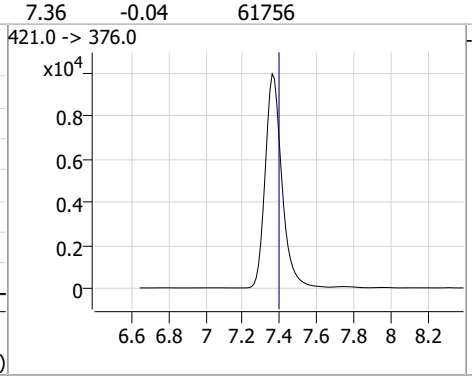


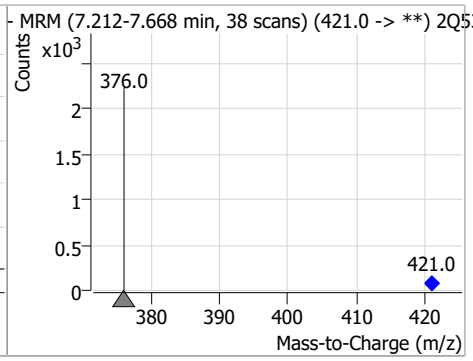


Perfluorinated Compounds by LC/MS/MS

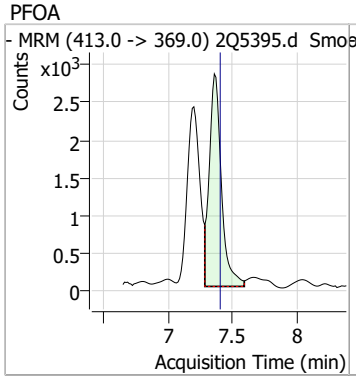
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.37	7.36	-0.04	61756				

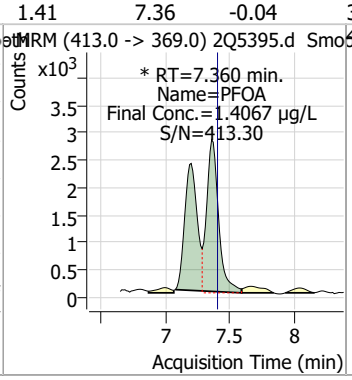


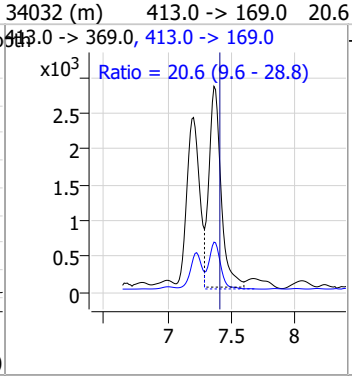


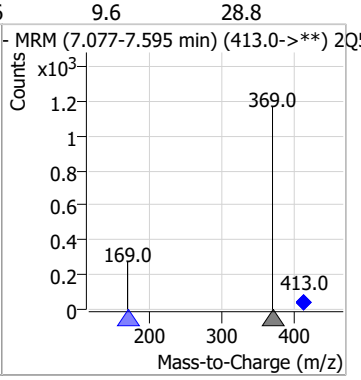


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	1.41	7.36	-0.04	34032 (m)	413.0 -> 169.0	20.6	9.6	28.8

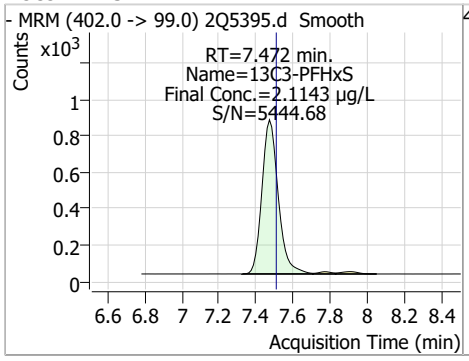


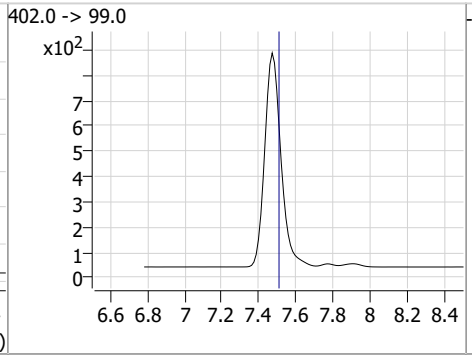


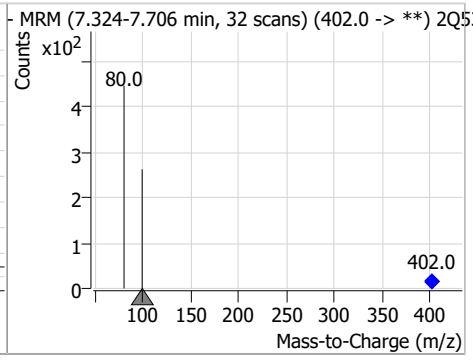




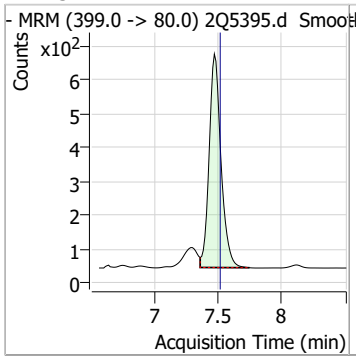
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.11	7.47	-0.04	5161				

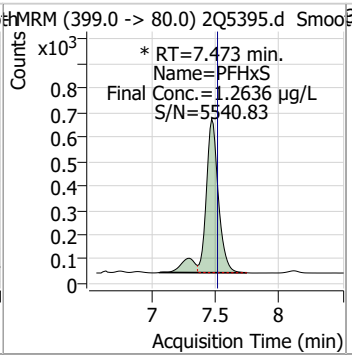


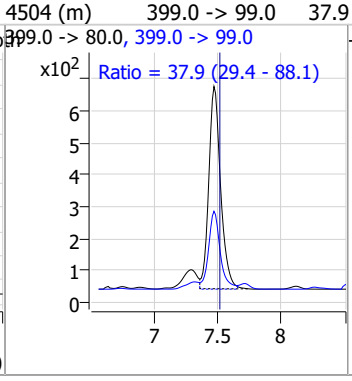


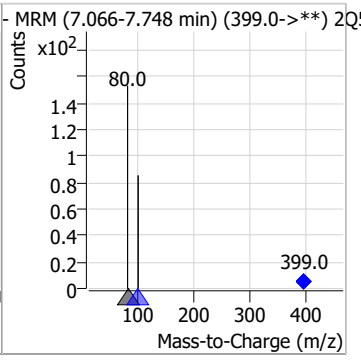


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	1.26	7.47	-0.04	4504 (m)	399.0 -> 99.0	37.9	29.4	88.1



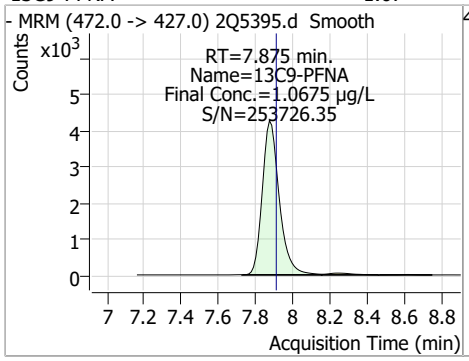


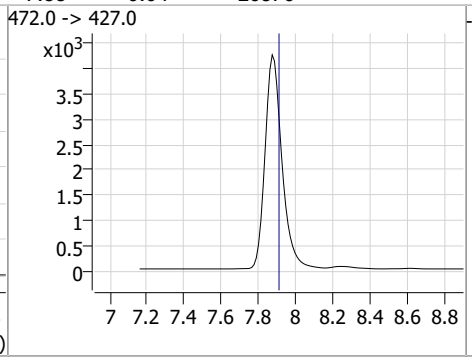


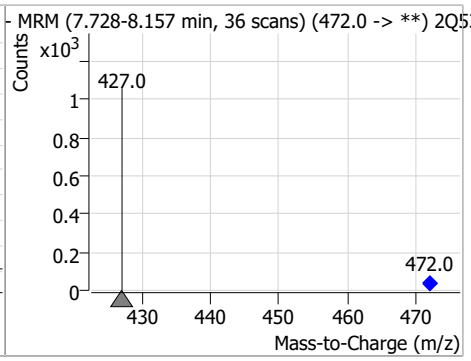


Perfluorinated Compounds by LC/MS/MS

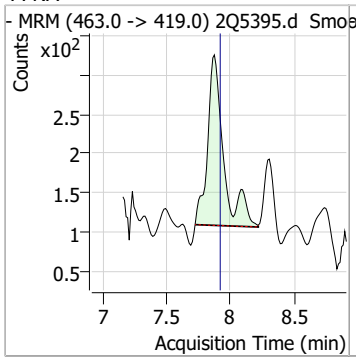
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.07	7.88	-0.04	26876				

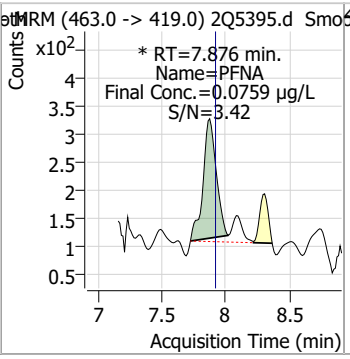


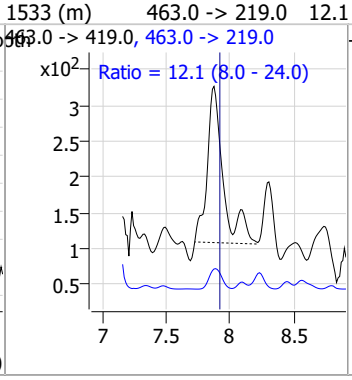


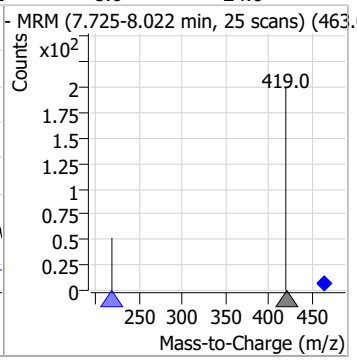


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.08	7.88	-0.04	1533 (m)	463.0 -> 219.0	12.1	8.0	24.0

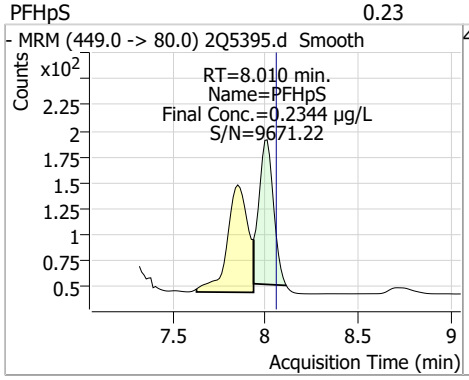


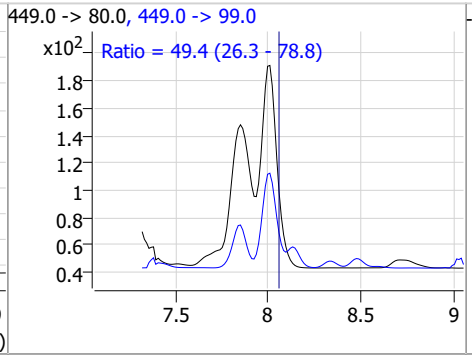


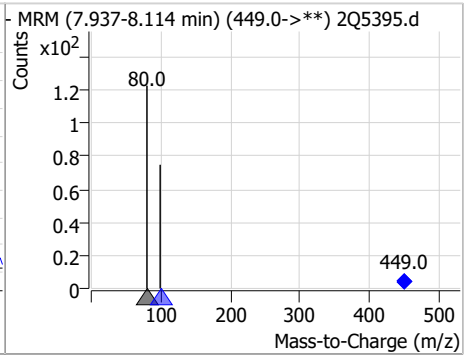




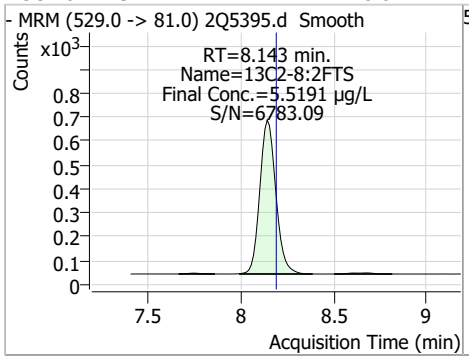
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.23	8.01	-0.05	766	449.0 -> 99.0	49.4	26.3	78.8

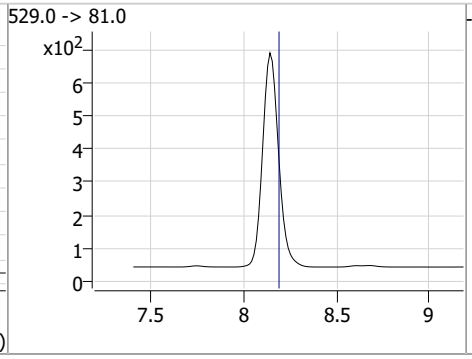


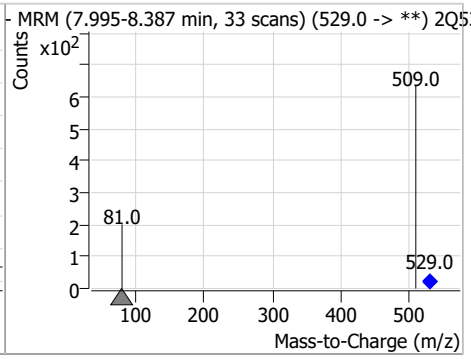




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.52	8.14	-0.05	3871				

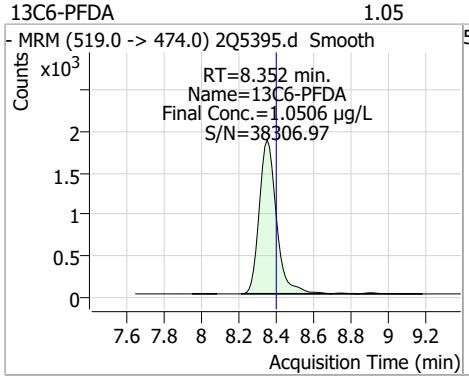


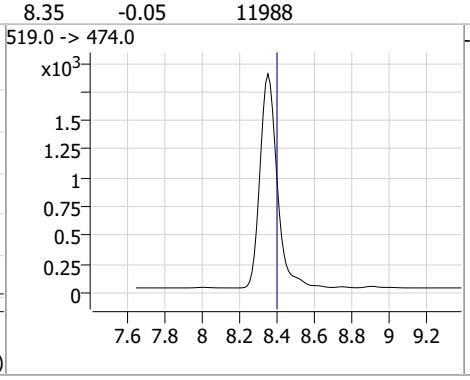


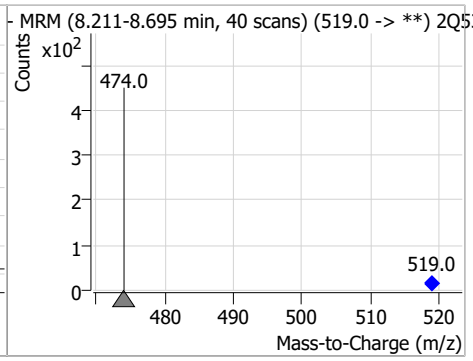


Perfluorinated Compounds by LC/MS/MS

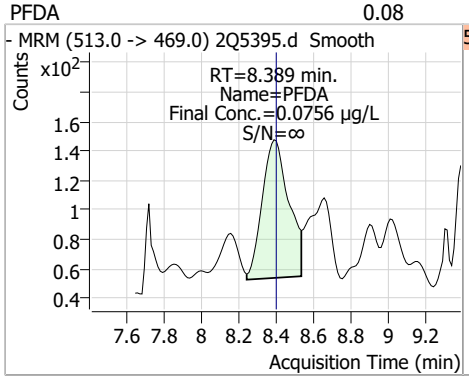
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.05	8.35	-0.05	11988				

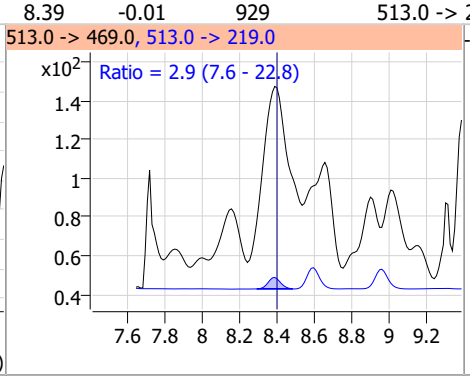


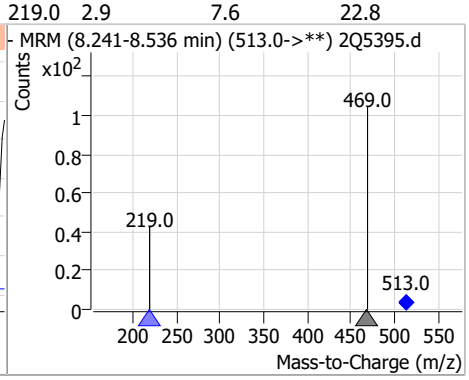




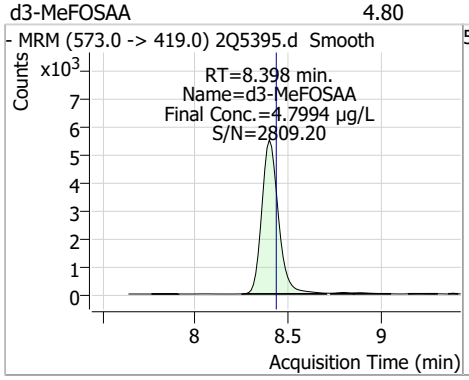
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.08	8.39	-0.01	929	513.0 -> 219.0	2.9	7.6	22.8

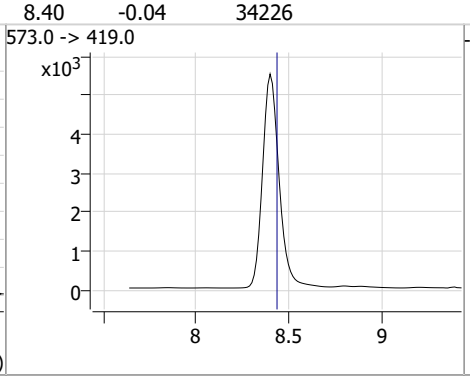


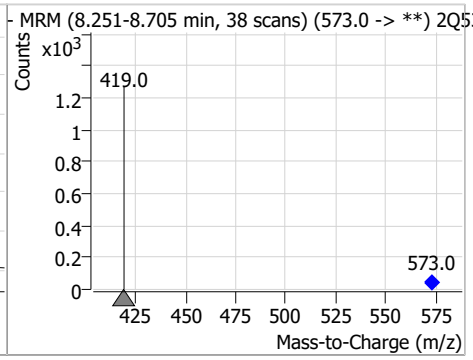




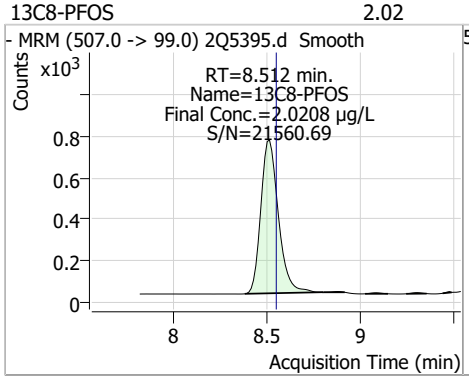
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.80	8.40	-0.04	34226				

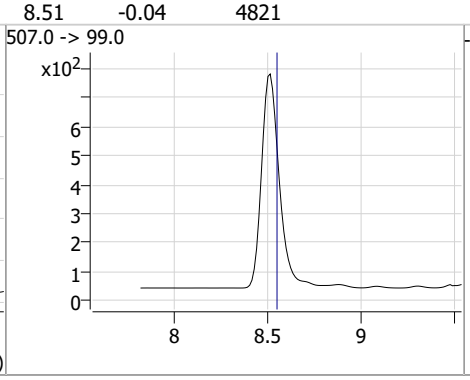


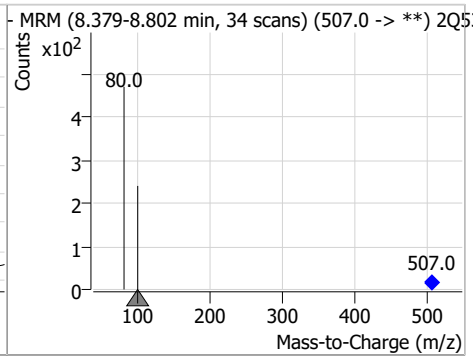




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.02	8.51	-0.04	4821				

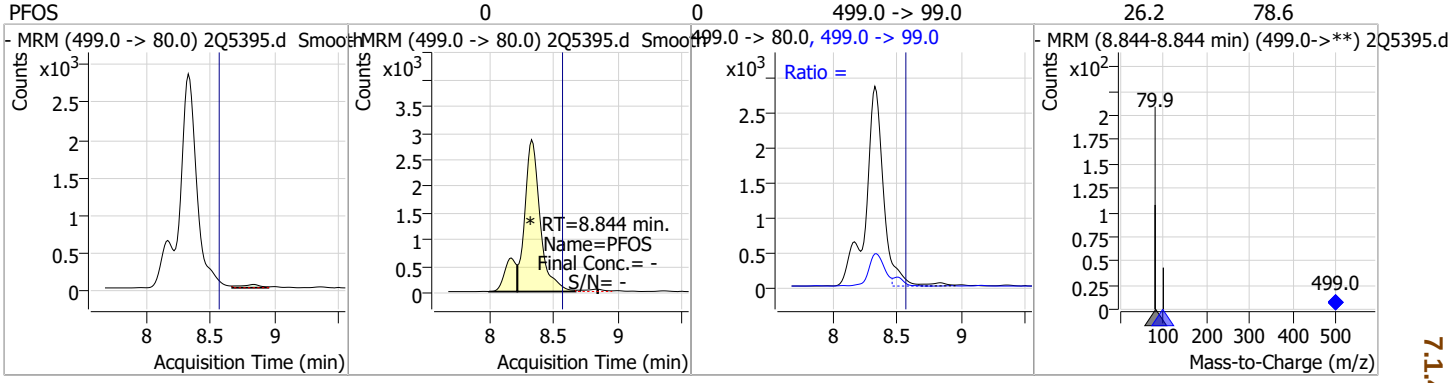




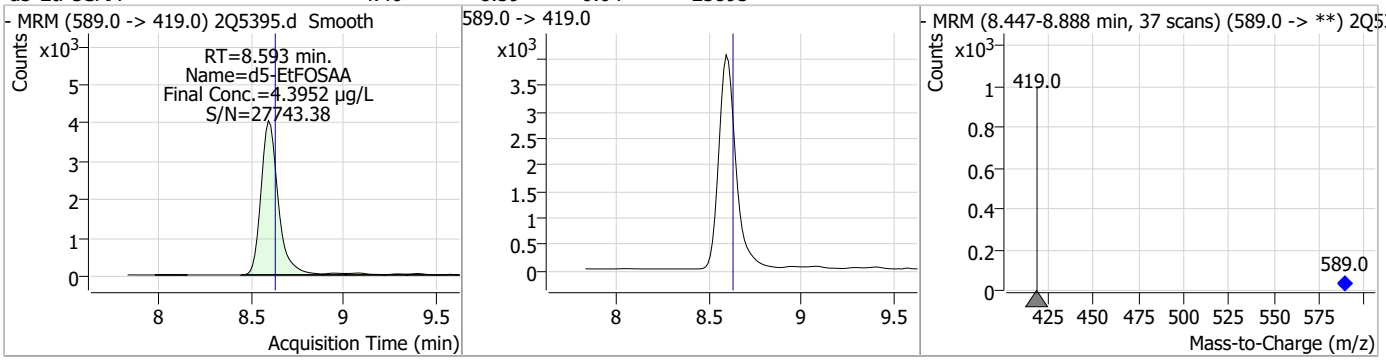


Perfluorinated Compounds by LC/MS/MS

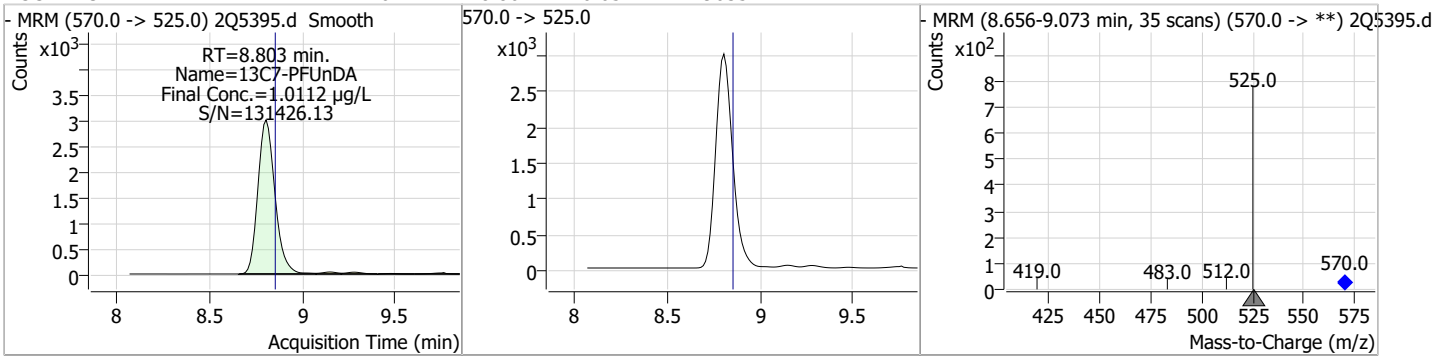
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS		0		0	499.0 -> 99.0		26.2	78.6



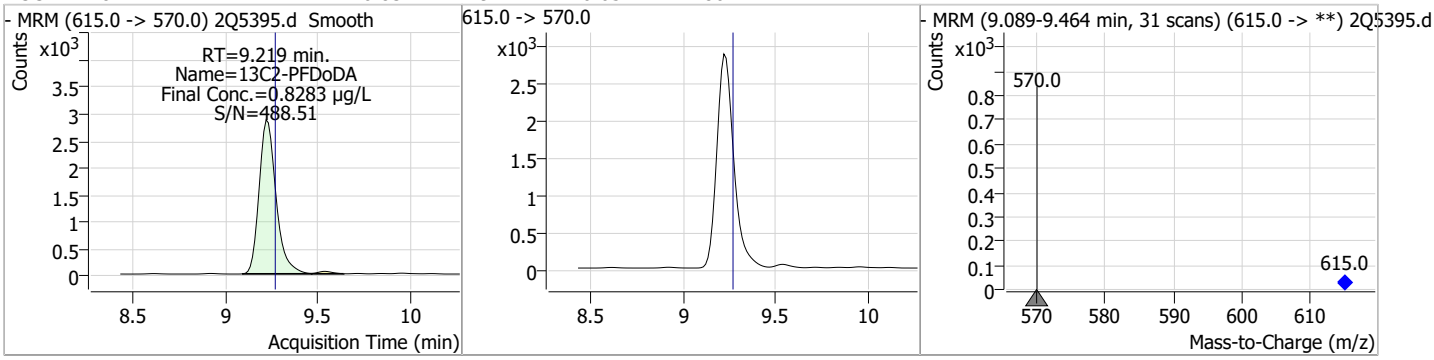
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.40	8.59	-0.04	25895				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.01	8.80	-0.05	19035				

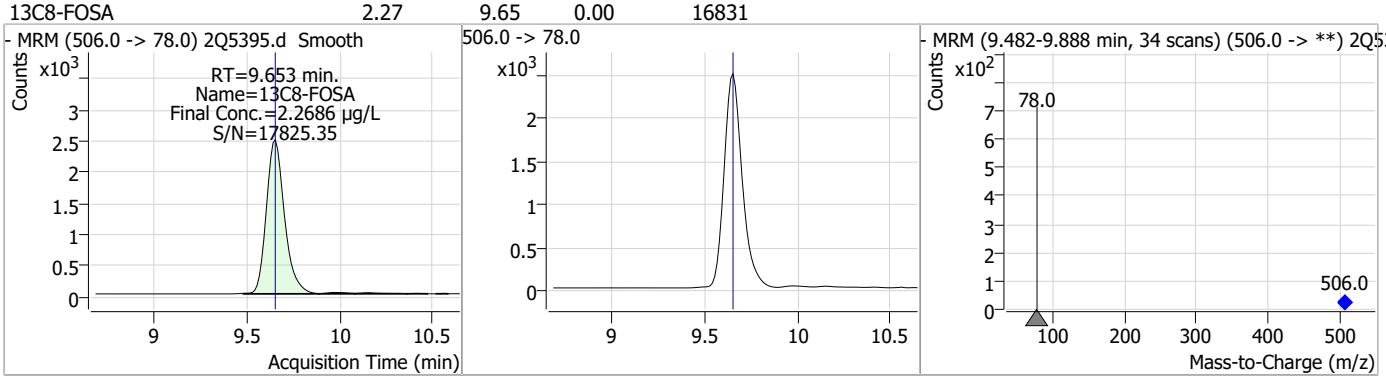


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.83	9.22	-0.05	18074				

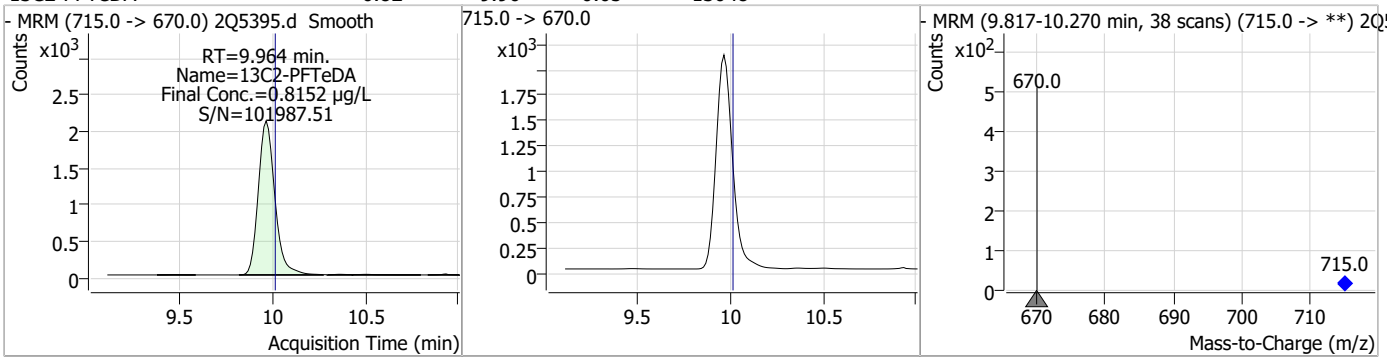


Perfluorinated Compounds by LC/MS/MS

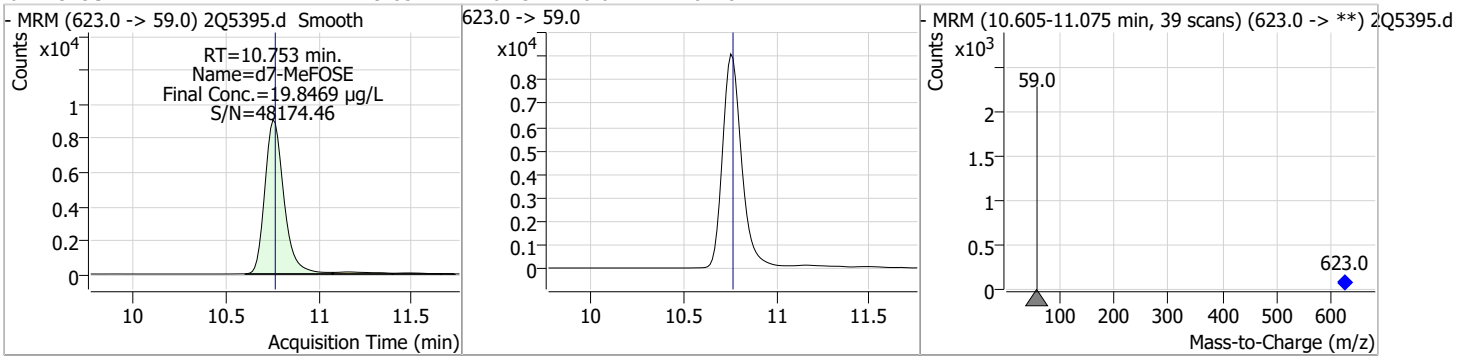
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.27	9.65	0.00	16831				



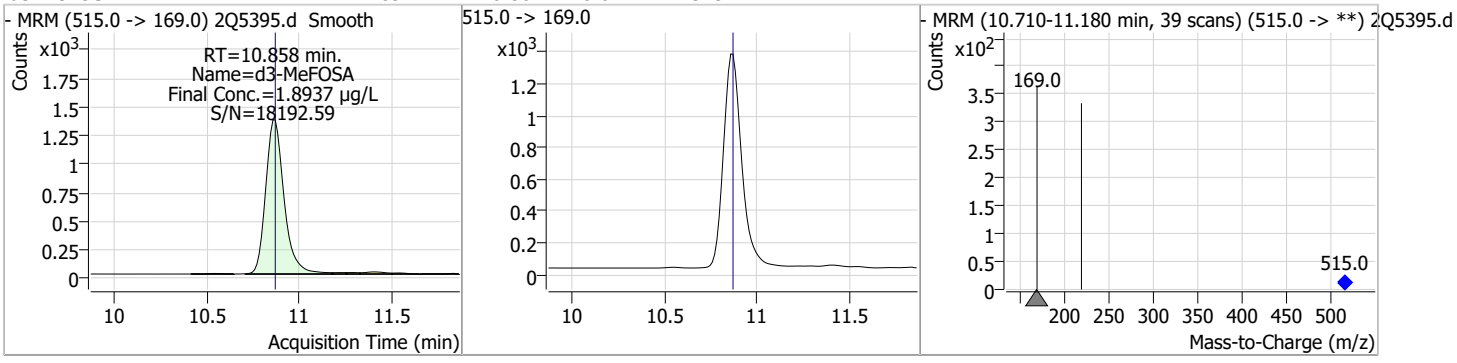
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.82	9.96	-0.05	13048				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	19.85	10.75	-0.01	64782				

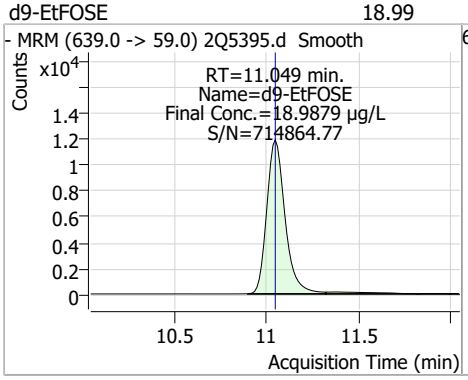


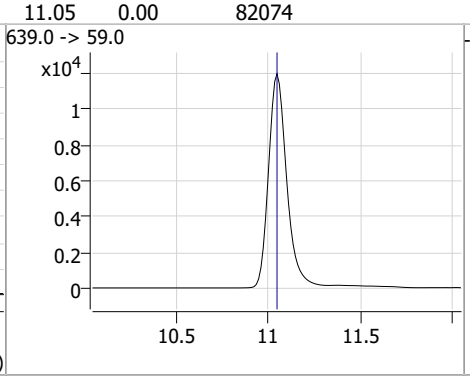
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.89	10.86	-0.01	9294				

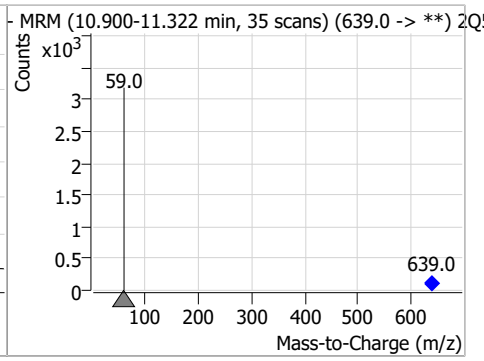


Perfluorinated Compounds by LC/MS/MS

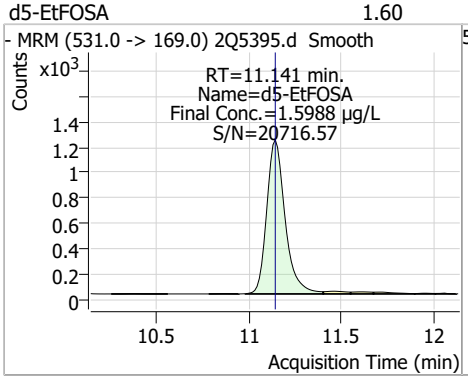
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	18.99	11.05	0.00	82074				

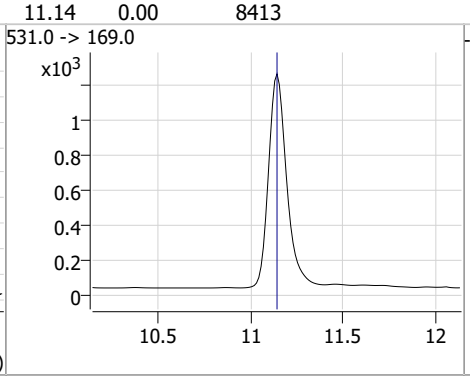


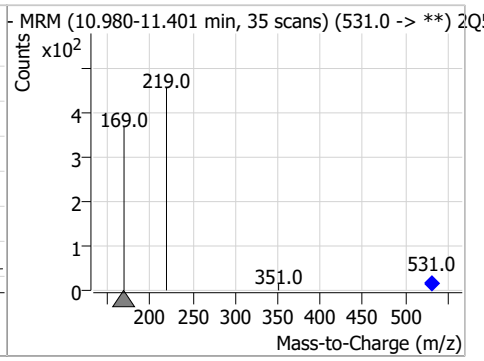




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.60	11.14	0.00	8413				







Manual Integration Approval Summary

Sample Number: JD77804-4
Lab FileID: 2Q5395.D
Injection Time: 12/02/23 03:59
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.36	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorononanoic acid	375-95-1		7.88	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5399.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 5:00:23 AM
Sample Name : JD77804-5
Vial : P2-F9
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,516,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	121182	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	92193	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	49226	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	40526	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	65080	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	29600	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13812	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	21162	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23094	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	13883	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	18108	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5321	2.50	µg/L	-0.037
		302.0 -> 80.0	13188			
M3-PFHxS	7.472	402.0 -> 99.0	5410	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	5491	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1333	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2756	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4014	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	35836	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	21762	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	29153	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	77199	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	104639	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11667	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	11063	2.50	µg/L	-0.012
13C4-PFOS	8.512	503.0 -> 80.0	11005	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	69309	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6061	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	68414	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	27530	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	31652	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	47824	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1333	6.02	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 120.5%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2756	5.62	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4014	5.91	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.2%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23094	1.05	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	13883	0.86	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 68.9%		
13C3-PFBS	5.846	302.0 -> 99.0	5321	2.36	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5410	2.29	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.5%			
13C4-PFBA	3.314	217.0 -> 172.0	121182	7.77	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 77.7%			
13C4-PFHpA	6.770	367.0 -> 322.0	40526	2.61	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.3%			
13C5-PFHxA	5.930	318.0 -> 273.0	49226	2.48	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.1%			
13C5-PFPeA	4.798	268.0 -> 223.0	92193	5.14	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.9%			
13C6-PFDA	8.352	519.0 -> 474.0	13812	1.20	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.2%			
13C7-PFUnDA	8.803	570.0 -> 525.0	21162	1.12	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.3%			
13C8-FOSA	9.653	506.0 -> 78.0	18108	2.43	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.2%			
13C8-PFOA	7.372	421.0 -> 376.0	65080	2.30	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.9%			
13C8-PFOS	8.512	507.0 -> 99.0	5491	2.29	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.7%			
13C9-PFNA	7.875	472.0 -> 427.0	29600	1.20	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.6%			
d3-MeFOSAA	8.398	573.0 -> 419.0	35836	5.00	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.1%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	21762	9.60	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.0%			
d3-MeFOSA	10.858	515.0 -> 169.0	11063	2.24	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.8%			
d5-EtFOSAA	8.593	589.0 -> 419.0	29153	4.93	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.5%			
d7-MeFOSE	10.753	623.0 -> 59.0	77199	23.55	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 94.2%			
d9-EtFOSE	11.049	639.0 -> 59.0	104639	24.10	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 96.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	11667	2.21	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.3%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.594	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.655	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	9.233	570.0 -> 419.0	0		µg/L	m	1
		570.0 -> 512.0	0				
PFBA	3.321	213.0 -> 169.0	2893	0.95	µg/L		100
PFBS	5.847	299.0 -> 80.0	2082	0.38	µg/L		100
		299.0 -> 99.0	883				
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

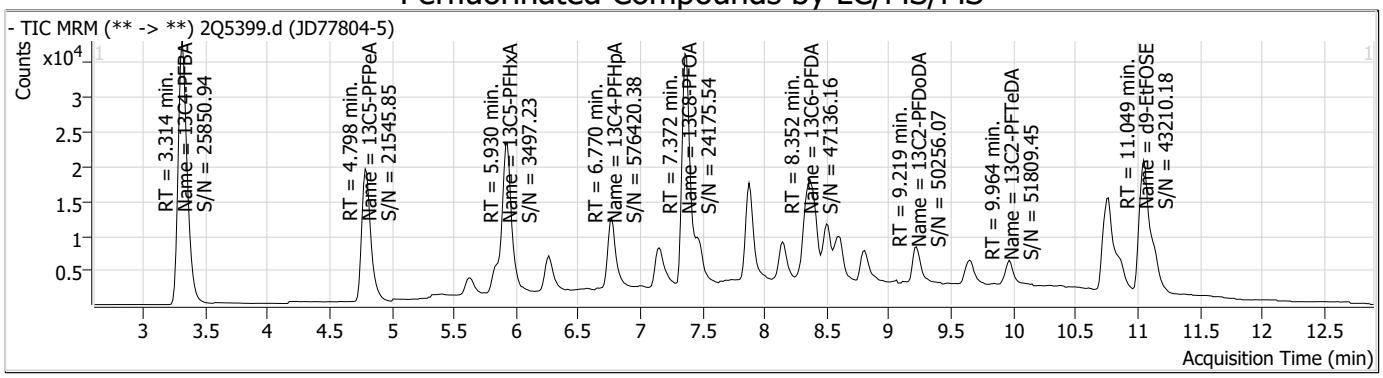
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	5197	0.25	µg/L		94
		363.0 -> 169.0	979				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	6354	0.33	µg/L		99
		313.0 -> 119.0	214				
PFHxS	7.485	399.0 -> 80.0	933	0.25	µg/L	m	61
		399.0 -> 99.0	277				
PFNA	7.888	463.0 -> 419.0	2457	0.11	µg/L		89
		463.0 -> 219.0	277				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	21596	0.85	µg/L	m	95
		413.0 -> 169.0	4683				
PFOS	8.341	499.0 -> 80.0	9302	1.99	µg/L	#m	55
		499.0 -> 99.0	1907				
PFPeA	4.799	263.0 -> 219.0	5250	0.32	µg/L		100
PFPeS	6.833	349.0 -> 80.0	0		µg/L	m	1
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.340	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

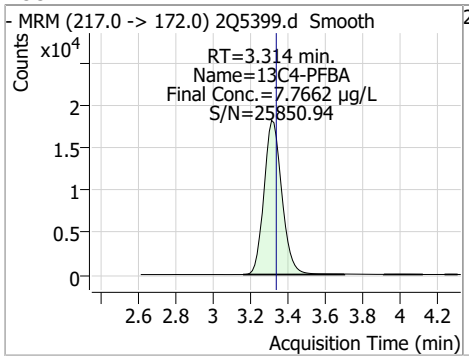
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

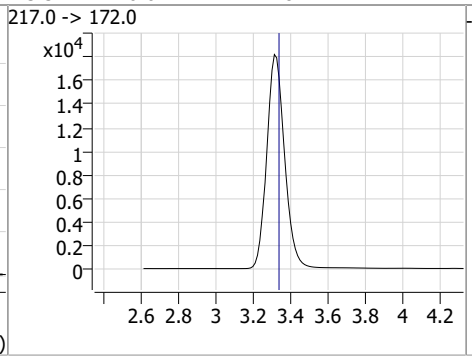
= Qualifier out of range, m = manually integrated, + = Area summed

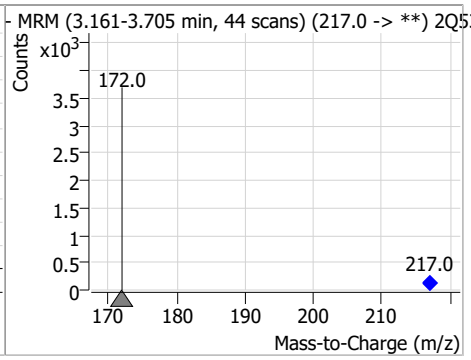
Perfluorinated Compounds by LC/MS/MS



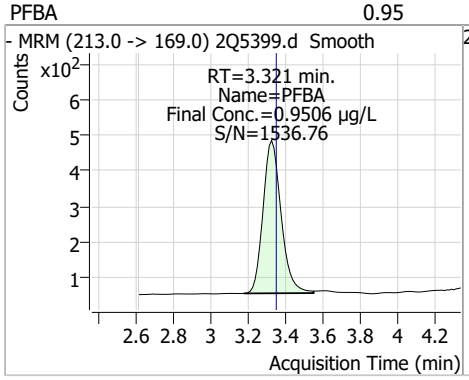
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.77	3.31	-0.02	121182				

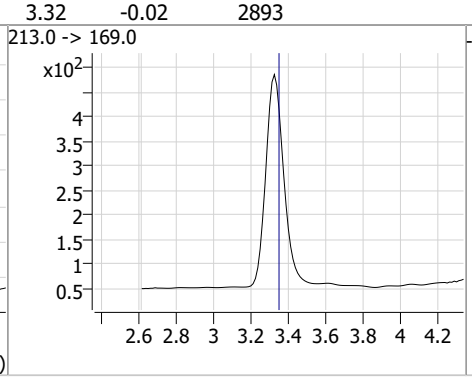


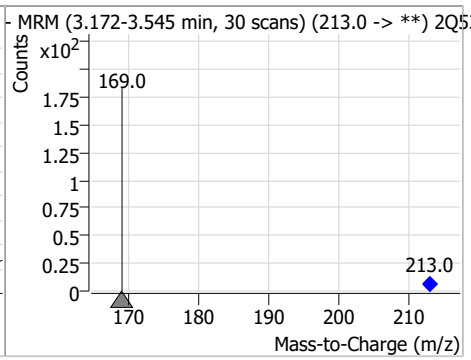




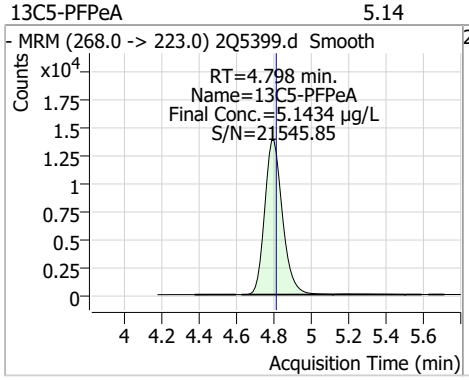
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.95	3.32	-0.02	2893				

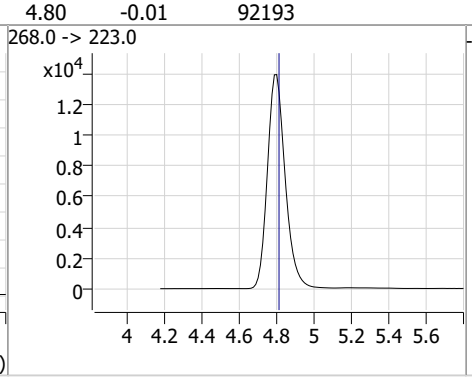


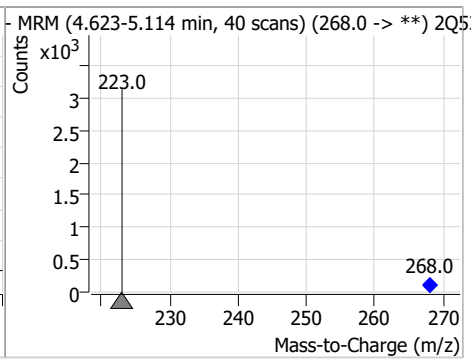




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.14	4.80	-0.01	92193				

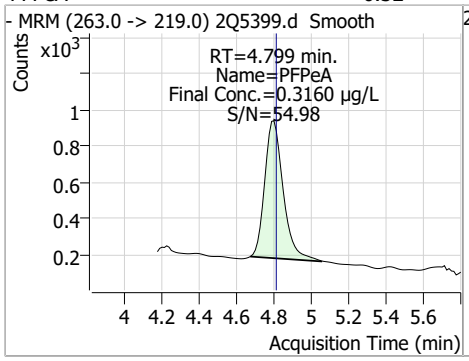


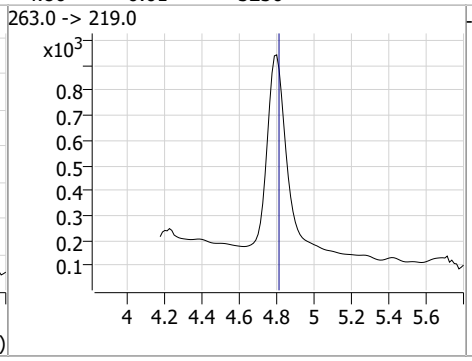


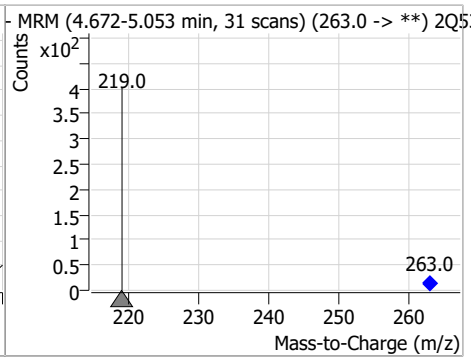


Perfluorinated Compounds by LC/MS/MS

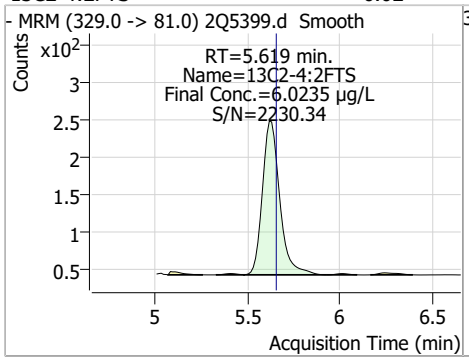
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.32	4.80	-0.01	5250				

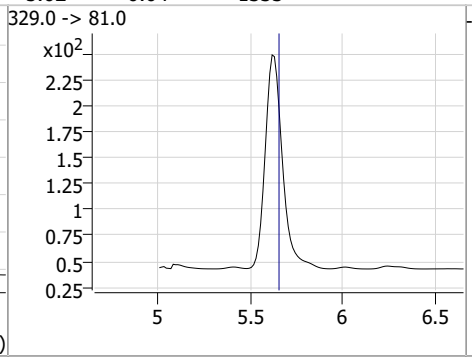


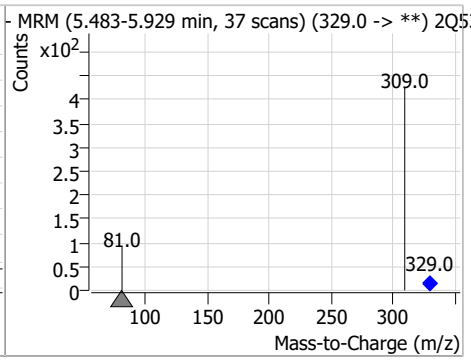




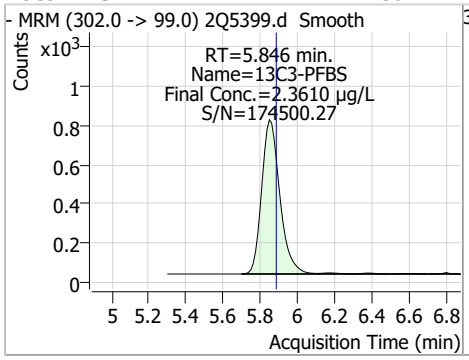
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	6.02	5.62	-0.04	1333				

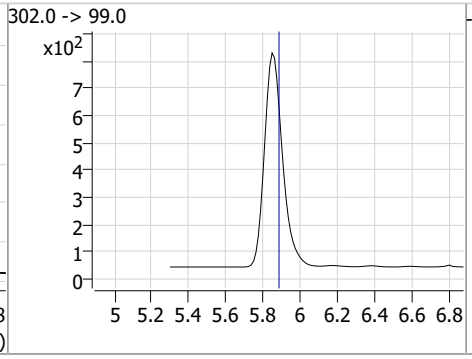


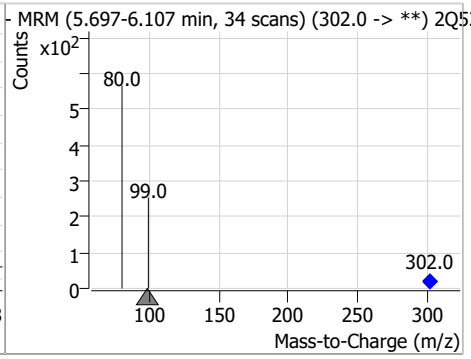




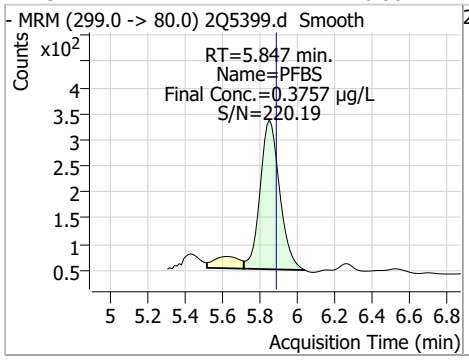
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.36	5.85	-0.04	5321				

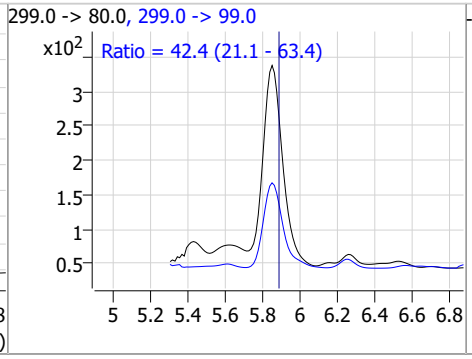


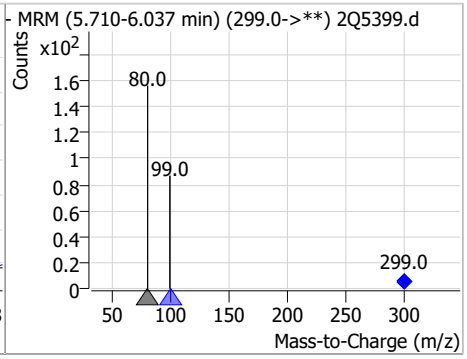




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.38	5.85	-0.04	2082	299.0 -> 99.0	42.4	21.1	63.4

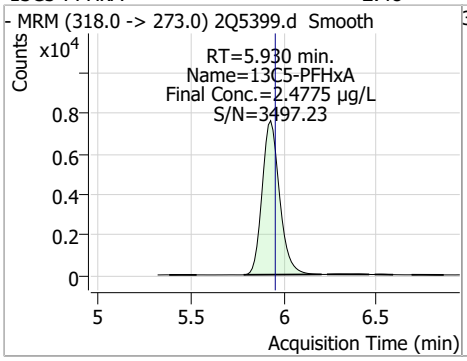


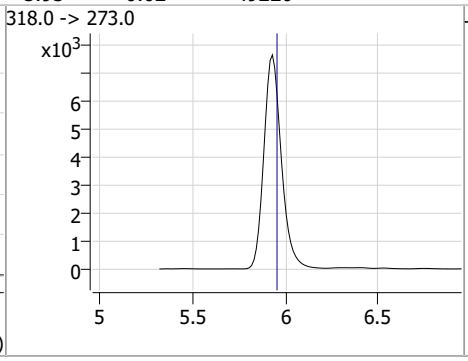


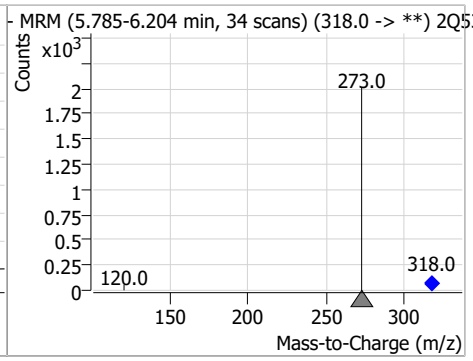


Perfluorinated Compounds by LC/MS/MS

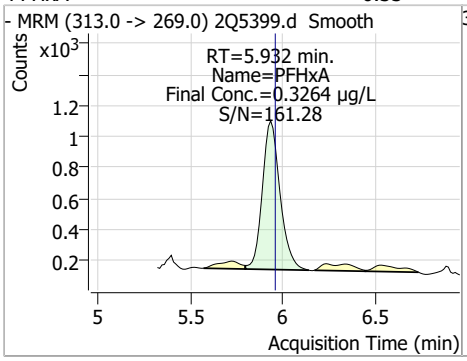
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.48	5.93	-0.02	49226				

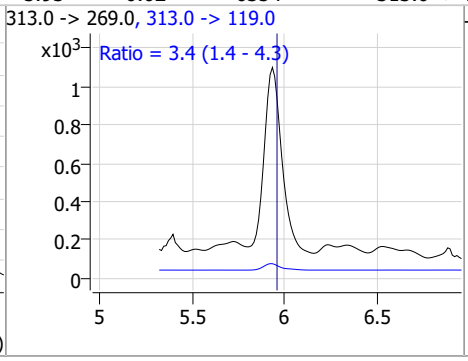


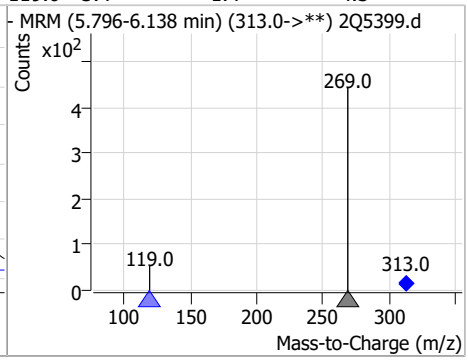




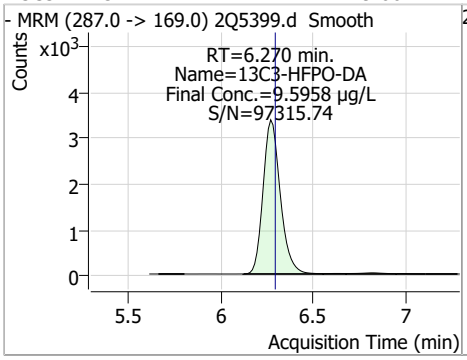
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.33	5.93	-0.02	6354	313.0 -> 119.0	3.4	1.4	4.3

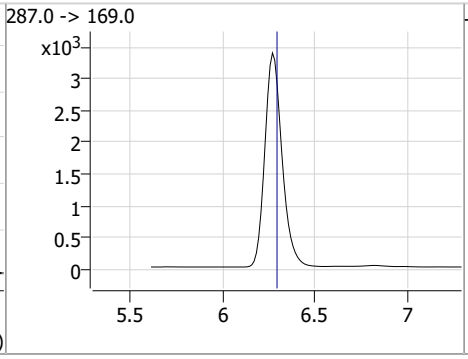


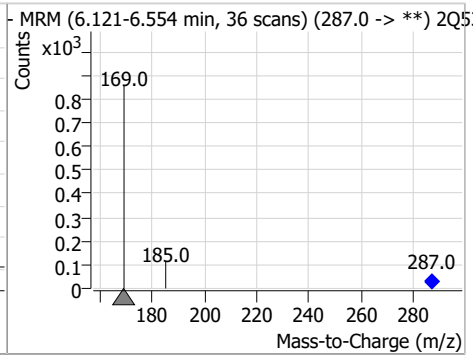




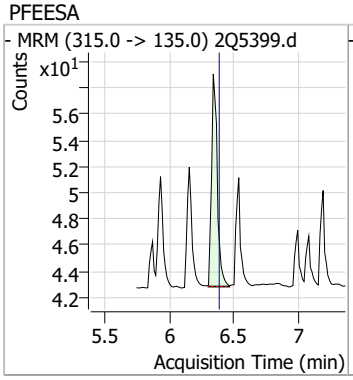
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.60	6.27	-0.02	21762				

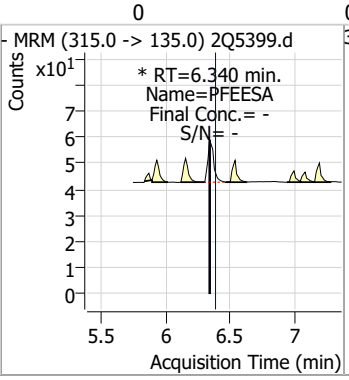


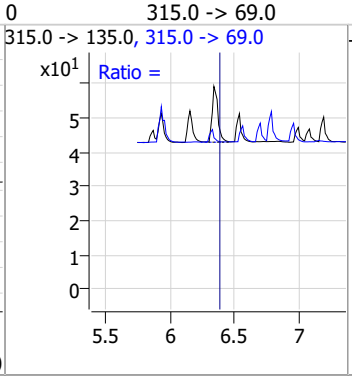


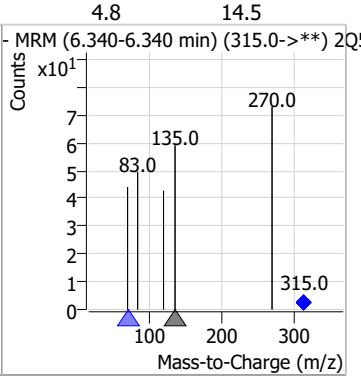


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



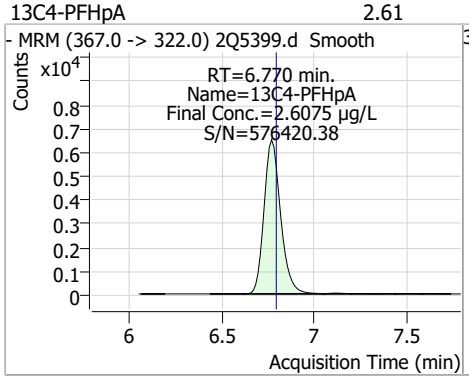


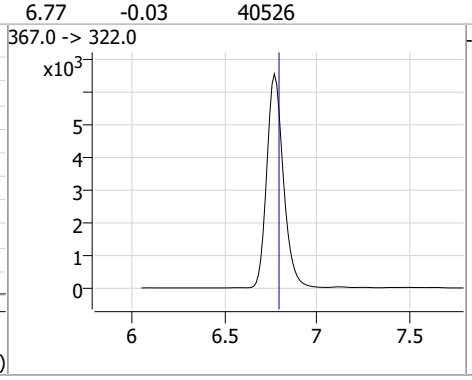


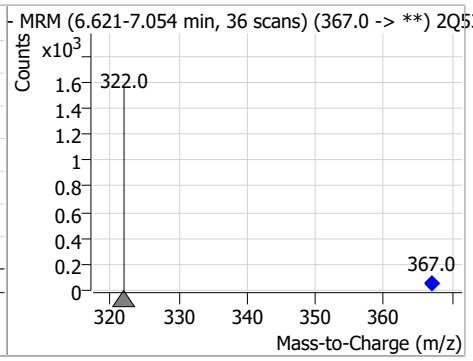


Perfluorinated Compounds by LC/MS/MS

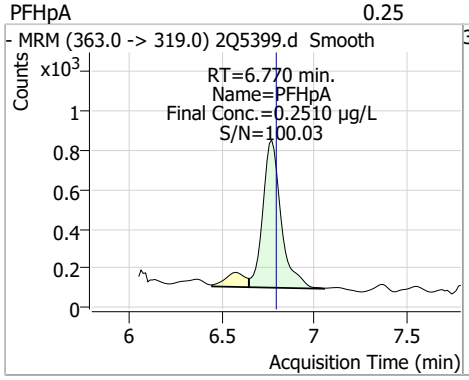
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.61	6.77	-0.03	40526				

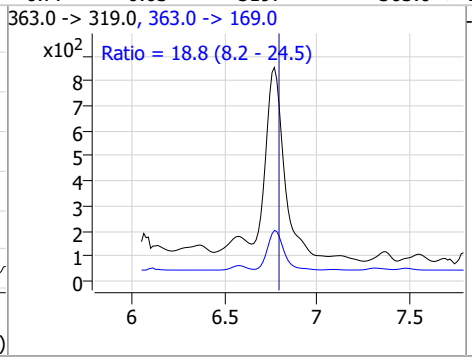


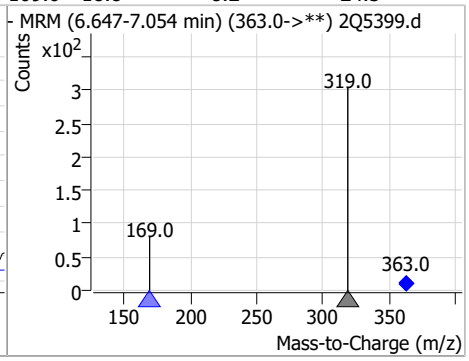




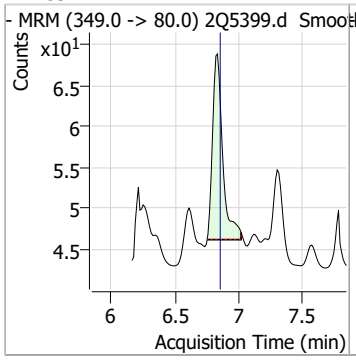
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.25	6.77	-0.03	5197	363.0 -> 169.0	18.8	8.2	24.5

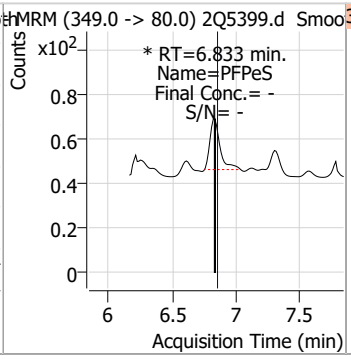


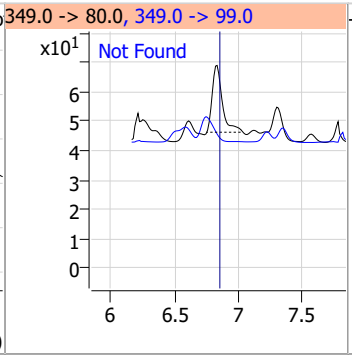


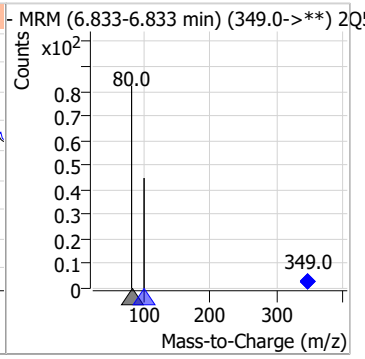


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0	0		0	349.0 -> 99.0		21.5	64.4

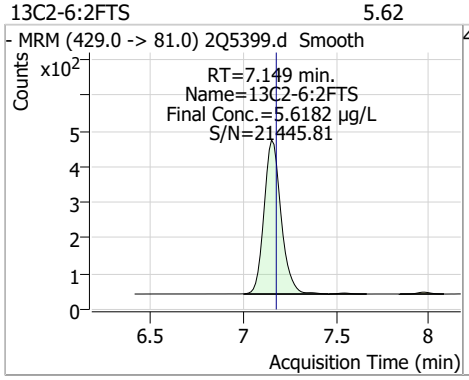


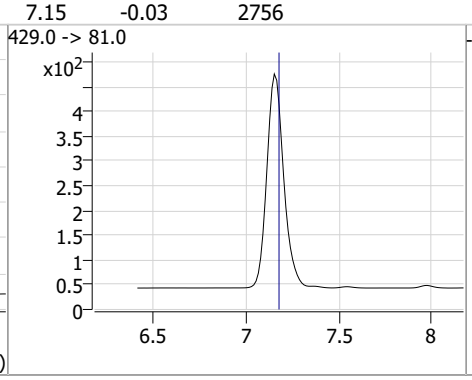


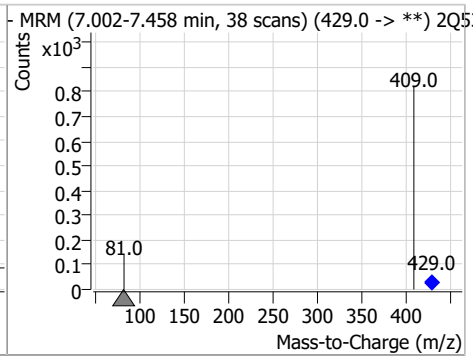




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.62	7.15	-0.03	2756				

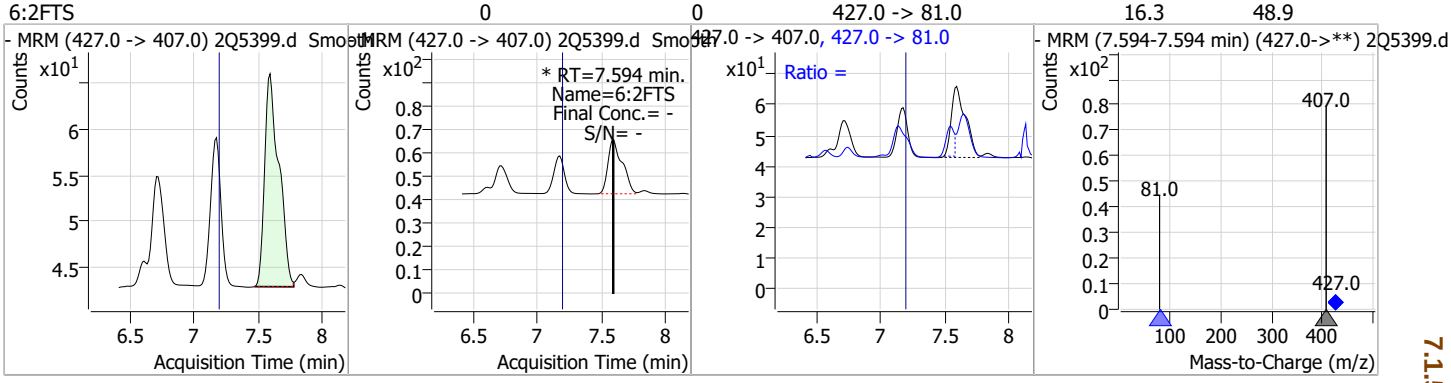




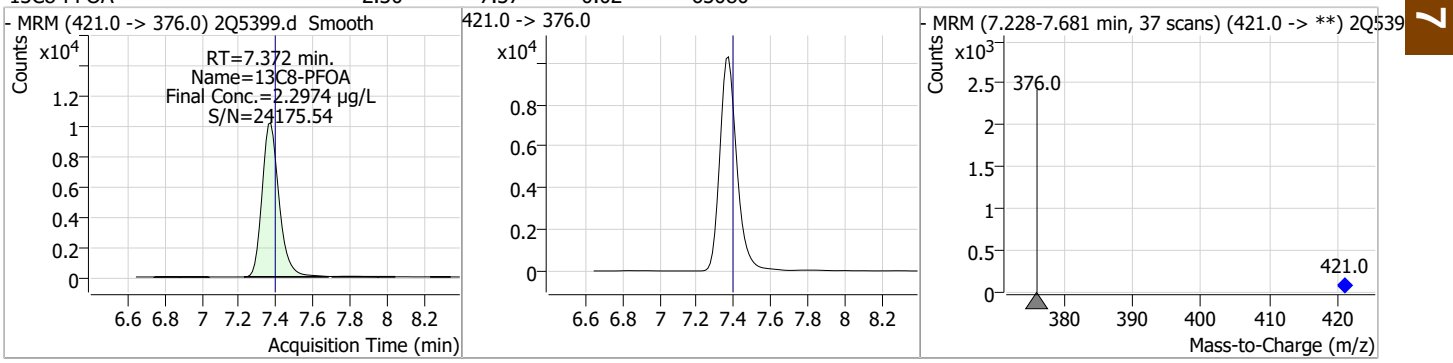


Perfluorinated Compounds by LC/MS/MS

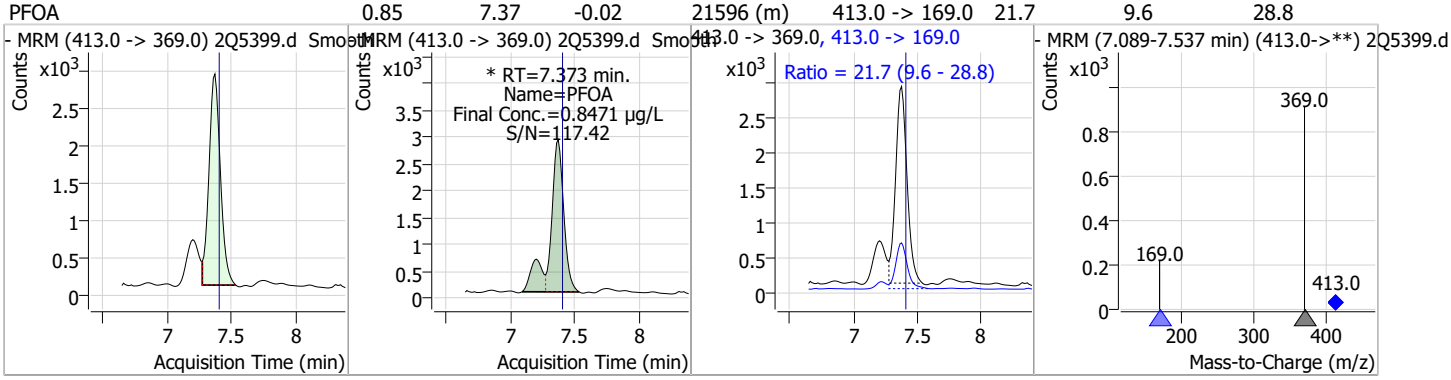
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9



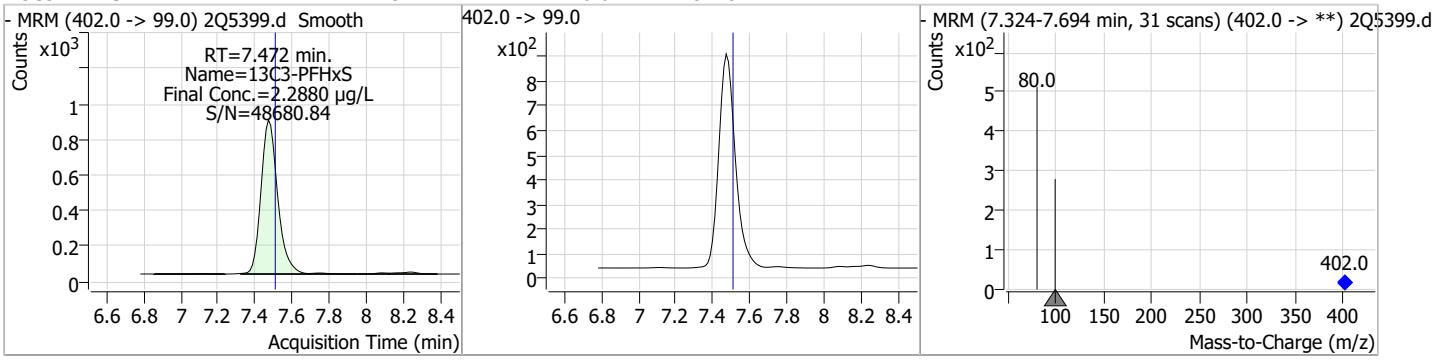
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.30	7.37	-0.02	65080				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.85	7.37	-0.02	21596 (m)	413.0 -> 169.0	21.7	9.6	28.8

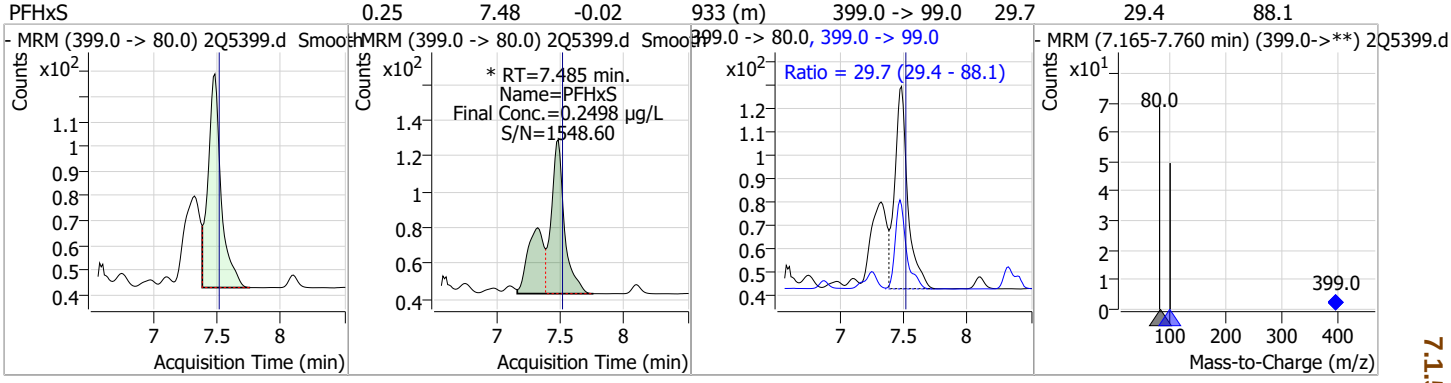


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.29	7.47	-0.04	5410				

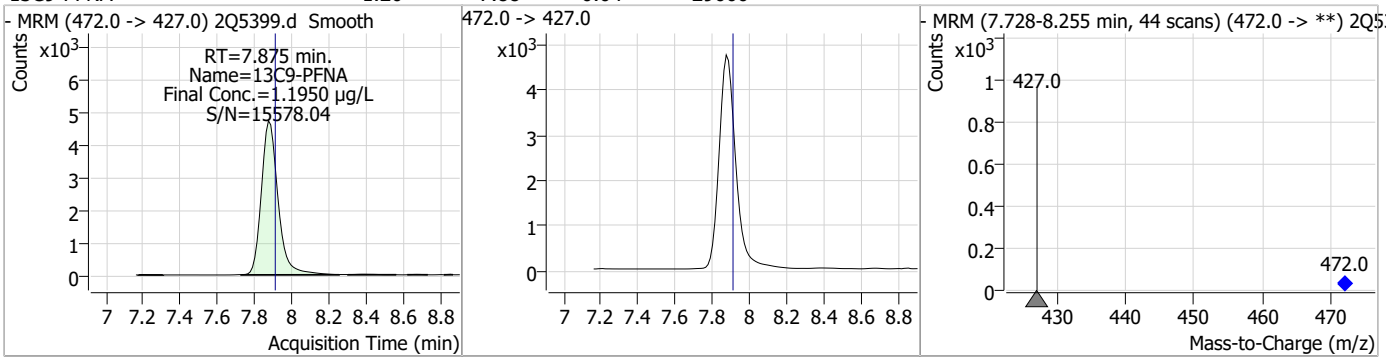


Perfluorinated Compounds by LC/MS/MS

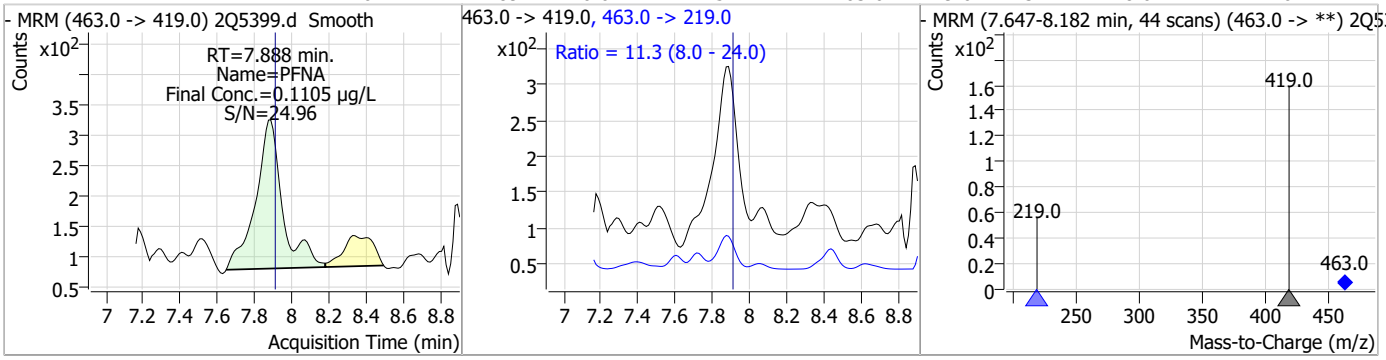
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.25	7.48	-0.02	933 (m)	399.0 -> 99.0	29.7	29.4	88.1



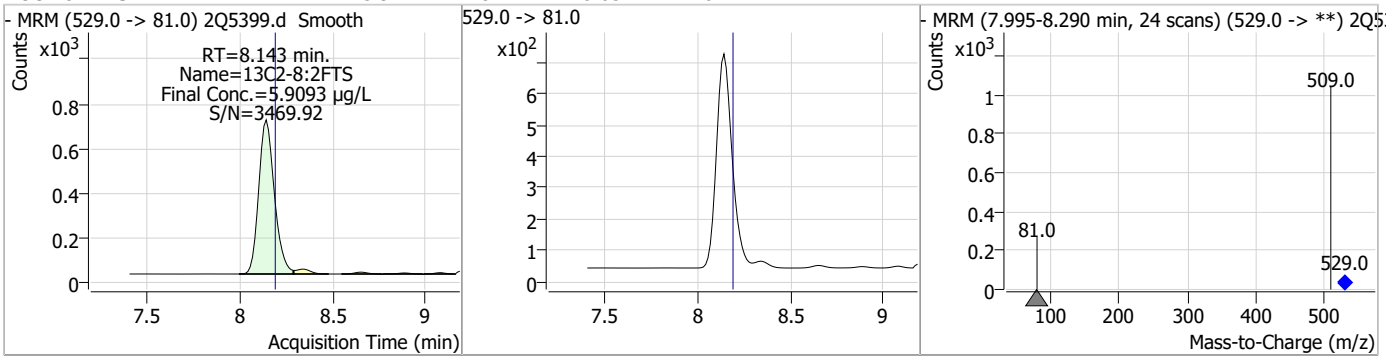
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.20	7.88	-0.04	29600				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.11	7.89	-0.02	2457	463.0 -> 219.0	11.3	8.0	24.0

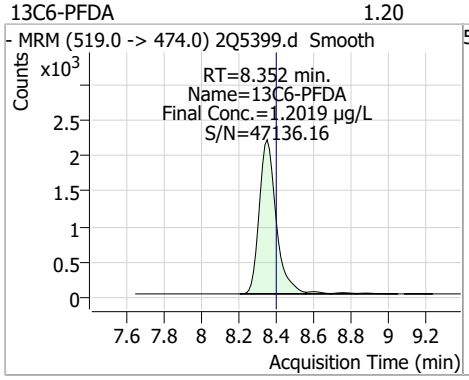


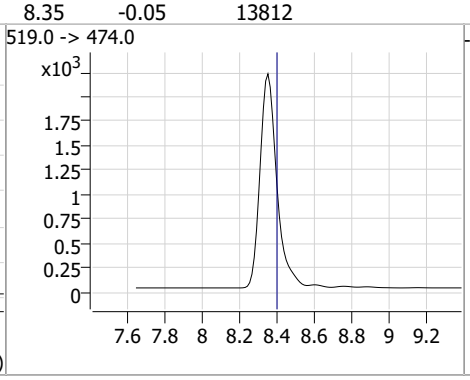
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.91	8.14	-0.05	4014				

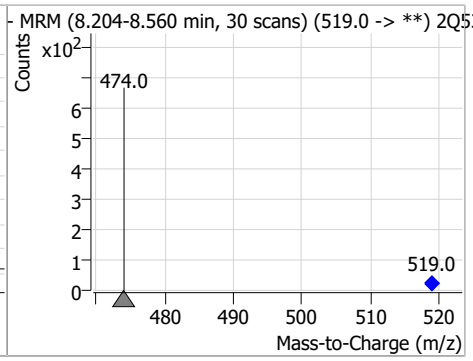


Perfluorinated Compounds by LC/MS/MS

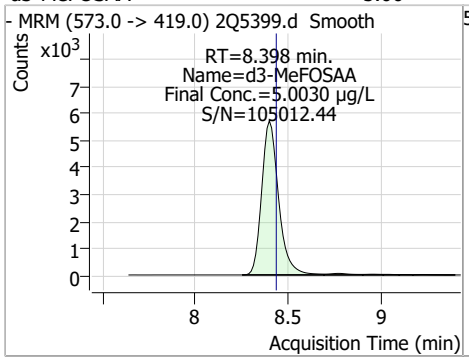
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.35	-0.05	13812				

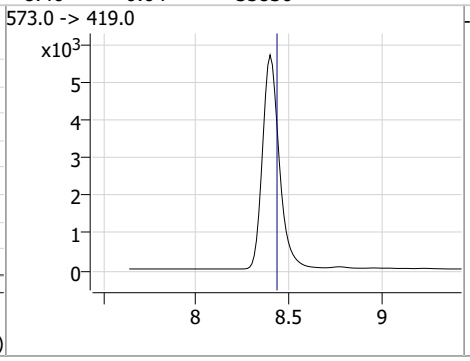


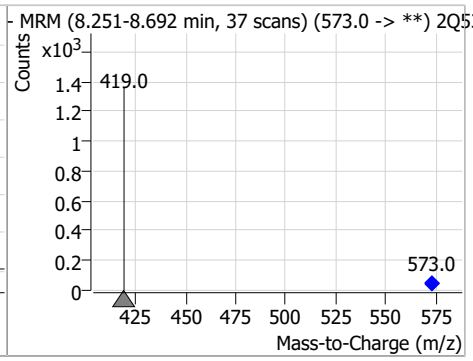




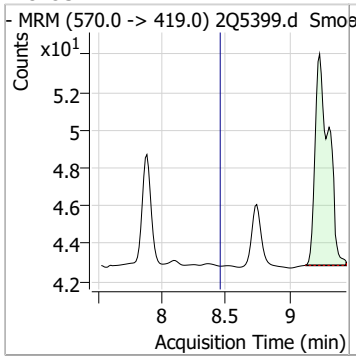
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.00	8.40	-0.04	35836				

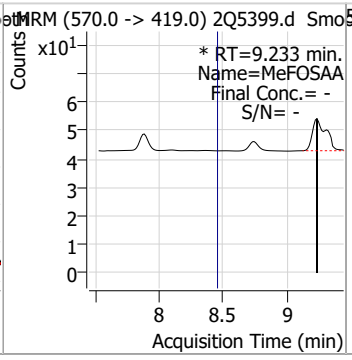


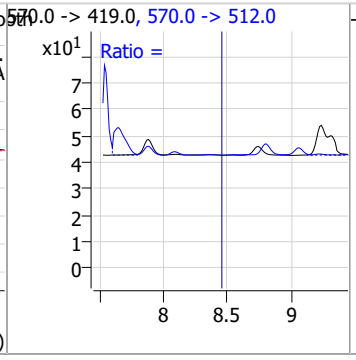


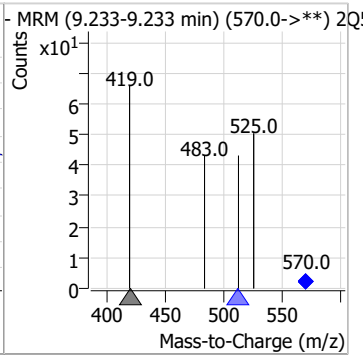


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA		0		0	570.0 -> 512.0		17.9	53.7

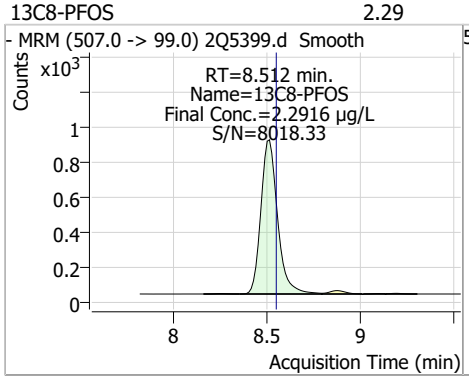


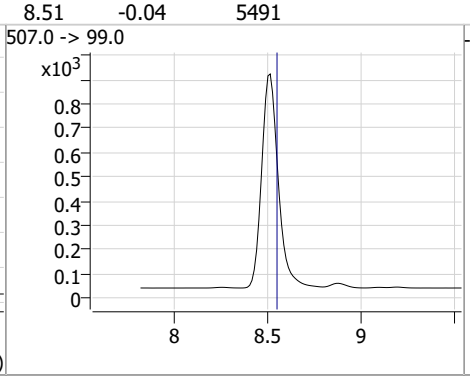


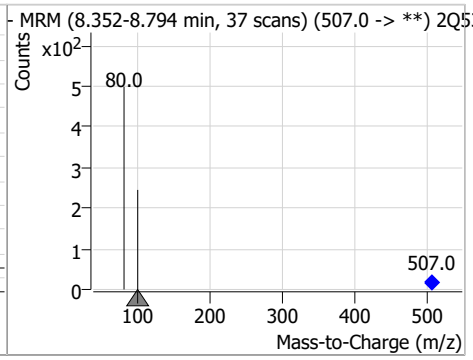




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.29	8.51	-0.04	5491				

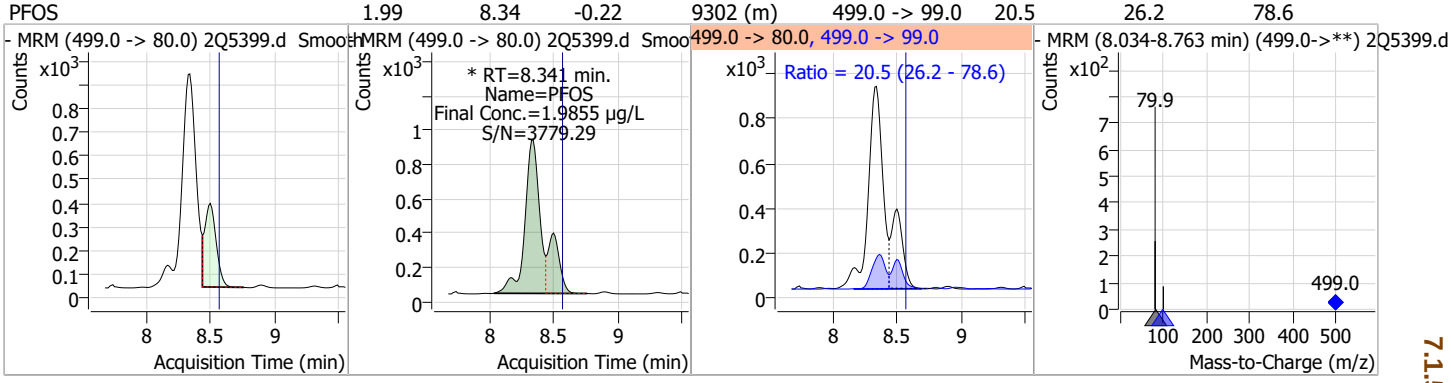




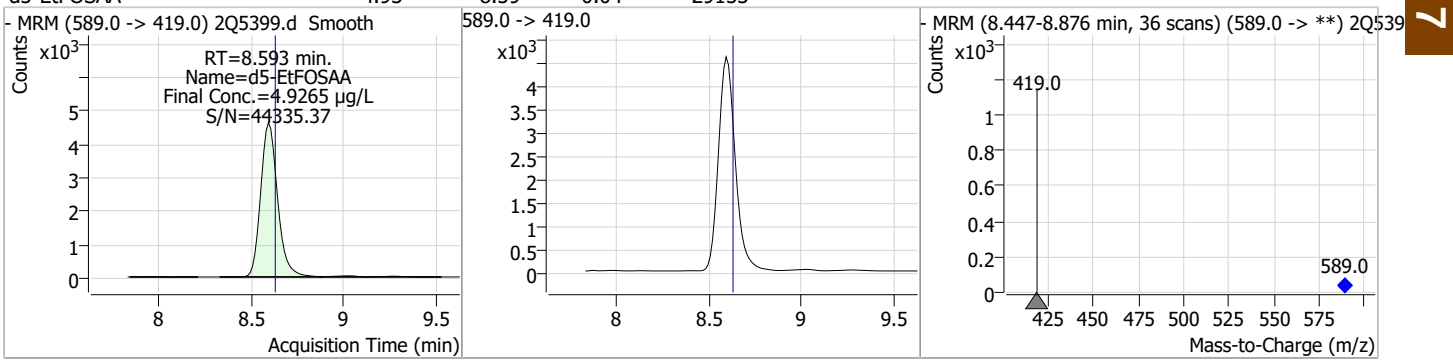


Perfluorinated Compounds by LC/MS/MS

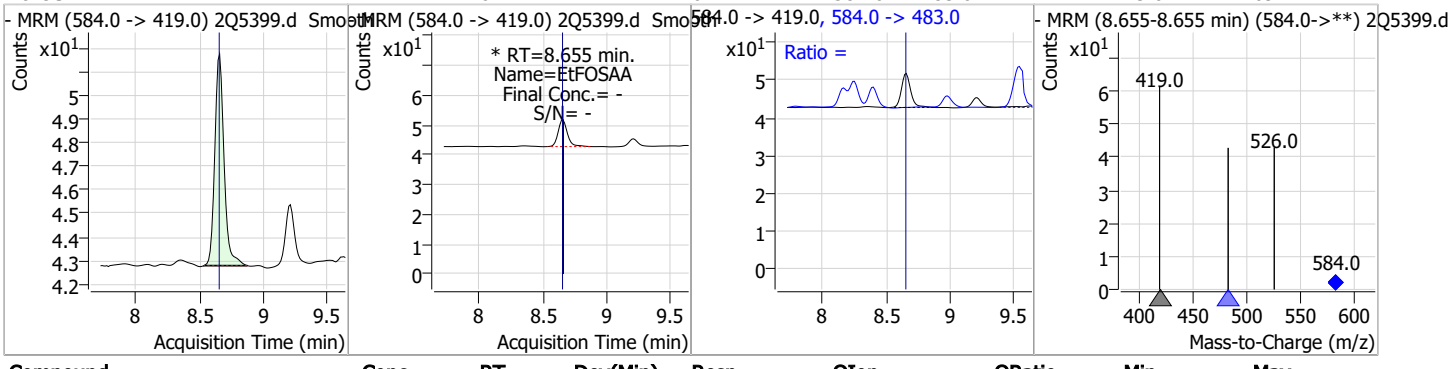
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	1.99	8.34	-0.22	9302 (m)	499.0 -> 99.0	20.5	26.2	78.6



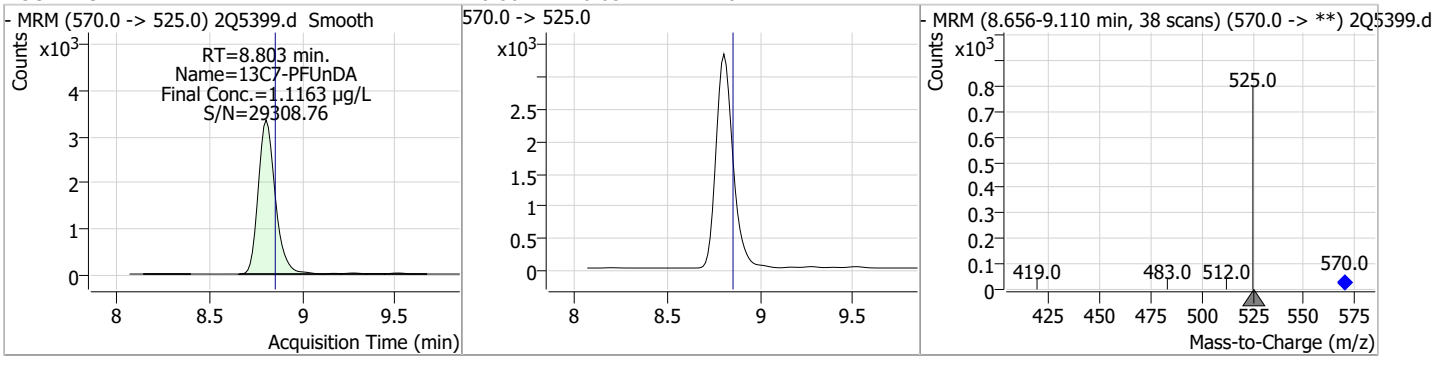
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.93	8.59	-0.04	29153				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0			0	584.0 -> 483.0		23.0	69.1

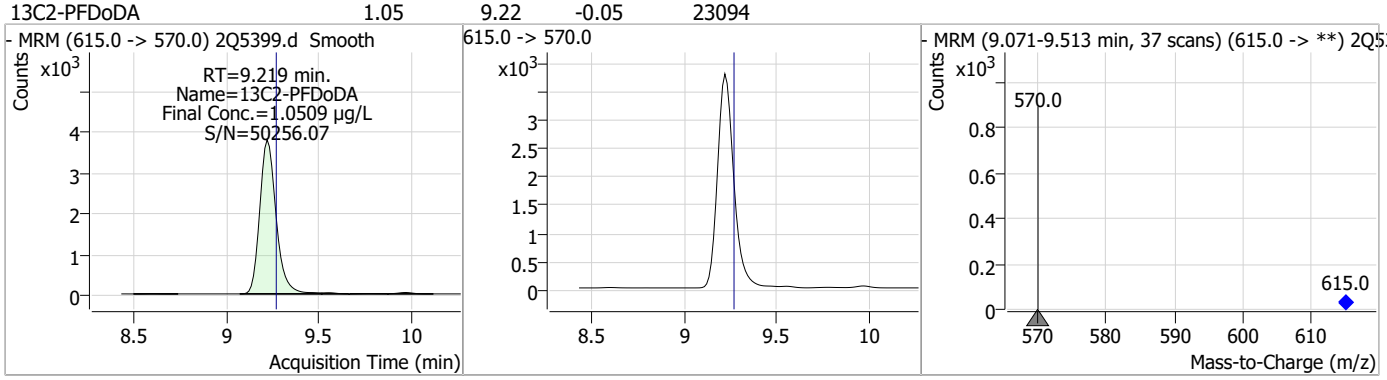


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.12	8.80	-0.05	21162				

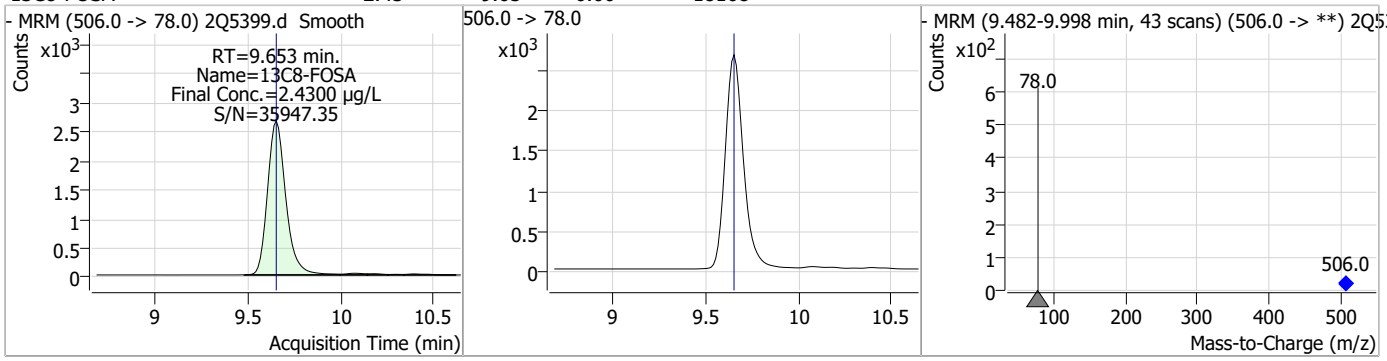


Perfluorinated Compounds by LC/MS/MS

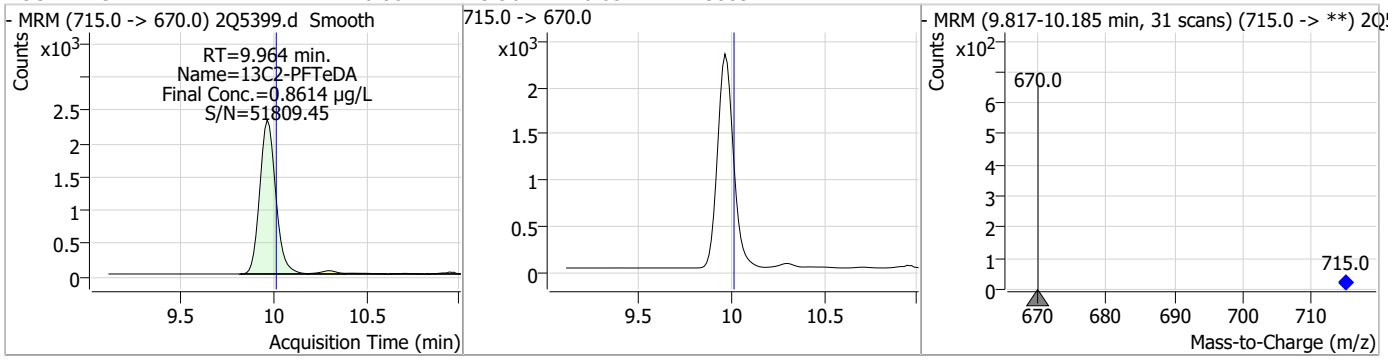
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.05	9.22	-0.05	23094				



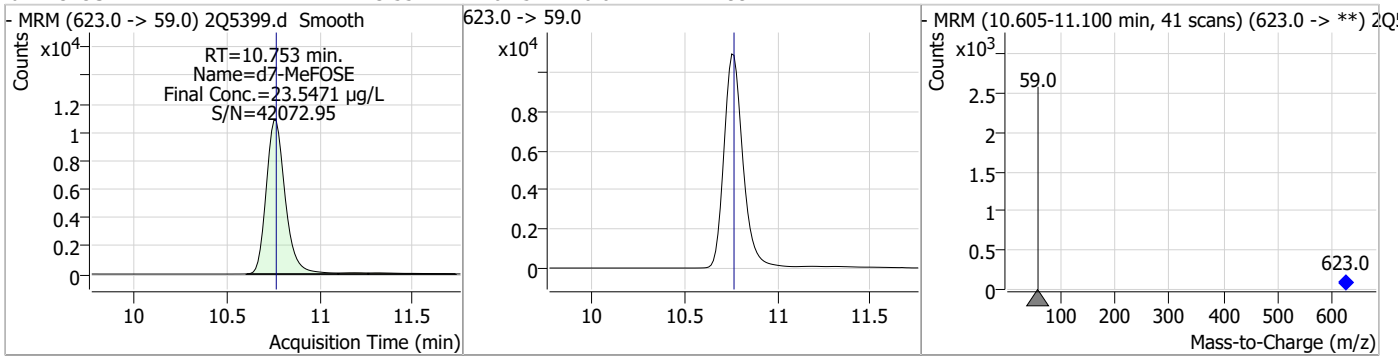
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.43	9.65	0.00	18108				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.86	9.96	-0.05	13883				

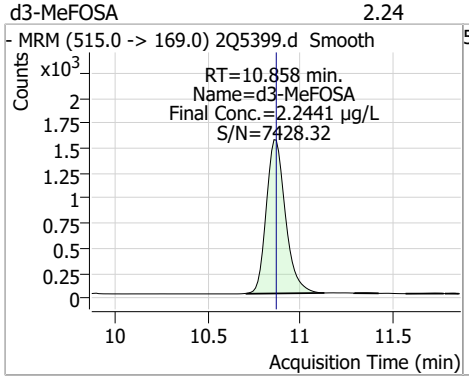


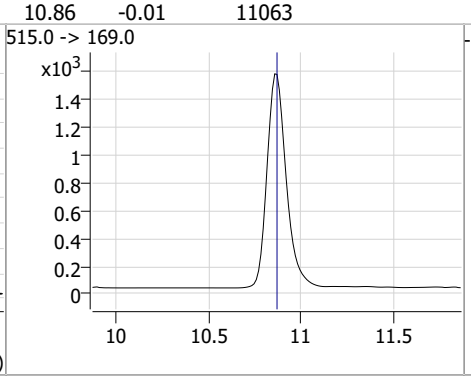
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.55	10.75	-0.01	77199				

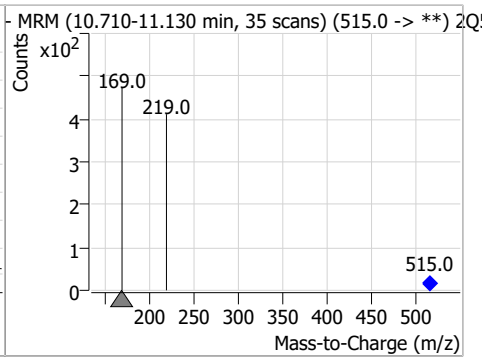


Perfluorinated Compounds by LC/MS/MS

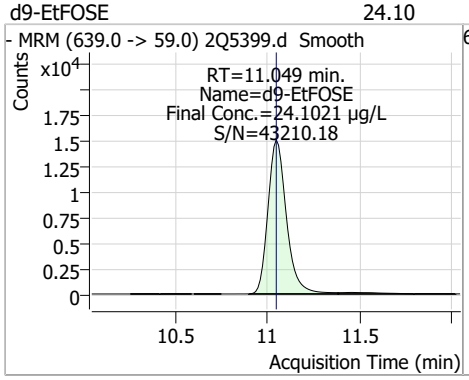
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.24	10.86	-0.01	11063				

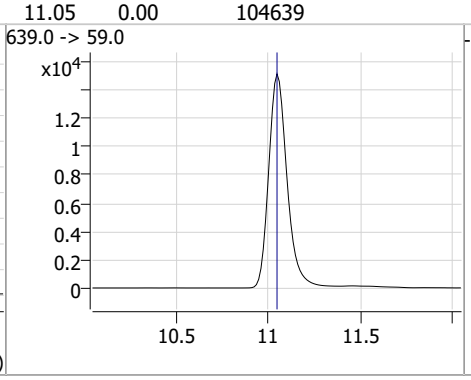


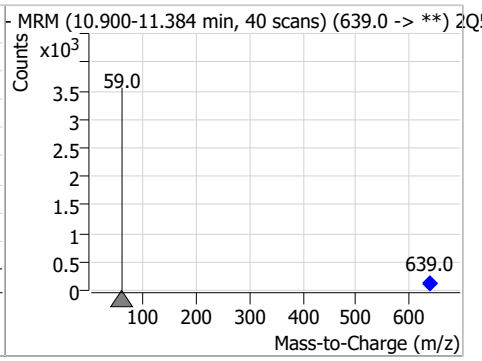




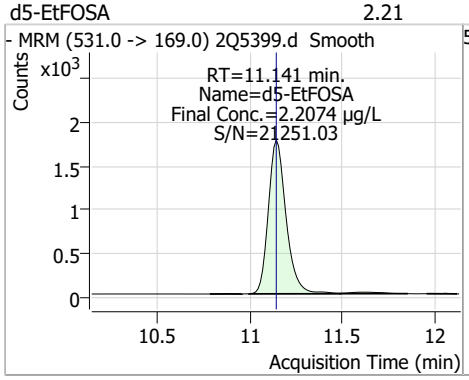
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.10	11.05	0.00	104639				

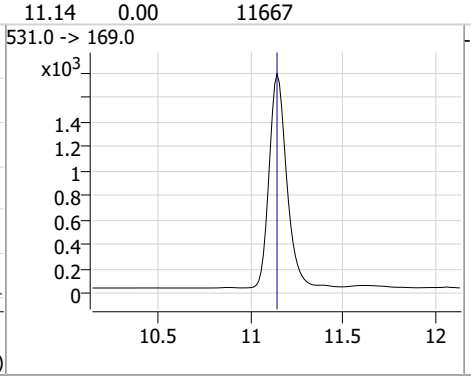


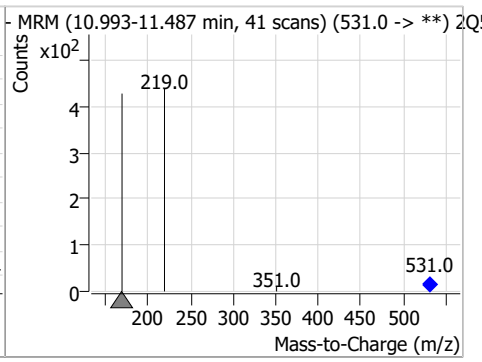




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.21	11.14	0.00	11667				







7.1.5

7

Manual Integration Approval Summary

Sample Number: JD77804-5
Lab FileID: 2Q5399.D
Injection Time: 12/02/23 05:00
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.49	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.34	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5400.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/2/2023 5:15:54 AM
Sample Name	:	JD77804-6
Vial	:	P3-A1
DA Method File	:	T2Q95.batch.bin
Batch Name	:	T2Q96.batch.bin
Sample Information	:	OP50811,T2Q96,526,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.327	217.0 -> 172.0	125357	10.00	µg/L	-0.013
M5-PFPeA	4.798	268.0 -> 223.0	87802	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	47854	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	36363	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	64612	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	29943	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12905	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	18472	1.25	µg/L	-0.049
M2-PFDoDA	9.231	615.0 -> 570.0	21650	1.25	µg/L	-0.037
M2-PFTeDA	9.964	715.0 -> 670.0	13997	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	18793	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5956	2.50	µg/L	-0.037
		302.0 -> 80.0	13070			
M3-PFHxS	7.472	402.0 -> 99.0	5787	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6175	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1004	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2620	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4303	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	34982	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22110	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	31196	5.00	µg/L	-0.037
M7-MeFOSE	10.766	623.0 -> 59.0	73833	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	98686	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10802	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	9585	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	10695	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	66289	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	5806	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	63288	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	25511	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	29464	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	45905	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1004	4.74	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.8%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2620	5.58	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4303	6.61	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 132.3%		
13C2-PFDoDA	9.231	615.0 -> 570.0	21650	1.06	µg/L	-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	13997	0.94	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 75.0%		
13C3-PFBS	5.846	302.0 -> 99.0	5956	2.76	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 110.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5787	2.56 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.2%		
13C4-PFBA	3.327	217.0 -> 172.0	125357	8.40 µg/L		-0.013
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 84.0%		
13C4-PFHpA	6.770	367.0 -> 322.0	36363	2.44 µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.5%		
13C5-PFHxA	5.930	318.0 -> 273.0	47854	2.51 µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.4%		
13C5-PFPeA	4.798	268.0 -> 223.0	87802	5.10 µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.1%		
13C6-PFDA	8.352	519.0 -> 474.0	12905	1.21 µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.0%		
13C7-PFUnDA	8.803	570.0 -> 525.0	18472	1.05 µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.1%		
13C8-FOSA	9.653	506.0 -> 78.0	18793	2.59 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.8%		
13C8-PFOA	7.360	421.0 -> 376.0	64612	2.47 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.6%		
13C8-PFOS	8.512	507.0 -> 99.0	6175	2.65 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.1%		
13C9-PFNA	7.875	472.0 -> 427.0	29943	1.30 µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 103.9%		
d3-MeFOSAA	8.398	573.0 -> 419.0	34982	5.03 µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.5%		
13C3-HFPO-DA	6.270	287.0 -> 169.0	22110	10.16 µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.6%		
d3-MeFOSA	10.871	515.0 -> 169.0	9585	2.00 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.0%		
d5-EtFOSAA	8.593	589.0 -> 419.0	31196	5.42 µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 108.5%		
d7-MeFOSE	10.766	623.0 -> 59.0	73833	23.17 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 92.7%		
d9-EtFOSE	11.049	639.0 -> 59.0	98686	23.39 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 93.6%		
d5-EtFOSA	11.141	531.0 -> 169.0	10802	2.10 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.1%		
Target Compounds						**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.		
		327.0 -> 81.0				
6:2FTS	7.149	427.0 -> 407.0	309	0.08 µg/L	#	66
		427.0 -> 81.0	41			
8:2FTS	-	527.0 -> 507.0	-	N.D.		
		527.0 -> 81.0				
EtFOSAA	-	584.0 -> 419.0	-	N.D.		
		584.0 -> 483.0				
FOSA	-	498.0 -> 78.0	-	N.D.		
		498.0 -> 478.0				
MeFOSAA	-	570.0 -> 419.0	-	N.D.		
		570.0 -> 512.0				
PFBA	3.321	213.0 -> 169.0	712	0.23 µg/L		100
PFBS	5.860	299.0 -> 80.0	188	0.03 µg/L		69
		299.0 -> 99.0	42			
PFDA	-	513.0 -> 469.0	-	N.D.		
		513.0 -> 219.0				
PFDoDA	-	613.0 -> 569.0	-	N.D.		
		613.0 -> 319.0				

Perfluorinated Compounds by LC/MS/MS

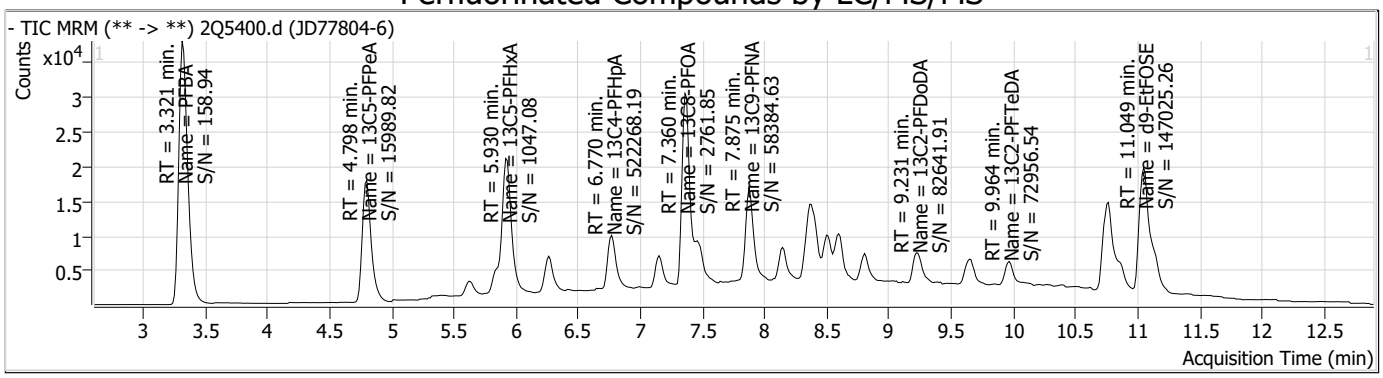
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.920	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.876	463.0 -> 419.0	546	0.02	µg/L		97
		463.0 -> 219.0	95				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	0		µg/L	m	1
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.799	263.0 -> 219.0	990	0.06	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.279	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

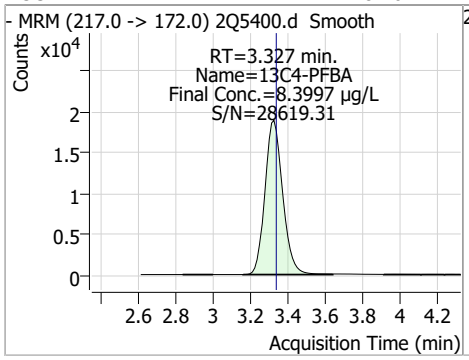
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

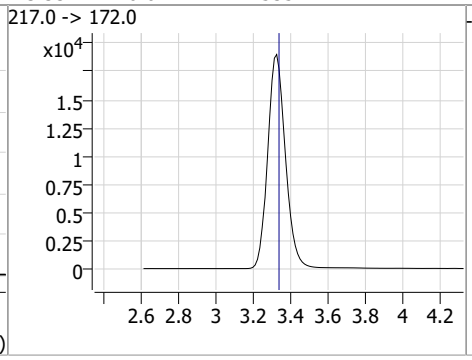
= Qualifier out of range, m = manually integrated, + = Area summed

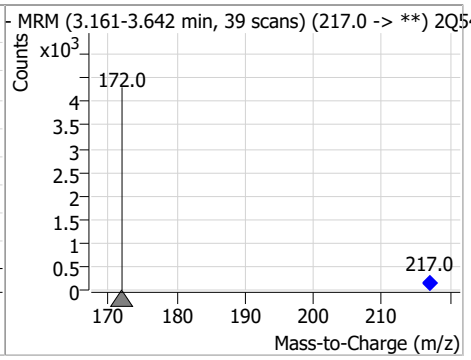
Perfluorinated Compounds by LC/MS/MS



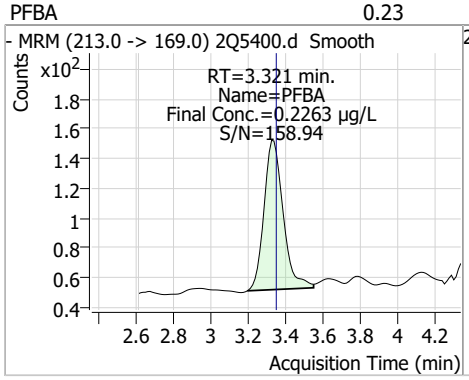
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	8.40	3.33	-0.01	125357				

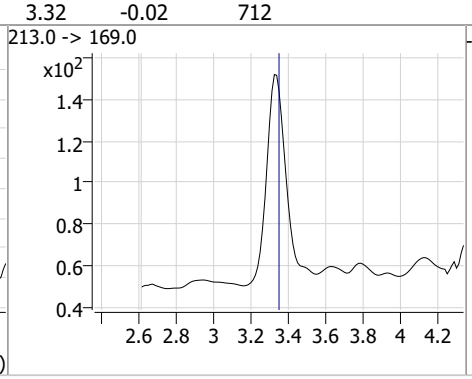


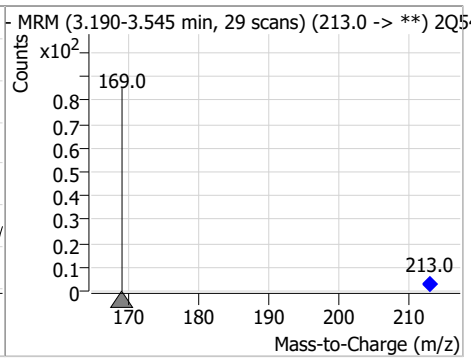




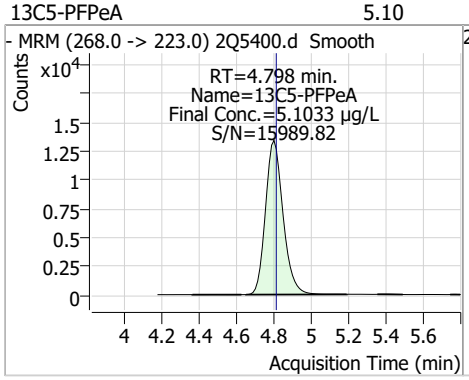
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.23	3.32	-0.02	712				

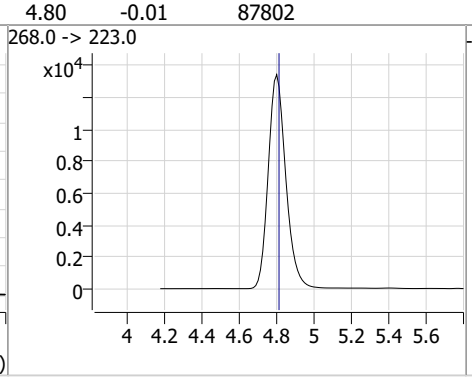


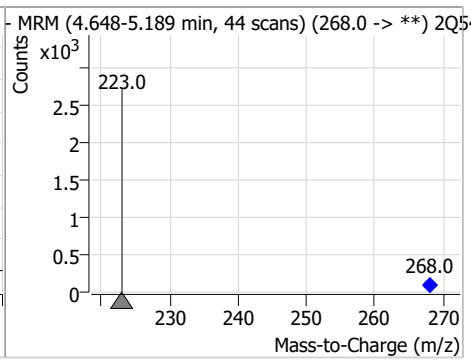




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.10	4.80	-0.01	87802				

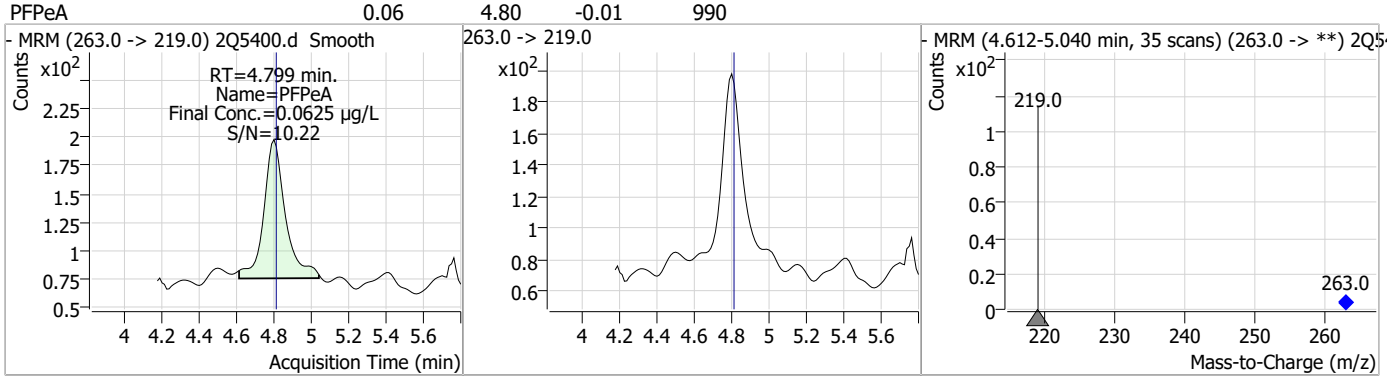




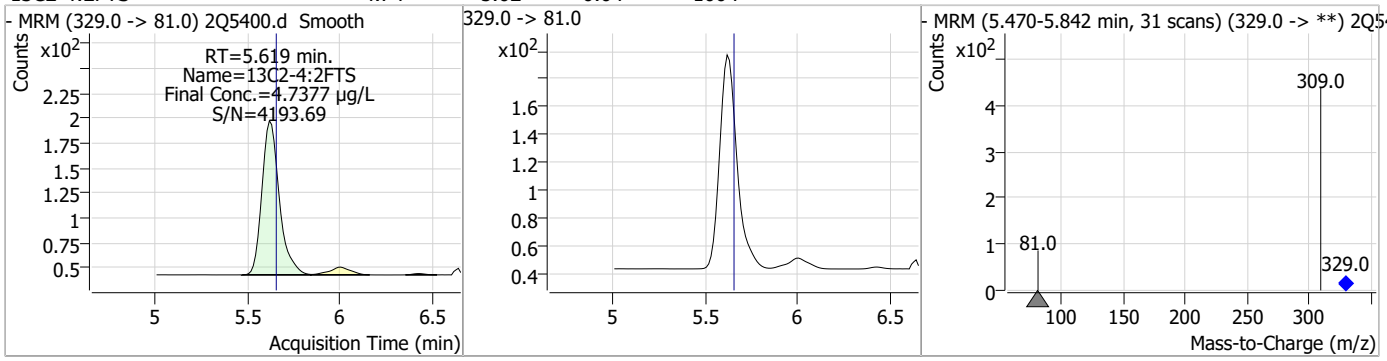


Perfluorinated Compounds by LC/MS/MS

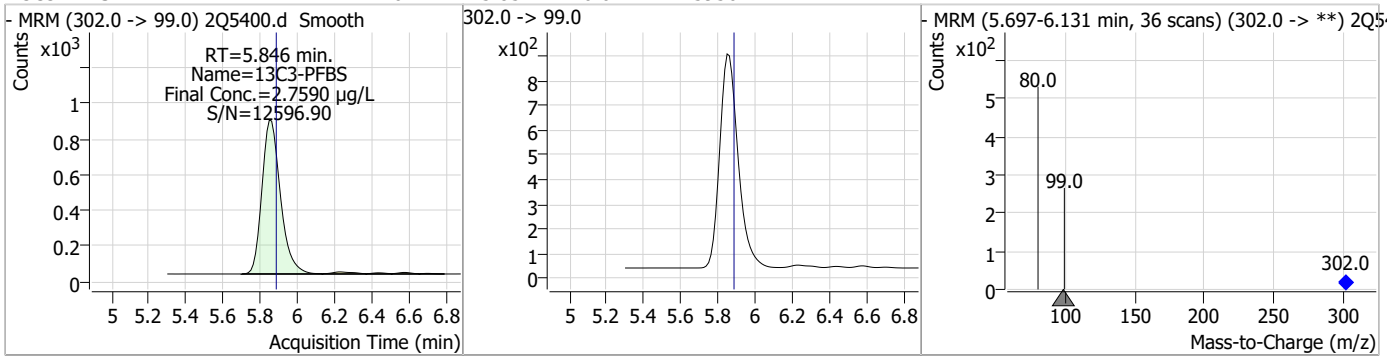
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.06	4.80	-0.01	990				



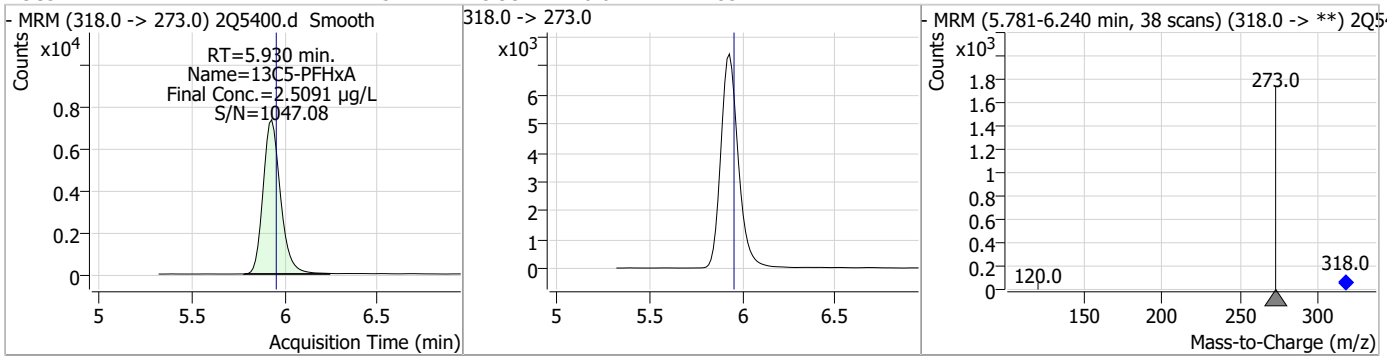
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.74	5.62	-0.04	1004				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.76	5.85	-0.04	5956				

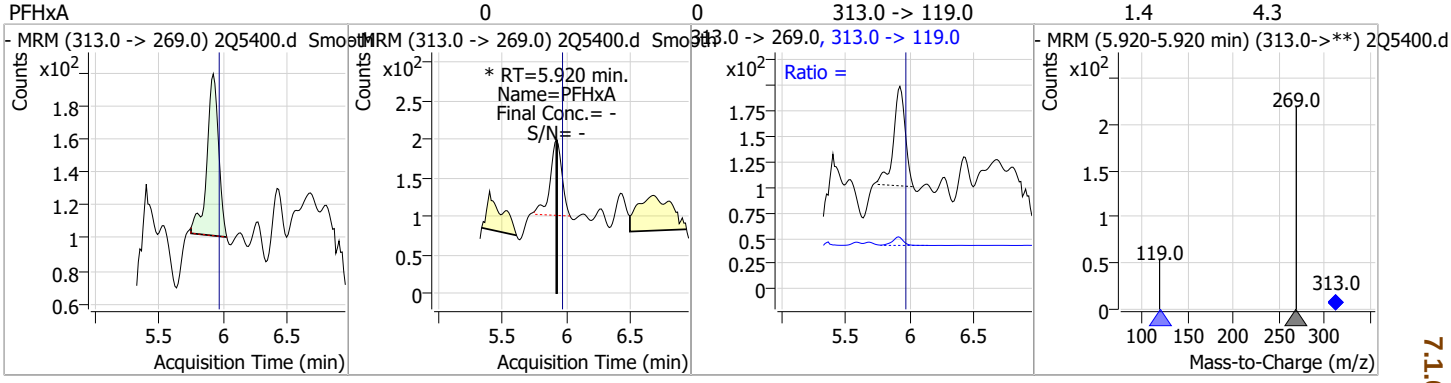


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.51	5.93	-0.02	47854				

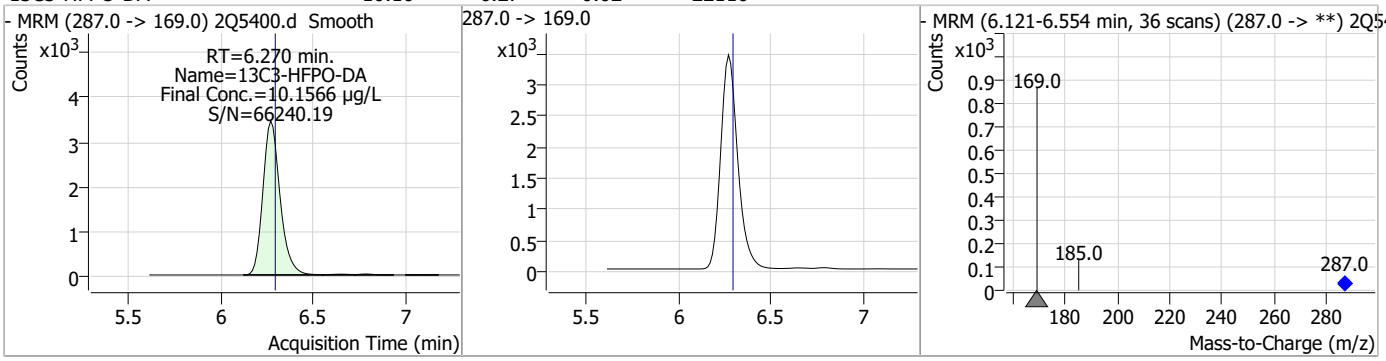


Perfluorinated Compounds by LC/MS/MS

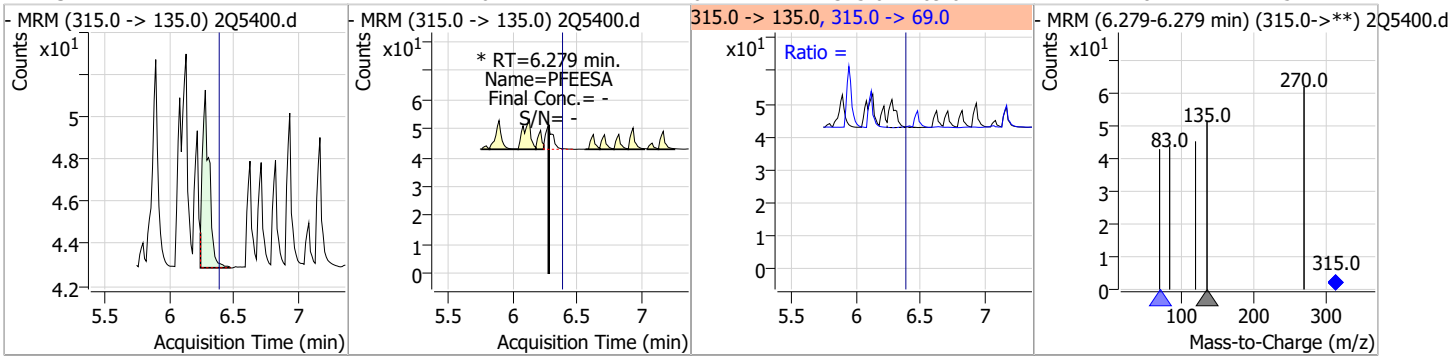
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3



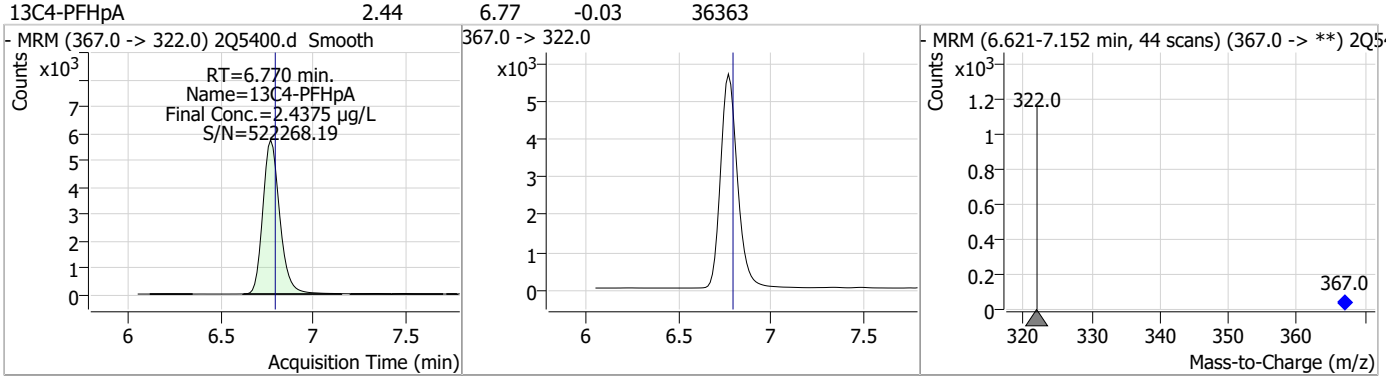
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.16	6.27	-0.02	22110				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

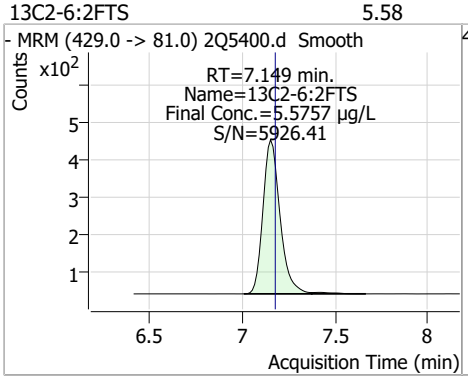


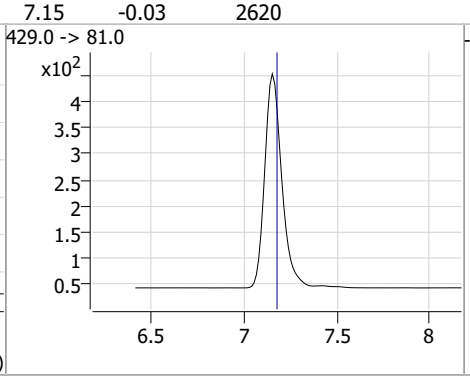
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.44	6.77	-0.03	36363				

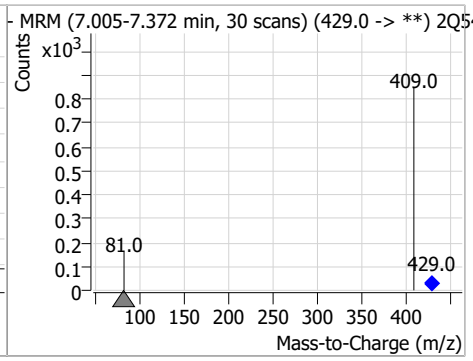


Perfluorinated Compounds by LC/MS/MS

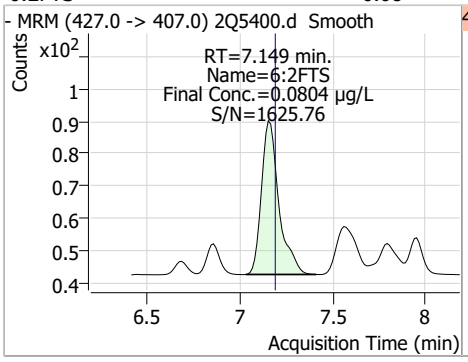
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.58	7.15	-0.03	2620				

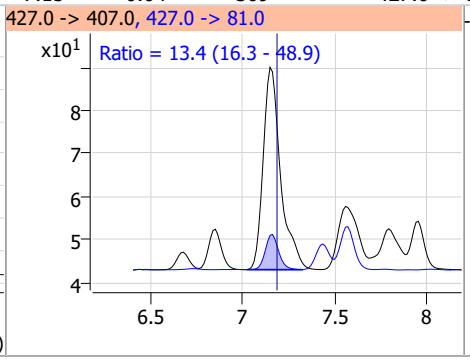


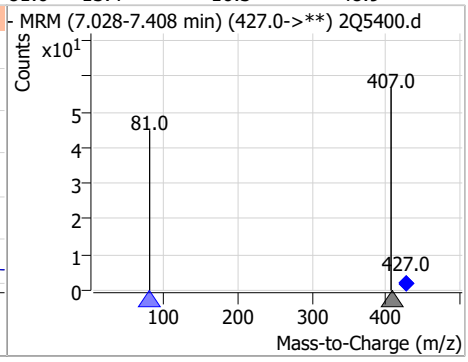




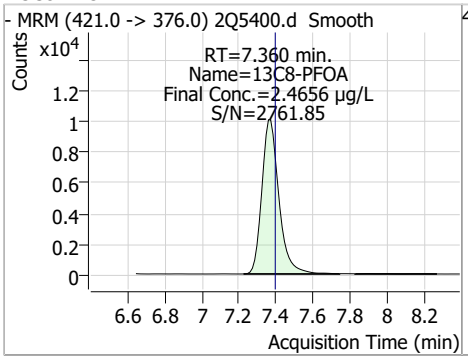
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.08	7.15	-0.04	309	427.0 -> 81.0	13.4	16.3	48.9

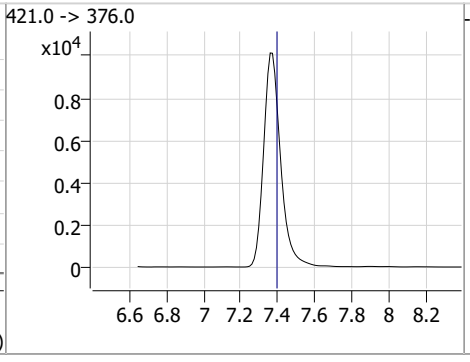


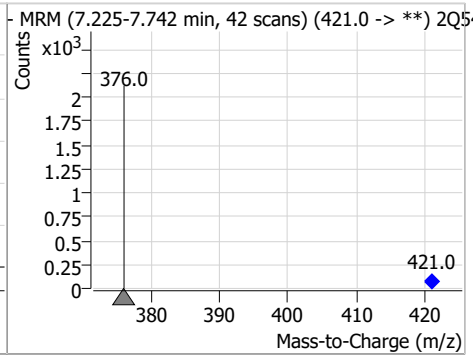




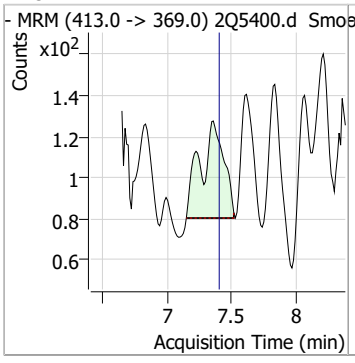
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.47	7.36	-0.04	64612				

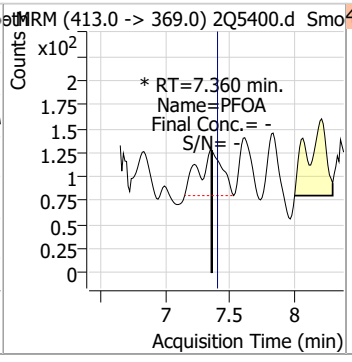


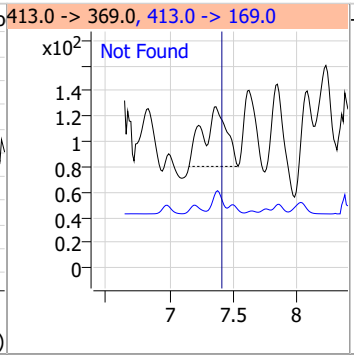


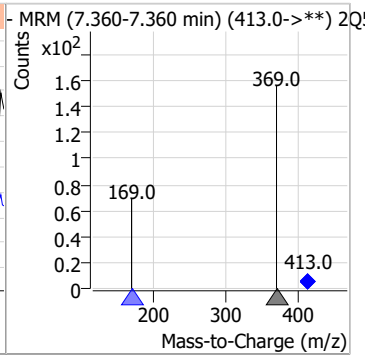


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA		0		0	413.0 -> 169.0		9.6	28.8



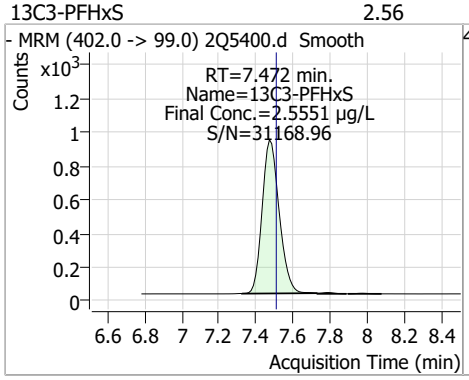


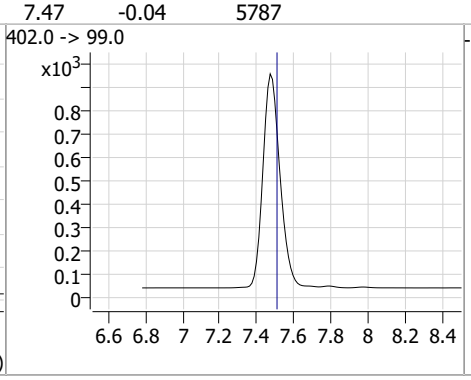


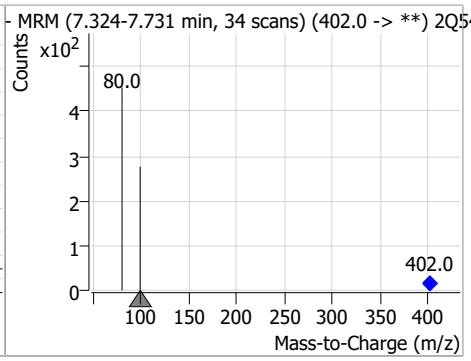


Perfluorinated Compounds by LC/MS/MS

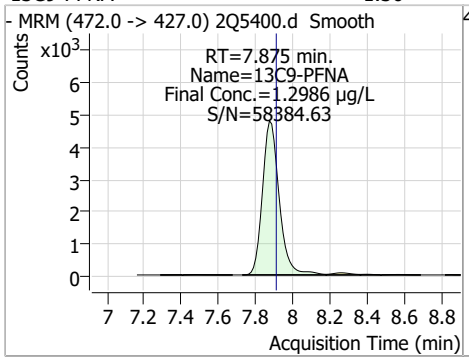
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.56	7.47	-0.04	5787				

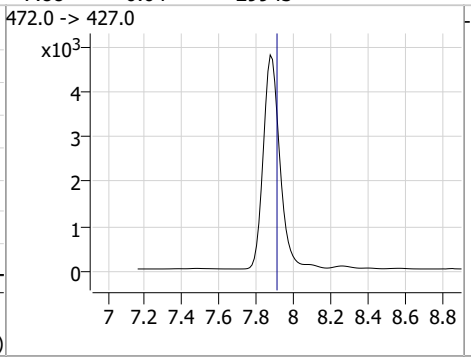


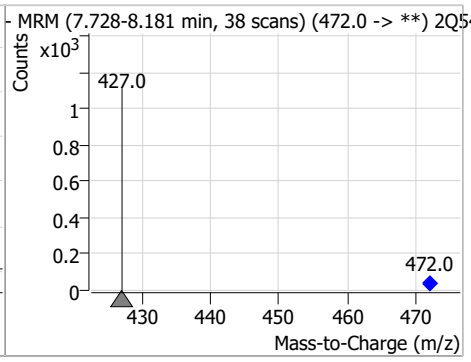




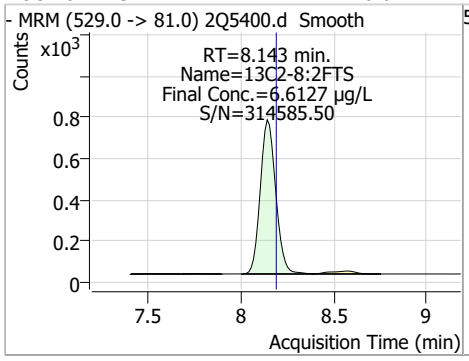
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.30	7.88	-0.04	29943				

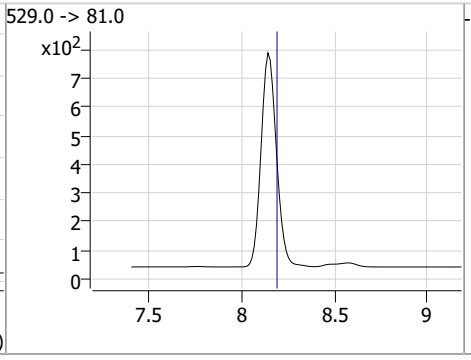


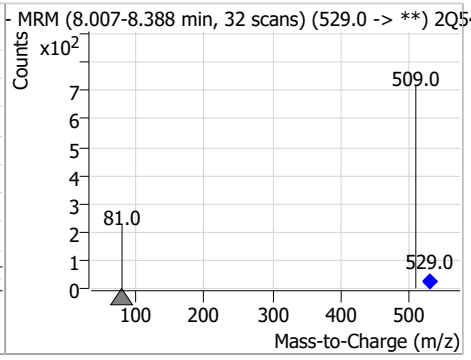




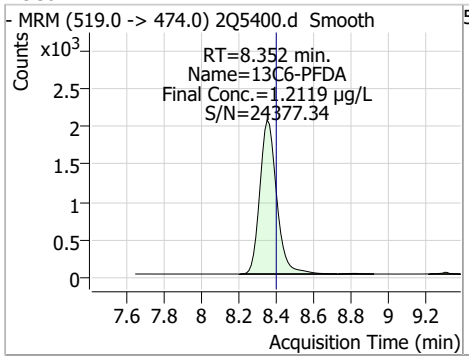
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.61	8.14	-0.05	4303				

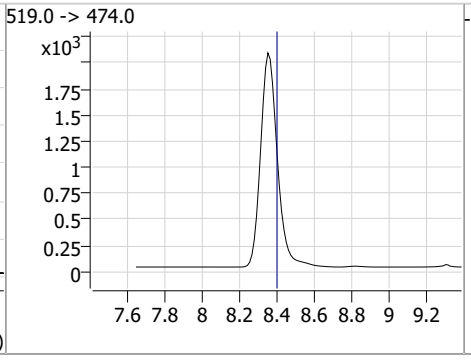


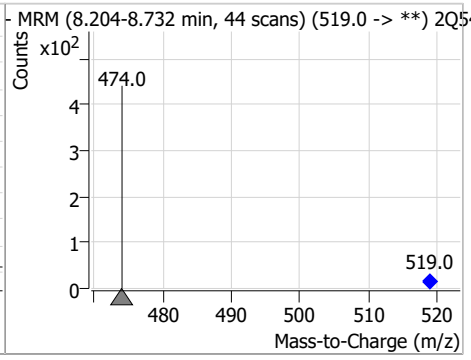




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.21	8.35	-0.05	12905				

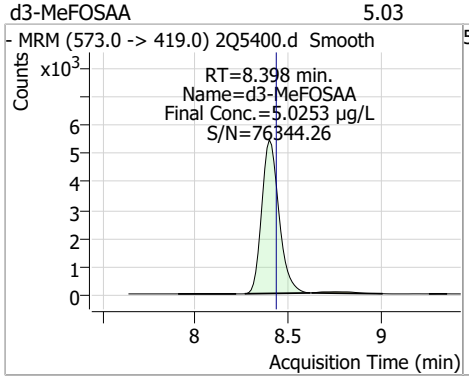


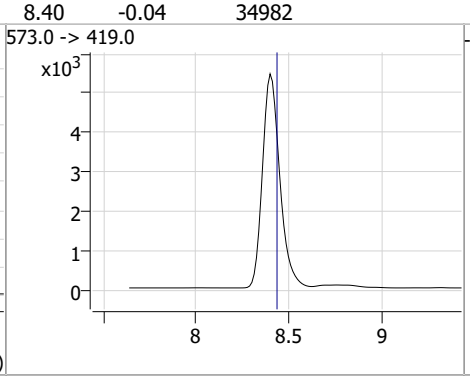


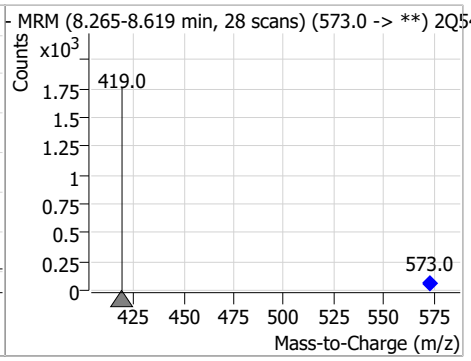


Perfluorinated Compounds by LC/MS/MS

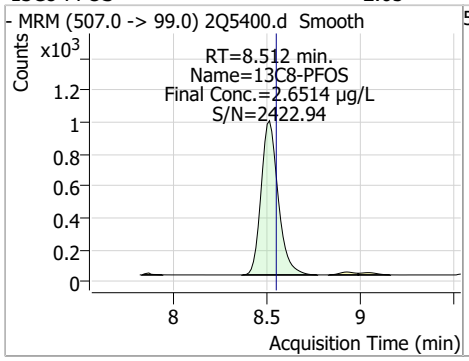
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.03	8.40	-0.04	34982				

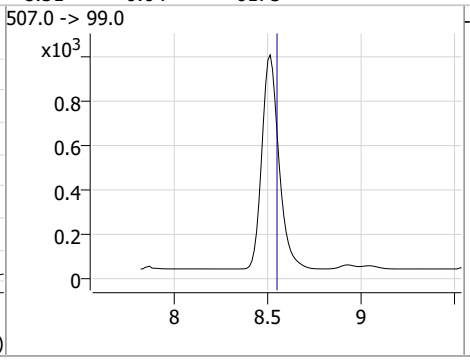


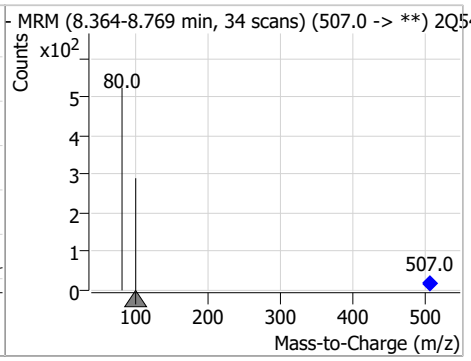




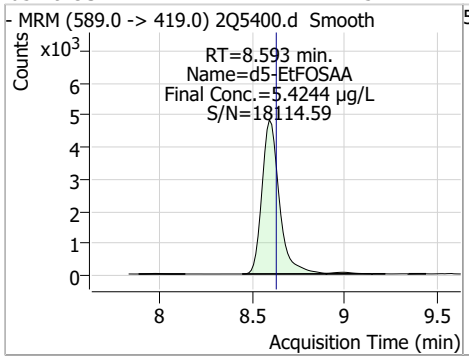
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.65	8.51	-0.04	6175				

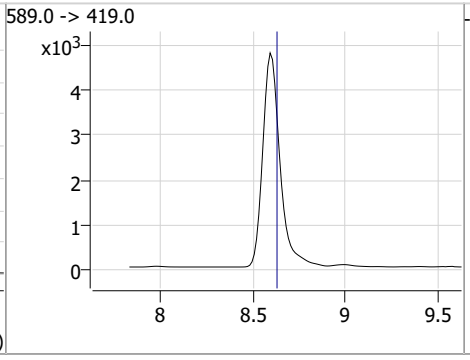


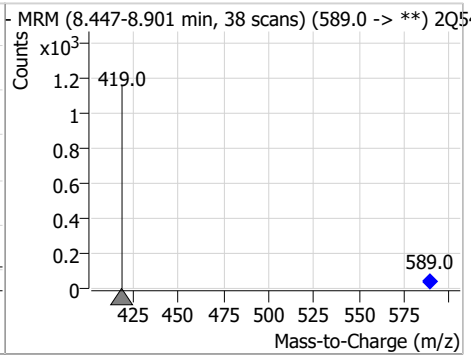




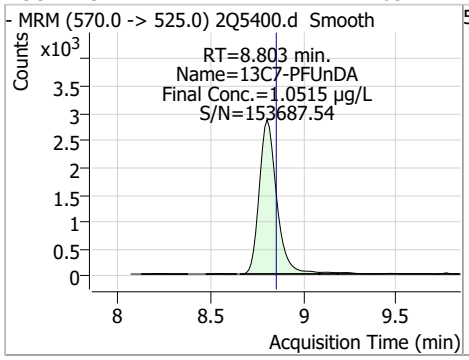
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.42	8.59	-0.04	31196				

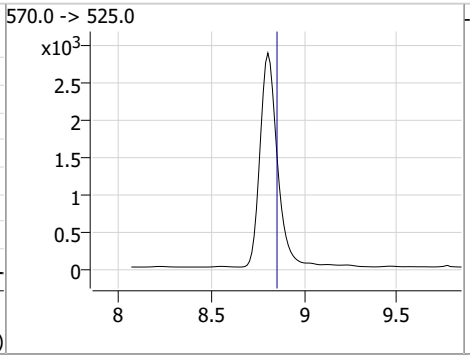


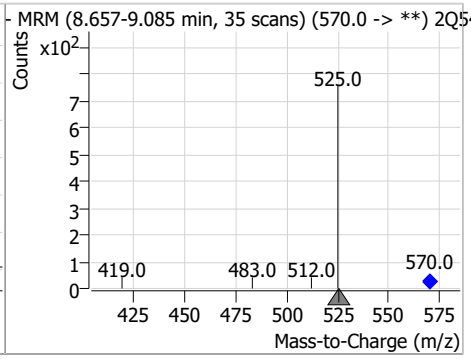




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.05	8.80	-0.05	18472				

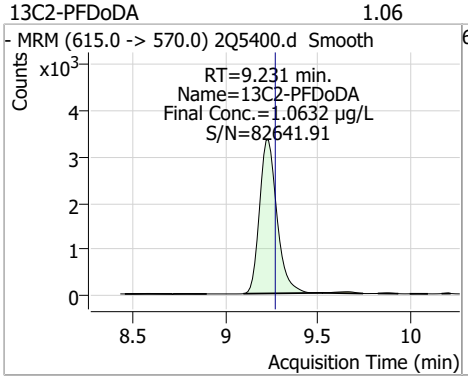


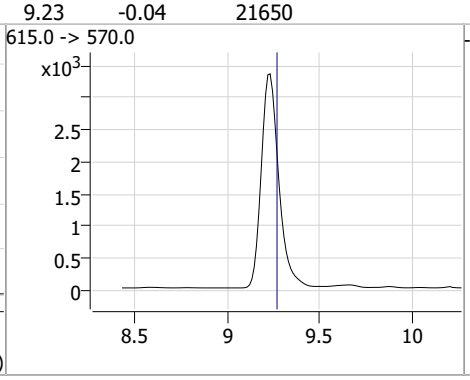


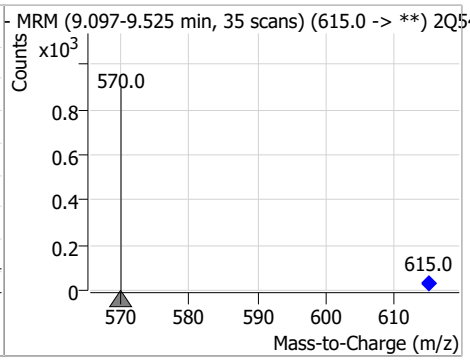


Perfluorinated Compounds by LC/MS/MS

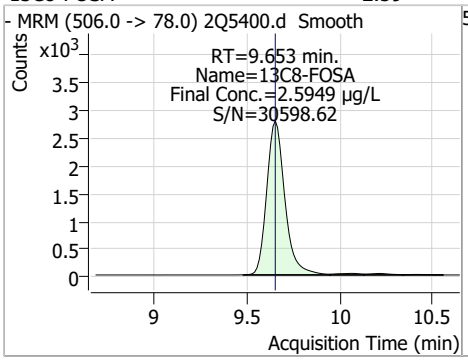
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.06	9.23	-0.04	21650				

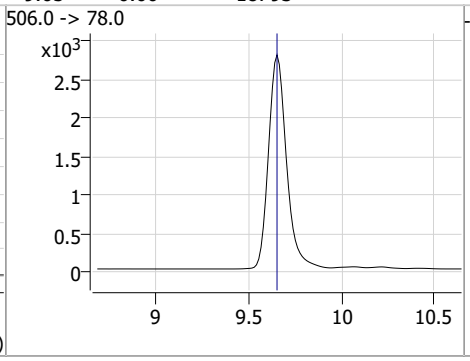


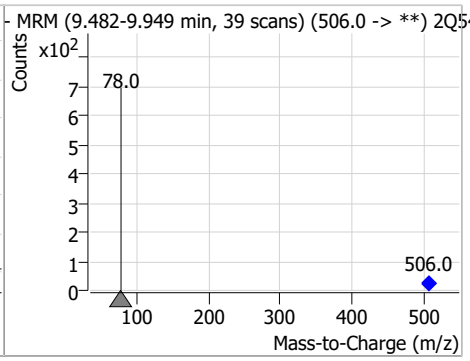




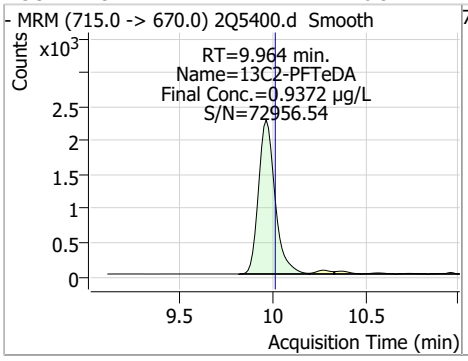
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.59	9.65	0.00	18793				

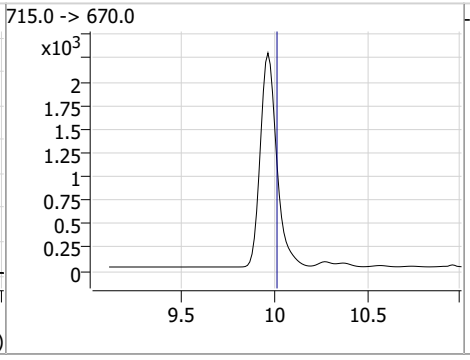


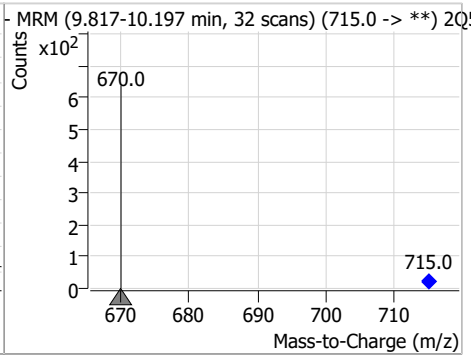




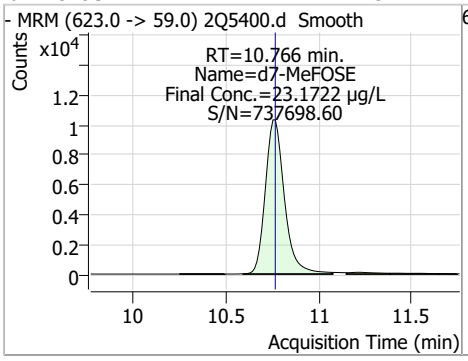
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.94	9.96	-0.05	13997				

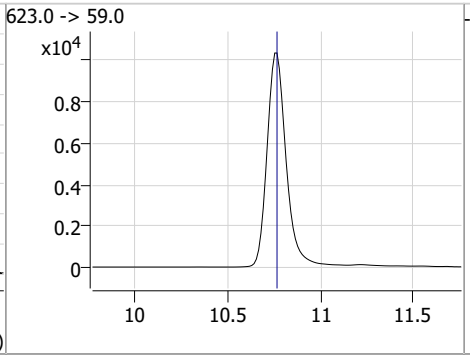


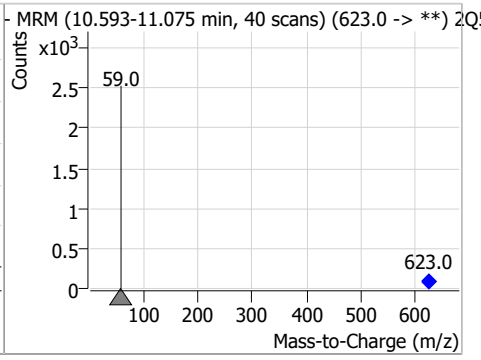




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.17	10.77	0.00	73833				

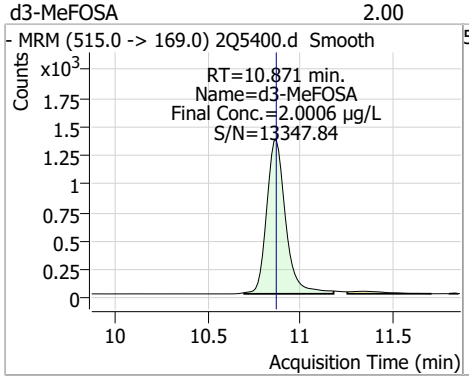


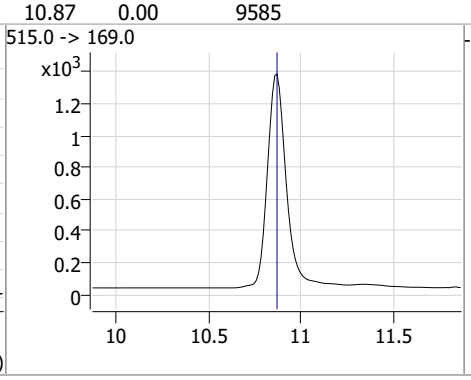


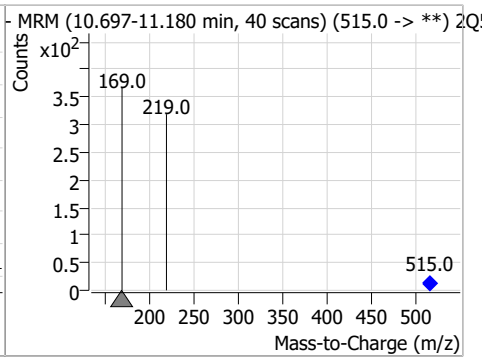


Perfluorinated Compounds by LC/MS/MS

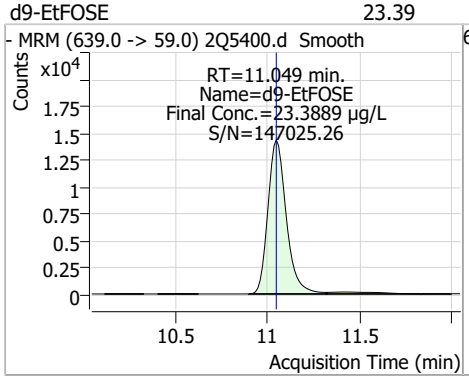
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.00	10.87	0.00	9585				

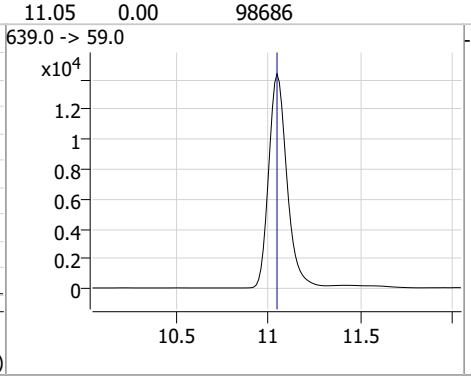


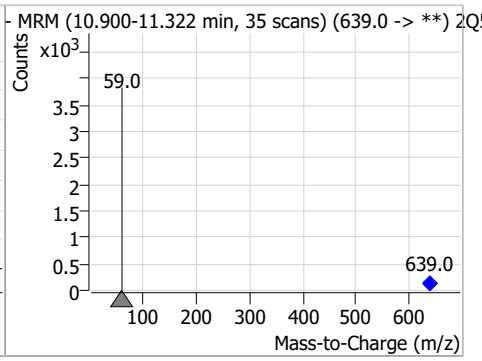




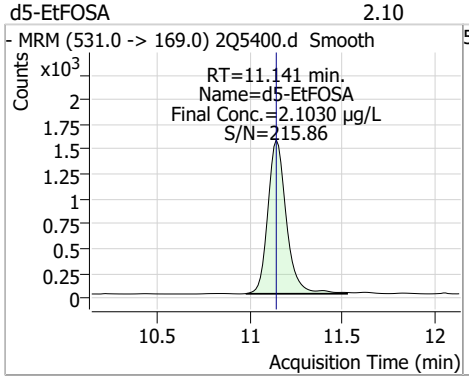
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	23.39	11.05	0.00	98686				

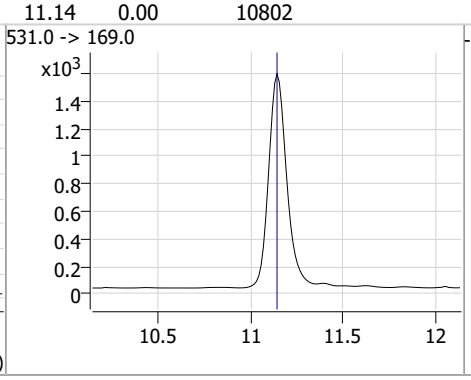


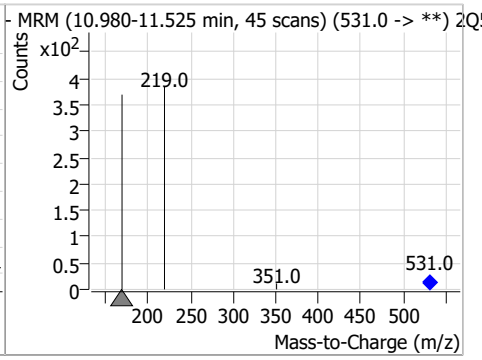




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.10	11.14	0.00	10802				







Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5401.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 5:31:24 AM
Sample Name : JD77804-7
Vial : P3-A2
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,520,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	29756	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	91582	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	51091	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	40562	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	69067	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	30182	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13009	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20108	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	25015	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	15234	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	18063	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5981	2.50	µg/L	-0.037
		302.0 -> 80.0	13436			
M3-PFHxS	7.472	402.0 -> 99.0	5928	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6469	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1214	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2605	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3800	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	37612	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22678	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	31987	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	76799	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	97359	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11523	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	10949	2.50	µg/L	-0.012
13C4-PFOS	8.512	503.0 -> 80.0	12280	2.50	µg/L	-0.037
13C3-PFBA	3.305	216.0 -> 172.0	67448	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	6048	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	67664	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	28178	1.25	µg/L	-0.049
13C5-PFNA	7.888	468.0 -> 423.0	36137	1.25	µg/L	-0.024
13C2-PFHxA	5.930	315.0 -> 270.0	50599	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1214	5.50	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.0%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2605	5.32	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3800	5.61	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.1%		
13C2-PFDoDA	9.219	615.0 -> 570.0	25015	1.11	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.0%		
13C2-PFTeDA	9.964	715.0 -> 670.0	15234	0.92	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 73.9%		
13C3-PFBS	5.846	302.0 -> 99.0	5981	2.66	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5928	2.51	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C4-PFBA	3.314	217.0 -> 172.0	29756	1.96	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 19.6%			
13C4-PFHpA	6.770	367.0 -> 322.0	40562	2.47	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.7%			
13C5-PFHxA	5.930	318.0 -> 273.0	51091	2.43	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.2%			
13C5-PFPeA	4.785	268.0 -> 223.0	91582	4.83	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.6%			
13C6-PFDA	8.352	519.0 -> 474.0	13009	1.11	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.5%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20108	1.04	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 82.9%			
13C8-FOSA	9.653	506.0 -> 78.0	18063	2.17	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 86.9%			
13C8-PFOA	7.372	421.0 -> 376.0	69067	2.47	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.6%			
13C8-PFOS	8.512	507.0 -> 99.0	6469	2.42	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.8%			
13C9-PFNA	7.875	472.0 -> 427.0	30182	1.07	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.4%			
d3-MeFOSAA	8.398	573.0 -> 419.0	37612	4.71	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.1%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22678	9.45	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 94.5%			
d3-MeFOSA	10.858	515.0 -> 169.0	10949	1.99	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 79.6%			
d5-EtFOSAA	8.593	589.0 -> 419.0	31987	4.84	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.9%			
d7-MeFOSE	10.753	623.0 -> 59.0	76799	20.99	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 84.0%			
d9-EtFOSE	11.049	639.0 -> 59.0	97359	20.10	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 80.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	11523	1.95	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 78.2%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.149	427.0 -> 407.0	304	0.08	µg/L		84
		427.0 -> 81.0	72				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.263	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.308	213.0 -> 169.0	761	1.02	µg/L		100
PFBS	5.847	299.0 -> 80.0	3028	0.49	µg/L		98
		299.0 -> 99.0	1244				
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

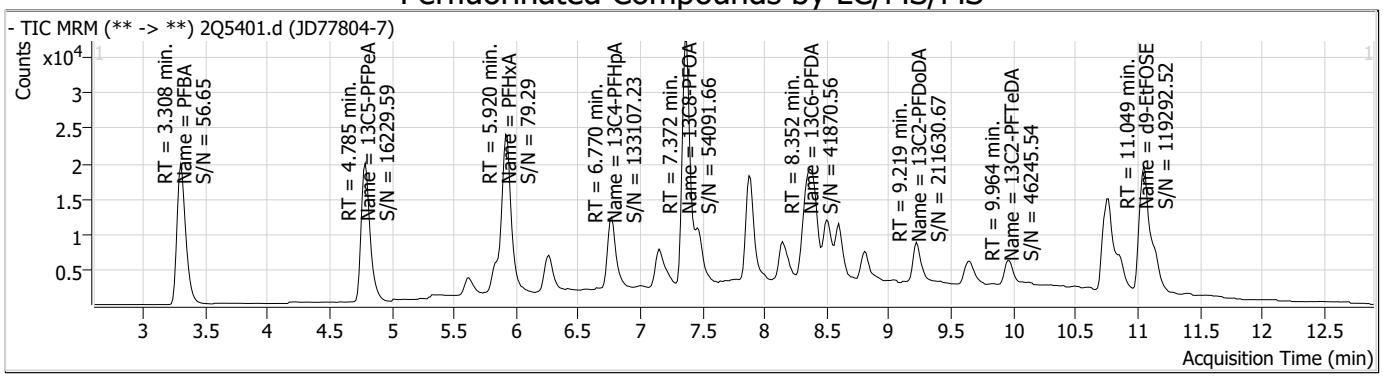
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	5168	0.25	µg/L		86
		363.0 -> 169.0	1157				
PFHpS	8.023	449.0 -> 80.0	386	0.10	µg/L		79
		449.0 -> 99.0	260				
PFHxA	5.920	313.0 -> 269.0	6351	0.31	µg/L	#	93
		313.0 -> 119.0	322				
PFHxS	7.473	399.0 -> 80.0	2093	0.51	µg/L	m	97
		399.0 -> 99.0	1268				
PFNA	7.888	463.0 -> 419.0	1817	0.08	µg/L		98
		463.0 -> 219.0	274				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	26359	0.97	µg/L	m	96
		413.0 -> 169.0	5516				
PFOS	8.328	499.0 -> 80.0	15346	2.78	µg/L	#m	52
		499.0 -> 99.0	2804				
PFPeA	4.787	263.0 -> 219.0	7014	0.42	µg/L		100
PFPeS	6.809	349.0 -> 80.0	256	0.07	µg/L		99
		349.0 -> 99.0	112				
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.440	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

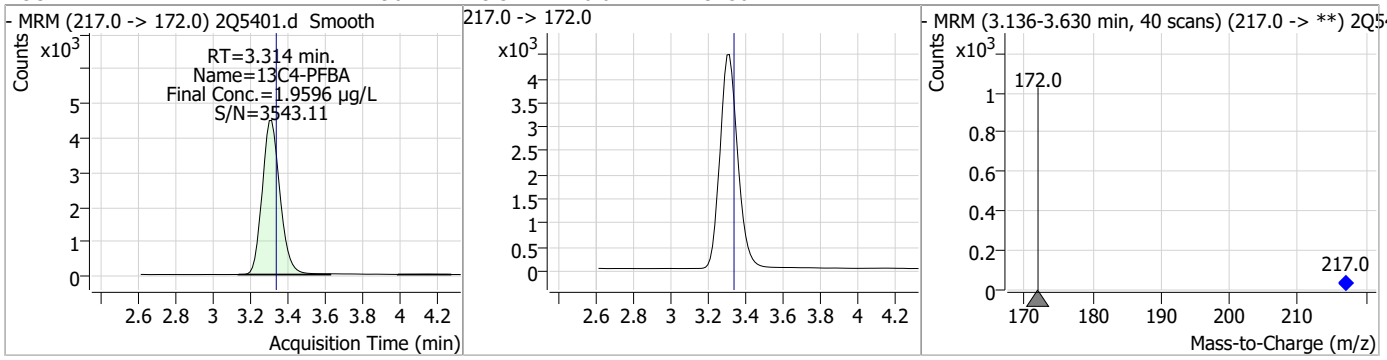
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

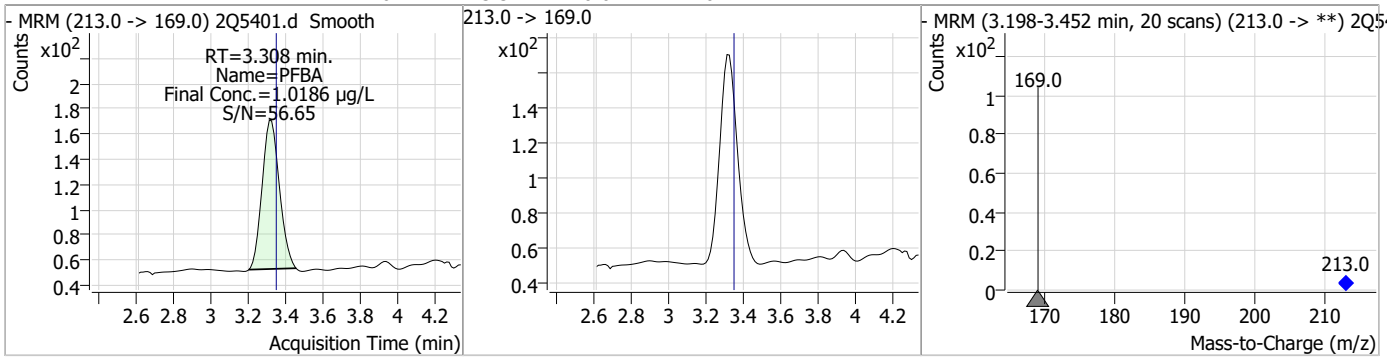
Perfluorinated Compounds by LC/MS/MS



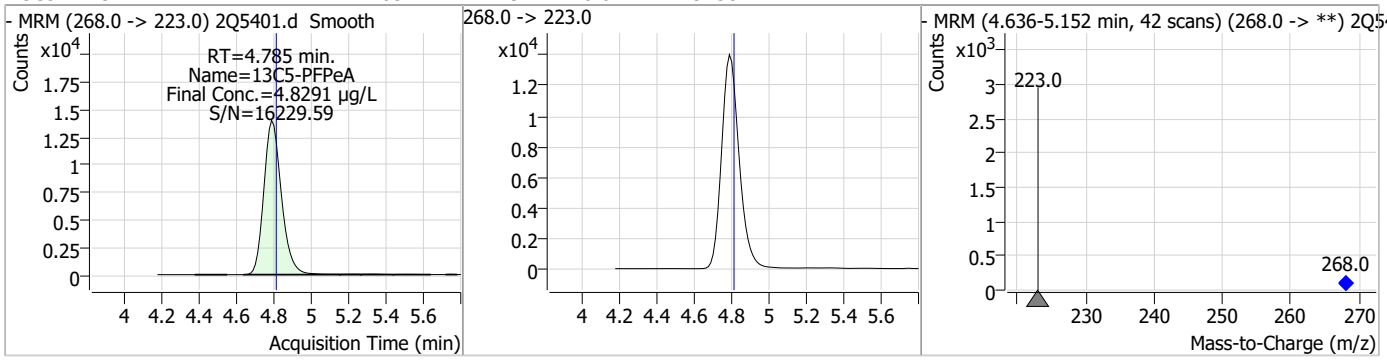
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	1.96	3.31	-0.02	29756				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	1.02	3.31	-0.04	761				

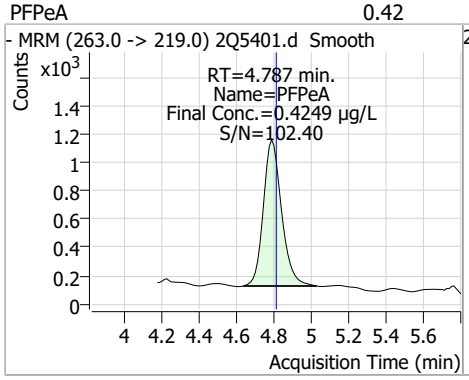


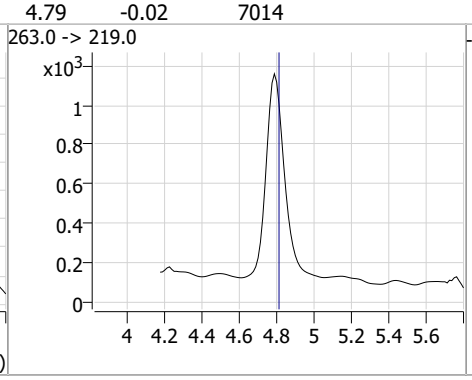
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.83	4.79	-0.02	91582				

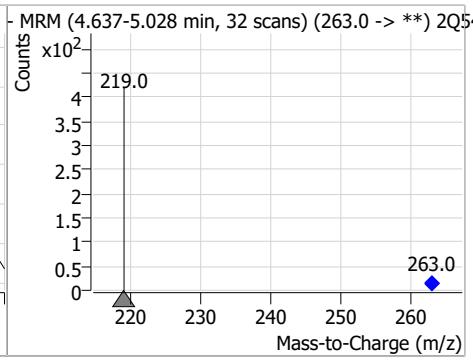


Perfluorinated Compounds by LC/MS/MS

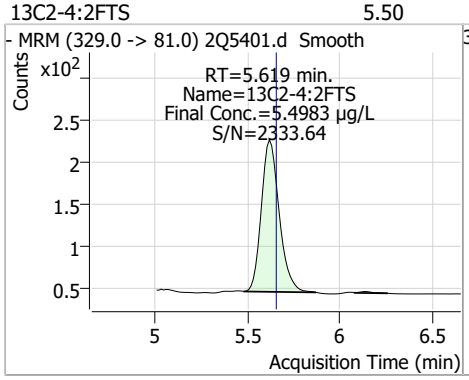
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.42	4.79	-0.02	7014				

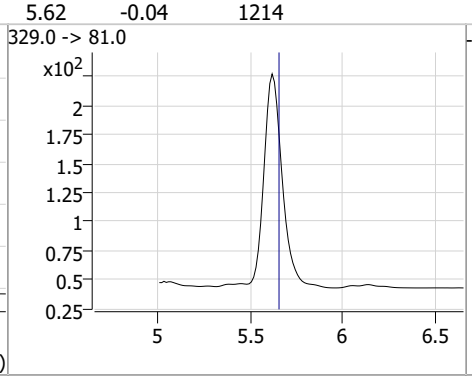


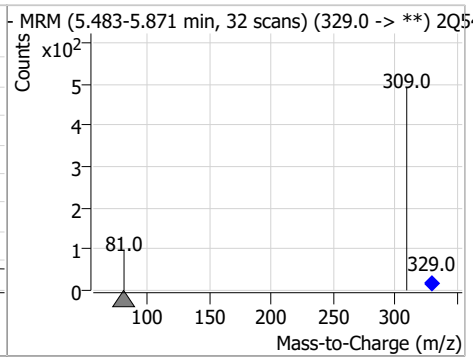




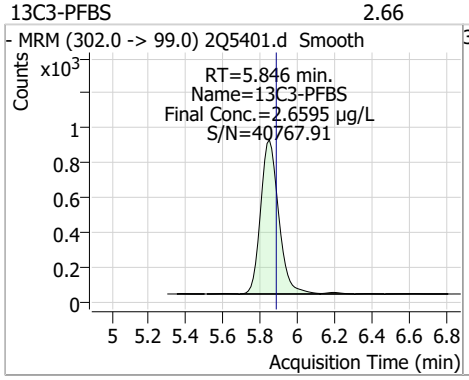
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.50	5.62	-0.04	1214				

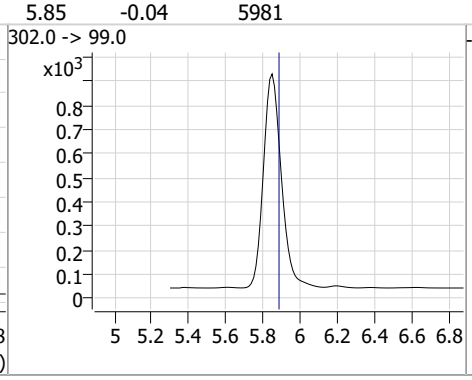


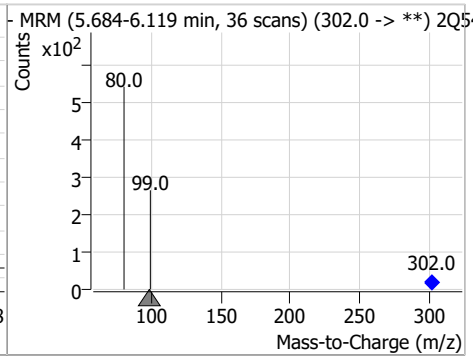




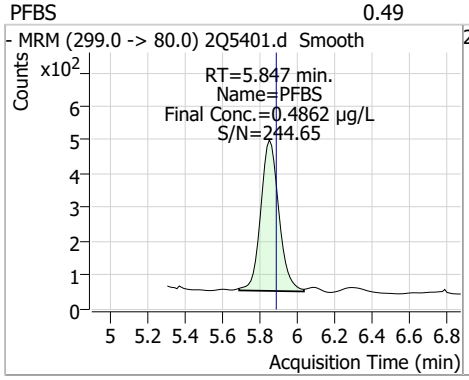
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.66	5.85	-0.04	5981				

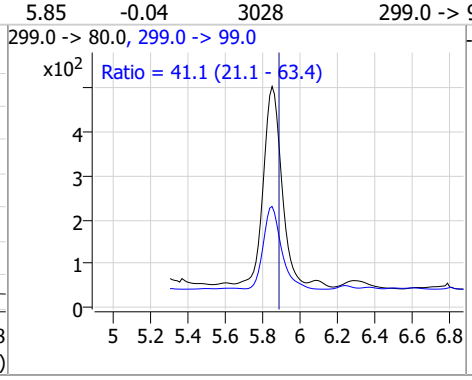


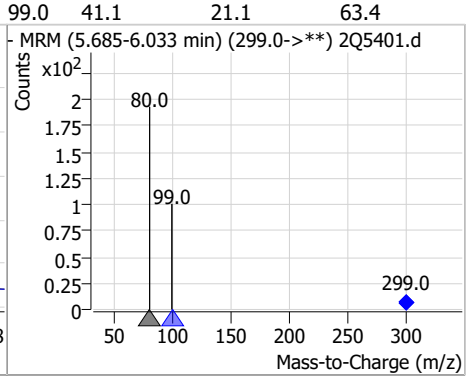




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.49	5.85	-0.04	3028	299.0 -> 99.0	41.1	21.1	63.4

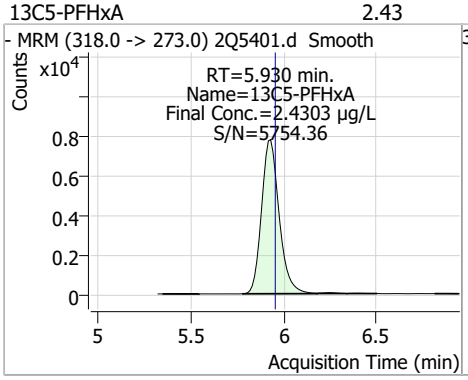


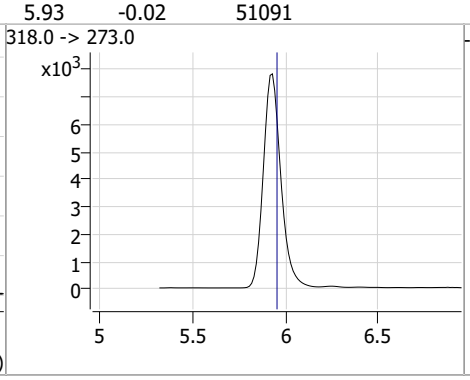


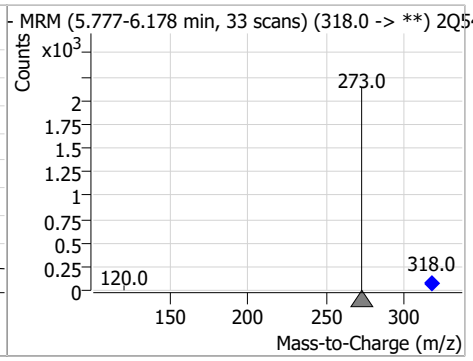


Perfluorinated Compounds by LC/MS/MS

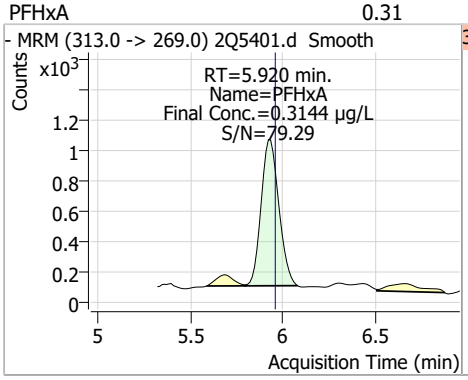
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.43	5.93	-0.02	51091				

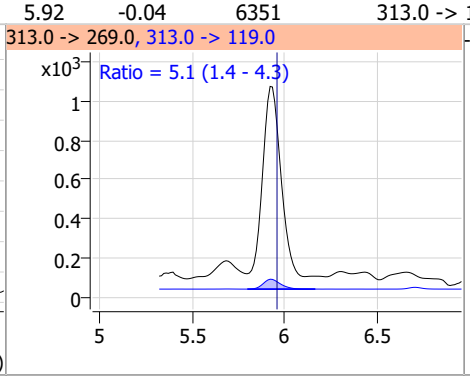


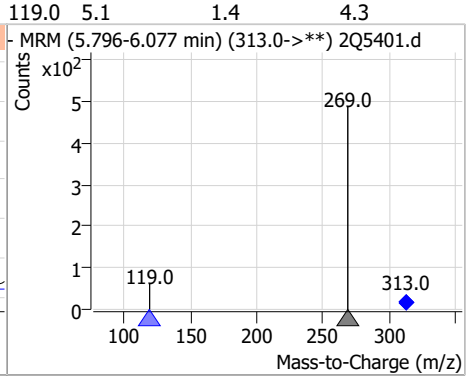




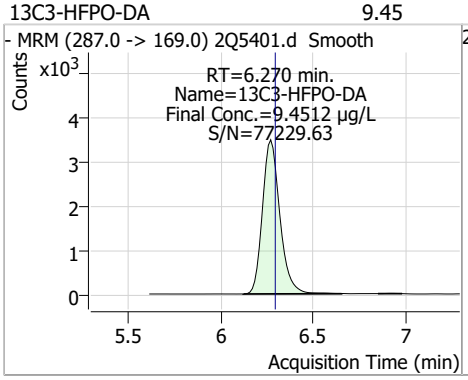
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.31	5.92	-0.04	6351	313.0 -> 119.0	5.1	1.4	4.3

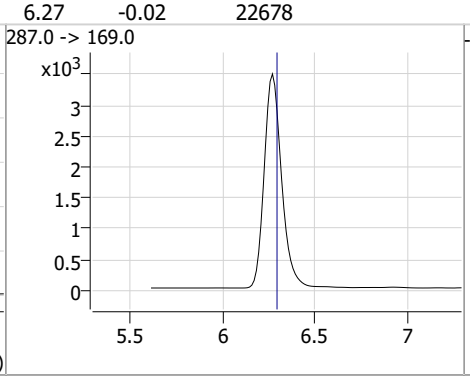


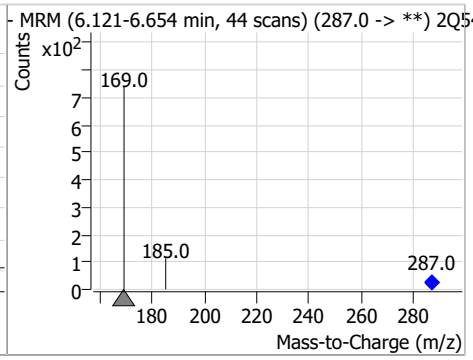




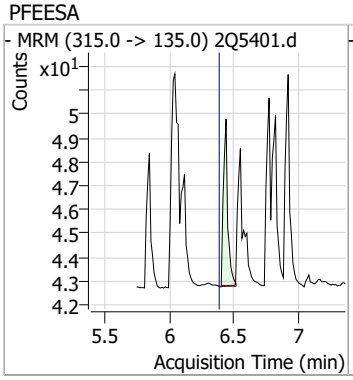
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.45	6.27	-0.02	22678				

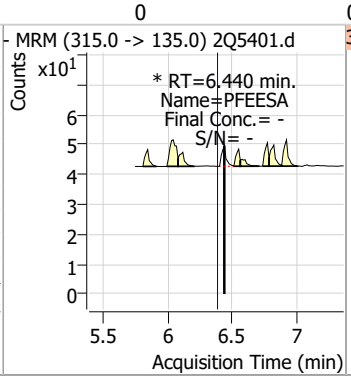


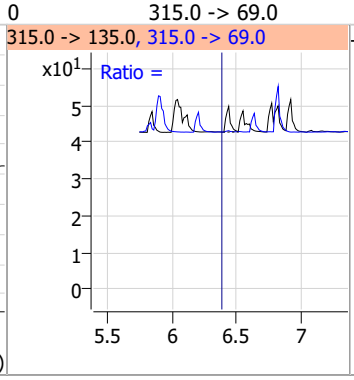


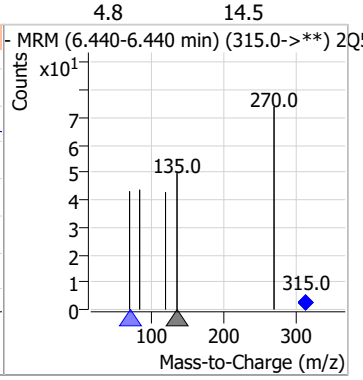


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



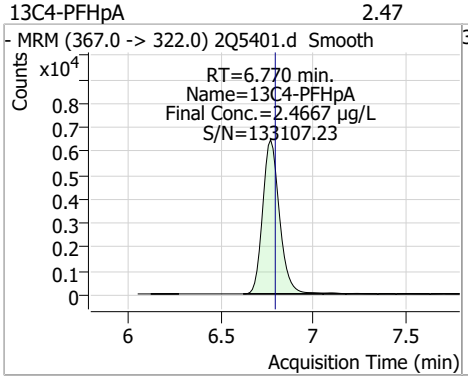


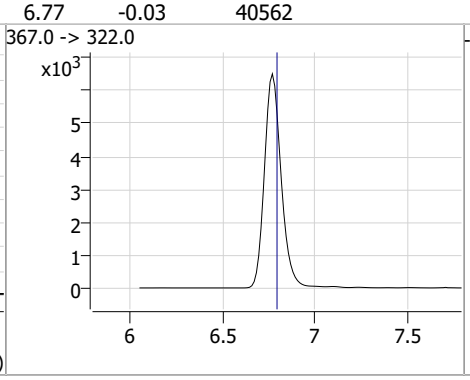


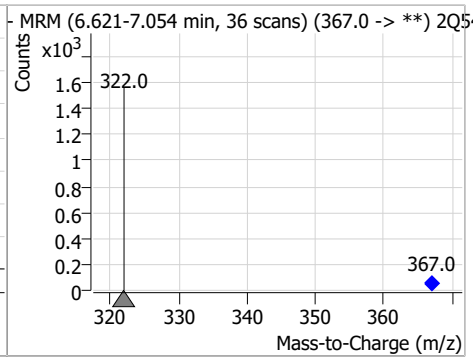


Perfluorinated Compounds by LC/MS/MS

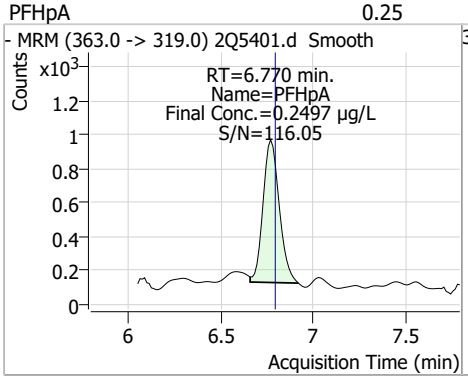
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.47	6.77	-0.03	40562				

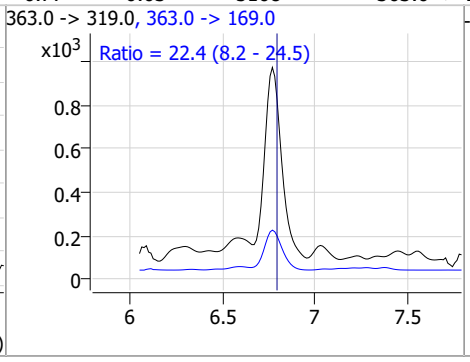


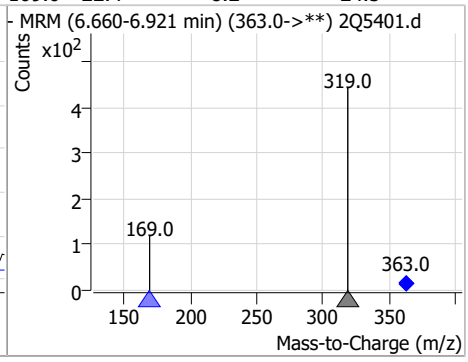




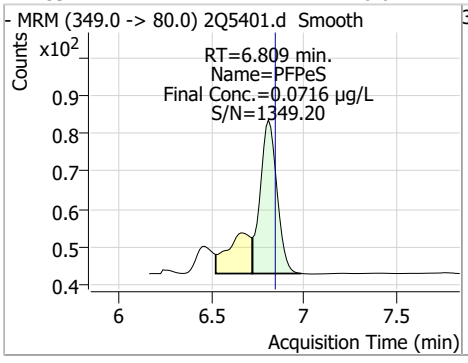
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.25	6.77	-0.03	5168	363.0 -> 169.0	22.4	8.2	24.5

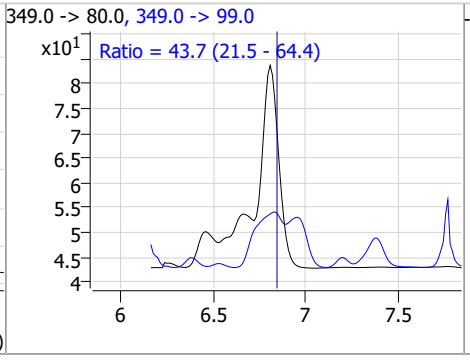


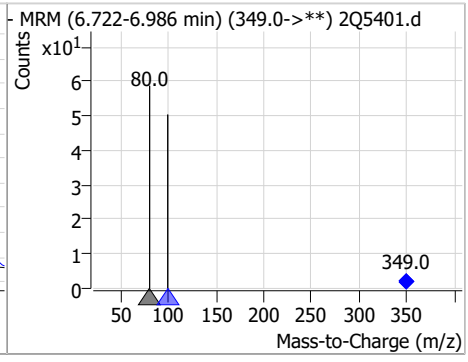




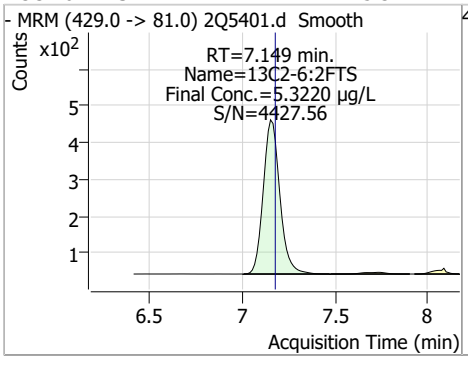
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0.07	6.81	-0.04	256	349.0 -> 99.0	43.7	21.5	64.4

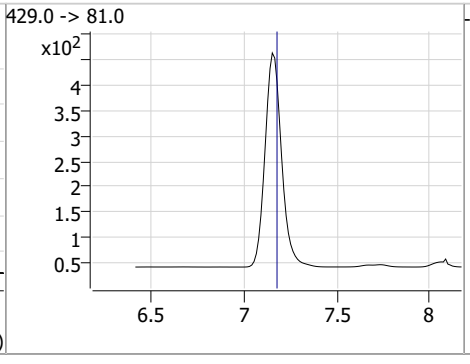


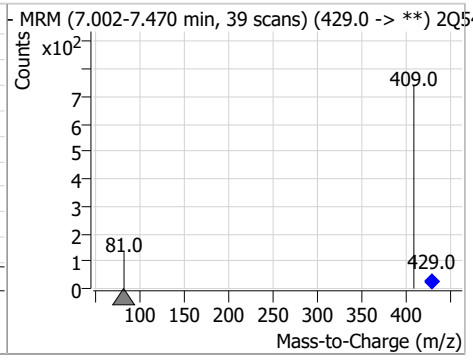




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.32	7.15	-0.03	2605				

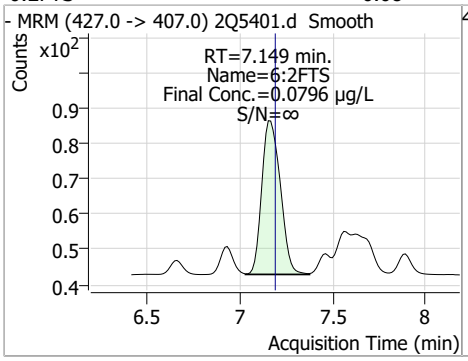


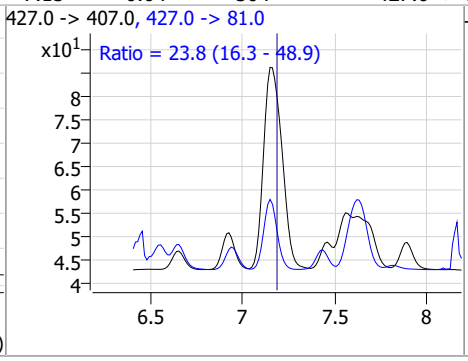


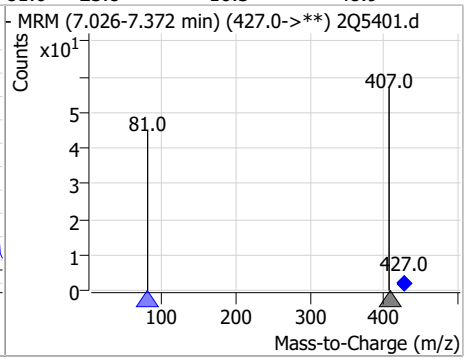


Perfluorinated Compounds by LC/MS/MS

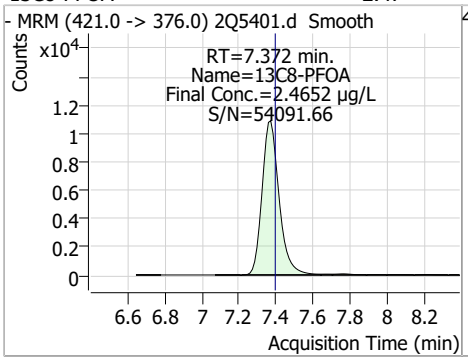
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.08	7.15	-0.04	304	427.0 -> 81.0	23.8	16.3	48.9

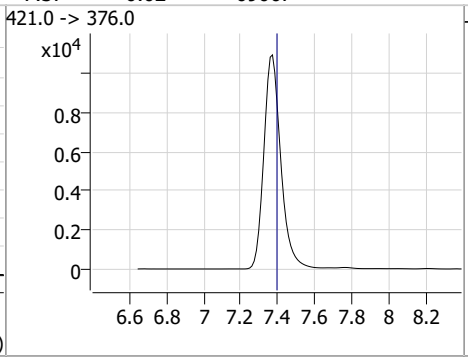


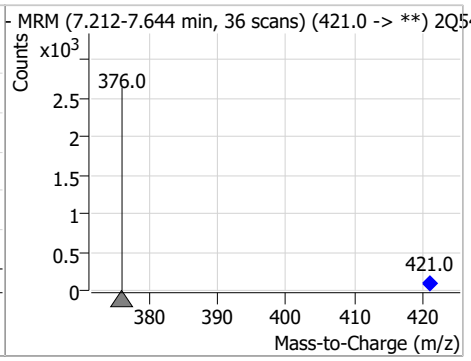




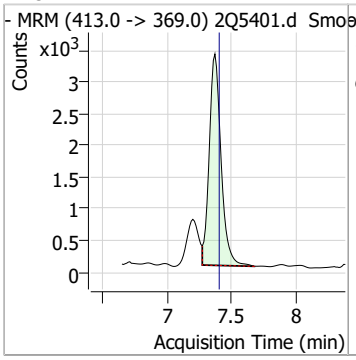
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.47	7.37	-0.02	69067				

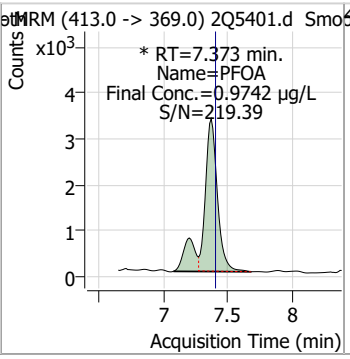


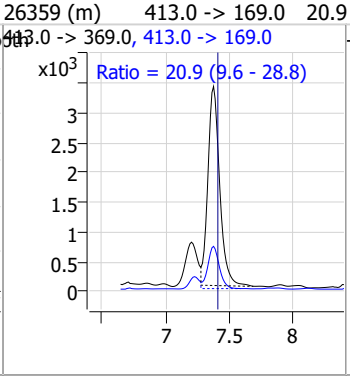


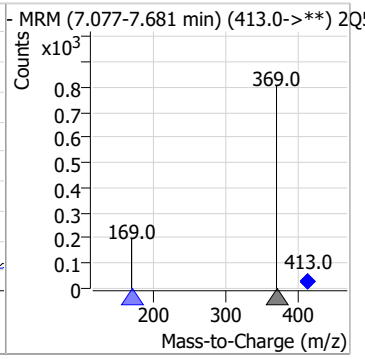


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.97	7.37	-0.02	26359 (m)	413.0 -> 169.0	20.9	9.6	28.8

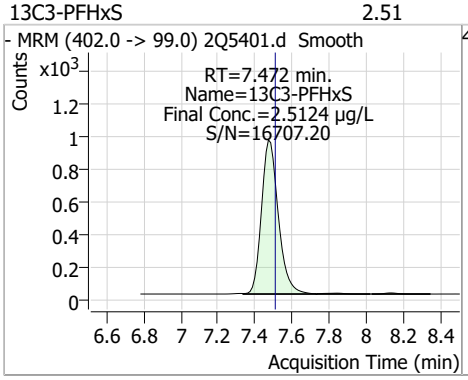


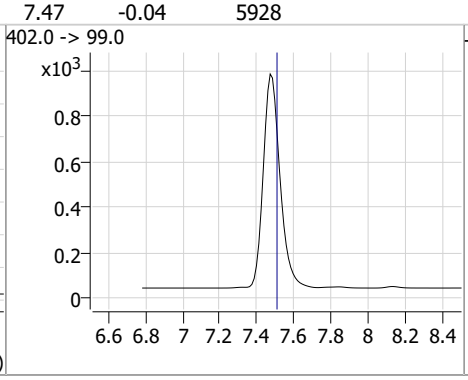


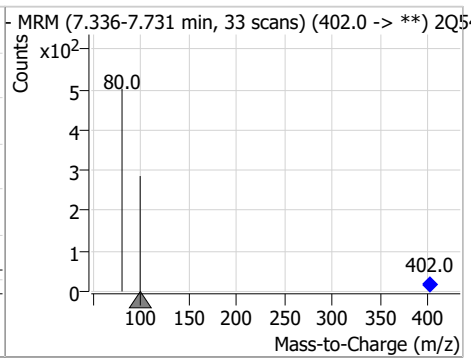




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.51	7.47	-0.04	5928				

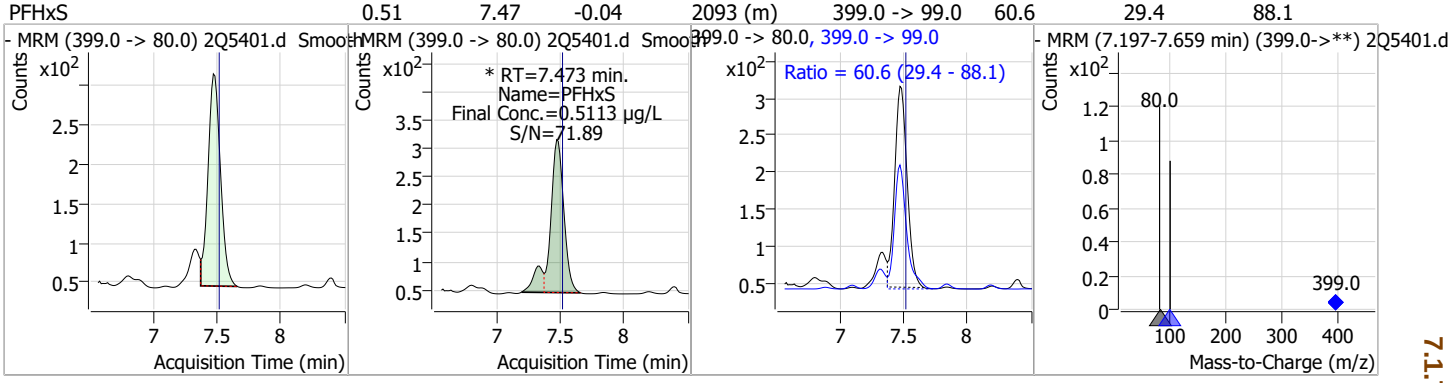




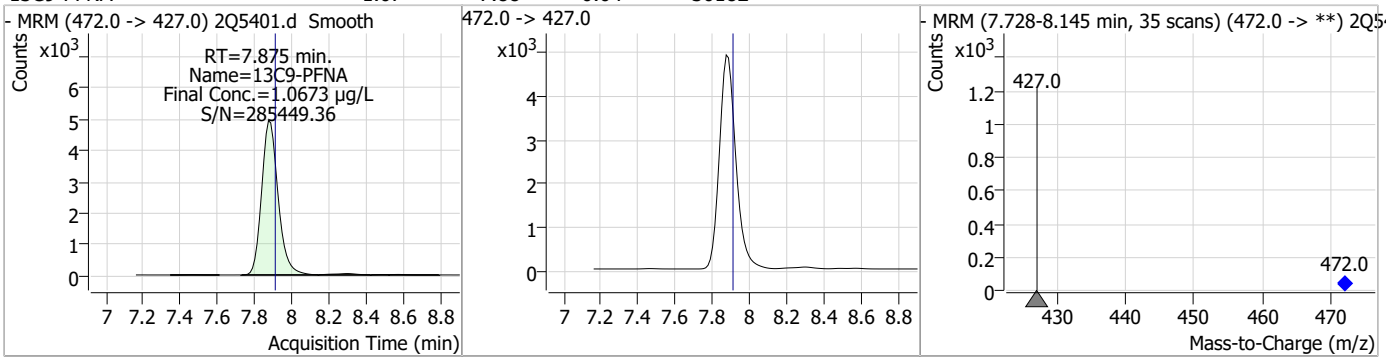


Perfluorinated Compounds by LC/MS/MS

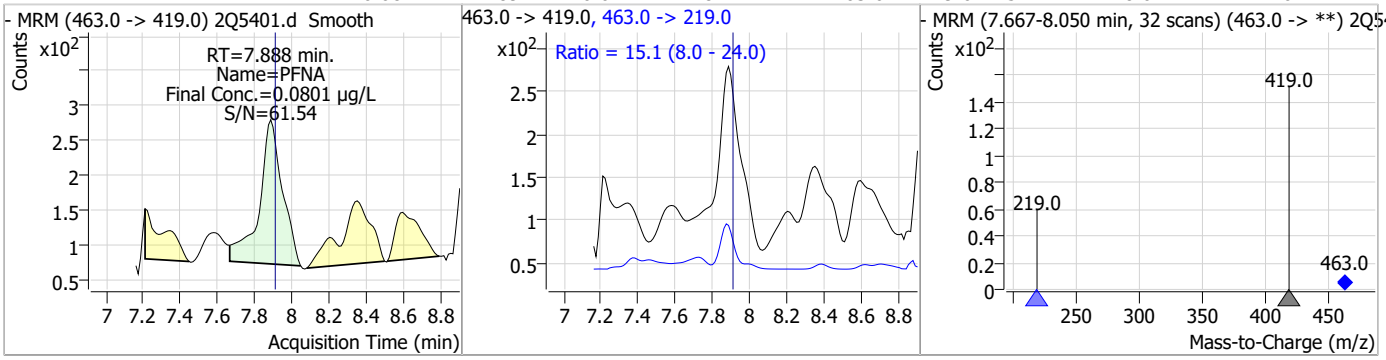
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.51	7.47	-0.04	2093 (m)	399.0 -> 99.0	60.6	29.4	88.1



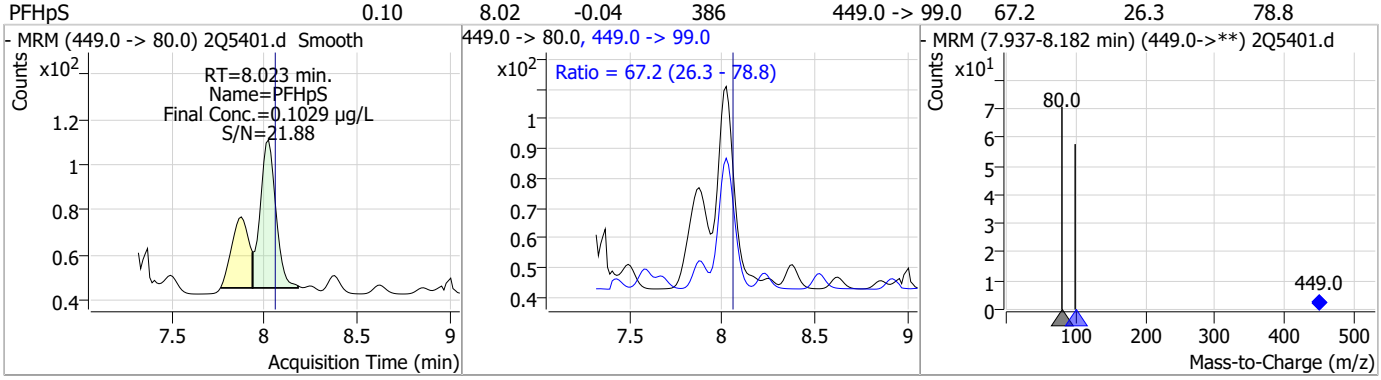
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.07	7.88	-0.04	30182				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.08	7.89	-0.02	1817	463.0 -> 219.0	15.1	8.0	24.0

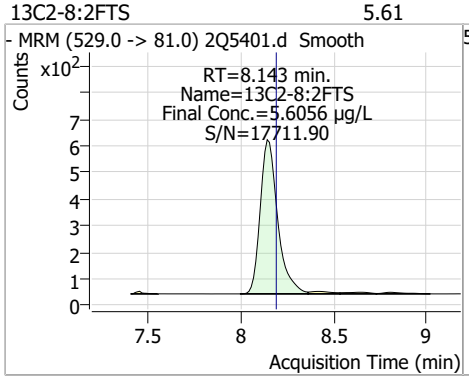


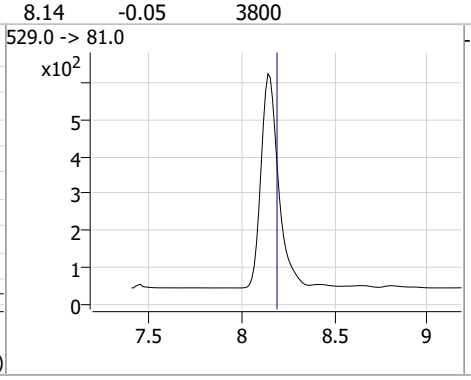
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.10	8.02	-0.04	386	449.0 -> 99.0	67.2	26.3	78.8

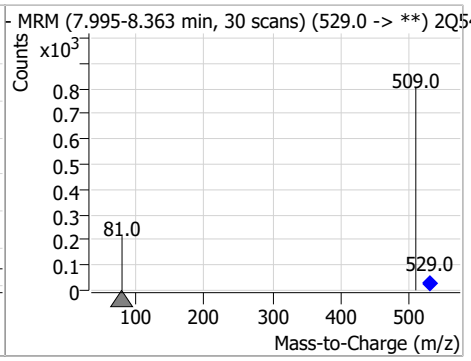


Perfluorinated Compounds by LC/MS/MS

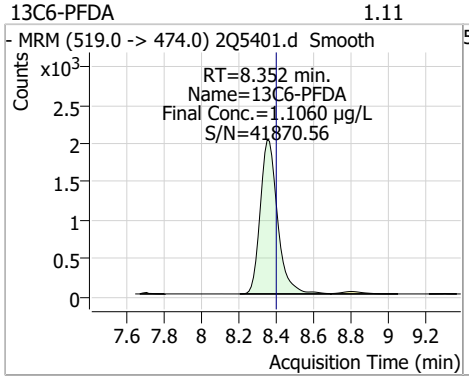
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.61	8.14	-0.05	3800				

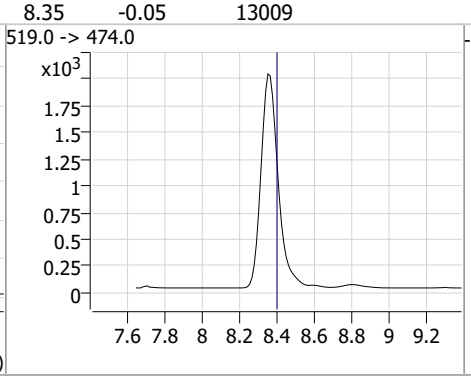


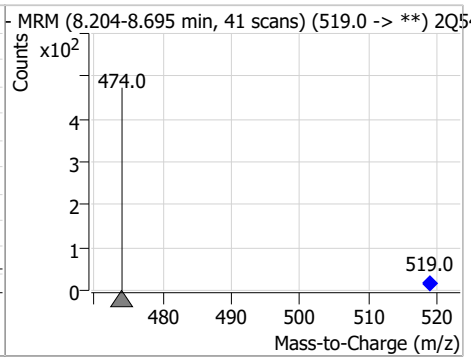




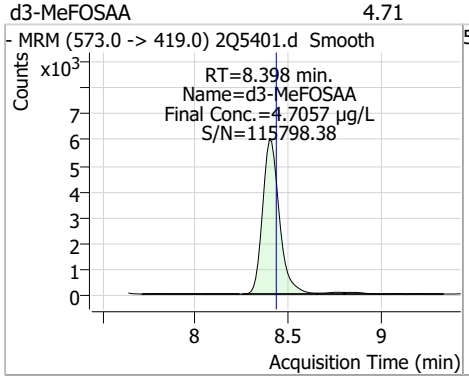
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.11	8.35	-0.05	13009				

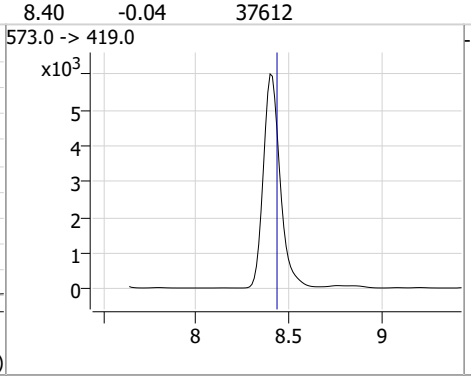


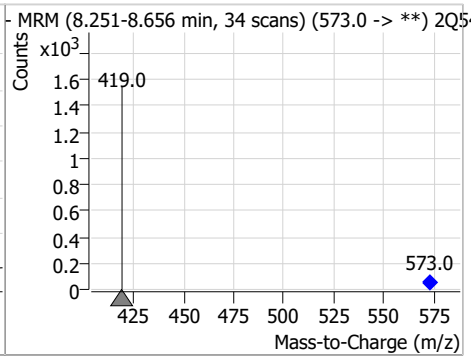




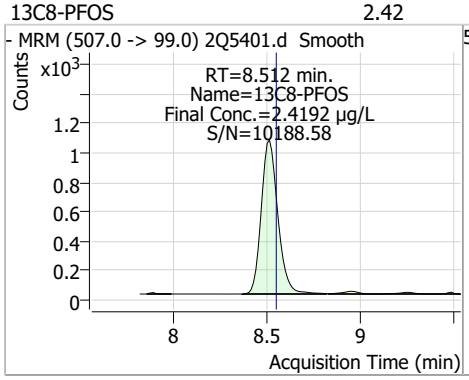
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.71	8.40	-0.04	37612				

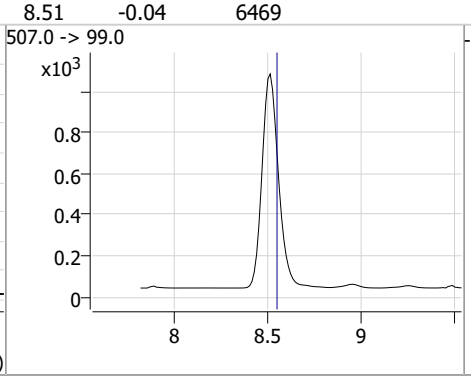


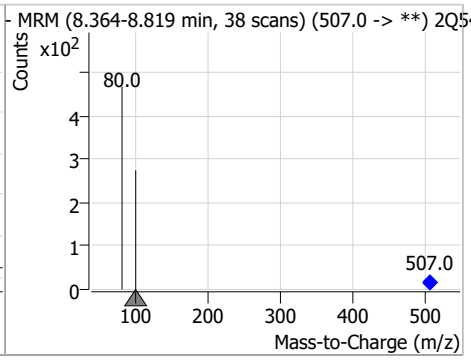




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.42	8.51	-0.04	6469				

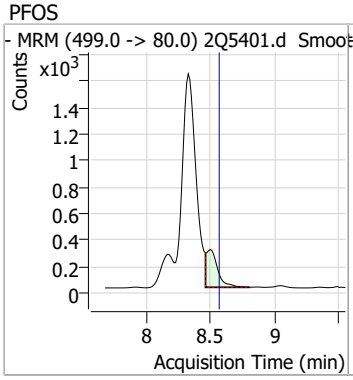


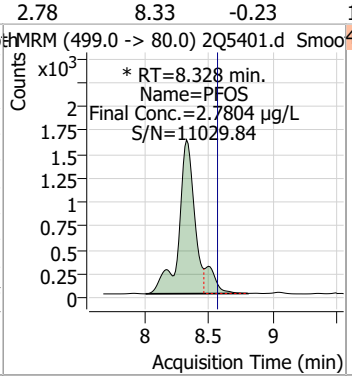


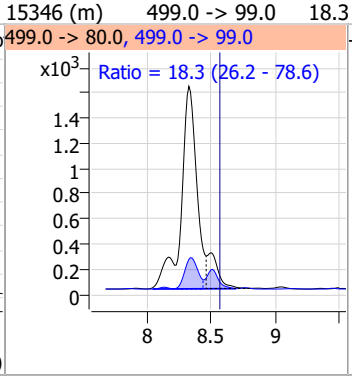


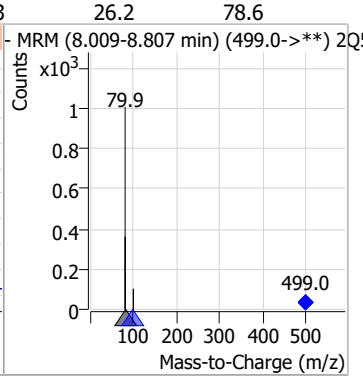
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.78	8.33	-0.23	15346 (m)	499.0 -> 99.0	18.3	26.2	78.6

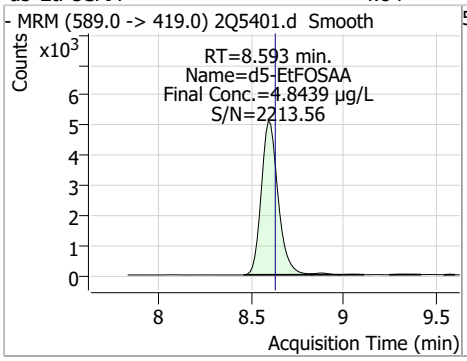


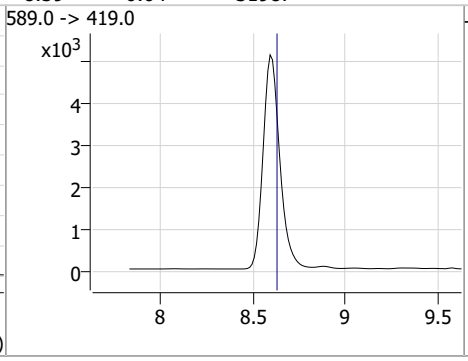


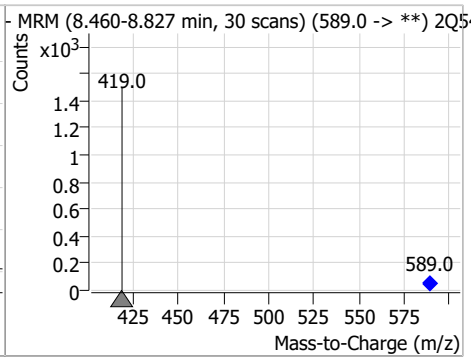




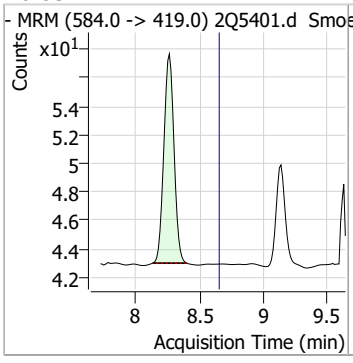
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.84	8.59	-0.04	31987				

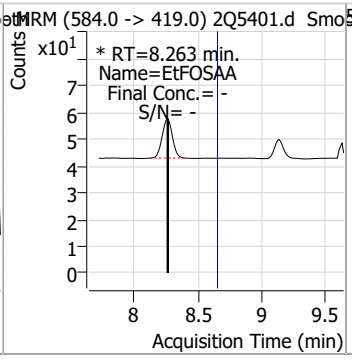


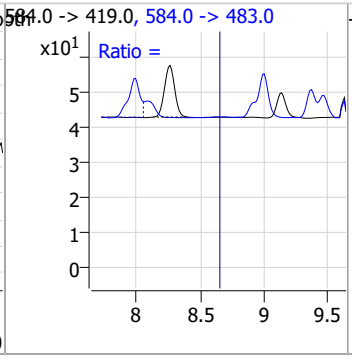


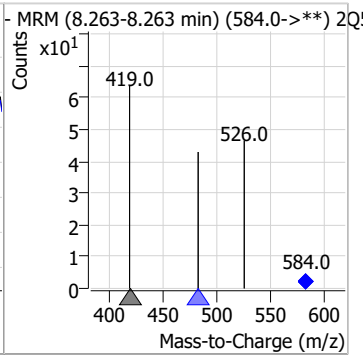


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1

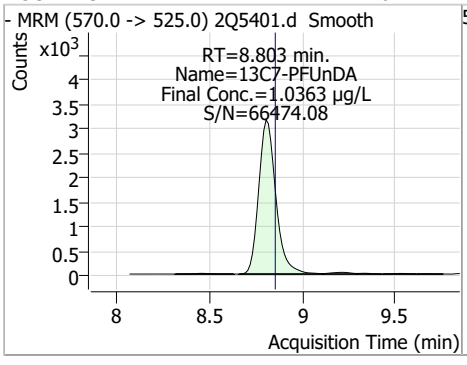


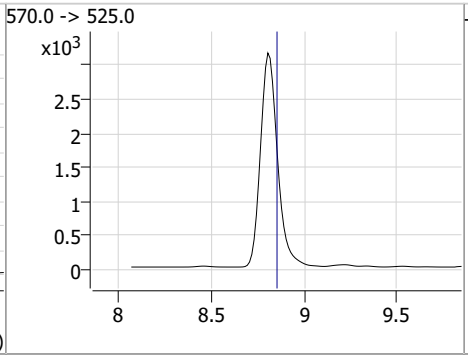


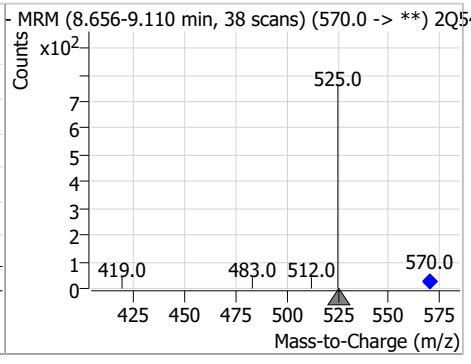




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.04	8.80	-0.05	20108				

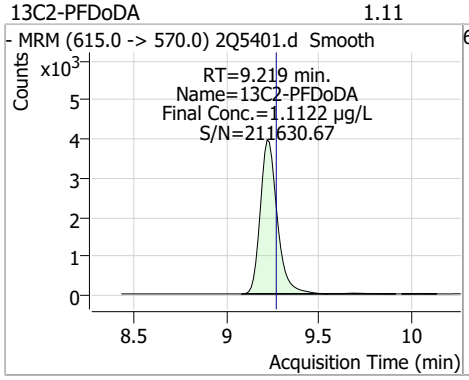


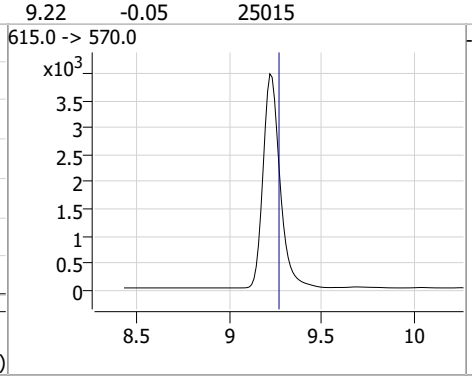


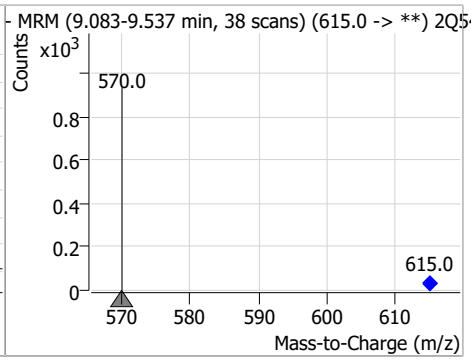


Perfluorinated Compounds by LC/MS/MS

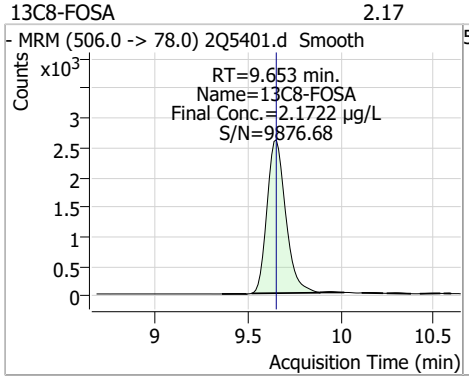
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.11	9.22	-0.05	25015				

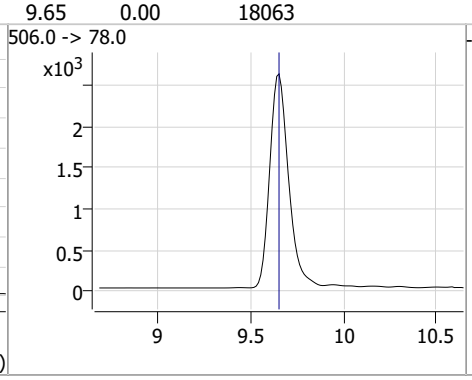


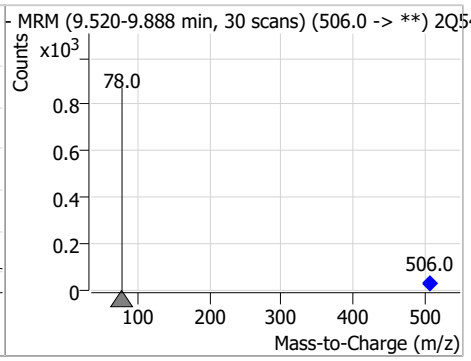




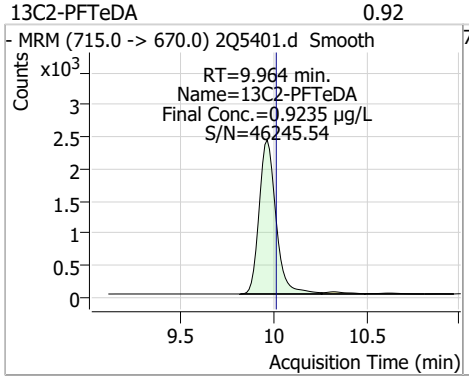
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.17	9.65	0.00	18063				

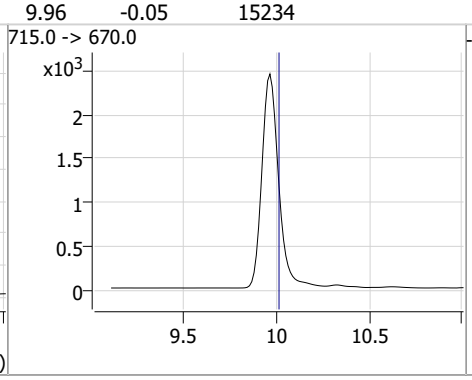


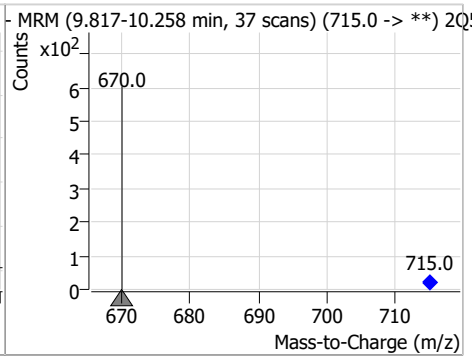




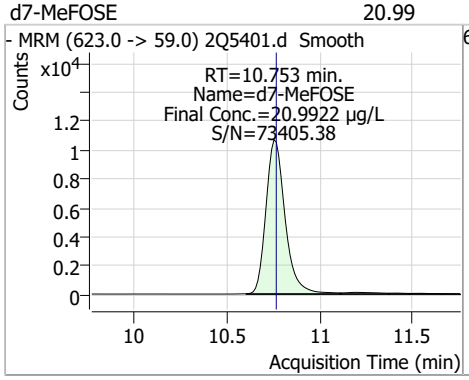
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.92	9.96	-0.05	15234				

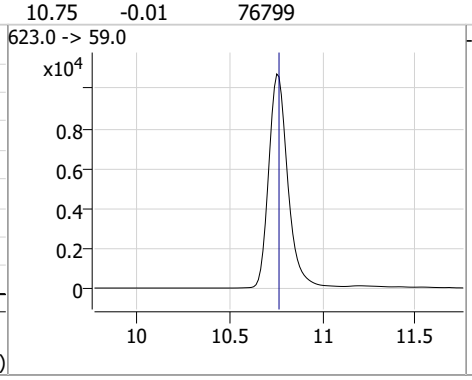


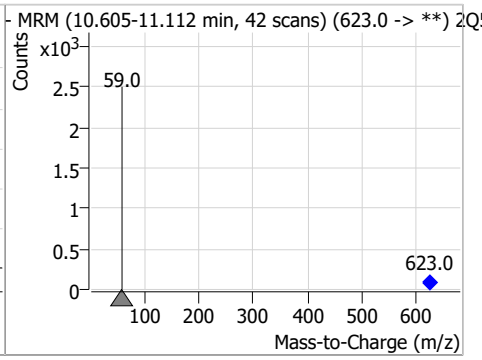




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	20.99	10.75	-0.01	76799				

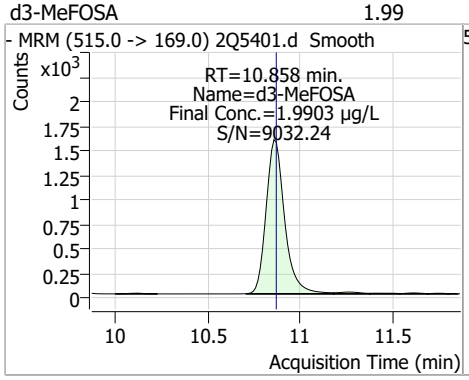


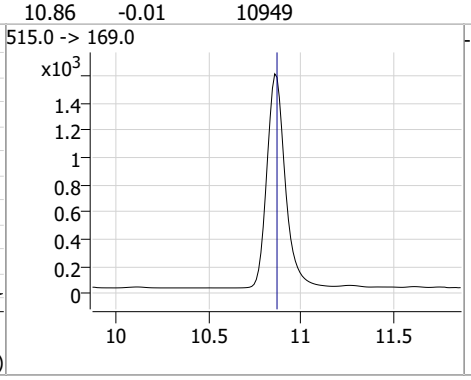


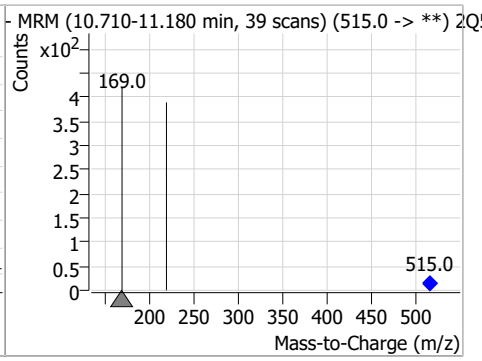


Perfluorinated Compounds by LC/MS/MS

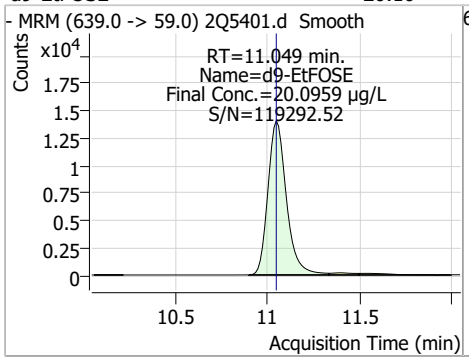
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.99	10.86	-0.01	10949				

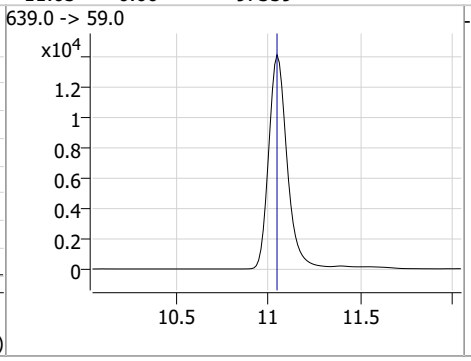


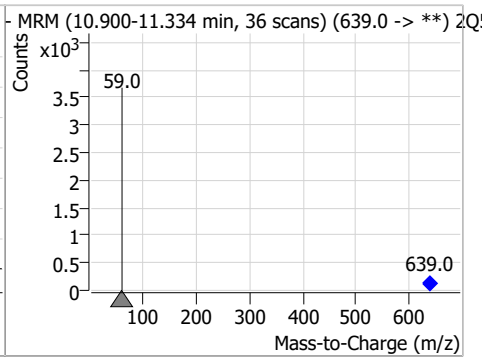




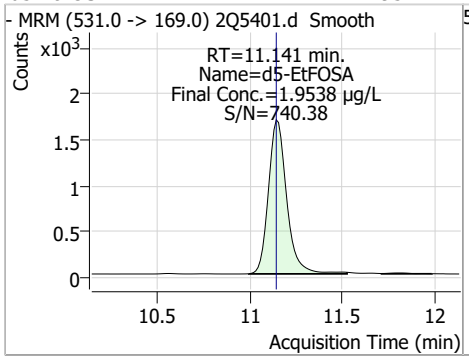
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	20.10	11.05	0.00	97359				

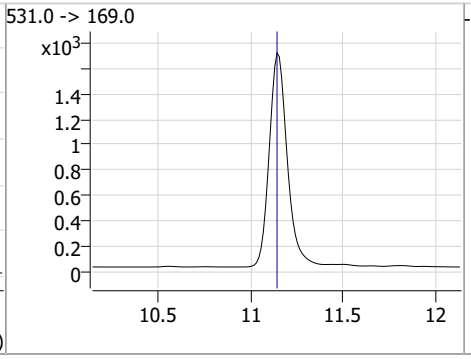


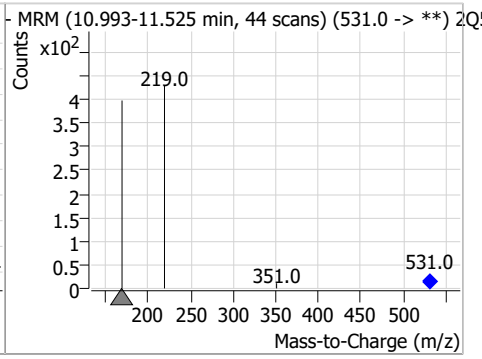




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.95	11.14	0.00	11523				







7.1.7

Manual Integration Approval Summary

Sample Number: JD77804-7
Lab FileID: 2Q5401.D
Injection Time: 12/02/23 05:31
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.33	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5402.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 5:46:36 AM
Sample Name : JD77804-8
Vial : P3-A3
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,492,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	141461	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	102466	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	53257	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	44127	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	67686	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	31614	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	11921	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	17050	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	14209	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	9671	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19066	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6496	2.50	µg/L	-0.037
		302.0 -> 80.0	15322			
M3-PFHxS	7.472	402.0 -> 99.0	6011	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	5889	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1313	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2338	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3602	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	28269	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	26160	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	21293	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	48725	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	62871	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	7156	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	6888	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	12651	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	73103	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6380	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	68601	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	29285	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	37660	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	51232	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1313	5.63	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.7%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2338	4.53	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 90.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3602	5.04	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.7%		
13C2-PFDoDA	9.219	615.0 -> 570.0	14209	0.61	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 48.6%		
13C2-PFTeDA	9.964	715.0 -> 670.0	9671	0.56	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 45.1%		
13C3-PFBS	5.846	302.0 -> 99.0	6496	2.74	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 109.5%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6011	2.42	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.6%			
13C4-PFBA	3.314	217.0 -> 172.0	141461	8.60	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 86.0%			
13C4-PFHpA	6.770	367.0 -> 322.0	44127	2.65	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.0%			
13C5-PFHxA	5.930	318.0 -> 273.0	53257	2.50	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.1%			
13C5-PFPeA	4.798	268.0 -> 223.0	102466	5.34	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.7%			
13C6-PFDA	8.352	519.0 -> 474.0	11921	0.98	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 78.0%			
13C7-PFUnDA	8.803	570.0 -> 525.0	17050	0.85	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 67.6%			
13C8-FOSA	9.653	506.0 -> 78.0	19066	2.23	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.0%			
13C8-PFOA	7.360	421.0 -> 376.0	67686	2.38	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.3%			
13C8-PFOS	8.499	507.0 -> 99.0	5889	2.14	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.5%			
13C9-PFNA	7.875	472.0 -> 427.0	31614	1.07	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	28269	3.43	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 68.7%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	26160	10.77	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 107.7%			
d3-MeFOSA	10.871	515.0 -> 169.0	6888	1.22	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 48.6%			
d5-EtFOSAA	8.593	589.0 -> 419.0	21293	3.13	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 62.6%			
d7-MeFOSE	10.753	623.0 -> 59.0	48725	12.93	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 51.7%			
d9-EtFOSE	11.049	639.0 -> 59.0	62871	12.60	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 50.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	7156	1.18	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 47.1%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.175	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	7.848	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	5.847	299.0 -> 80.0	704	0.10	µg/L		79
		299.0 -> 99.0	205				
PFDA	8.929	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

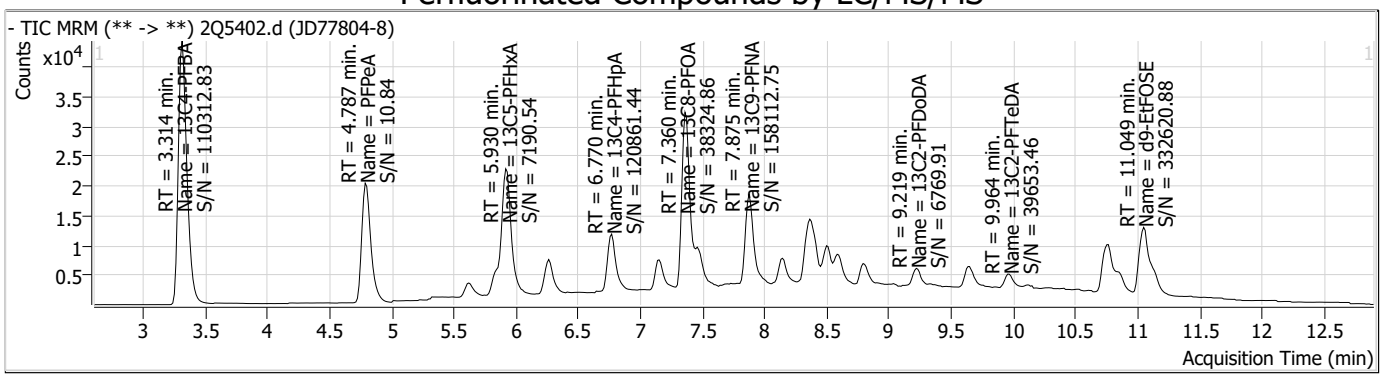
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	1220	0.09	µg/L	m	82
		363.0 -> 169.0	294				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.863	463.0 -> 419.0	1563	0.07	µg/L	#	72
		463.0 -> 219.0	63				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	2890	0.11	µg/L		95
		413.0 -> 169.0	489				
PFOS	8.341	499.0 -> 80.0	423	0.08	µg/L	#m	35
		499.0 -> 99.0	28				
PFPeA	4.787	263.0 -> 219.0	766	0.04	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	8.792	563.0 -> 519.0	0		µg/L	m	1
		563.0 -> 269.0	0				
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.167	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

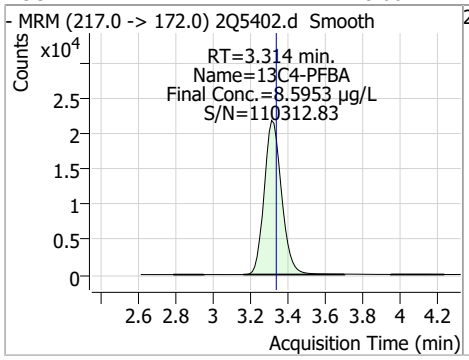
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

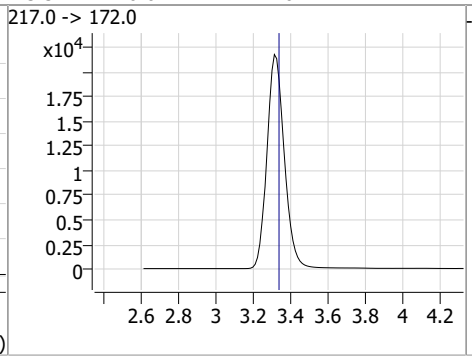
= Qualifier out of range, m = manually integrated, + = Area summed

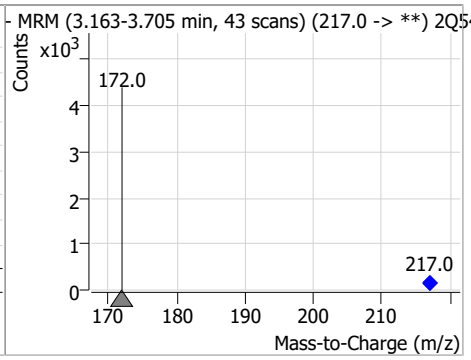
Perfluorinated Compounds by LC/MS/MS



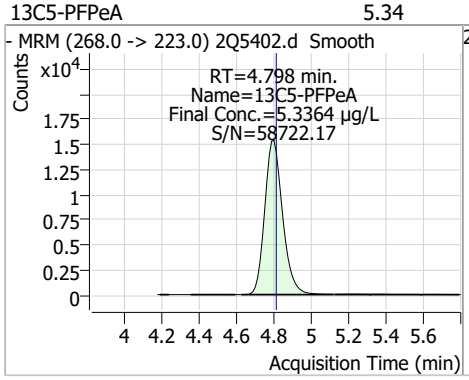
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	8.60	3.31	-0.02	141461				

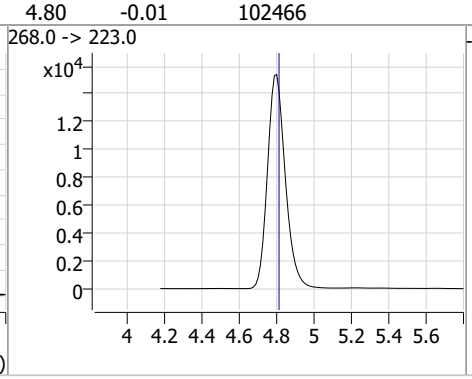


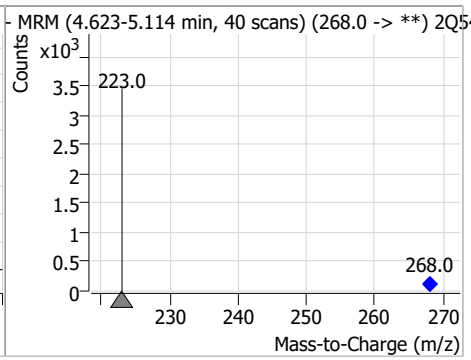




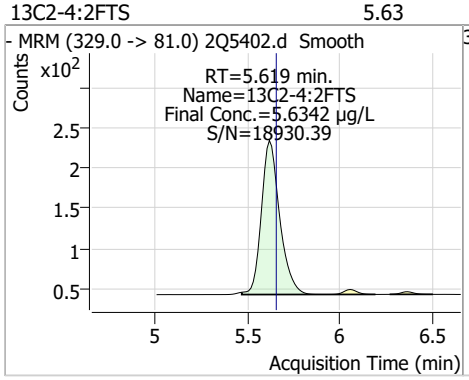
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.34	4.80	-0.01	102466				

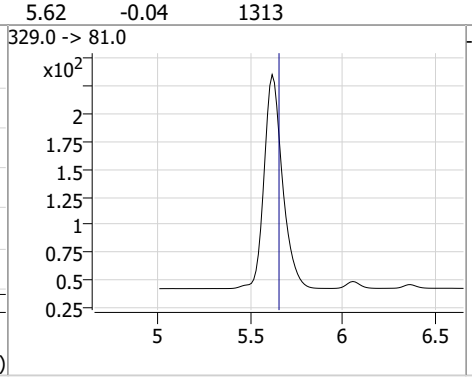


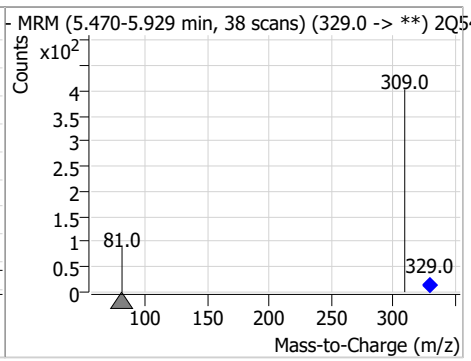




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.63	5.62	-0.04	1313				

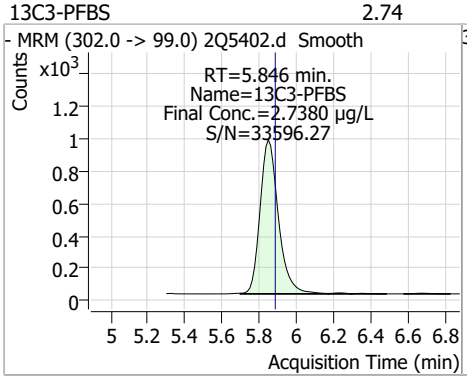


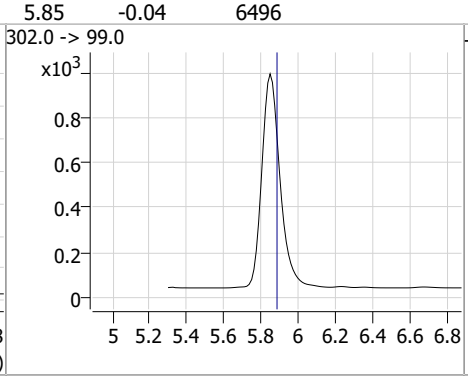


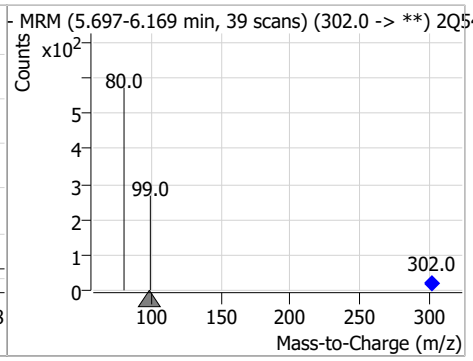


Perfluorinated Compounds by LC/MS/MS

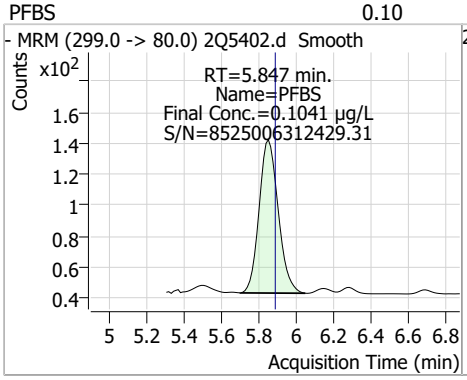
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.74	5.85	-0.04	6496				

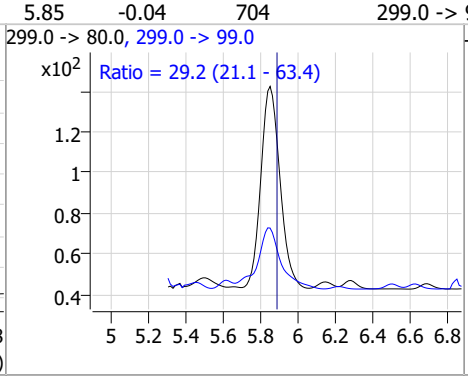


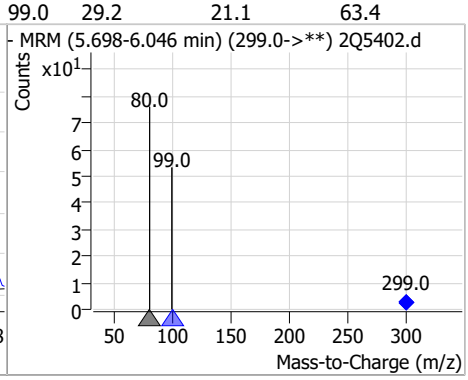




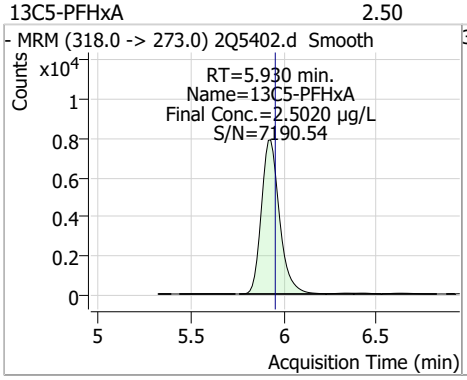
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.10	5.85	-0.04	704	299.0 -> 99.0	29.2	21.1	63.4

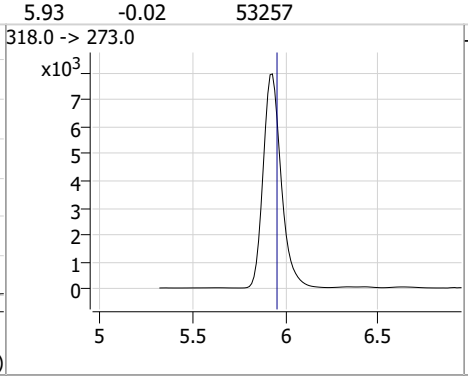


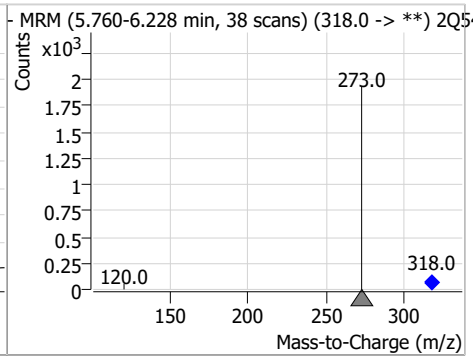




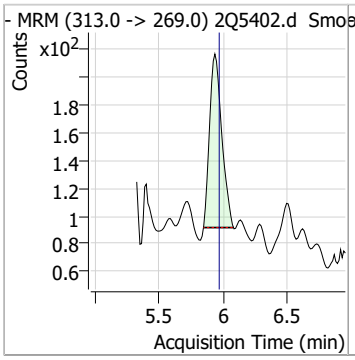
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.50	5.93	-0.02	53257				

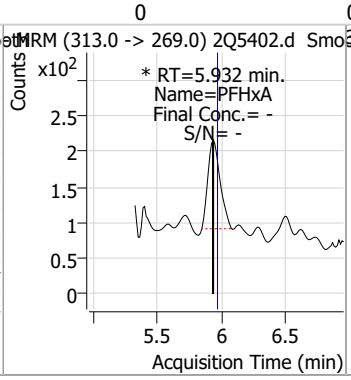


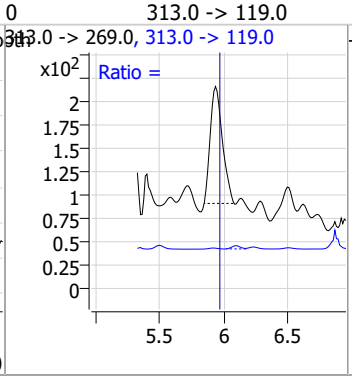


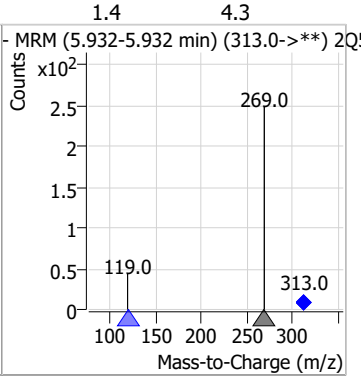


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3



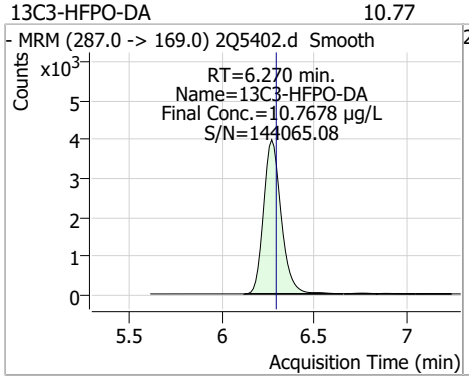


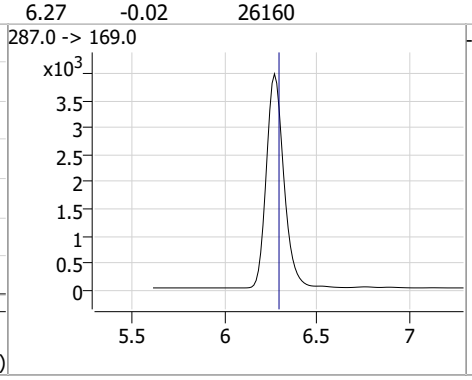


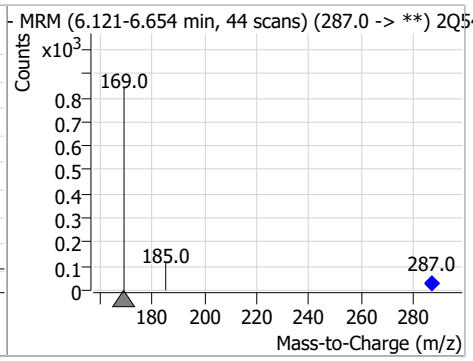


Perfluorinated Compounds by LC/MS/MS

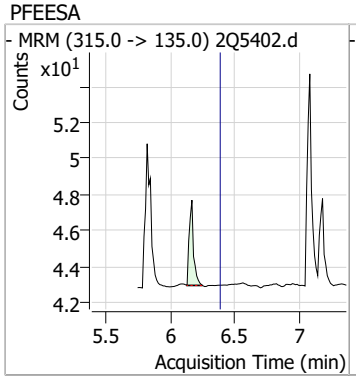
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.77	6.27	-0.02	26160				

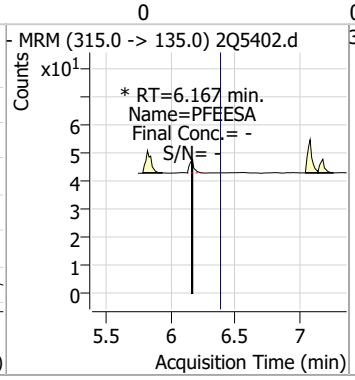


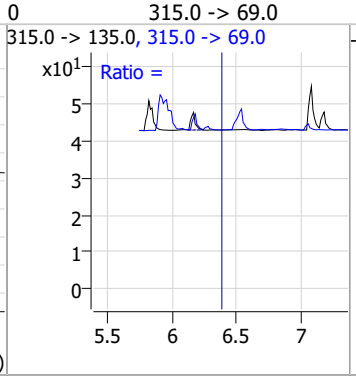


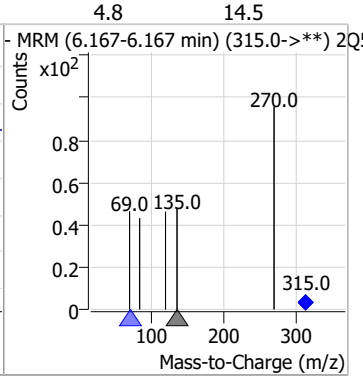


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

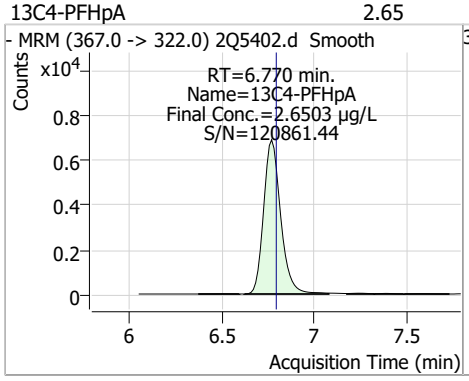


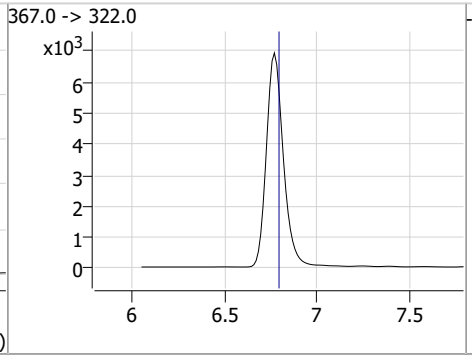


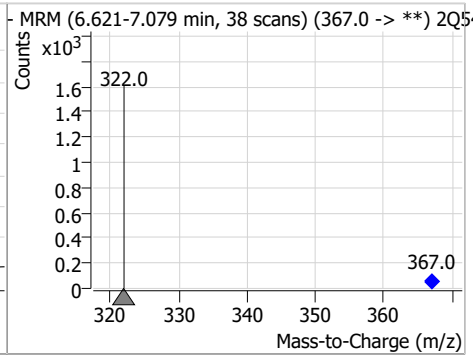




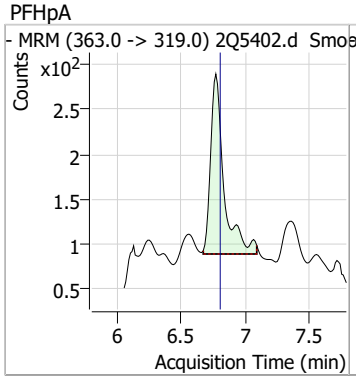
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.65	6.77	-0.03	44127				

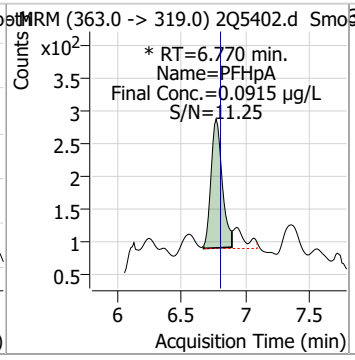


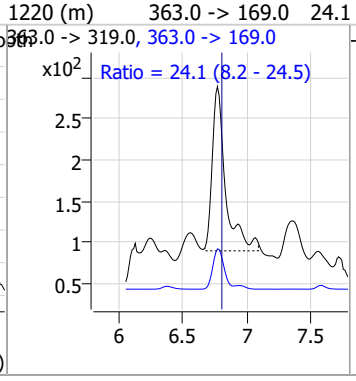


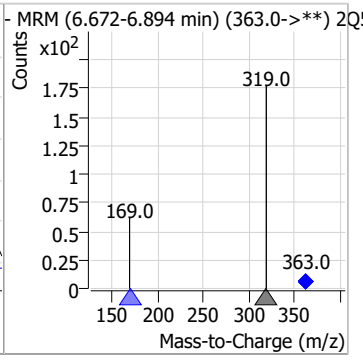


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.09	6.77	-0.03	1220 (m)	363.0 -> 169.0	24.1	8.2	24.5



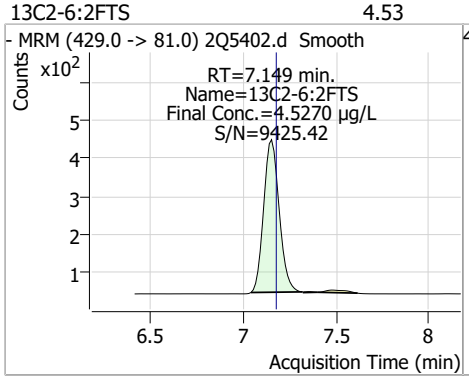


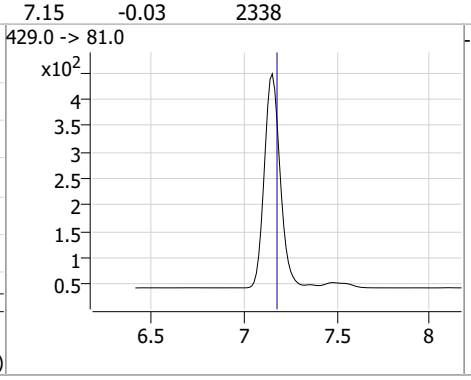


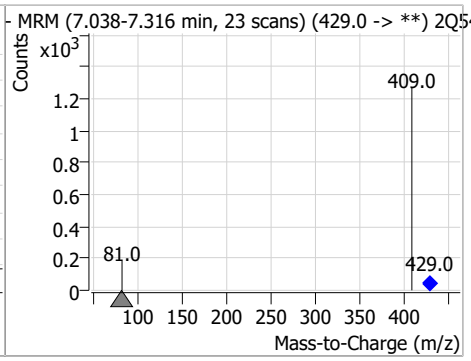


Perfluorinated Compounds by LC/MS/MS

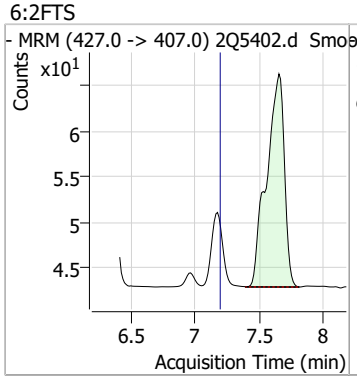
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.53	7.15	-0.03	2338				

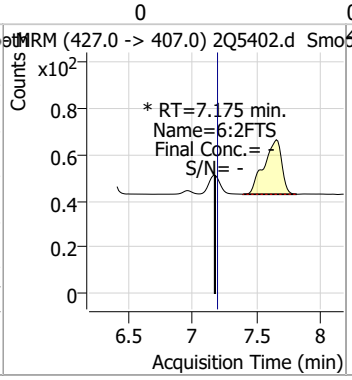


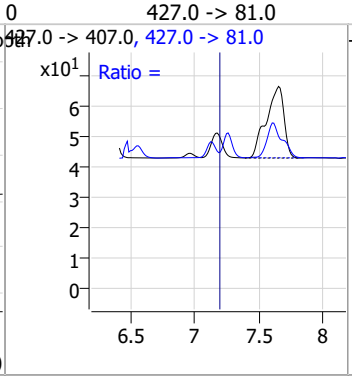


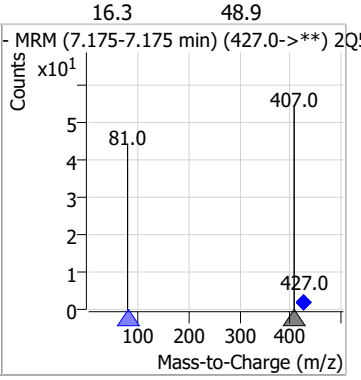


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9

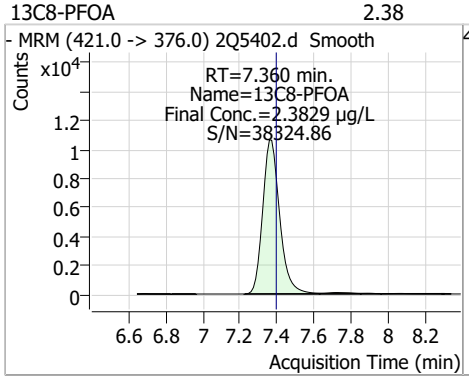


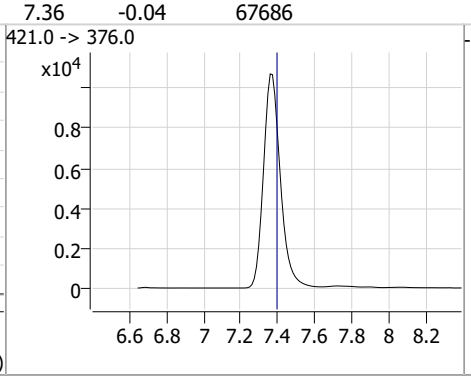


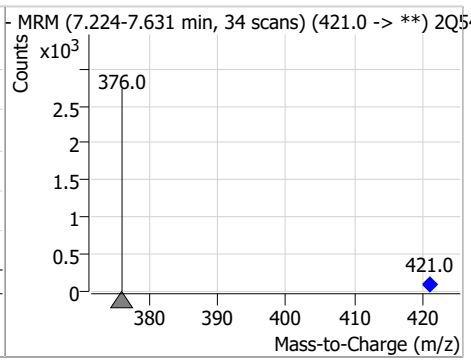




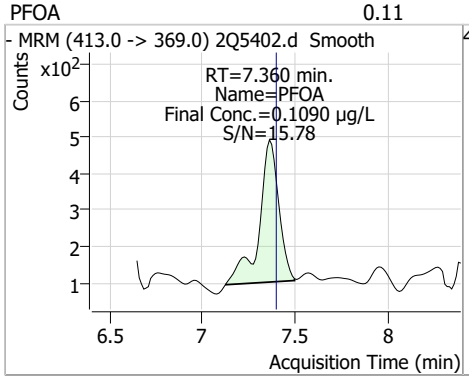
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.38	7.36	-0.04	67686				

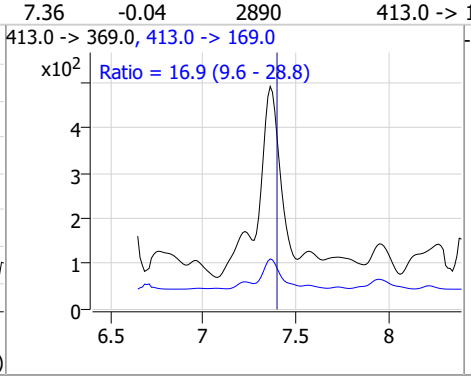


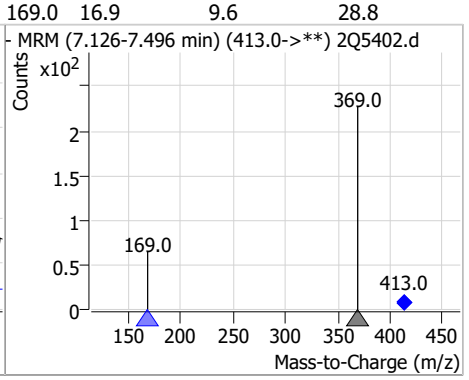




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.11	7.36	-0.04	2890	413.0 -> 169.0	16.9	9.6	28.8

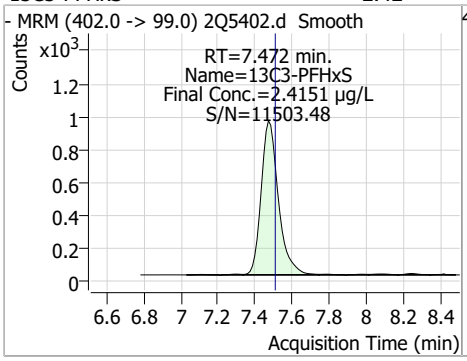


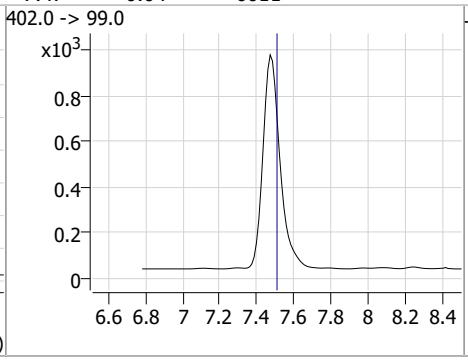


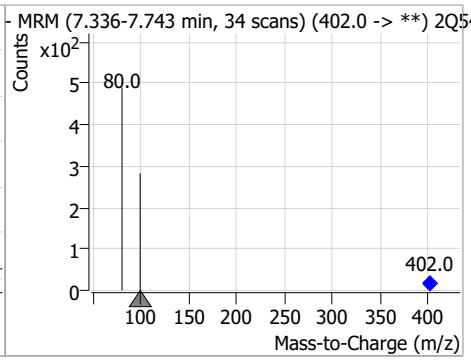


Perfluorinated Compounds by LC/MS/MS

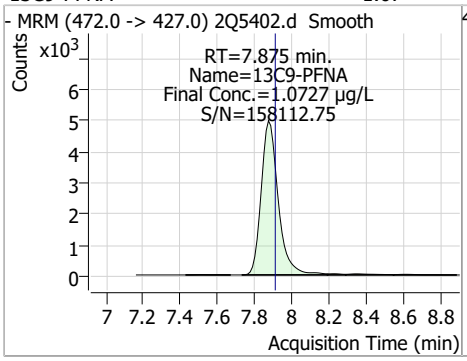
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.42	7.47	-0.04	6011				

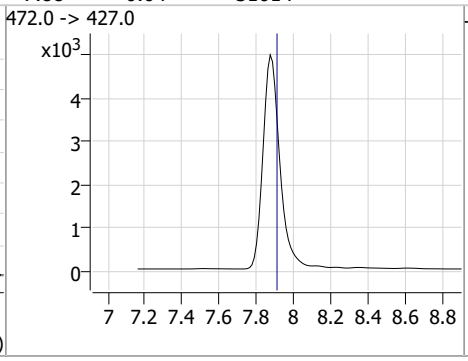


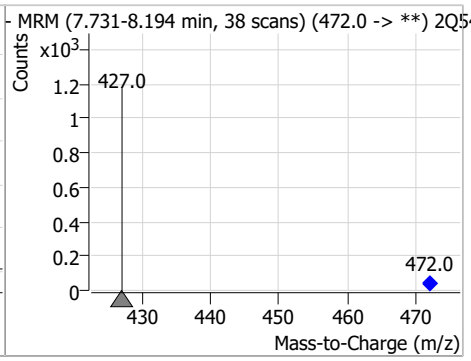




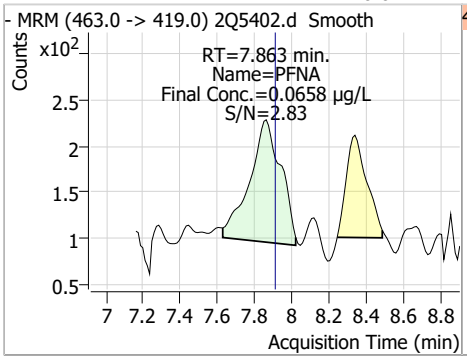
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.07	7.88	-0.04	31614				

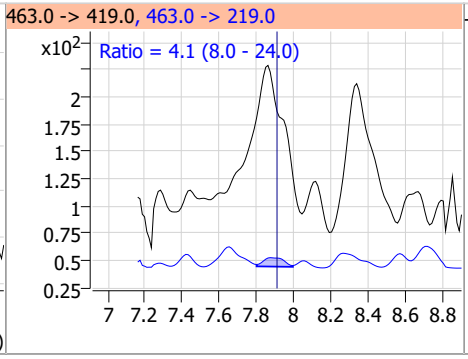


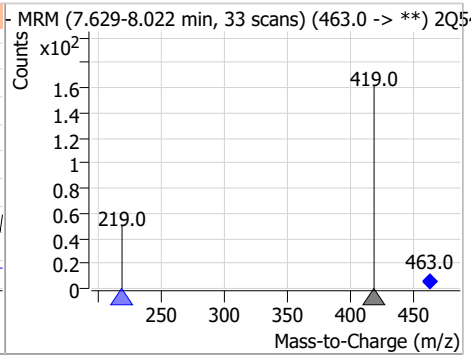




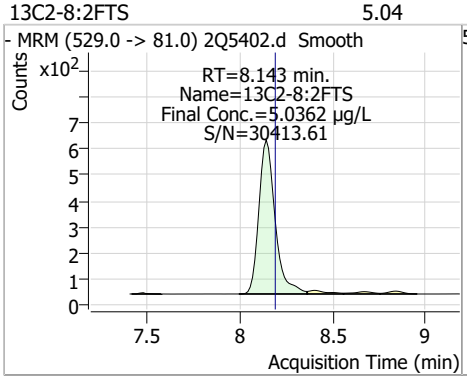
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.07	7.86	-0.05	1563	463.0 -> 219.0	4.1	8.0	24.0

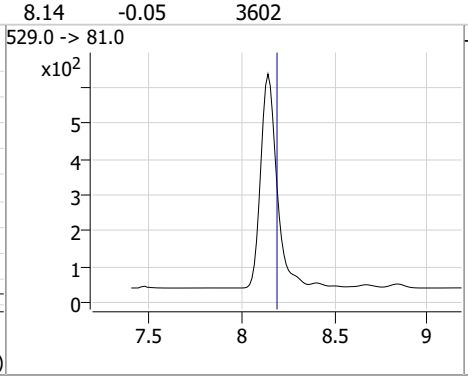


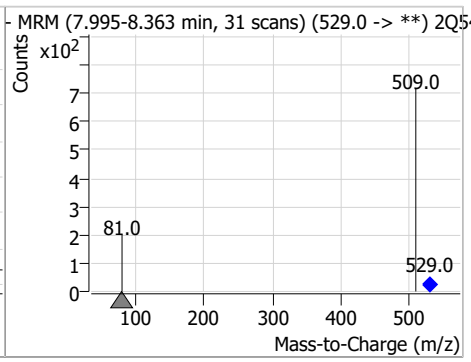




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.04	8.14	-0.05	3602				

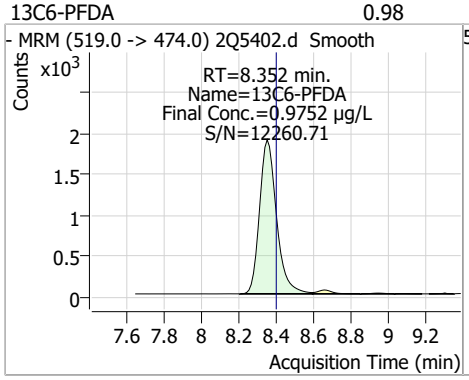


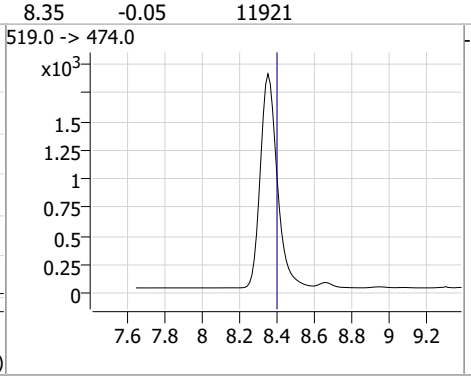


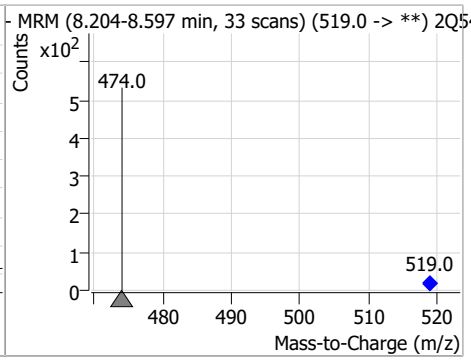


Perfluorinated Compounds by LC/MS/MS

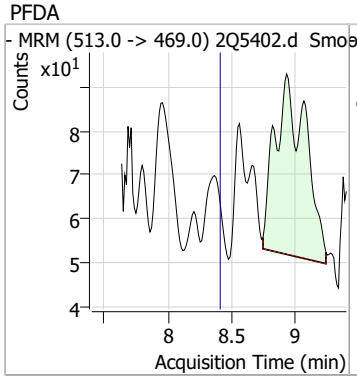
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	0.98	8.35	-0.05	11921				

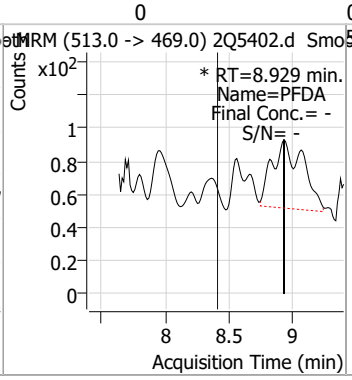


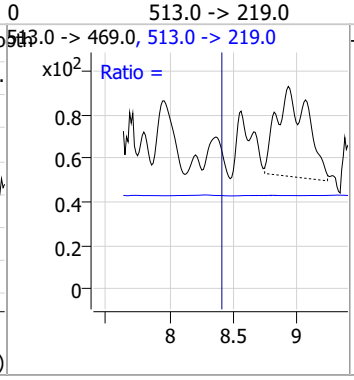


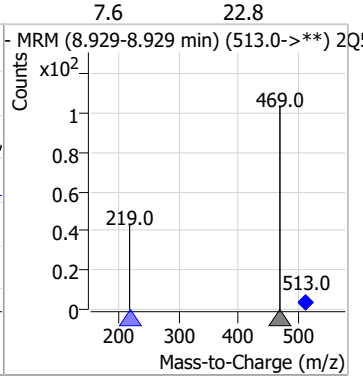


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8

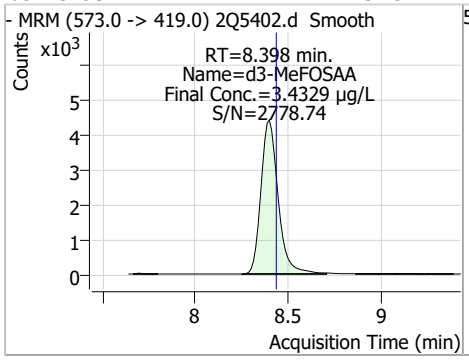


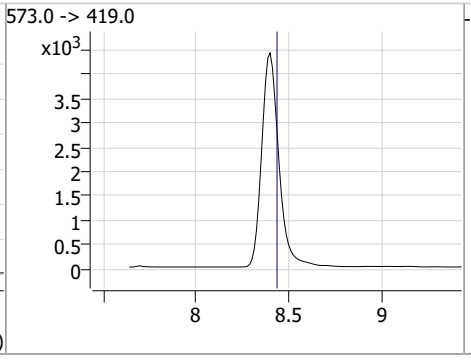


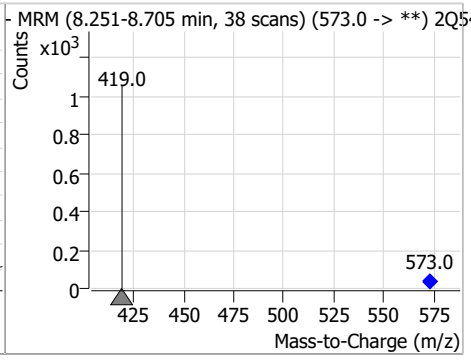




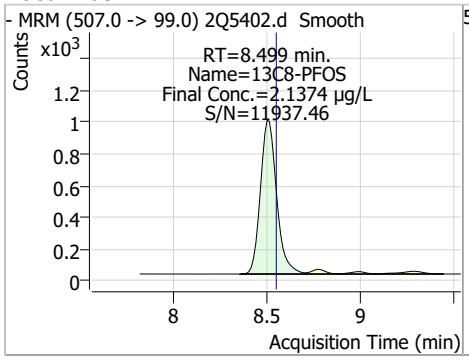
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	3.43	8.40	-0.04	28269				

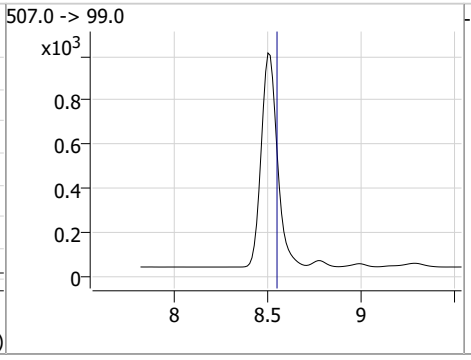


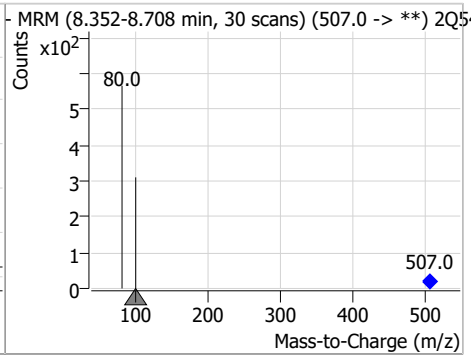




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.14	8.50	-0.05	5889				

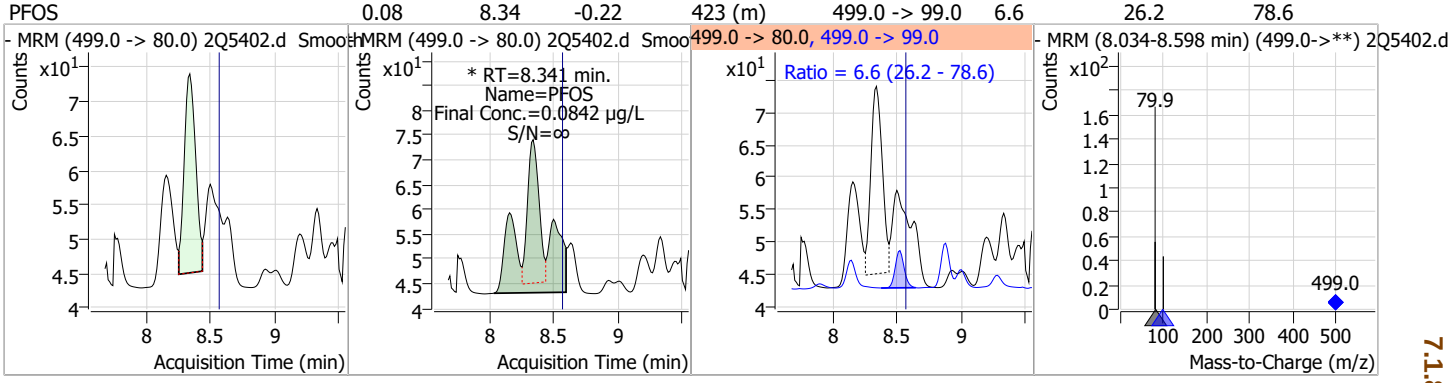




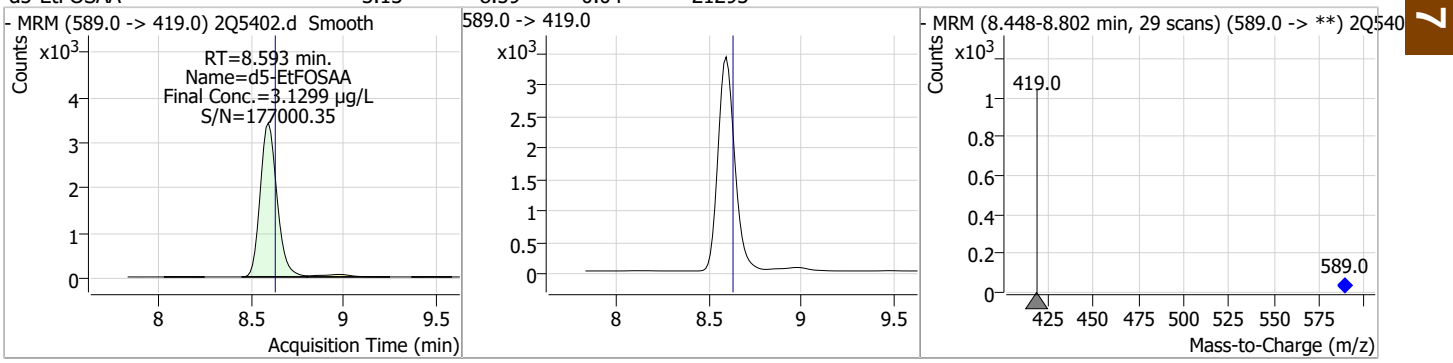


Perfluorinated Compounds by LC/MS/MS

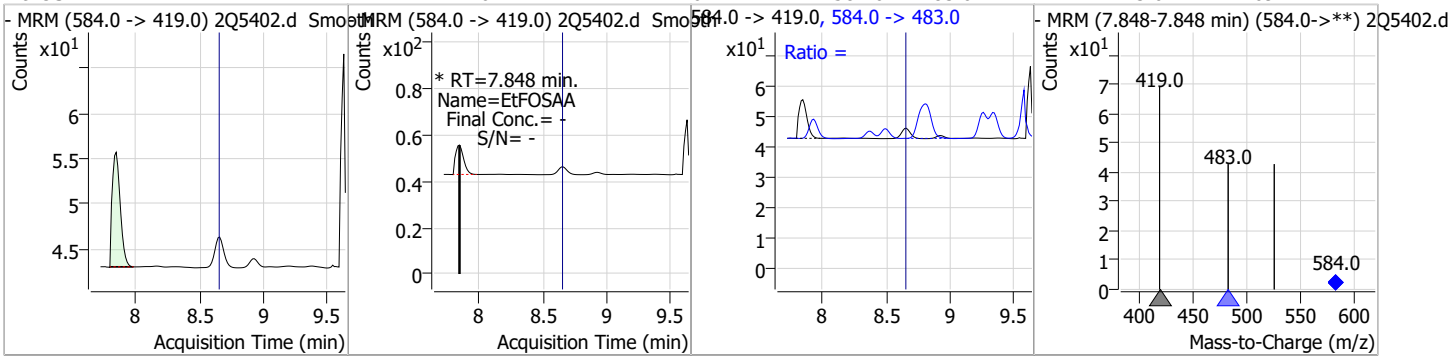
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.08	8.34	-0.22	423 (m)	499.0 -> 99.0	6.6	26.2	78.6



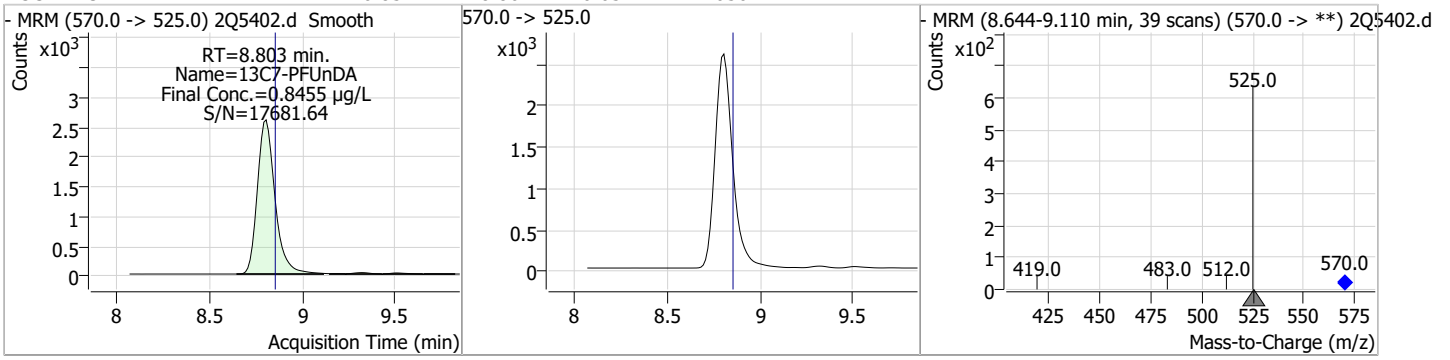
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	3.13	8.59	-0.04	21293				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1

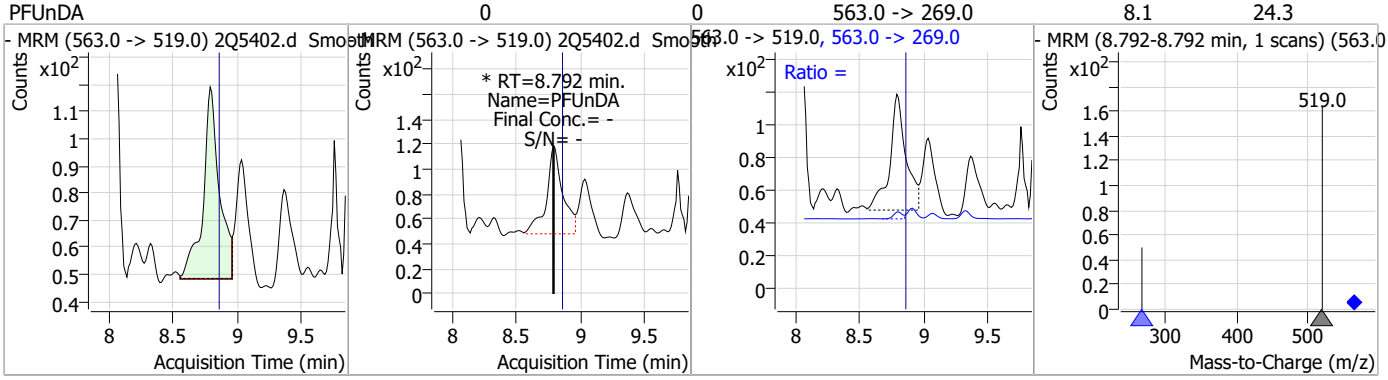


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	0.85	8.80	-0.05	17050				

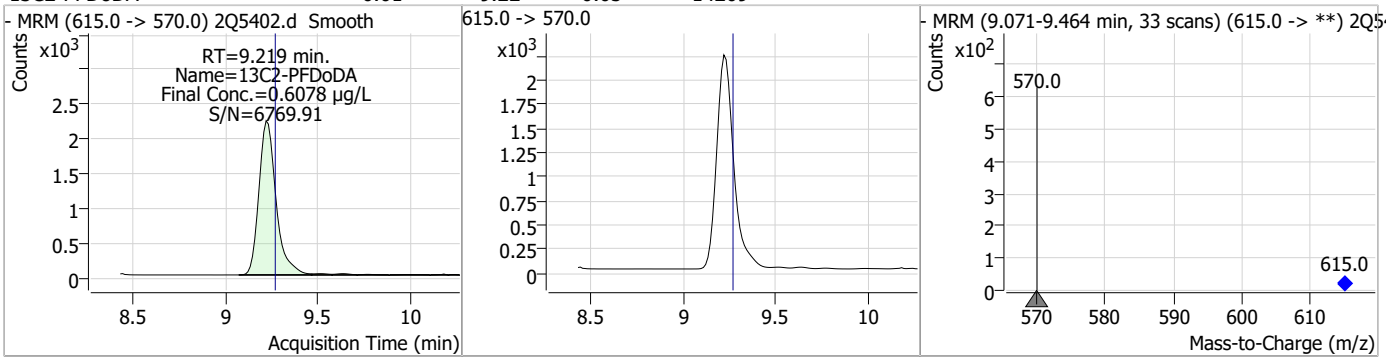


Perfluorinated Compounds by LC/MS/MS

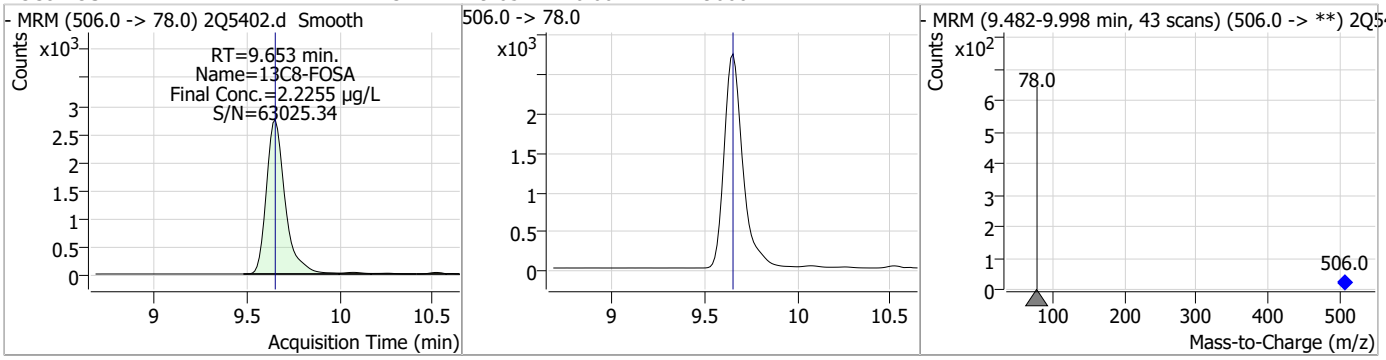
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA		0		0	563.0 -> 269.0		8.1	24.3



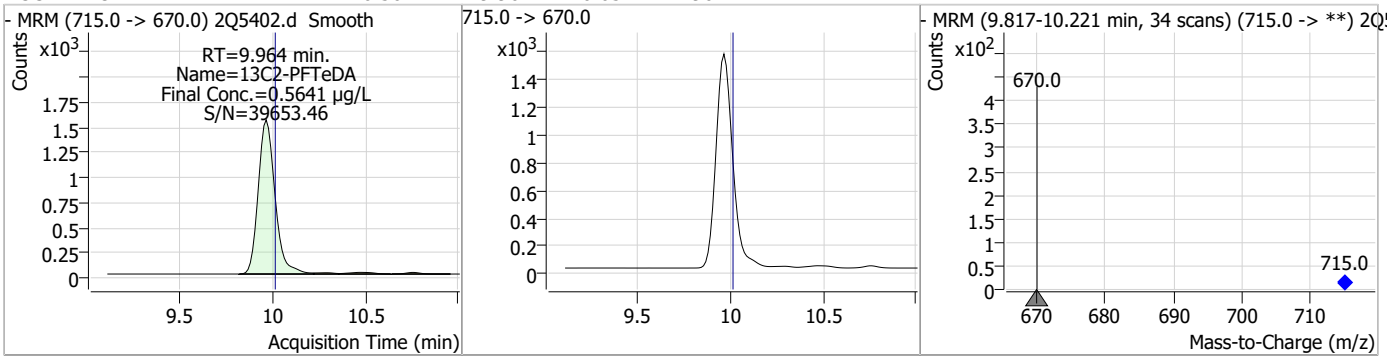
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.61	9.22	-0.05	14209				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.23	9.65	0.00	19066				

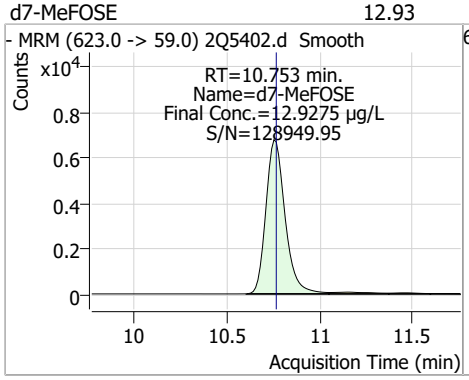


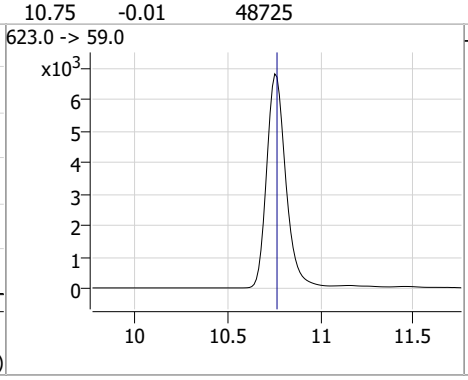
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.56	9.96	-0.05	9671				

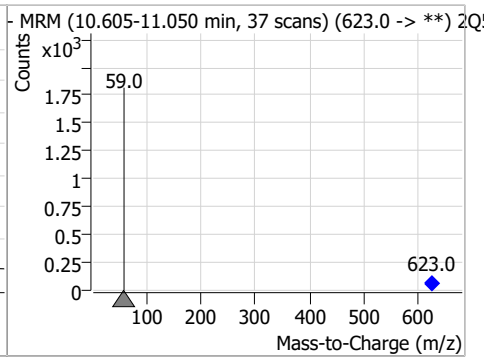


Perfluorinated Compounds by LC/MS/MS

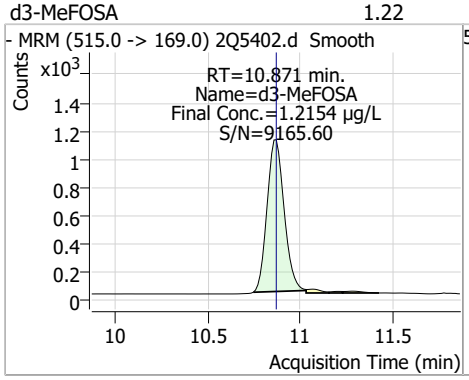
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	12.93	10.75	-0.01	48725				

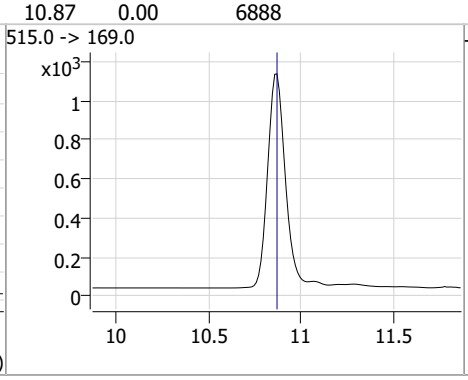


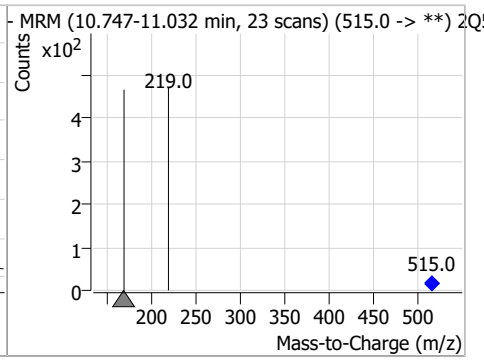




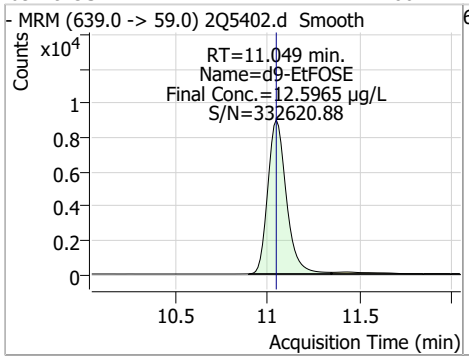
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.22	10.87	0.00	6888				

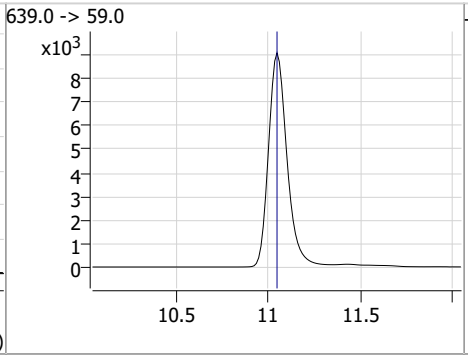


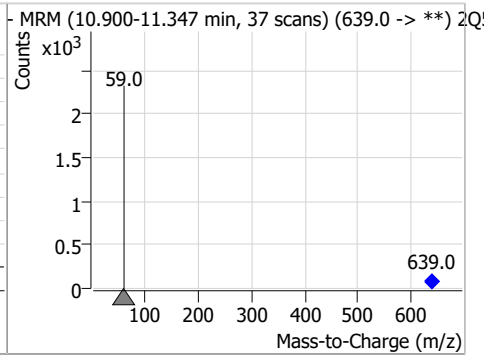




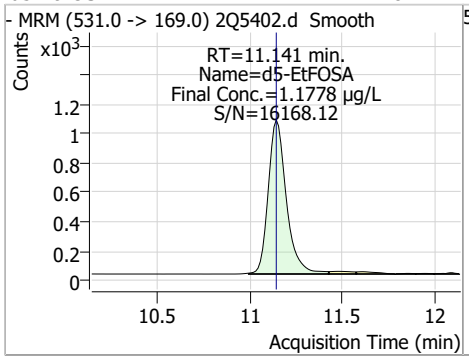
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	12.60	11.05	0.00	62871				

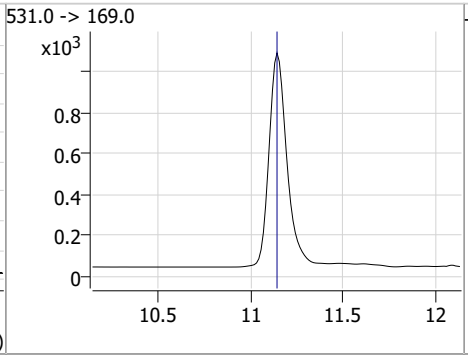


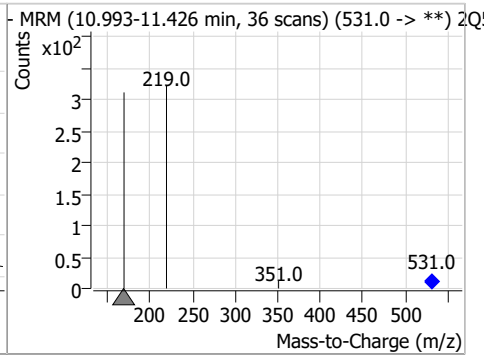




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.18	11.14	0.00	7156				







Manual Integration Approval Summary

Sample Number: JD77804-8
Lab FileID: 2Q5402.D
Injection Time: 12/02/23 05:46
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluoroheptanoic acid	375-85-9		6.77	Poorly defined baseline
Perfluorooctanesulfonic acid	1763-23-1		8.34	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5403.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 6:01:49 AM
Sample Name : JD77804-9
Vial : P3-A4
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,530,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.327	217.0 -> 172.0	95945	10.00	µg/L	-0.013
M5-PFPeA	4.785	268.0 -> 223.0	92557	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	50336	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	39461	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	66907	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	29358	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13093	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	21939	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	22042	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16063	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19689	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6004	2.50	µg/L	-0.037
		302.0 -> 80.0	13917			
M3-PFHxS	7.472	402.0 -> 99.0	5747	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	7018	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1509	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2532	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4832	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	36201	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	23392	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	31328	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	81186	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	105399	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11058	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	9539	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	11101	2.50	µg/L	-0.049
13C3-PFBA	3.330	216.0 -> 172.0	70035	5.00	µg/L	-0.012
18O2-PFHxS	7.472	403.0 -> 84.0	6593	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	67872	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	28340	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	34539	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	49320	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1509	6.27	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 125.4%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2532	4.74	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.9%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4832	6.54	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 130.8%		
13C2-PFDoDA	9.219	615.0 -> 570.0	22042	0.97	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 77.9%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16063	0.97	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 77.5%		
13C3-PFBS	5.846	302.0 -> 99.0	6004	2.45	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5747	2.23	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.4%			
13C4-PFBA	3.327	217.0 -> 172.0	95945	6.09	µg/L		-0.013
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 60.9%			
13C4-PFHpA	6.770	367.0 -> 322.0	39461	2.46	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.5%			
13C5-PFHxA	5.930	318.0 -> 273.0	50336	2.46	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.3%			
13C5-PFPeA	4.785	268.0 -> 223.0	92557	5.01	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.1%			
13C6-PFDA	8.352	519.0 -> 474.0	13093	1.11	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.5%			
13C7-PFUnDA	8.803	570.0 -> 525.0	21939	1.12	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.9%			
13C8-FOSA	9.653	506.0 -> 78.0	19689	2.62	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.8%			
13C8-PFOA	7.360	421.0 -> 376.0	66907	2.38	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.2%			
13C8-PFOS	8.512	507.0 -> 99.0	7018	2.90	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 116.1%			
13C9-PFNA	7.875	472.0 -> 427.0	29358	1.09	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.9%			
d3-MeFOSAA	8.398	573.0 -> 419.0	36201	5.01	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.2%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	23392	10.00	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 100.0%			
d3-MeFOSA	10.871	515.0 -> 169.0	9539	1.92	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 76.7%			
d5-EtFOSAA	8.593	589.0 -> 419.0	31328	5.25	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.0%			
d7-MeFOSE	10.753	623.0 -> 59.0	81186	24.55	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 98.2%			
d9-EtFOSE	11.049	639.0 -> 59.0	105399	24.07	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 96.3%			
d5-EtFOSA	11.141	531.0 -> 169.0	11058	2.07	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 83.0%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	-	427.0 -> 407.0	-	N.D.			
		427.0 -> 81.0					
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	9.085	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.333	213.0 -> 169.0	692	0.29	µg/L		100
PFBS	5.847	299.0 -> 80.0	2250	0.36	µg/L		96
		299.0 -> 99.0	1011				
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	9.918	613.0 -> 569.0	0		µg/L	m	1
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

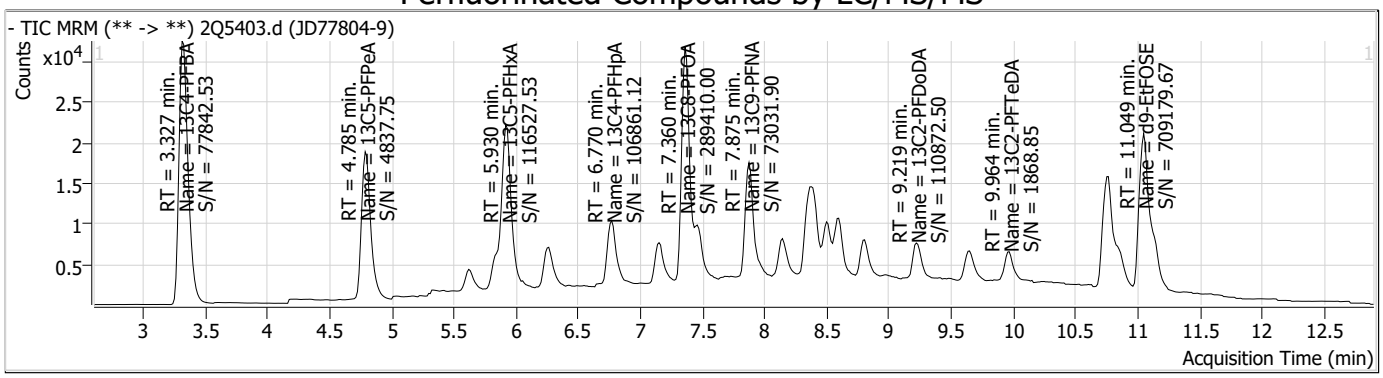
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.758	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.920	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	7.522	399.0 -> 80.0	0		µg/L	m	1
		399.0 -> 99.0					
PFNA	7.888	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	0		µg/L	m	1
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.799	263.0 -> 219.0	3743	0.22	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	8.264	563.0 -> 519.0	0		µg/L	m	1
		563.0 -> 269.0	0				
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.477	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

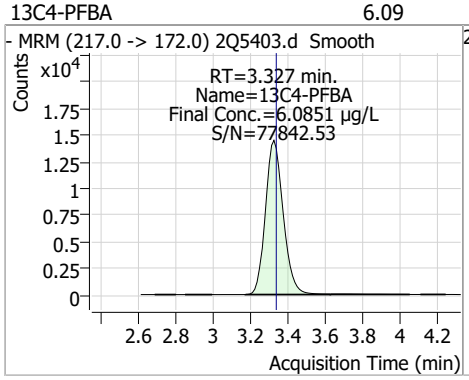
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

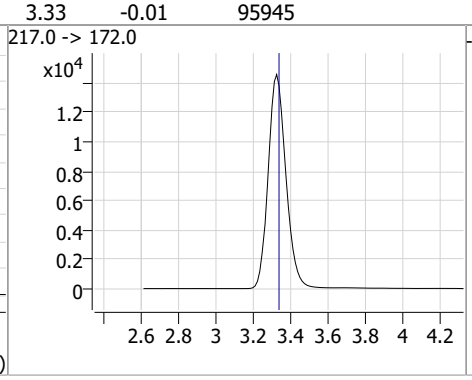
= Qualifier out of range, m = manually integrated, + = Area summed

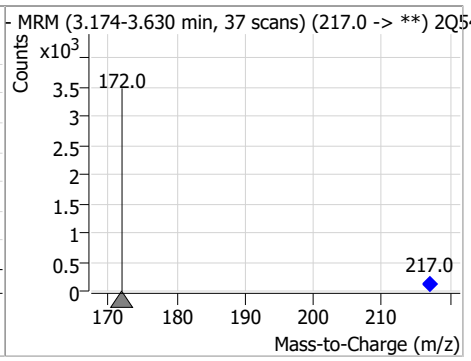
Perfluorinated Compounds by LC/MS/MS



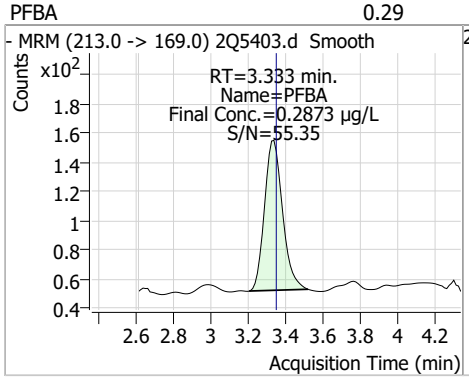
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	6.09	3.33	-0.01	95945				

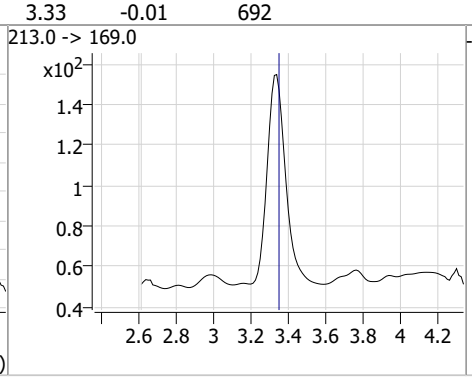


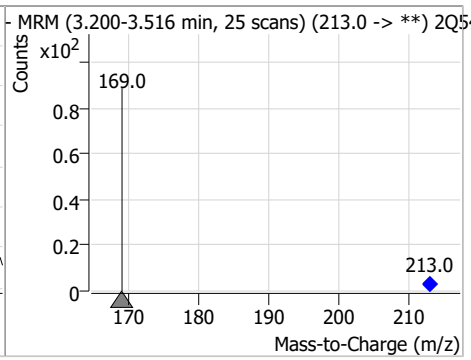




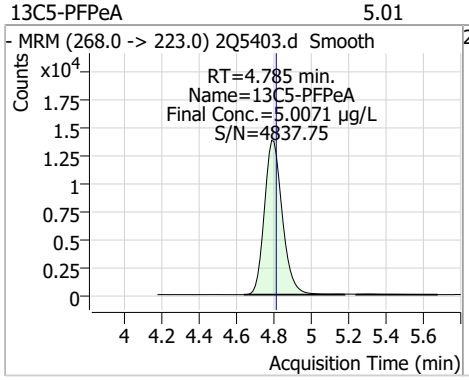
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.29	3.33	-0.01	692				

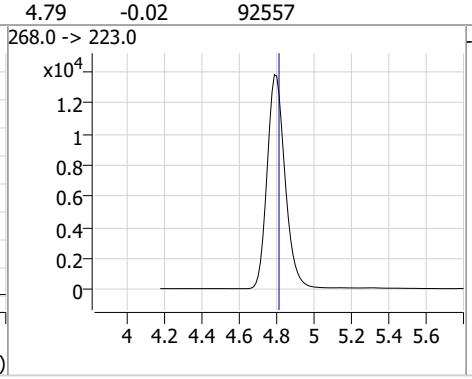


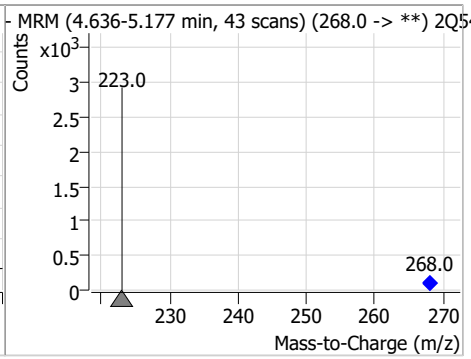




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.01	4.79	-0.02	92557				

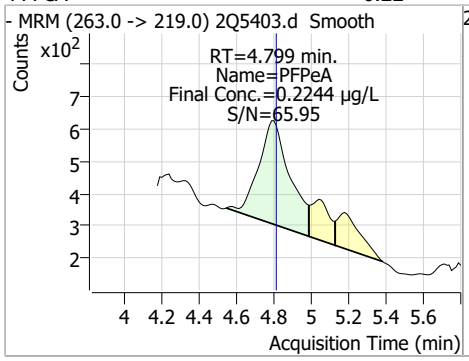


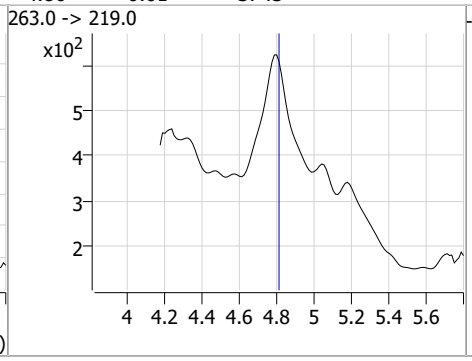


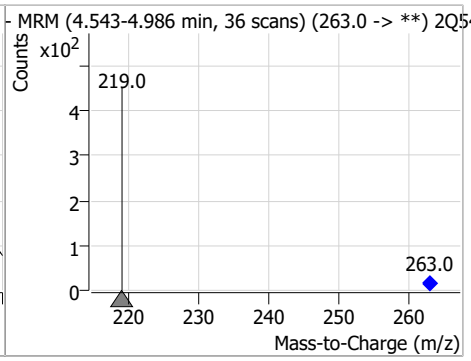


Perfluorinated Compounds by LC/MS/MS

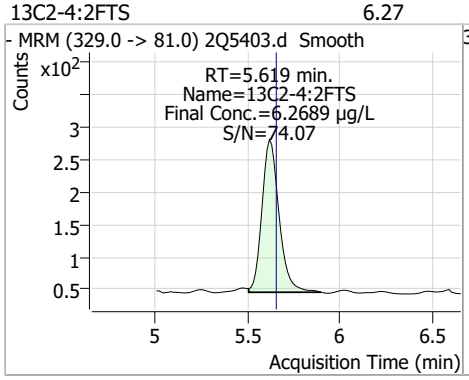
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.22	4.80	-0.01	3743				

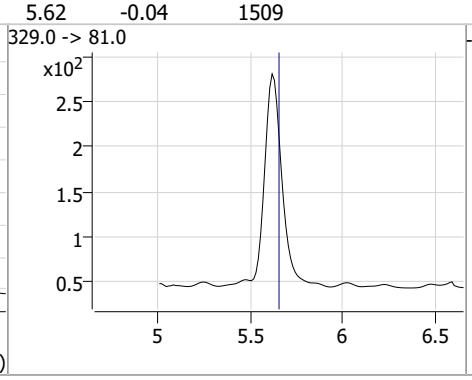


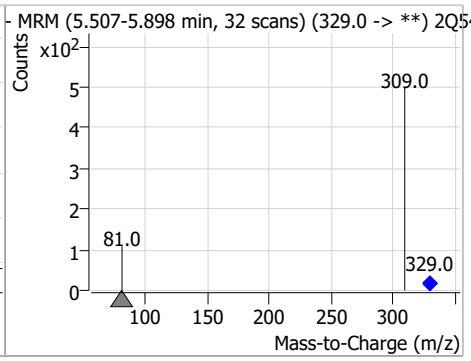




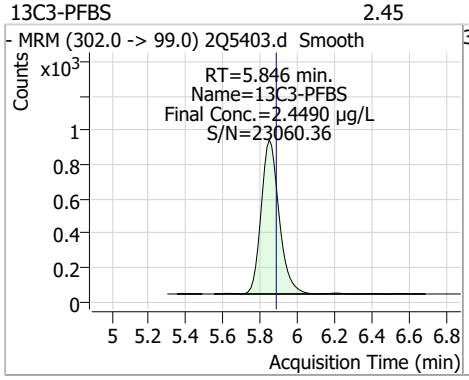
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	6.27	5.62	-0.04	1509				

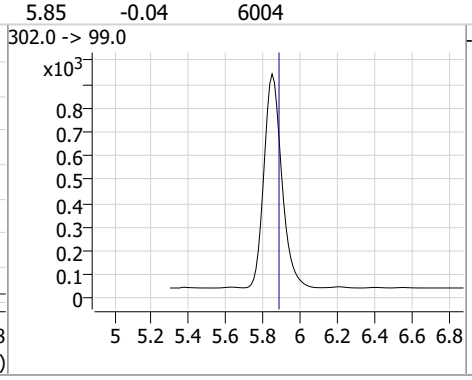


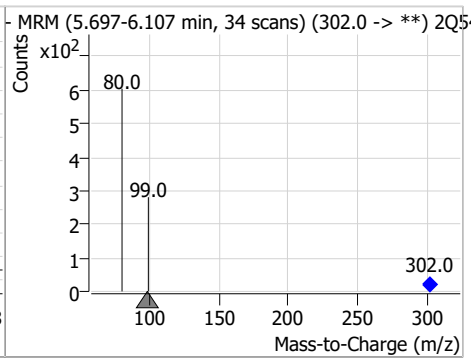




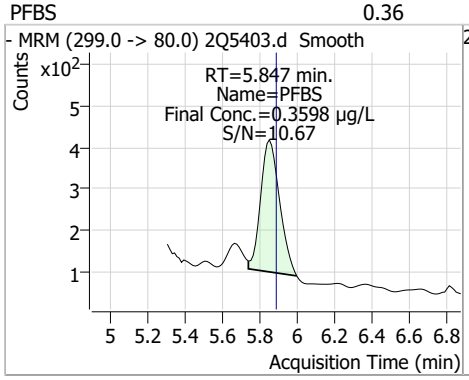
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.45	5.85	-0.04	6004				

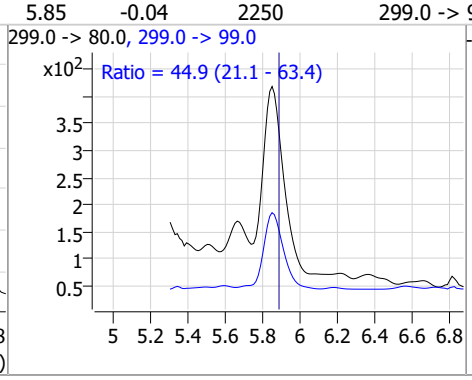


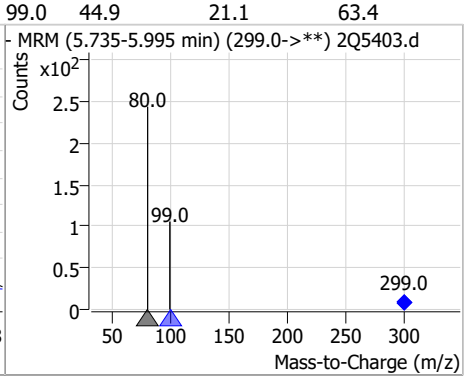




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.36	5.85	-0.04	2250	299.0 -> 99.0	44.9	21.1	63.4

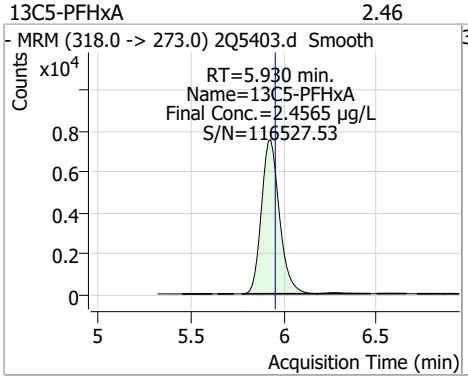


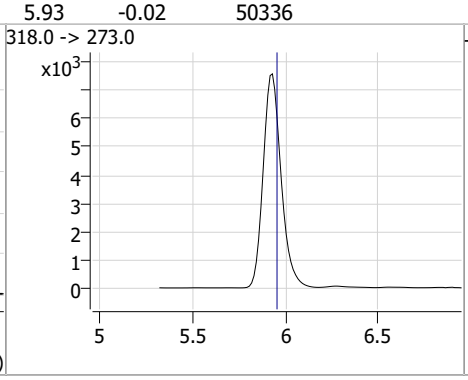


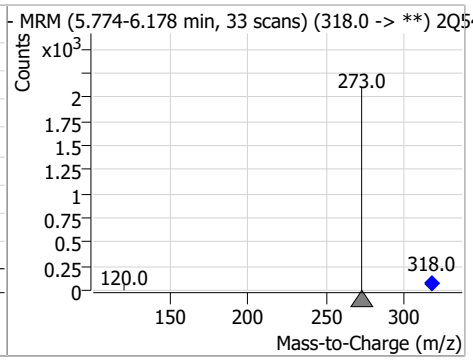


Perfluorinated Compounds by LC/MS/MS

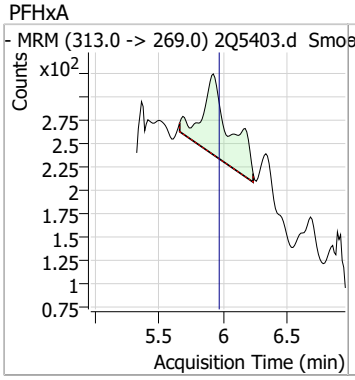
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.46	5.93	-0.02	50336				

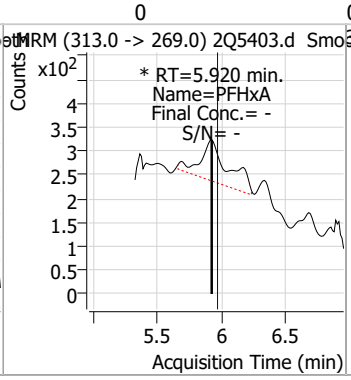


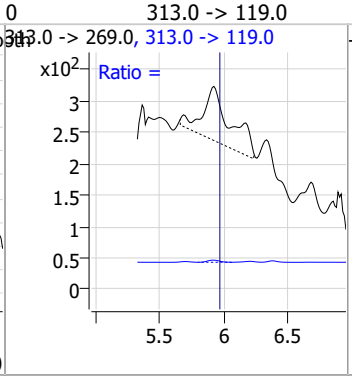


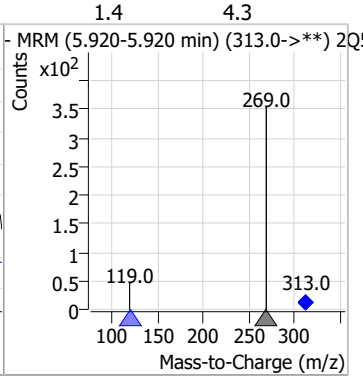


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

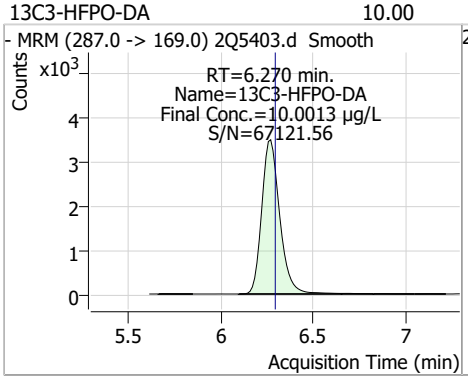


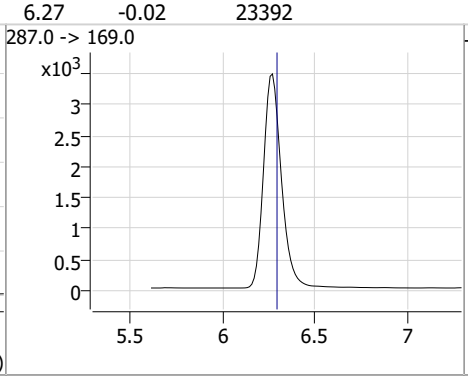


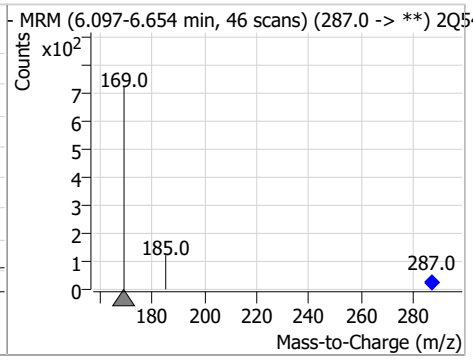




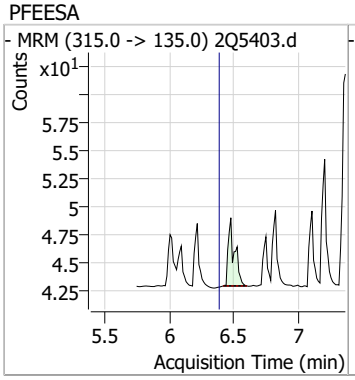
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.00	6.27	-0.02	23392				

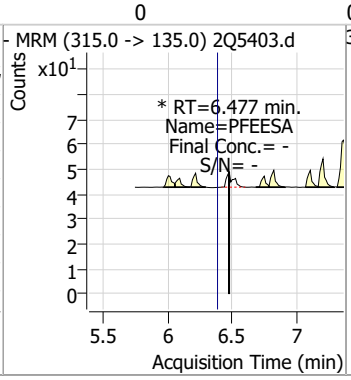


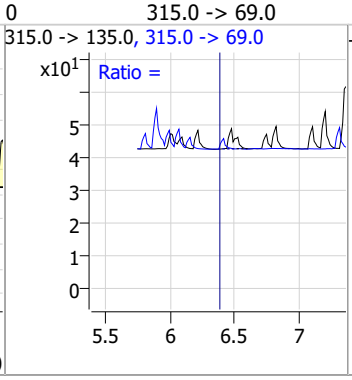


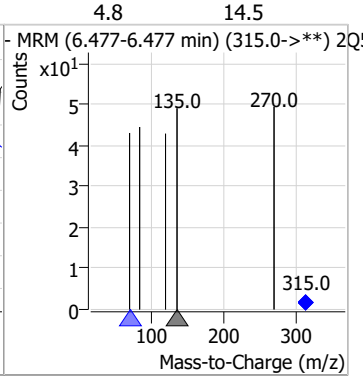


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



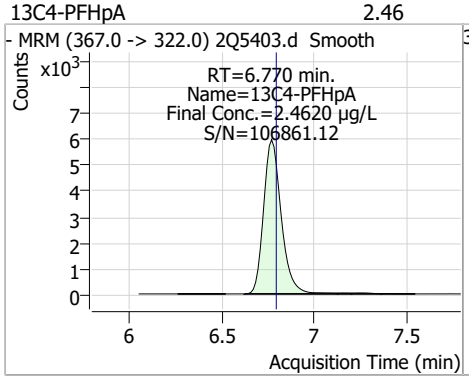


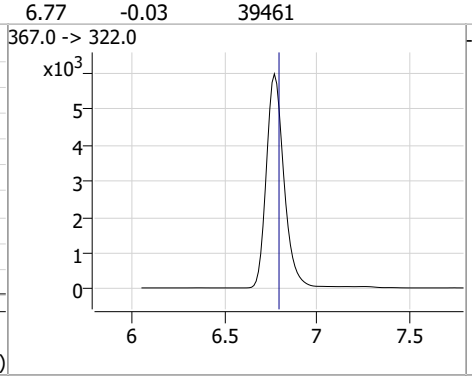


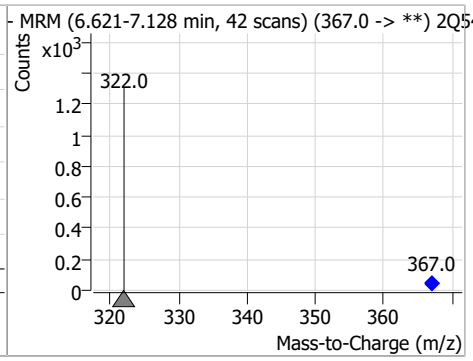


Perfluorinated Compounds by LC/MS/MS

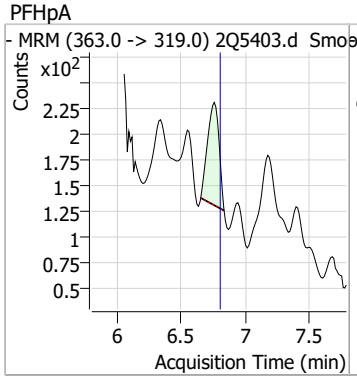
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.46	6.77	-0.03	39461				

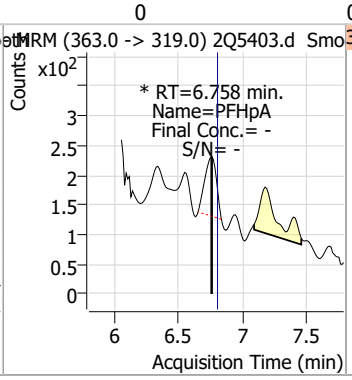


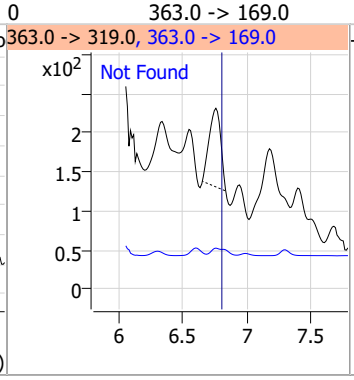


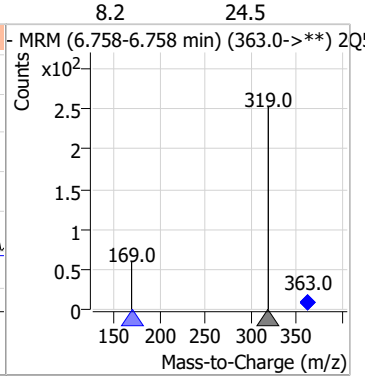


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5

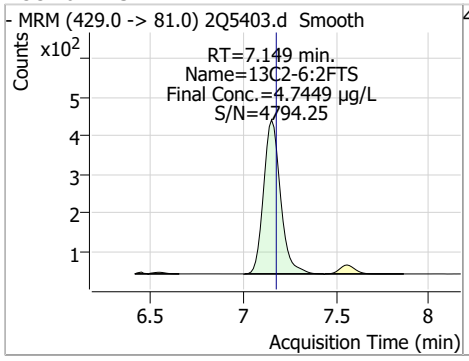


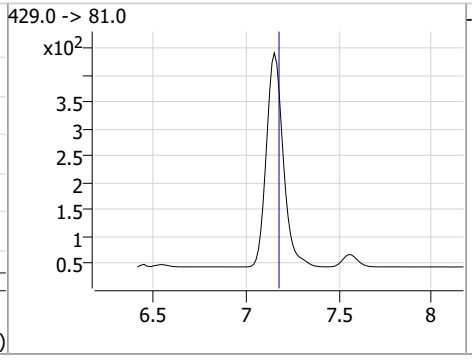


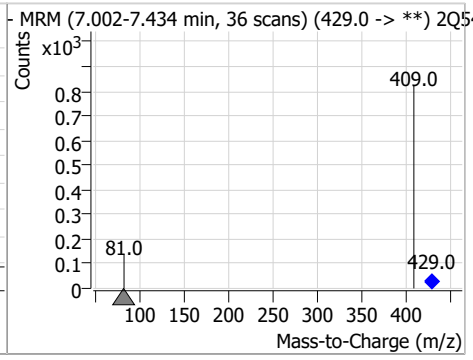




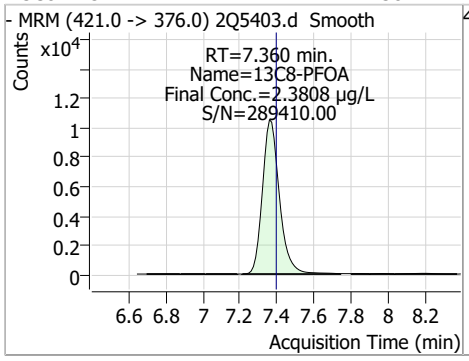
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.74	7.15	-0.03	2532				

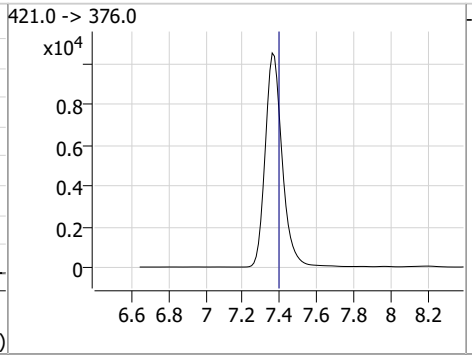


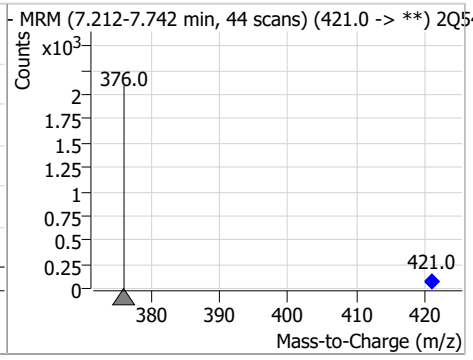




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.38	7.36	-0.04	66907				

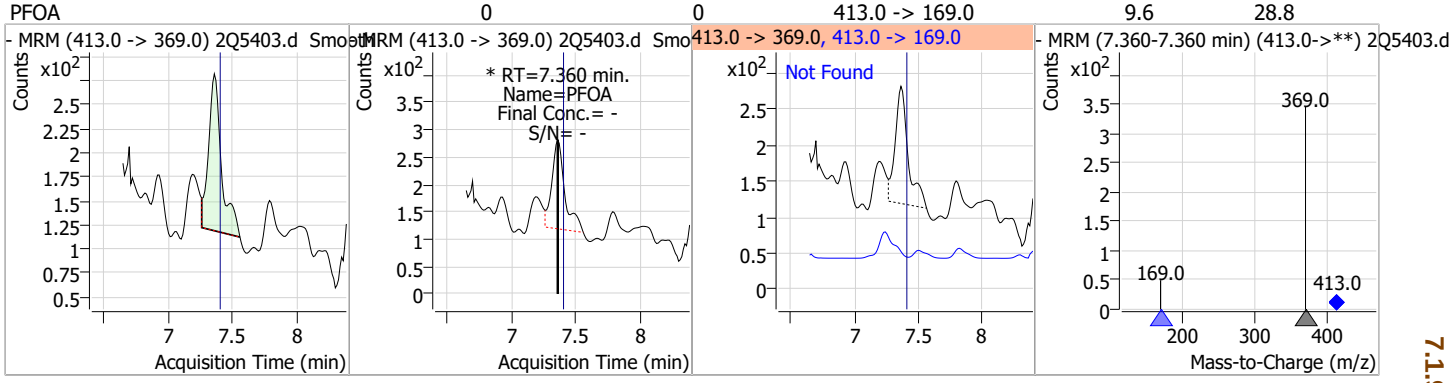




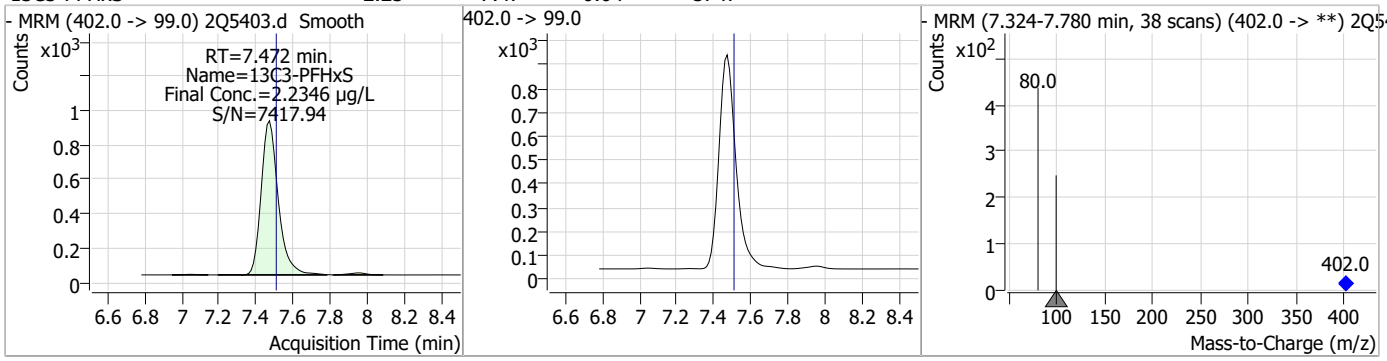


Perfluorinated Compounds by LC/MS/MS

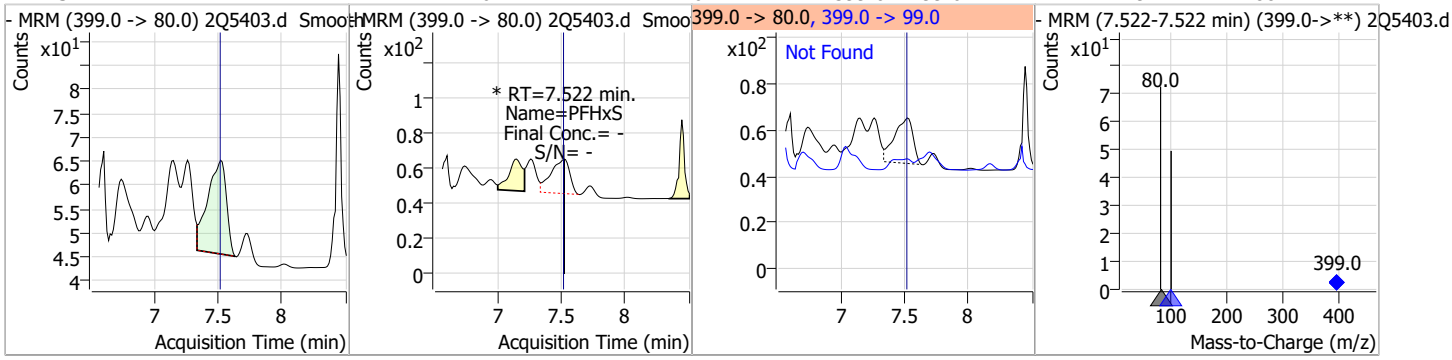
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA		0		0	413.0 -> 169.0		9.6	28.8



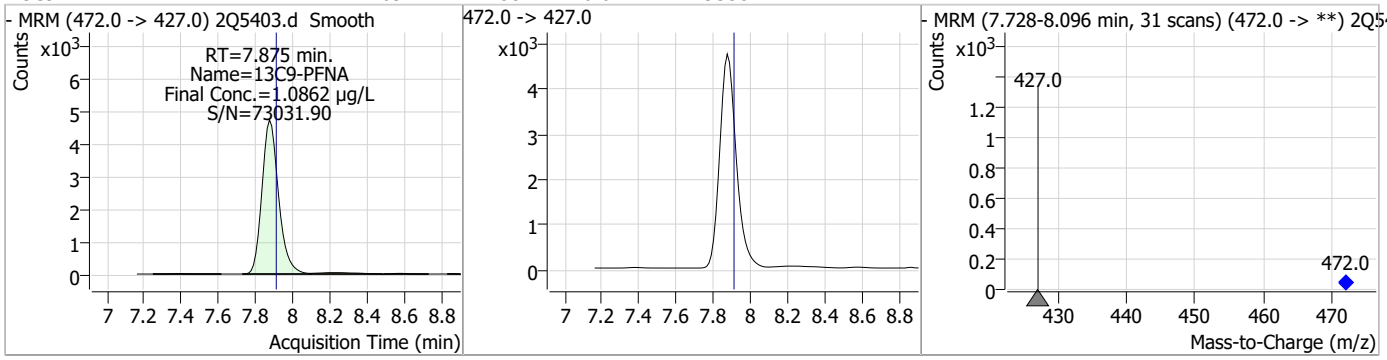
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.23	7.47	-0.04	5747				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS		0		0	399.0 -> 99.0		29.4	88.1



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.09	7.88	-0.04	29358				

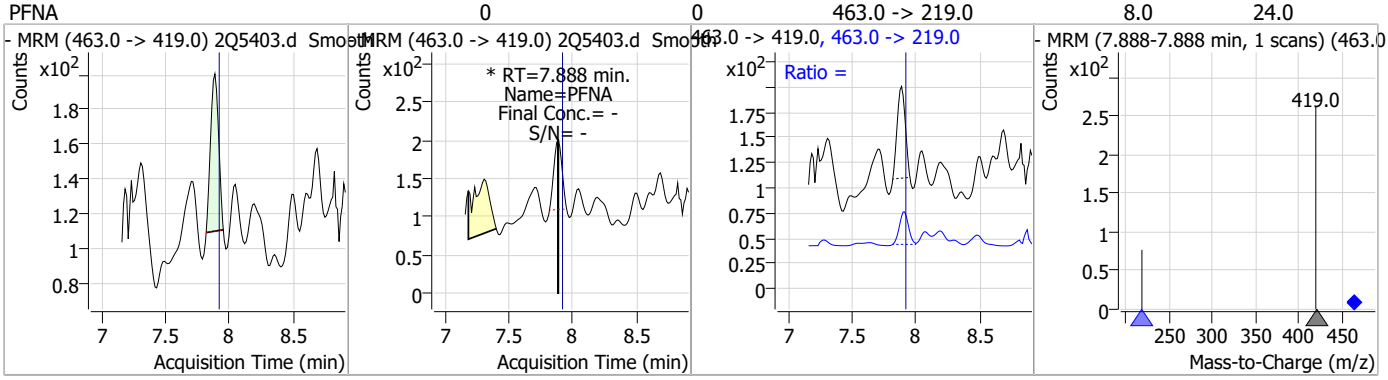


7.1.9

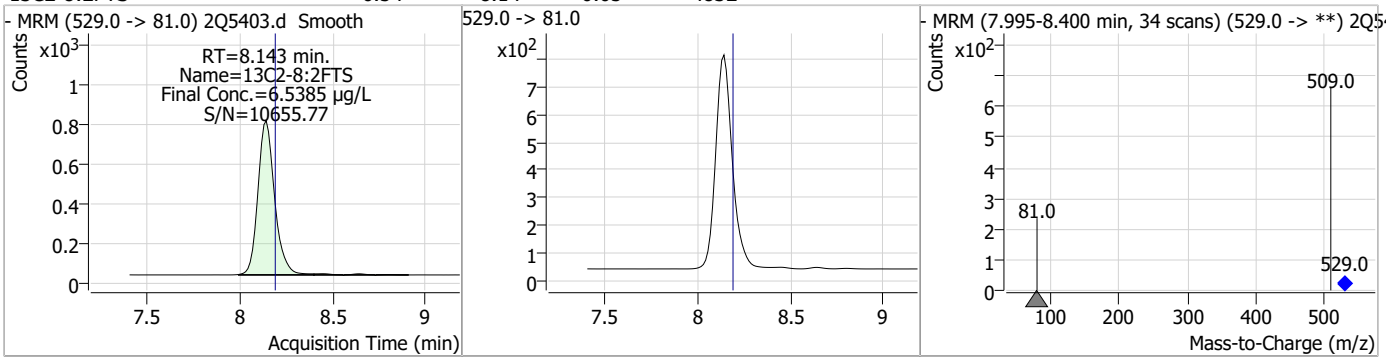
7

Perfluorinated Compounds by LC/MS/MS

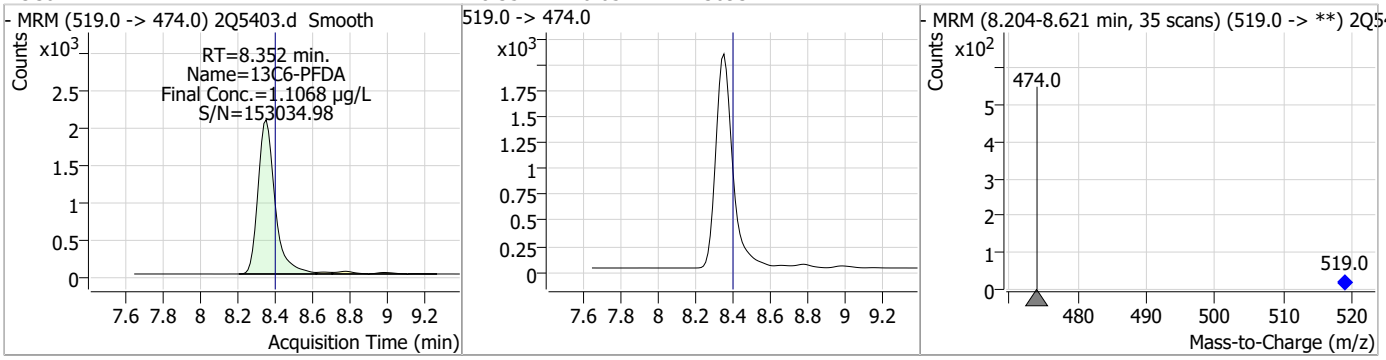
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



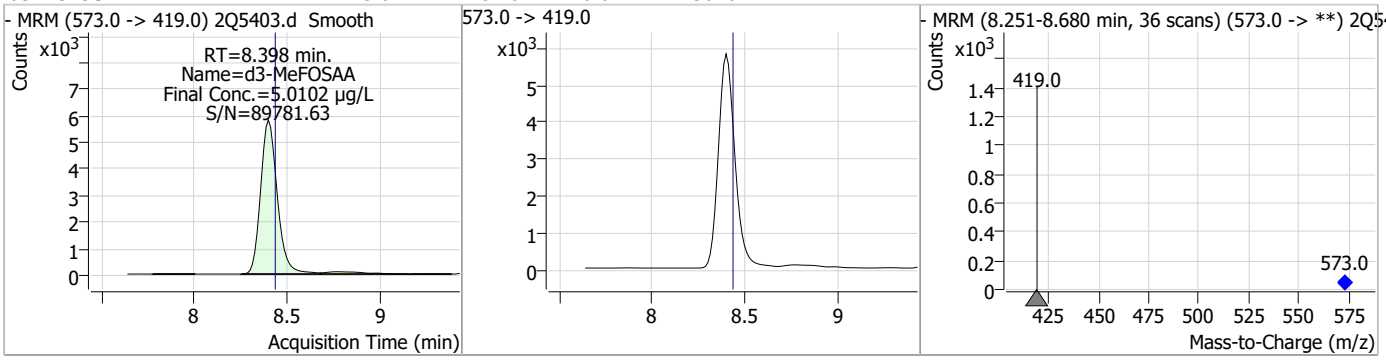
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.54	8.14	-0.05	4832				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.11	8.35	-0.05	13093				

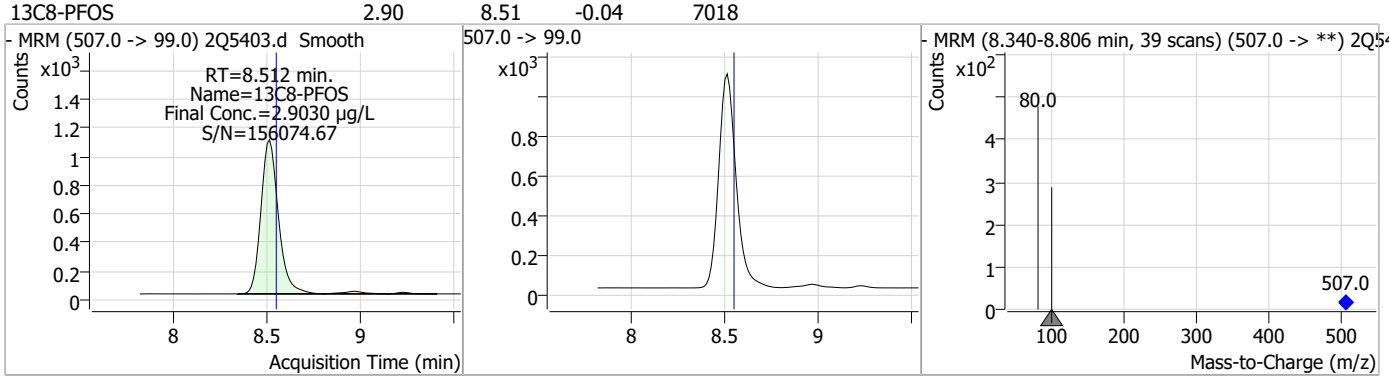


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.01	8.40	-0.04	36201				

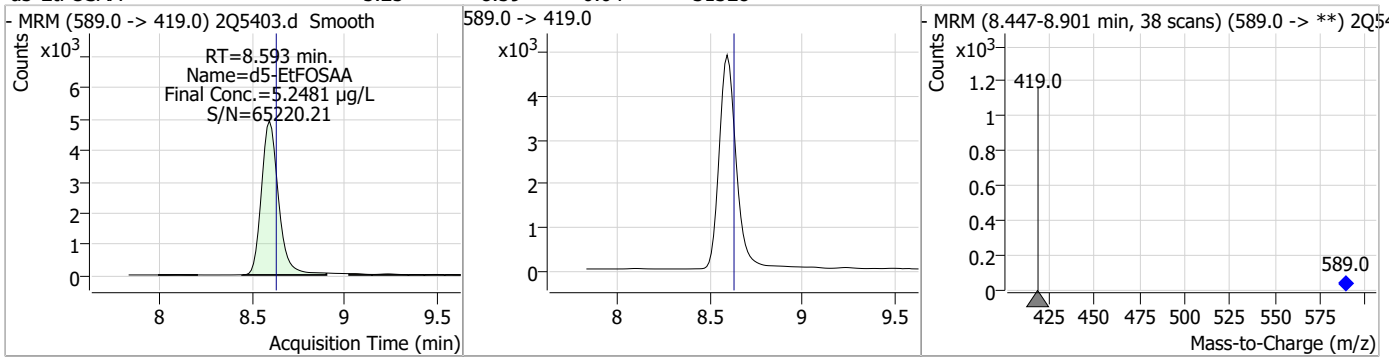


Perfluorinated Compounds by LC/MS/MS

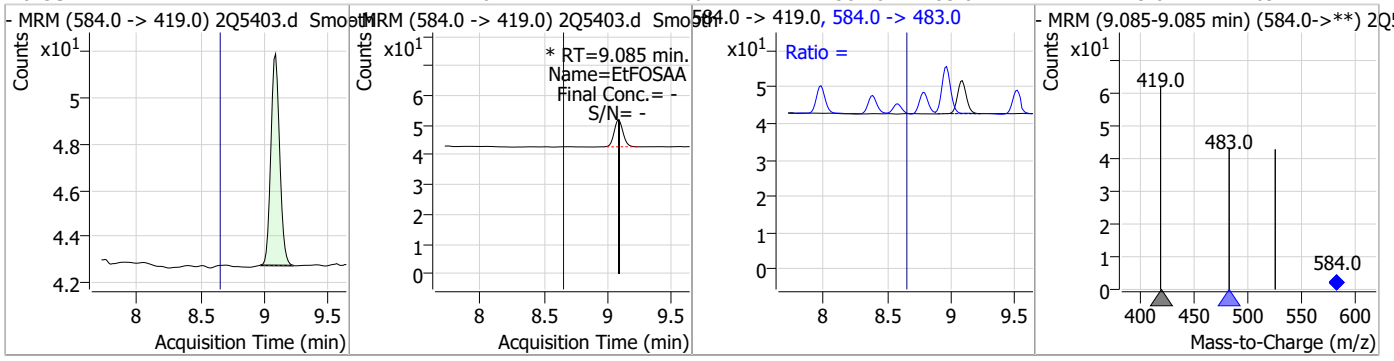
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.90	8.51	-0.04	7018				



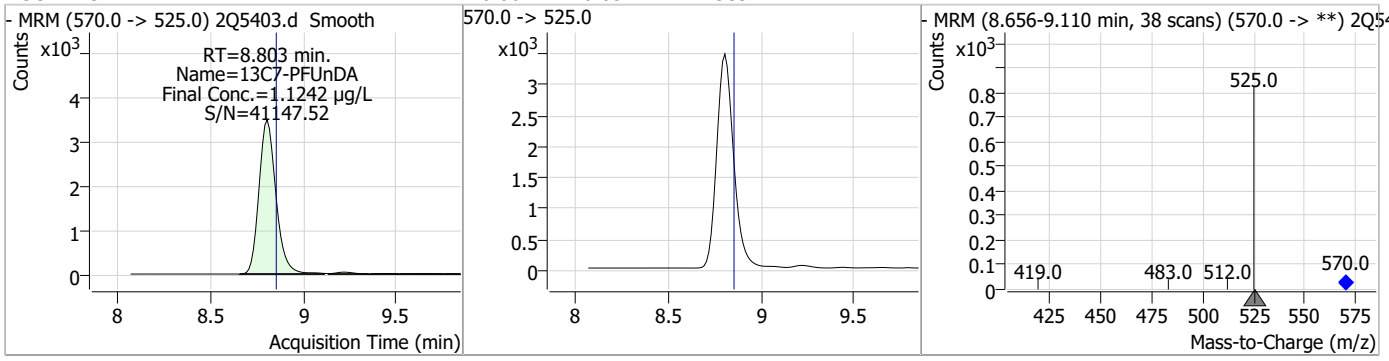
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.25	8.59	-0.04	31328				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0		0	0	584.0 -> 483.0		23.0	69.1

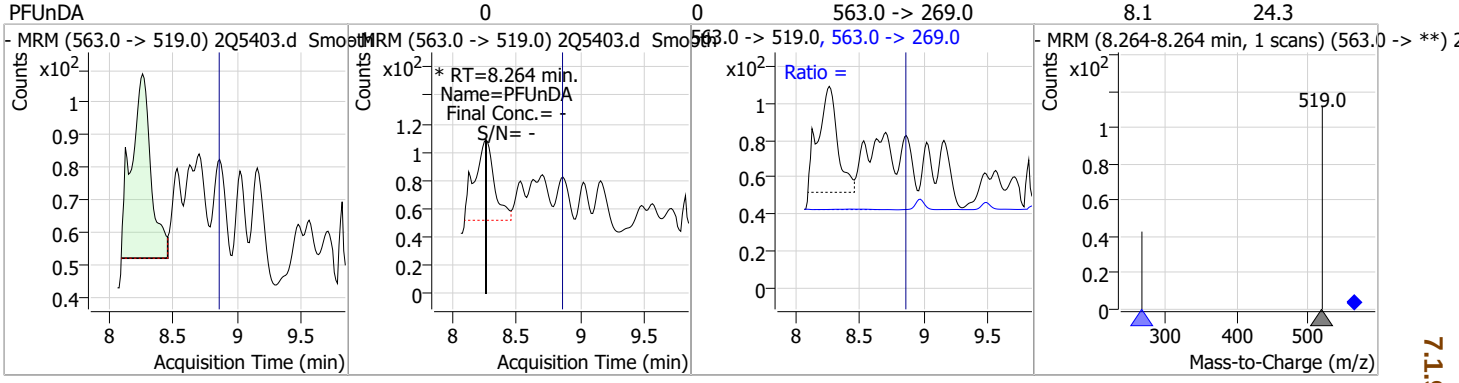


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.12	8.80	-0.05	21939				

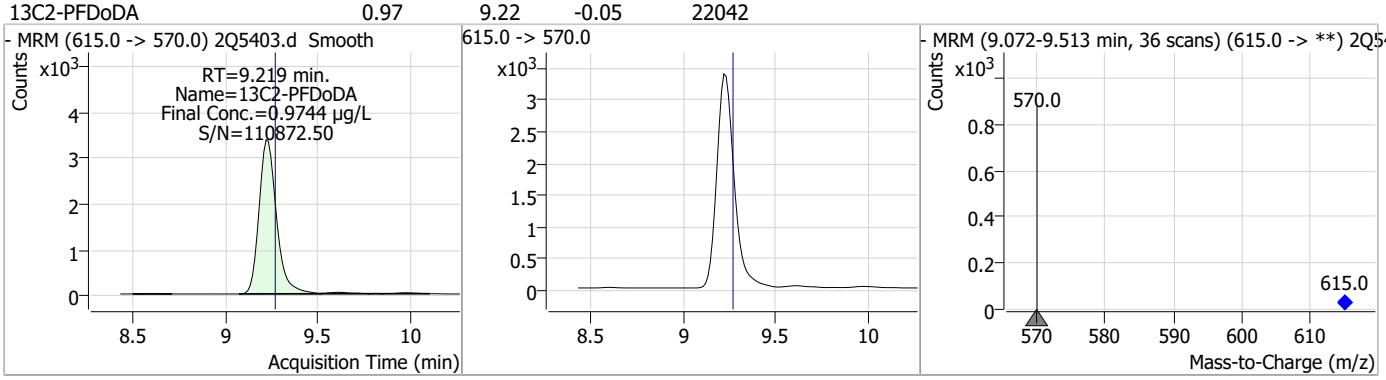


Perfluorinated Compounds by LC/MS/MS

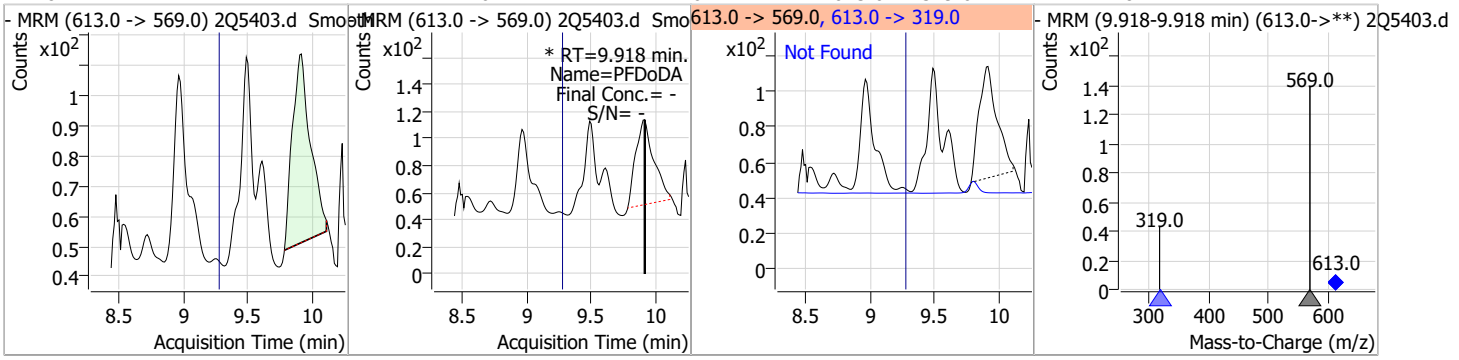
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA		0		0	563.0 -> 269.0		8.1	24.3



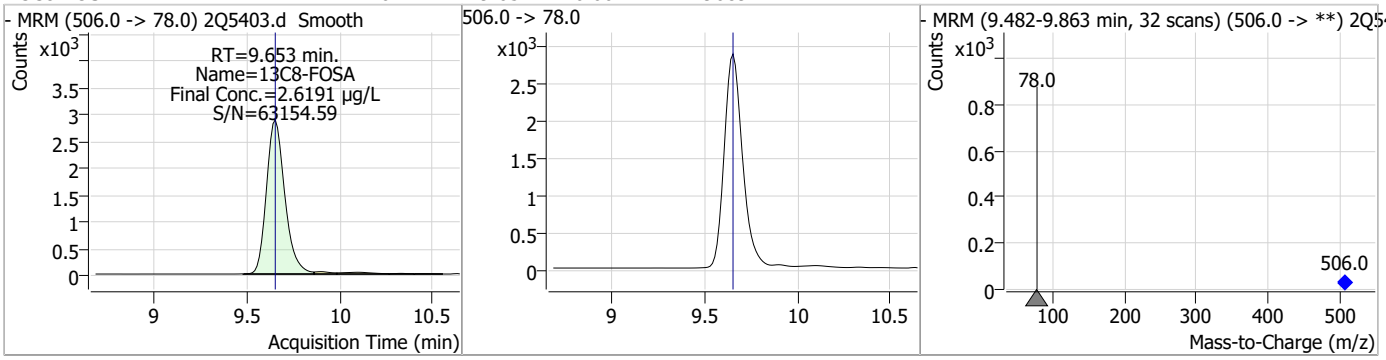
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.97	9.22	-0.05	22042				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA		0		0	613.0 -> 319.0		8.2	24.7

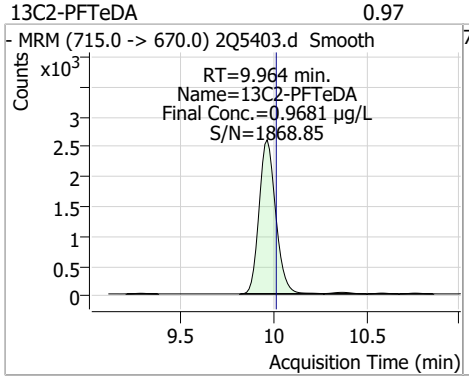


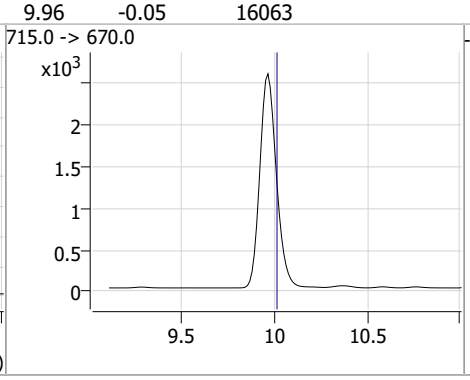
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.62	9.65	0.00	19689				

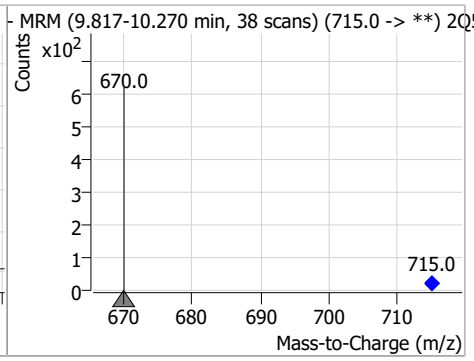


Perfluorinated Compounds by LC/MS/MS

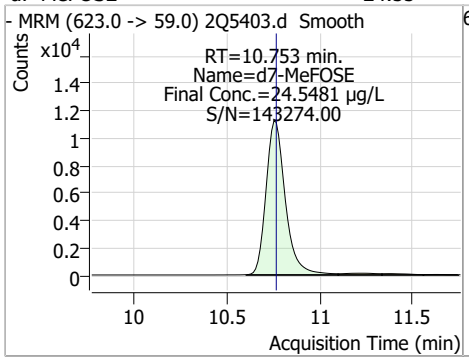
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.97	9.96	-0.05	16063				

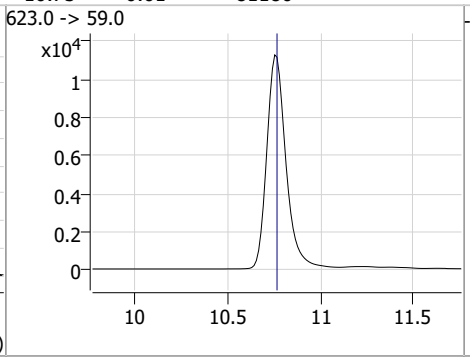


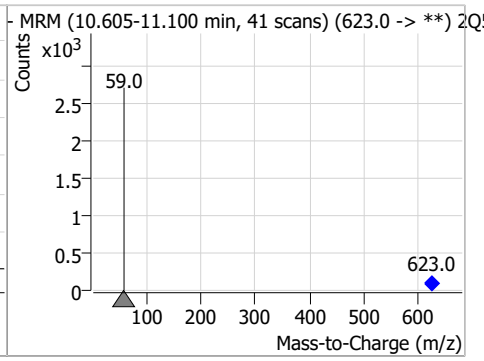




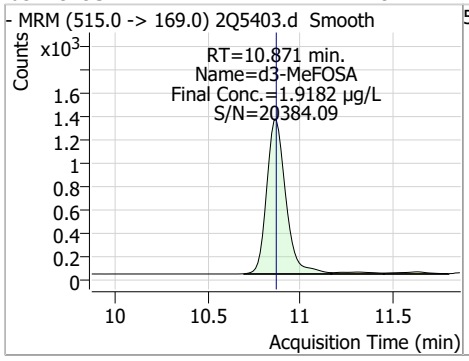
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.55	10.75	-0.01	81186				

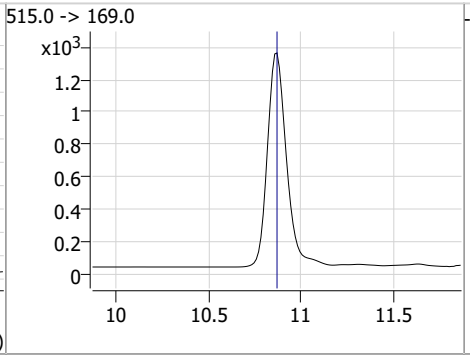


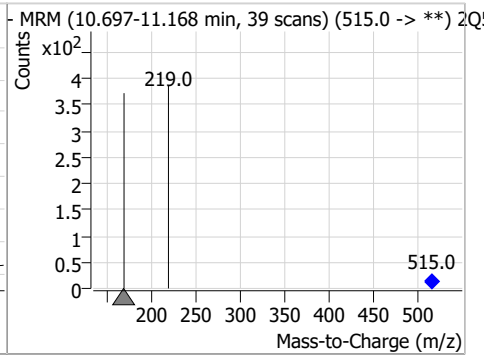




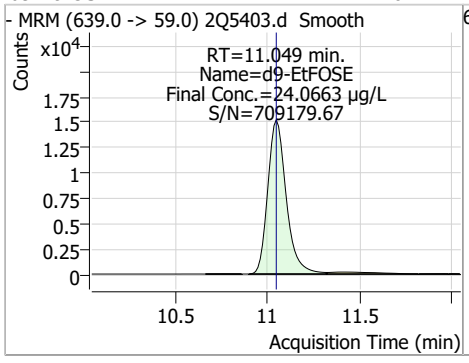
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.92	10.87	0.00	9539				

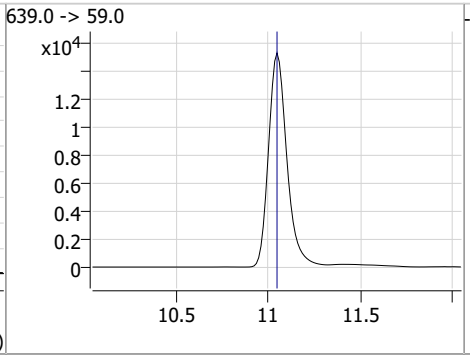


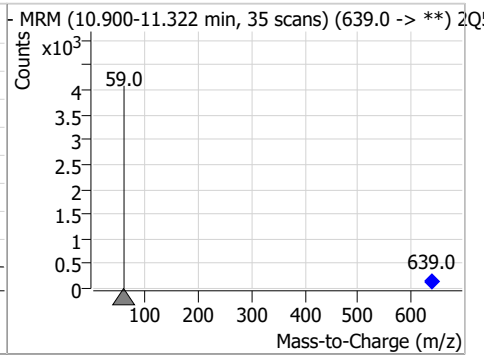




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.07	11.05	0.00	105399				

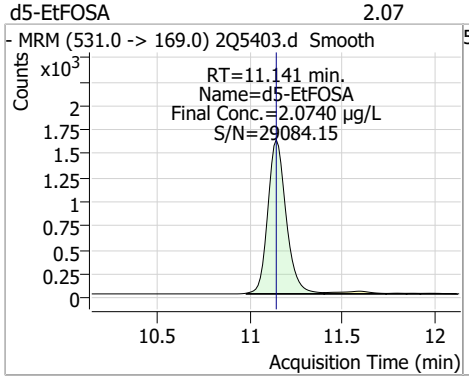


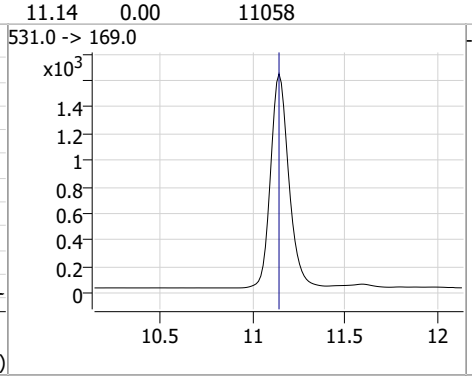


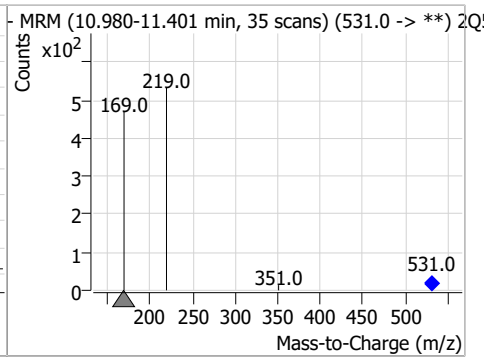


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.07	11.14	0.00	11058				







7.1.9

7

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5404.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 6:17:02 AM
Sample Name : JD77804-10
Vial : P3-A5
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,518,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	138035	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	92646	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	49594	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	39356	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	65234	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	29363	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12913	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	18367	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	22146	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	13030	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	15963	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5371	2.50	µg/L	-0.037
		302.0 -> 80.0	13041			
M3-PFHxS	7.472	402.0 -> 99.0	5648	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	5520	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1121	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2362	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4162	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	34375	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22786	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	27359	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	68736	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	88517	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10597	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	9222	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	10765	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	70734	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	5874	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	67684	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	25792	1.25	µg/L	-0.049
13C5-PFNA	7.888	468.0 -> 423.0	32841	1.25	µg/L	-0.024
13C2-PFHxA	5.930	315.0 -> 270.0	49892	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1121	5.23	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.5%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2362	4.97	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4162	6.32	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 126.4%		
13C2-PFDoDA	9.219	615.0 -> 570.0	22146	1.08	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	13030	0.86	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 69.0%		
13C3-PFBS	5.846	302.0 -> 99.0	5371	2.46	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5648	2.46	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.6%			
13C4-PFBA	3.314	217.0 -> 172.0	138035	8.67	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 86.7%			
13C4-PFHpA	6.770	367.0 -> 322.0	39356	2.43	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C5-PFHxA	5.930	318.0 -> 273.0	49594	2.39	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.7%			
13C5-PFPeA	4.785	268.0 -> 223.0	92646	4.95	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.1%			
13C6-PFDA	8.352	519.0 -> 474.0	12913	1.20	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.0%			
13C7-PFUnDA	8.803	570.0 -> 525.0	18367	1.03	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 82.7%			
13C8-FOSA	9.653	506.0 -> 78.0	15963	2.19	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 87.6%			
13C8-PFOA	7.372	421.0 -> 376.0	65234	2.33	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.1%			
13C8-PFOS	8.512	507.0 -> 99.0	5520	2.35	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.2%			
13C9-PFNA	7.875	472.0 -> 427.0	29363	1.14	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.4%			
d3-MeFOSAA	8.398	573.0 -> 419.0	34375	4.91	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.1%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22786	9.63	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.3%			
d3-MeFOSA	10.871	515.0 -> 169.0	9222	1.91	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 76.5%			
d5-EtFOSAA	8.593	589.0 -> 419.0	27359	4.73	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.5%			
d7-MeFOSE	10.753	623.0 -> 59.0	68736	21.43	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 85.7%			
d9-EtFOSE	11.049	639.0 -> 59.0	88517	20.84	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 83.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	10597	2.05	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.0%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.149	427.0 -> 407.0	226	0.07	µg/L		100
		427.0 -> 81.0	73				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.321	213.0 -> 169.0	536	0.15	µg/L		100
PFBS	5.835	299.0 -> 80.0	220	0.04	µg/L	#	65
		299.0 -> 99.0	142				
PFDA	8.548	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

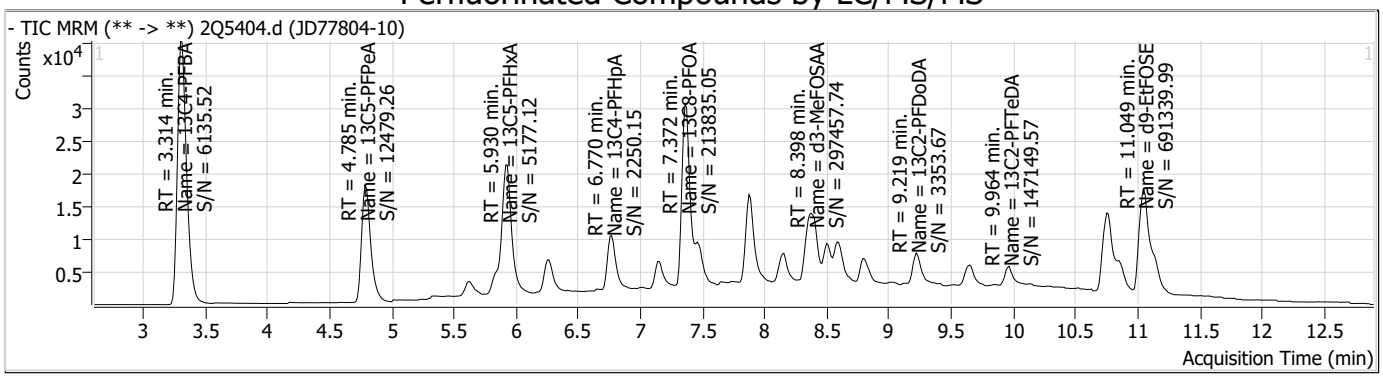
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	6.019	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.912	463.0 -> 419.0	437	0.02	µg/L	m	84
		463.0 -> 219.0	99				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.853	413.0 -> 369.0	0		µg/L	m	1
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.799	263.0 -> 219.0	272	0.02	µg/L	m	100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.390	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

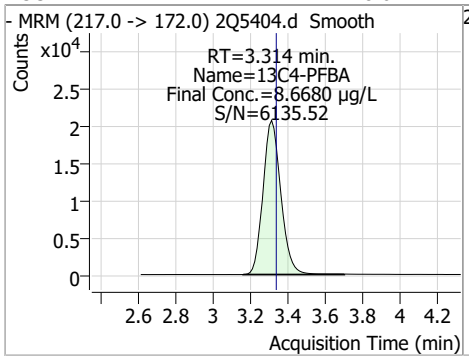
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

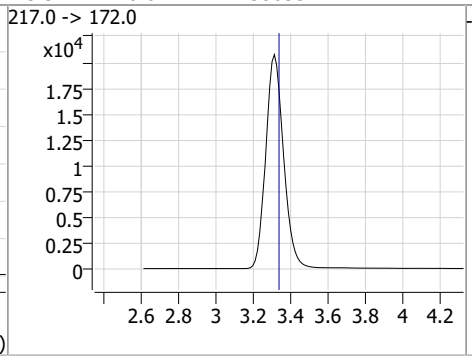
= Qualifier out of range, m = manually integrated, + = Area summed

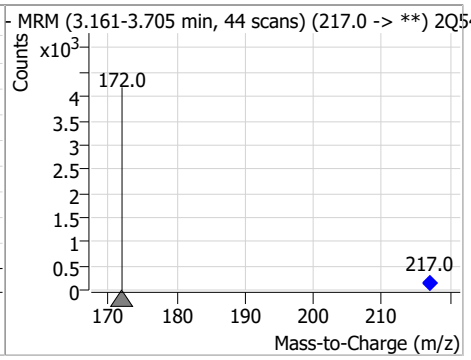
Perfluorinated Compounds by LC/MS/MS



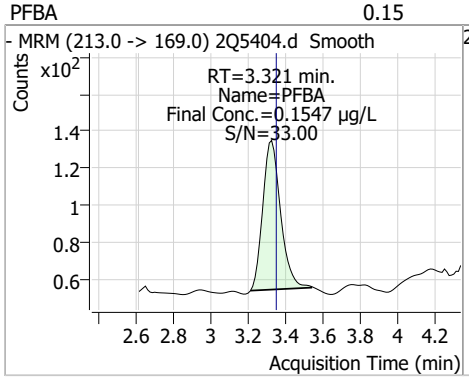
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	8.67	3.31	-0.02	138035				

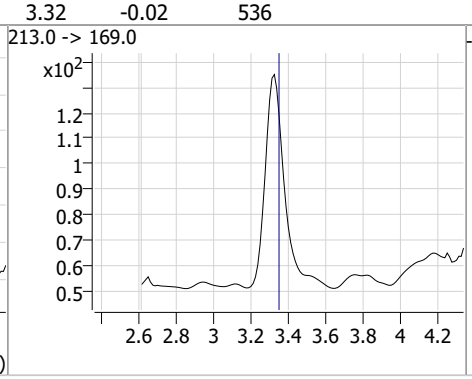


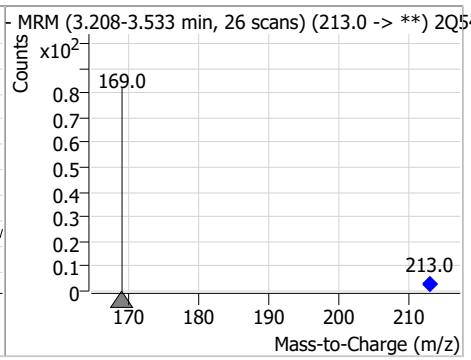




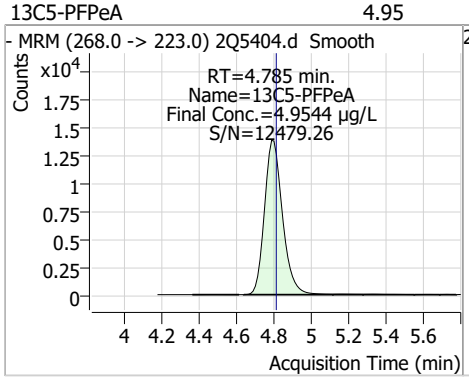
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.15	3.32	-0.02	536				

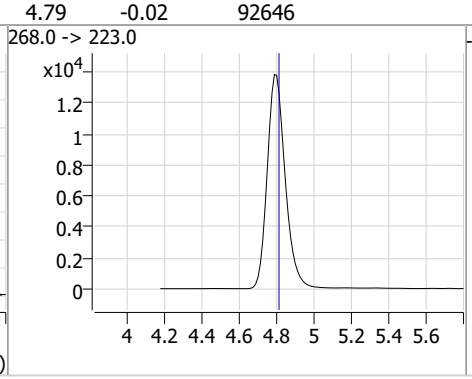


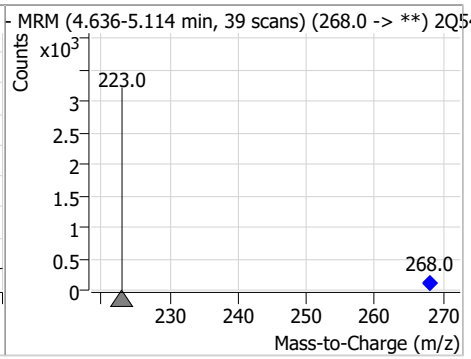




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.95	4.79	-0.02	92646				

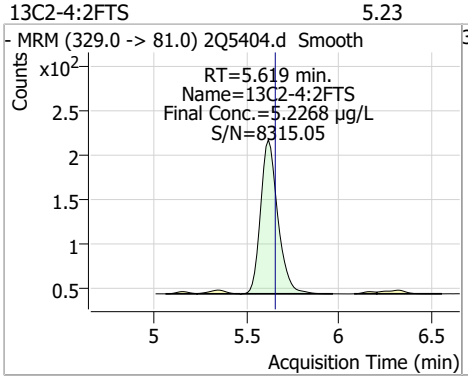


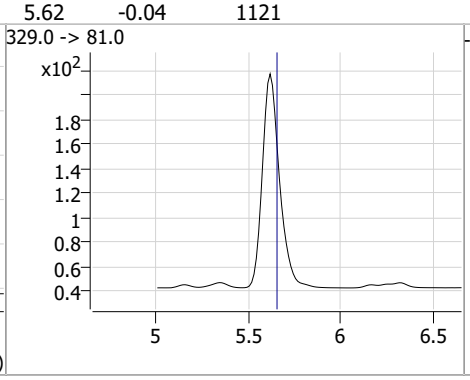


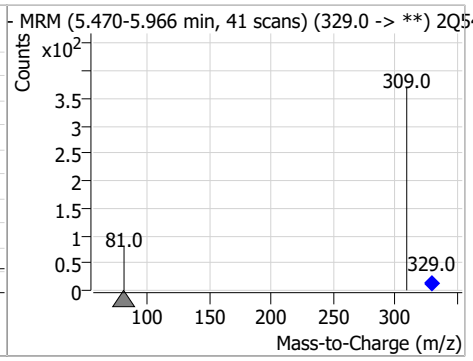


Perfluorinated Compounds by LC/MS/MS

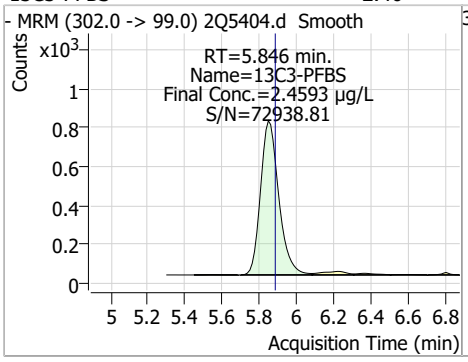
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.23	5.62	-0.04	1121				

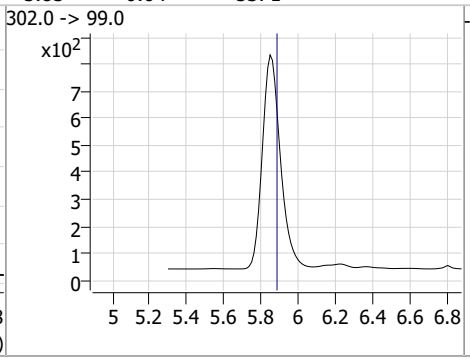


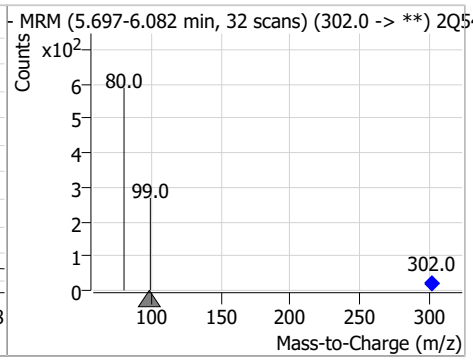




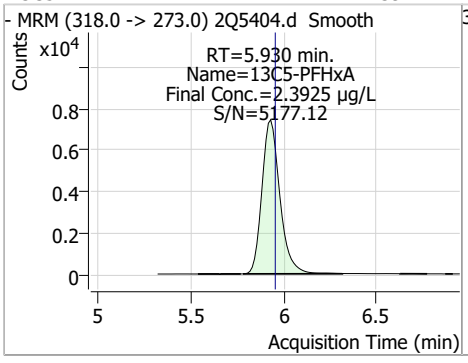
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.46	5.85	-0.04	5371				

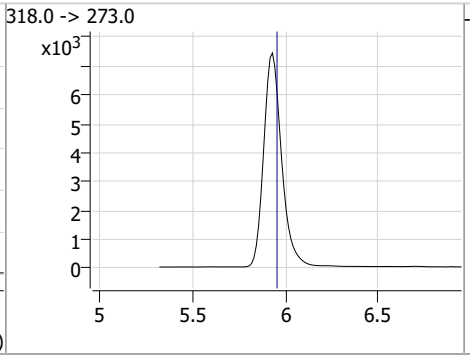


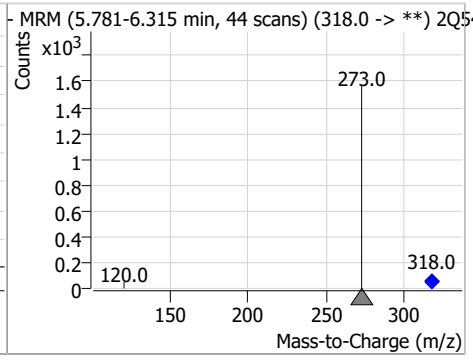




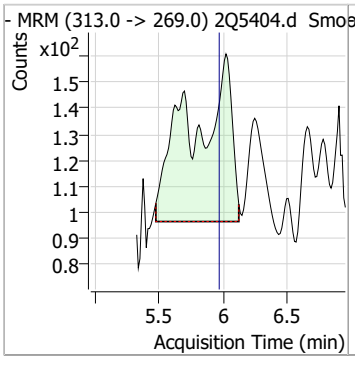
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.39	5.93	-0.02	49594				

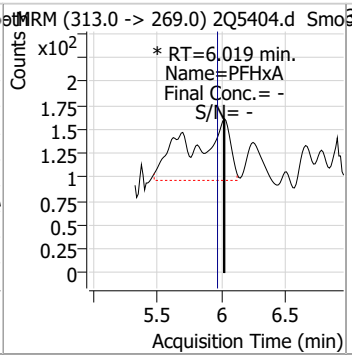


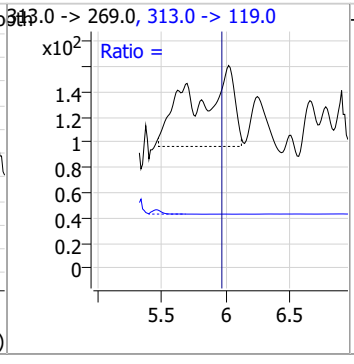


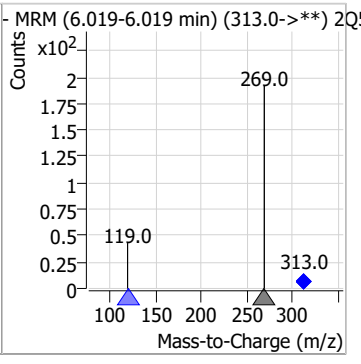


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3



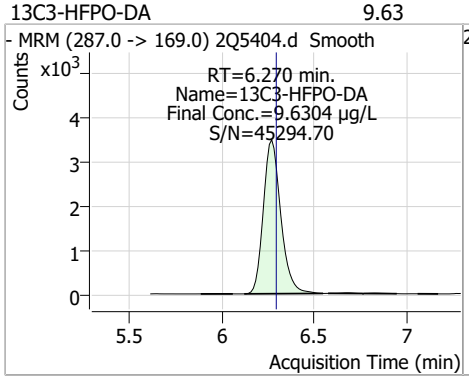


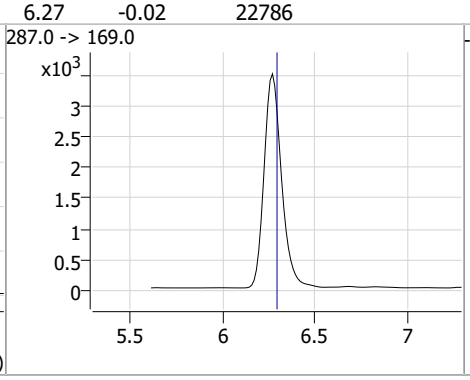


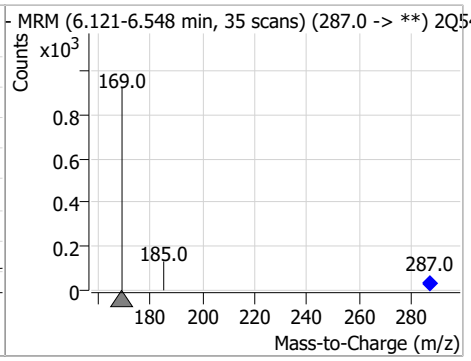


Perfluorinated Compounds by LC/MS/MS

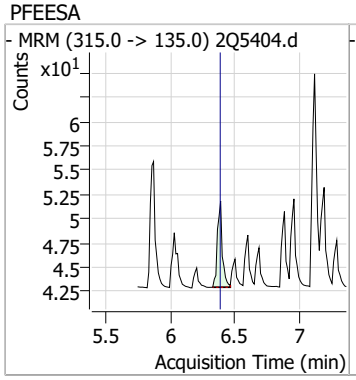
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.63	6.27	-0.02	22786				

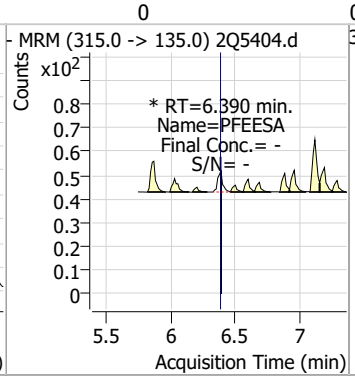


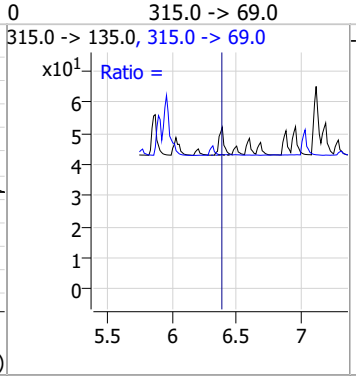


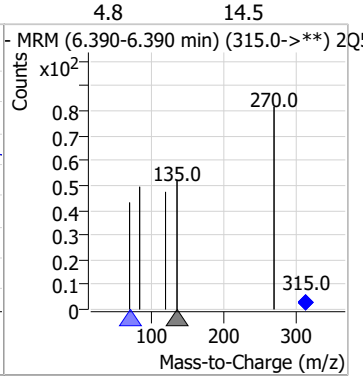


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

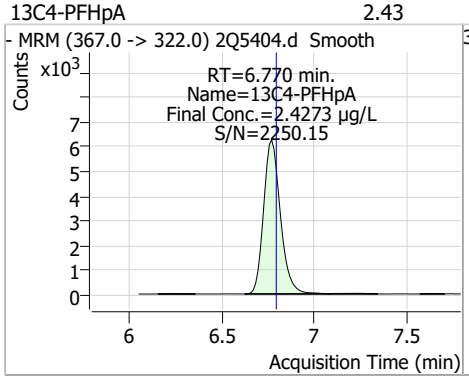


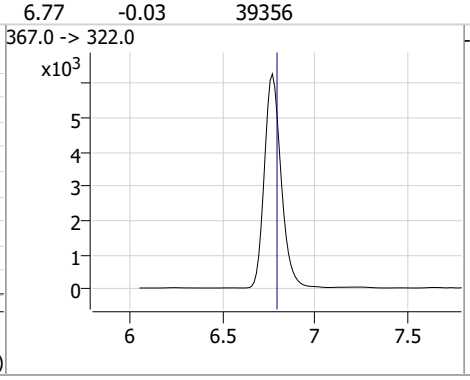


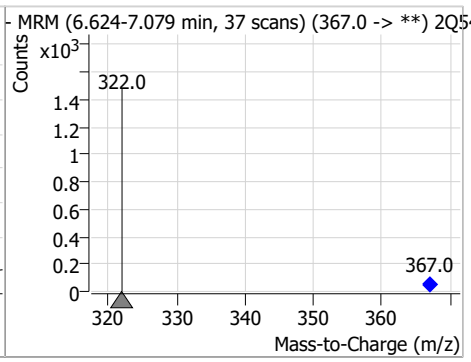




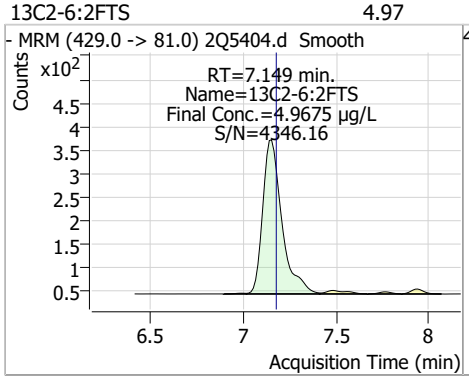
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.43	6.77	-0.03	39356				

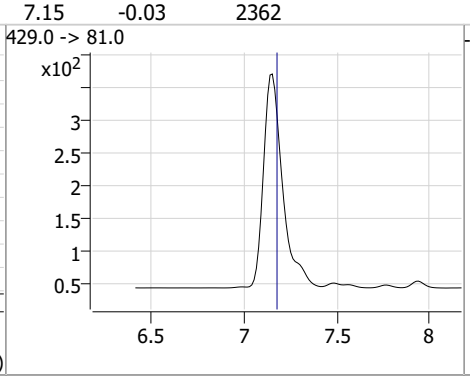


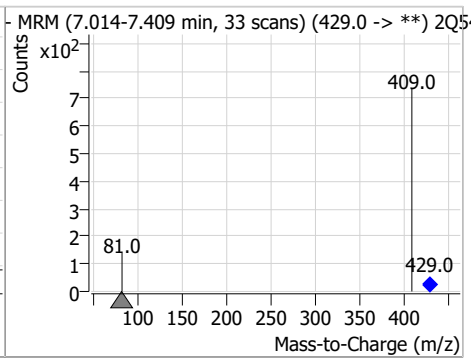




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.97	7.15	-0.03	2362				

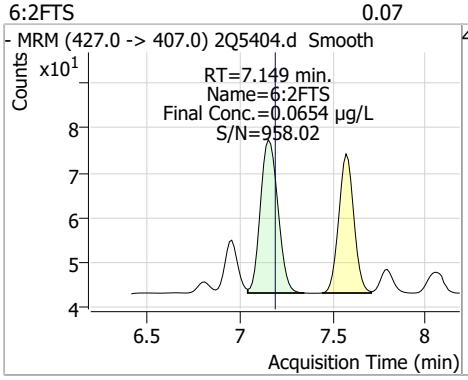


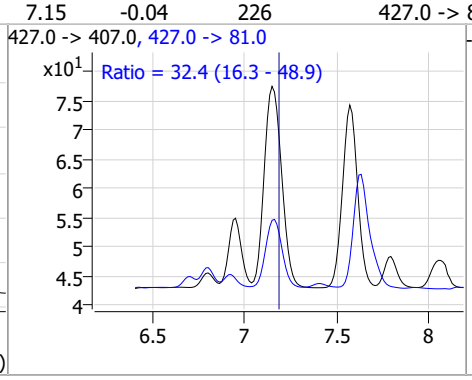


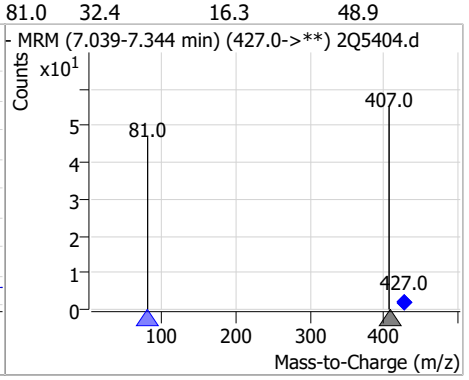


Perfluorinated Compounds by LC/MS/MS

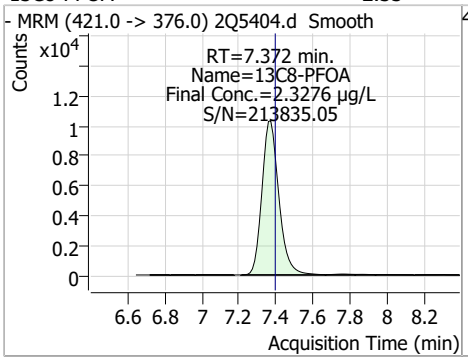
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.07	7.15	-0.04	226	427.0 -> 81.0	32.4	16.3	48.9

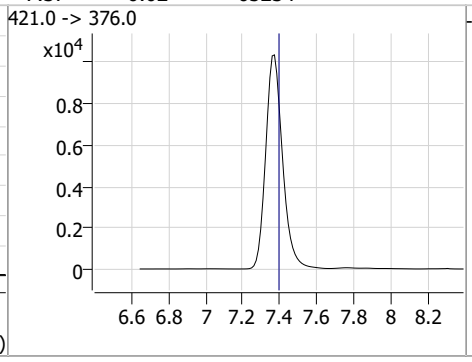


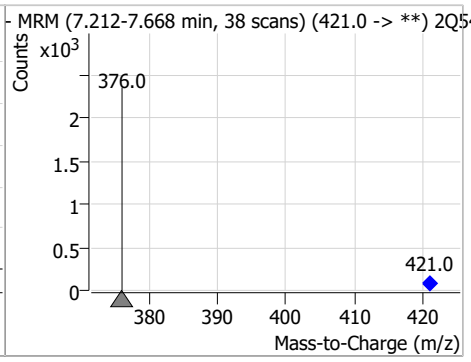




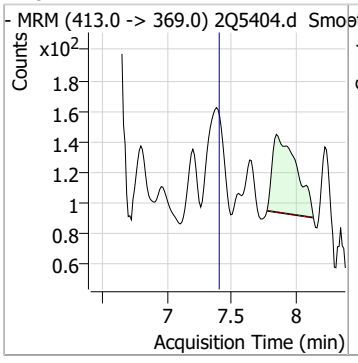
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.33	7.37	-0.02	65234				

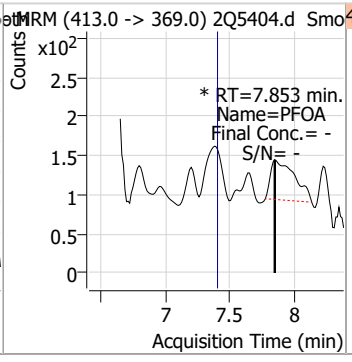


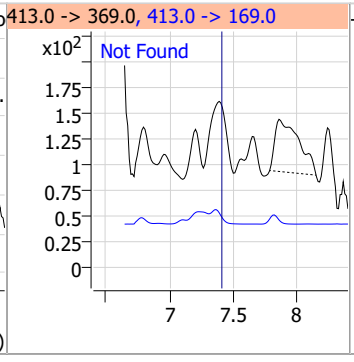


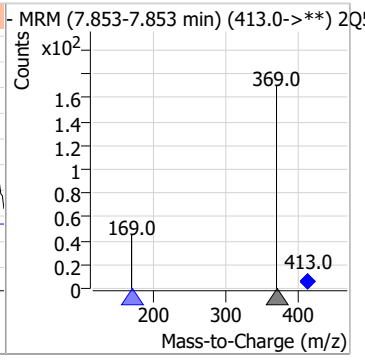


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA		0		0	413.0 -> 169.0		9.6	28.8

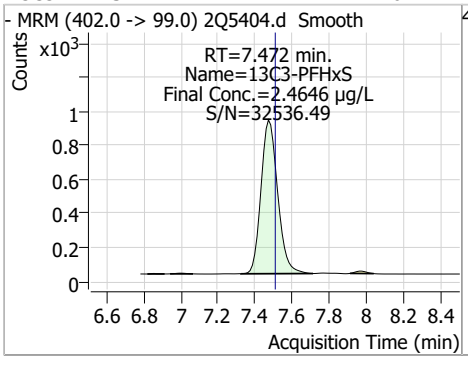


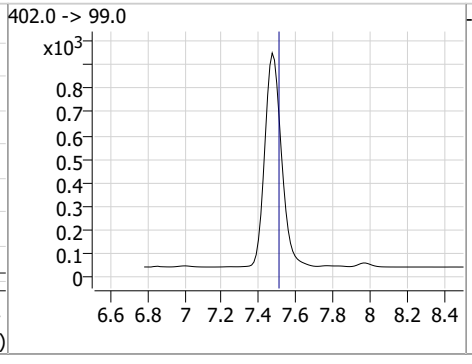


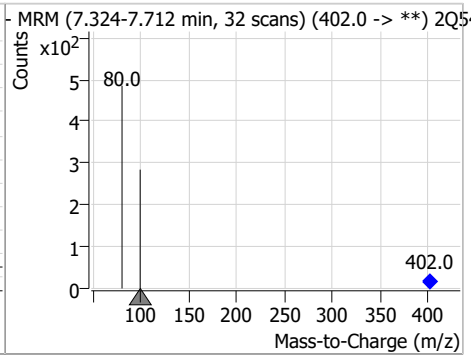




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.46	7.47	-0.04	5648				

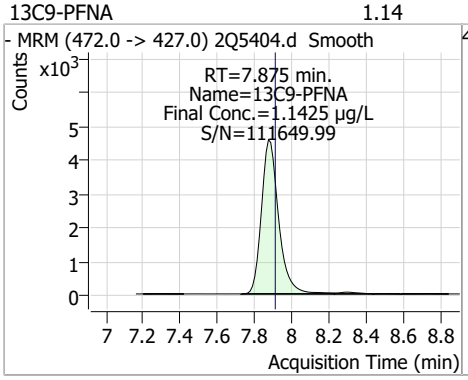


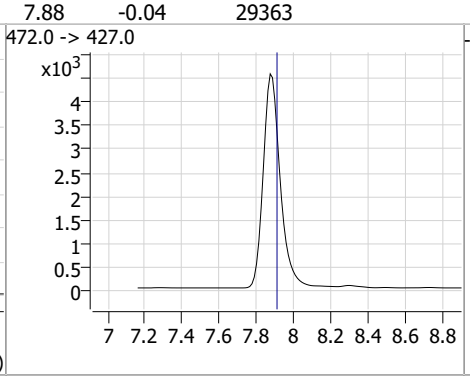


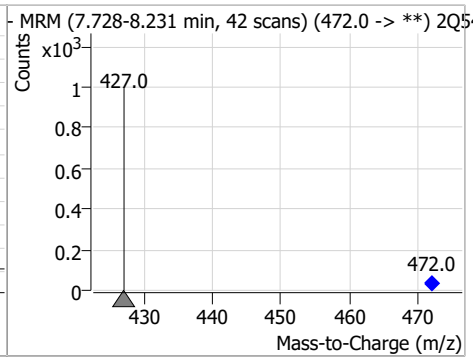


Perfluorinated Compounds by LC/MS/MS

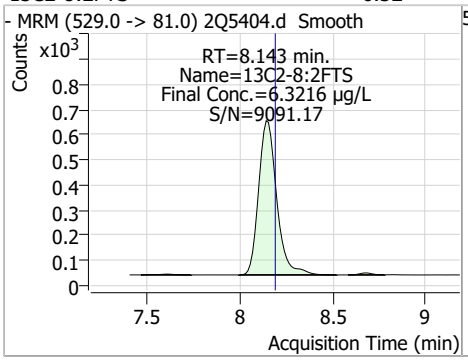
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.88	-0.04	29363				

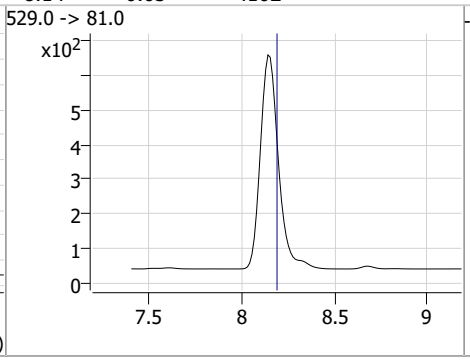


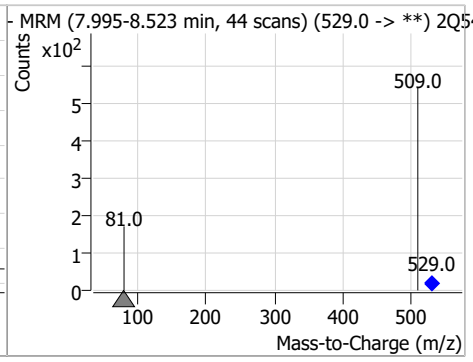




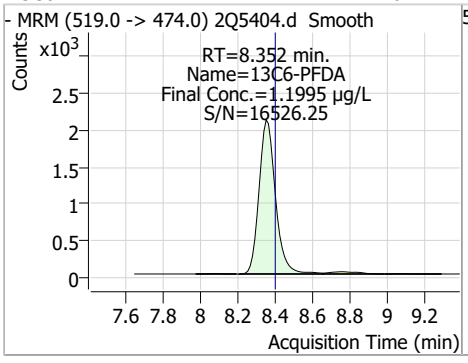
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.32	8.14	-0.05	4162				

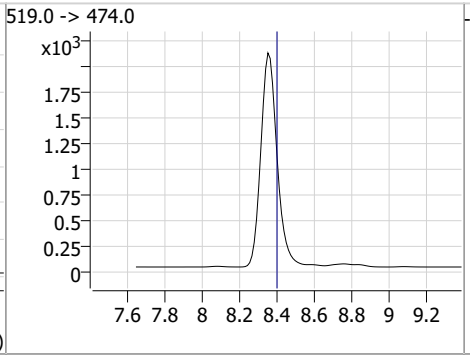


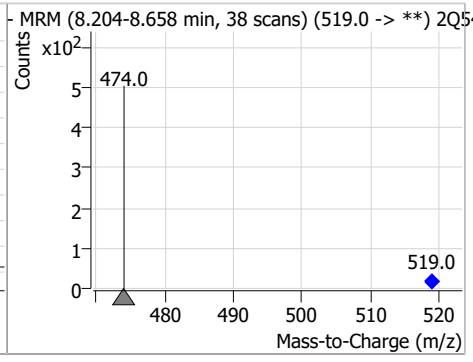




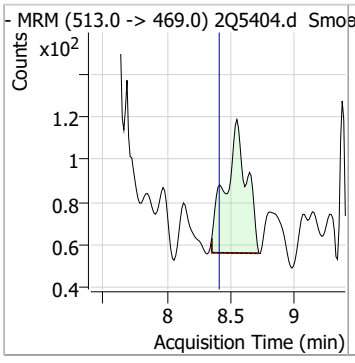
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.35	-0.05	12913				

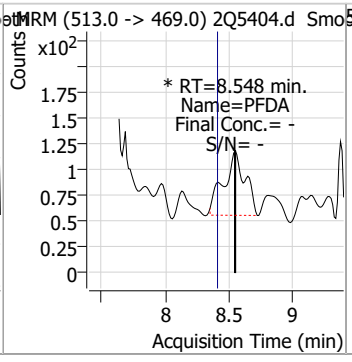


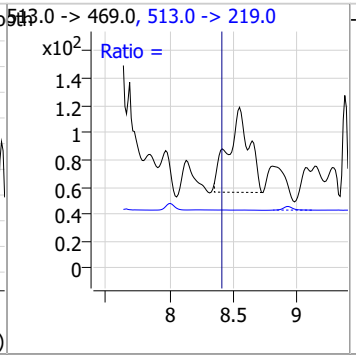


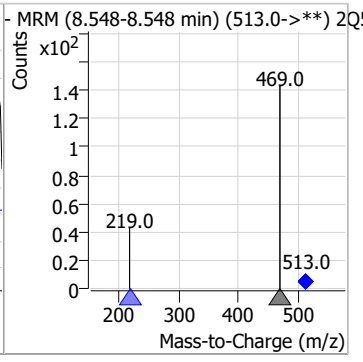


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8



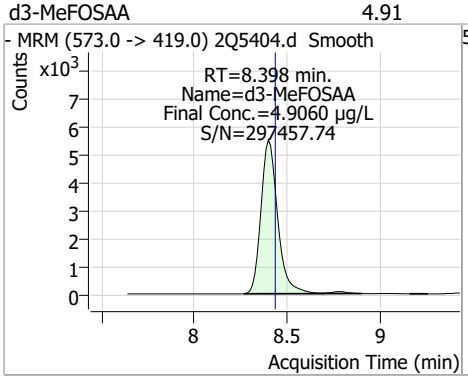


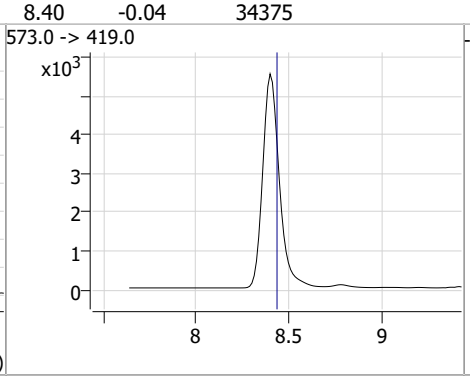


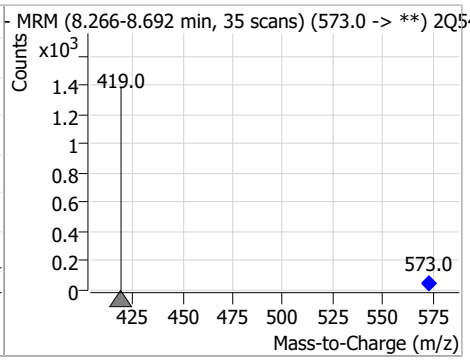


Perfluorinated Compounds by LC/MS/MS

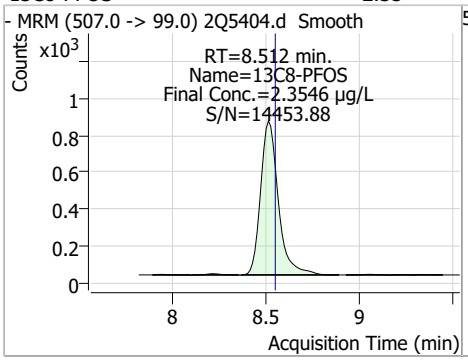
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.91	8.40	-0.04	34375				

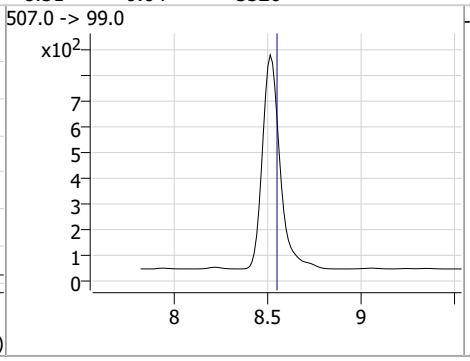


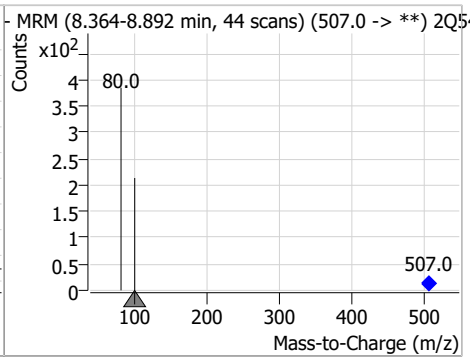




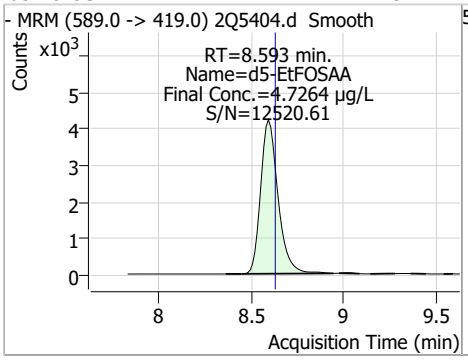
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.35	8.51	-0.04	5520				

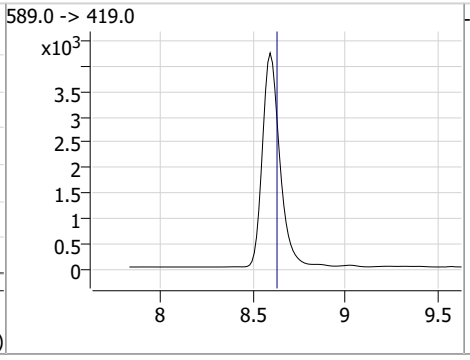


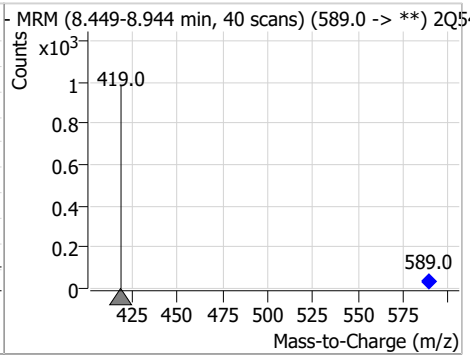




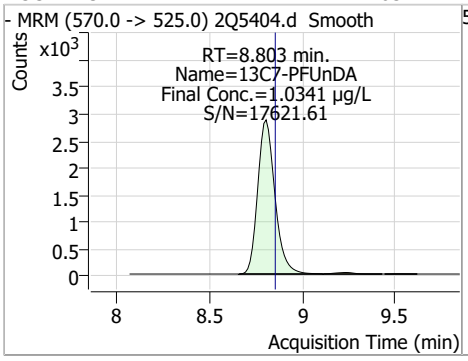
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.73	8.59	-0.04	27359				

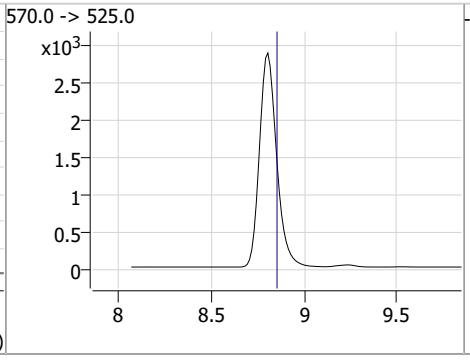


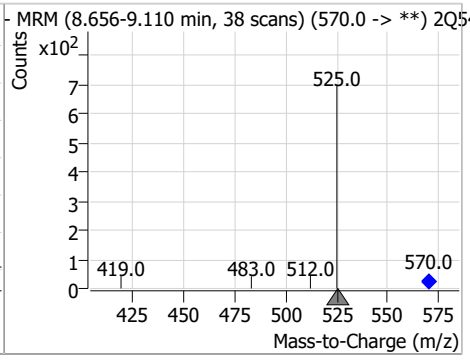




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.03	8.80	-0.05	18367				

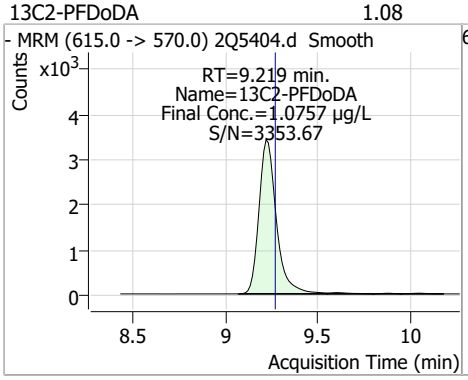


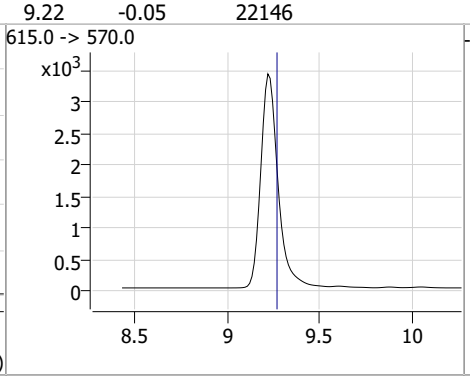


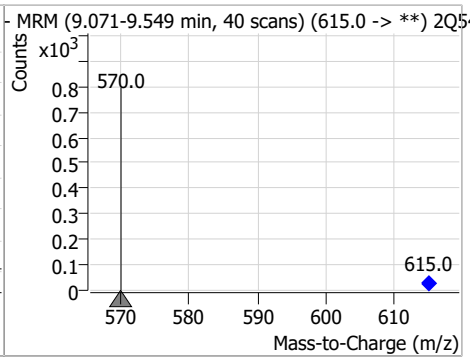


Perfluorinated Compounds by LC/MS/MS

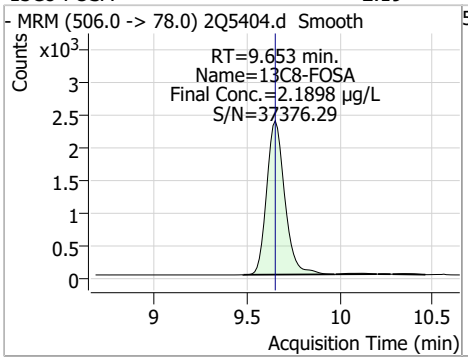
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.08	9.22	-0.05	22146				

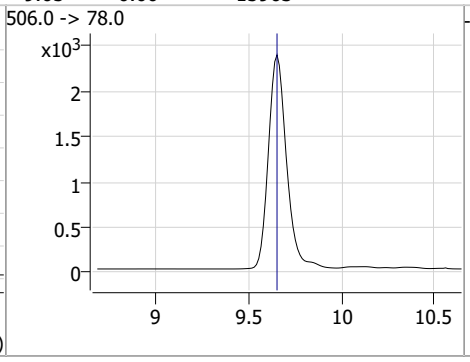


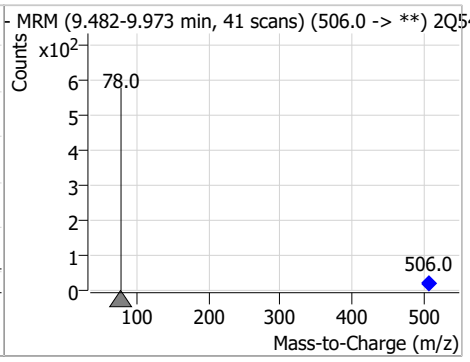




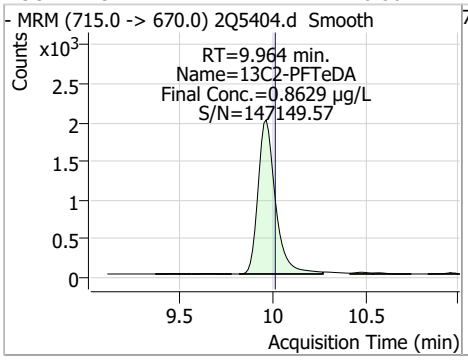
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.19	9.65	0.00	15963				

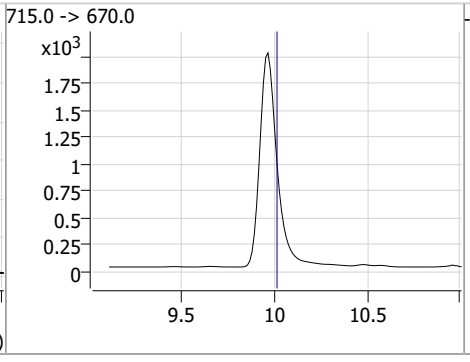


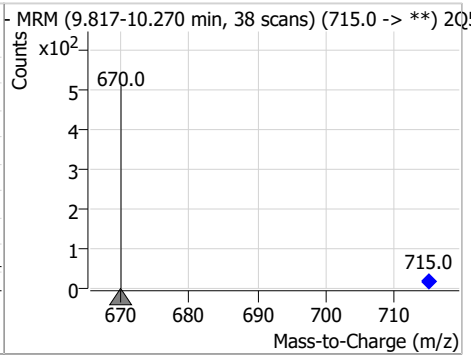




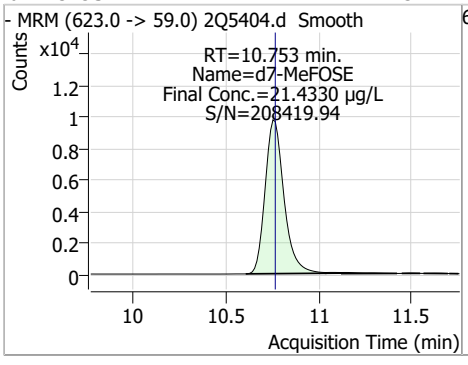
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.86	9.96	-0.05	13030				

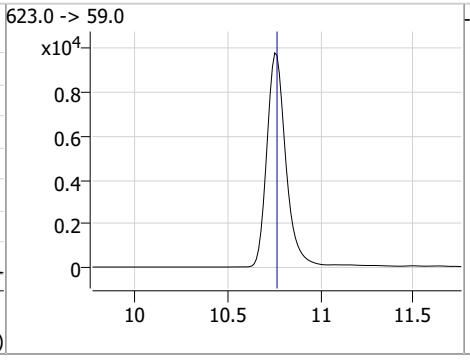


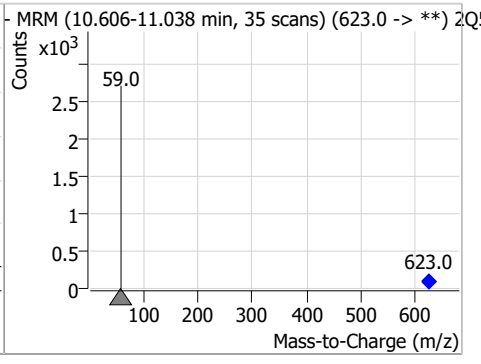




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	21.43	10.75	-0.01	68736				

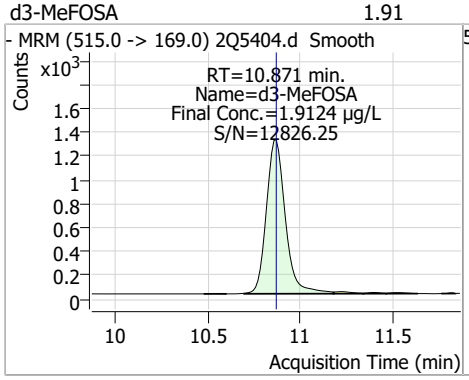


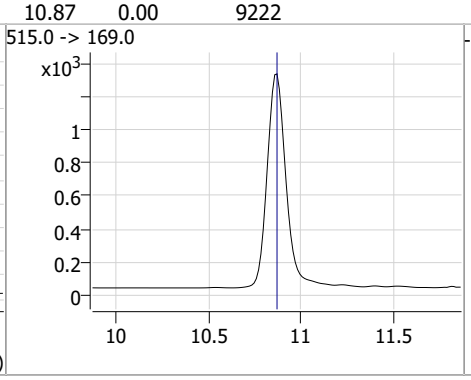


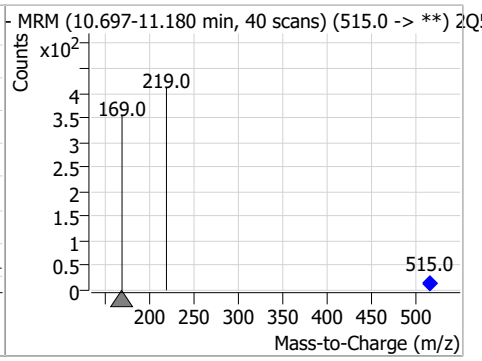


Perfluorinated Compounds by LC/MS/MS

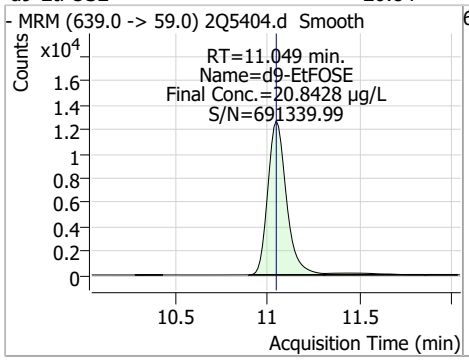
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.91	10.87	0.00	9222				

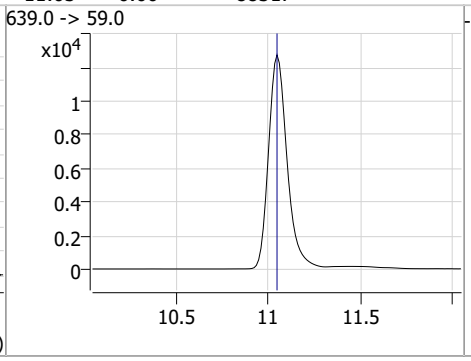


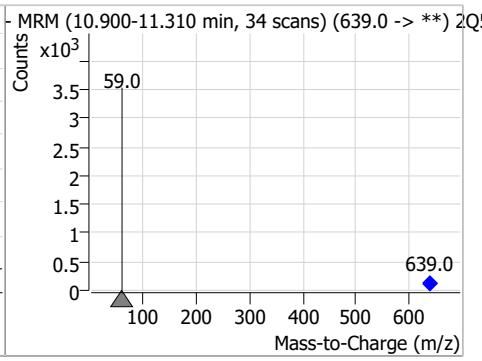




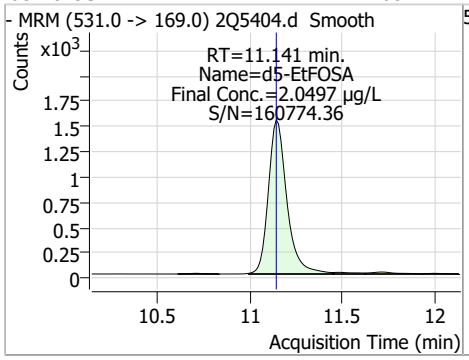
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	20.84	11.05	0.00	88517				

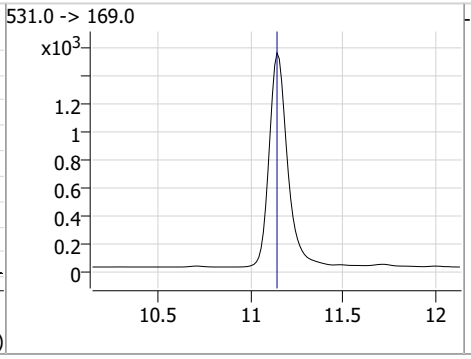


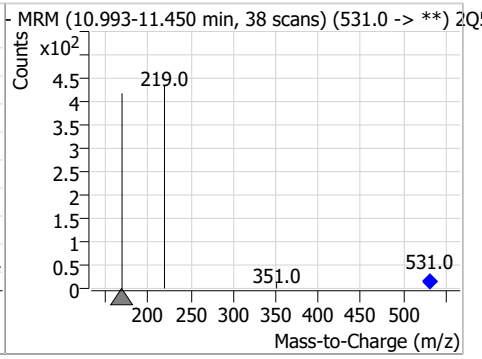




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.05	11.14	0.00	10597				







Manual Integration Approval Summary

Sample Number: JD77804-10
Lab FileID: 2Q5404.D
Injection Time: 12/02/23 06:17
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluoropentanoic acid	2706-90-3		4.80	Poorly defined baseline
Perfluorononanoic acid	375-95-1		7.91	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/08/23 13:39

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5405.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 6:32:16 AM
Sample Name : JD77804-11
Vial : P3-A6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,475,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	139400	10.00	µg/L	0.000
M5-PFPeA	4.798	268.0 -> 223.0	89928	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	48794	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	36144	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	59125	2.50	µg/L	-0.025
M9-PFNA	7.887	472.0 -> 427.0	24833	1.25	µg/L	-0.024
M6-PFDA	8.352	519.0 -> 474.0	9391	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	11175	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	5335	1.25	µg/L	-0.049
M2-PFTeDA	9.878	715.0 -> 670.0	54	1.25	µg/L	-0.135
M8-FOSA	9.653	506.0 -> 78.0	12797	2.50	µg/L	0.000
M3-PFBS	5.859	302.0 -> 99.0	5585	2.50	µg/L	-0.025
		302.0 -> 80.0	13570			
M3-PFHxS	7.472	402.0 -> 99.0	4674	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	4329	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1465	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2345	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	2628	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	23868	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	20900	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	15981	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	26076	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	23912	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	2074	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	3494	2.50	µg/L	-0.012
13C4-PFOS	8.512	503.0 -> 80.0	7947	2.50	µg/L	-0.037
13C3-PFBA	3.342	216.0 -> 172.0	69443	5.00	µg/L	0.000
18O2-PFHxS	7.472	403.0 -> 84.0	5890	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	66088	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	21381	1.25	µg/L	-0.049
13C5-PFNA	7.888	468.0 -> 423.0	31028	1.25	µg/L	-0.024
13C2-PFHxA	5.930	315.0 -> 270.0	48827	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1465	6.81	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 136.2%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2345	4.92	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	2628	3.98	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 79.6%		
13C2-PFDoDA	9.219	615.0 -> 570.0	5335	0.31	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 25.0%		
13C2-PFTeDA	9.878	715.0 -> 670.0	54	0.00	µg/L	-0.135
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 0.3%		
13C3-PFBS	5.859	302.0 -> 99.0	5585	2.55	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units	Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	4674	2.03 µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 81.4%	
13C4-PFBA	3.339	217.0 -> 172.0	139400	8.92 µg/L	0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 89.2%	
13C4-PFHpA	6.770	367.0 -> 322.0	36144	2.28 µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.1%	
13C5-PFHxA	5.930	318.0 -> 273.0	48794	2.41 µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.2%	
13C5-PFPeA	4.798	268.0 -> 223.0	89928	4.91 µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.3%	
13C6-PFDA	8.352	519.0 -> 474.0	9391	1.05 µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.2%	
13C7-PFUnDA	8.803	570.0 -> 525.0	11175	0.76 µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 60.7%	
13C8-FOSA	9.653	506.0 -> 78.0	12797	2.38 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.1%	
13C8-PFOA	7.372	421.0 -> 376.0	59125	2.16 µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 86.4%	
13C8-PFOS	8.512	507.0 -> 99.0	4329	2.50 µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.0%	
13C9-PFNA	7.887	472.0 -> 427.0	24833	1.02 µg/L	-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 81.8%	
d3-MeFOSAA	8.398	573.0 -> 419.0	23868	4.61 µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 92.3%	
13C3-HFPO-DA	6.270	287.0 -> 169.0	20900	9.03 µg/L	-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 90.3%	
d3-MeFOSA	10.858	515.0 -> 169.0	3494	0.98 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 39.3%	
d5-EtFOSAA	8.593	589.0 -> 419.0	15981	3.74 µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 74.8%	
d7-MeFOSE	10.753	623.0 -> 59.0	26076	11.01 µg/L	-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 44.1%	
d9-EtFOSE	11.049	639.0 -> 59.0	23912	7.63 µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 30.5%	
d5-EtFOSA	11.141	531.0 -> 169.0	2074	0.54 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 21.7%	
Target Compounds					**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.	
		327.0 -> 81.0			
6:2FTS	7.149	427.0 -> 407.0	229	0.07 µg/L	92
		427.0 -> 81.0	65		
8:2FTS	-	527.0 -> 507.0	-	N.D.	
		527.0 -> 81.0			
EtFOSAA	-	584.0 -> 419.0	-	N.D.	
		584.0 -> 483.0			
FOSA	-	498.0 -> 78.0	-	N.D.	
		498.0 -> 478.0			
MeFOSAA	-	570.0 -> 419.0	-	N.D.	
		570.0 -> 512.0			
PFBA	3.346	213.0 -> 169.0	2096	0.60 µg/L	100
PFBS	5.860	299.0 -> 80.0	2985	0.51 µg/L	94
		299.0 -> 99.0	1379		
PFDA	-	513.0 -> 469.0	-	N.D.	
		513.0 -> 219.0			
PFDoDA	-	613.0 -> 569.0	-	N.D.	
		613.0 -> 319.0			

Perfluorinated Compounds by LC/MS/MS

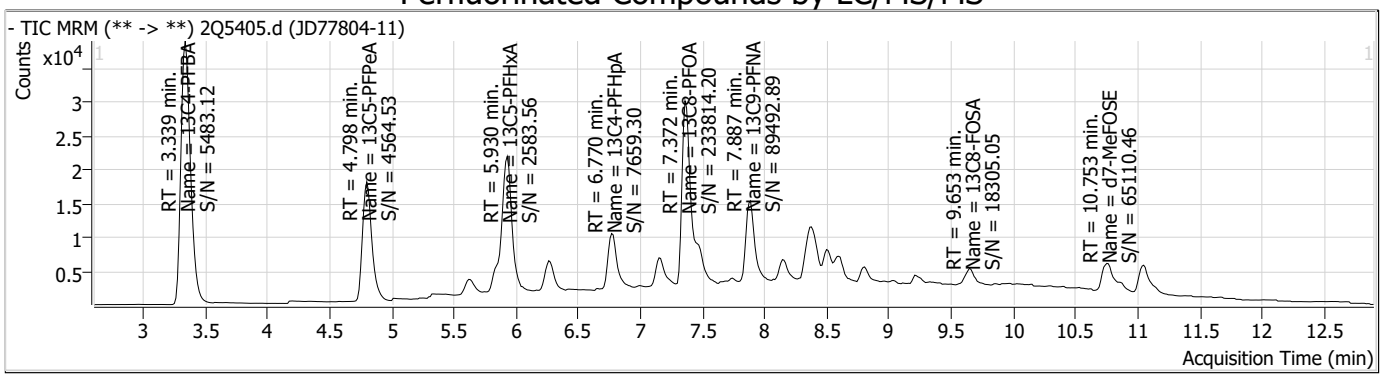
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	3708	0.21	µg/L	m	97
		363.0 -> 169.0	650				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	2154	0.11	µg/L		98
		313.0 -> 119.0	46				
PFHxS	7.485	399.0 -> 80.0	533	0.17	µg/L	m	83
		399.0 -> 99.0	243				
PFNA	7.888	463.0 -> 419.0	1282	0.07	µg/L		90
		463.0 -> 219.0	258				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	7497	0.32	µg/L	m	84
		413.0 -> 169.0	1977				
PFOS	8.316	499.0 -> 80.0	664	0.18	µg/L	m	81
		499.0 -> 99.0	258				
PFPeA	4.799	263.0 -> 219.0	4184	0.26	µg/L		100
PFPeS	6.821	349.0 -> 80.0	163	0.05	µg/L		82
		349.0 -> 99.0	89				
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.427	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

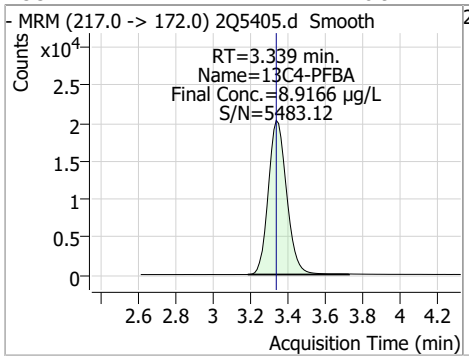
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

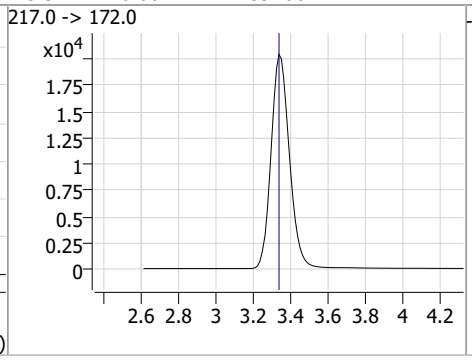
= Qualifier out of range, m = manually integrated, + = Area summed

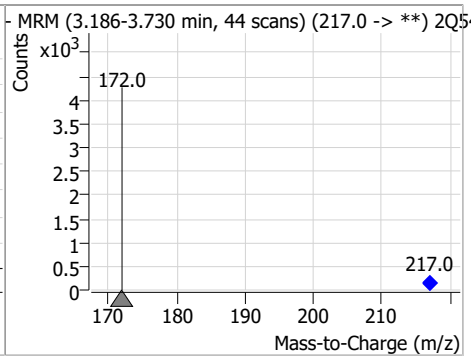
Perfluorinated Compounds by LC/MS/MS



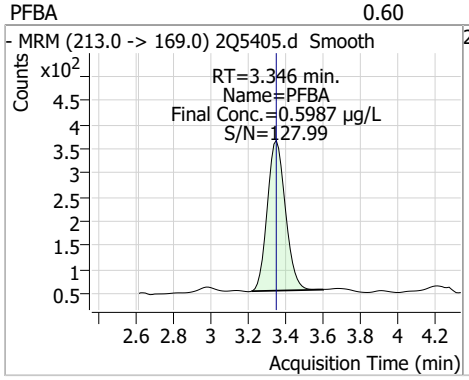
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	8.92	3.34	0.00	139400				

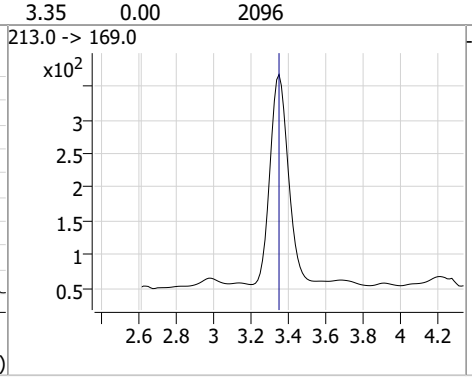


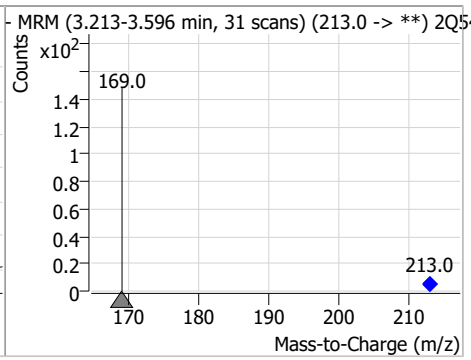




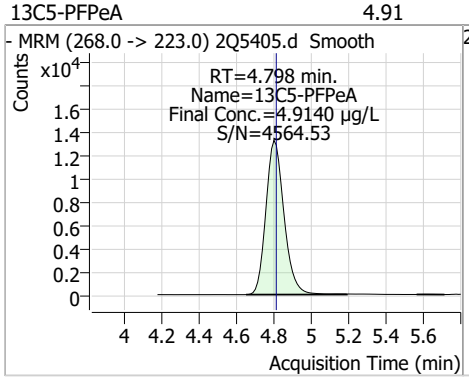
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.60	3.35	0.00	2096				

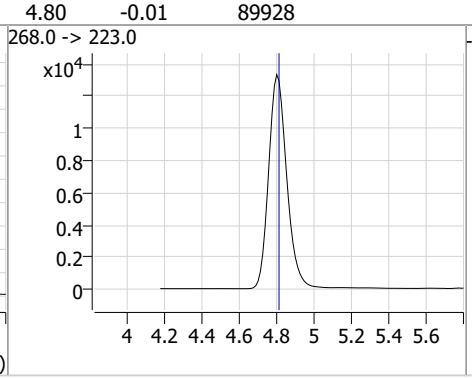


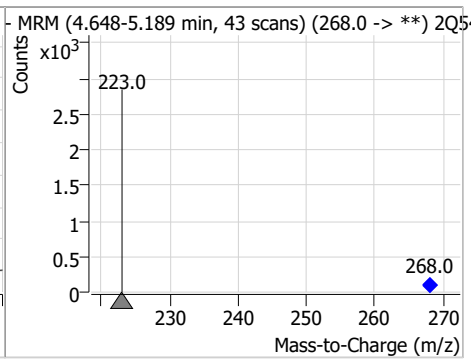




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.91	4.80	-0.01	89928				

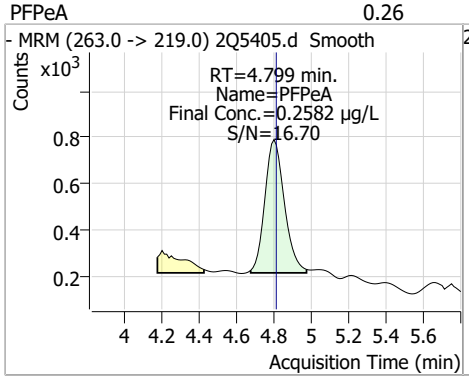


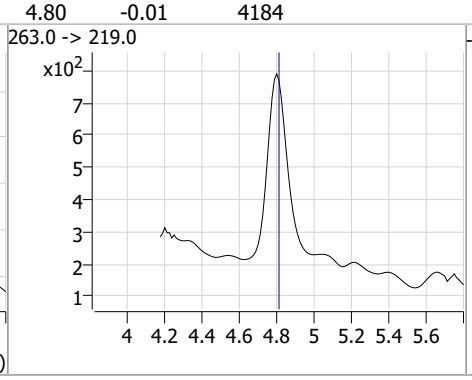


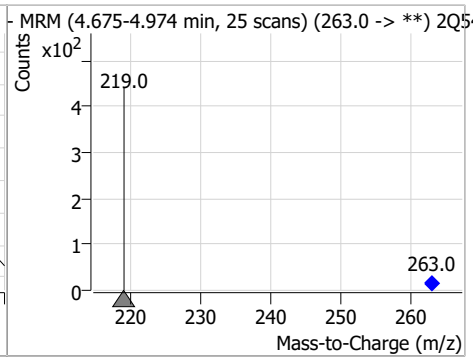


Perfluorinated Compounds by LC/MS/MS

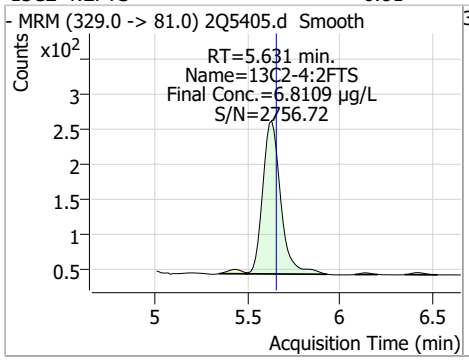
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.26	4.80	-0.01	4184				

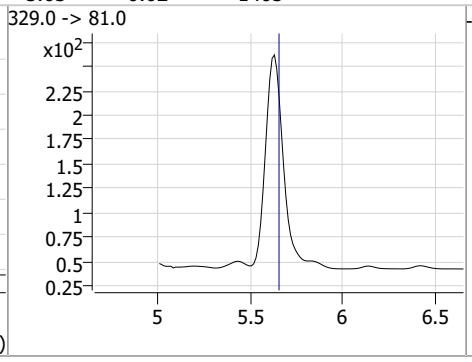


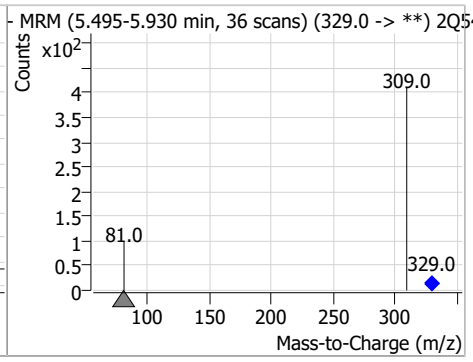




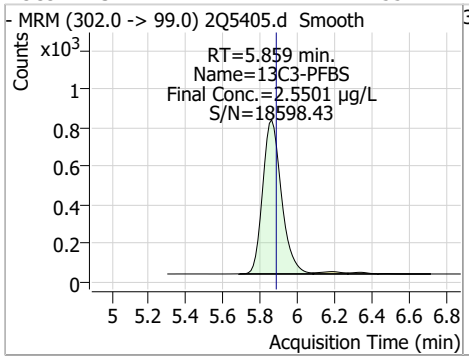
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	6.81	5.63	-0.02	1465				

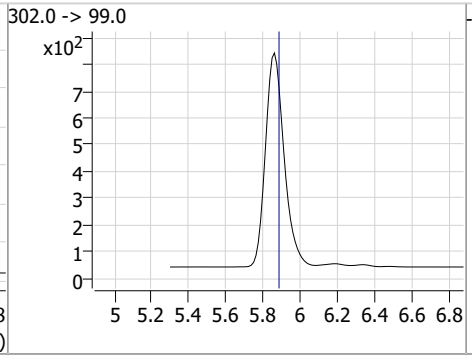


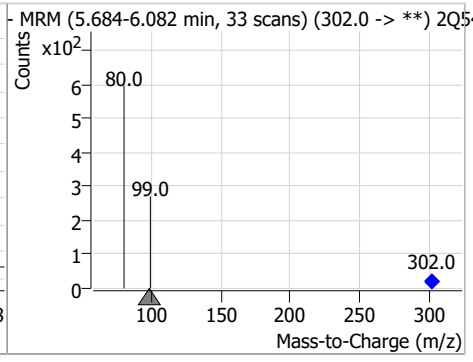




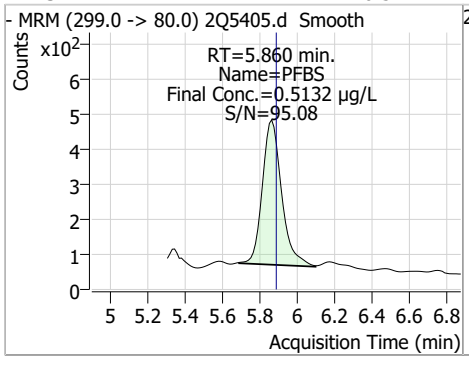
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.55	5.86	-0.02	5585				

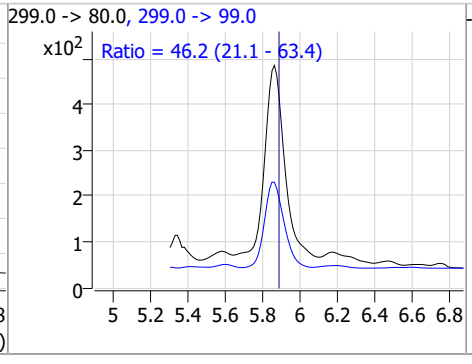


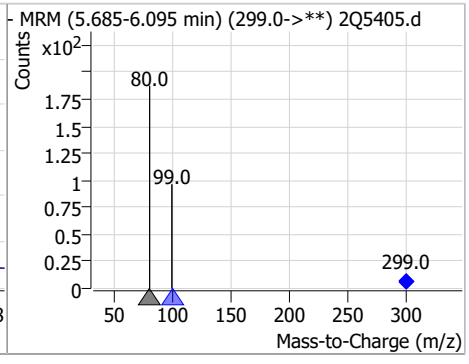




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.51	5.86	-0.02	2985	299.0 -> 99.0	46.2	21.1	63.4

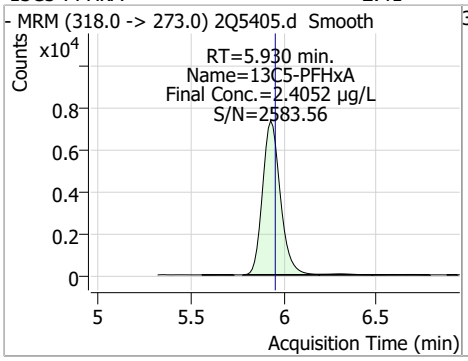


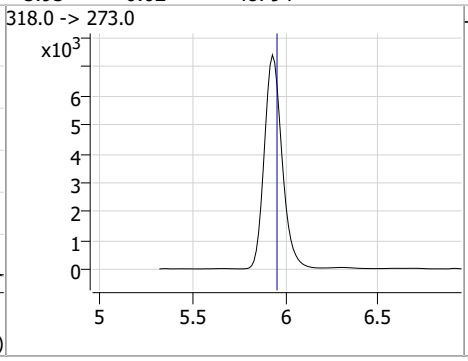


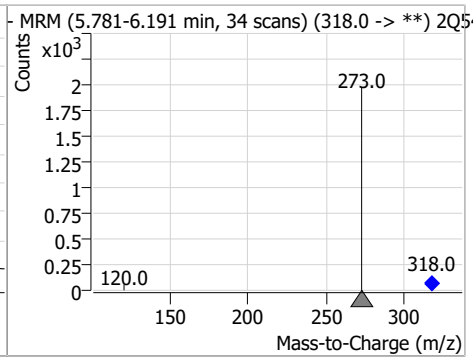


Perfluorinated Compounds by LC/MS/MS

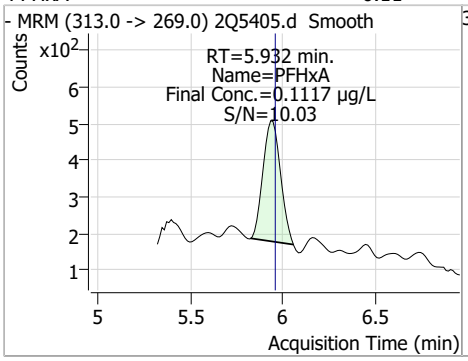
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.41	5.93	-0.02	48794				

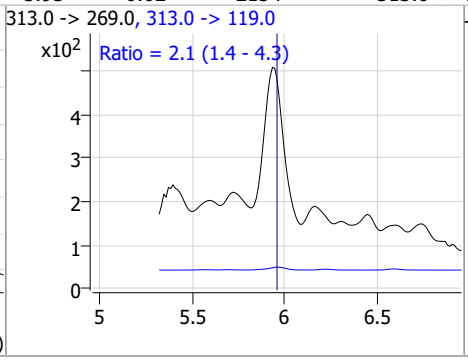


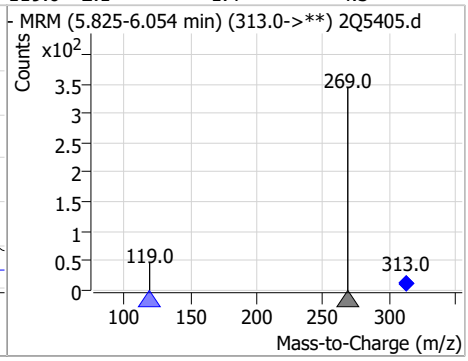




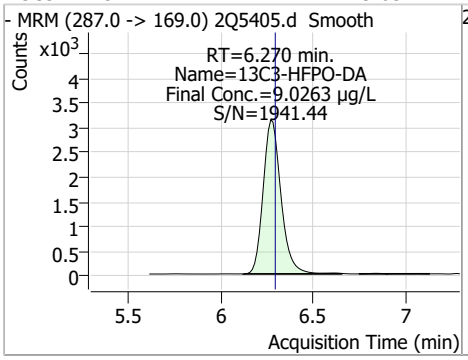
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.11	5.93	-0.02	2154	313.0 -> 119.0	2.1	1.4	4.3

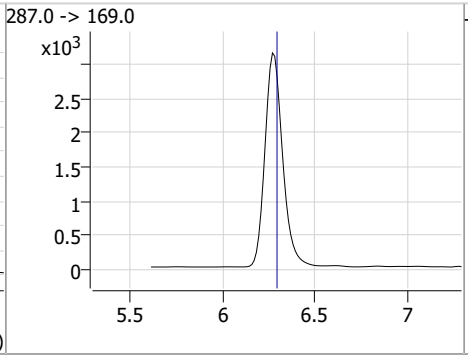


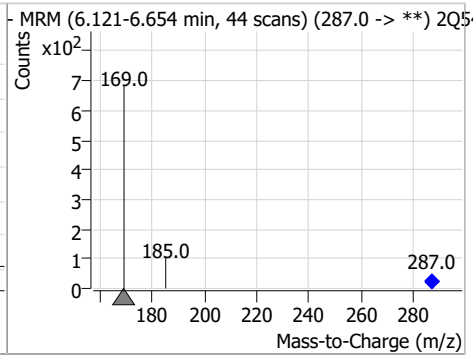




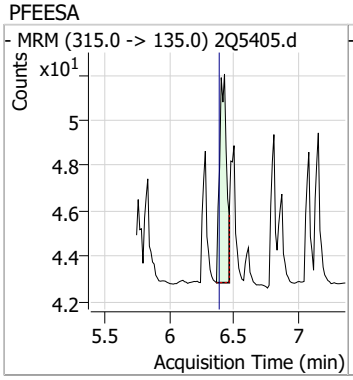
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.03	6.27	-0.02	20900				

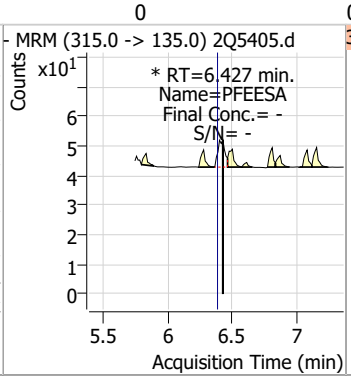


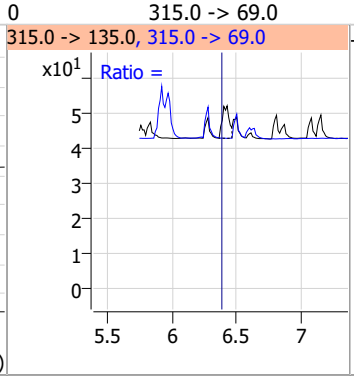


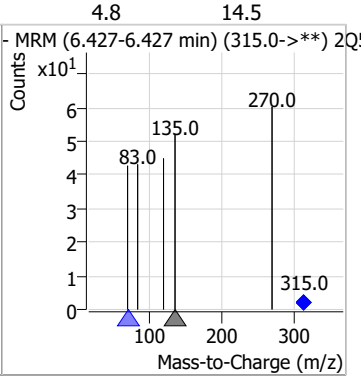


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



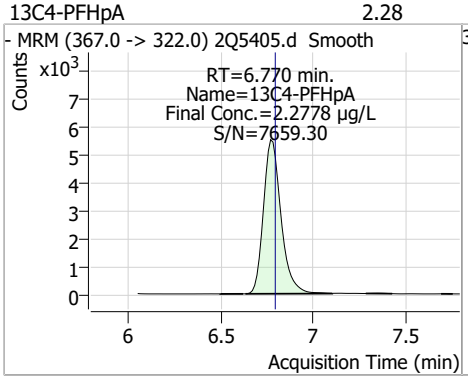


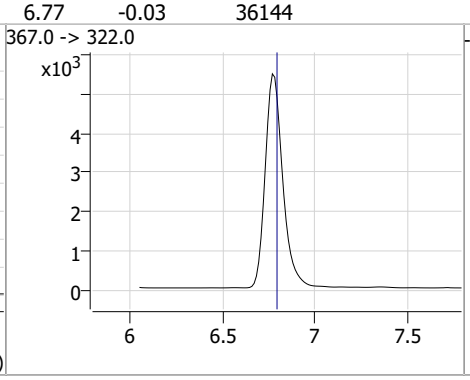


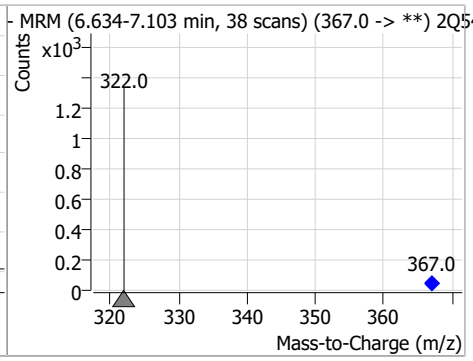


Perfluorinated Compounds by LC/MS/MS

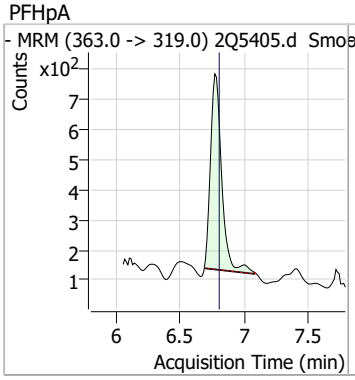
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.28	6.77	-0.03	36144				

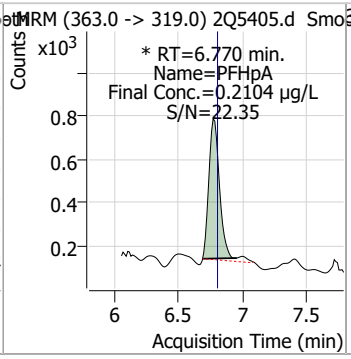


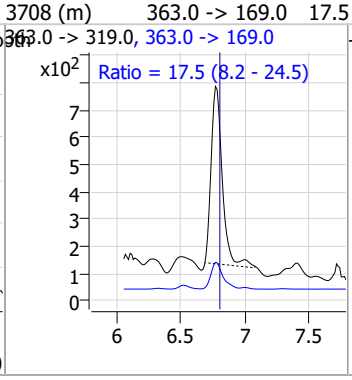


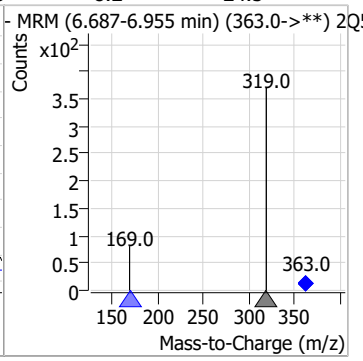


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.21	6.77	-0.03	3708 (m)	363.0 -> 169.0	17.5	8.2	24.5

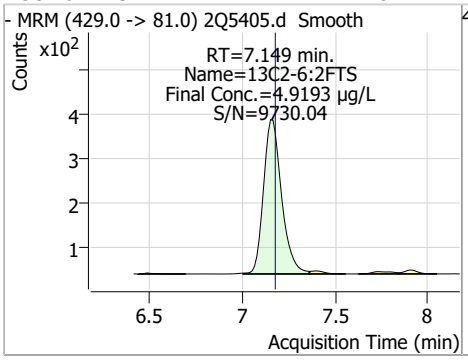


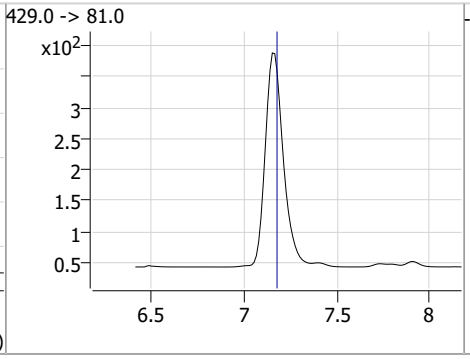


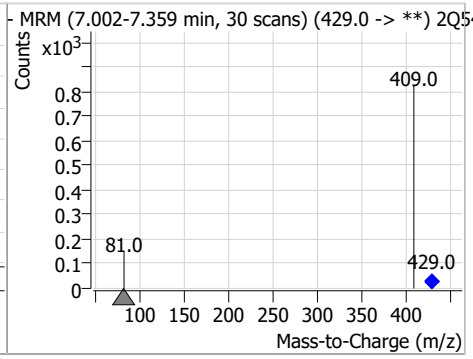




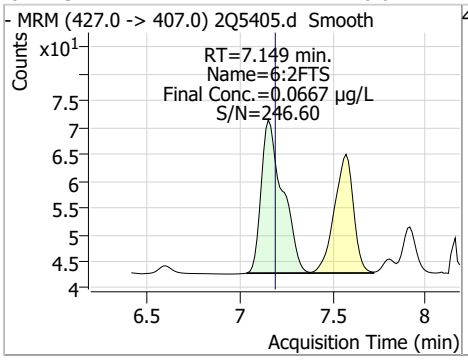
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.92	7.15	-0.03	2345				

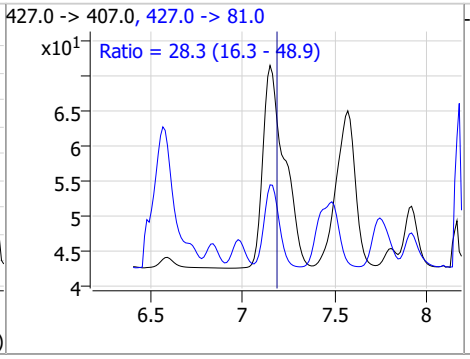


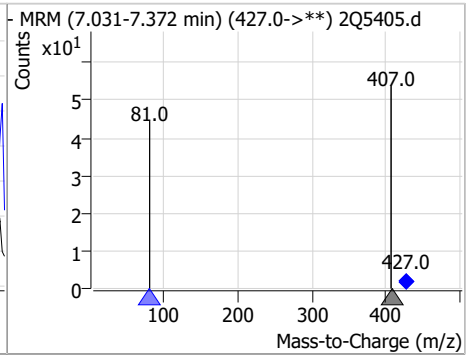




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.07	7.15	-0.04	229	427.0 -> 81.0	28.3	16.3	48.9

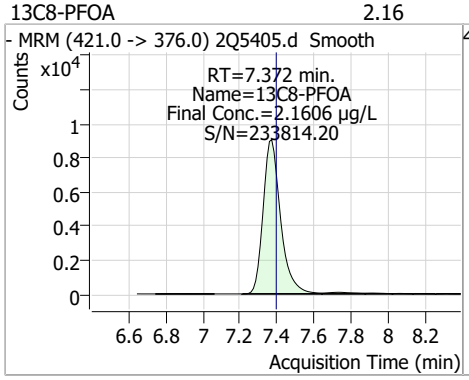


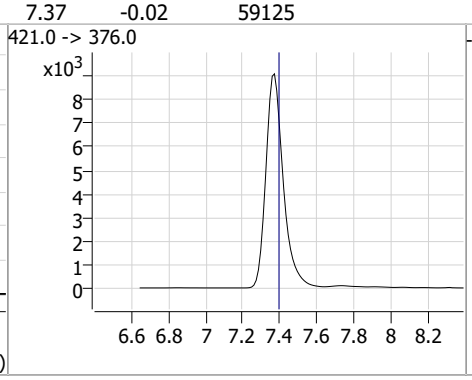


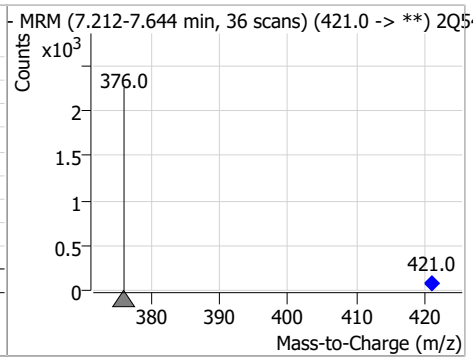


Perfluorinated Compounds by LC/MS/MS

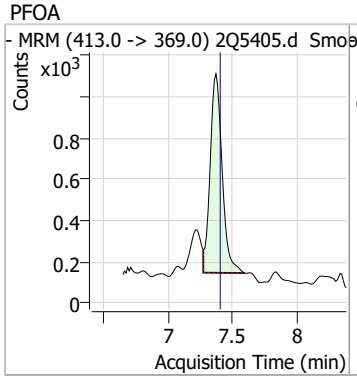
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.16	7.37	-0.02	59125				

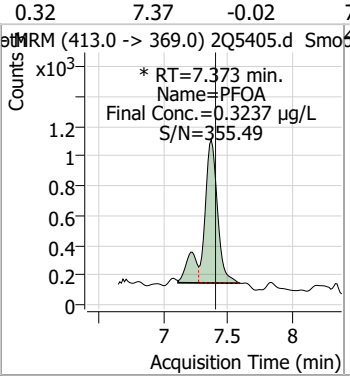


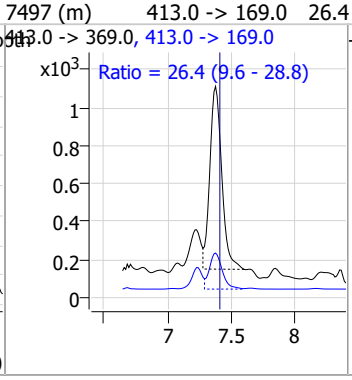


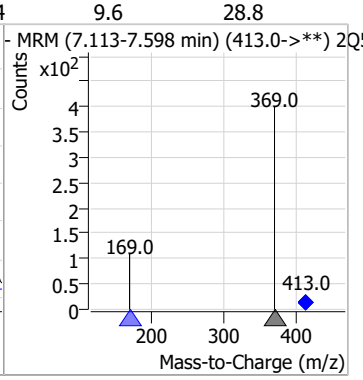


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.32	7.37	-0.02	7497 (m)	413.0 -> 169.0	26.4	9.6	28.8

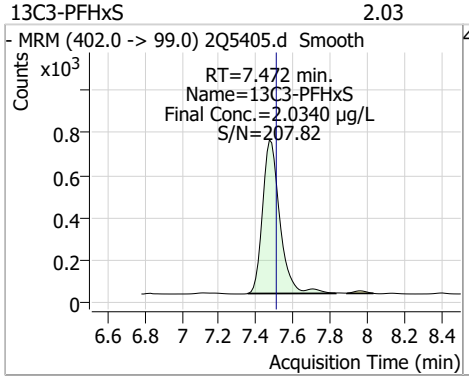


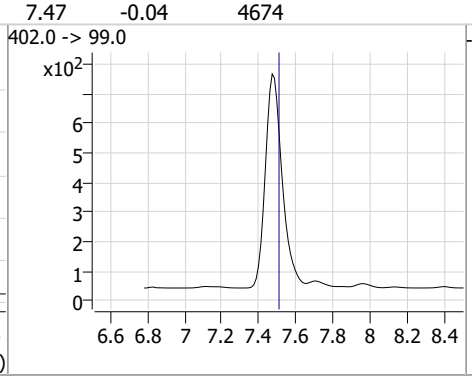


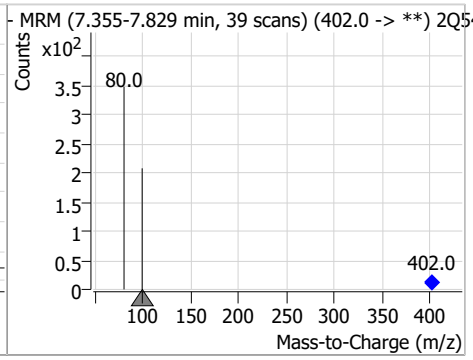




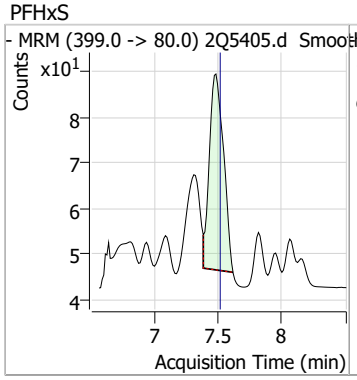
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.03	7.47	-0.04	4674				

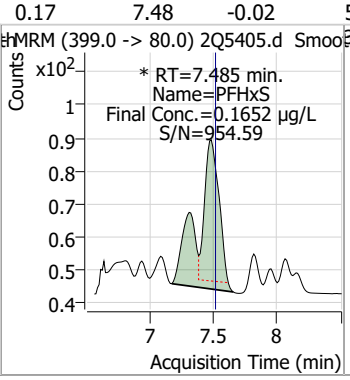


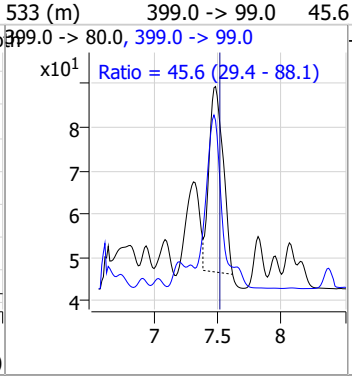


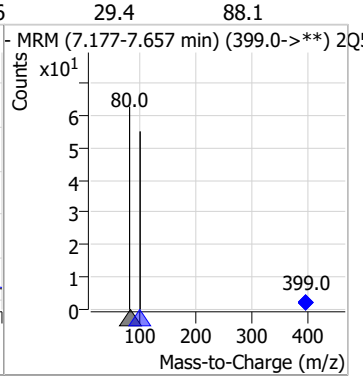


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.17	7.48	-0.02	533 (m)	399.0 -> 99.0	45.6	29.4	88.1



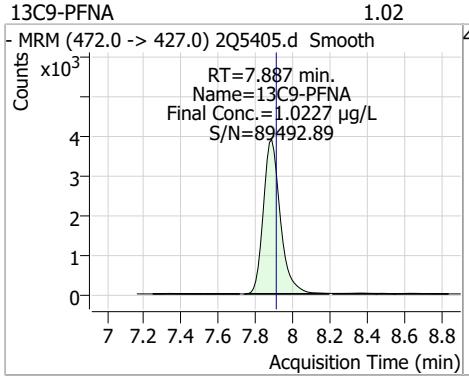


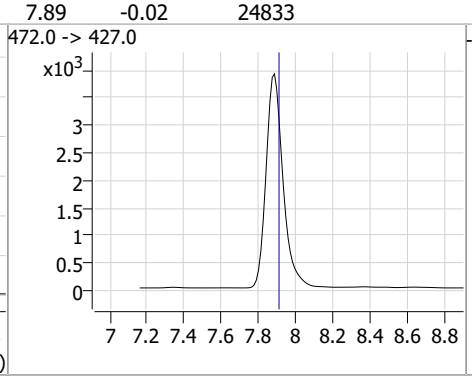


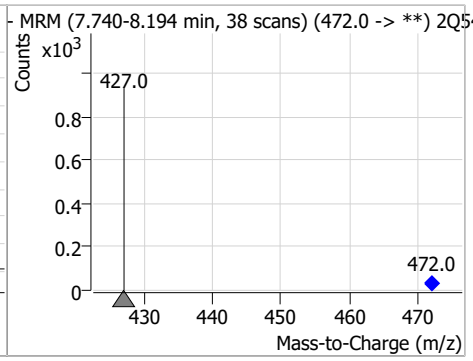


Perfluorinated Compounds by LC/MS/MS

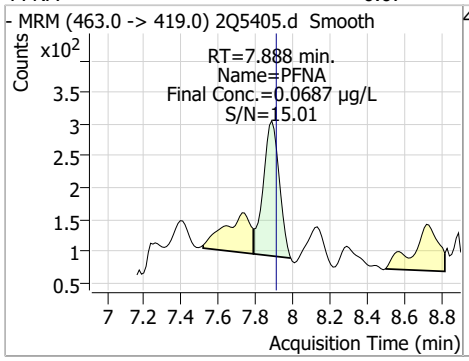
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.02	7.89	-0.02	24833				

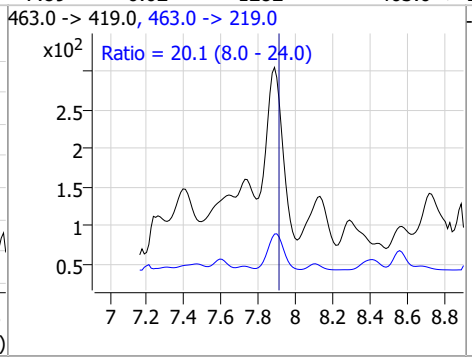


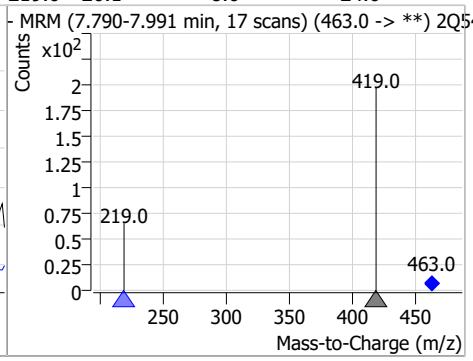




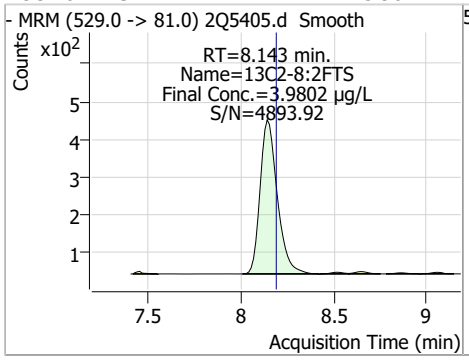
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.07	7.89	-0.02	1282	463.0 -> 219.0	20.1	8.0	24.0

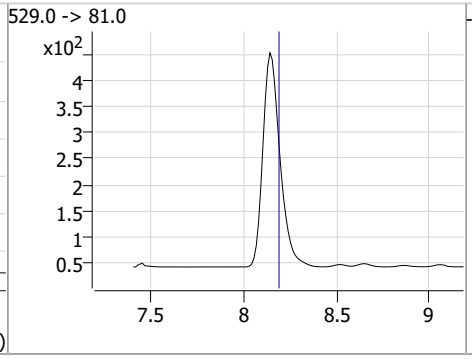


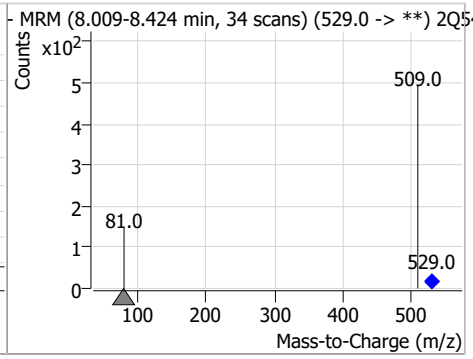




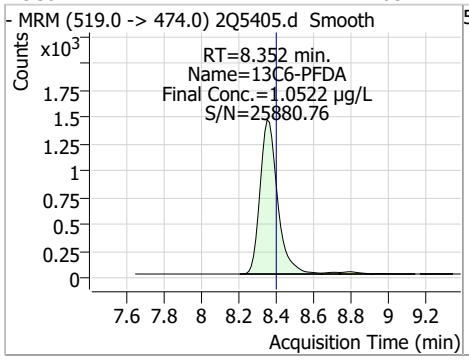
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	3.98	8.14	-0.05	2628				

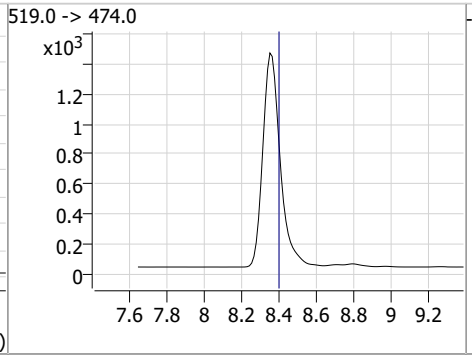


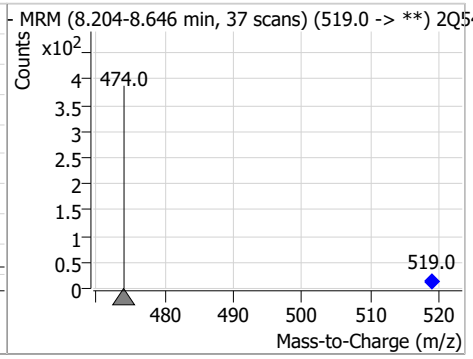




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.05	8.35	-0.05	9391				

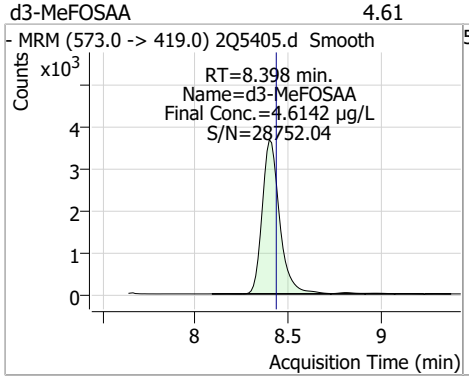


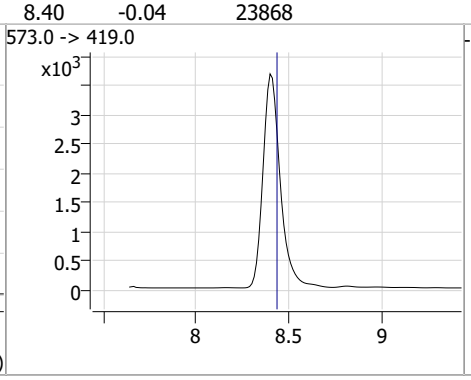


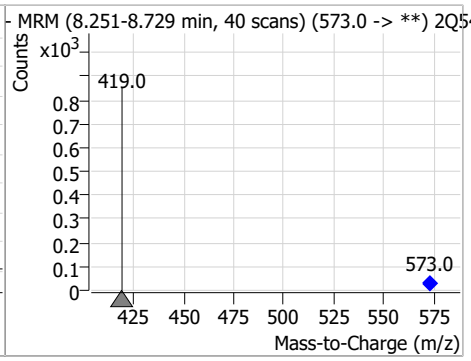


Perfluorinated Compounds by LC/MS/MS

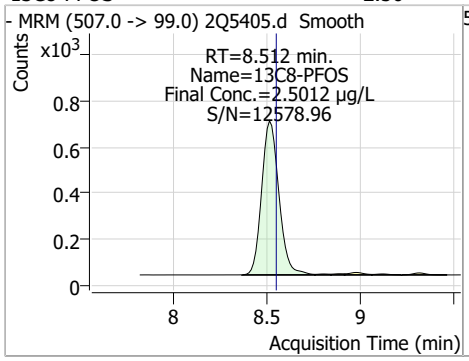
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.61	8.40	-0.04	23868				

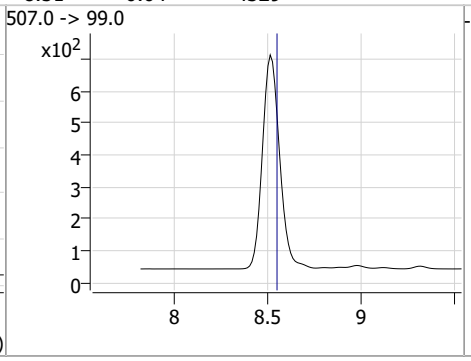


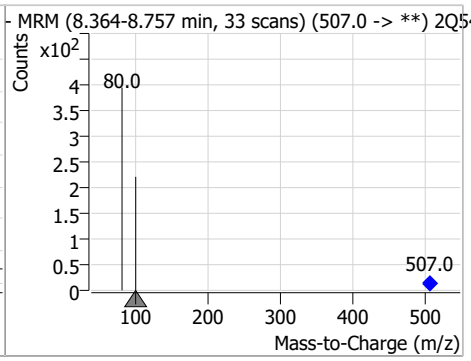




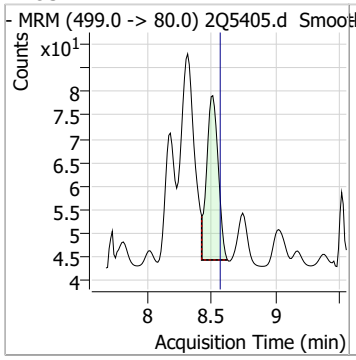
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.50	8.51	-0.04	4329				

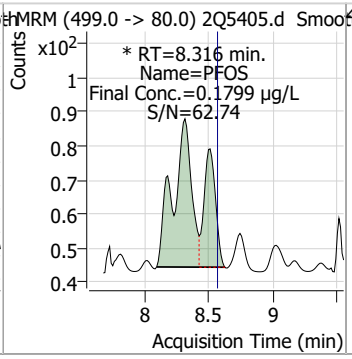


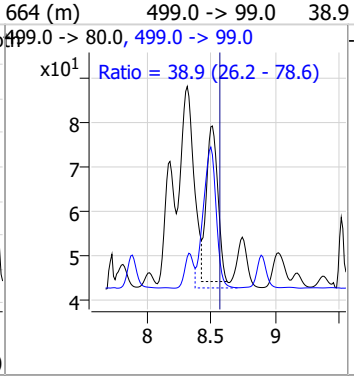


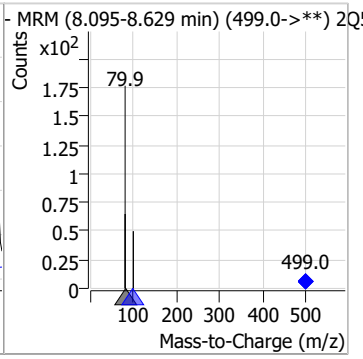


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.18	8.32	-0.25	664 (m)	499.0 -> 99.0	38.9	26.2	78.6

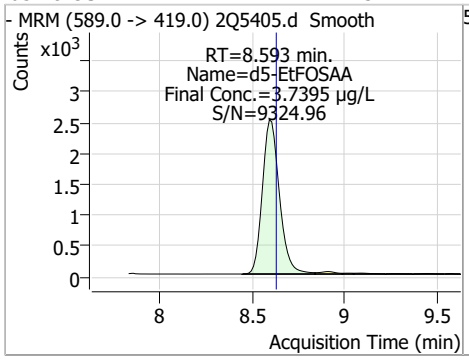


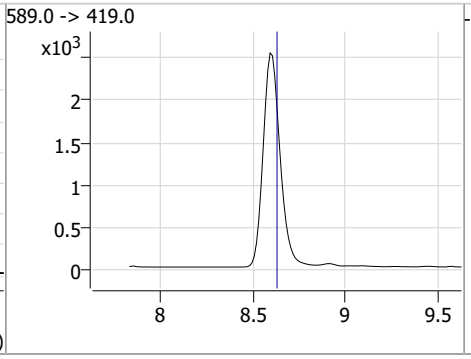


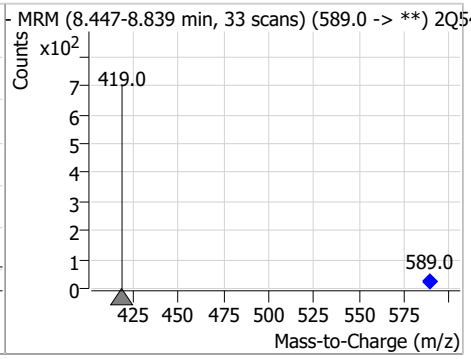




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	3.74	8.59	-0.04	15981				

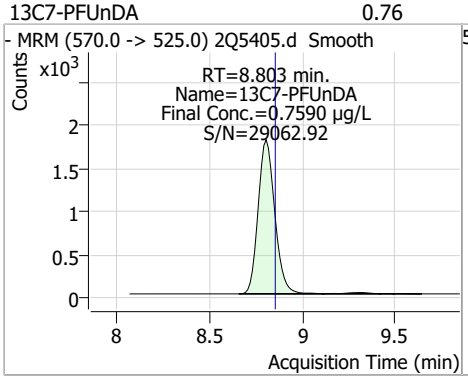


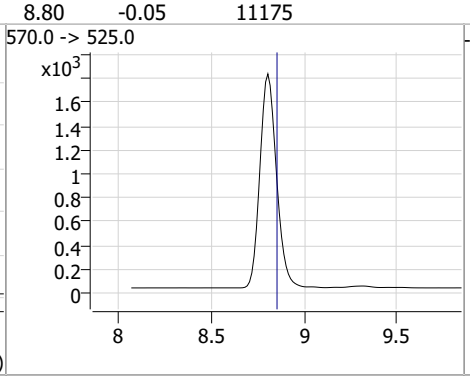


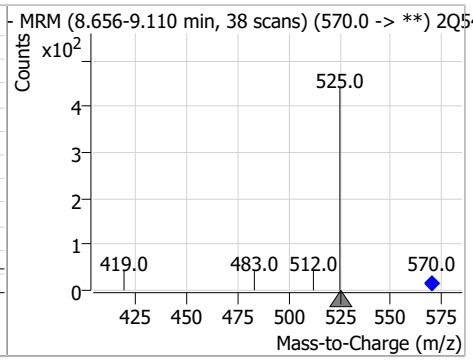


Perfluorinated Compounds by LC/MS/MS

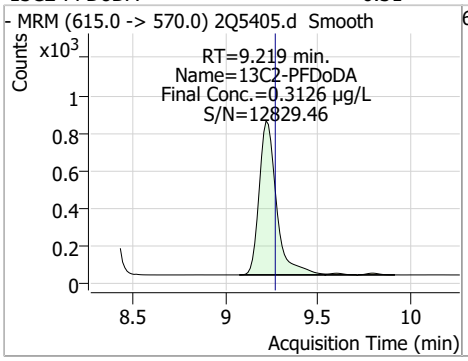
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	0.76	8.80	-0.05	11175				

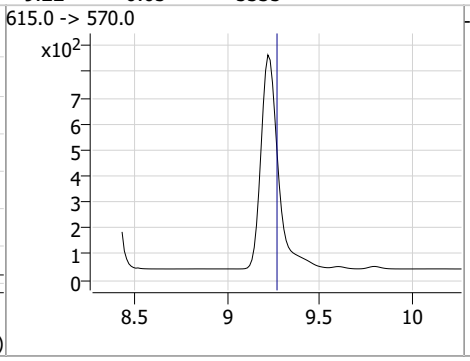


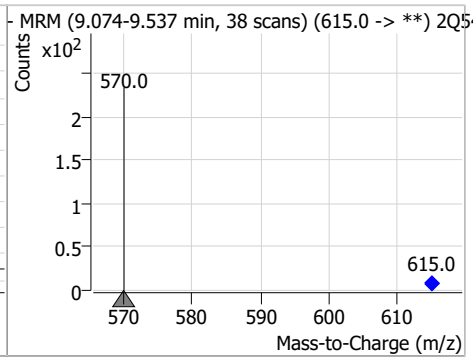




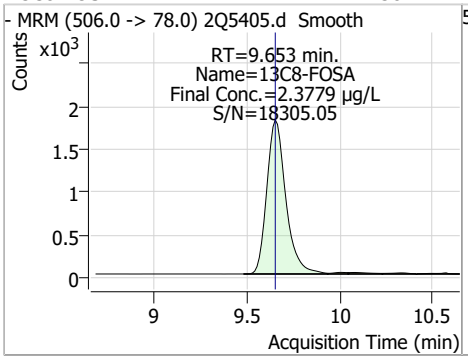
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.31	9.22	-0.05	5335				

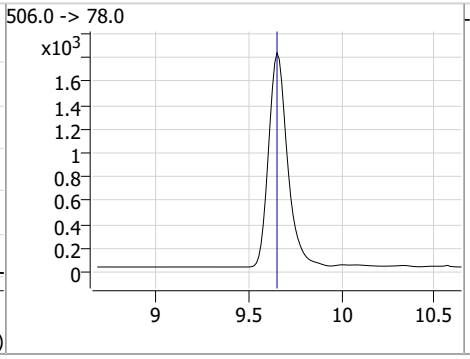


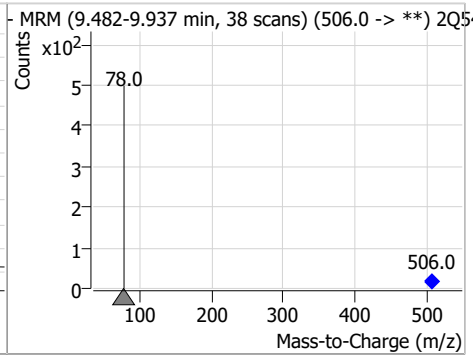




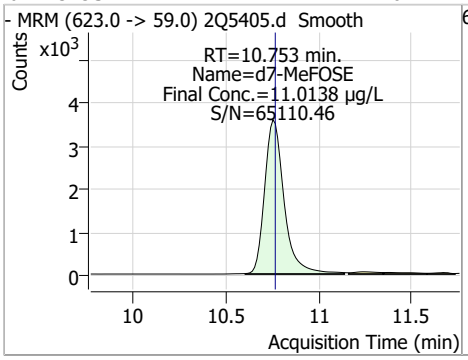
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.38	9.65	0.00	12797				

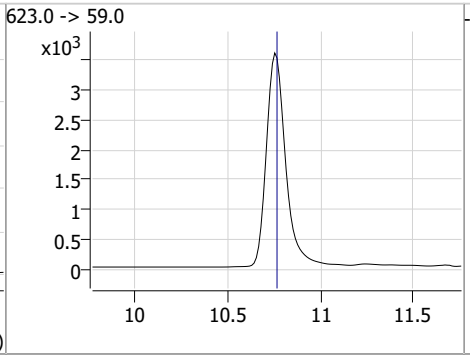


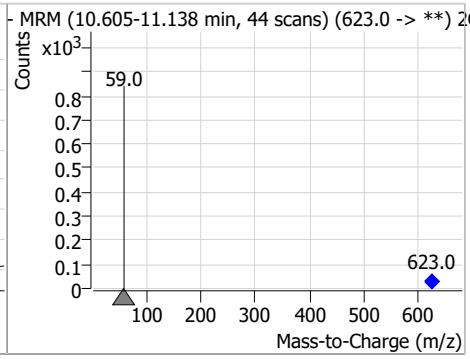




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	11.01	10.75	-0.01	26076				

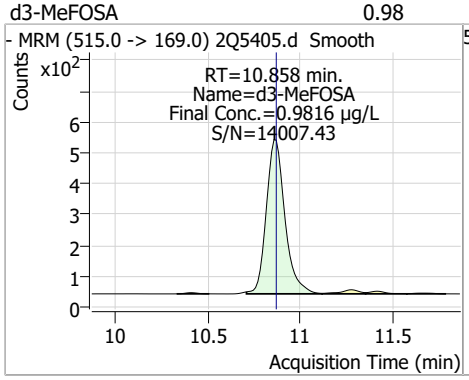


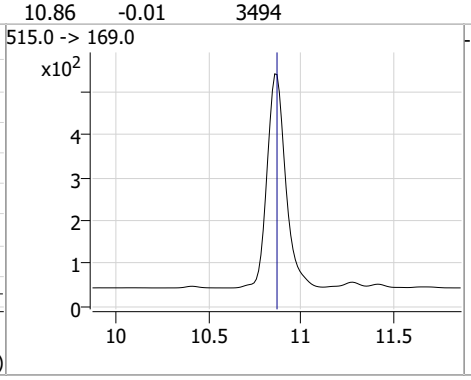


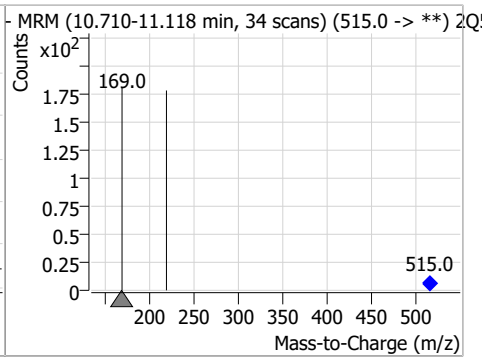


Perfluorinated Compounds by LC/MS/MS

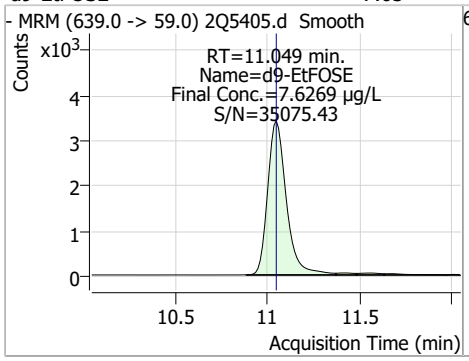
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	0.98	10.86	-0.01	3494				

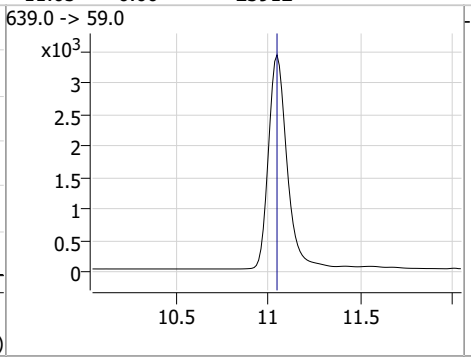


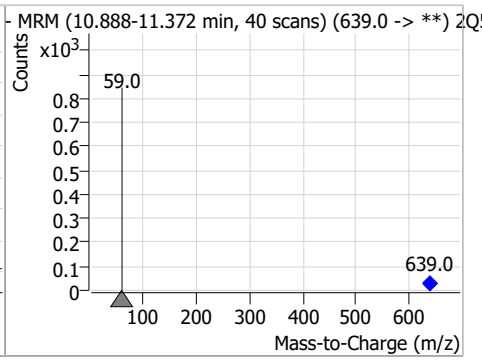




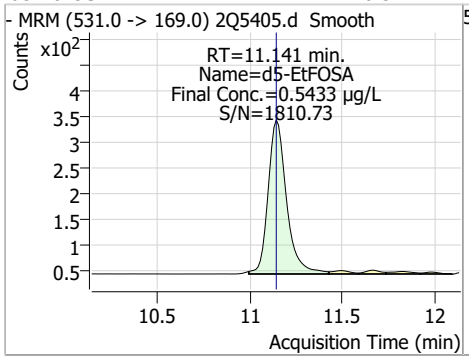
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	7.63	11.05	0.00	23912				

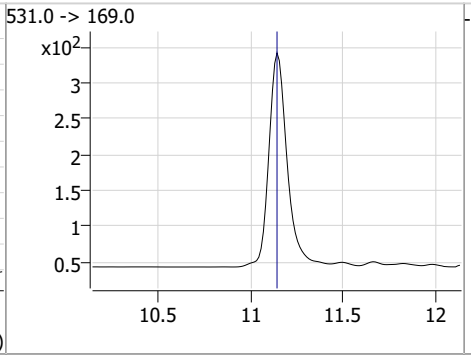


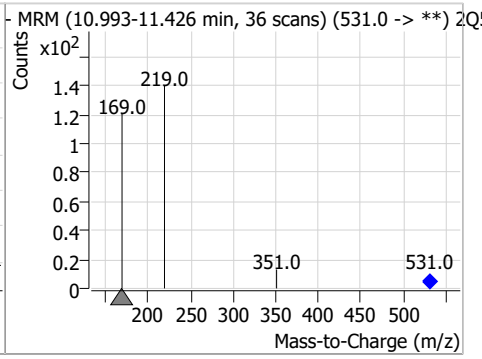




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	0.54	11.14	0.00	2074				







Manual Integration Approval Summary

Sample Number: JD77804-11
Lab FileID: 2Q5405.D
Injection Time: 12/02/23 06:32
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/08/23 13:39 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluoroheptanoic acid	375-85-9		6.77	Poorly defined baseline
Perfluorooctanoic acid	335-67-1		7.37	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.49	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.32	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5546.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/5/2023 10:20:59 PM
Sample Name	:	JD77804-12
Vial	:	P2-F8
DA Method File	:	T2Q96.batch.bin
Batch Name	:	T2Q97.batch.bin
Sample Information	:	OP50811,T2Q96,513,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	158001	10.00	µg/L	-0.012
M5-PFPeA	4.785	268.0 -> 223.0	95864	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	52808	1.25	µg/L	-0.012
M4-PFHpA	6.770	367.0 -> 322.0	39193	2.50	µg/L	-0.013
M8-PFOA	7.360	421.0 -> 376.0	67856	2.50	µg/L	-0.012
M9-PFNA	7.875	472.0 -> 427.0	32839	1.25	µg/L	-0.012
M6-PFDA	8.352	519.0 -> 474.0	14498	1.25	µg/L	-0.012
M7-PFUnDA	8.791	570.0 -> 525.0	23781	1.25	µg/L	-0.024
M2-PFDoDA	9.206	615.0 -> 570.0	25143	1.25	µg/L	-0.024
M2-PFTeDA	9.952	715.0 -> 670.0	18541	1.25	µg/L	-0.024
M8-FOSA	9.641	506.0 -> 78.0	20748	2.50	µg/L	-0.012
M3-PFBS	5.846	302.0 -> 99.0	6039	2.50	µg/L	-0.012
		302.0 -> 80.0	15659			
M3-PFHxS	7.472	402.0 -> 99.0	6420	2.50	µg/L	-0.012
M8-PFOS	8.499	507.0 -> 99.0	6765	2.50	µg/L	-0.012
M2-4:2FTS	5.631	329.0 -> 81.0	1297	5.00	µg/L	0.000
M2-6:2FTS	7.149	429.0 -> 81.0	2501	5.00	µg/L	-0.013
M2-8:2FTS	8.130	529.0 -> 81.0	4503	5.00	µg/L	-0.024
M3-MeFOSAA	8.386	573.0 -> 419.0	43761	5.00	µg/L	-0.024
M3-HFPO-DA	6.270	287.0 -> 169.0	26747	10.00	µg/L	-0.012
M5-EtFOSAA	8.581	589.0 -> 419.0	36032	5.00	µg/L	-0.025
M7-MeFOSE	10.753	623.0 -> 59.0	89987	25.00	µg/L	0.000
M9-EtFOSE	11.037	639.0 -> 59.0	123428	25.00	µg/L	-0.012
M5-EtFOSA	11.141	531.0 -> 169.0	14687	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	12720	2.50	µg/L	0.012
13C4-PFOS	8.500	503.0 -> 80.0	10554	2.50	µg/L	-0.012
13C3-PFBA	3.317	216.0 -> 172.0	68546	5.00	µg/L	-0.013
18O2-PFHxS	7.472	403.0 -> 84.0	6767	2.50	µg/L	-0.012
13C4-PFOA	7.360	417.0 -> 372.0	64453	2.50	µg/L	-0.012
13C2-PFDA	8.339	515.0 -> 470.0	25154	1.25	µg/L	-0.024
13C5-PFNA	7.875	468.0 -> 423.0	34413	1.25	µg/L	-0.012
13C2-PFHxA	5.930	315.0 -> 270.0	49268	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1297	5.25	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.0%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2501	4.57	µg/L	-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 91.3%		
13C2-8:2FTS	8.130	529.0 -> 81.0	4503	5.94	µg/L	-0.024
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.8%		
13C2-PFDoDA	9.206	615.0 -> 570.0	25143	1.25	µg/L	-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.2%		
13C2-PFTeDA	9.952	715.0 -> 670.0	18541	1.26	µg/L	-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.7%		
13C3-PFBS	5.846	302.0 -> 99.0	6039	2.40	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6420	2.43	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.3%			
13C4-PFBA	3.314	217.0 -> 172.0	158001	10.24	µg/L		-0.012
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.4%			
13C4-PFHpA	6.770	367.0 -> 322.0	39193	2.45	µg/L		-0.013
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.9%			
13C5-PFHxA	5.930	318.0 -> 273.0	52808	2.58	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.2%			
13C5-PFPeA	4.785	268.0 -> 223.0	95864	5.19	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.8%			
13C6-PFDA	8.352	519.0 -> 474.0	14498	1.38	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 110.5%			
13C7-PFUnDA	8.791	570.0 -> 525.0	23781	1.37	µg/L		-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 109.8%			
13C8-FOSA	9.641	506.0 -> 78.0	20748	2.90	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 116.1%			
13C8-PFOA	7.360	421.0 -> 376.0	67856	2.54	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.7%			
13C8-PFOS	8.499	507.0 -> 99.0	6765	2.94	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 117.7%			
13C9-PFNA	7.875	472.0 -> 427.0	32839	1.22	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.6%			
d3-MeFOSAA	8.386	573.0 -> 419.0	43761	6.37	µg/L		-0.024
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 127.4%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	26747	11.45	µg/L		-0.012
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 114.5%			
d3-MeFOSA	10.871	515.0 -> 169.0	12720	2.69	µg/L		0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 107.6%			
d5-EtFOSAA	8.581	589.0 -> 419.0	36032	6.35	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 127.0%			
d7-MeFOSE	10.753	623.0 -> 59.0	89987	28.62	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 114.5%			
d9-EtFOSE	11.037	639.0 -> 59.0	123428	29.64	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 118.6%			
d5-EtFOSA	11.141	531.0 -> 169.0	14687	2.90	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 115.9%			
Target Compounds							QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.606	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

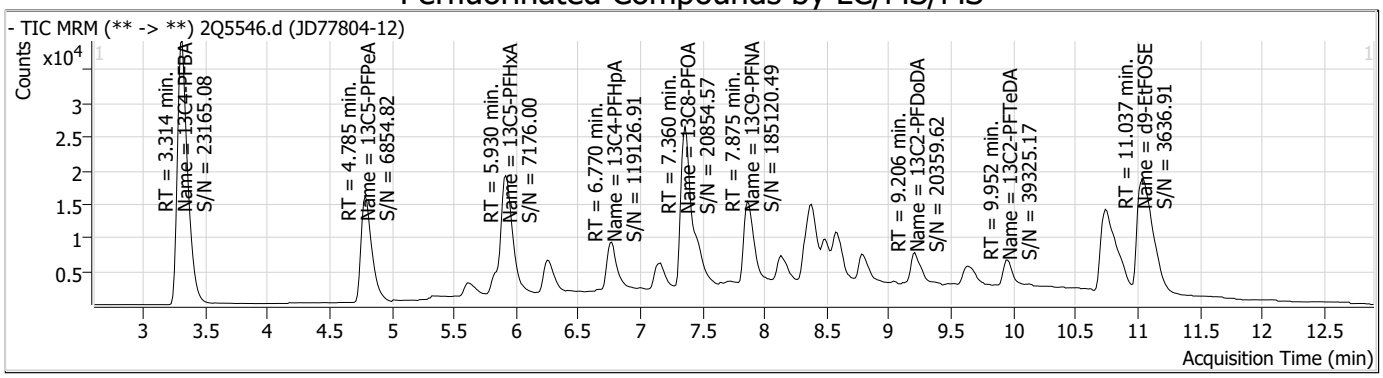
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	-	313.0 -> 269.0	-	N.D.			
		313.0 -> 119.0					
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	8.378	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.402	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

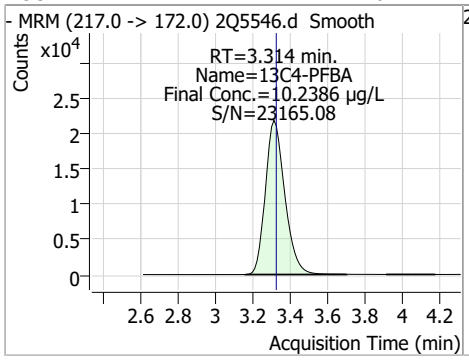
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

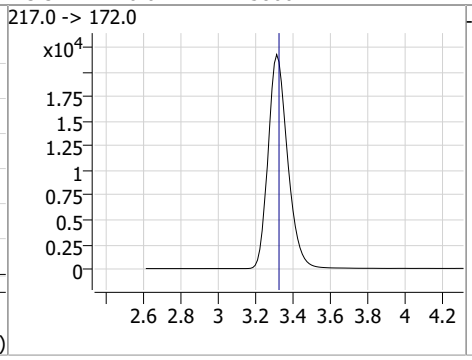
= Qualifier out of range, m = manually integrated, + = Area summed

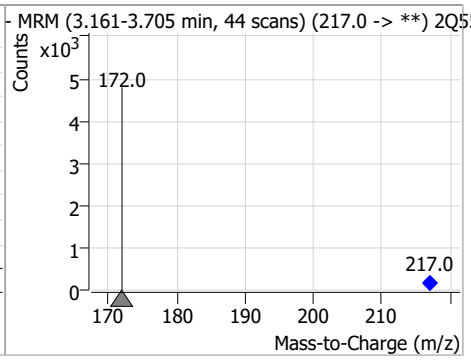
Perfluorinated Compounds by LC/MS/MS



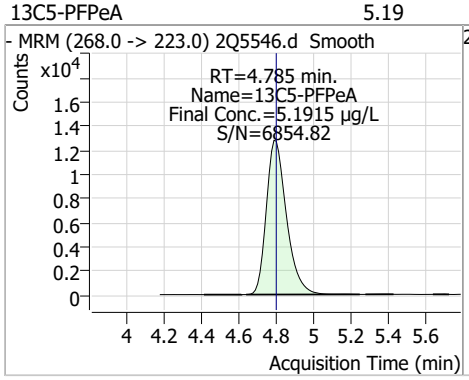
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.24	3.31	-0.01	158001				

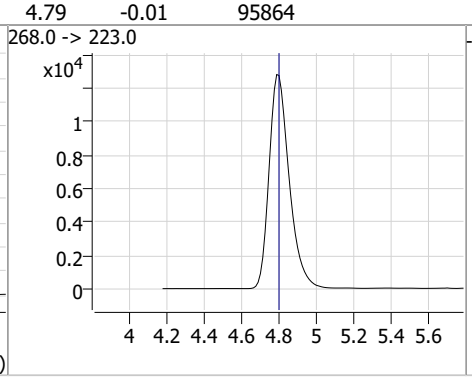


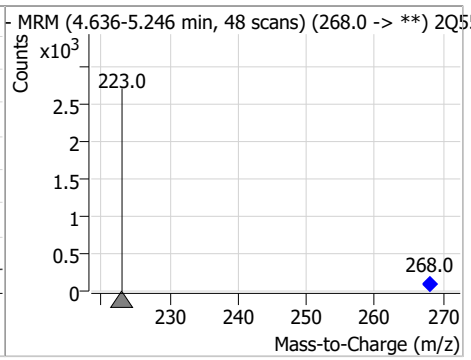




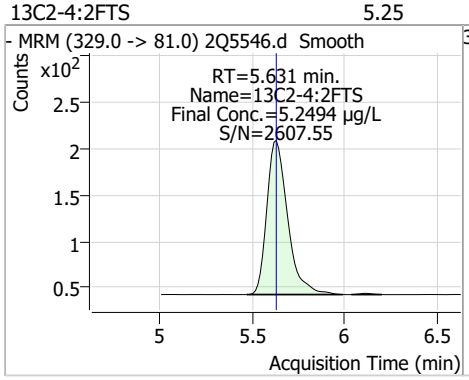
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.19	4.79	-0.01	95864				

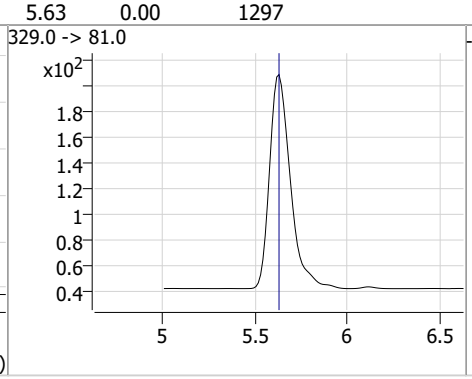


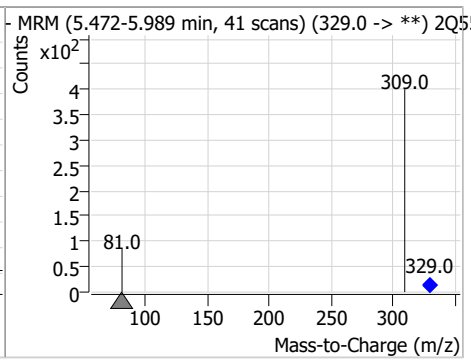




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.25	5.63	0.00	1297				

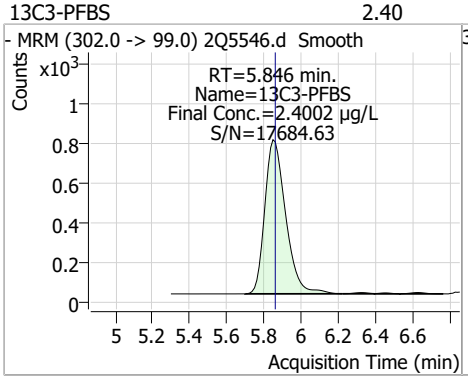


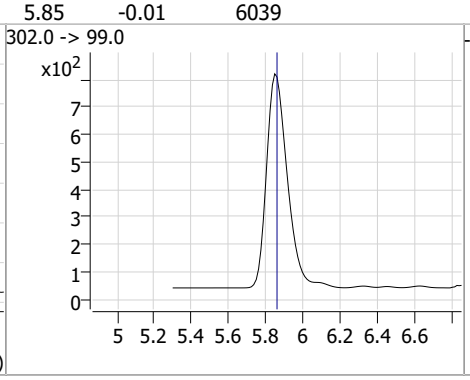


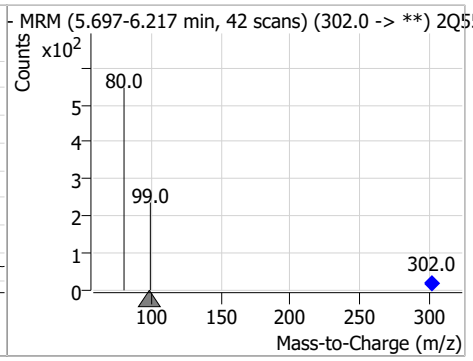


Perfluorinated Compounds by LC/MS/MS

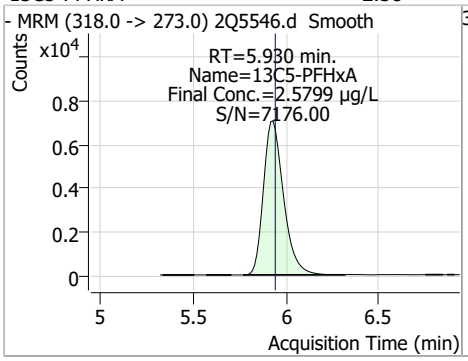
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.40	5.85	-0.01	6039				

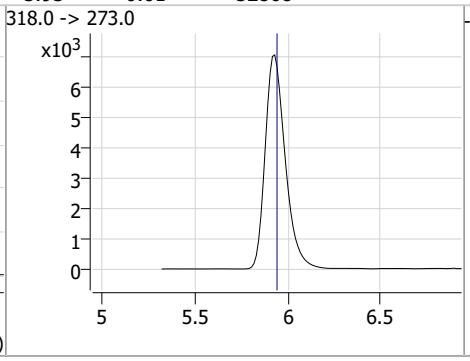


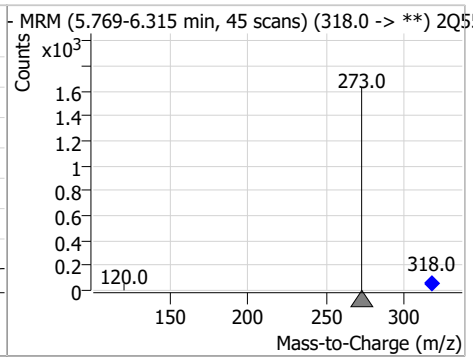




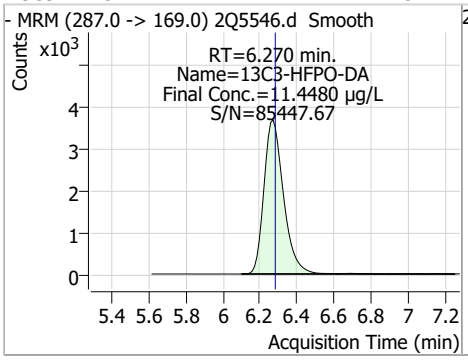
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.58	5.93	-0.01	52808				

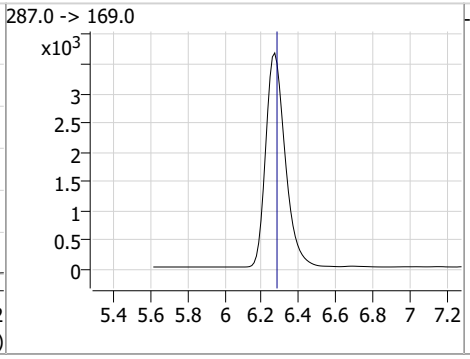


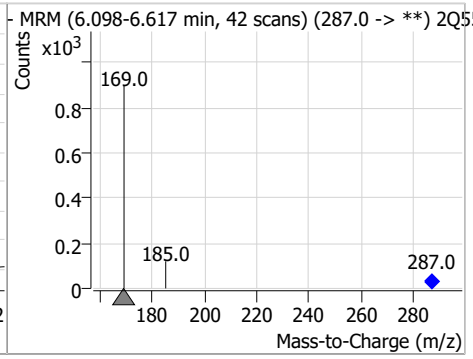




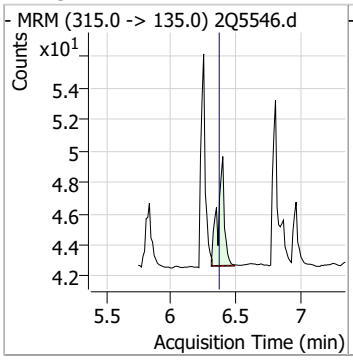
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	11.45	6.27	-0.01	26747				

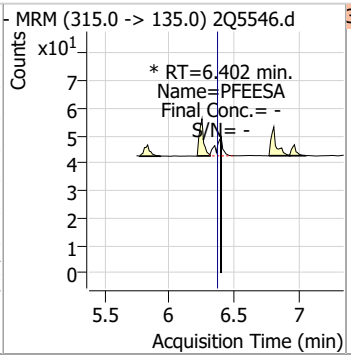


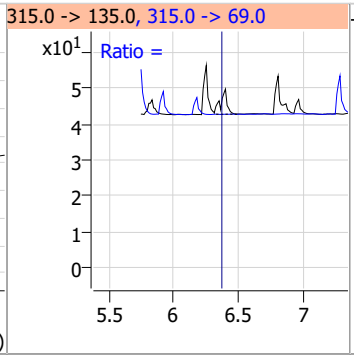


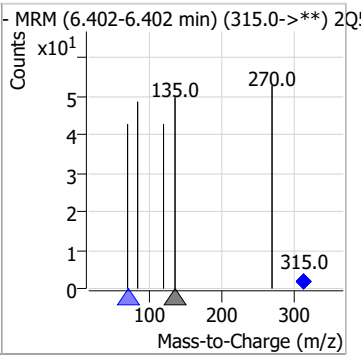


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.6	13.8



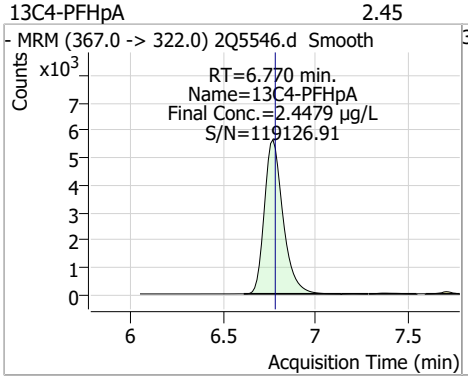


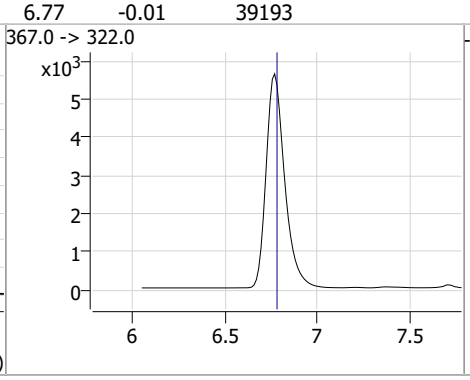


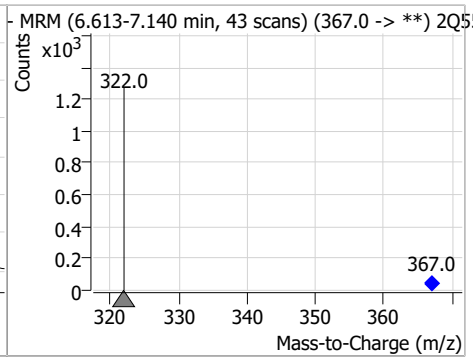


Perfluorinated Compounds by LC/MS/MS

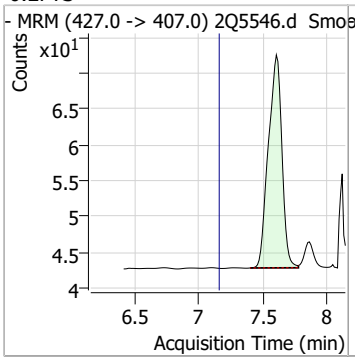
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.45	6.77	-0.01	39193				

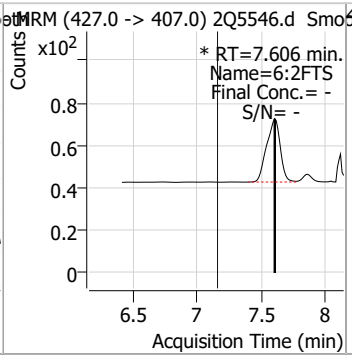


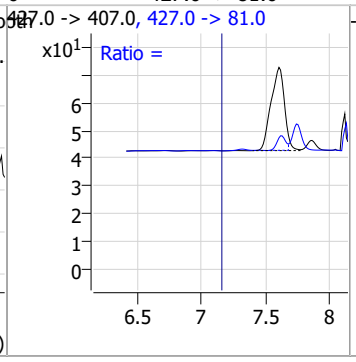


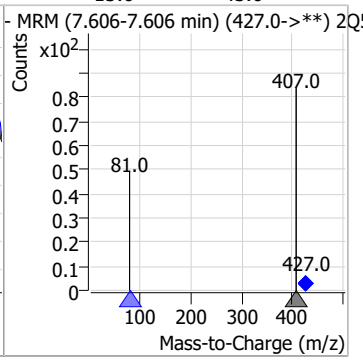


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		15.0	45.0

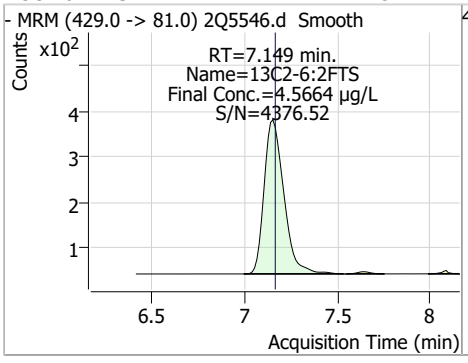


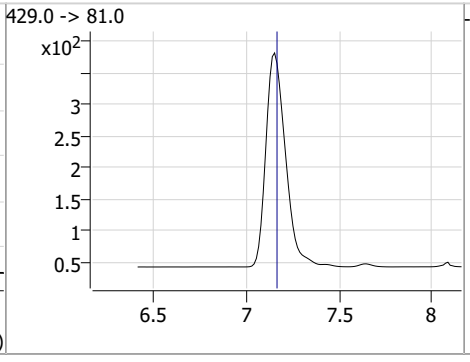


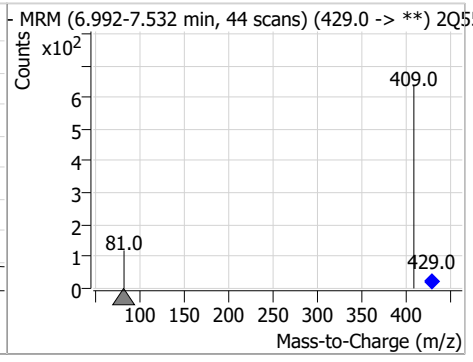




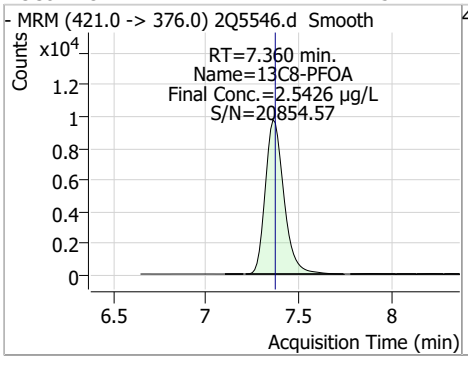
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.57	7.15	-0.01	2501				

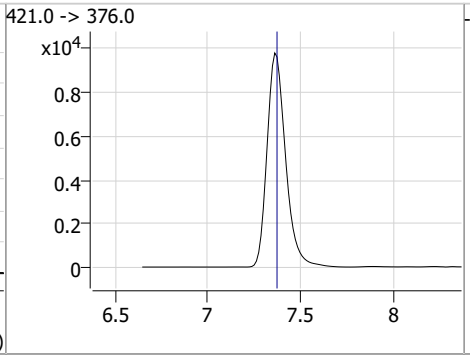


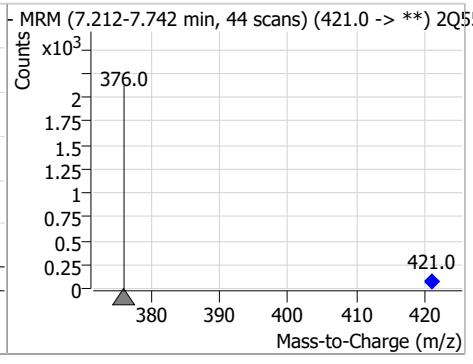




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.54	7.36	-0.01	67856				

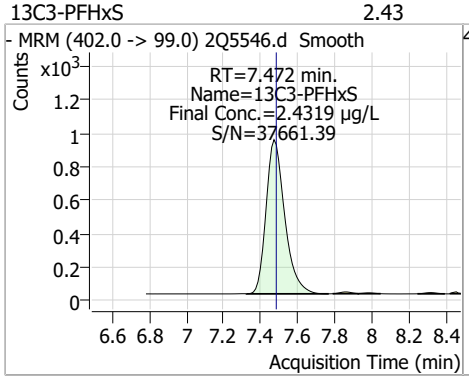


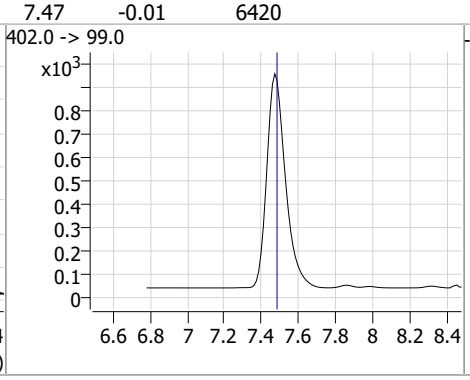


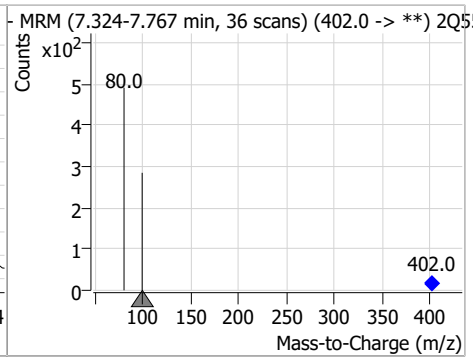


Perfluorinated Compounds by LC/MS/MS

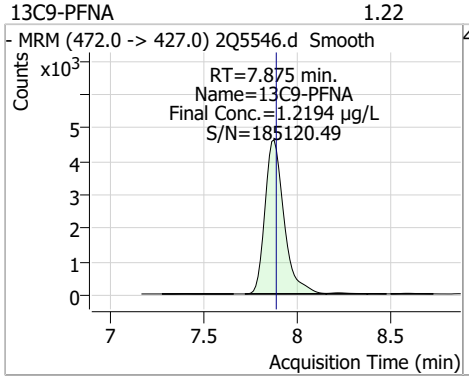
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.43	7.47	-0.01	6420				

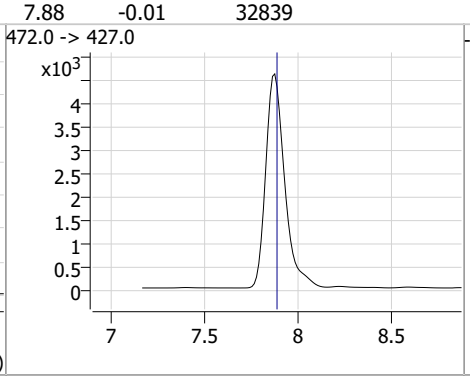


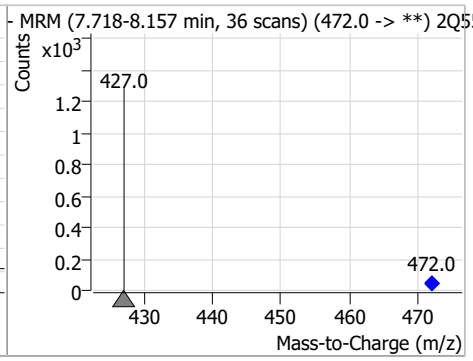




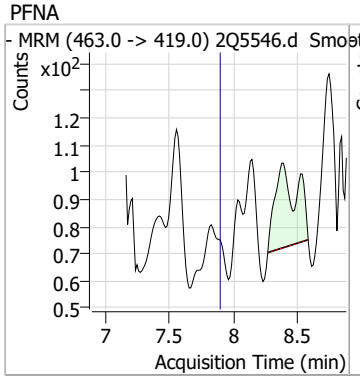
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.22	7.88	-0.01	32839				

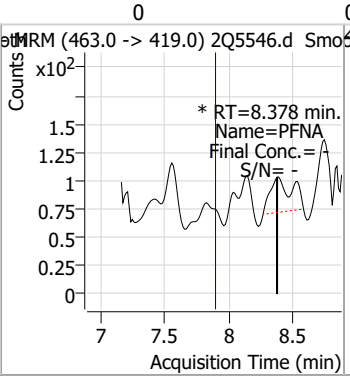


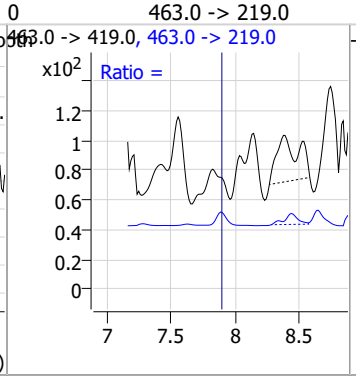


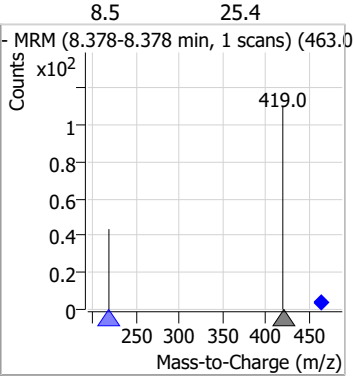


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.5	25.4

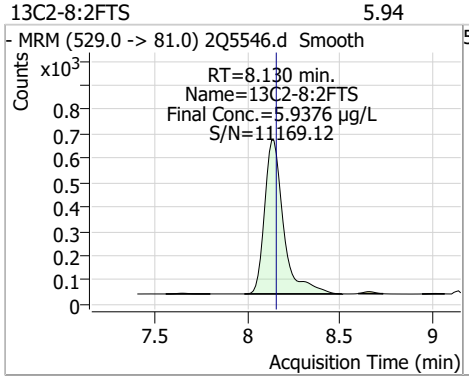


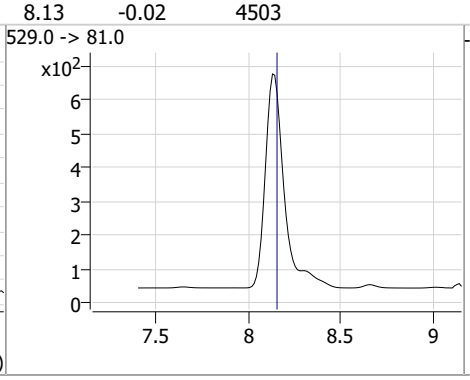


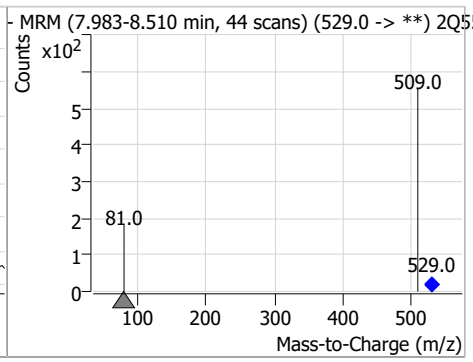




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.94	8.13	-0.02	4503				

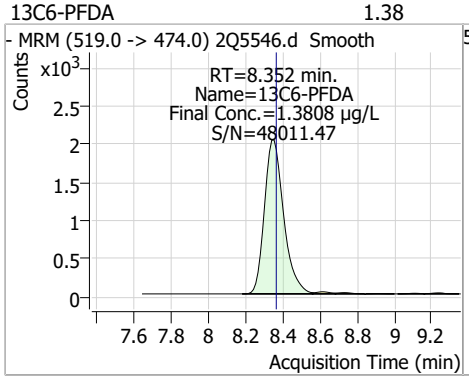


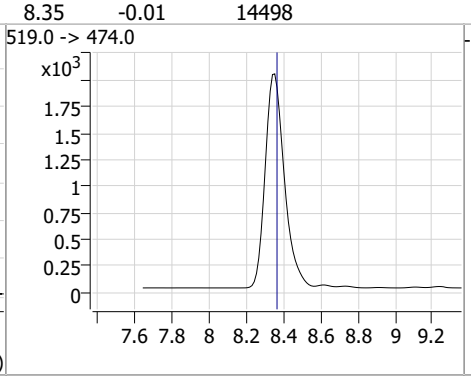


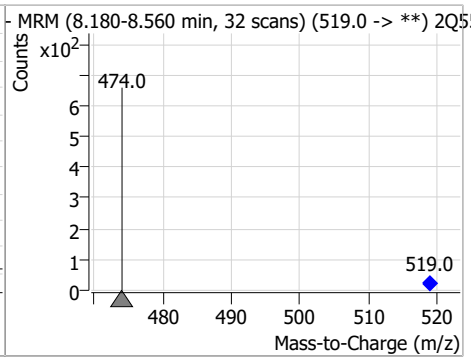


Perfluorinated Compounds by LC/MS/MS

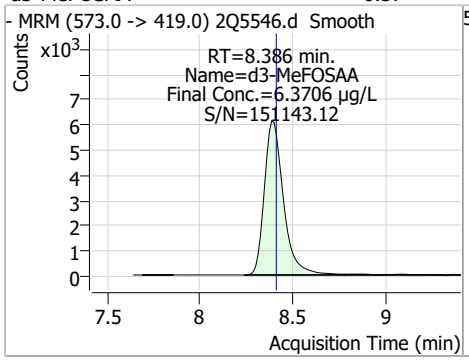
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.38	8.35	-0.01	14498				

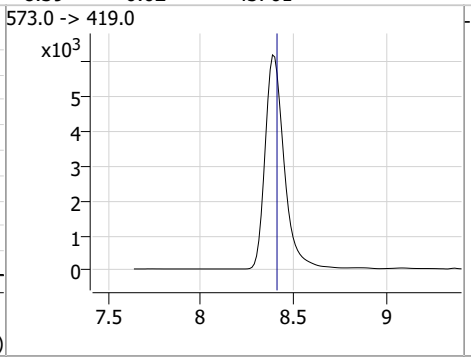


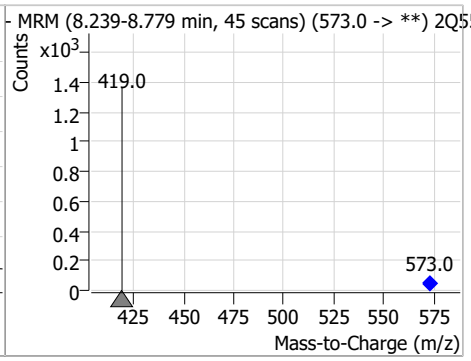




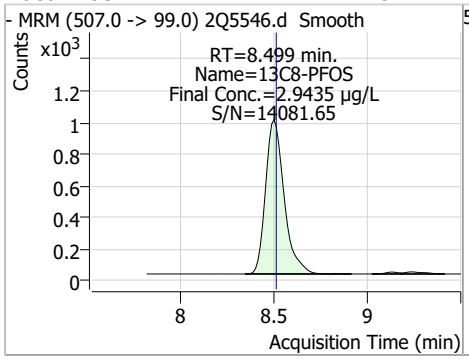
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	6.37	8.39	-0.02	43761				

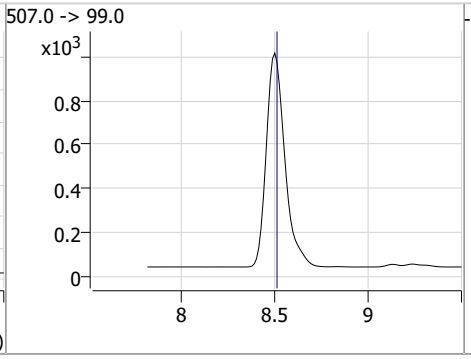


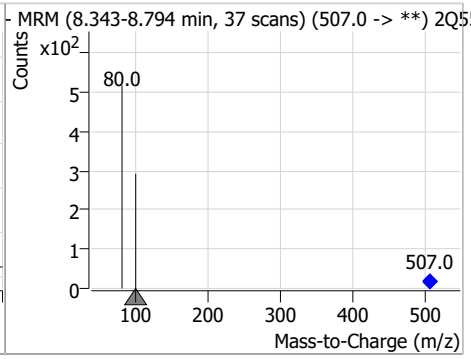




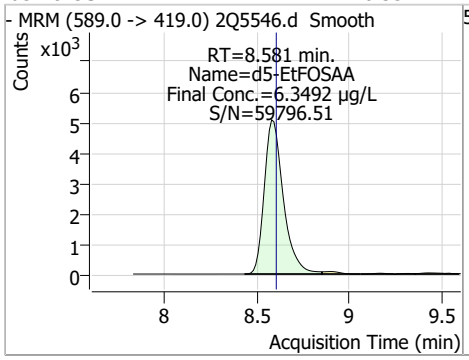
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.94	8.50	-0.01	6765				

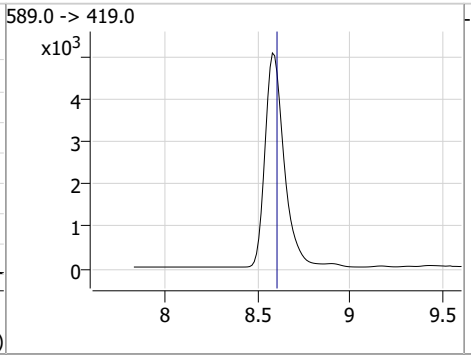


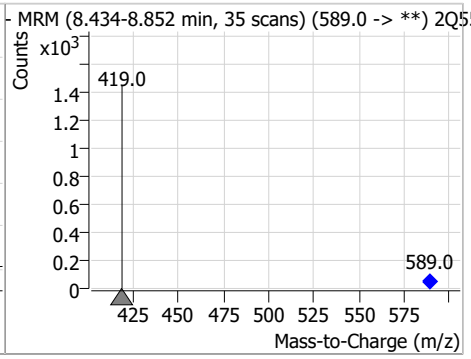




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	6.35	8.58	-0.02	36032				

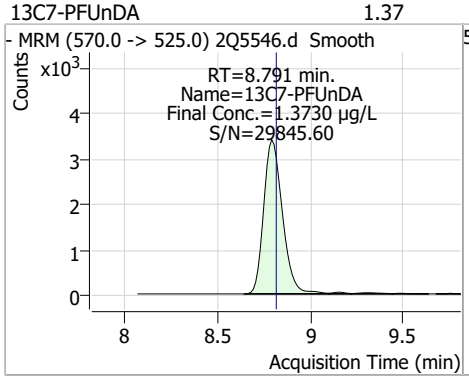


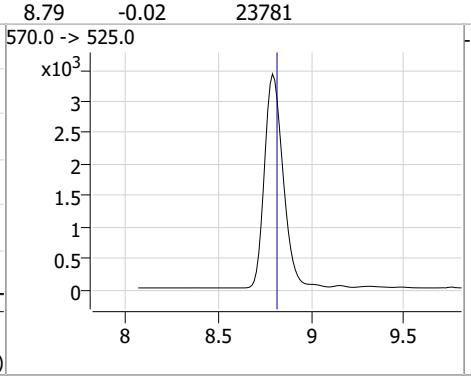


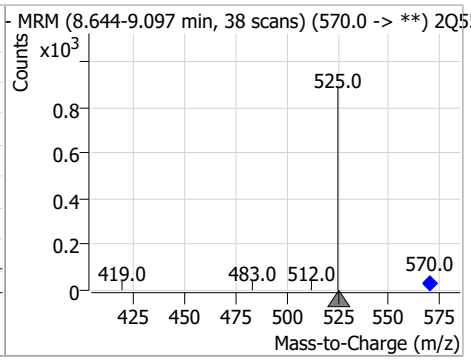


Perfluorinated Compounds by LC/MS/MS

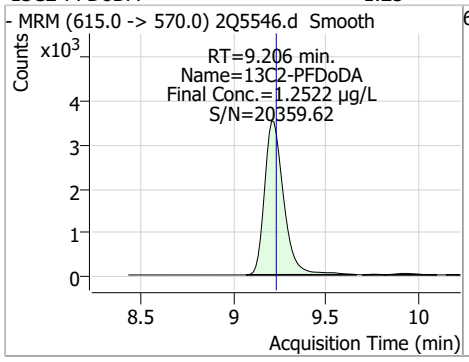
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.37	8.79	-0.02	23781				

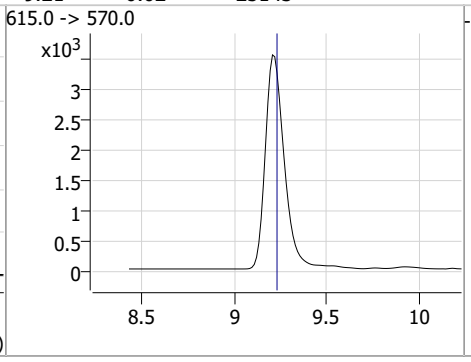


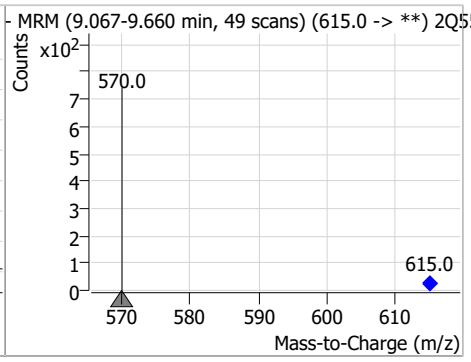




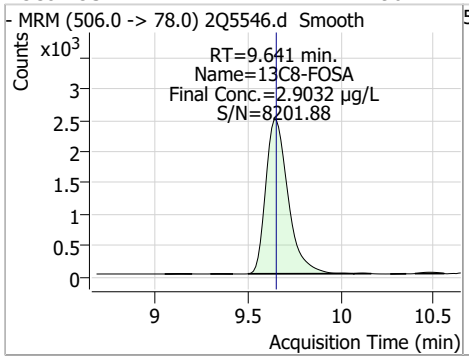
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.25	9.21	-0.02	25143				

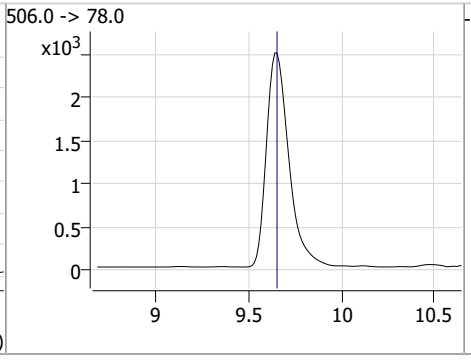


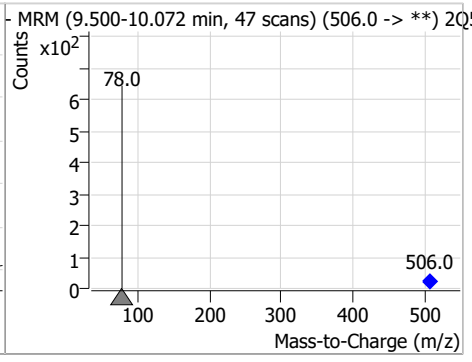




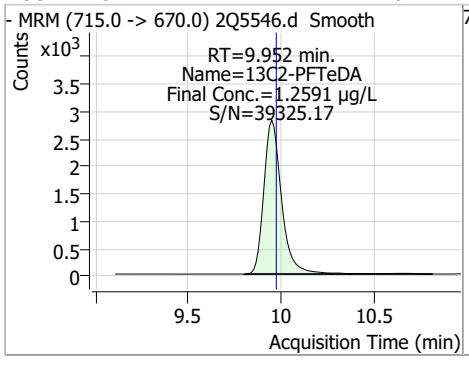
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.90	9.64	-0.01	20748				

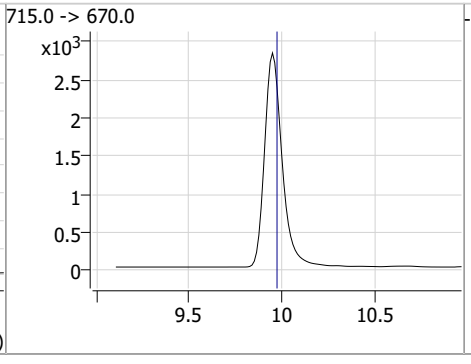


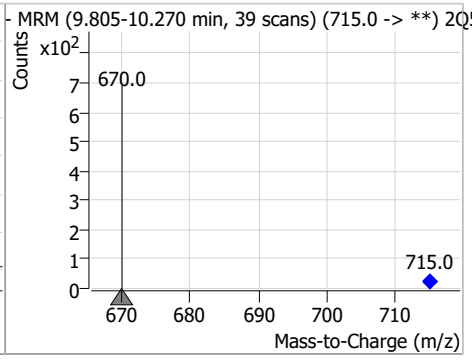




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.26	9.95	-0.02	18541				

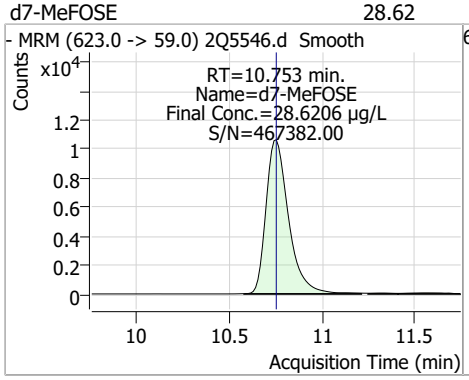


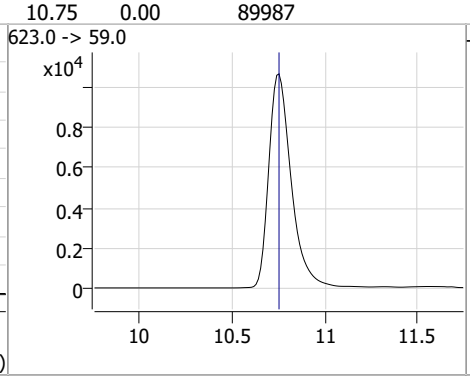


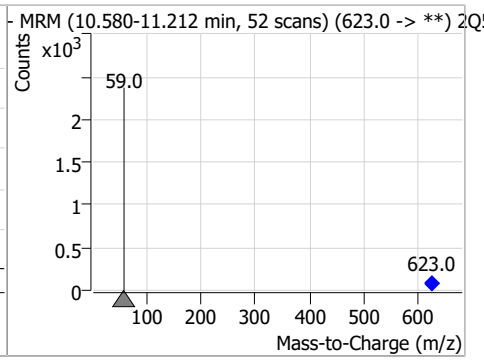


Perfluorinated Compounds by LC/MS/MS

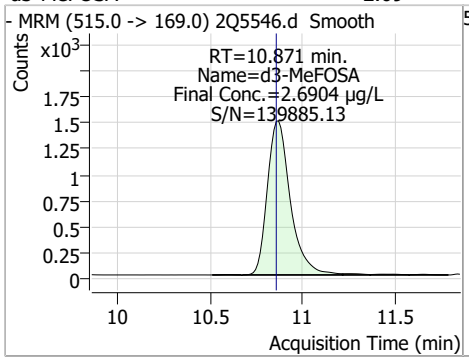
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	28.62	10.75	0.00	89987				

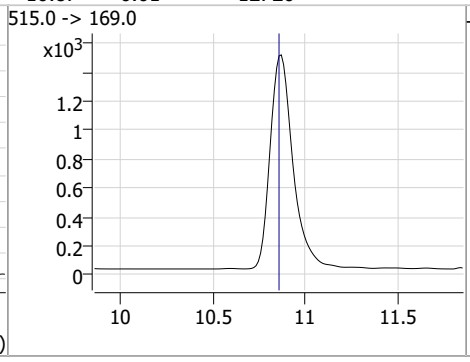


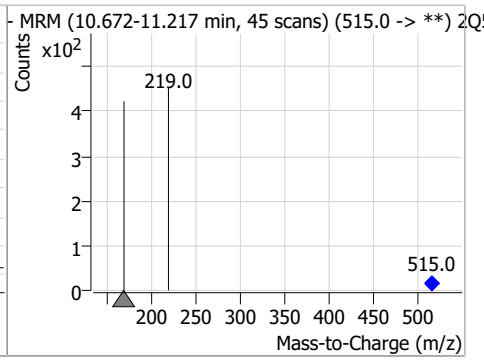




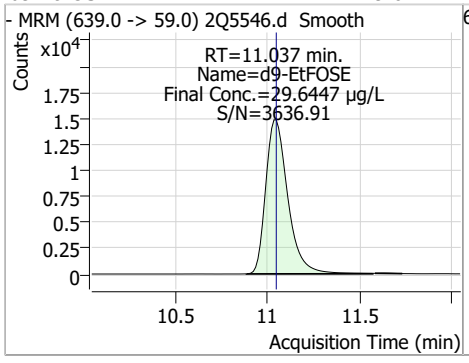
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.69	10.87	0.01	12720				

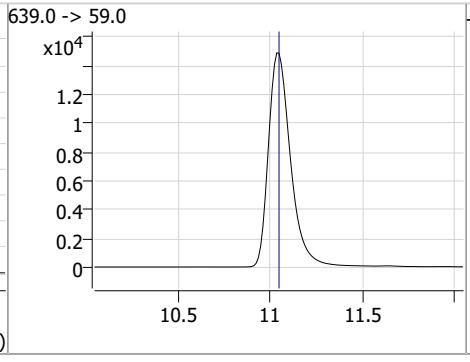


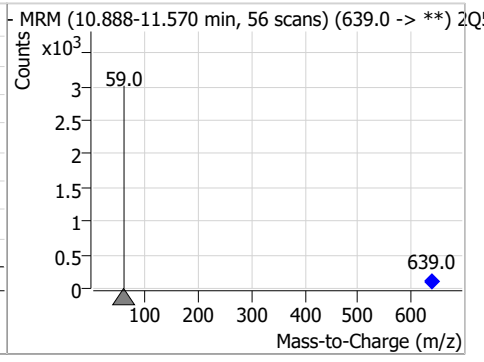




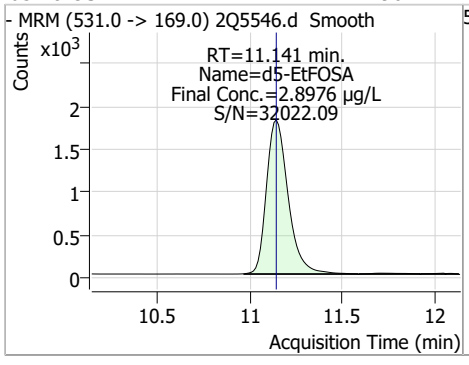
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	29.64	11.04	-0.01	123428				

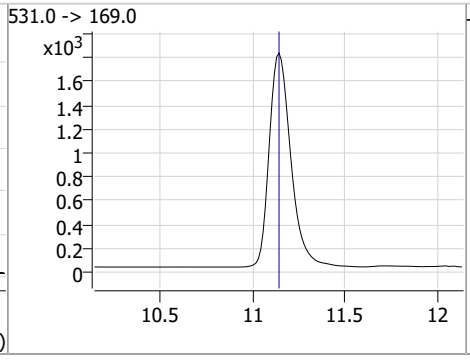


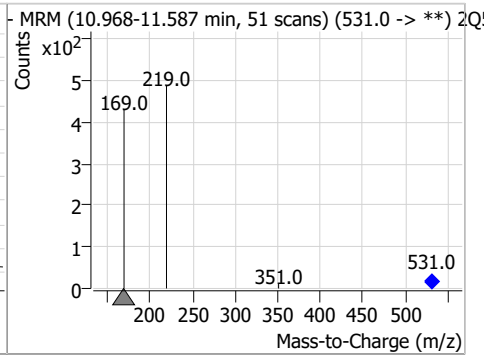




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.90	11.14	0.00	14687				







Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5407.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/2/2023 7:02:44 AM
Sample Name	:	JD77804-13
Vial	:	P3-A8
DA Method File	:	T2Q95.batch.bin
Batch Name	:	T2Q96.batch.bin
Sample Information	:	OP50811,T2Q96,512,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	90188	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	75440	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	41081	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	33313	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	55629	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	25452	1.25	µg/L	-0.037
M6-PFDA	8.339	519.0 -> 474.0	11294	1.25	µg/L	-0.061
M7-PFUnDA	8.803	570.0 -> 525.0	17077	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	21733	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	15190	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	11636	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5068	2.50	µg/L	-0.037
		302.0 -> 80.0	13145			
M3-PFHxS	7.472	402.0 -> 99.0	5783	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	5118	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1118	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	1987	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3626	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	33025	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	18646	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	27263	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	45315	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	64941	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	7290	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	7715	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	11070	2.50	µg/L	-0.049
13C3-PFBA	3.305	216.0 -> 172.0	69556	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	5878	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	68936	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	26030	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	31947	1.25	µg/L	-0.037
13C2-PFHxA	5.918	315.0 -> 270.0	49751	2.50	µg/L	-0.037
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1118	5.21	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.2%		
13C2-6:2FTS	7.149	429.0 -> 81.0	1987	4.18	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 83.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3626	5.50	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.1%		
13C2-PFDoDA	9.219	615.0 -> 570.0	21733	1.05	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.7%		
13C2-PFTeDA	9.964	715.0 -> 670.0	15190	1.00	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 79.7%		
13C3-PFBS	5.846	302.0 -> 99.0	5068	2.32	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.8%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5783	2.52	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.9%			
13C4-PFBA	3.314	217.0 -> 172.0	90188	5.76	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 57.6%			
13C4-PFHpA	6.770	367.0 -> 322.0	33313	2.06	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.4%			
13C5-PFHxA	5.930	318.0 -> 273.0	41081	1.99	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 79.5%			
13C5-PFPeA	4.785	268.0 -> 223.0	75440	4.05	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 80.9%			
13C6-PFDA	8.339	519.0 -> 474.0	11294	1.04	µg/L		-0.061
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.2%			
13C7-PFUnDA	8.803	570.0 -> 525.0	17077	0.95	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 76.2%			
13C8-FOSA	9.653	506.0 -> 78.0	11636	1.55	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 62.1%			
13C8-PFOA	7.360	421.0 -> 376.0	55629	1.95	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 78.0%			
13C8-PFOS	8.512	507.0 -> 99.0	5118	2.12	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.9%			
13C9-PFNA	7.875	472.0 -> 427.0	25452	1.02	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 81.4%			
d3-MeFOSAA	8.398	573.0 -> 419.0	33025	4.58	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 91.7%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	18646	7.90	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 79.0%			
d3-MeFOSA	10.871	515.0 -> 169.0	7715	1.56	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 62.2%			
d5-EtFOSAA	8.593	589.0 -> 419.0	27263	4.58	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 91.6%			
d7-MeFOSE	10.753	623.0 -> 59.0	45315	13.74	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 55.0%			
d9-EtFOSE	11.049	639.0 -> 59.0	64941	14.87	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 59.5%			
d5-EtFOSA	11.141	531.0 -> 169.0	7290	1.37	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 54.8%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.163	427.0 -> 407.0	122	0.04	µg/L	#	68
		427.0 -> 81.0	61				
8:2FTS	7.530	527.0 -> 507.0	0		µg/L	m	1
		527.0 -> 81.0	0				
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.308	213.0 -> 169.0	1262	0.56	µg/L		100
PFBS	5.847	299.0 -> 80.0	811	0.15	µg/L		75
		299.0 -> 99.0	213				
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

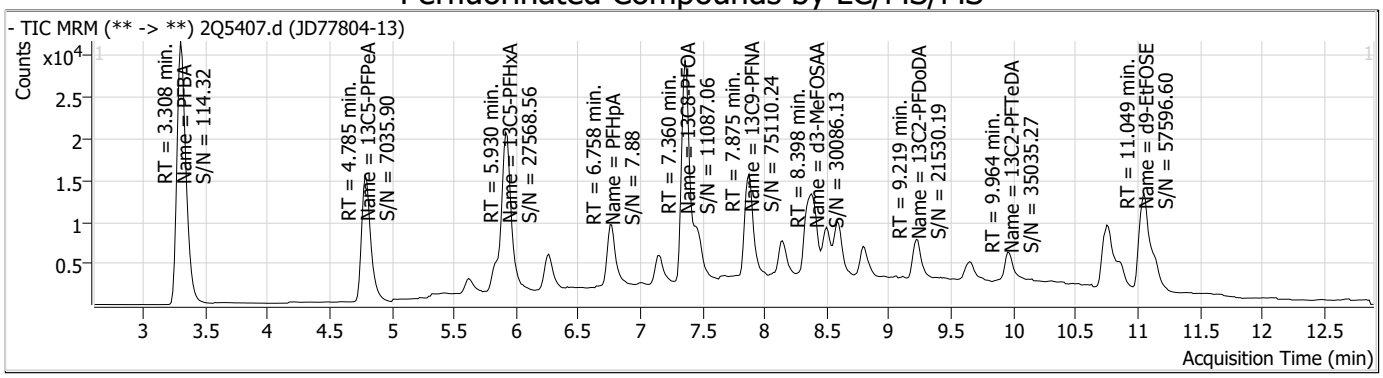
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.758	363.0 -> 319.0	1000	0.10	µg/L		99
		363.0 -> 169.0	160				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	1918	0.12	µg/L	#	95
		313.0 -> 119.0	22				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.863	463.0 -> 419.0	1087	0.06	µg/L		91
		463.0 -> 219.0	134				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	0		µg/L	m	1
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.799	263.0 -> 219.0	2010	0.15	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	11.659	630.0 -> 59.0	0		µg/L	m	1
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.353	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

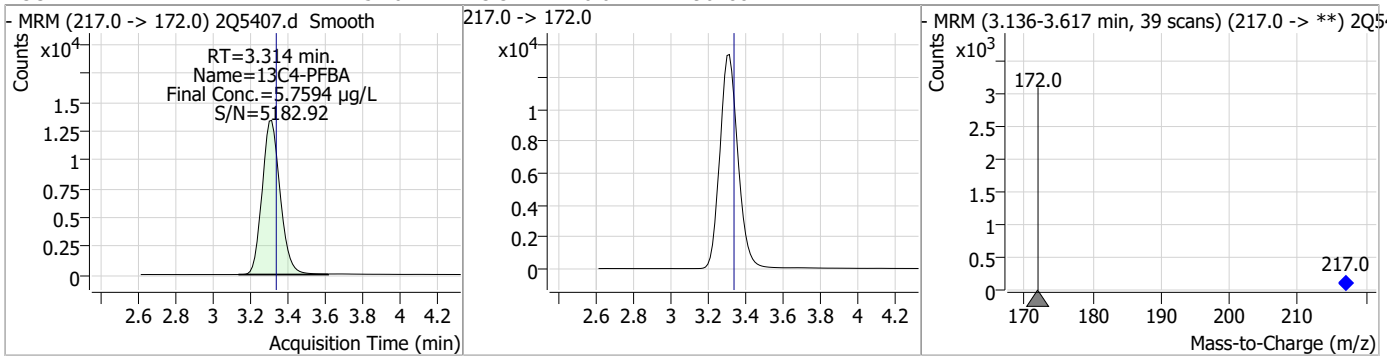
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

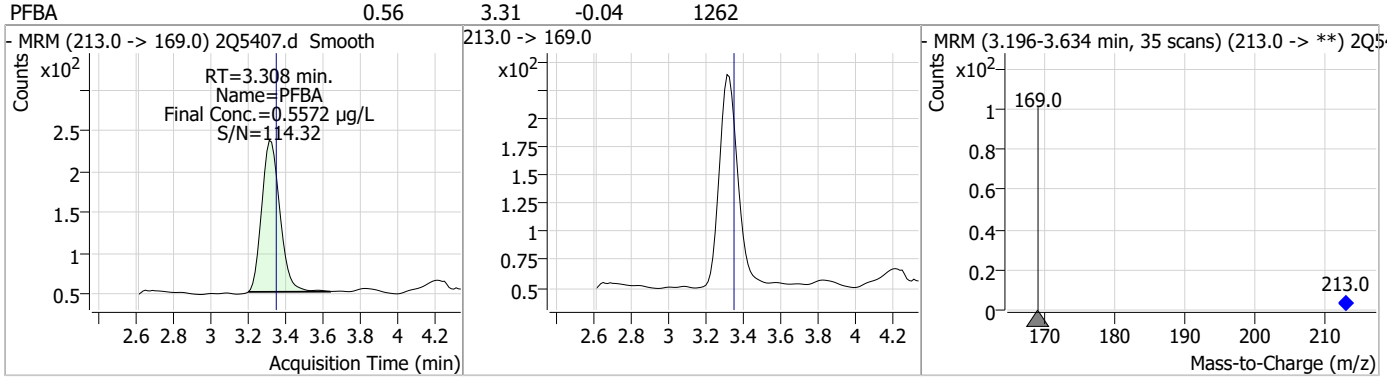
Perfluorinated Compounds by LC/MS/MS



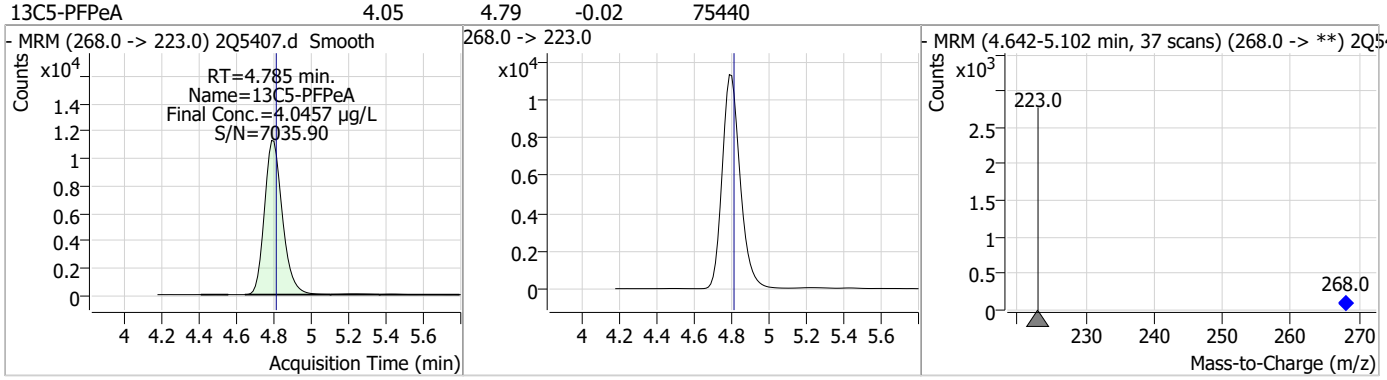
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	5.76	3.31	-0.02	90188				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.56	3.31	-0.04	1262				

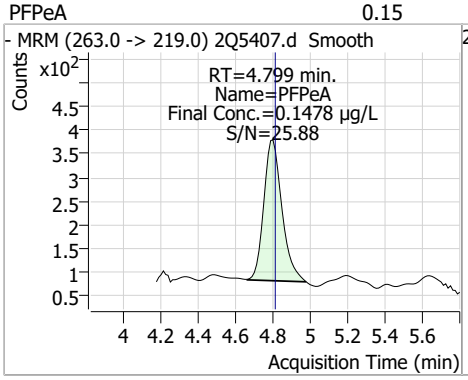


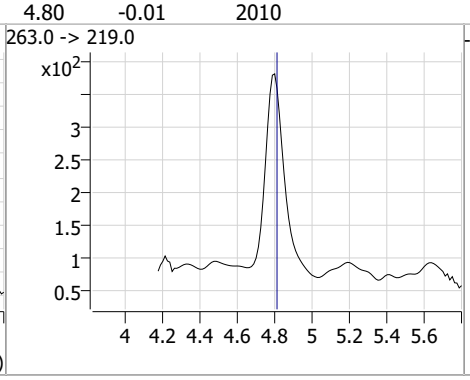
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.05	4.79	-0.02	75440				

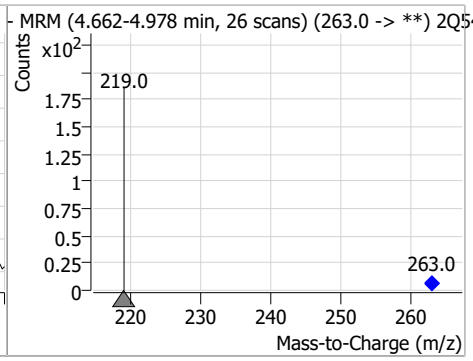


Perfluorinated Compounds by LC/MS/MS

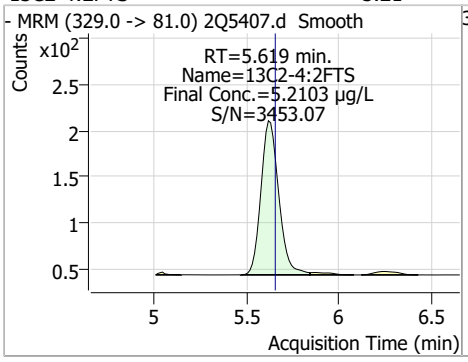
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.15	4.80	-0.01	2010				

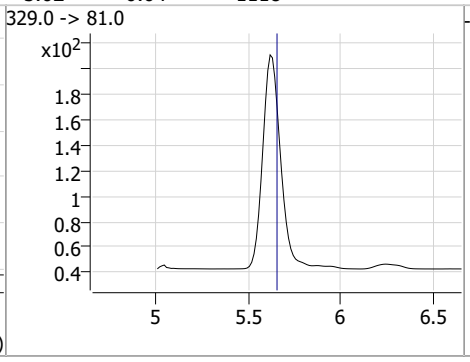


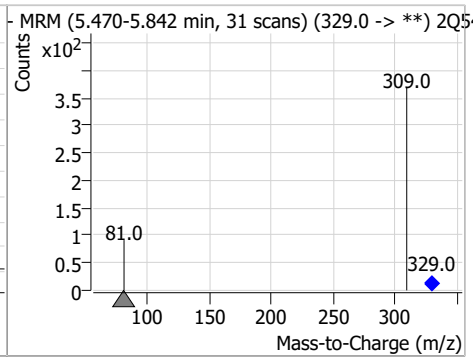




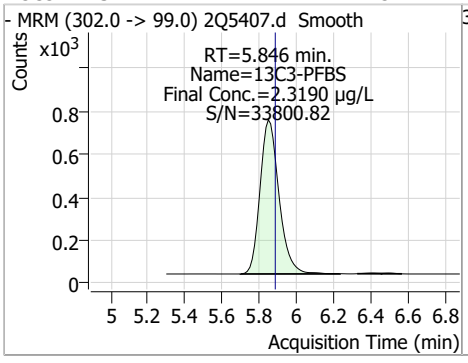
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.21	5.62	-0.04	1118				

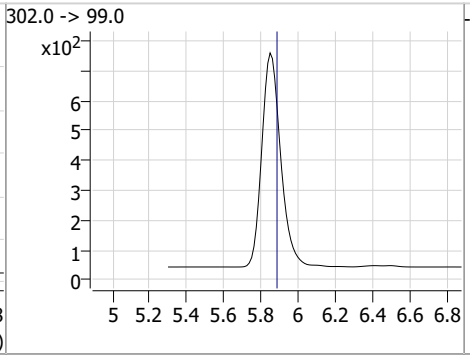


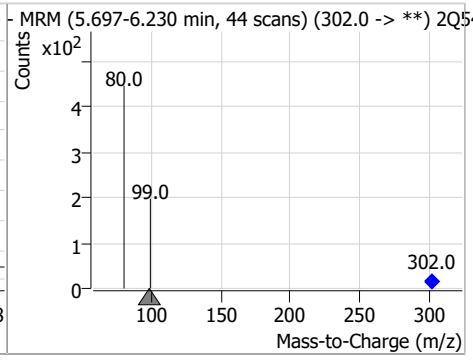




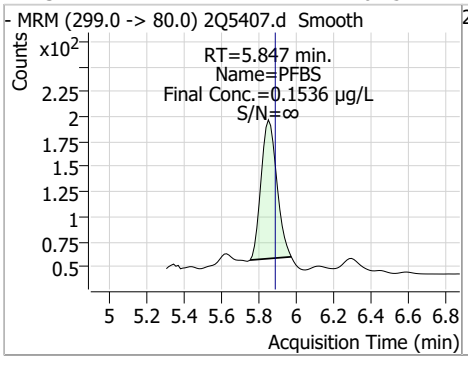
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.32	5.85	-0.04	5068				

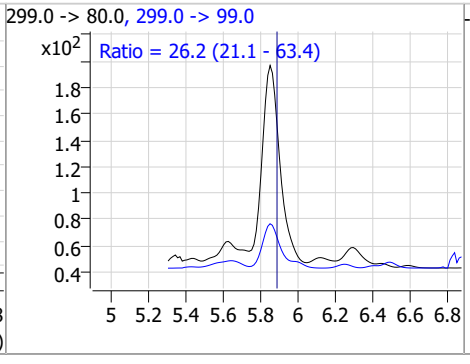


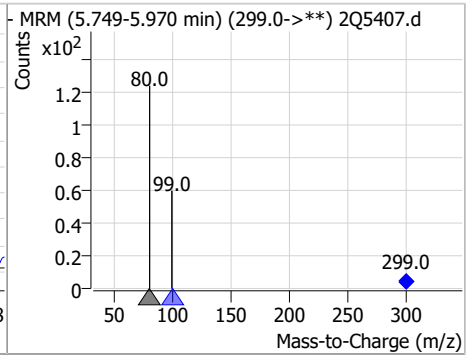




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.15	5.85	-0.04	811	299.0 -> 99.0	26.2	21.1	63.4

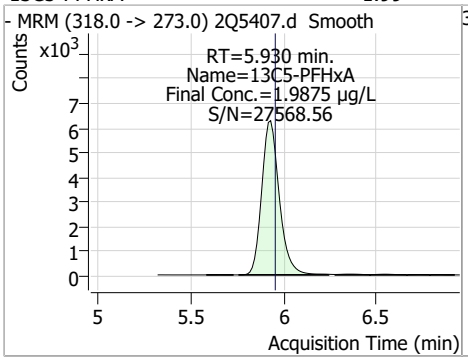


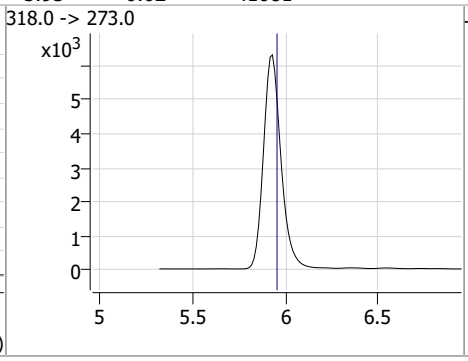


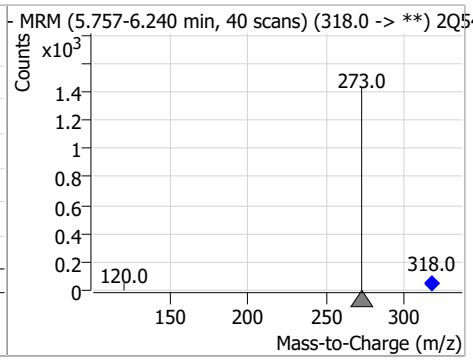


Perfluorinated Compounds by LC/MS/MS

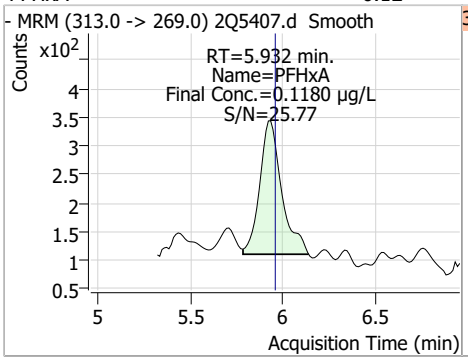
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	1.99	5.93	-0.02	41081				

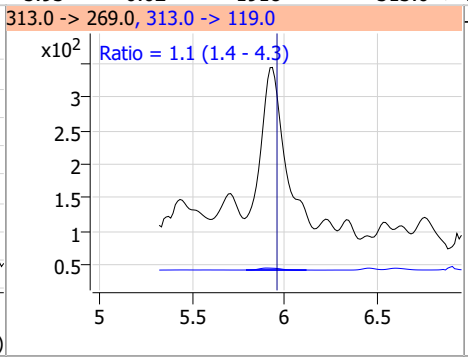


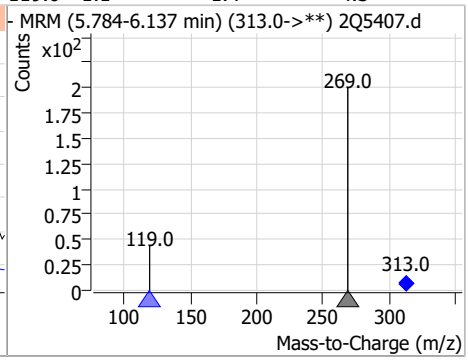




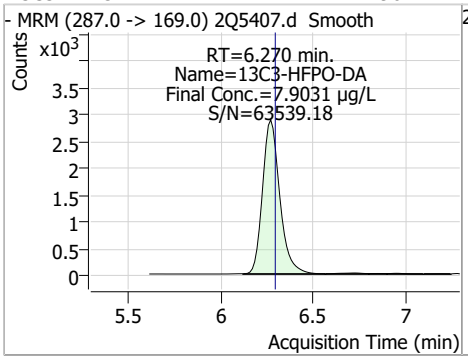
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.12	5.93	-0.02	1918	313.0 -> 119.0	1.1	1.4	4.3

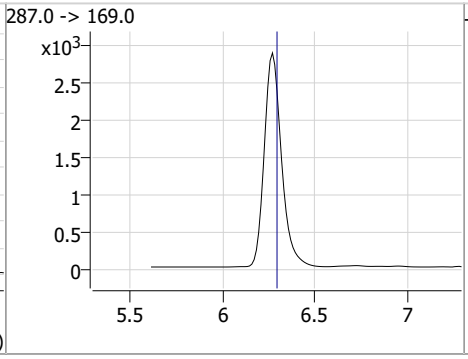


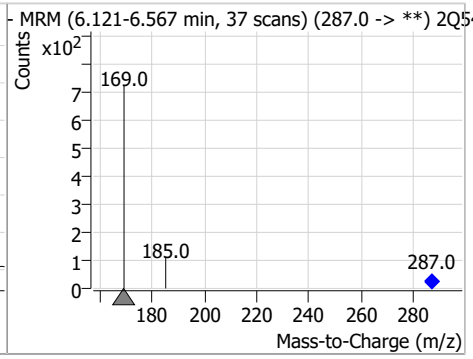




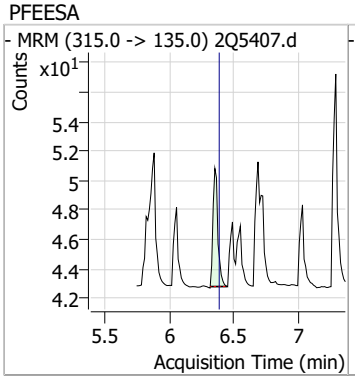
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	7.90	6.27	-0.02	18646				

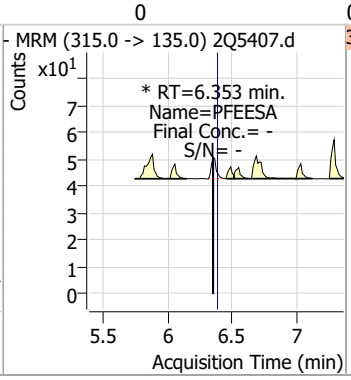


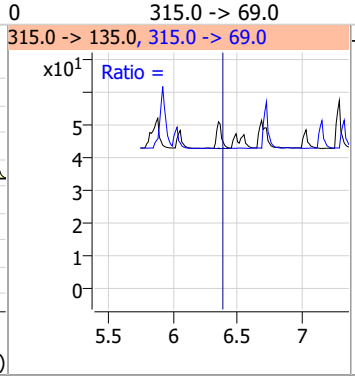


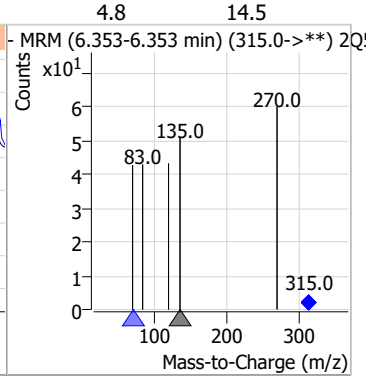


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



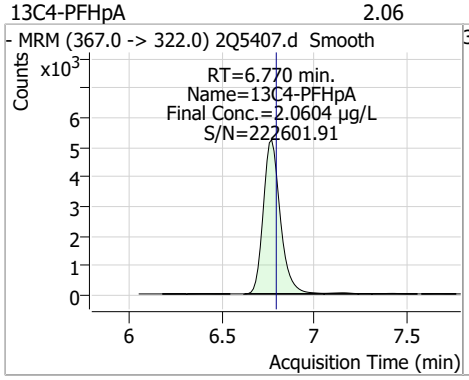


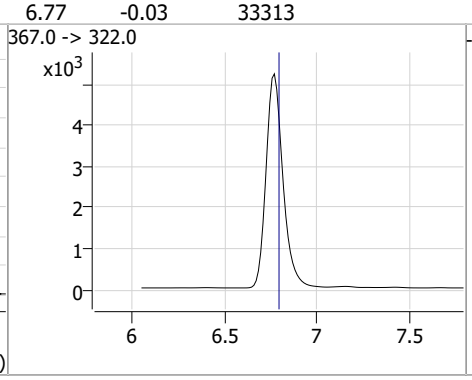


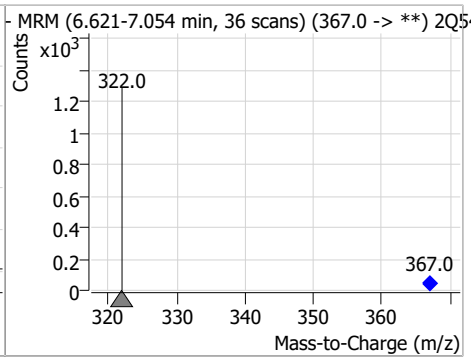


Perfluorinated Compounds by LC/MS/MS

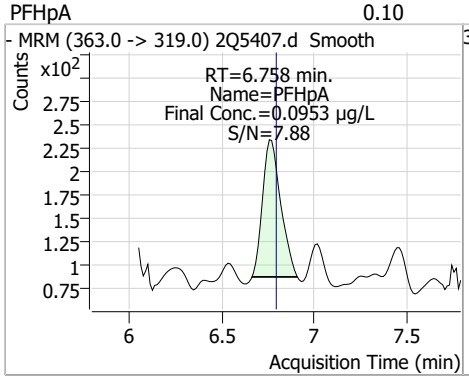
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.06	6.77	-0.03	33313				

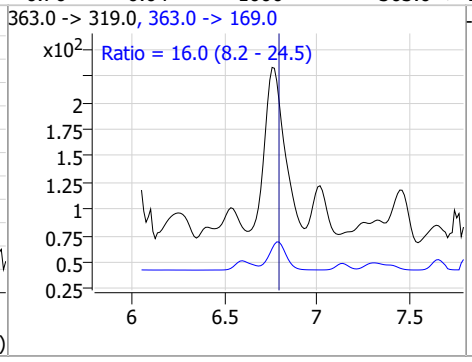


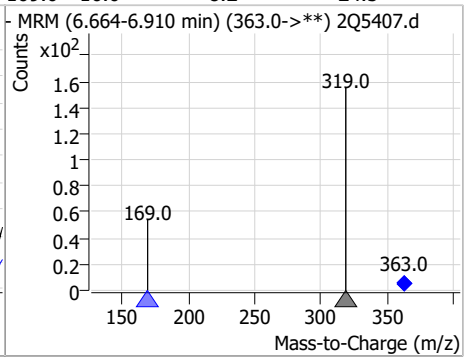




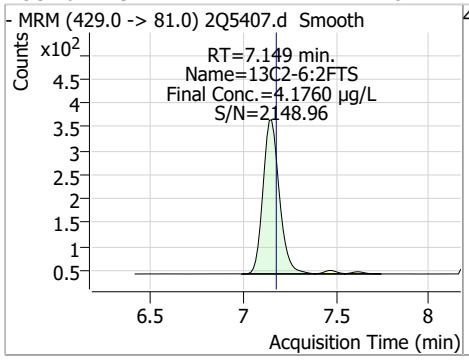
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.10	6.76	-0.04	1000	363.0 -> 169.0	16.0	8.2	24.5

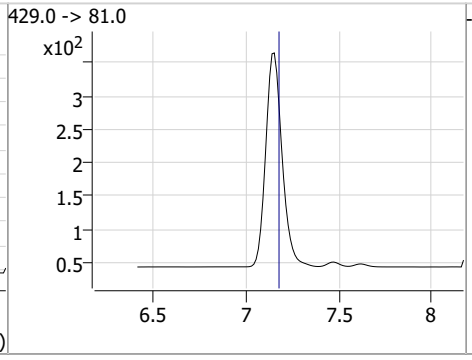


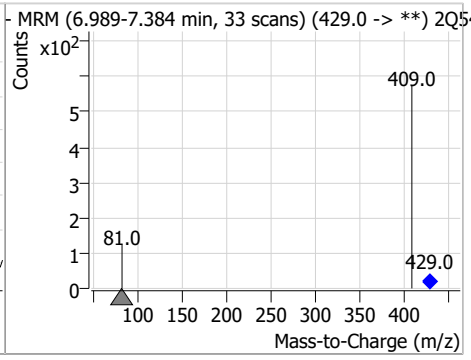




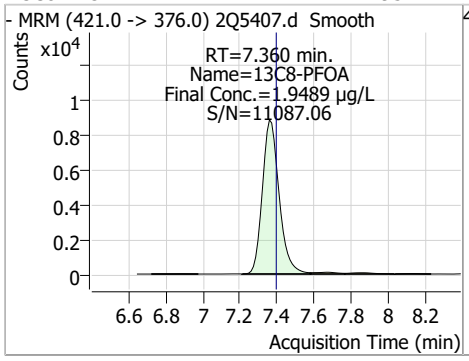
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.18	7.15	-0.03	1987				

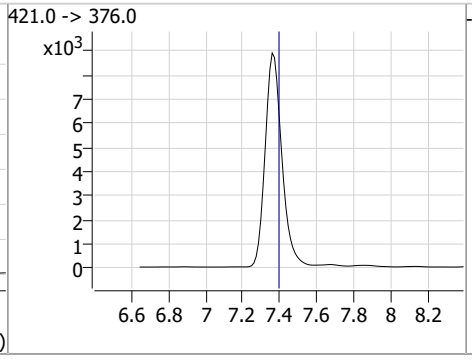


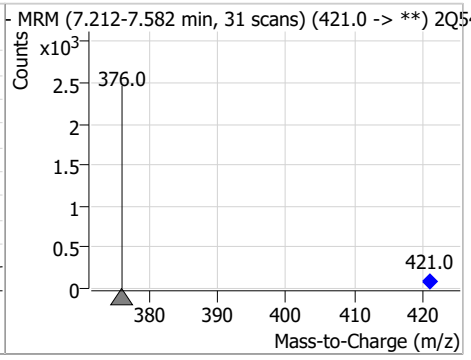




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	1.95	7.36	-0.04	55629				

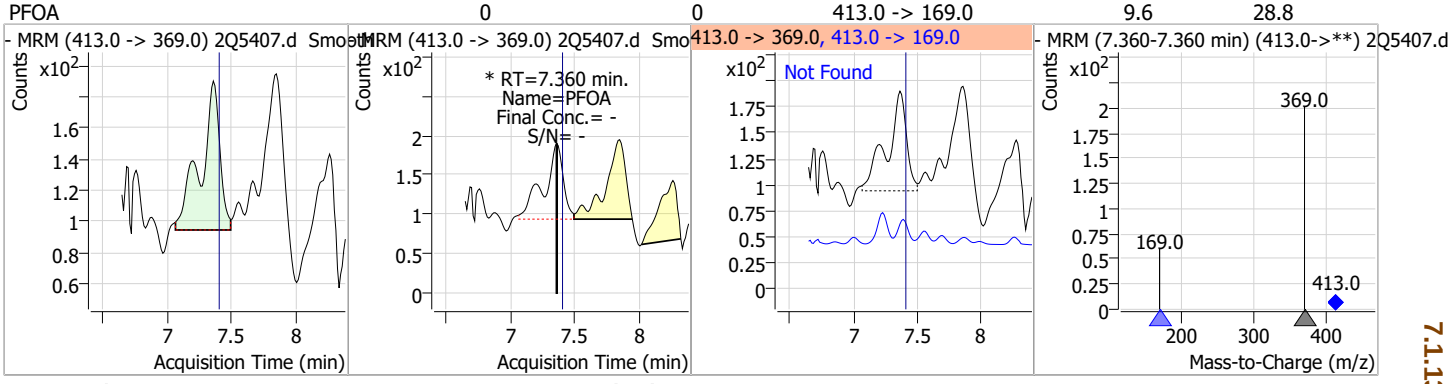




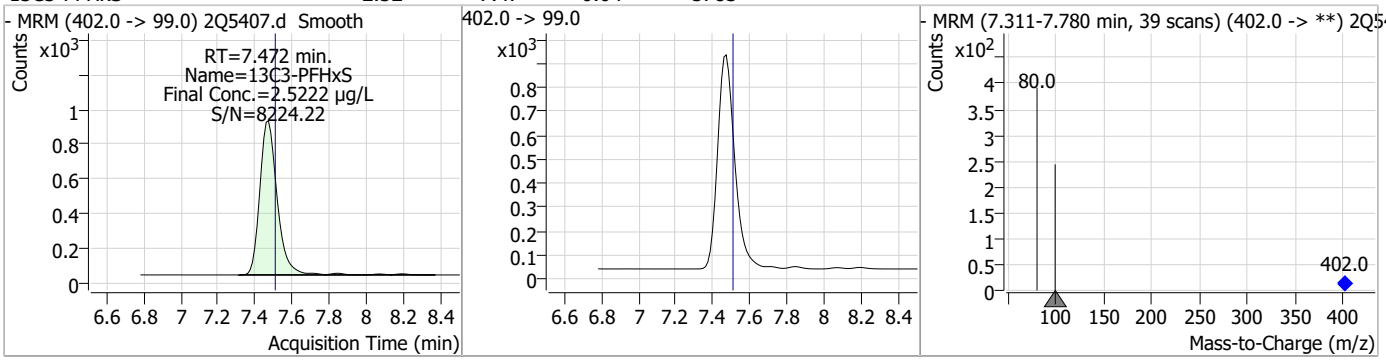


Perfluorinated Compounds by LC/MS/MS

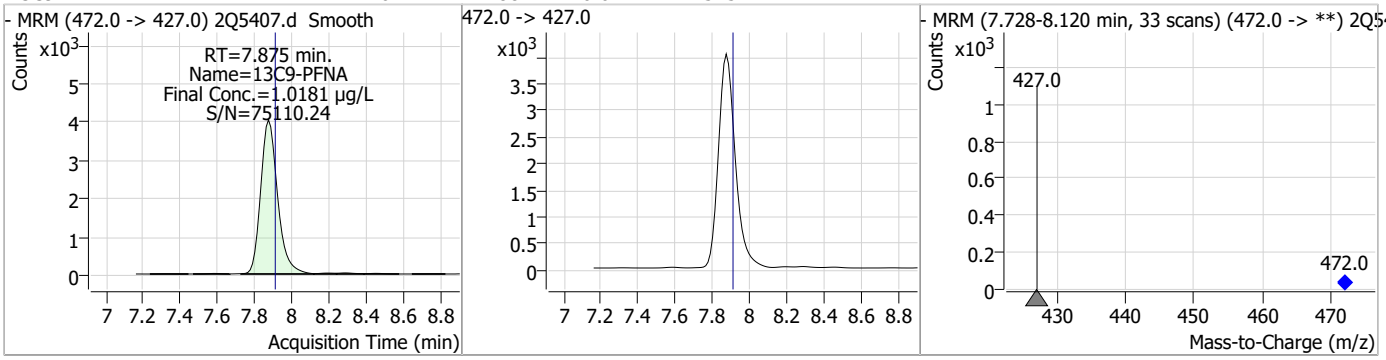
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA		0		0	413.0 -> 169.0		9.6	28.8



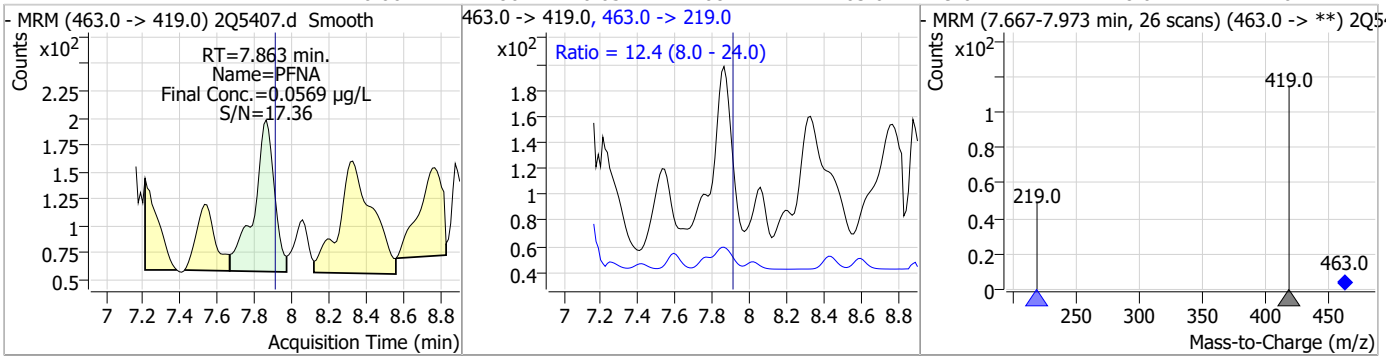
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.52	7.47	-0.04	5783				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.02	7.88	-0.04	25452				

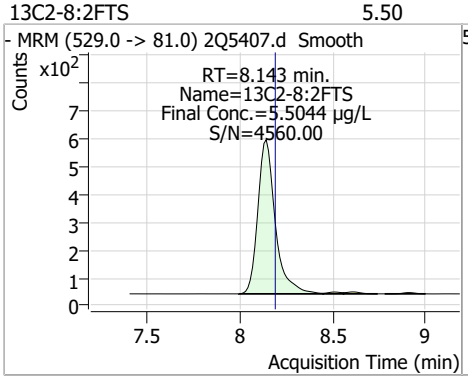


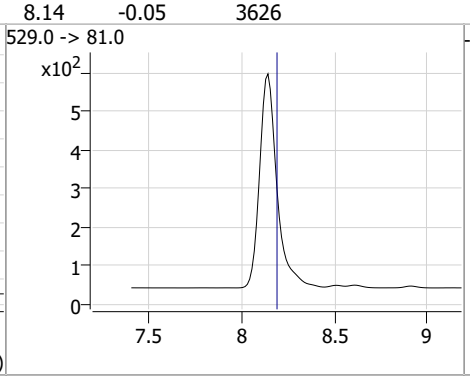
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.06	7.86	-0.05	1087	463.0 -> 219.0	12.4	8.0	24.0

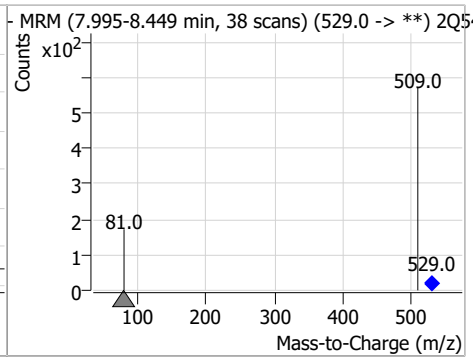


Perfluorinated Compounds by LC/MS/MS

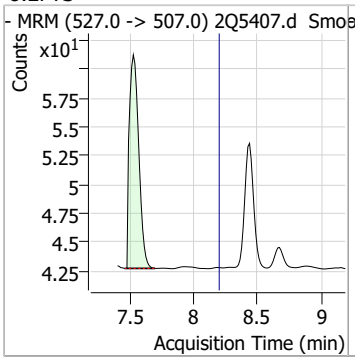
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.50	8.14	-0.05	3626				

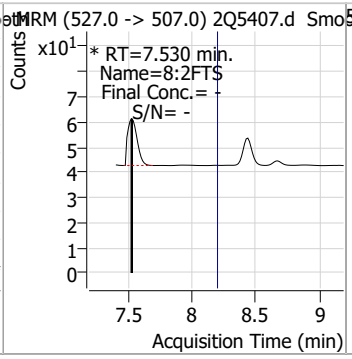


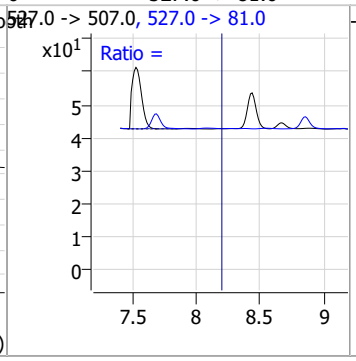


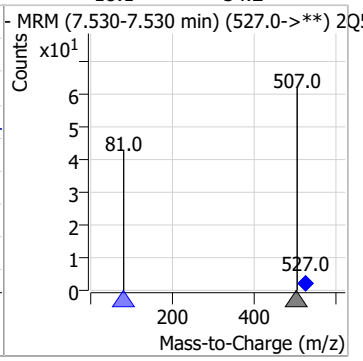


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS		0		0	527.0 -> 81.0		18.1	54.2

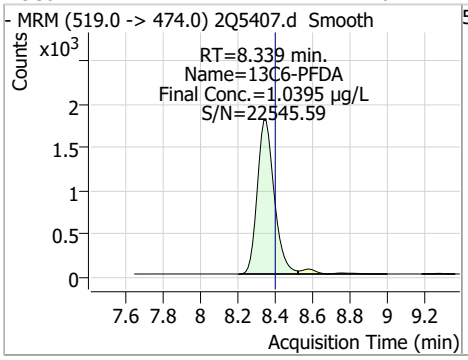


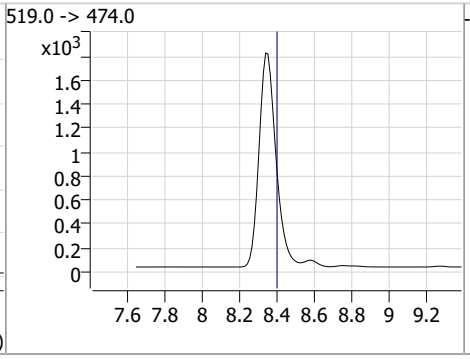


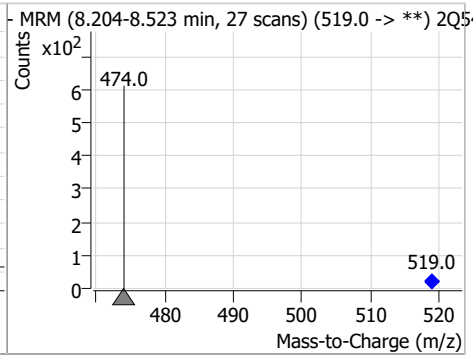




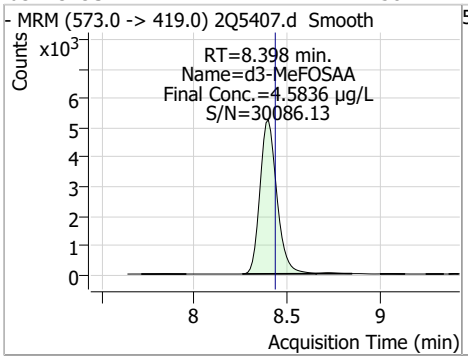
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.04	8.34	-0.06	11294				

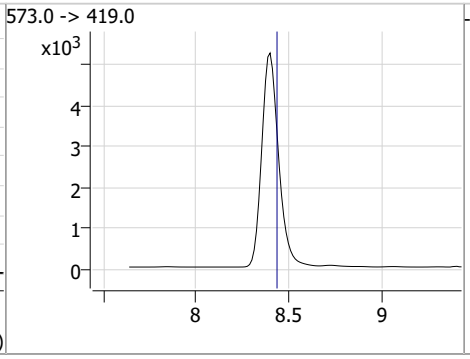


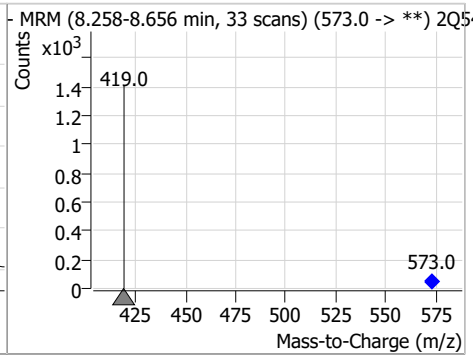




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.58	8.40	-0.04	33025				

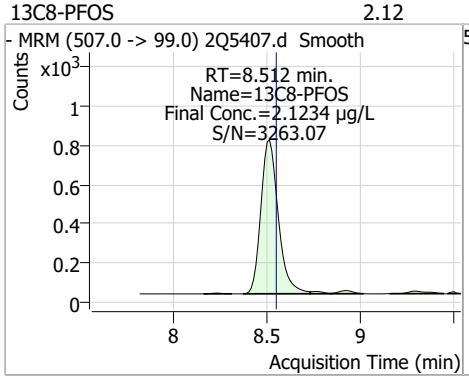


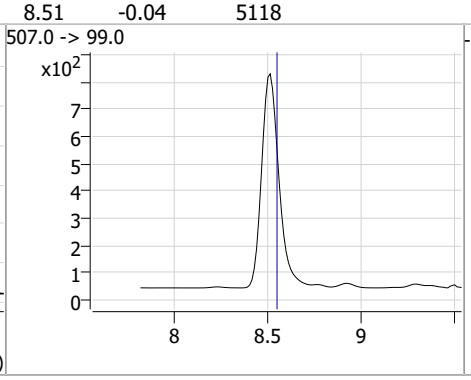


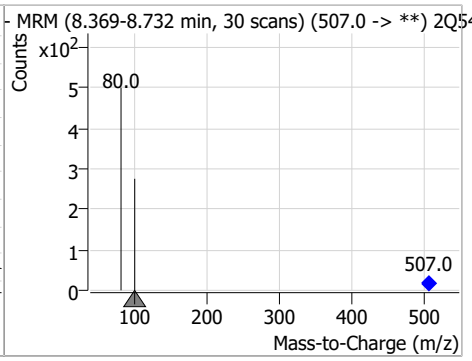


Perfluorinated Compounds by LC/MS/MS

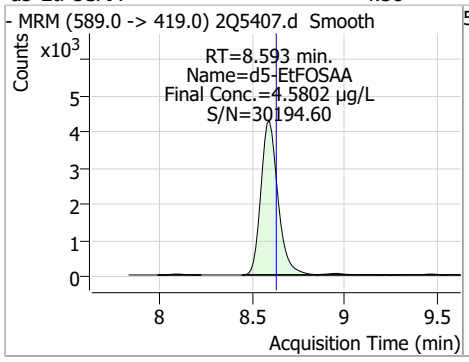
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.12	8.51	-0.04	5118				

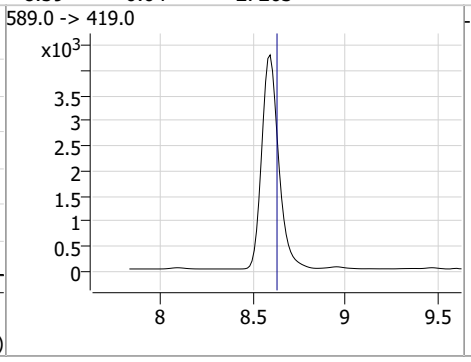


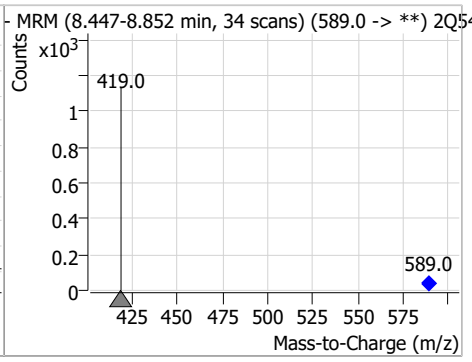




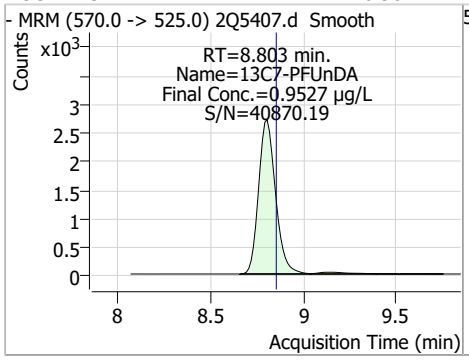
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.58	8.59	-0.04	27263				

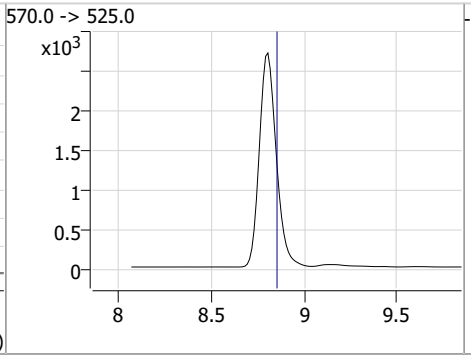


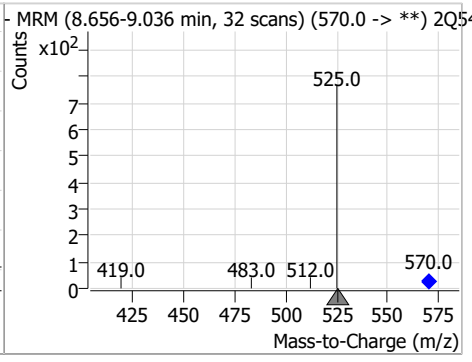




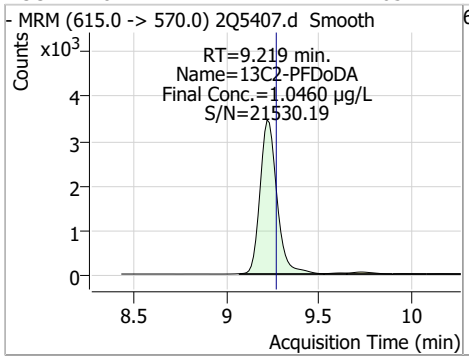
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	0.95	8.80	-0.05	17077				

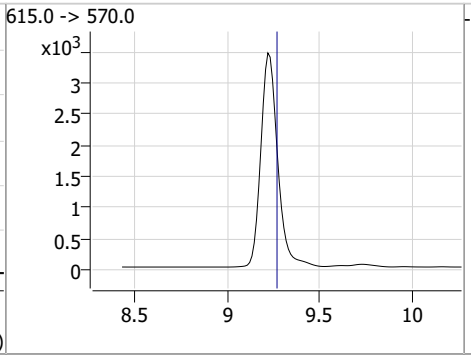


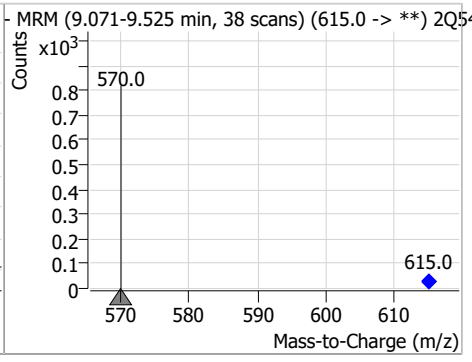




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.05	9.22	-0.05	21733				

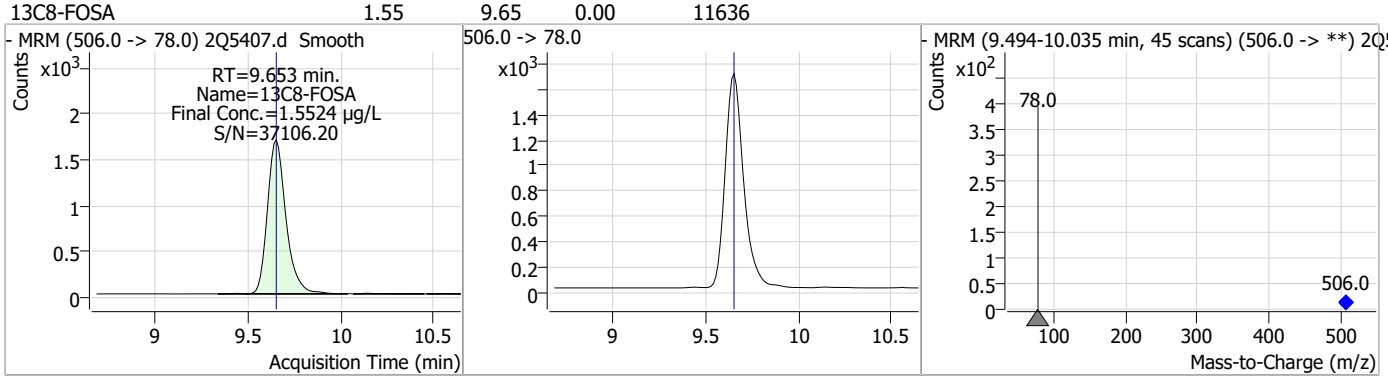




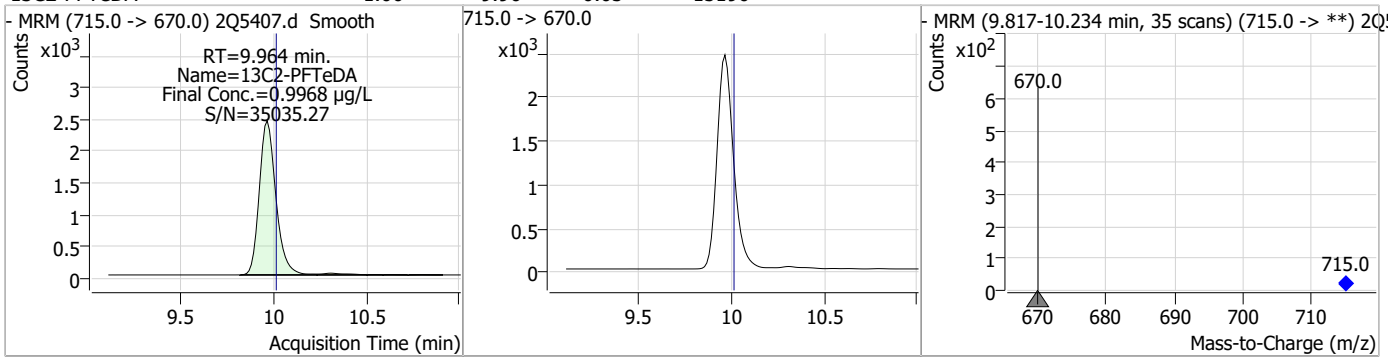


Perfluorinated Compounds by LC/MS/MS

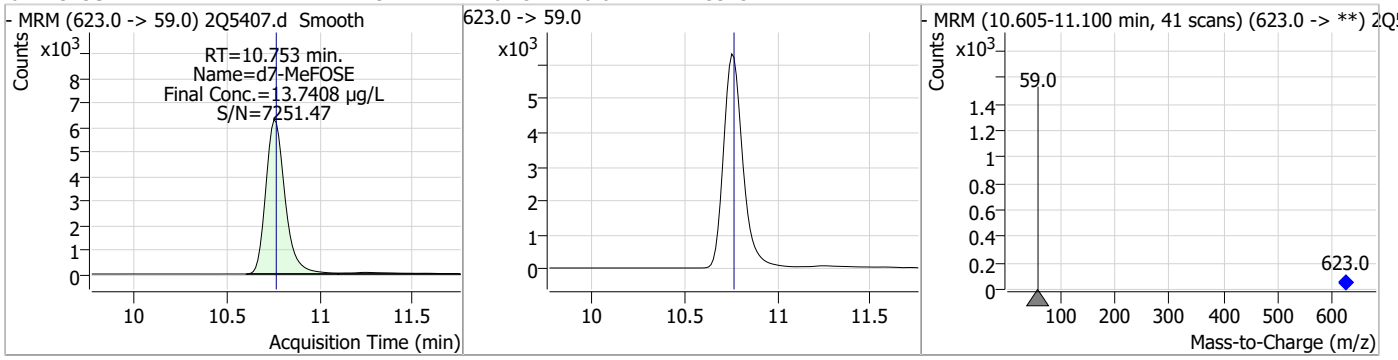
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	1.55	9.65	0.00	11636				



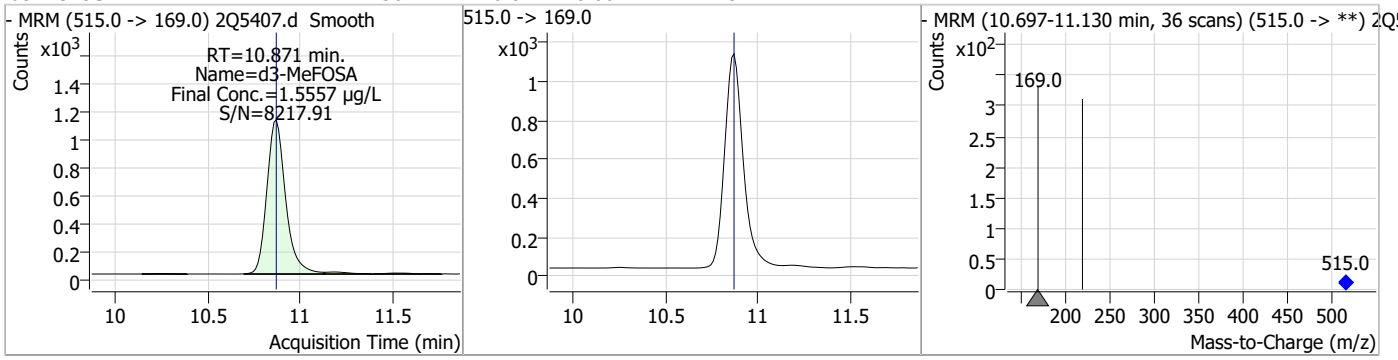
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.00	9.96	-0.05	15190				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	13.74	10.75	-0.01	45315				

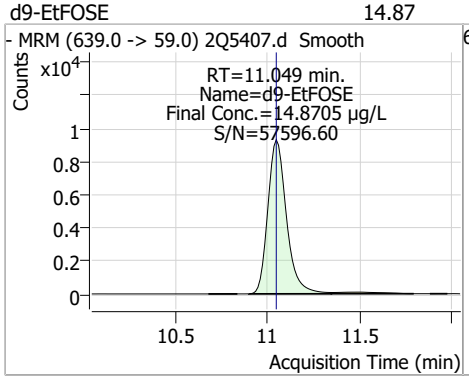


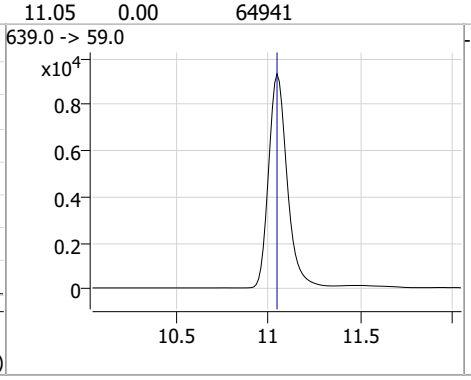
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.56	10.87	0.00	7715				

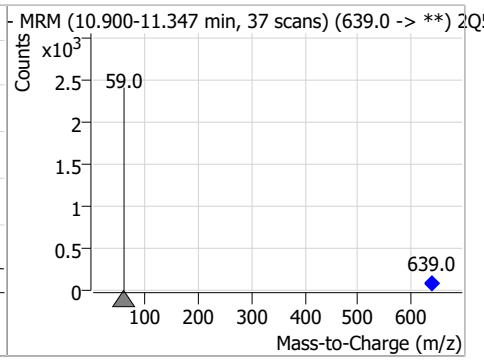


Perfluorinated Compounds by LC/MS/MS

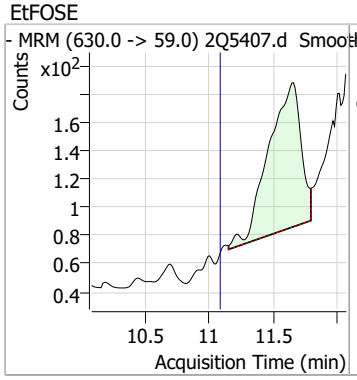
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	14.87	11.05	0.00	64941				

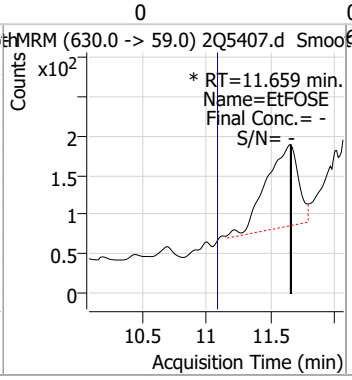


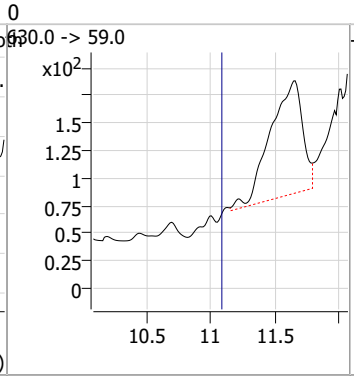


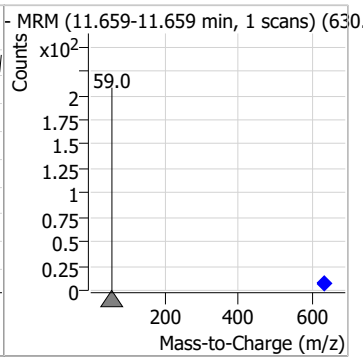


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE		0		0				

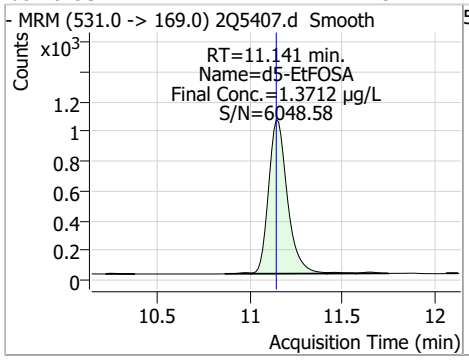


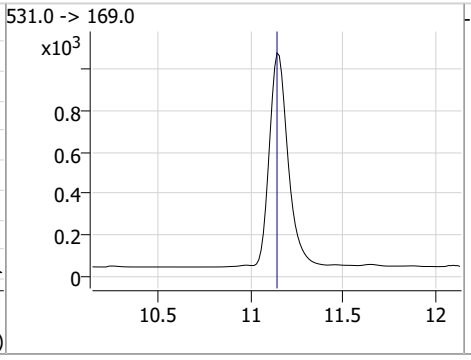


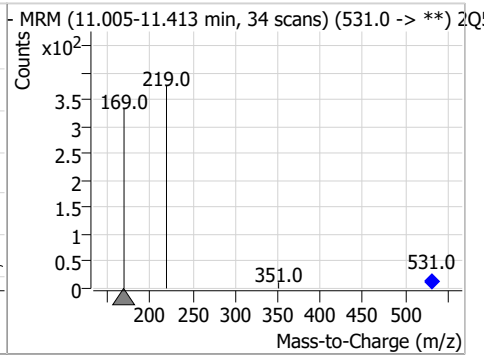




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.37	11.14	0.00	7290				







Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5408.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 7:18:00 AM
Sample Name : JD77804-14
Vial : P3-A9
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,522,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	107247	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	92310	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	49226	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	42374	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	65475	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	30453	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12934	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20078	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	20918	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	15264	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19946	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5754	2.50	µg/L	-0.037
		302.0 -> 80.0	14643			
M3-PFHxS	7.472	402.0 -> 99.0	6498	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6419	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1064	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2546	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3872	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	36308	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	24302	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	28923	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	71358	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	89177	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10627	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	9022	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	12142	2.50	µg/L	-0.049
13C3-PFBA	3.317	216.0 -> 172.0	70223	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6533	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	68067	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	24930	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35387	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	48117	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1064	4.46	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 89.2%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2546	4.81	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.3%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3872	5.29	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.7%		
13C2-PFDoDA	9.219	615.0 -> 570.0	20918	1.05	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	15264	1.05	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.7%		
13C3-PFBS	5.846	302.0 -> 99.0	5754	2.37	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.7%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6498	2.55 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%		
13C4-PFBA	3.314	217.0 -> 172.0	107247	6.78 µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 67.8%		
13C4-PFHpA	6.770	367.0 -> 322.0	42374	2.71 µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.4%		
13C5-PFHxA	5.930	318.0 -> 273.0	49226	2.46 µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.5%		
13C5-PFPeA	4.798	268.0 -> 223.0	92310	5.12 µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.4%		
13C6-PFDA	8.352	519.0 -> 474.0	12934	1.24 µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.4%		
13C7-PFUnDA	8.803	570.0 -> 525.0	20078	1.17 µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.6%		
13C8-FOSA	9.653	506.0 -> 78.0	19946	2.43 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.0%		
13C8-PFOA	7.360	421.0 -> 376.0	65475	2.32 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.9%		
13C8-PFOS	8.512	507.0 -> 99.0	6419	2.43 µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.1%		
13C9-PFNA	7.875	472.0 -> 427.0	30453	1.10 µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.0%		
d3-MeFOSAA	8.398	573.0 -> 419.0	36308	4.59 µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 91.9%		
13C3-HFPO-DA	6.270	287.0 -> 169.0	24302	10.65 µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 106.5%		
d3-MeFOSA	10.871	515.0 -> 169.0	9022	1.66 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 66.3%		
d5-EtFOSAA	8.593	589.0 -> 419.0	28923	4.43 µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 88.6%		
d7-MeFOSE	10.753	623.0 -> 59.0	71358	19.73 µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 78.9%		
d9-EtFOSE	11.049	639.0 -> 59.0	89177	18.62 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 74.5%		
d5-EtFOSA	11.141	531.0 -> 169.0	10627	1.82 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 72.9%		
Target Compounds						**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.		
		327.0 -> 81.0				
6:2FTS	7.137	427.0 -> 407.0	268	0.07 µg/L	#	50
		427.0 -> 81.0	13			
8:2FTS	-	527.0 -> 507.0	-	N.D.		
		527.0 -> 81.0				
EtFOSAA	-	584.0 -> 419.0	-	N.D.		
		584.0 -> 483.0				
FOSA	-	498.0 -> 78.0	-	N.D.		
		498.0 -> 478.0				
MeFOSAA	-	570.0 -> 419.0	-	N.D.		
		570.0 -> 512.0				
PFBA	3.321	213.0 -> 169.0	976	0.36 µg/L		100
PFBS	5.847	299.0 -> 80.0	2099	0.35 µg/L		95
		299.0 -> 99.0	959			
PFDA	-	513.0 -> 469.0	-	N.D.		
		513.0 -> 219.0				
PFDoDA	-	613.0 -> 569.0	-	N.D.		
		613.0 -> 319.0				

Perfluorinated Compounds by LC/MS/MS

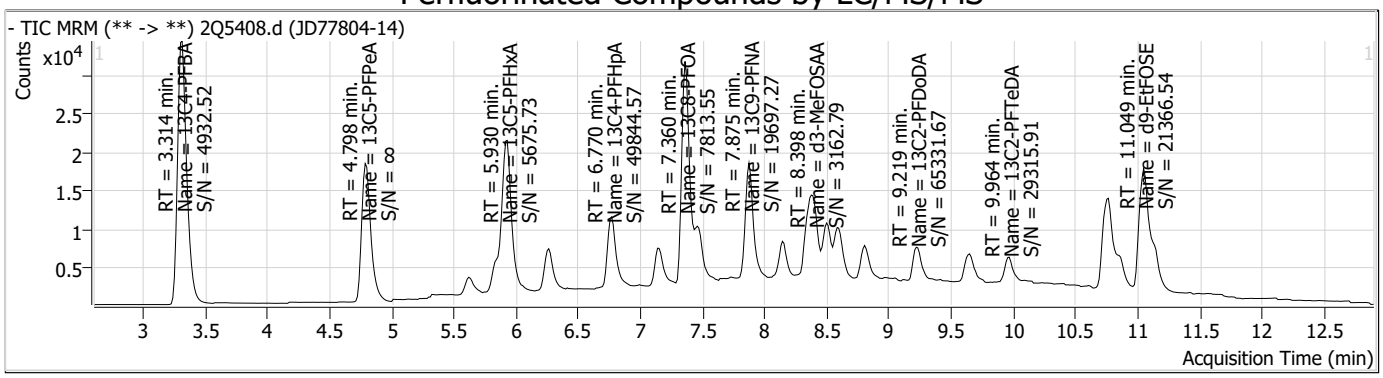
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	1098	0.09	µg/L		100
		363.0 -> 169.0	178				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.920	313.0 -> 269.0	1237	0.06	µg/L		96
		313.0 -> 119.0	21				
PFHxS	7.473	399.0 -> 80.0	725	0.16	µg/L	m	71
		399.0 -> 99.0	268				
PFNA	7.863	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	3803	0.15	µg/L	m	92
		413.0 -> 169.0	860				
PFOS	8.341	499.0 -> 80.0	669	0.12	µg/L	m	95
		499.0 -> 99.0	372				
PFPeA	4.799	263.0 -> 219.0	1818	0.11	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	11.659	630.0 -> 59.0	0		µg/L	m	1
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.427	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

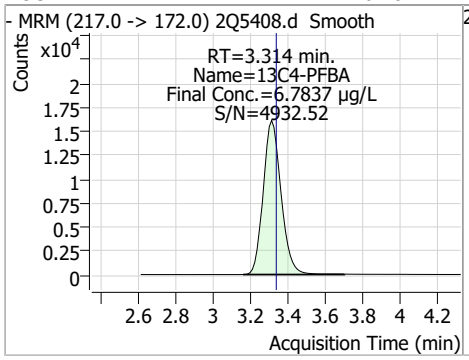
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

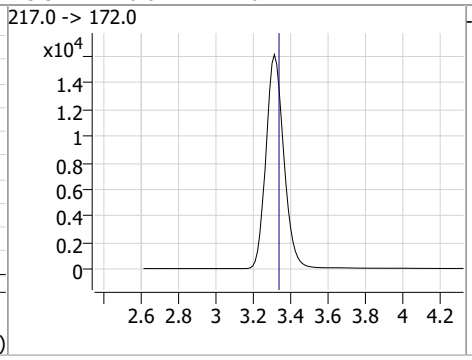
= Qualifier out of range, m = manually integrated, + = Area summed

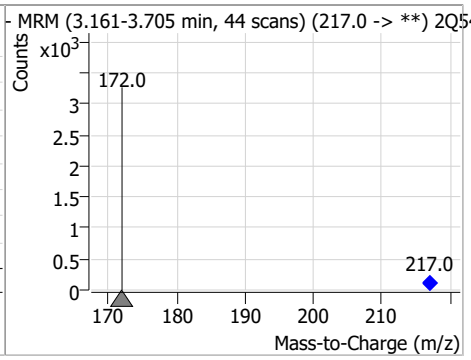
Perfluorinated Compounds by LC/MS/MS



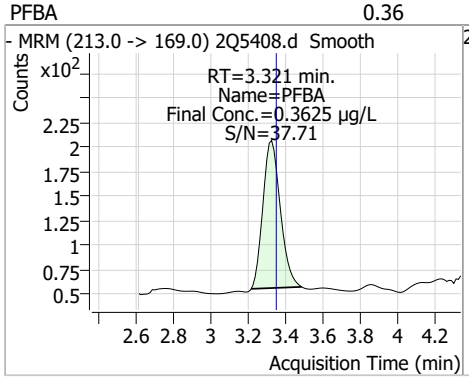
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	6.78	3.31	-0.02	107247				

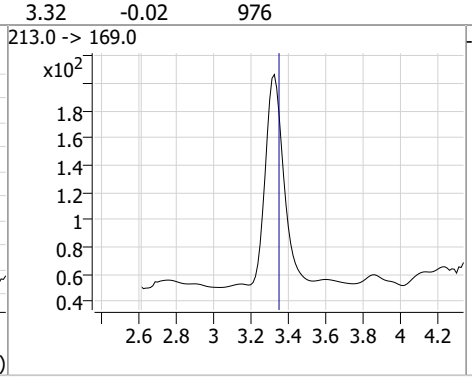


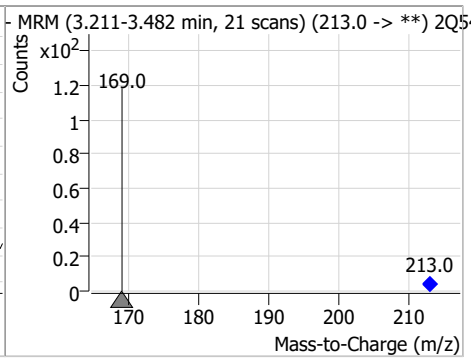




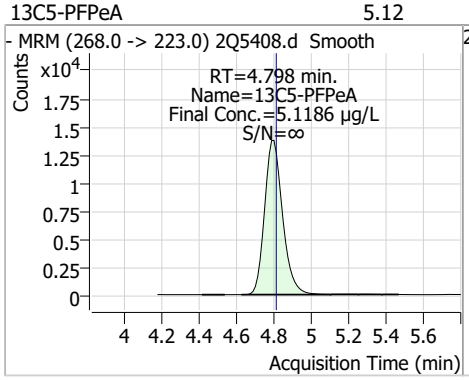
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.36	3.32	-0.02	976				

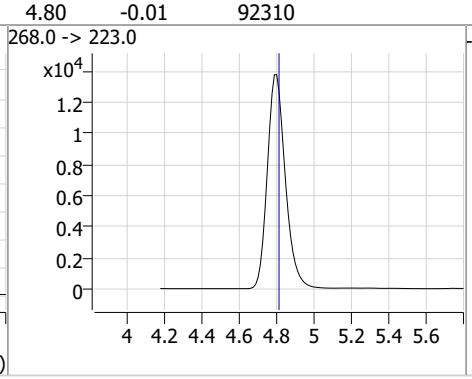


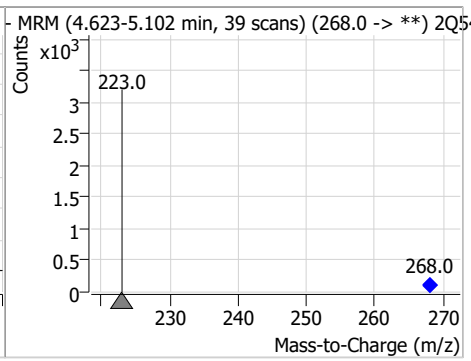




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.12	4.80	-0.01	92310				

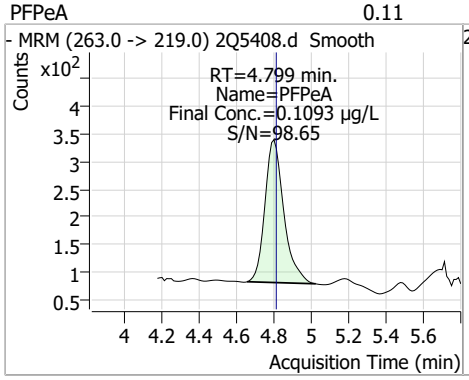


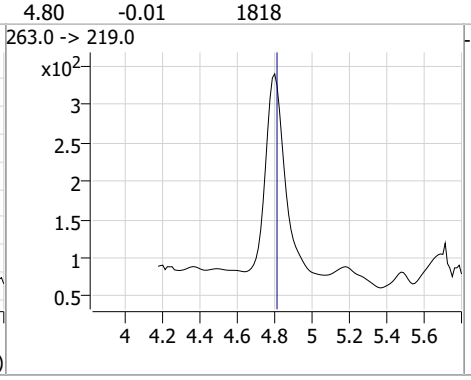


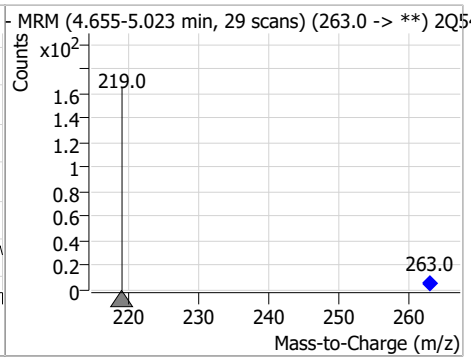


Perfluorinated Compounds by LC/MS/MS

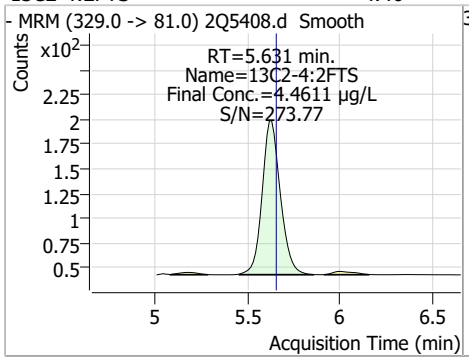
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.11	4.80	-0.01	1818				

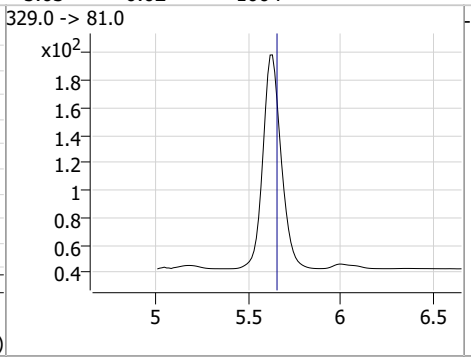


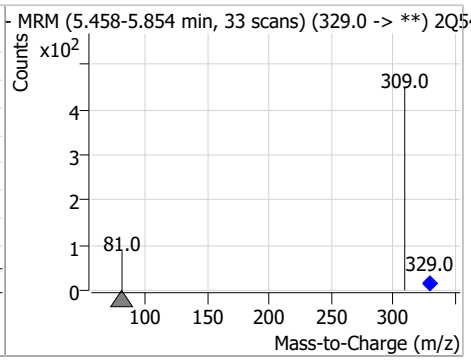




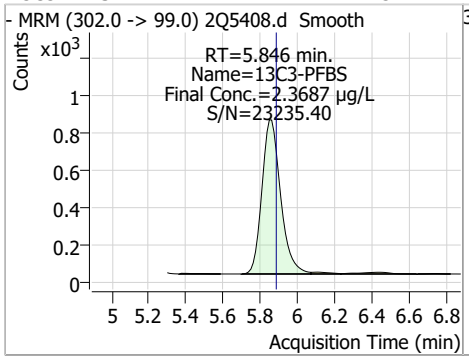
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.46	5.63	-0.02	1064				

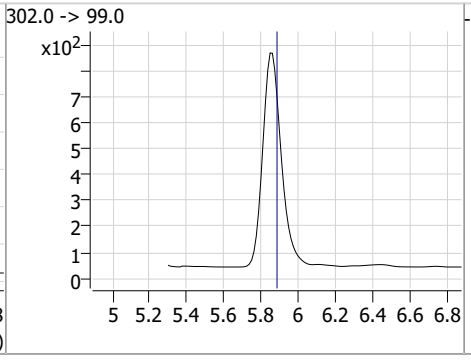


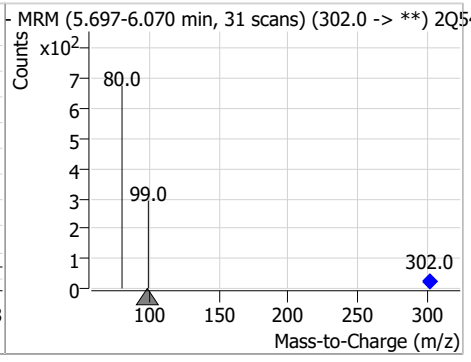




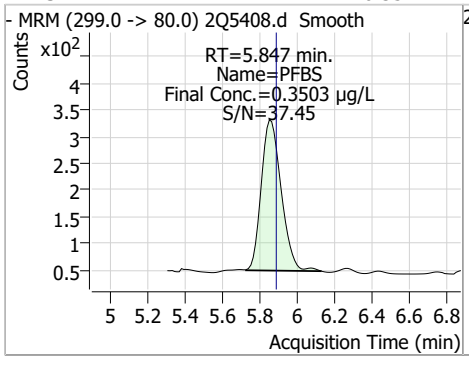
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.37	5.85	-0.04	5754				

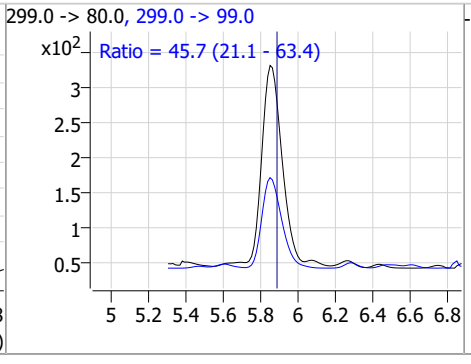


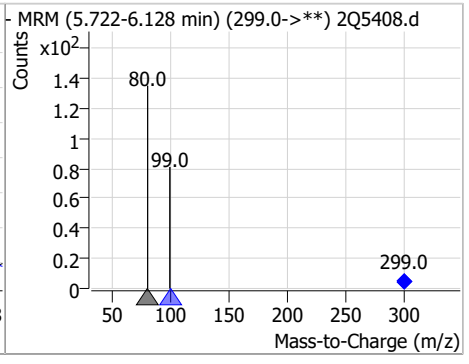




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.35	5.85	-0.04	2099	299.0 -> 99.0	45.7	21.1	63.4

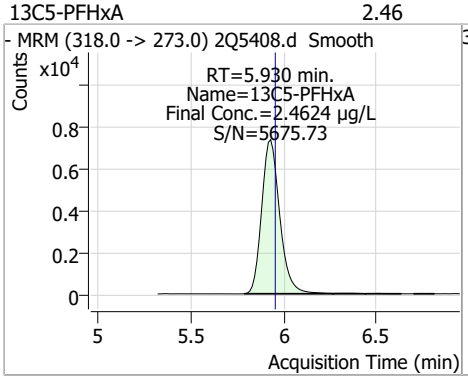


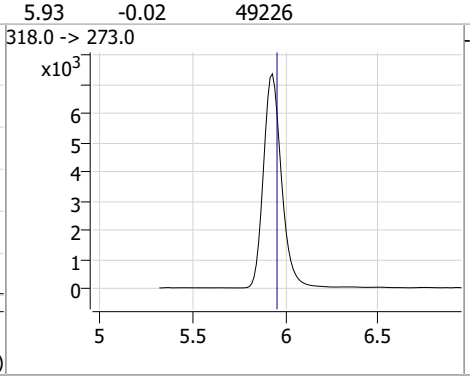


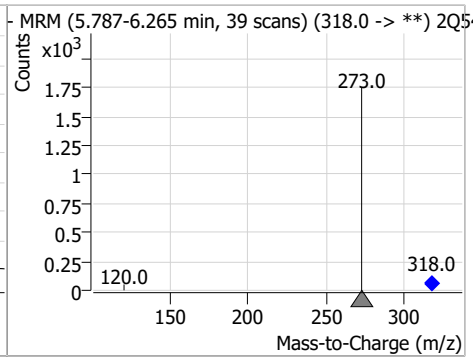


Perfluorinated Compounds by LC/MS/MS

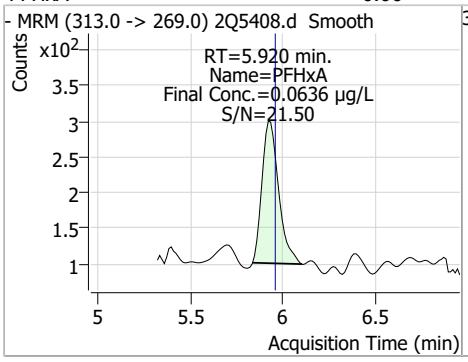
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.46	5.93	-0.02	49226				

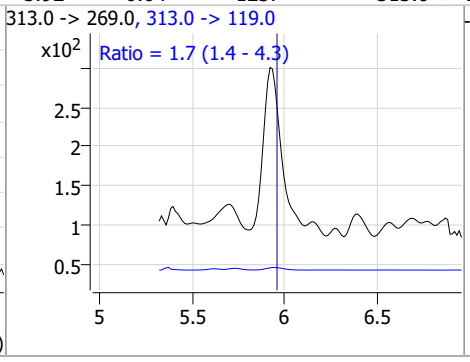


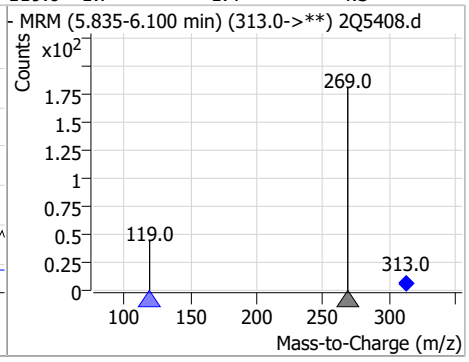




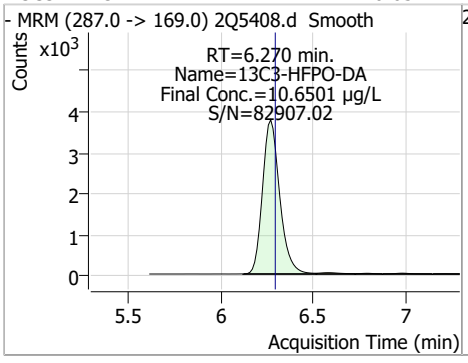
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.06	5.92	-0.04	1237	313.0 -> 119.0	1.7	1.4	4.3

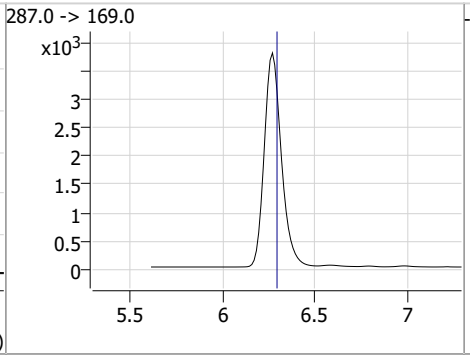


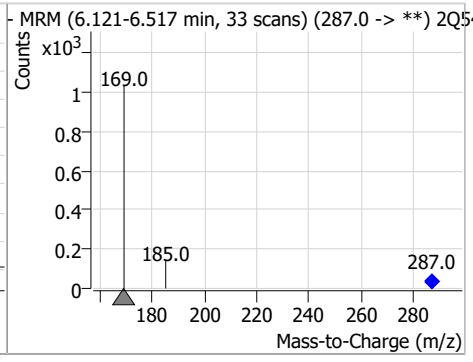




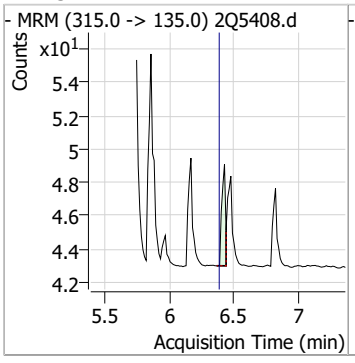
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.65	6.27	-0.02	24302				

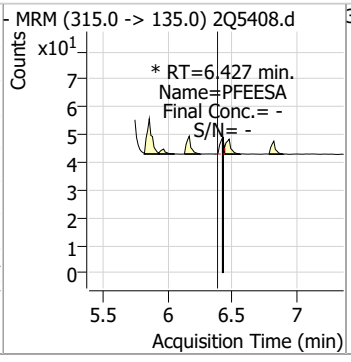


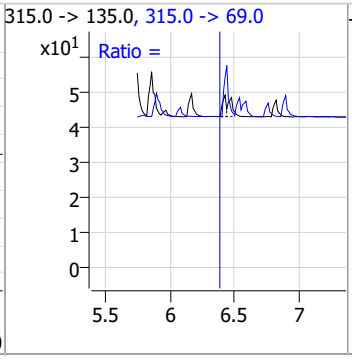


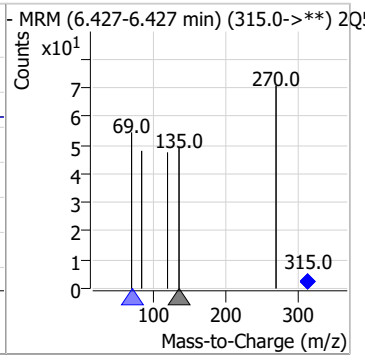


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



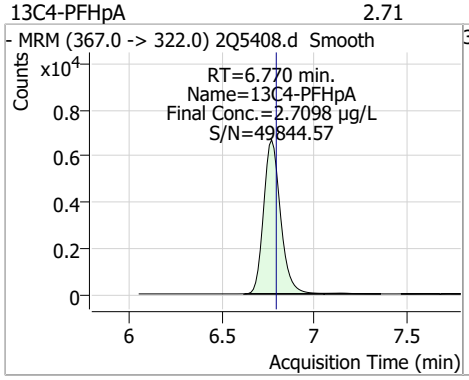


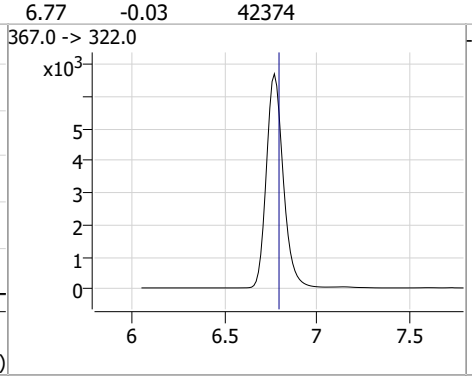


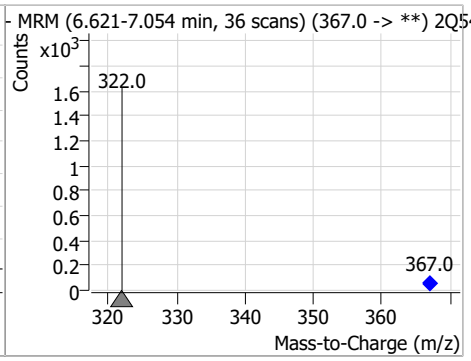


Perfluorinated Compounds by LC/MS/MS

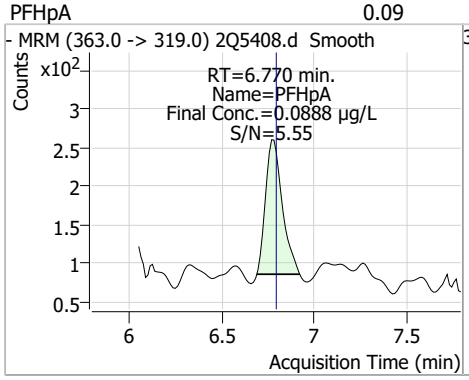
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.71	6.77	-0.03	42374				

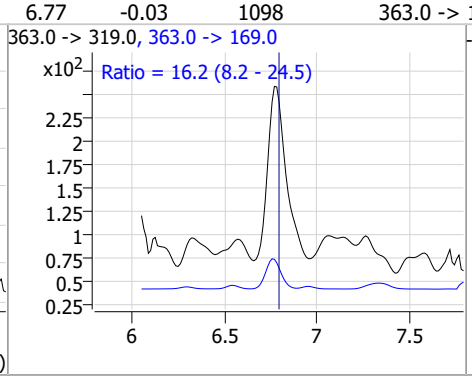


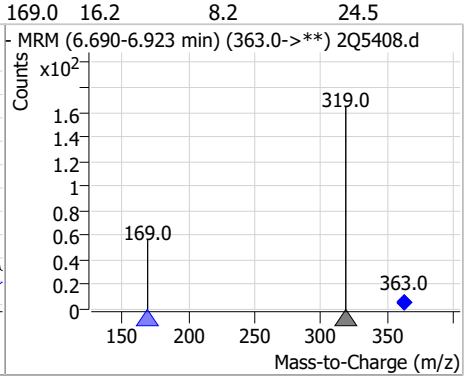




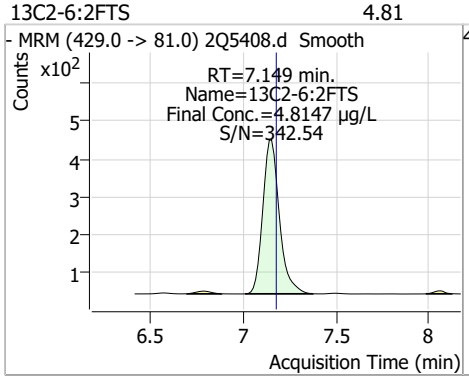
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.09	6.77	-0.03	1098	363.0 -> 169.0	16.2	8.2	24.5

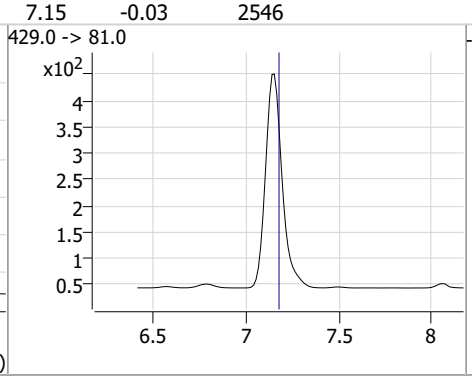


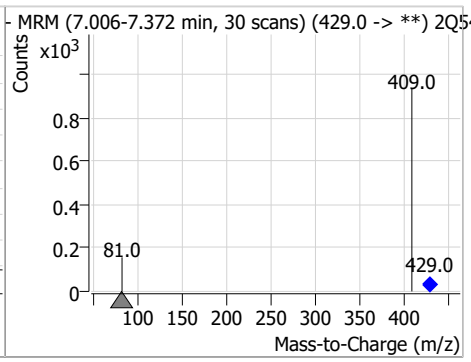




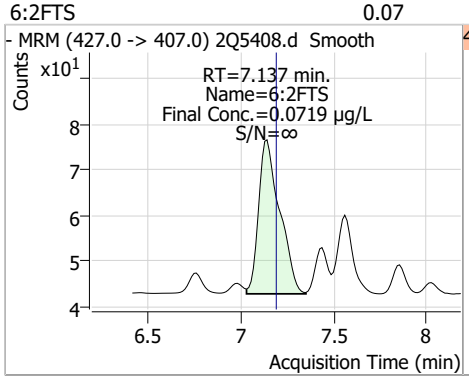
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.81	7.15	-0.03	2546				

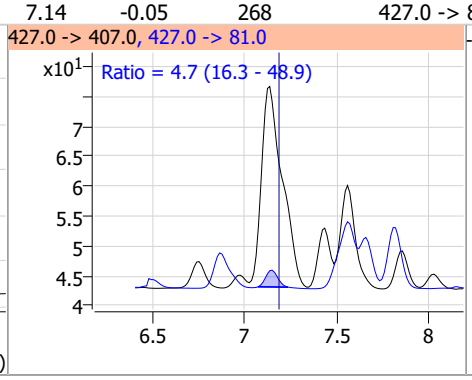


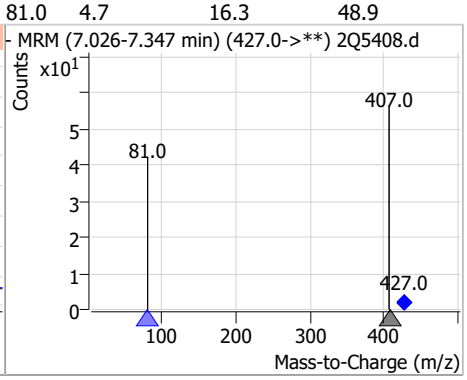




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.07	7.14	-0.05	268	427.0 -> 81.0	4.7	16.3	48.9

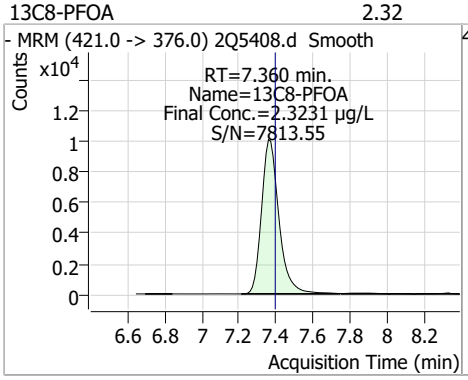


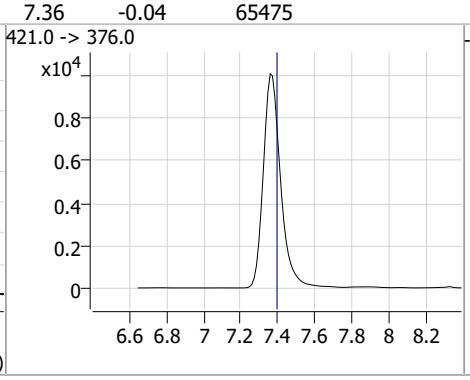


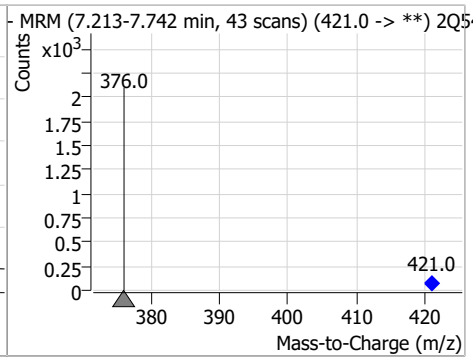


Perfluorinated Compounds by LC/MS/MS

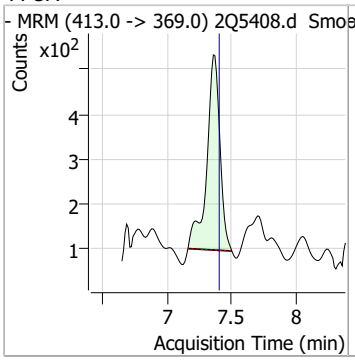
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.32	7.36	-0.04	65475				

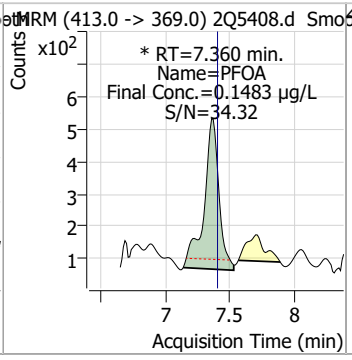


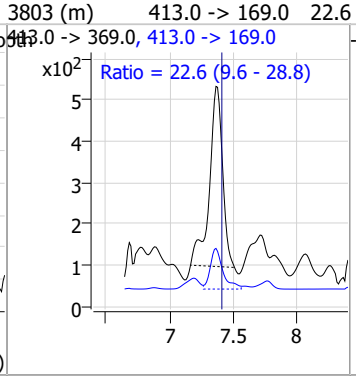


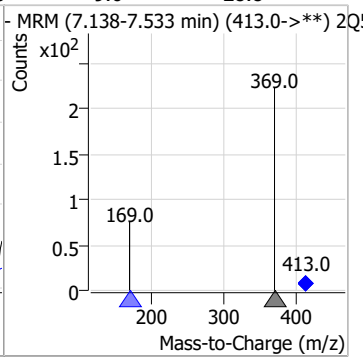


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.15	7.36	-0.04	3803 (m)	413.0 -> 169.0	22.6	9.6	28.8

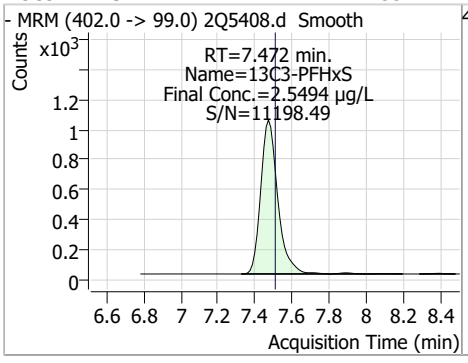


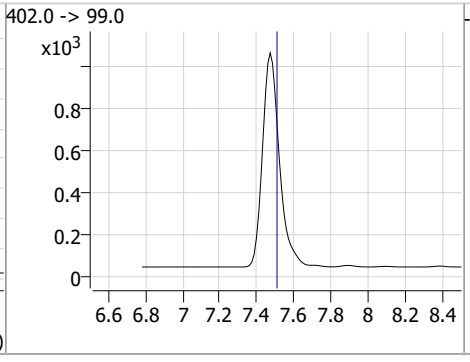


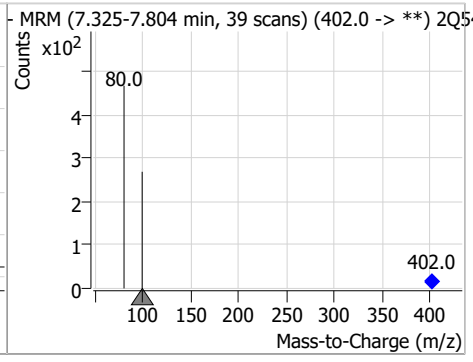




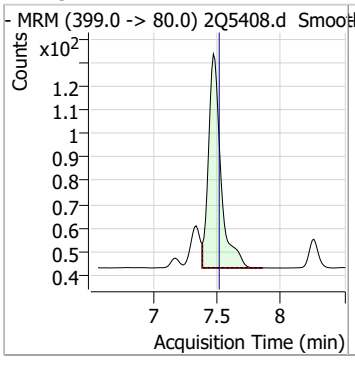
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.55	7.47	-0.04	6498				

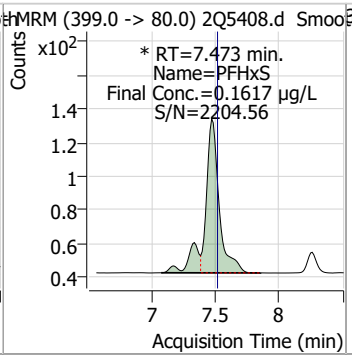


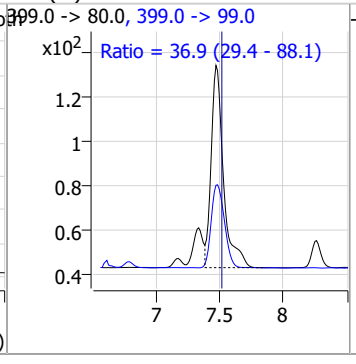


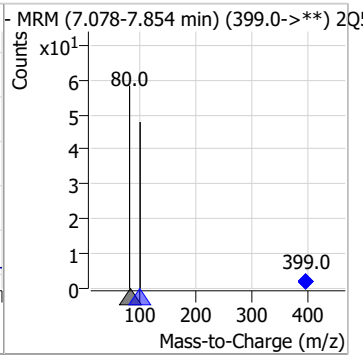


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.16	7.47	-0.04	725 (m)	399.0 -> 99.0	36.9	29.4	88.1



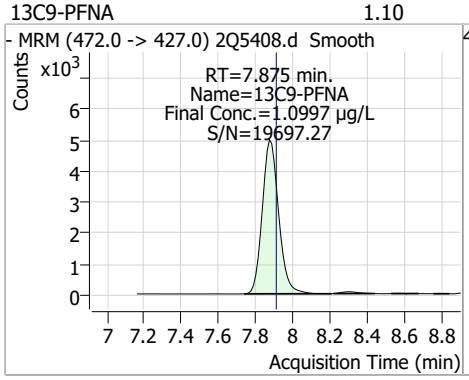


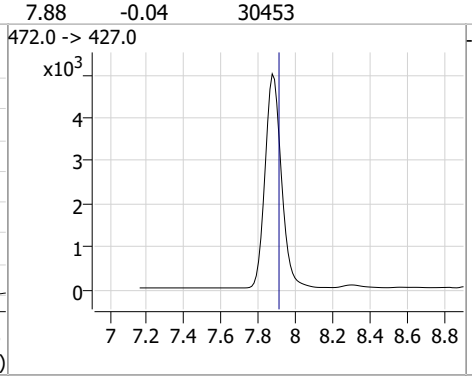


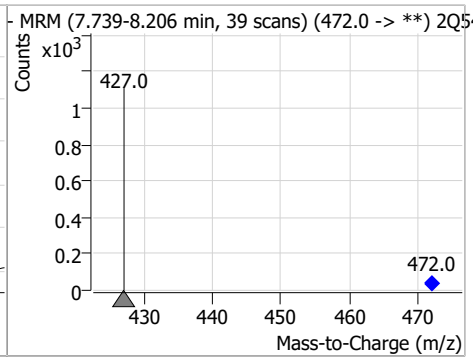


Perfluorinated Compounds by LC/MS/MS

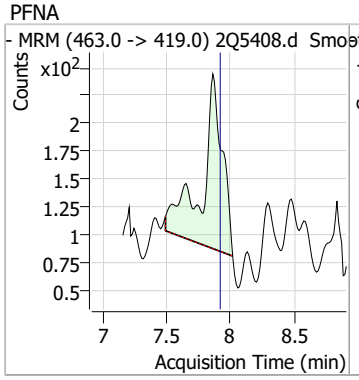
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.10	7.88	-0.04	30453				

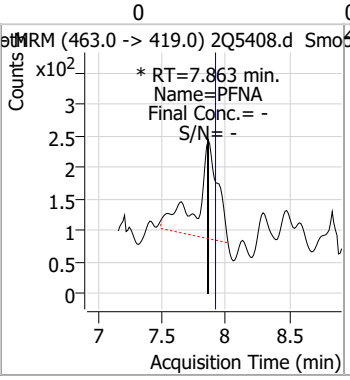


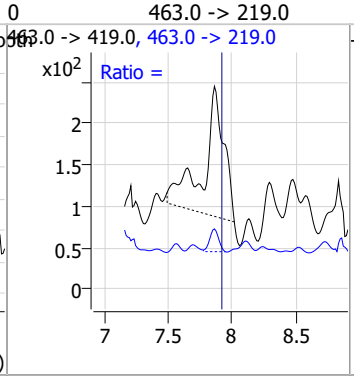


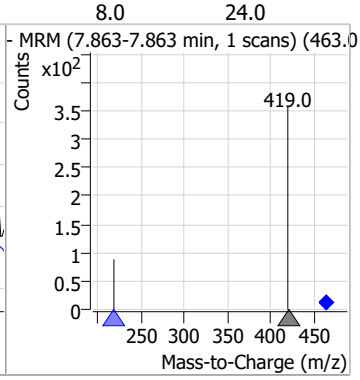


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0

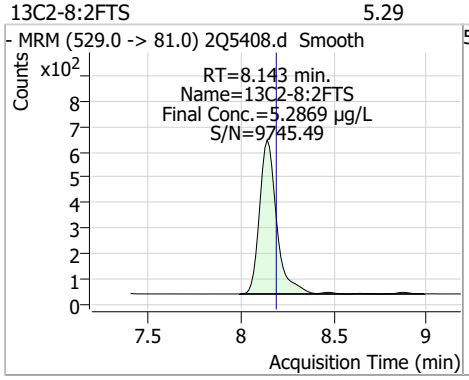


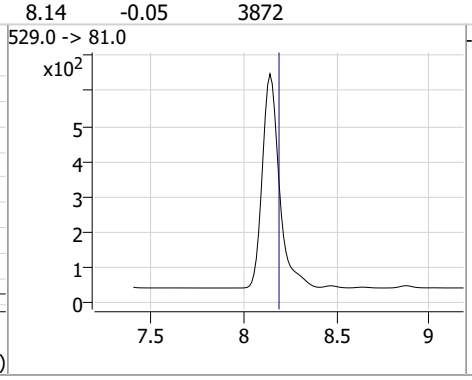


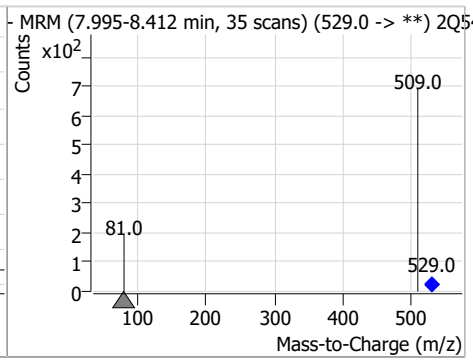




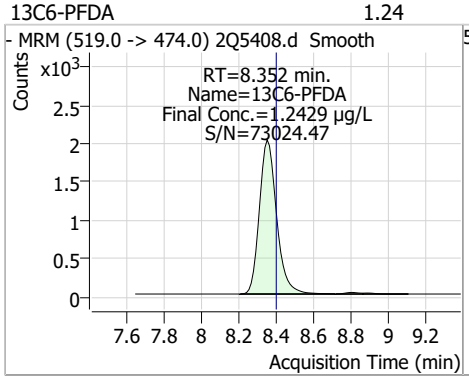
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.29	8.14	-0.05	3872				

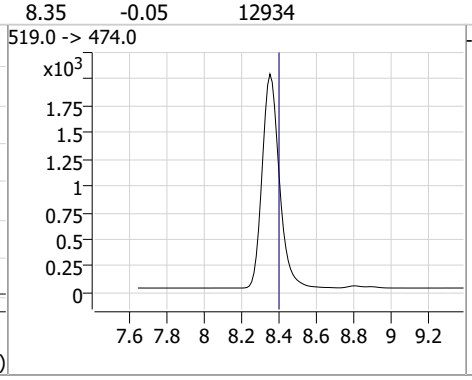


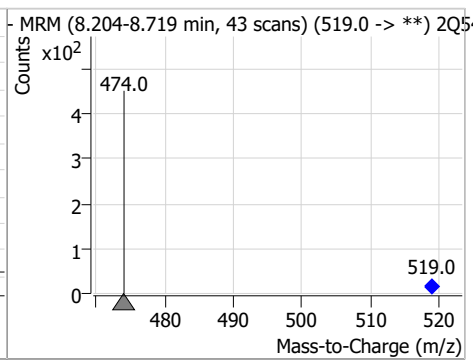




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.24	8.35	-0.05	12934				

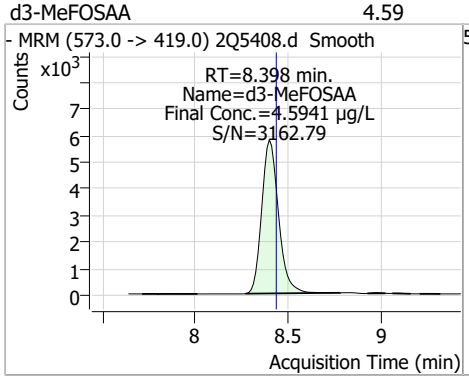


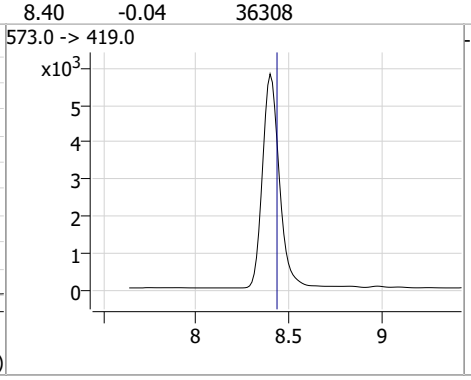


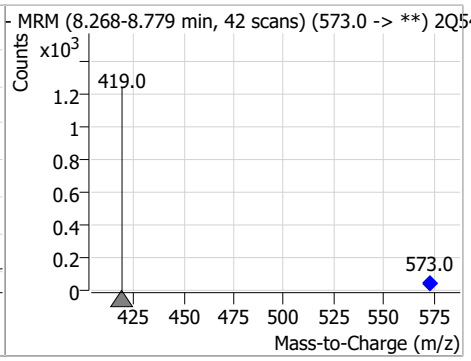


Perfluorinated Compounds by LC/MS/MS

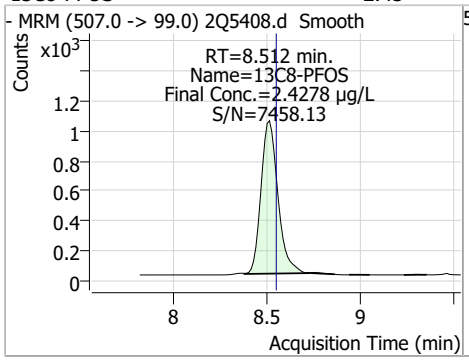
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.59	8.40	-0.04	36308				

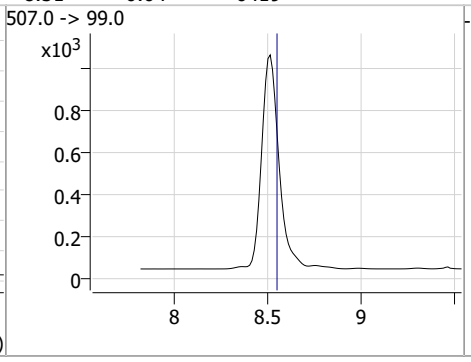


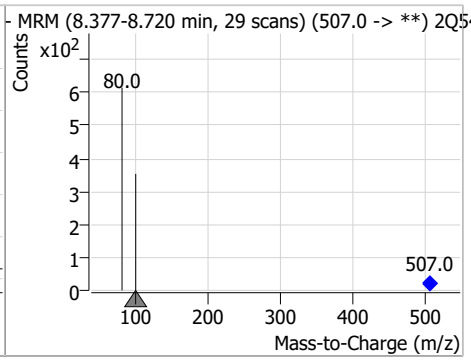




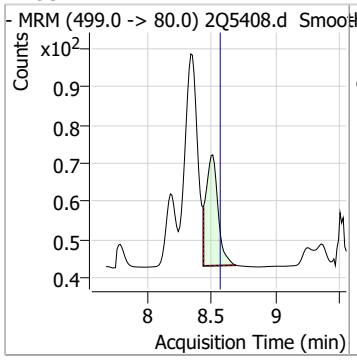
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.43	8.51	-0.04	6419				

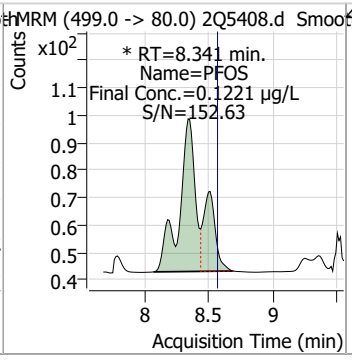


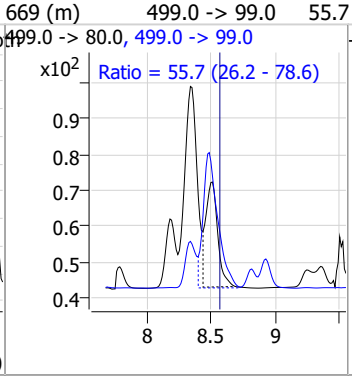


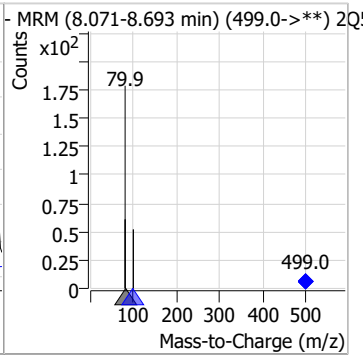


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.12	8.34	-0.22	669 (m)	499.0 -> 99.0	55.7	26.2	78.6

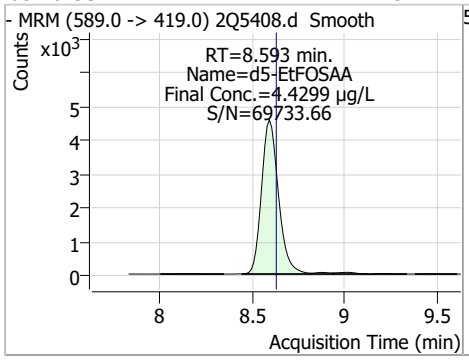


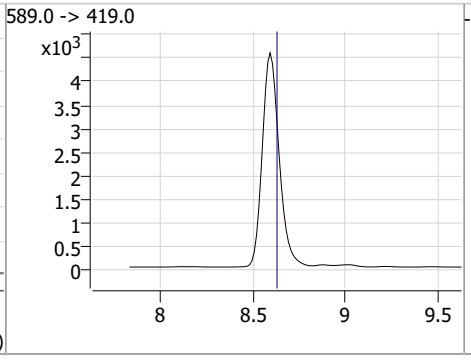


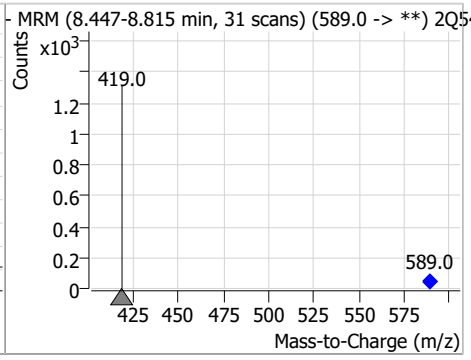




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.43	8.59	-0.04	28923				

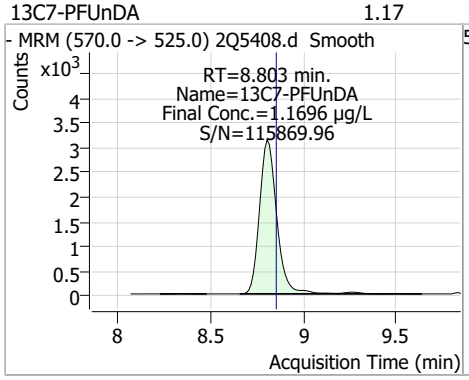


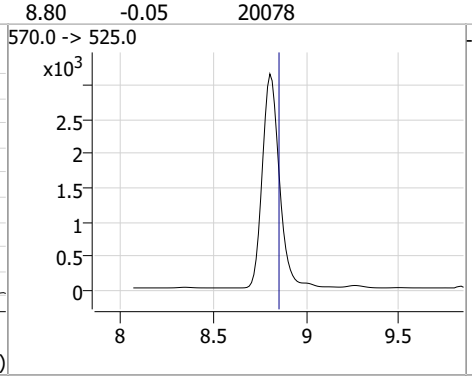


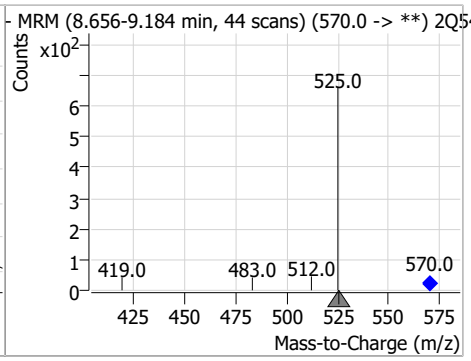


Perfluorinated Compounds by LC/MS/MS

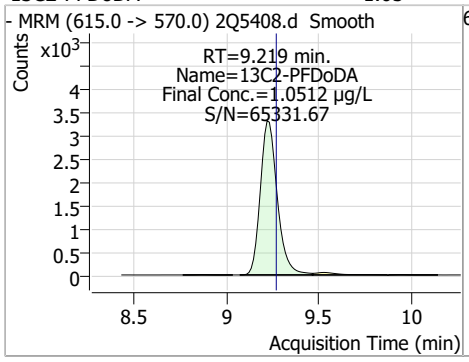
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.17	8.80	-0.05	20078				

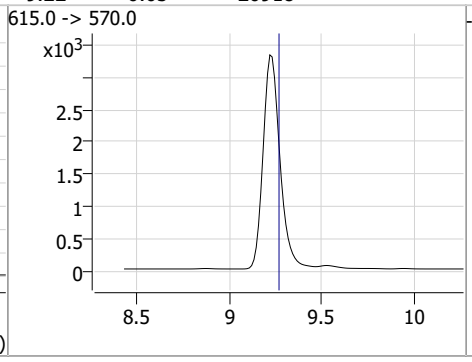


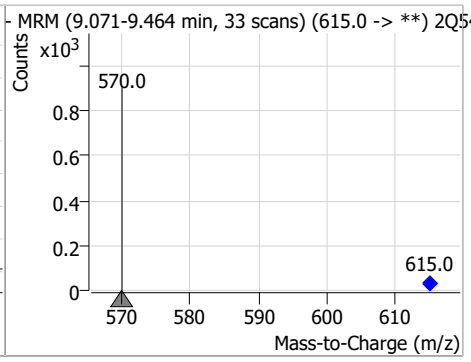




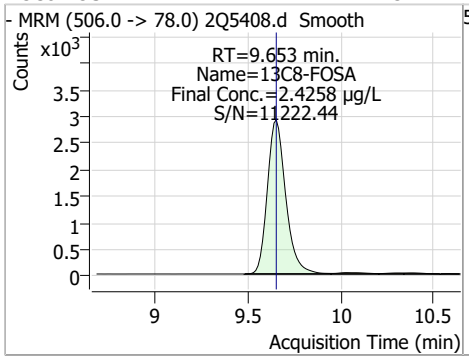
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.05	9.22	-0.05	20918				

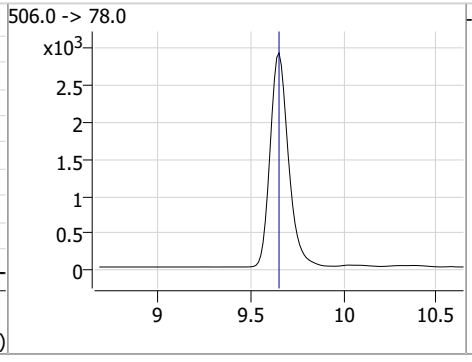


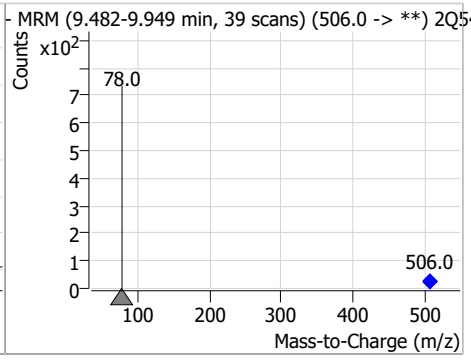




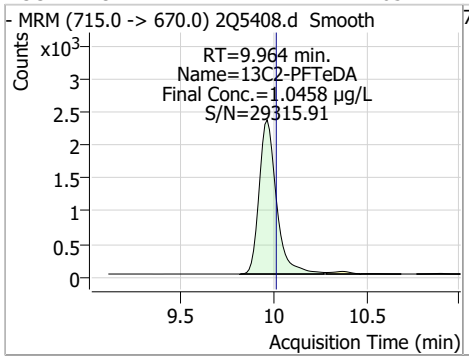
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.43	9.65	0.00	19946				

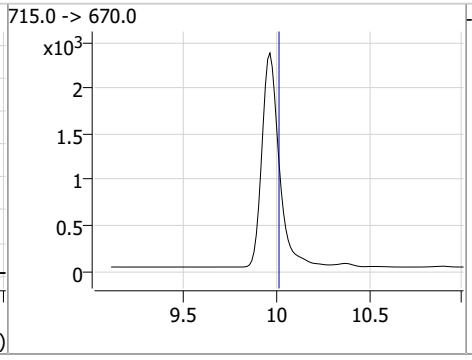


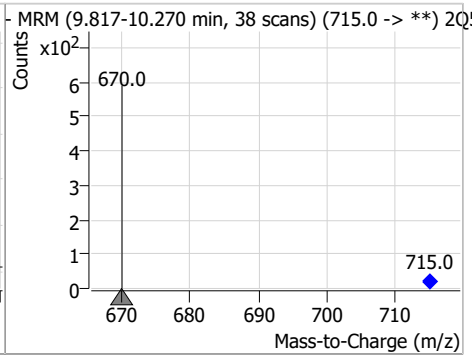




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.05	9.96	-0.05	15264				

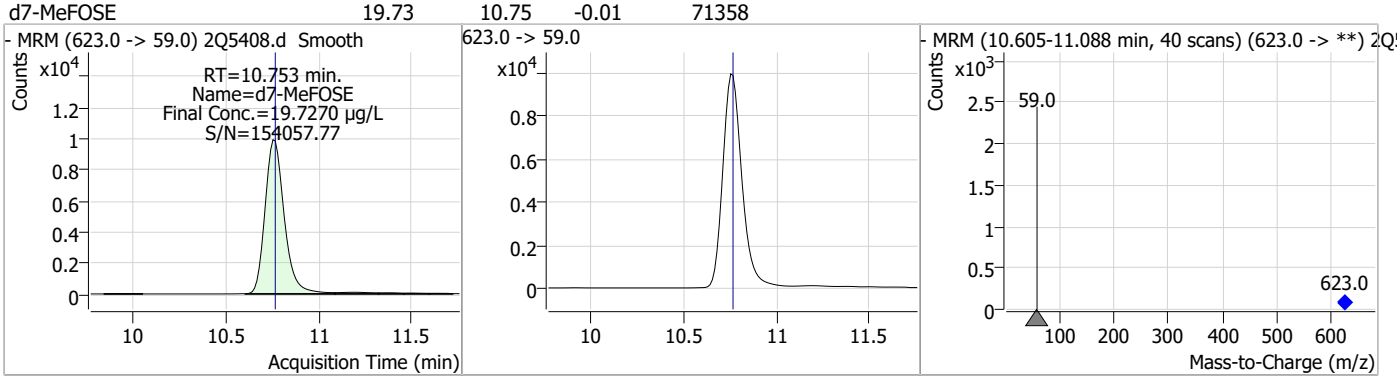




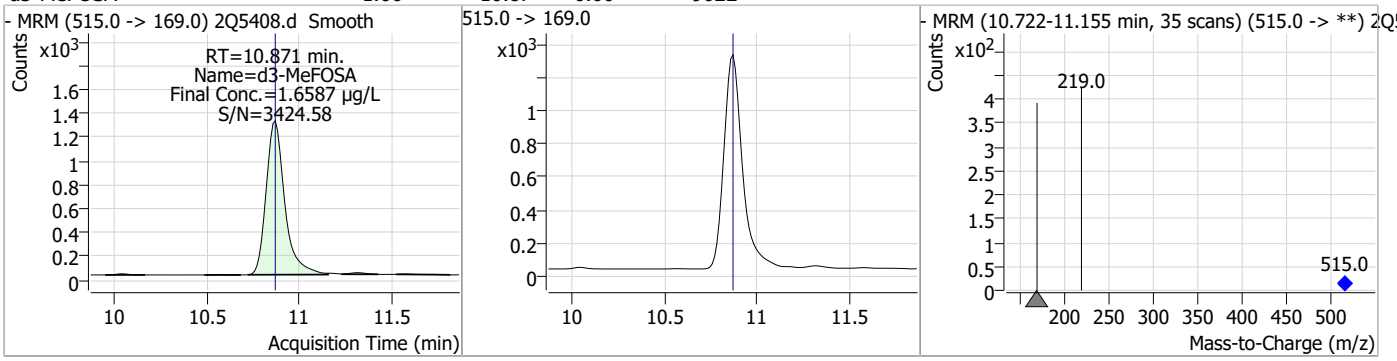


Perfluorinated Compounds by LC/MS/MS

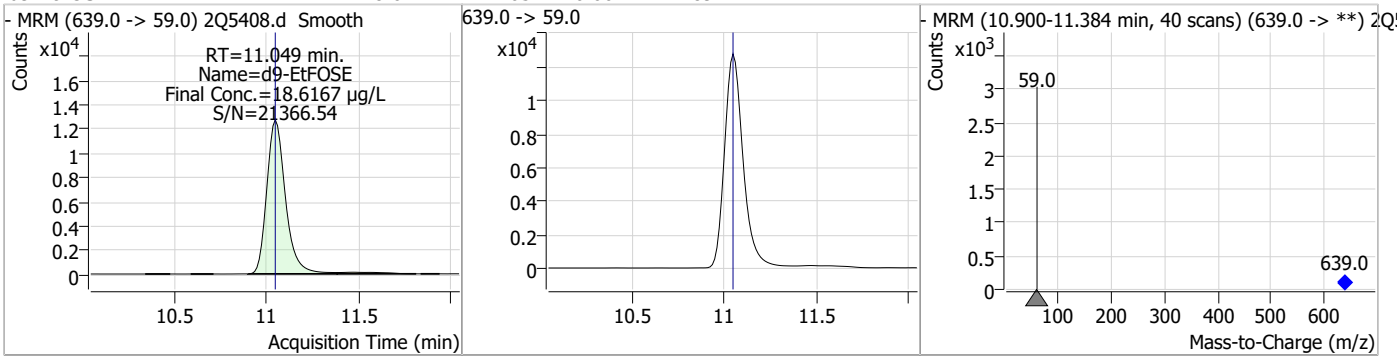
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	19.73	10.75	-0.01	71358				



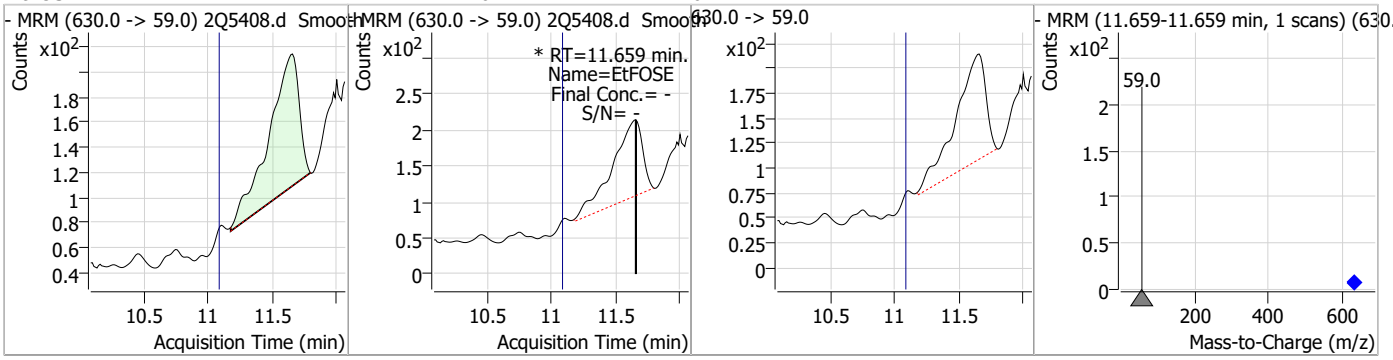
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.66	10.87	0.00	9022				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	18.62	11.05	0.00	89177				

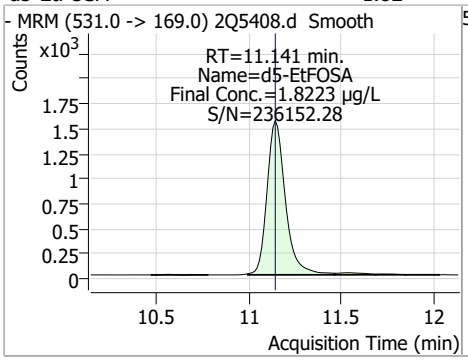


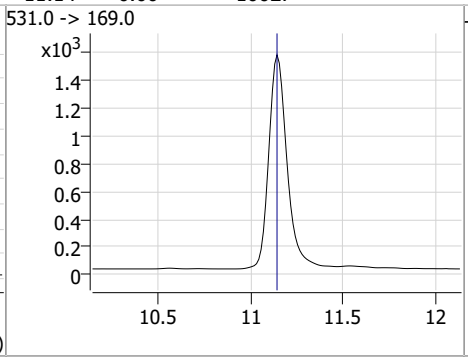
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE		0		0				

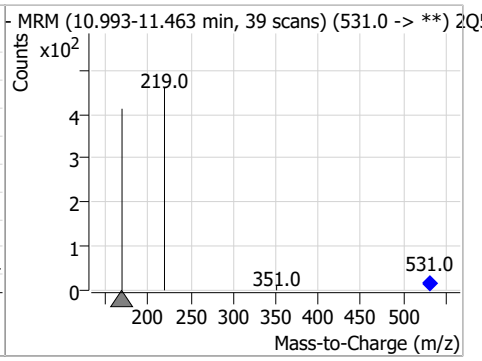


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.82	11.14	0.00	10627				







Manual Integration Approval Summary

Sample Number: JD77804-14
Lab FileID: 2Q5408.D
Injection Time: 12/02/23 07:18
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.36	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.34	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5412.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 8:19:10 AM
Sample Name : JD77804-15
Vial : P3-B1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,537,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	134984	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	91584	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	50006	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	39653	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	65166	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	31730	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12961	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	22227	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	24045	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16849	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	17067	2.50	µg/L	0.000
M3-PFBS	5.859	302.0 -> 99.0	5558	2.50	µg/L	-0.025
		302.0 -> 80.0	13317			
M3-PFHxS	7.472	402.0 -> 99.0	5471	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6368	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1195	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2303	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4134	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	37978	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22570	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	30833	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	73350	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	103167	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11350	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	10226	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	11453	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	69060	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6099	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	65936	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	26150	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35631	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	49563	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1195	5.37	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.3%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2303	4.67	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 93.3%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4134	6.05	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 121.0%		
13C2-PFDoDA	9.219	615.0 -> 570.0	24045	1.15	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 92.2%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16849	1.10	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.0%		
13C3-PFBS	5.859	302.0 -> 99.0	5558	2.45	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5471	2.30	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.0%		
13C4-PFBA	3.314	217.0 -> 172.0	134984	8.68	µg/L	-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 86.8%		
13C4-PFHpA	6.770	367.0 -> 322.0	39653	2.46	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.5%		
13C5-PFHxA	5.930	318.0 -> 273.0	50006	2.43	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.1%		
13C5-PFPeA	4.798	268.0 -> 223.0	91584	4.93	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.6%		
13C6-PFDA	8.352	519.0 -> 474.0	12961	1.19	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.0%		
13C7-PFUnDA	8.803	570.0 -> 525.0	22227	1.23	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.7%		
13C8-FOSA	9.653	506.0 -> 78.0	17067	2.20	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.0%		
13C8-PFOA	7.360	421.0 -> 376.0	65166	2.39	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.5%		
13C8-PFOS	8.512	507.0 -> 99.0	6368	2.55	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.1%		
13C9-PFNA	7.875	472.0 -> 427.0	31730	1.14	µg/L	-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.0%		
d3-MeFOSAA	8.398	573.0 -> 419.0	37978	5.09	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.9%		
13C3-HFPO-DA	6.270	287.0 -> 169.0	22570	9.60	µg/L	-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.0%		
d3-MeFOSA	10.871	515.0 -> 169.0	10226	1.99	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 79.7%		
d5-EtFOSAA	8.593	589.0 -> 419.0	30833	5.01	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.1%		
d7-MeFOSE	10.753	623.0 -> 59.0	73350	21.50	µg/L	-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 86.0%		
d9-EtFOSE	11.049	639.0 -> 59.0	103167	22.83	µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 91.3%		
d5-EtFOSA	11.141	531.0 -> 169.0	11350	2.06	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.5%		
Target Compounds						**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.		
		327.0 -> 81.0				
6:2FTS	7.137	427.0 -> 407.0	191	0.06	µg/L	78
		427.0 -> 81.0	39			
8:2FTS	-	527.0 -> 507.0	-	N.D.		
		527.0 -> 81.0				
EtFOSAA	-	584.0 -> 419.0	-	N.D.		
		584.0 -> 483.0				
FOSA	-	498.0 -> 78.0	-	N.D.		
		498.0 -> 478.0				
MeFOSAA	-	570.0 -> 419.0	-	N.D.		
		570.0 -> 512.0				
PFBA	3.321	213.0 -> 169.0	2365	0.70	µg/L	100
PFBS	5.847	299.0 -> 80.0	4132	0.71	µg/L	96
		299.0 -> 99.0	1842			
PFDA	-	513.0 -> 469.0	-	N.D.		
		513.0 -> 219.0				
PFDoDA	-	613.0 -> 569.0	-	N.D.		
		613.0 -> 319.0				

Perfluorinated Compounds by LC/MS/MS

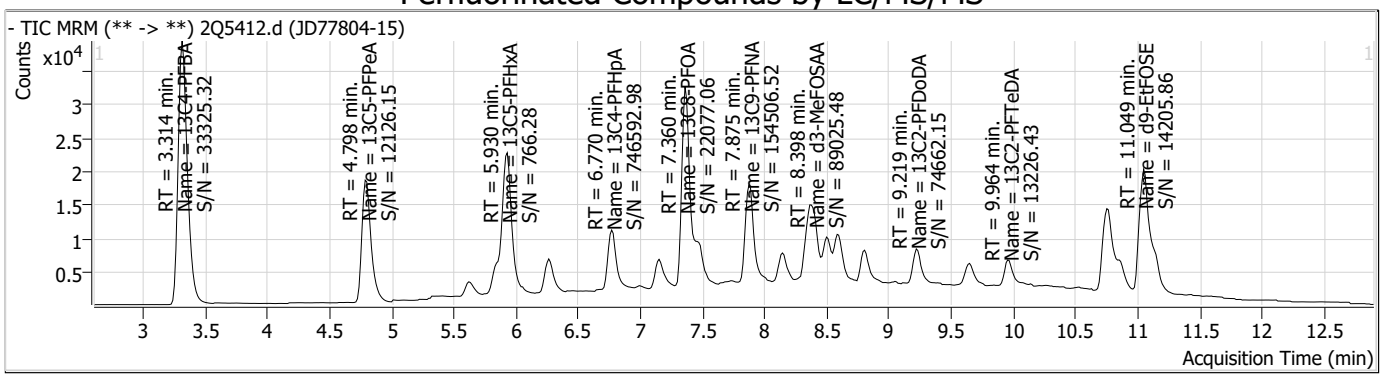
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	2349	0.14	µg/L		89
		363.0 -> 169.0	498				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	4689	0.24	µg/L		97
		313.0 -> 119.0	87				
PFHxS	7.473	399.0 -> 80.0	1515	0.40	µg/L	m	90
		399.0 -> 99.0	773				
PFNA	7.863	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	7760	0.30	µg/L	m	86
		413.0 -> 169.0	1967				
PFOS	8.316	499.0 -> 80.0	918	0.17	µg/L	m	71
		499.0 -> 99.0	296				
PFPeA	4.799	263.0 -> 219.0	4008	0.24	µg/L		100
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.353	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

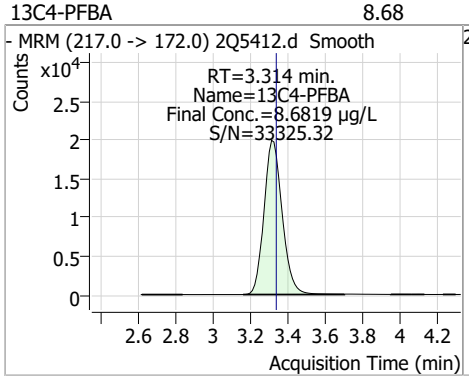
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

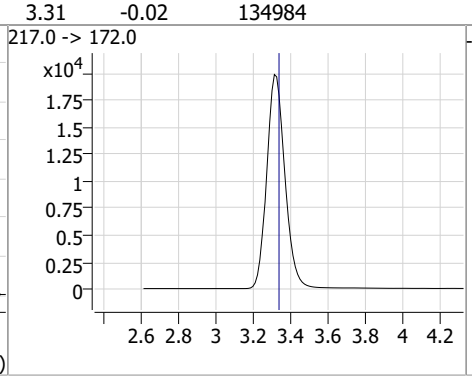
= Qualifier out of range, m = manually integrated, + = Area summed

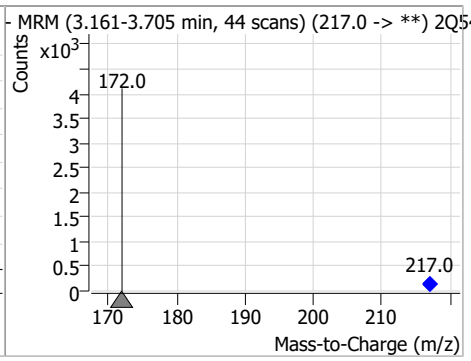
Perfluorinated Compounds by LC/MS/MS



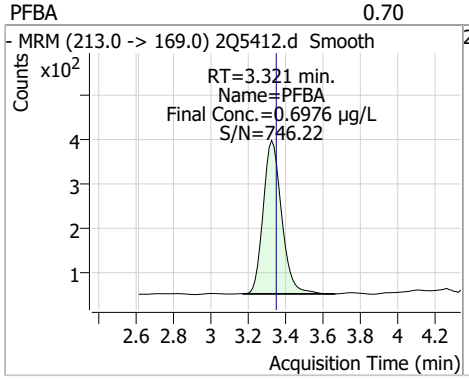
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	8.68	3.31	-0.02	134984				

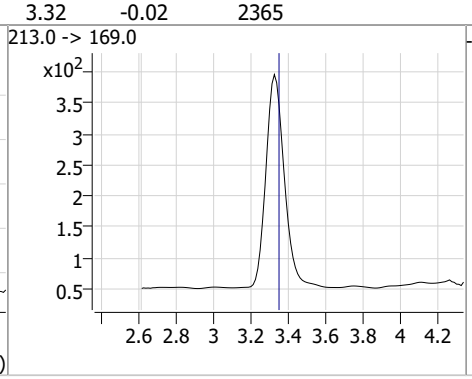


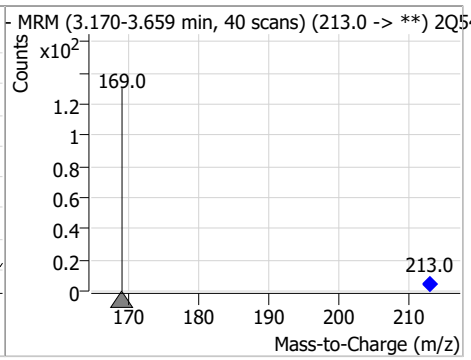




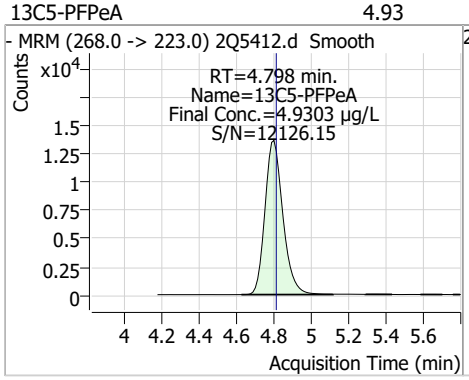
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.70	3.32	-0.02	2365				

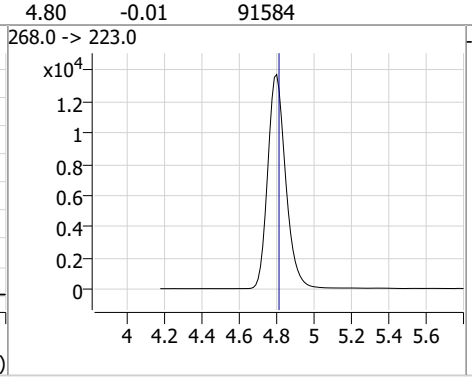


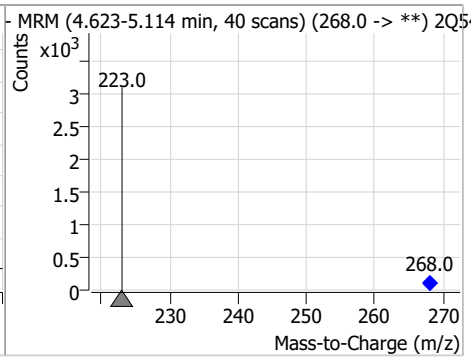




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.93	4.80	-0.01	91584				

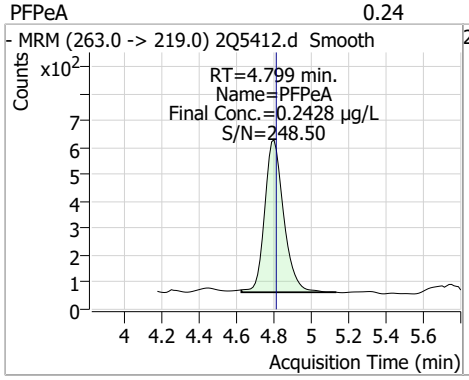


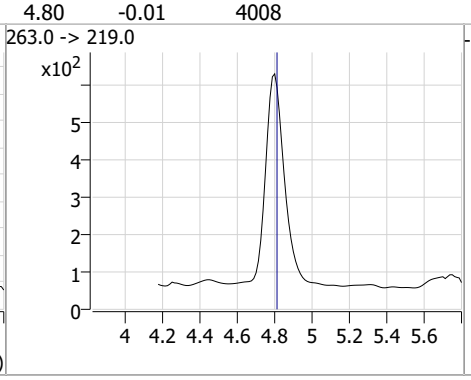


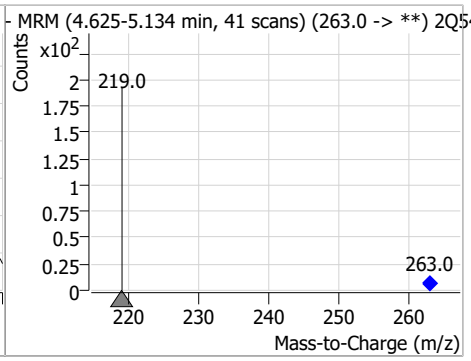


Perfluorinated Compounds by LC/MS/MS

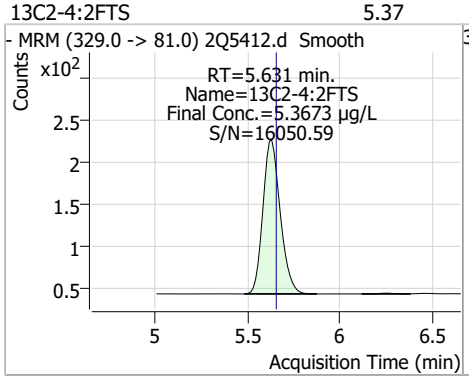
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.24	4.80	-0.01	4008				

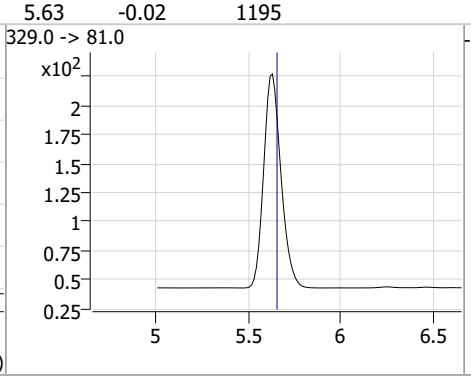


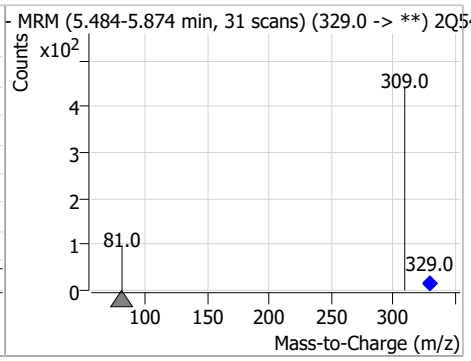




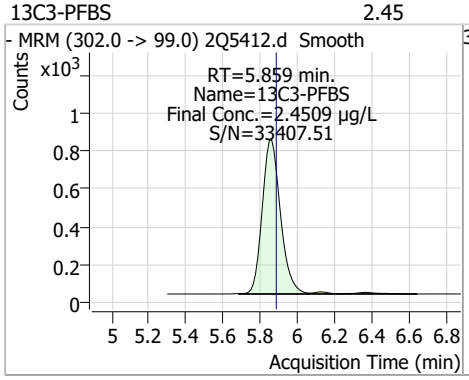
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.37	5.63	-0.02	1195				

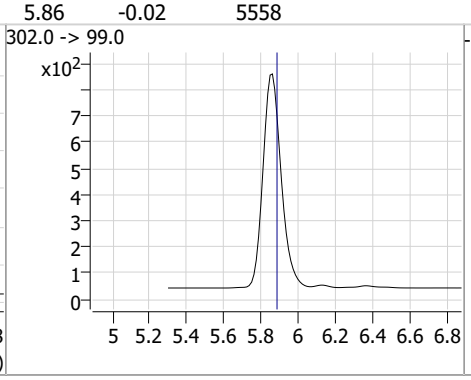


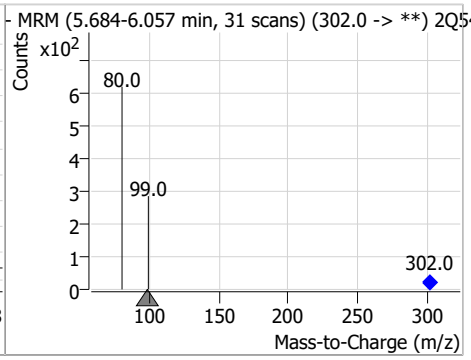




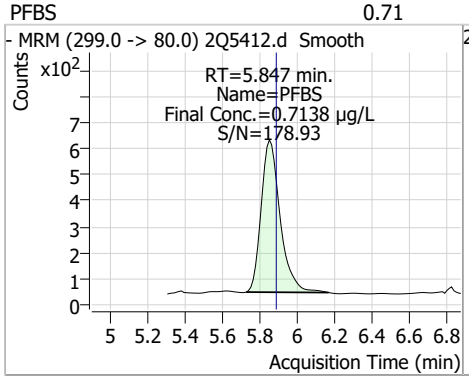
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.45	5.86	-0.02	5558				

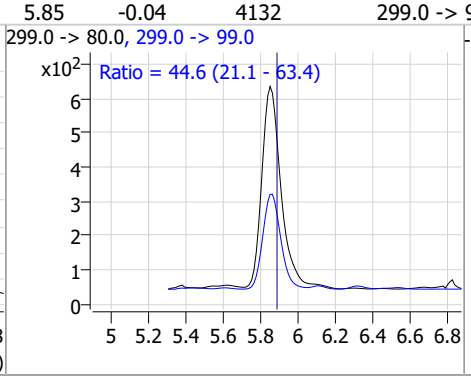


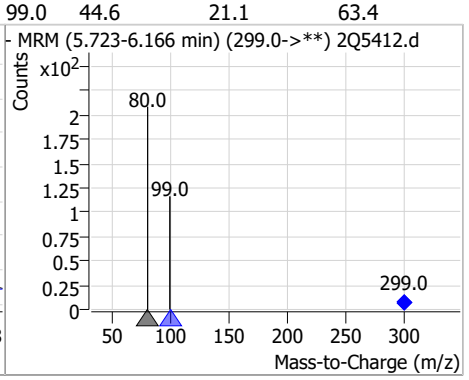




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.71	5.85	-0.04	4132	299.0 -> 99.0	44.6	21.1	63.4

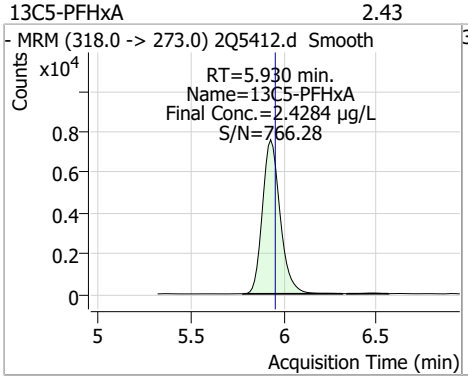


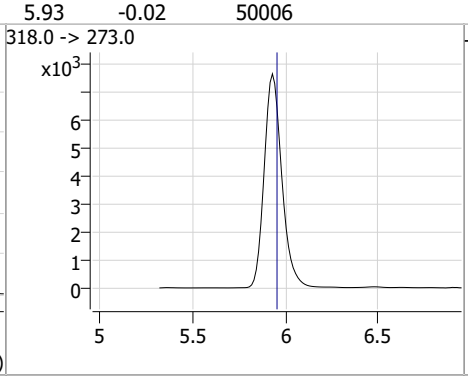


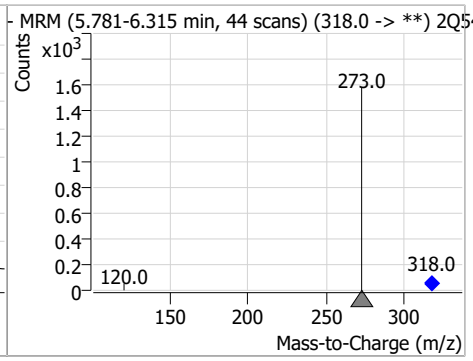


Perfluorinated Compounds by LC/MS/MS

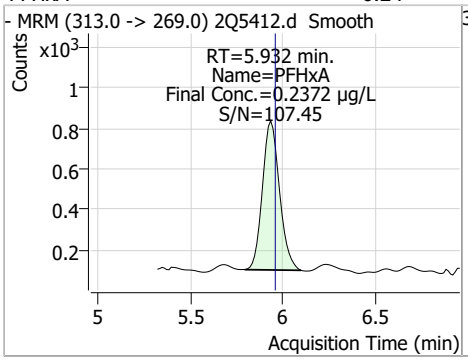
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.43	5.93	-0.02	50006				

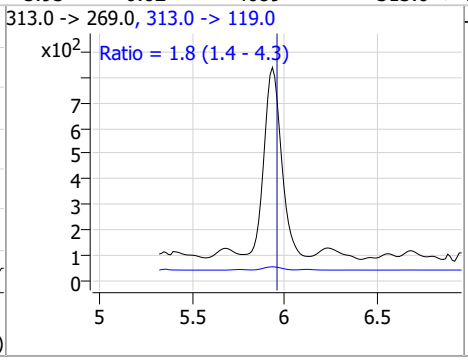


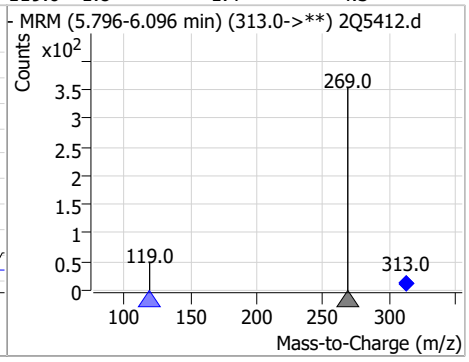




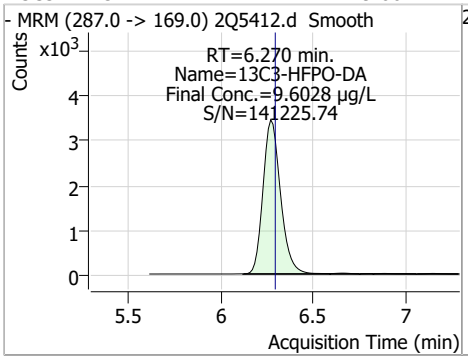
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.24	5.93	-0.02	4689	313.0 -> 119.0	1.8	1.4	4.3

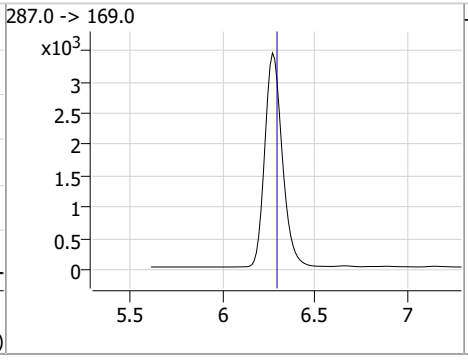


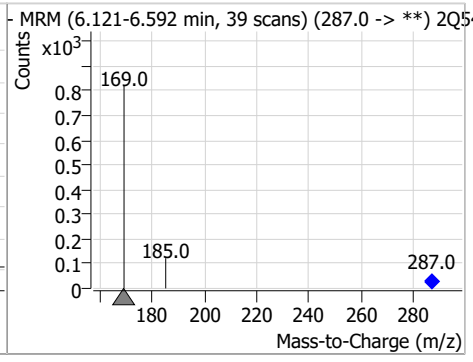




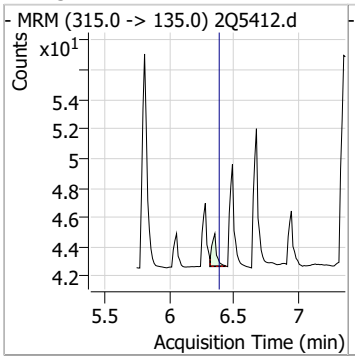
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.60	6.27	-0.02	22570				

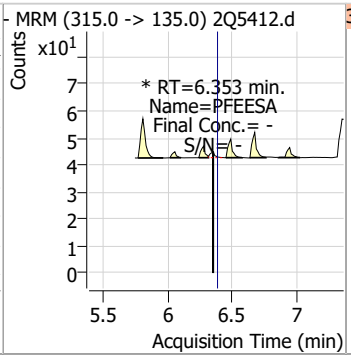


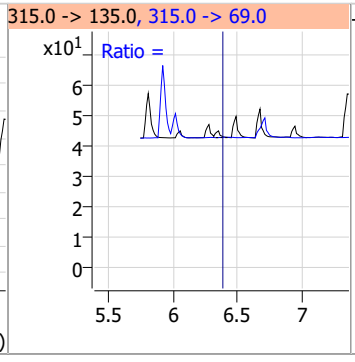


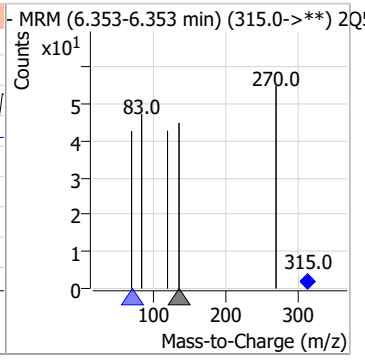


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



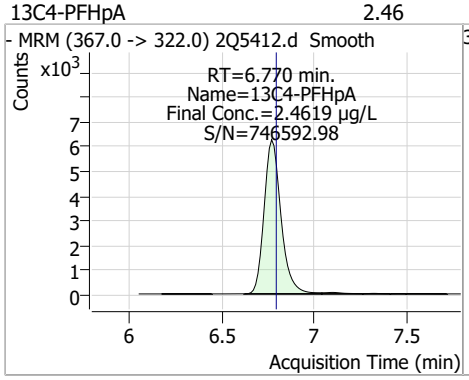


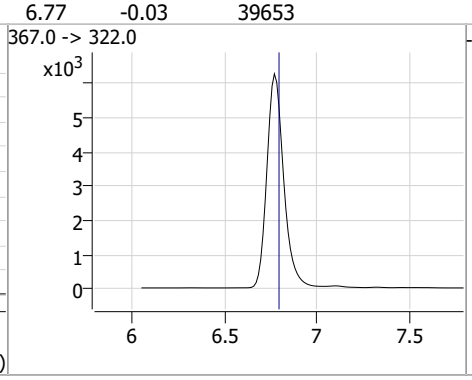


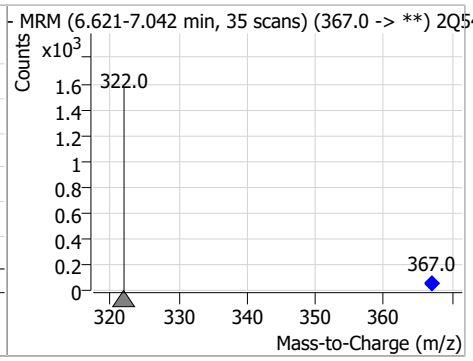


Perfluorinated Compounds by LC/MS/MS

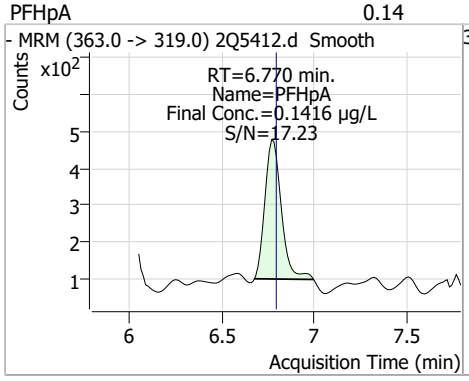
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.46	6.77	-0.03	39653				

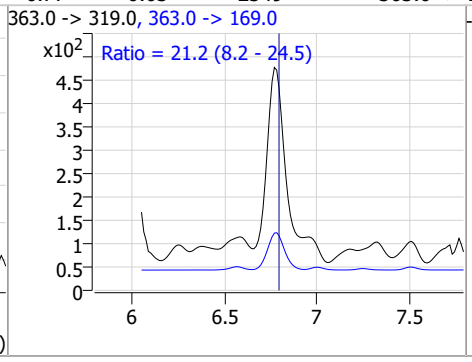


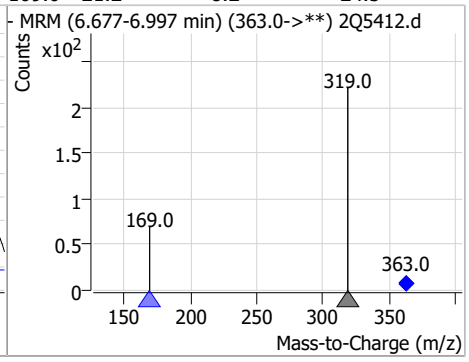




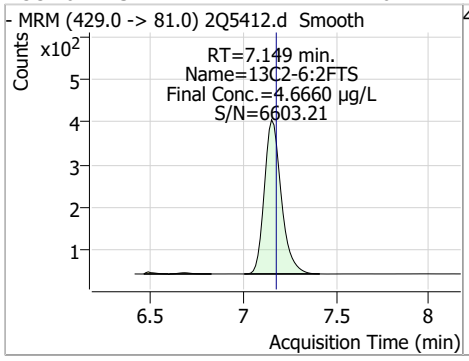
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.14	6.77	-0.03	2349	363.0 -> 169.0	21.2	8.2	24.5

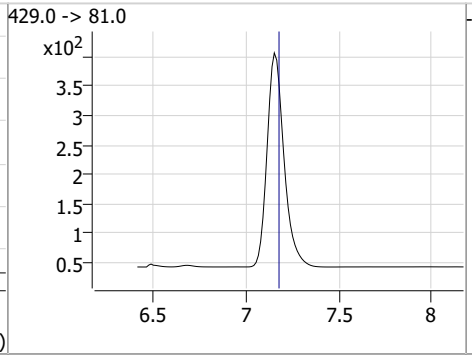


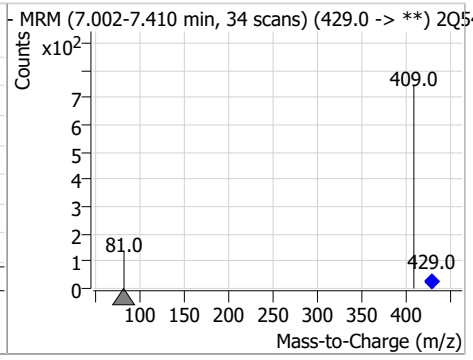




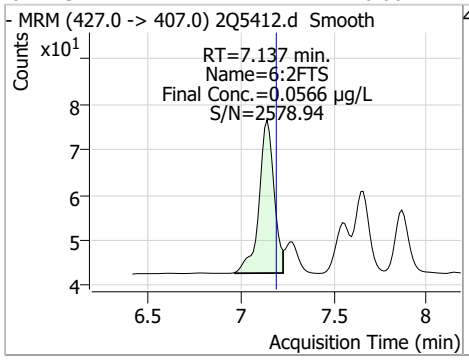
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.67	7.15	-0.03	2303				

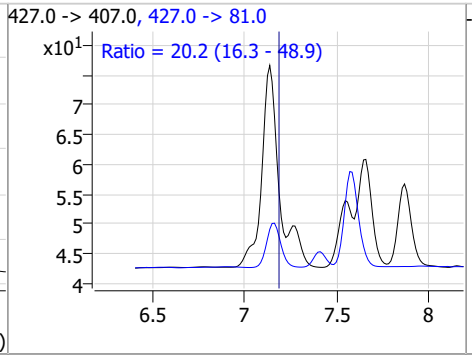


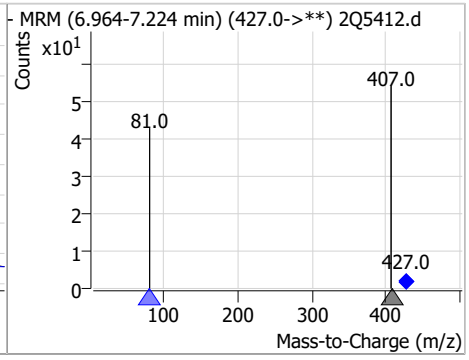




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.06	7.14	-0.05	191	427.0 -> 81.0	20.2	16.3	48.9

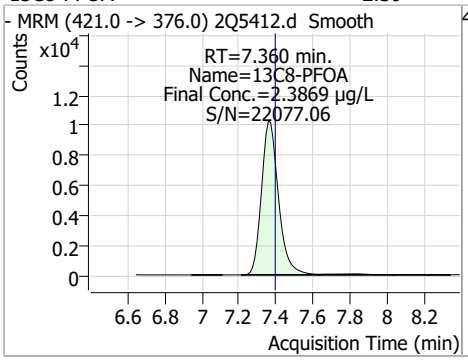


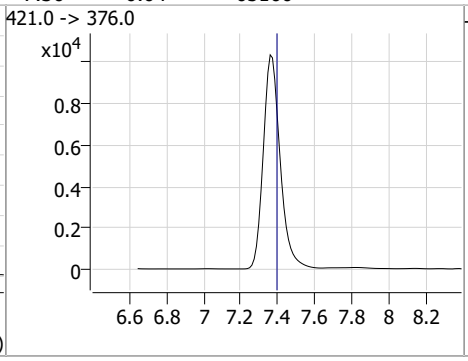


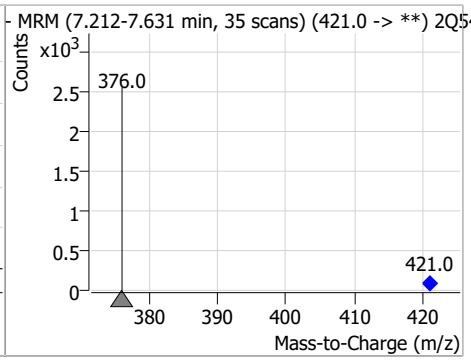


Perfluorinated Compounds by LC/MS/MS

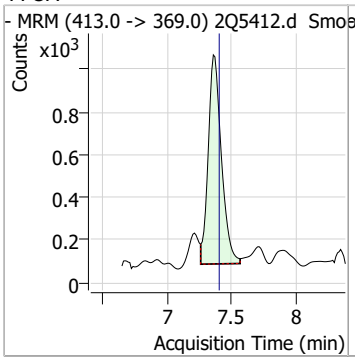
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.39	7.36	-0.04	65166				

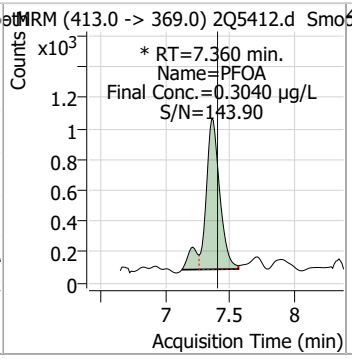


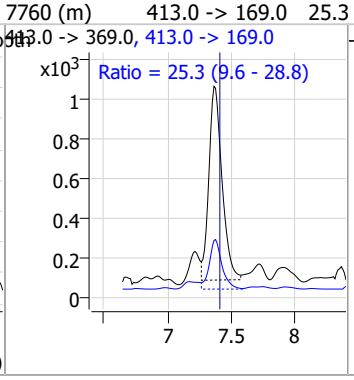


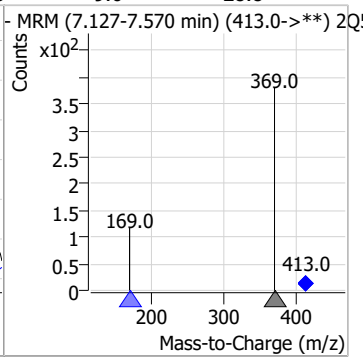


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.30	7.36	-0.04	7760 (m)	413.0 -> 169.0	25.3	9.6	28.8

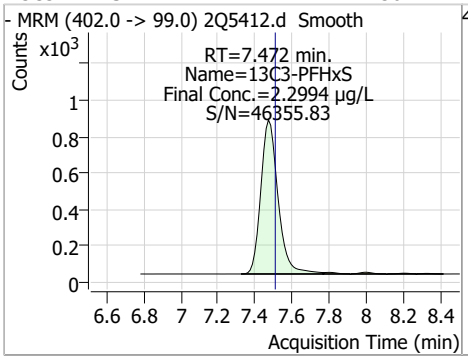


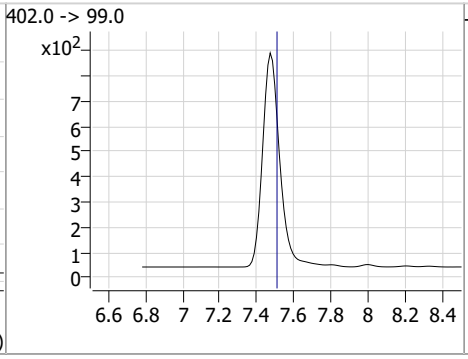


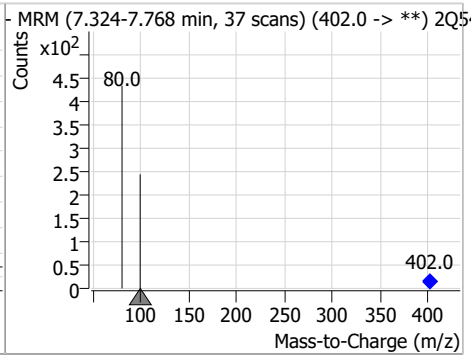




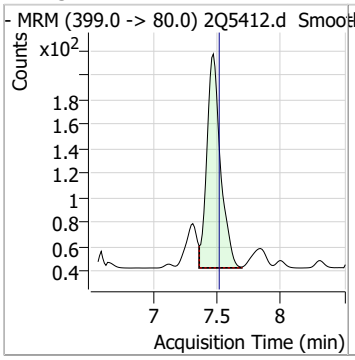
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.30	7.47	-0.04	5471				

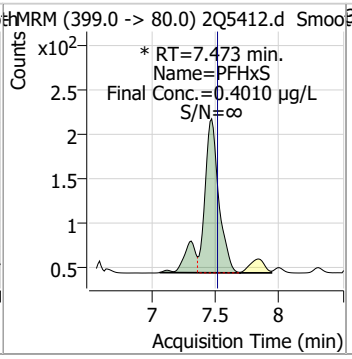


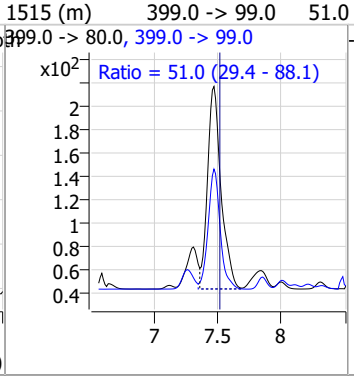


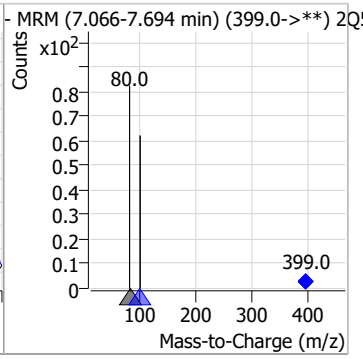


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.40	7.47	-0.04	1515 (m)	399.0 -> 99.0	51.0	29.4	88.1



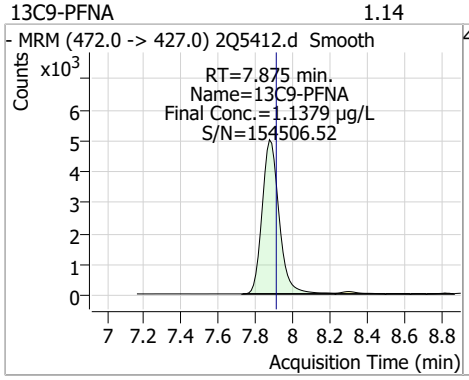


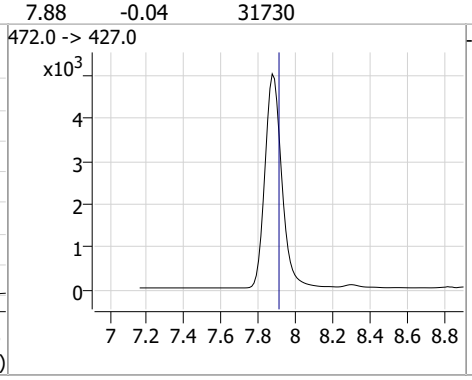


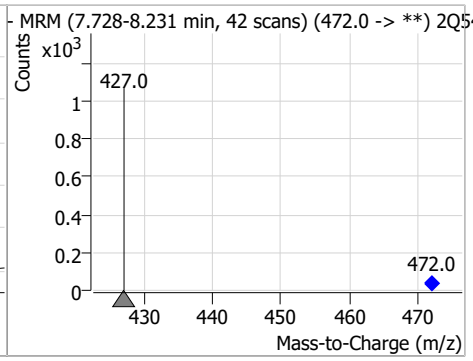


Perfluorinated Compounds by LC/MS/MS

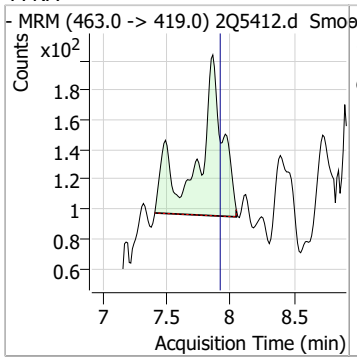
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.88	-0.04	31730				

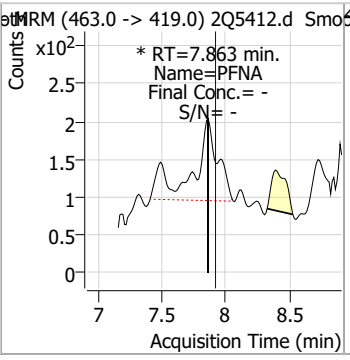


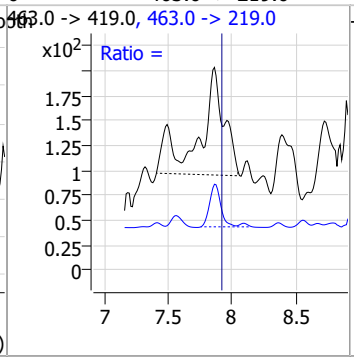


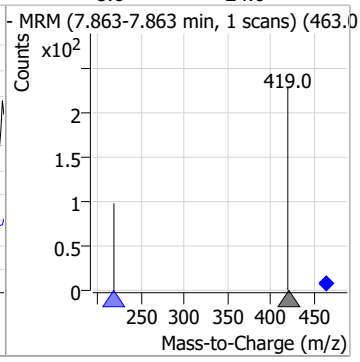


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0

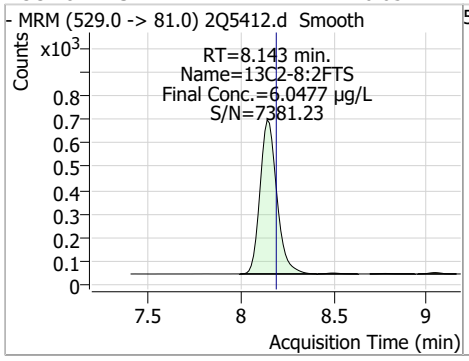


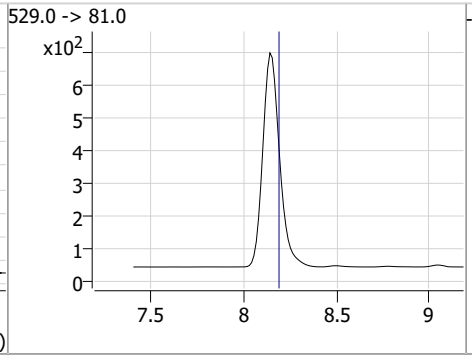


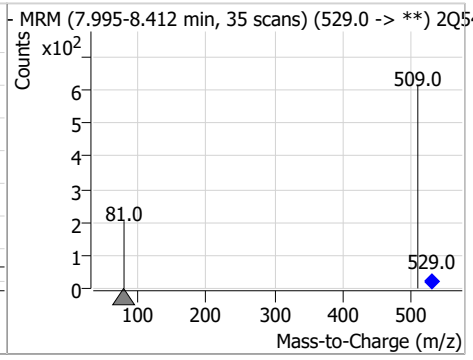




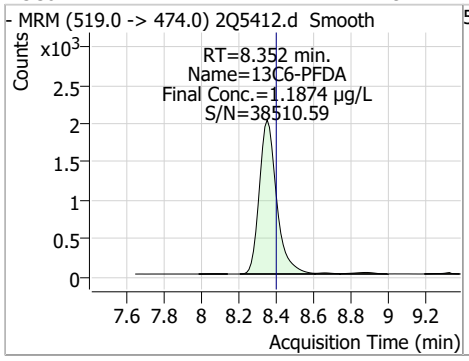
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.05	8.14	-0.05	4134				

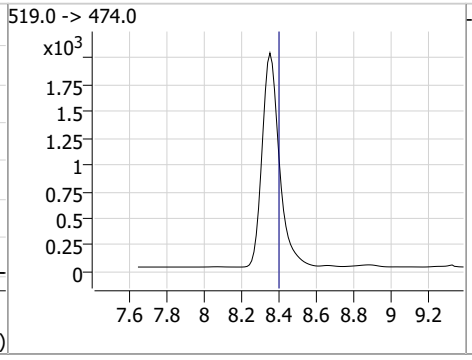


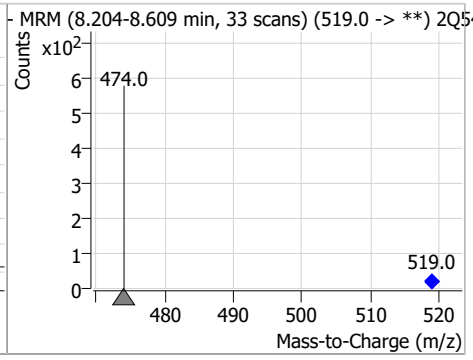




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.19	8.35	-0.05	12961				

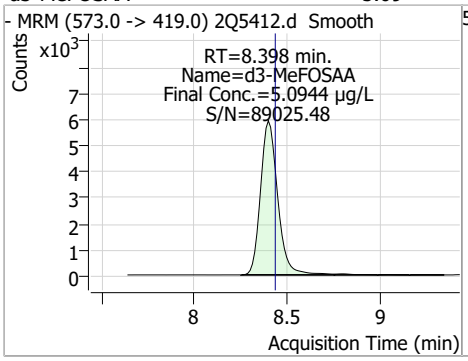


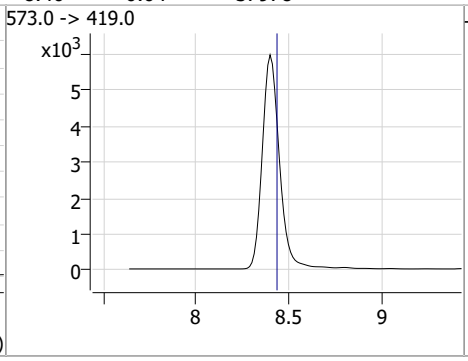


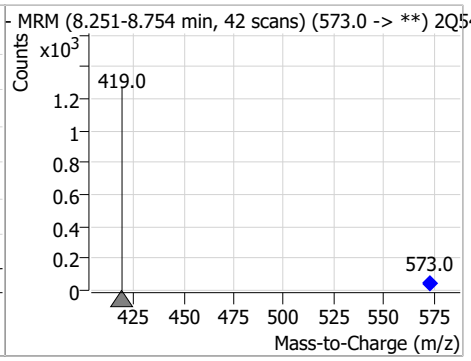


Perfluorinated Compounds by LC/MS/MS

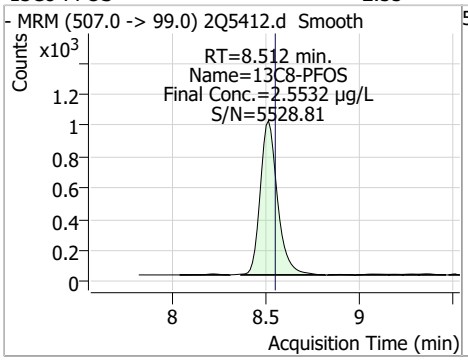
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.09	8.40	-0.04	37978				

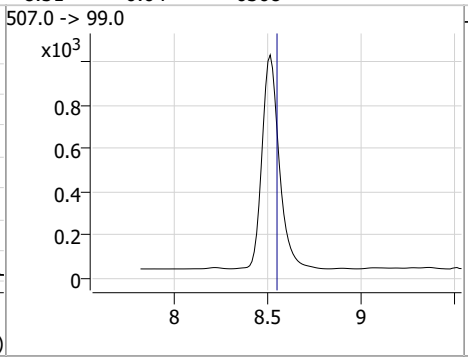


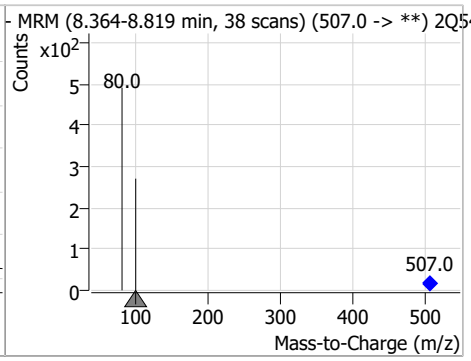




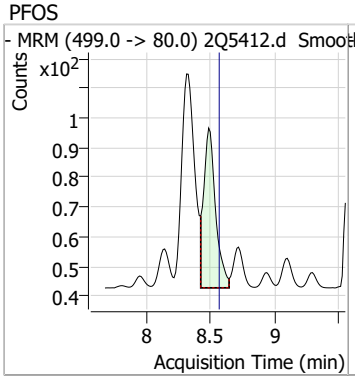
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.55	8.51	-0.04	6368				

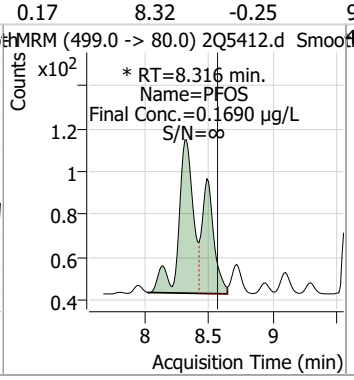


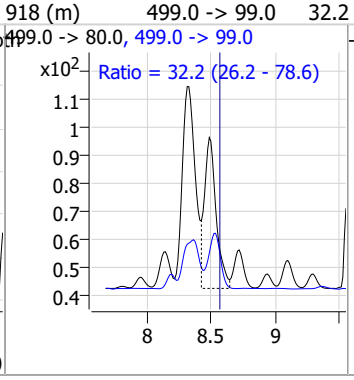


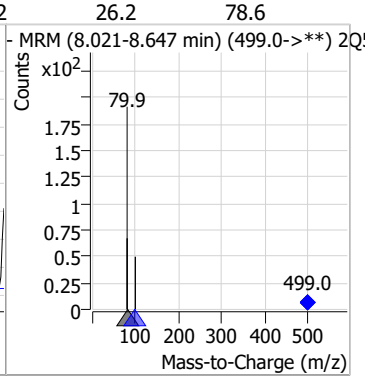


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.17	8.32	-0.25	918 (m)	499.0 -> 99.0	32.2	26.2	78.6

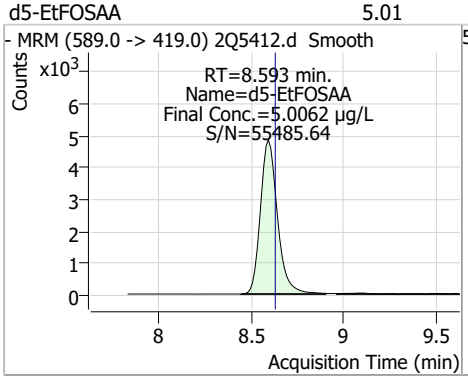


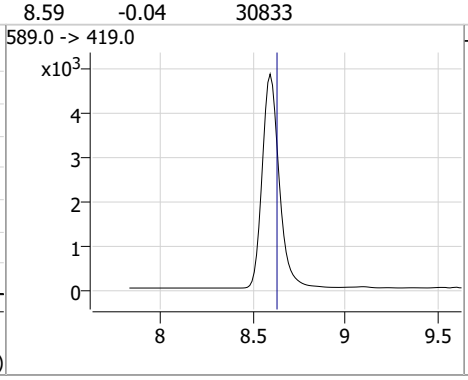


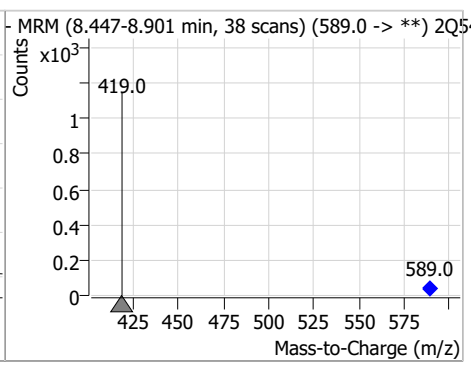




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.01	8.59	-0.04	30833				

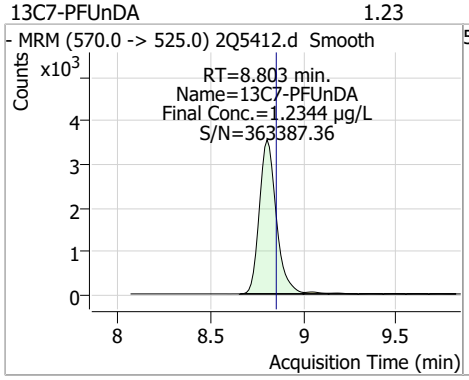


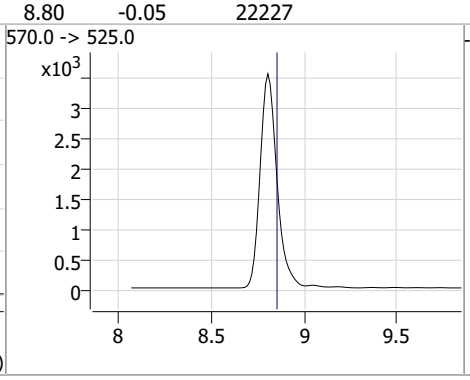


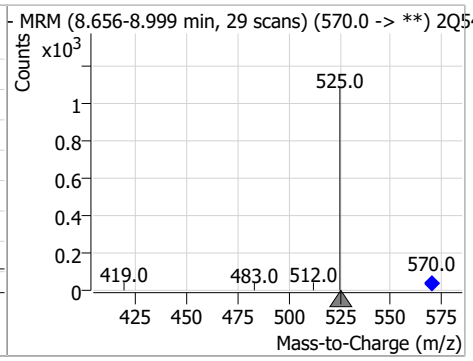


Perfluorinated Compounds by LC/MS/MS

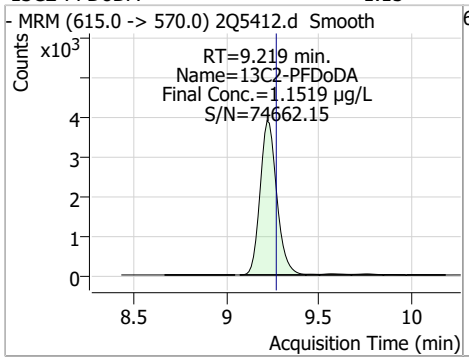
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.23	8.80	-0.05	22227				

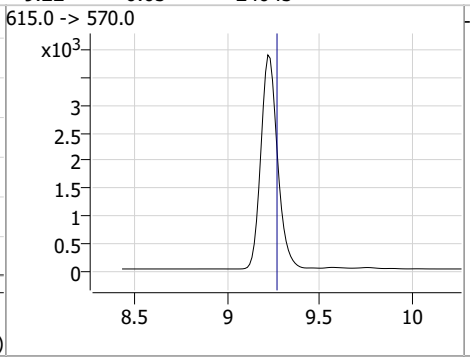


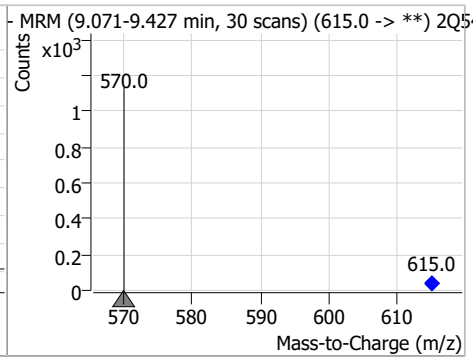




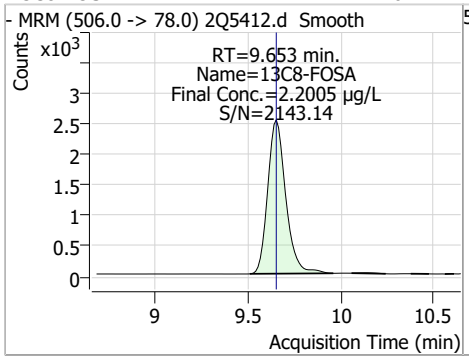
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.15	9.22	-0.05	24045				

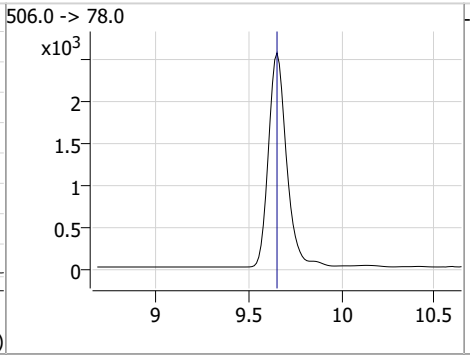


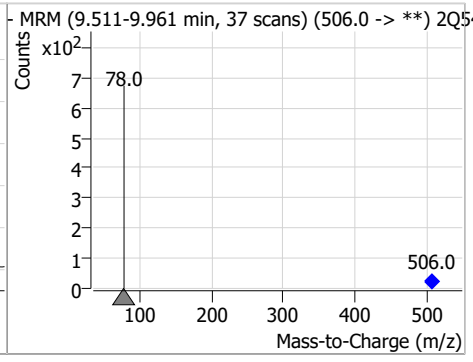




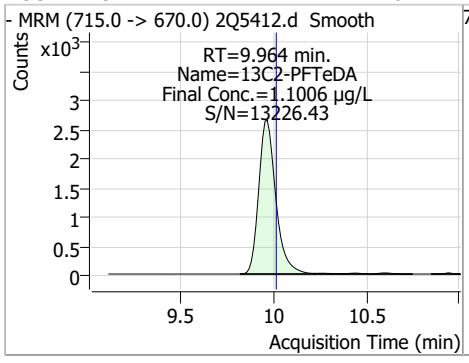
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.20	9.65	0.00	17067				

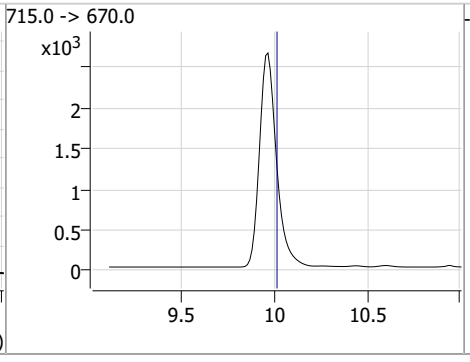


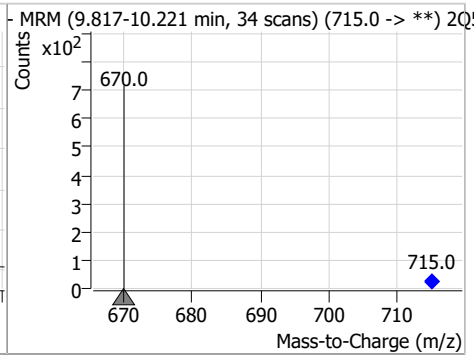




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.10	9.96	-0.05	16849				

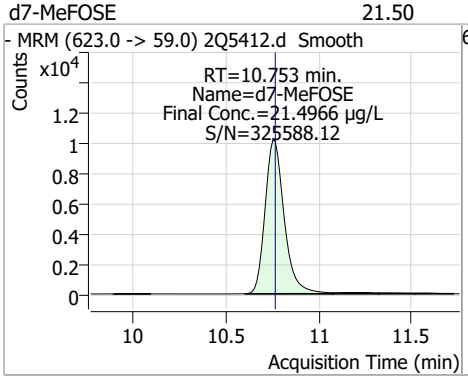


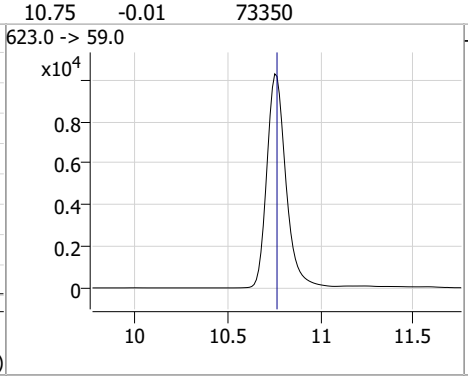


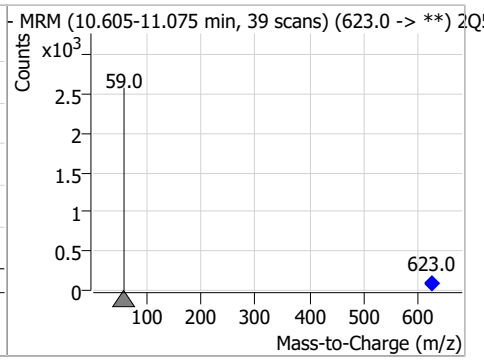


Perfluorinated Compounds by LC/MS/MS

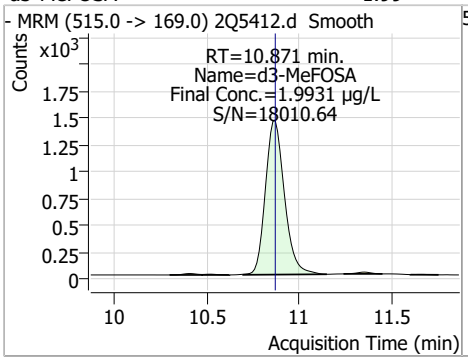
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	21.50	10.75	-0.01	73350				

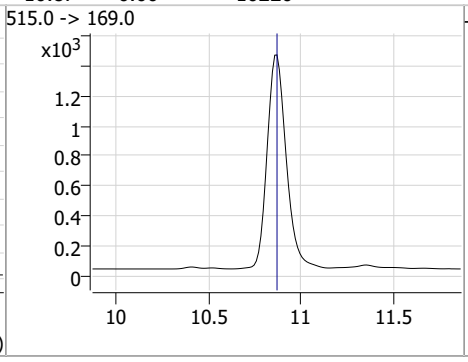


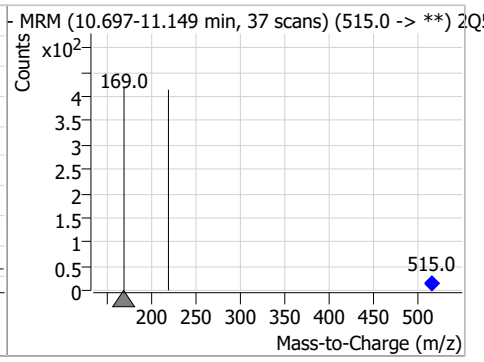




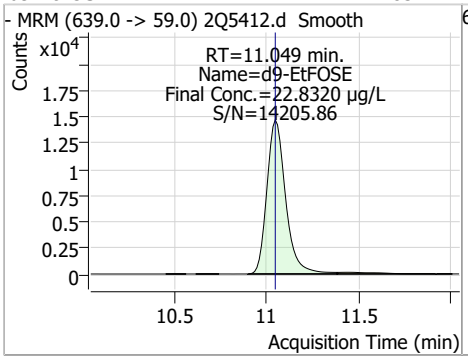
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.99	10.87	0.00	10226				

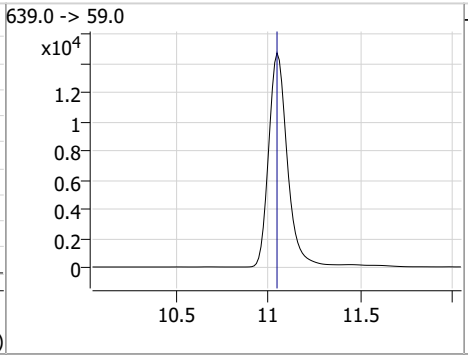


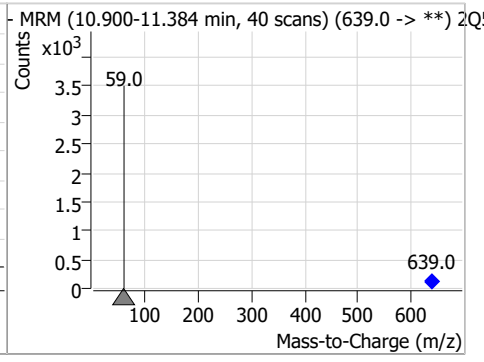




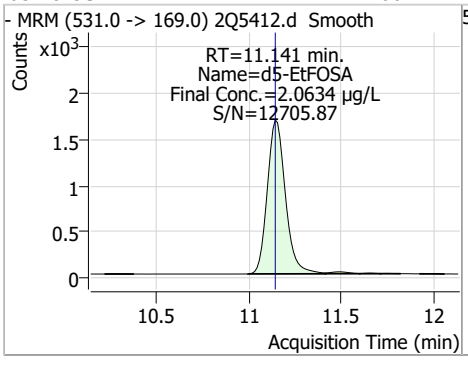
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.83	11.05	0.00	103167				

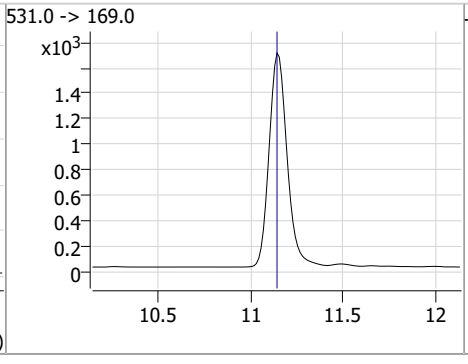


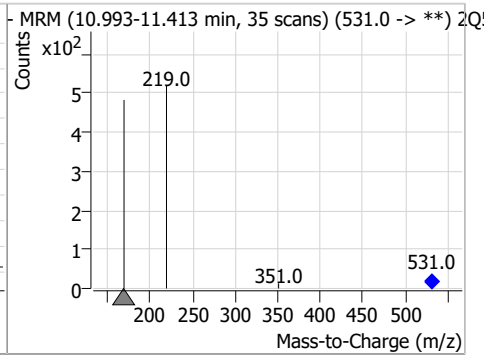




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.06	11.14	0.00	11350				







Manual Integration Approval Summary

Sample Number: JD77804-15
Lab FileID: 2Q5412.D
Injection Time: 12/02/23 08:19
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.36	Split peak
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.32	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5413.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 8:34:41 AM
Sample Name : JD77804-16
Vial : P3-B2
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,534,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	121772	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	90342	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	47318	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	36452	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	65793	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	27668	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	14345	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20571	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23966	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	17663	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	17790	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5128	2.50	µg/L	-0.037
		302.0 -> 80.0	13659			
M3-PFHxS	7.472	402.0 -> 99.0	5906	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	6234	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1298	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2573	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3991	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	35500	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	21983	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	31217	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	73264	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	96709	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11514	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	9829	2.50	µg/L	-0.012
13C4-PFOS	8.500	503.0 -> 80.0	10847	2.50	µg/L	-0.049
13C3-PFBA	3.317	216.0 -> 172.0	68506	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6533	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	68632	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	26362	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	32427	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	48269	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1298	5.44	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 108.8%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2573	4.87	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.3%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3991	5.45	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.0%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23966	1.14	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	17663	1.14	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.6%		
13C3-PFBS	5.846	302.0 -> 99.0	5128	2.11	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 84.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5906	2.32	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.7%			
13C4-PFBA	3.314	217.0 -> 172.0	121772	7.90	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 79.0%			
13C4-PFHpA	6.770	367.0 -> 322.0	36452	2.32	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.0%			
13C5-PFHxA	5.930	318.0 -> 273.0	47318	2.36	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.4%			
13C5-PFPeA	4.785	268.0 -> 223.0	90342	4.99	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.9%			
13C6-PFDA	8.352	519.0 -> 474.0	14345	1.30	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 104.3%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20571	1.13	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 90.7%			
13C8-FOSA	9.653	506.0 -> 78.0	17790	2.42	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.9%			
13C8-PFOA	7.360	421.0 -> 376.0	65793	2.32	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.6%			
13C8-PFOS	8.499	507.0 -> 99.0	6234	2.64	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.6%			
13C9-PFNA	7.875	472.0 -> 427.0	27668	1.09	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.2%			
d3-MeFOSAA	8.398	573.0 -> 419.0	35500	5.03	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.6%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	21983	9.60	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.0%			
d3-MeFOSA	10.858	515.0 -> 169.0	9829	2.02	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.9%			
d5-EtFOSAA	8.593	589.0 -> 419.0	31217	5.35	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.0%			
d7-MeFOSE	10.753	623.0 -> 59.0	73264	22.67	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 90.7%			
d9-EtFOSE	11.049	639.0 -> 59.0	96709	22.60	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 90.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	11514	2.21	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.4%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.175	427.0 -> 407.0	221	0.06	µg/L		90
		427.0 -> 81.0	85				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.031	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	3.321	213.0 -> 169.0	2125	0.69	µg/L		100
PFBS	5.847	299.0 -> 80.0	1000	0.19	µg/L		94
		299.0 -> 99.0	459				
PFDA	9.014	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

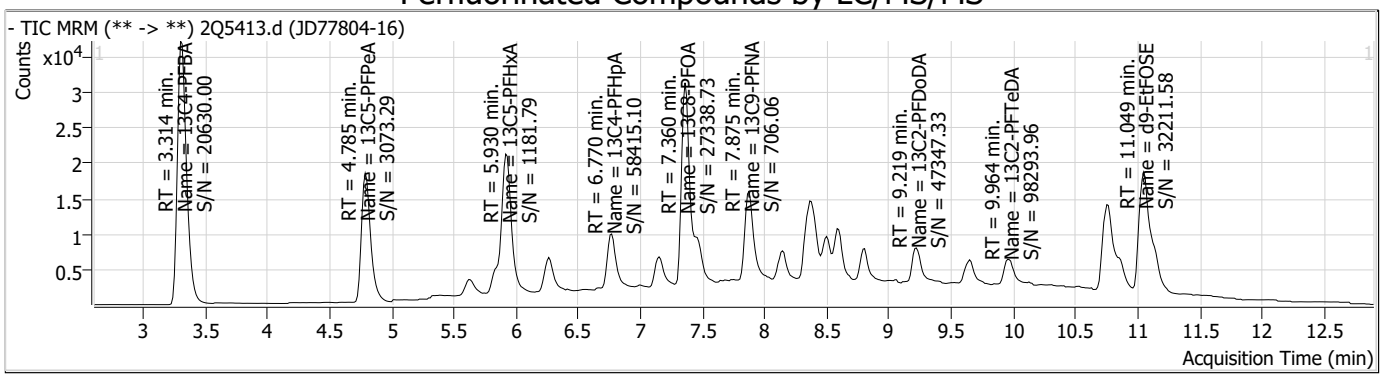
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.770	363.0 -> 319.0	1558	0.12	µg/L		84
		363.0 -> 169.0	149				
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	3161	0.17	µg/L		98
		313.0 -> 119.0	72				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.863	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.348	413.0 -> 369.0	2839	0.11	µg/L	m	85
		413.0 -> 169.0	349				
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	4.799	263.0 -> 219.0	4280	0.26	µg/L		100
PFPeS	7.659	349.0 -> 80.0	0		µg/L	m	1
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.390	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

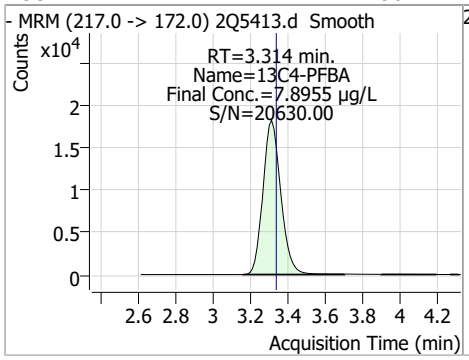
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

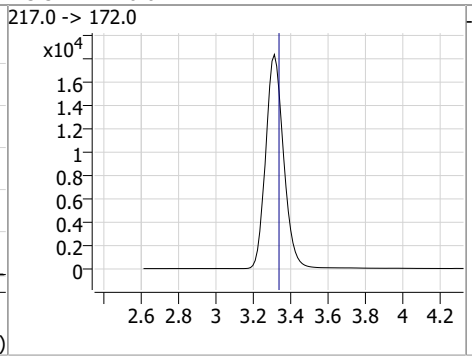
= Qualifier out of range, m = manually integrated, + = Area summed

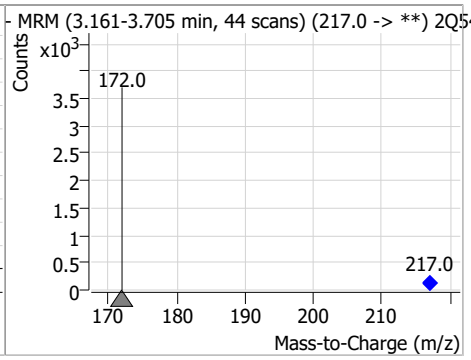
Perfluorinated Compounds by LC/MS/MS



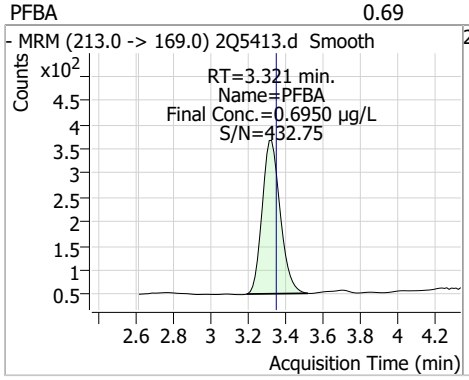
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.90	3.31	-0.02	121772				

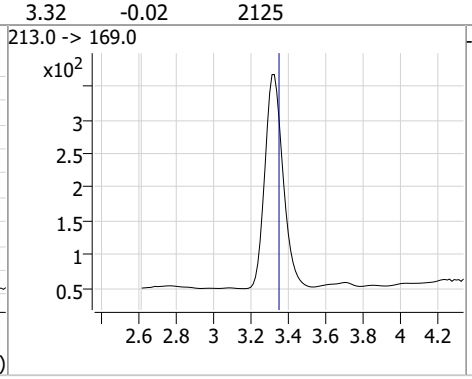


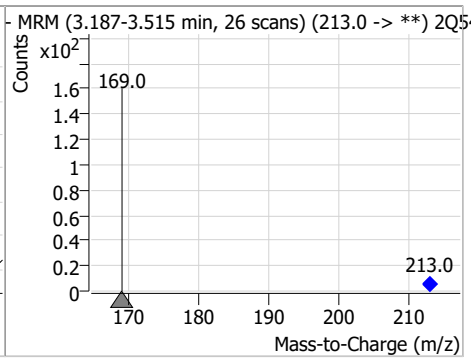




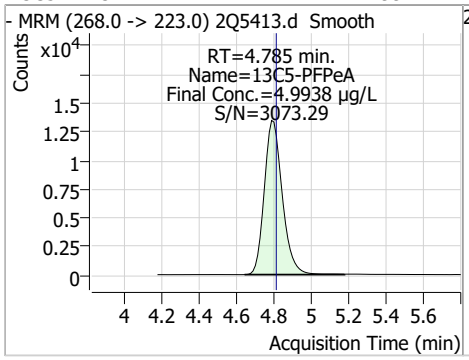
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.69	3.32	-0.02	2125				

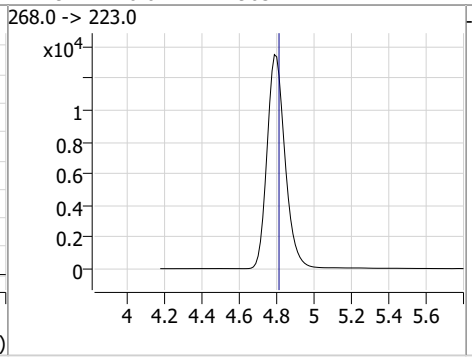


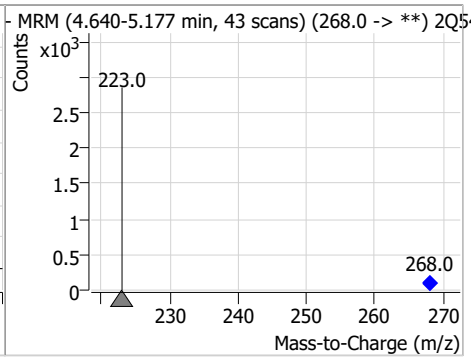




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.99	4.79	-0.02	90342				

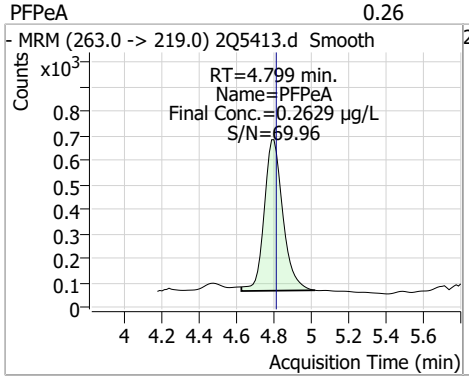


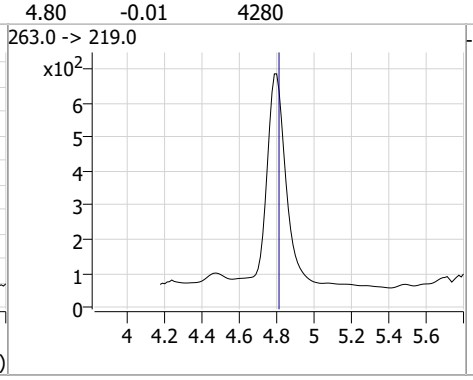


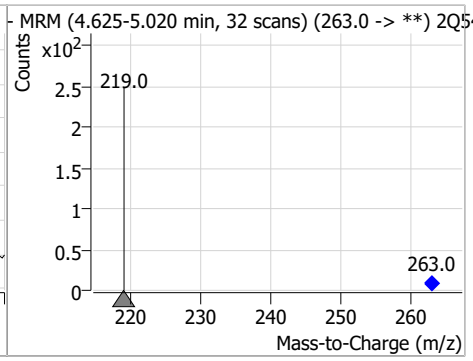


Perfluorinated Compounds by LC/MS/MS

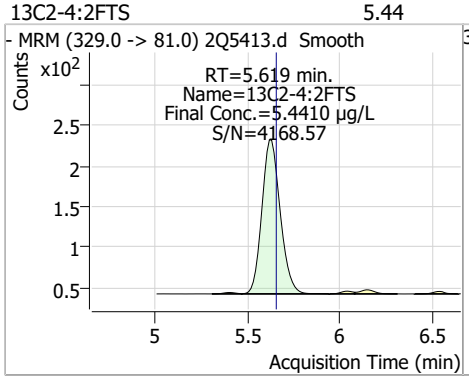
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.26	4.80	-0.01	4280				

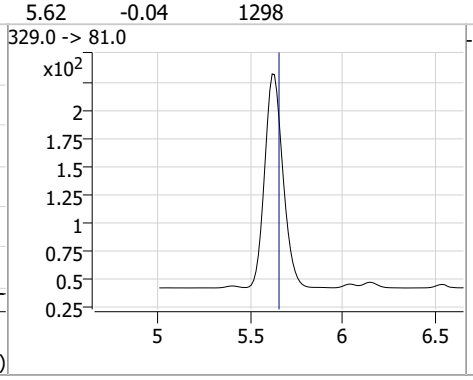


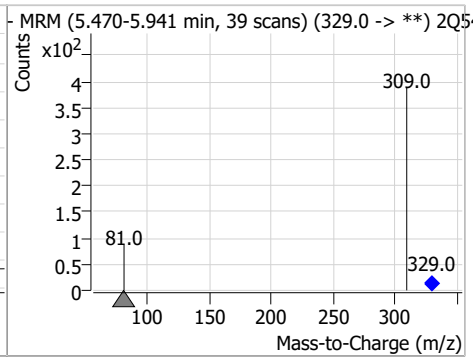




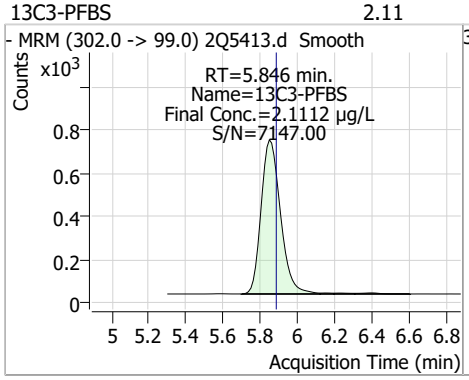
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.44	5.62	-0.04	1298				

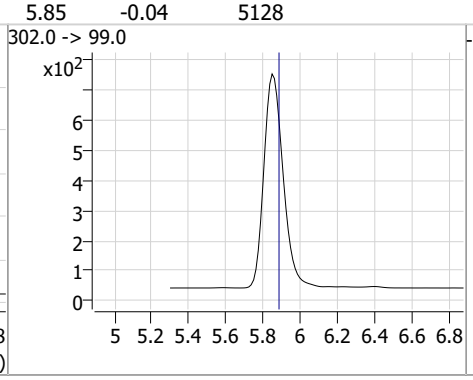


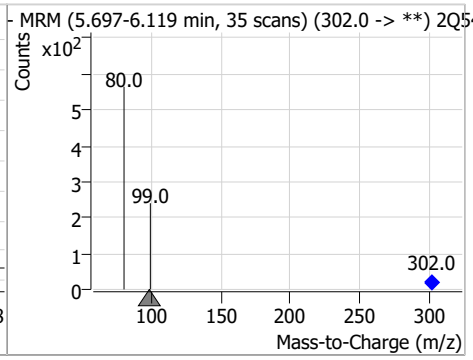




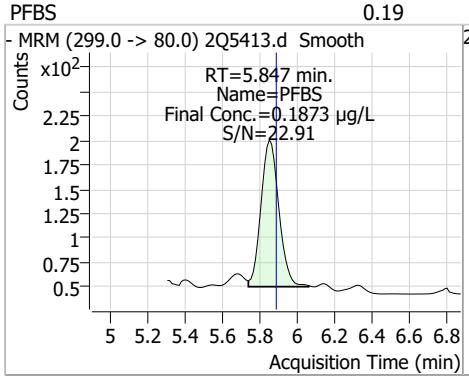
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.11	5.85	-0.04	5128				

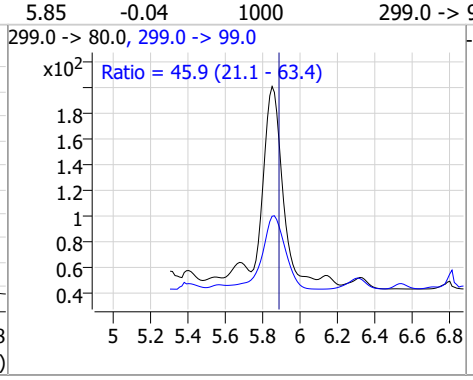


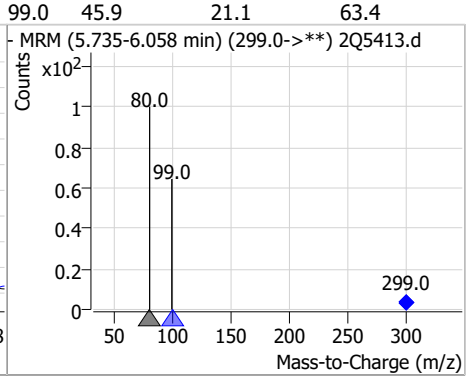




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.19	5.85	-0.04	1000	299.0 -> 99.0	45.9	21.1	63.4

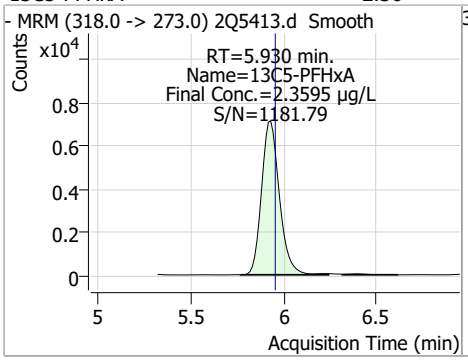


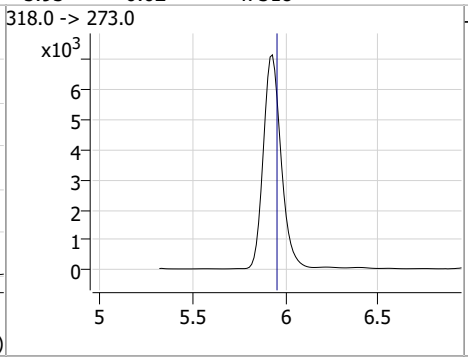


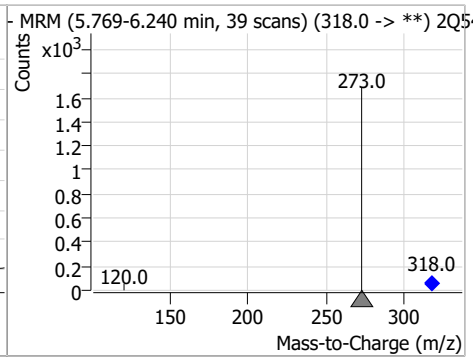


Perfluorinated Compounds by LC/MS/MS

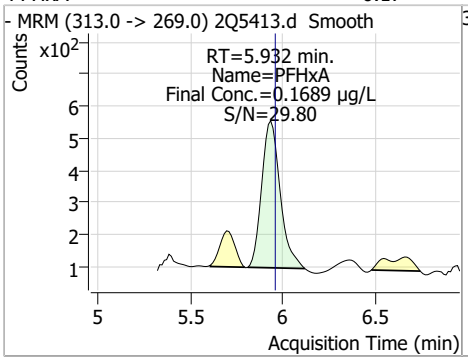
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.36	5.93	-0.02	47318				

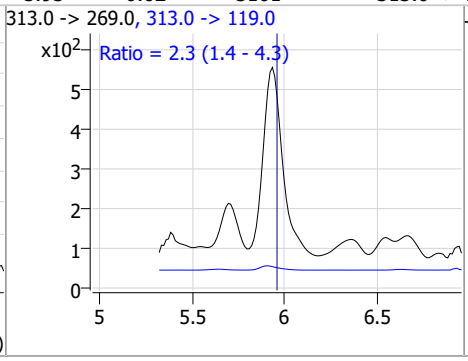


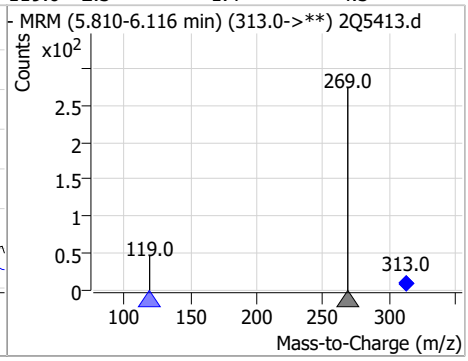




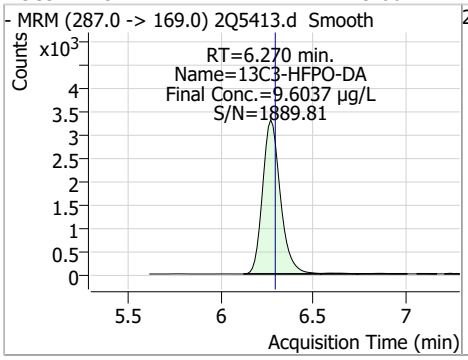
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.17	5.93	-0.02	3161	313.0 -> 119.0	2.3	1.4	4.3

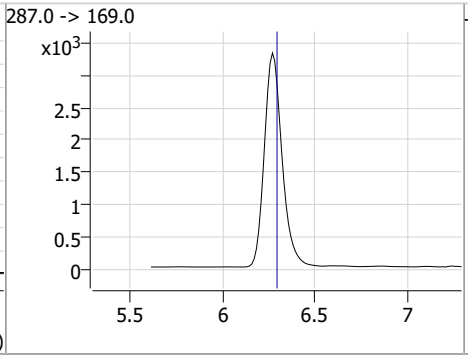


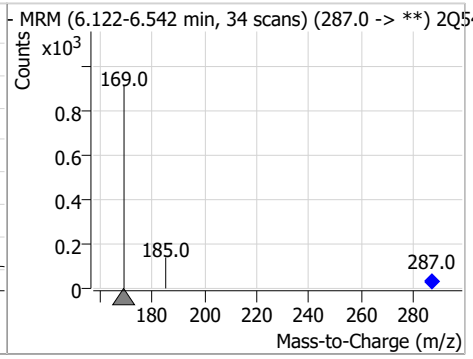




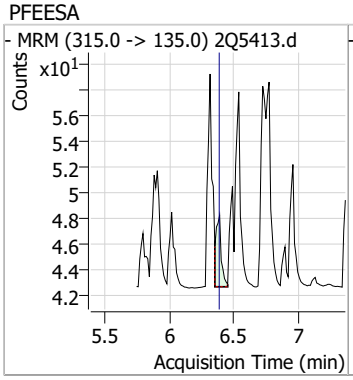
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.60	6.27	-0.02	21983				

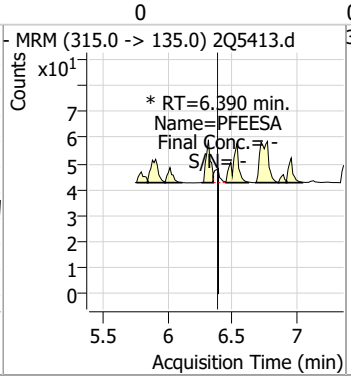


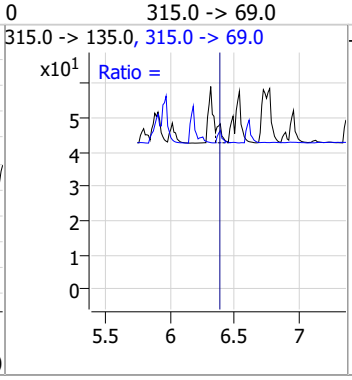


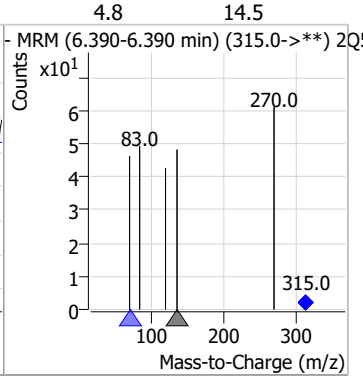


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



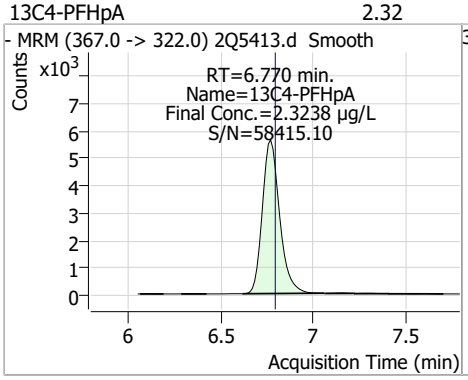


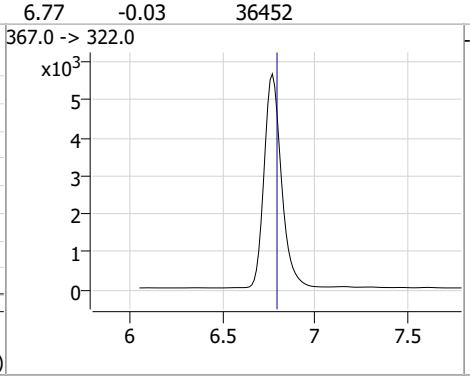


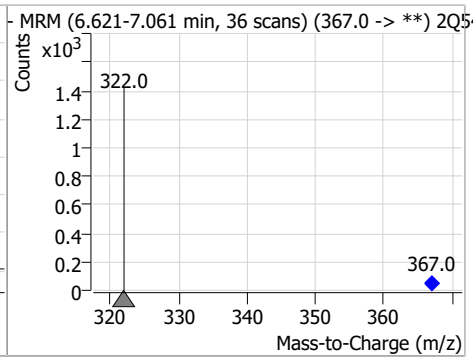


Perfluorinated Compounds by LC/MS/MS

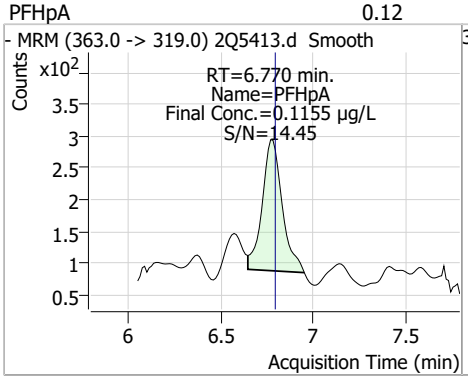
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.32	6.77	-0.03	36452				

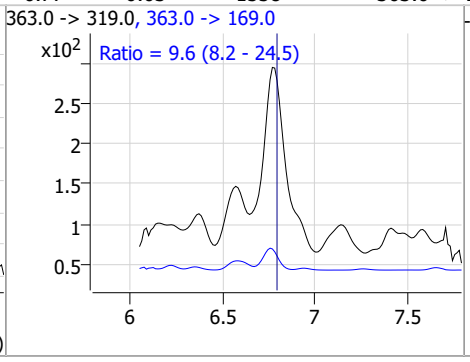


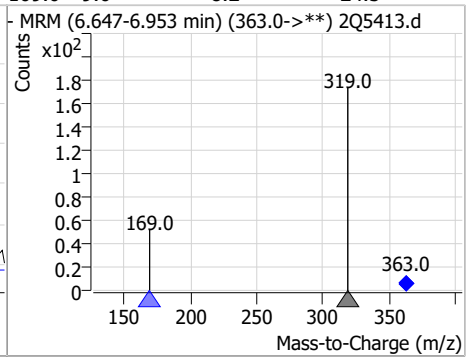




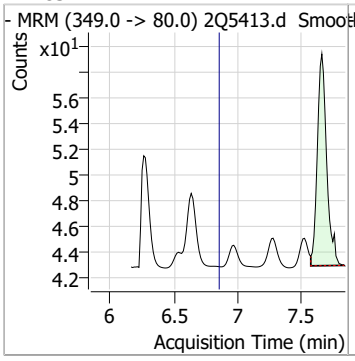
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.12	6.77	-0.03	1558	363.0 -> 169.0	9.6	8.2	24.5

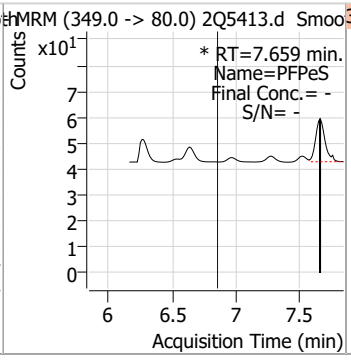


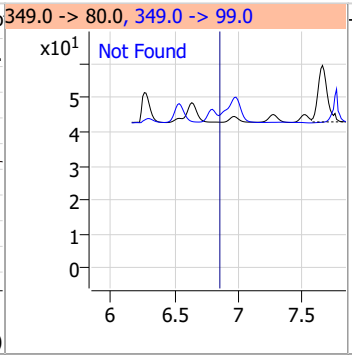


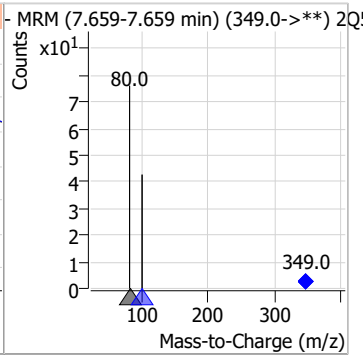


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0	0		0	349.0 -> 99.0		21.5	64.4

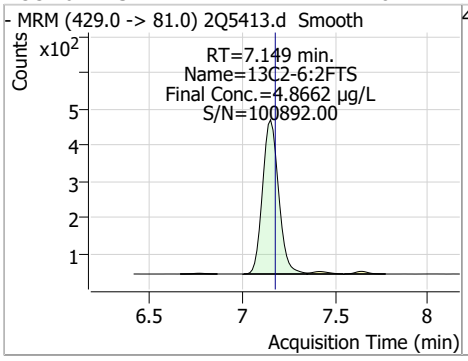


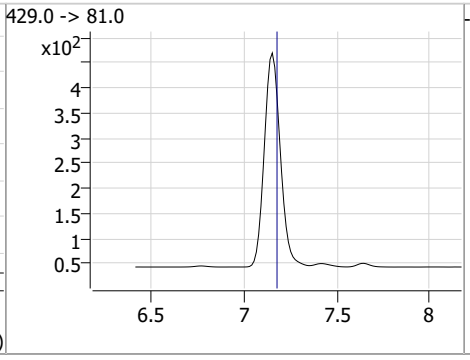


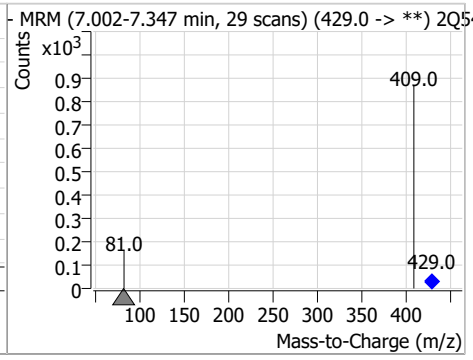




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.87	7.15	-0.03	2573				

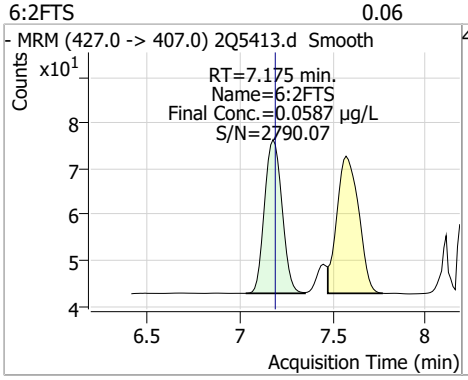


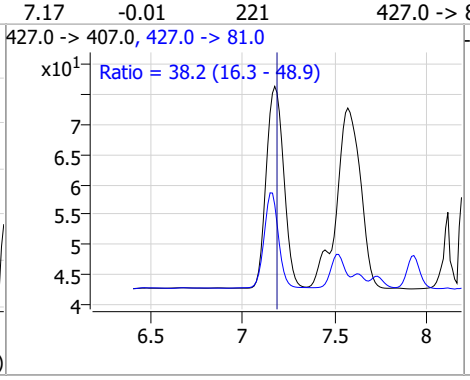


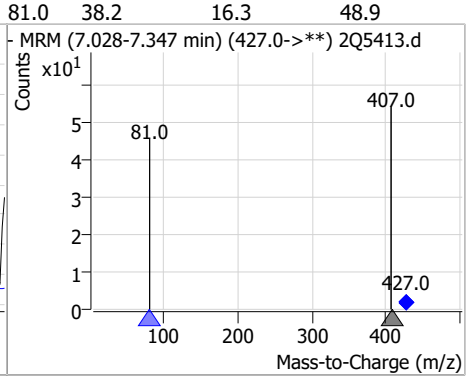


Perfluorinated Compounds by LC/MS/MS

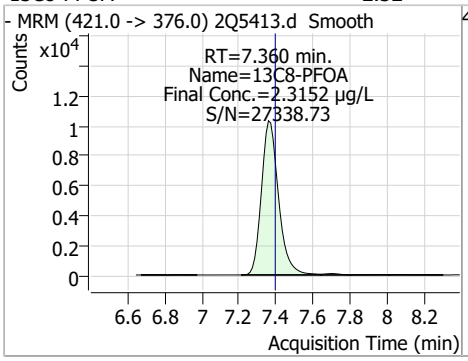
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.06	7.17	-0.01	221	427.0 -> 81.0	38.2	16.3	48.9

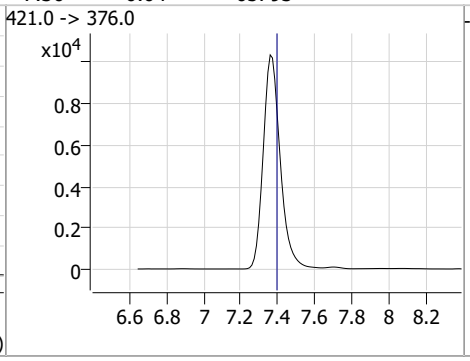


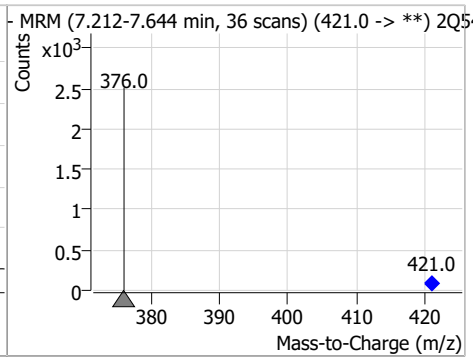




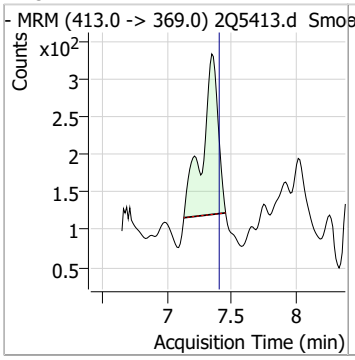
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.32	7.36	-0.04	65793				

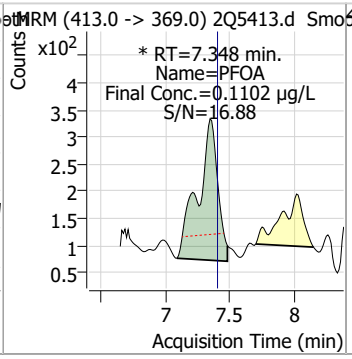


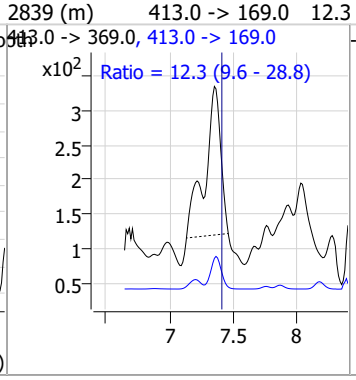


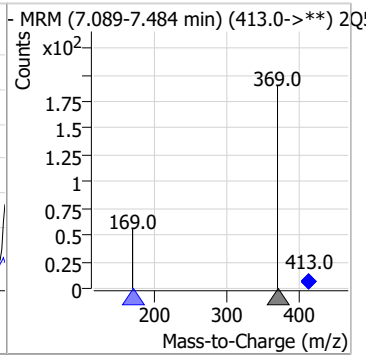


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.11	7.35	-0.05	2839 (m)	413.0 -> 169.0	12.3	9.6	28.8

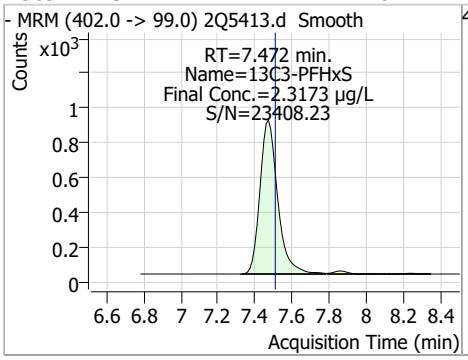


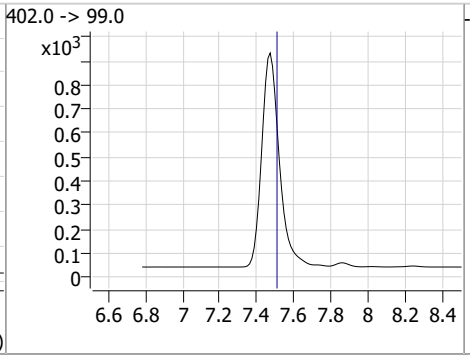


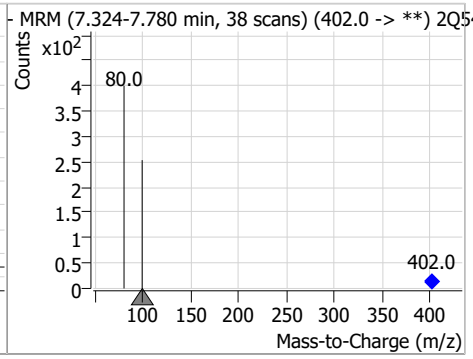




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.32	7.47	-0.04	5906				

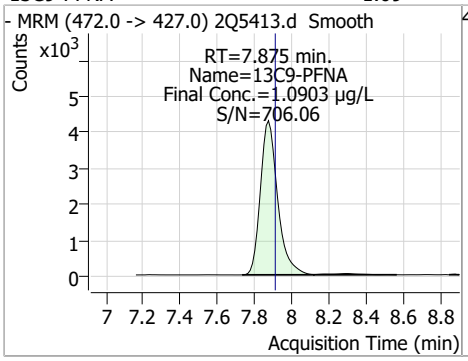


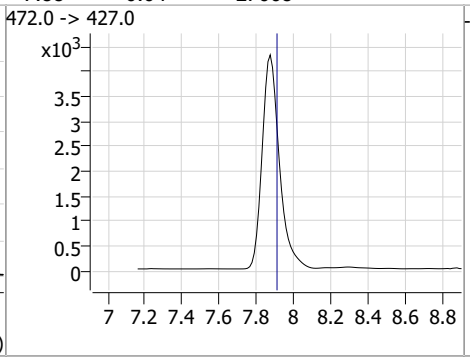


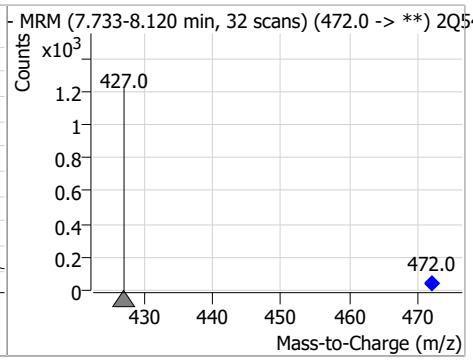


Perfluorinated Compounds by LC/MS/MS

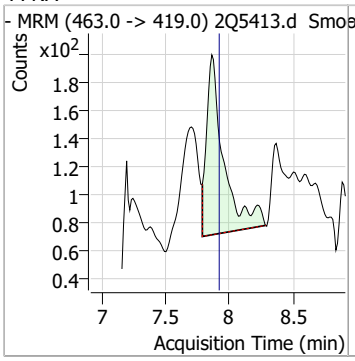
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.09	7.88	-0.04	27668				

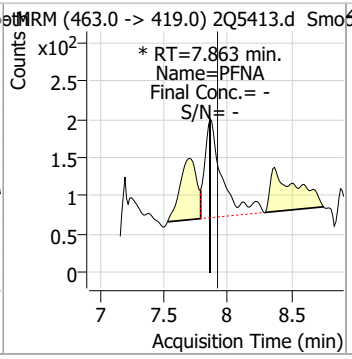


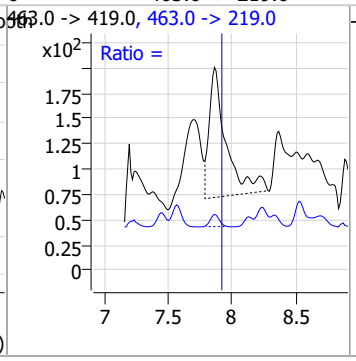


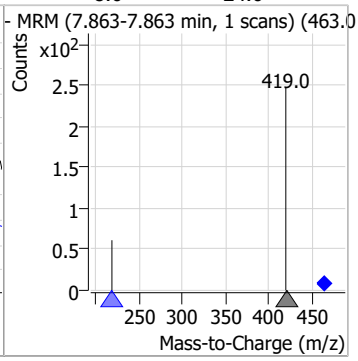


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0

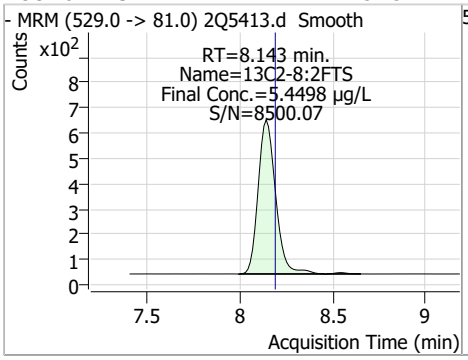


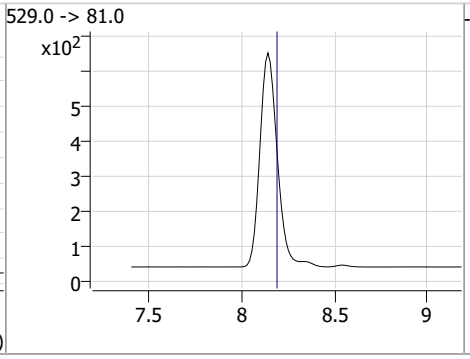


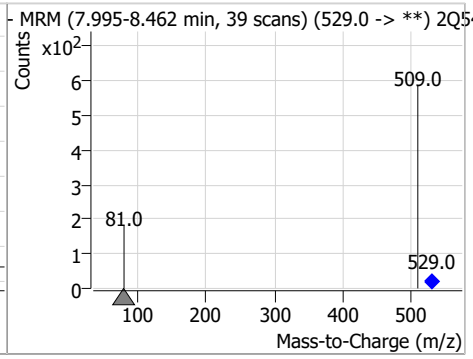




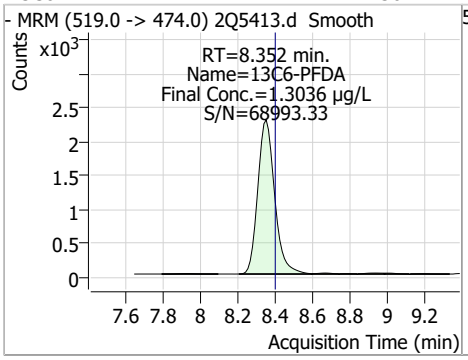
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.45	8.14	-0.05	3991				

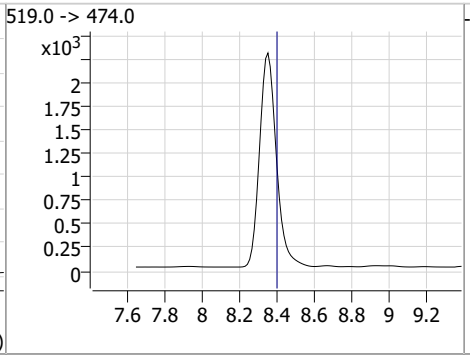


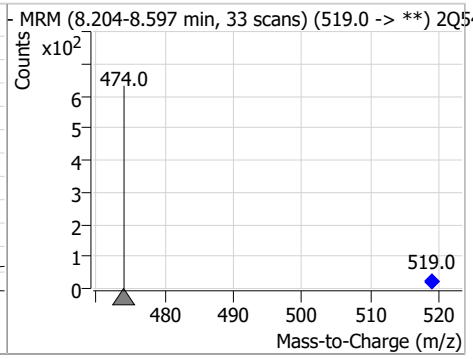




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.30	8.35	-0.05	14345				

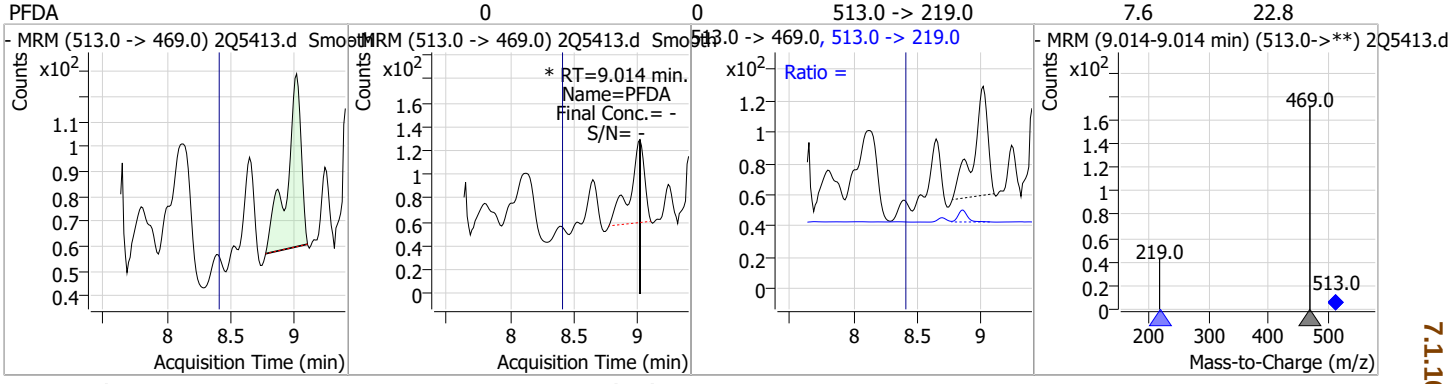




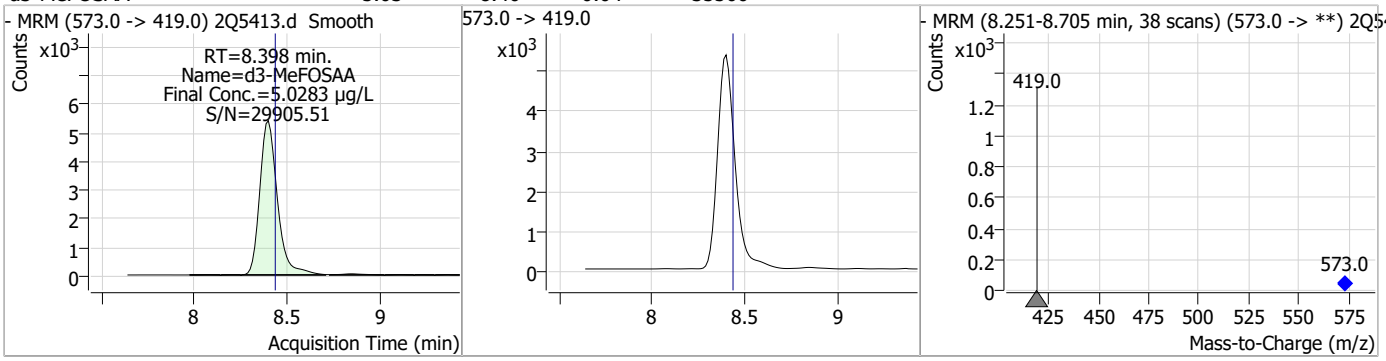


Perfluorinated Compounds by LC/MS/MS

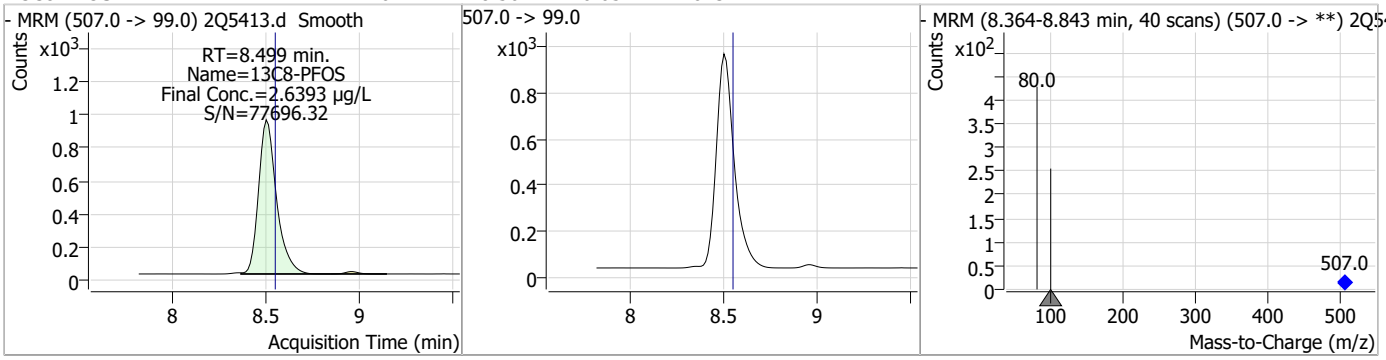
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8



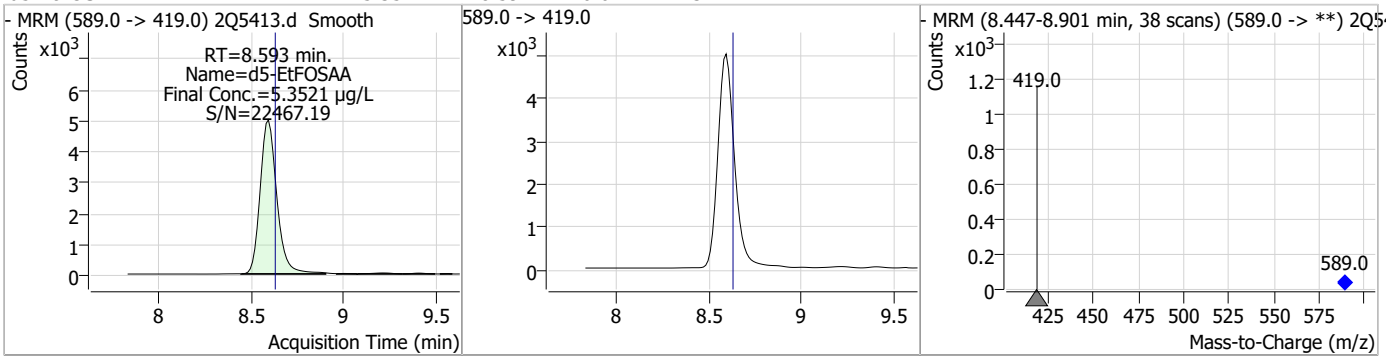
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.03	8.40	-0.04	35500				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.64	8.50	-0.05	6234				

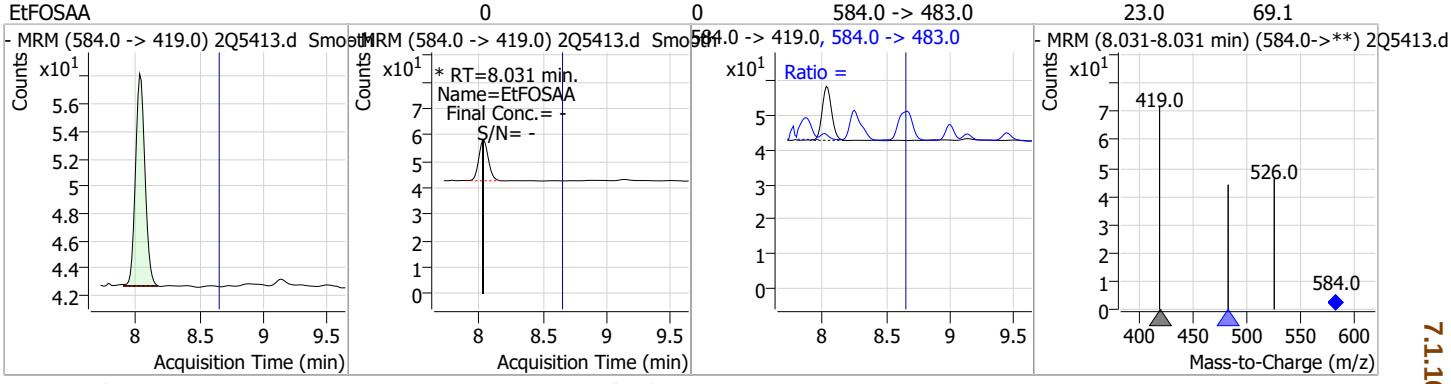


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.35	8.59	-0.04	31217				

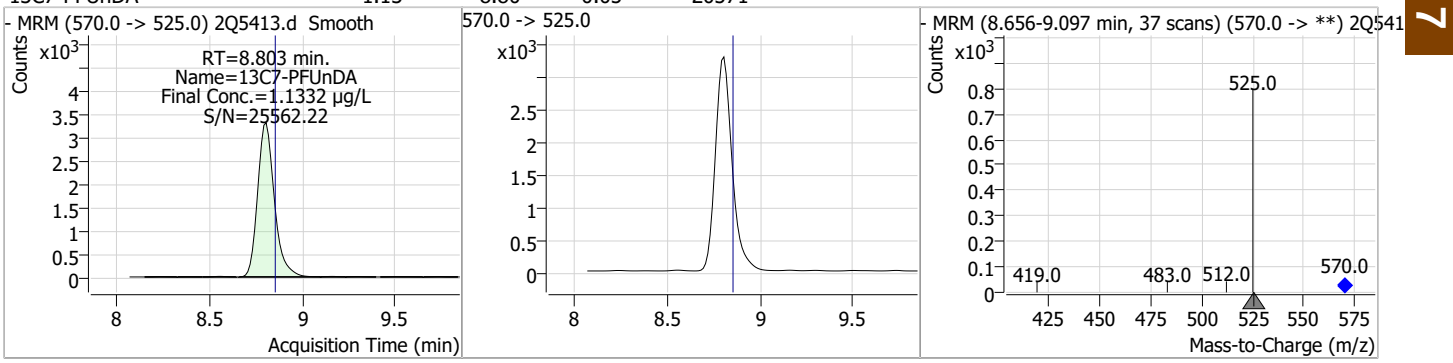


Perfluorinated Compounds by LC/MS/MS

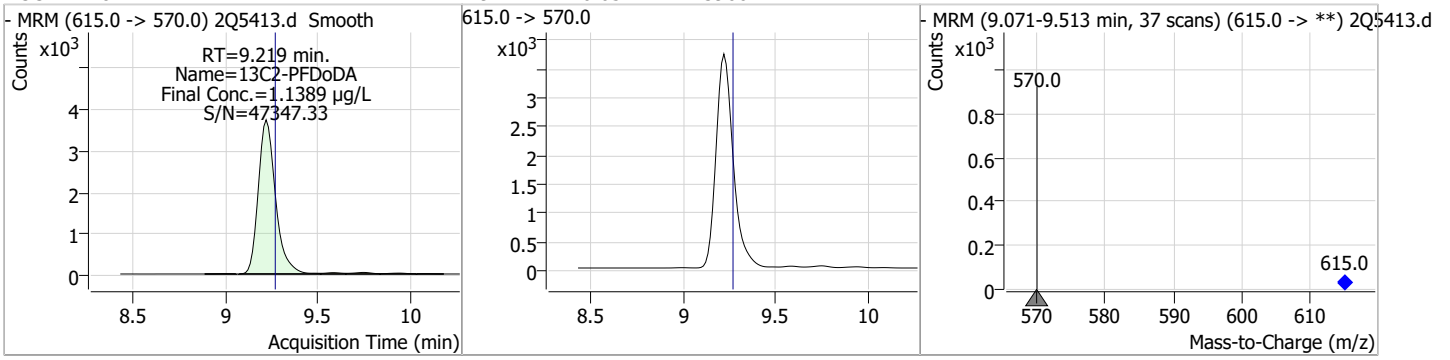
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1



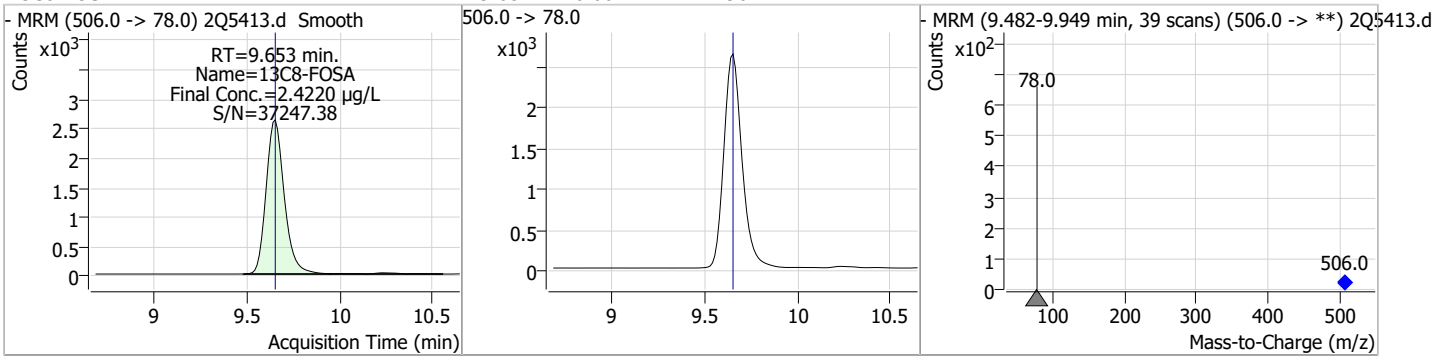
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.13	8.80	-0.05	20571				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.14	9.22	-0.05	23966				

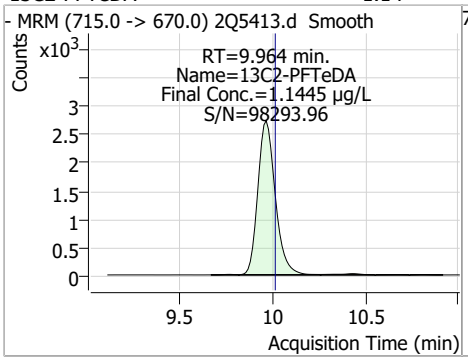


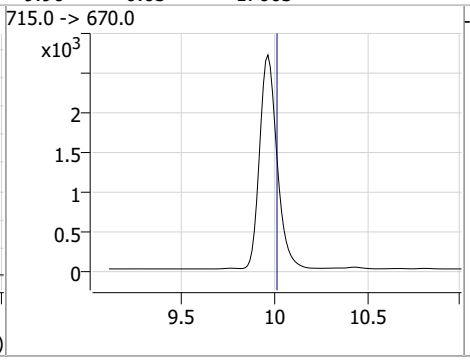
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.42	9.65	0.00	17790				

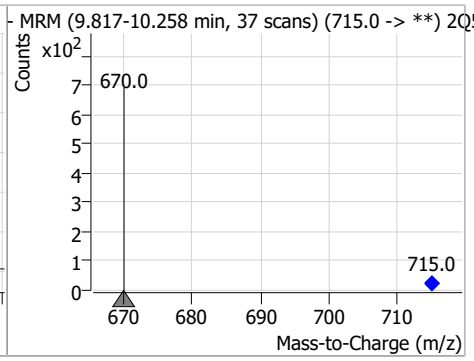


Perfluorinated Compounds by LC/MS/MS

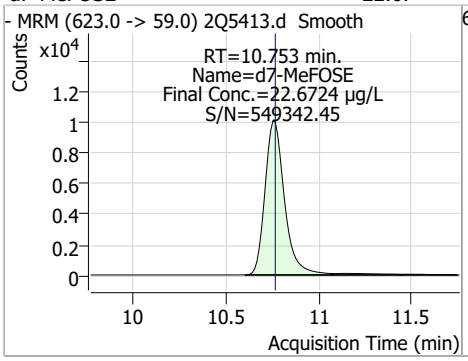
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.14	9.96	-0.05	17663				

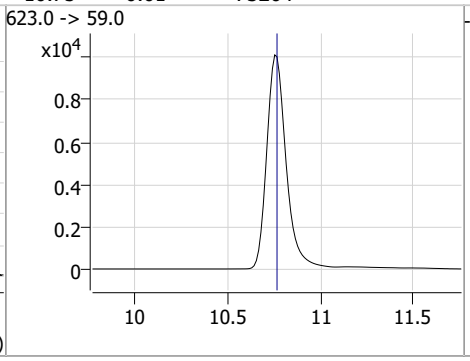


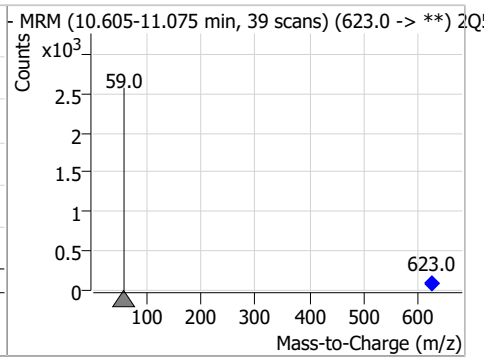




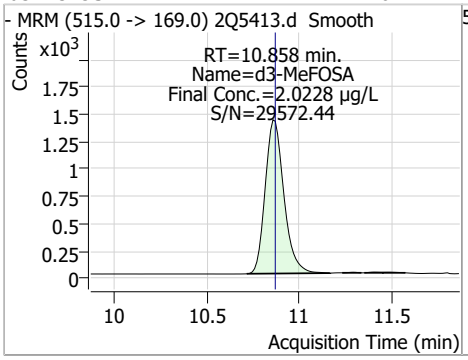
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	22.67	10.75	-0.01	73264				

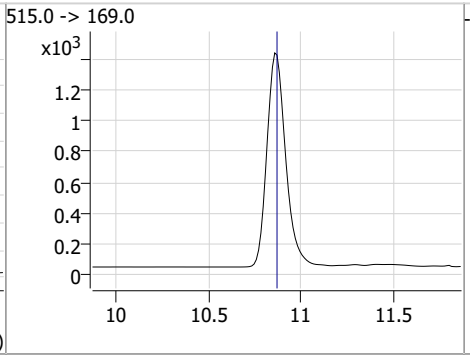


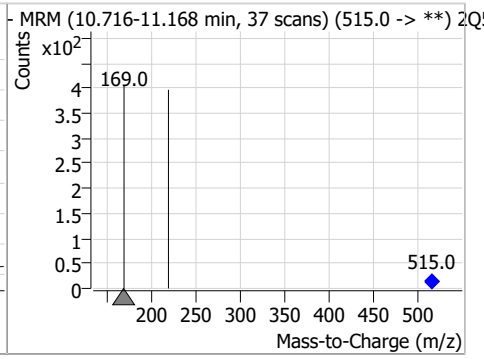




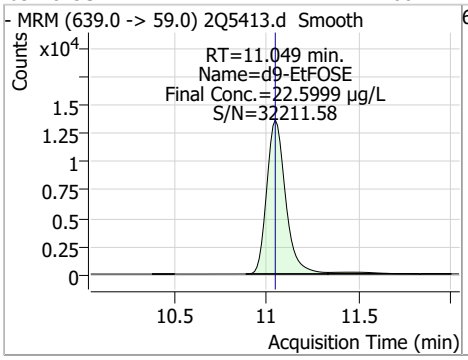
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.02	10.86	-0.01	9829				

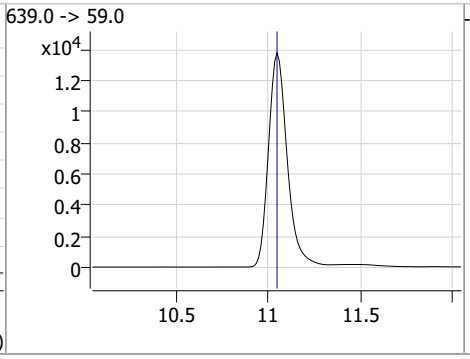


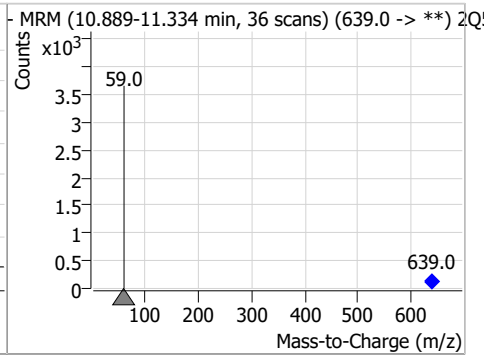




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.60	11.05	0.00	96709				

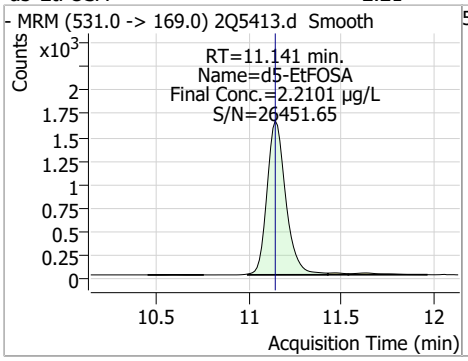


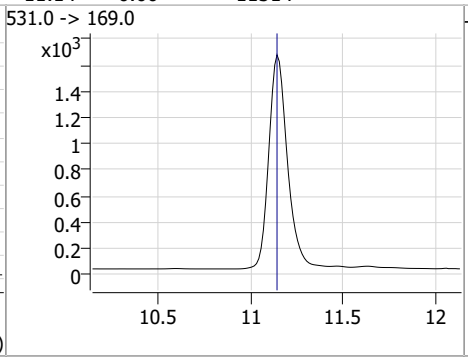


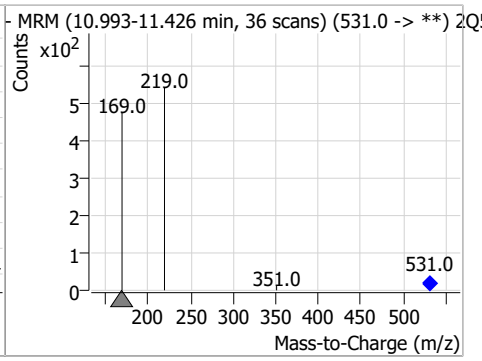


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.21	11.14	0.00	11514				







Manual Integration Approval Summary

Sample Number: JD77804-16
Lab FileID: 2Q5413.D
Injection Time: 12/02/23 08:34
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorooctanoic acid	335-67-1		7.35	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5414.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 8:49:54 AM
Sample Name : JD77804-17
Vial : P3-B3
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,468,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	171934	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	103592	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	56672	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	45988	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	77156	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	32382	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	15265	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	21018	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	25022	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16924	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19681	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6246	2.50	µg/L	-0.037
		302.0 -> 80.0	15476			
M3-PFHxS	7.472	402.0 -> 99.0	6020	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	7190	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1412	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2834	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4498	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	44633	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	26672	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	34036	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	78218	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	105017	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11511	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	11471	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	10764	2.50	µg/L	-0.049
13C3-PFBA	3.317	216.0 -> 172.0	74739	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6906	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	67258	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	28728	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35534	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	51981	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1412	5.60	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.0%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2834	5.07	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4498	5.81	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 116.2%		
13C2-PFDoDA	9.219	615.0 -> 570.0	25022	1.09	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.3%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16924	1.01	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 80.5%		
13C3-PFBS	5.846	302.0 -> 99.0	6246	2.43	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6020	2.23	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.4%			
13C4-PFBA	3.314	217.0 -> 172.0	171934	10.22	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.2%			
13C4-PFHpA	6.770	367.0 -> 322.0	45988	2.72	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.9%			
13C5-PFHxA	5.930	318.0 -> 273.0	56672	2.62	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.0%			
13C5-PFPeA	4.798	268.0 -> 223.0	103592	5.32	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.3%			
13C6-PFDA	8.352	519.0 -> 474.0	15265	1.27	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 101.8%			
13C7-PFUnDA	8.803	570.0 -> 525.0	21018	1.06	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.0%			
13C8-FOSA	9.653	506.0 -> 78.0	19681	2.70	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.0%			
13C8-PFOA	7.360	421.0 -> 376.0	77156	2.77	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 110.8%			
13C8-PFOS	8.499	507.0 -> 99.0	7190	3.07	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 122.7%			
13C9-PFNA	7.875	472.0 -> 427.0	32382	1.16	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.2%			
d3-MeFOSAA	8.398	573.0 -> 419.0	44633	6.37	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 127.4%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	26672	10.82	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 108.2%			
d3-MeFOSA	10.871	515.0 -> 169.0	11471	2.38	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.2%			
d5-EtFOSAA	8.593	589.0 -> 419.0	34036	5.88	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 117.6%			
d7-MeFOSE	10.753	623.0 -> 59.0	78218	24.39	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 97.6%			
d9-EtFOSE	11.049	639.0 -> 59.0	105017	24.73	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 98.9%			
d5-EtFOSA	11.141	531.0 -> 169.0	11511	2.23	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.1%			
Target Compounds							QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.163	427.0 -> 407.0	191	0.05	µg/L		84
		427.0 -> 81.0	45				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	8.411	570.0 -> 419.0	87	0.02	µg/L	m	96
		570.0 -> 512.0	33				
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	8.524	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

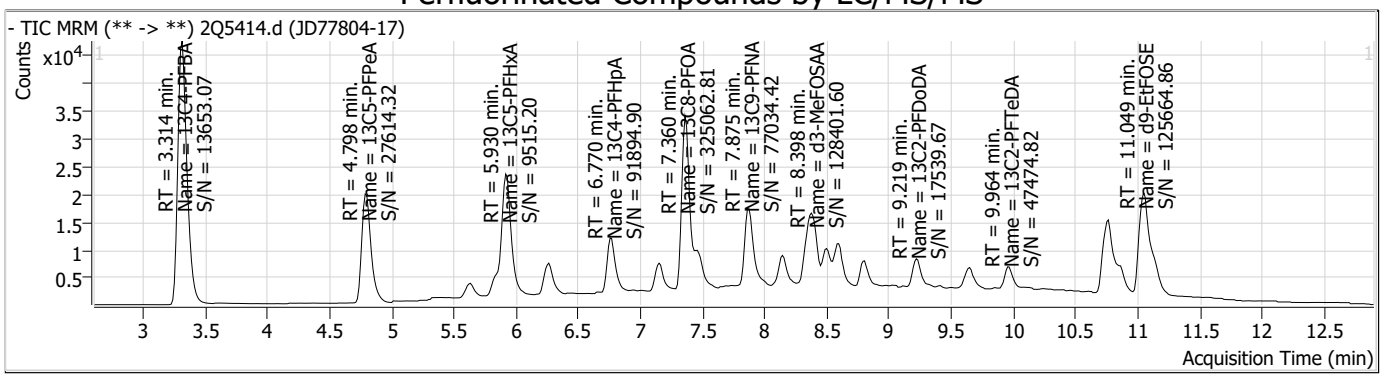
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	-	313.0 -> 269.0	-	N.D.			
		313.0 -> 119.0					
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.876	463.0 -> 419.0	1362	0.06	µg/L	m	86
		463.0 -> 219.0	139				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.291	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

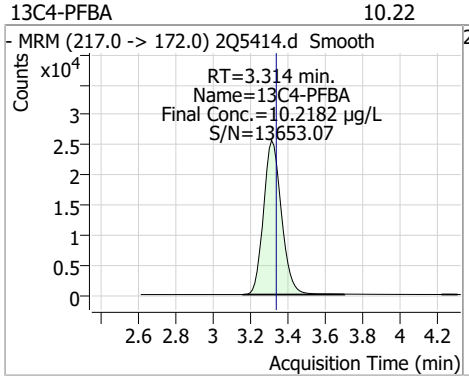
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

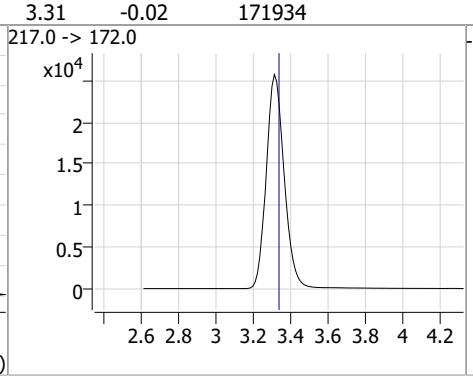
= Qualifier out of range, m = manually integrated, + = Area summed

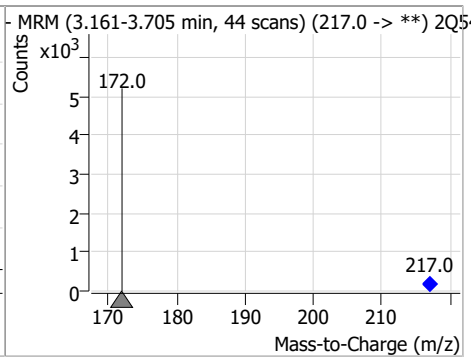
Perfluorinated Compounds by LC/MS/MS



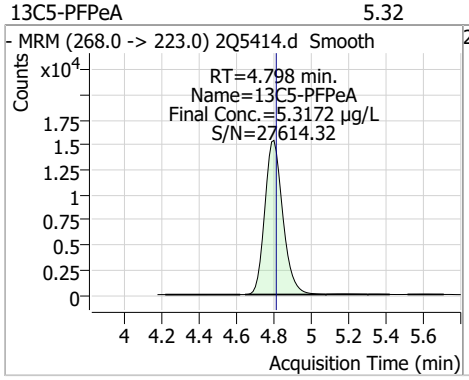
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.22	3.31	-0.02	171934				

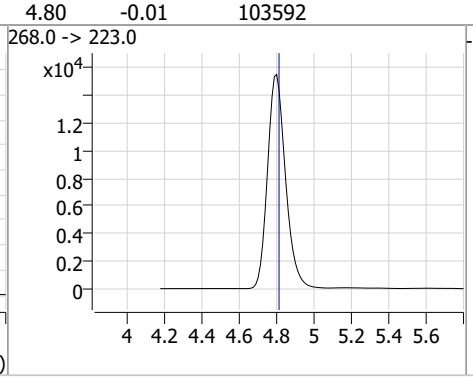


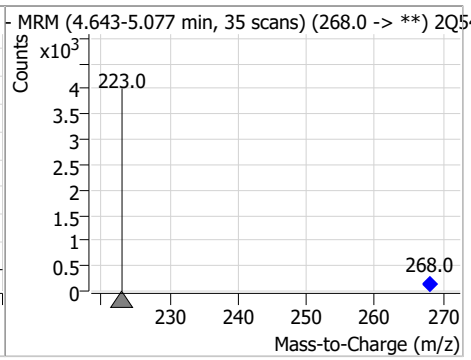




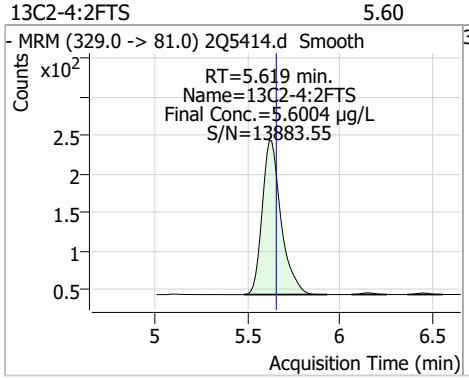
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.32	4.80	-0.01	103592				

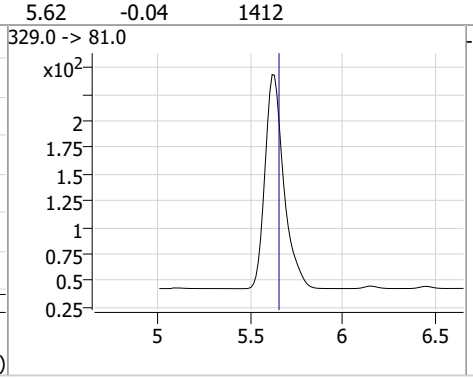


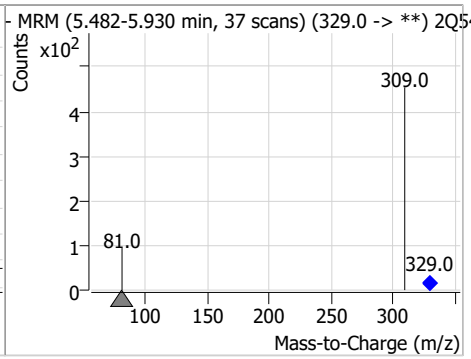




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.60	5.62	-0.04	1412				

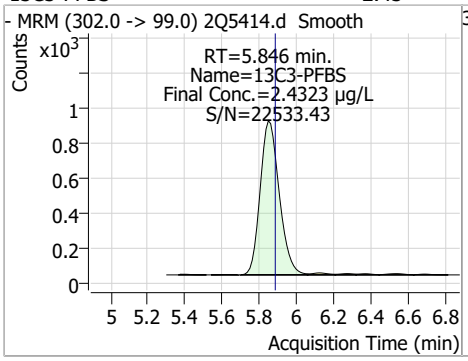


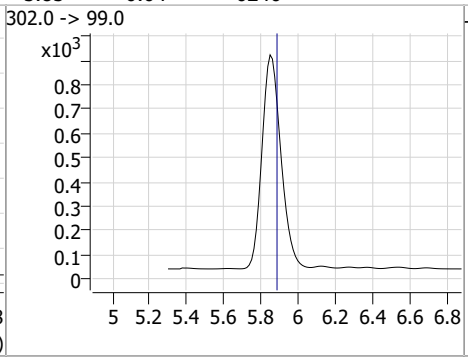


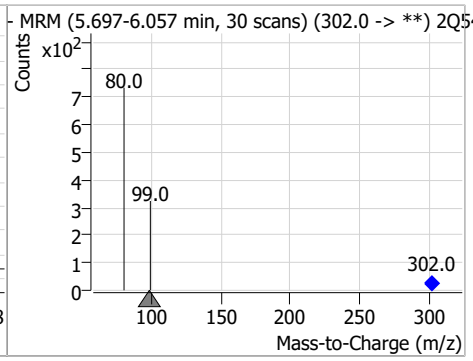


Perfluorinated Compounds by LC/MS/MS

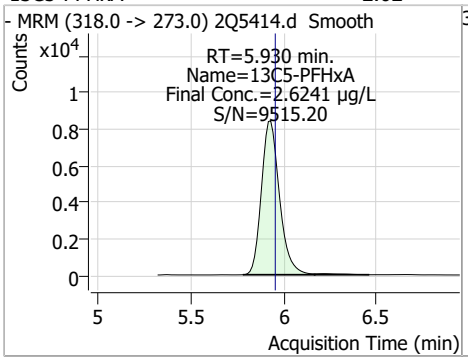
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.43	5.85	-0.04	6246				

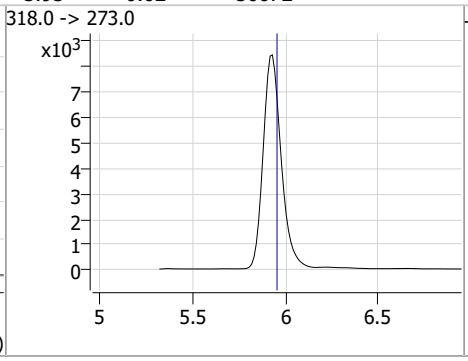


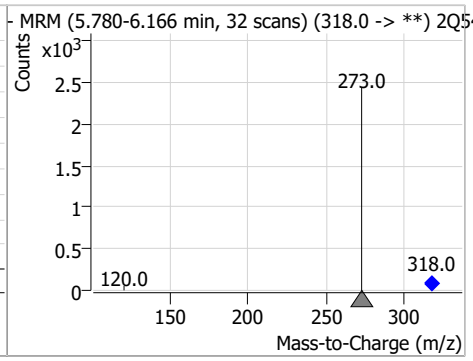




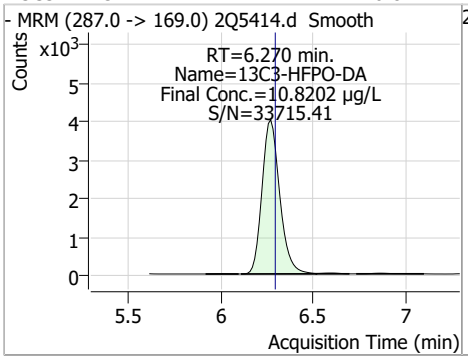
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.62	5.93	-0.02	56672				

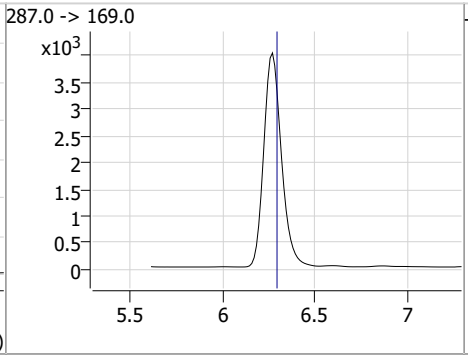


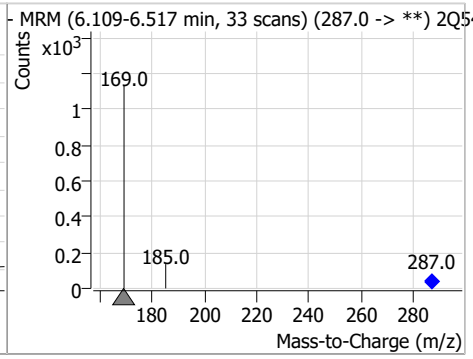




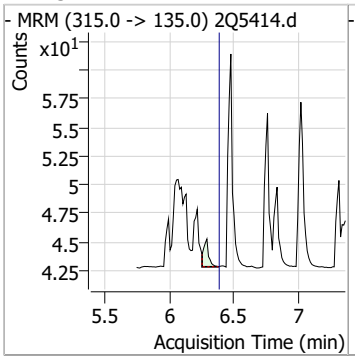
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.82	6.27	-0.02	26672				

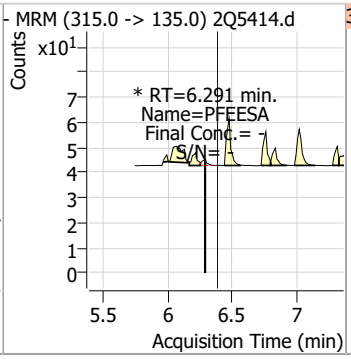


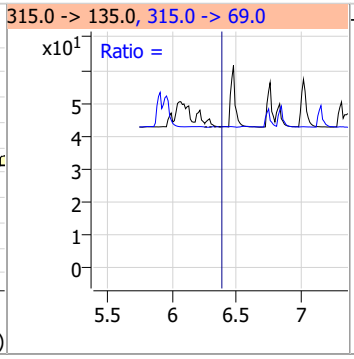


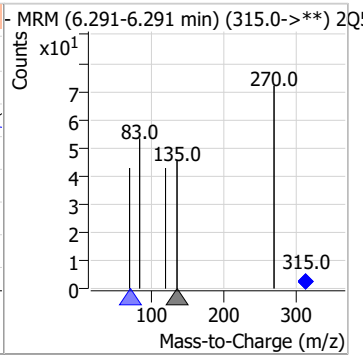


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



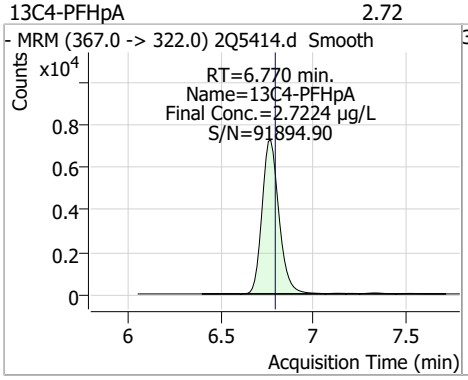


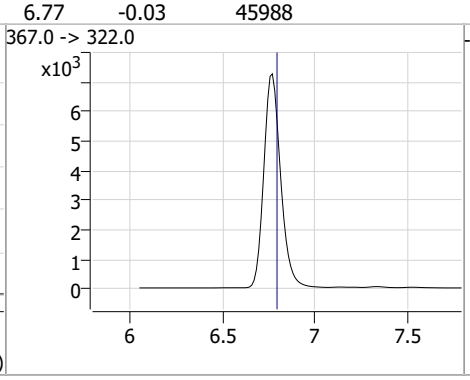


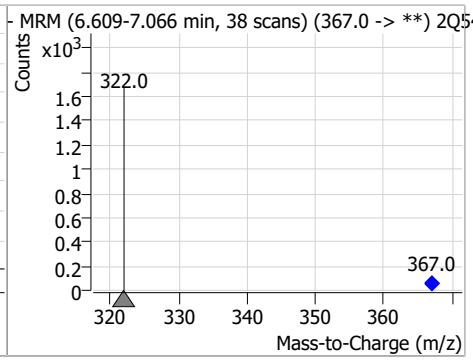


Perfluorinated Compounds by LC/MS/MS

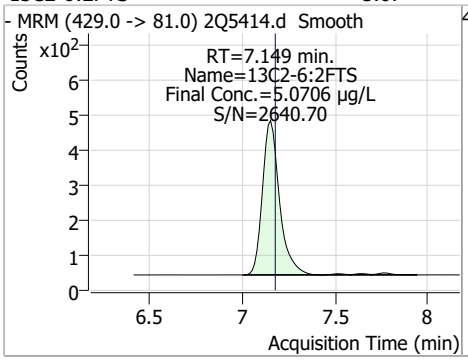
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.72	6.77	-0.03	45988				

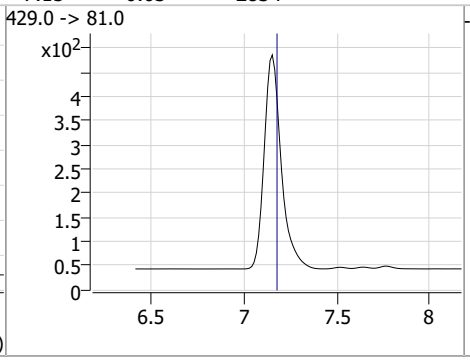


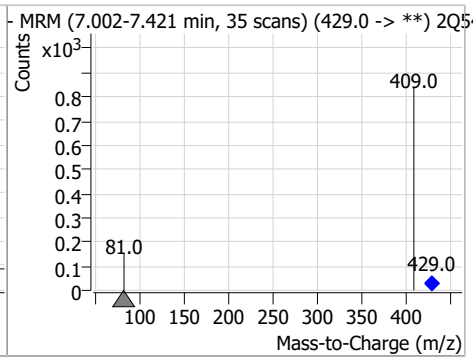




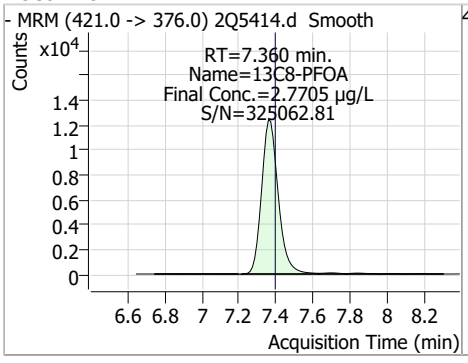
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.07	7.15	-0.03	2834				

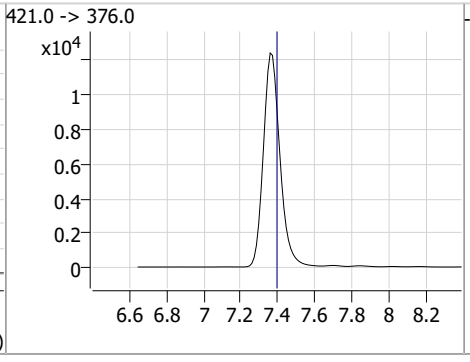


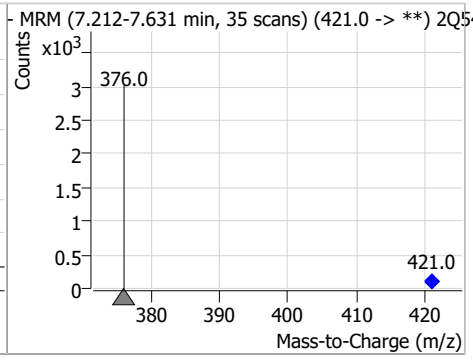




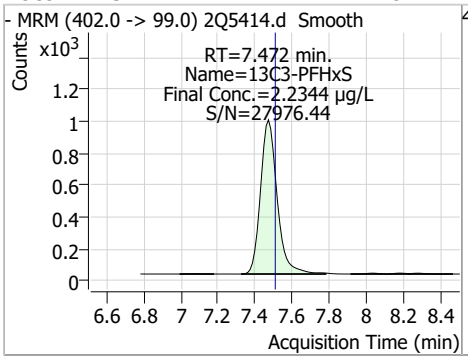
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.77	7.36	-0.04	77156				

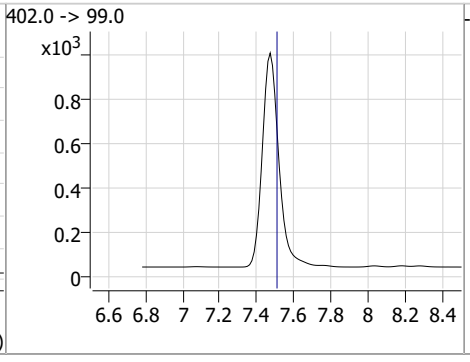


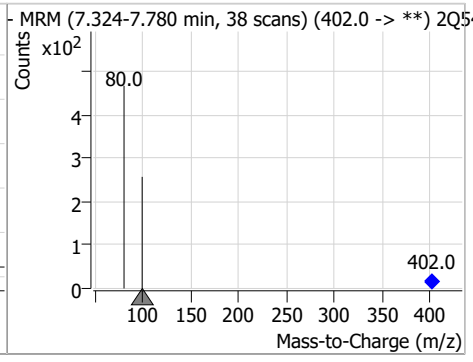




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.23	7.47	-0.04	6020				

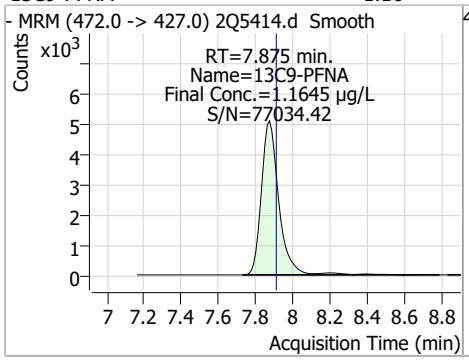


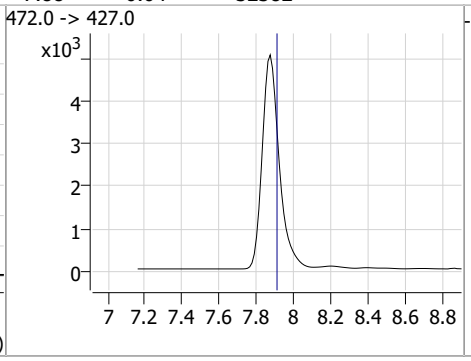


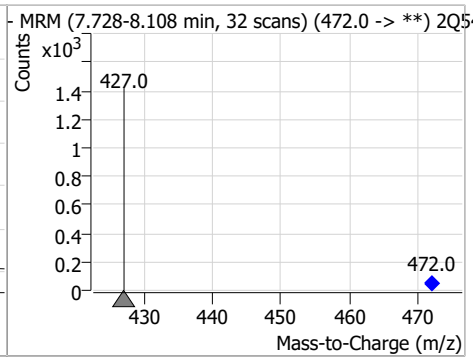


Perfluorinated Compounds by LC/MS/MS

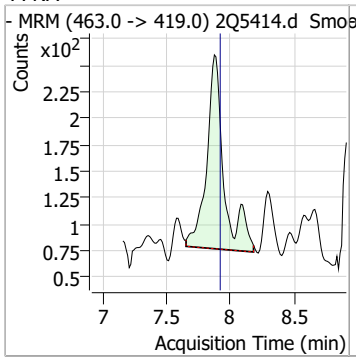
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.16	7.88	-0.04	32382				

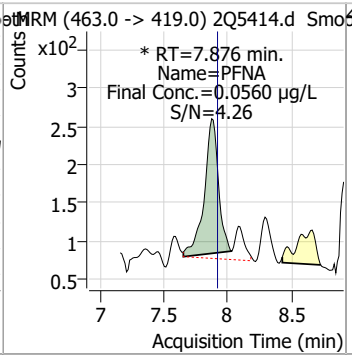


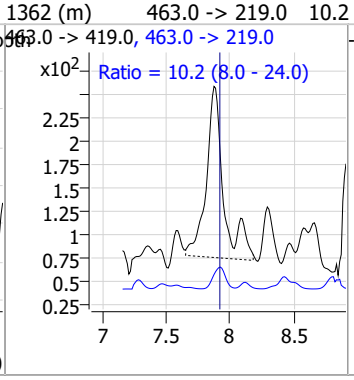


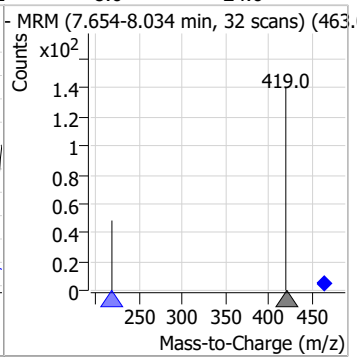


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.06	7.88	-0.04	1362 (m)	463.0 -> 219.0	10.2	8.0	24.0

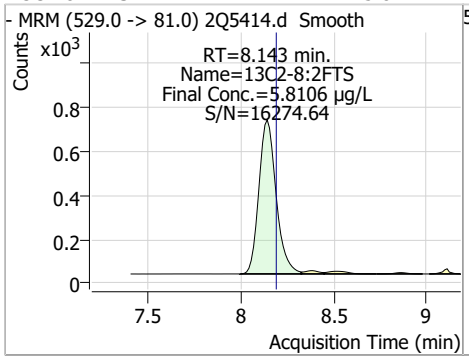


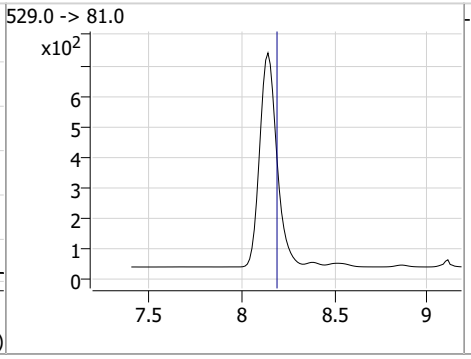


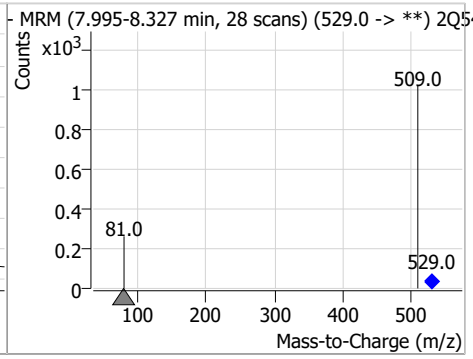




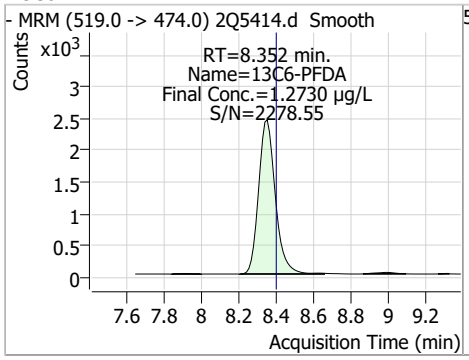
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.81	8.14	-0.05	4498				

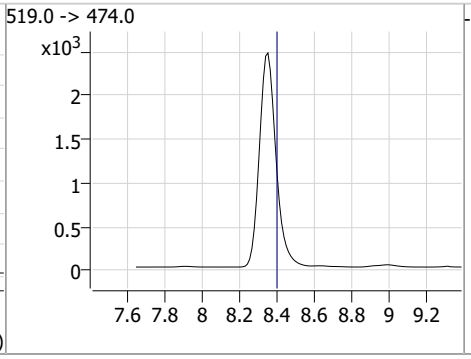


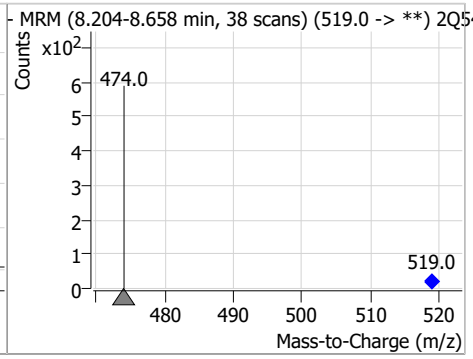




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.27	8.35	-0.05	15265				

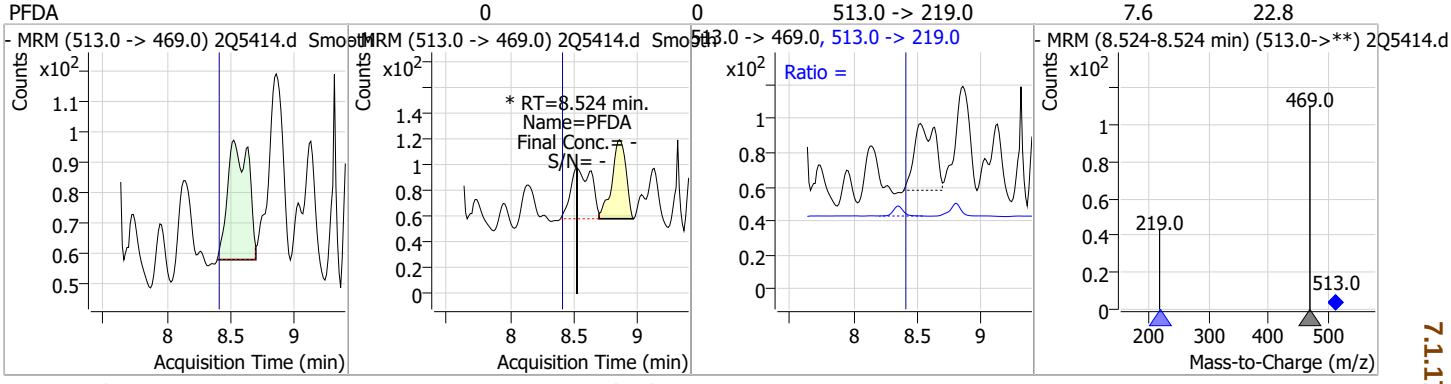




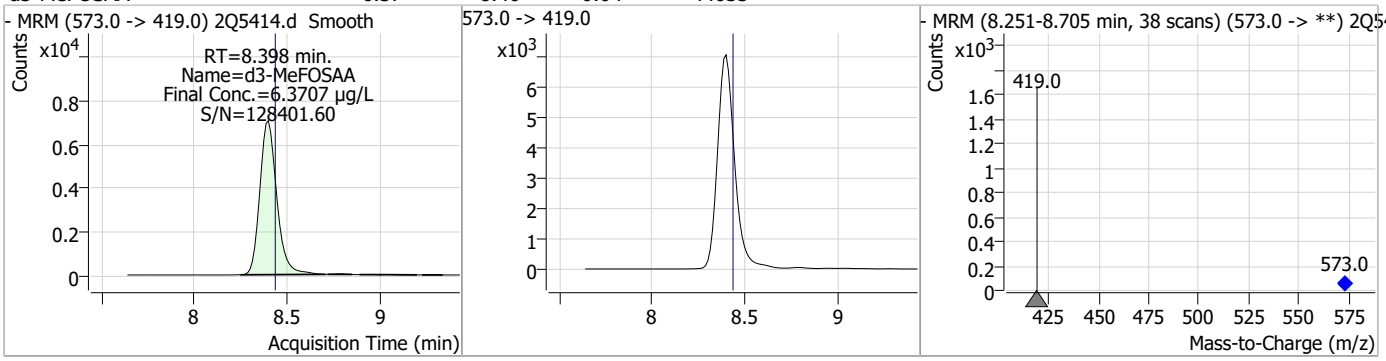


Perfluorinated Compounds by LC/MS/MS

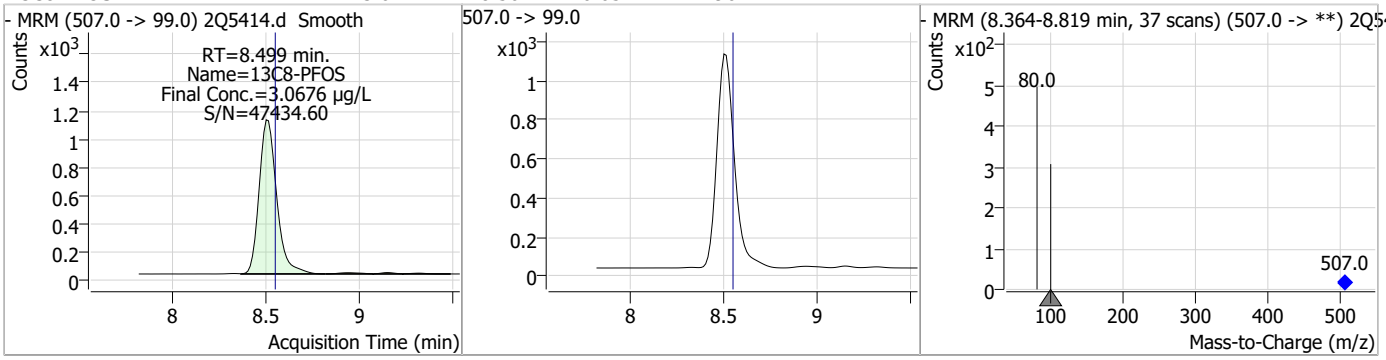
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8



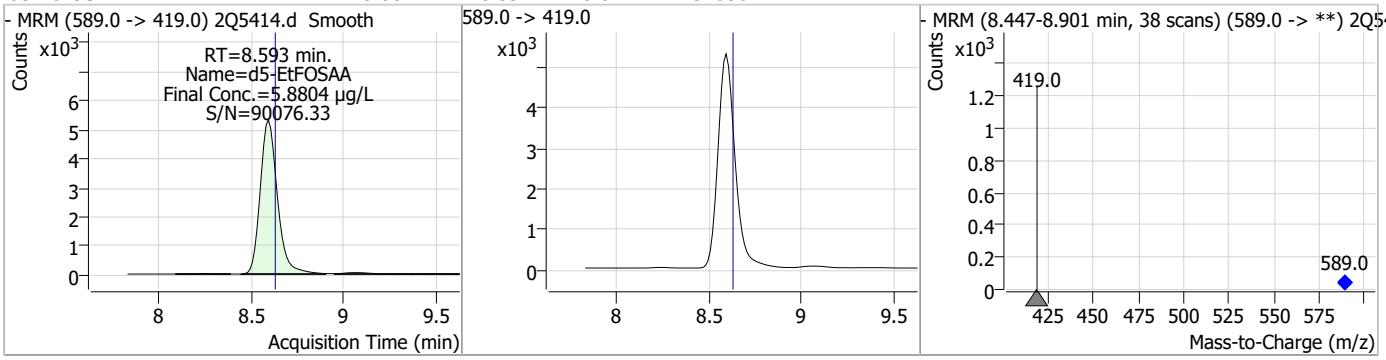
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	6.37	8.40	-0.04	44633				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	3.07	8.50	-0.05	7190				

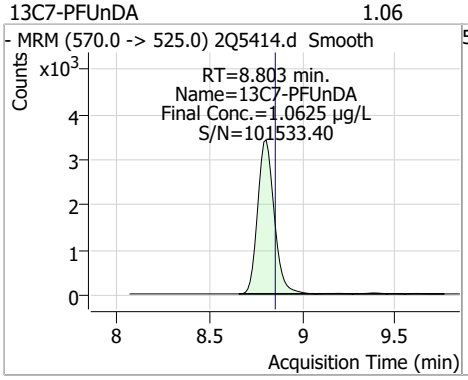


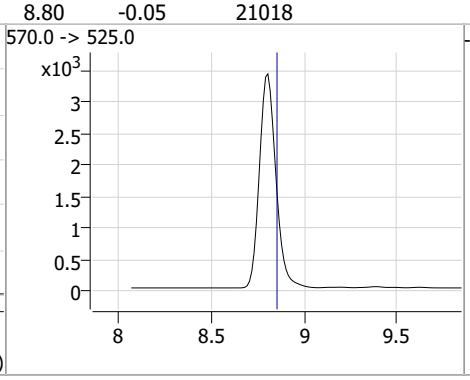
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.88	8.59	-0.04	34036				

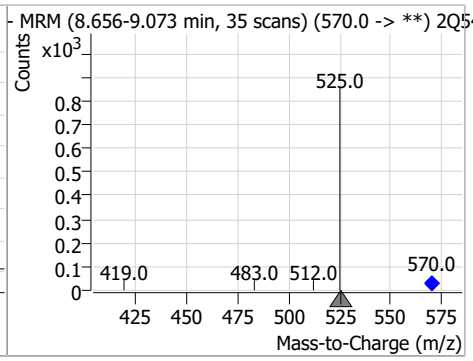


Perfluorinated Compounds by LC/MS/MS

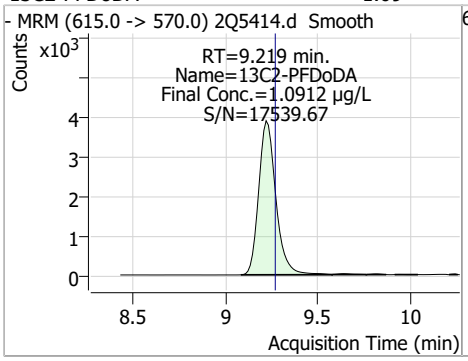
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.06	8.80	-0.05	21018				

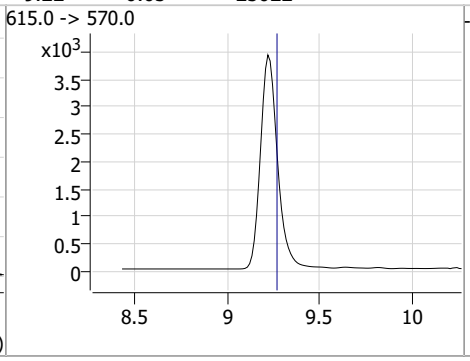


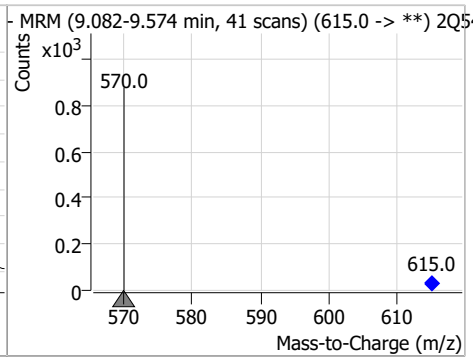




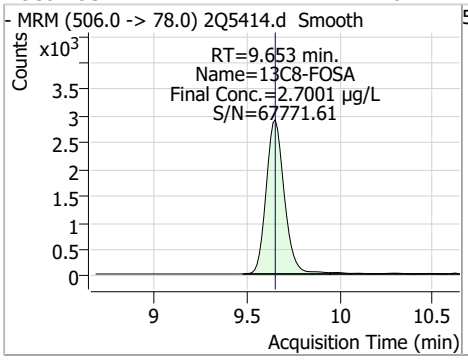
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.09	9.22	-0.05	25022				

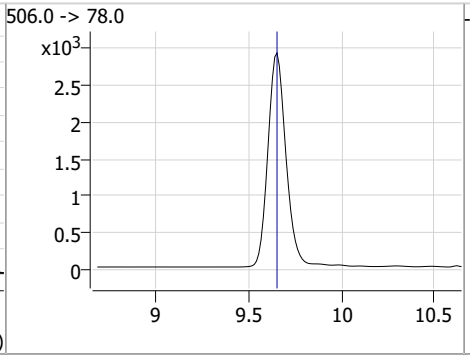


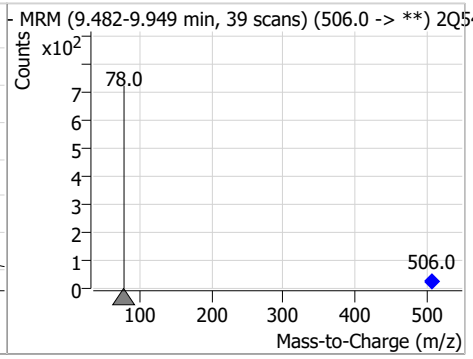




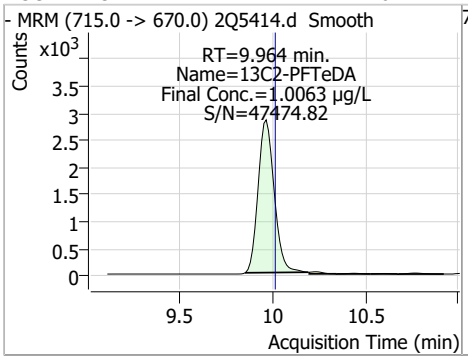
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.70	9.65	0.00	19681				

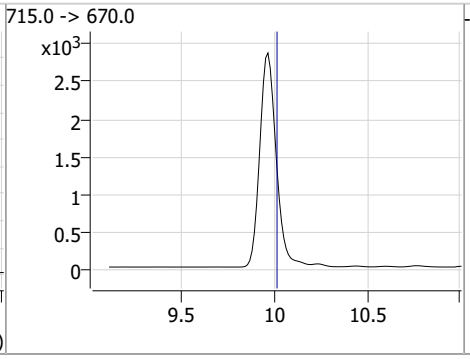


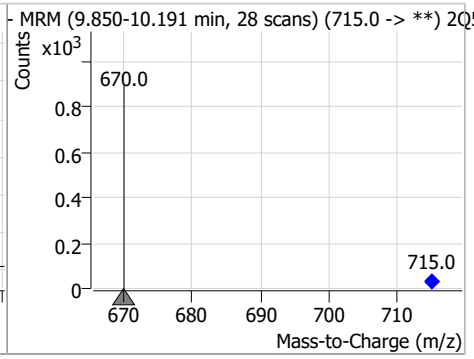




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.01	9.96	-0.05	16924				

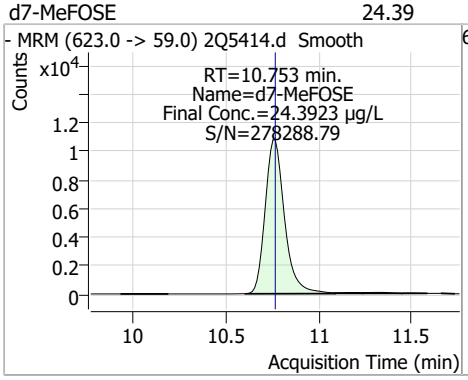


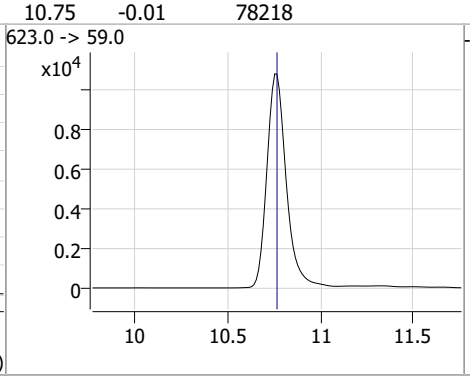


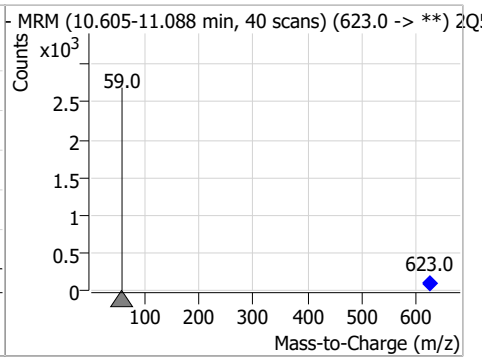


Perfluorinated Compounds by LC/MS/MS

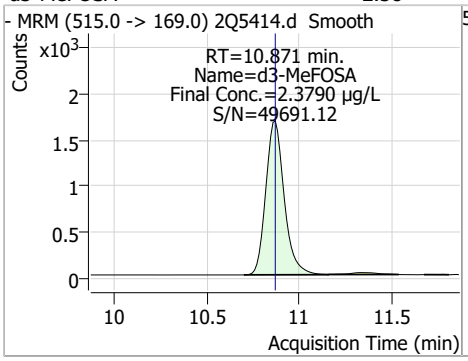
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.39	10.75	-0.01	78218				

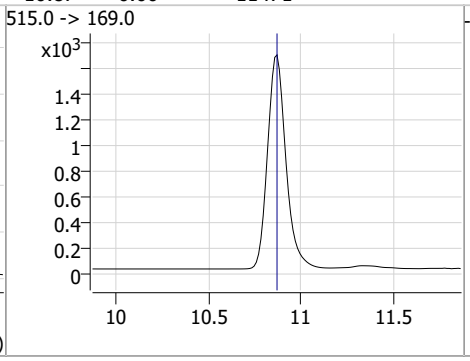


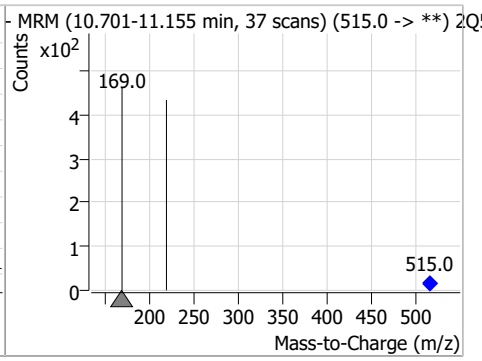




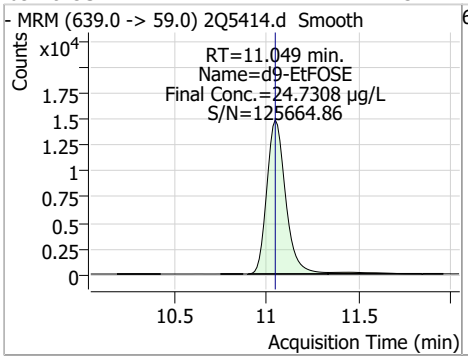
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.38	10.87	0.00	11471				

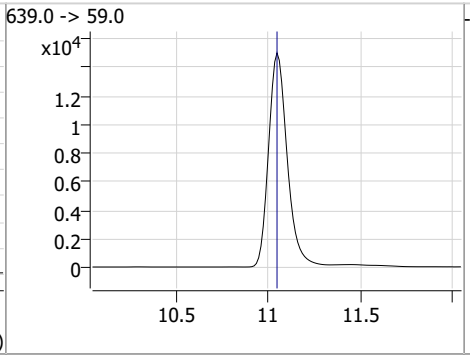


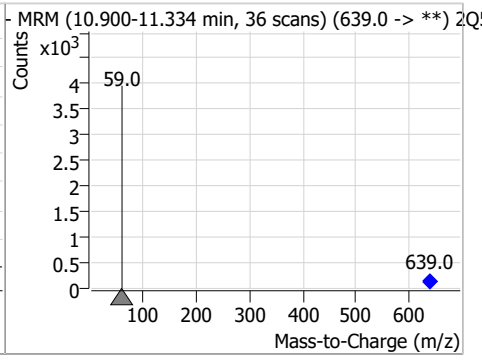




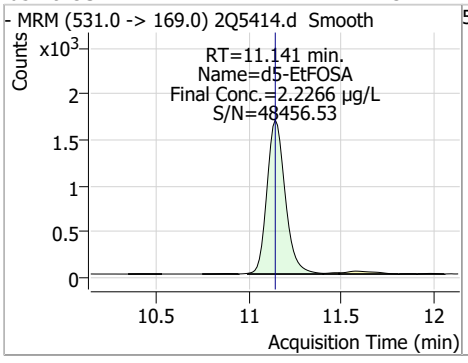
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.73	11.05	0.00	105017				

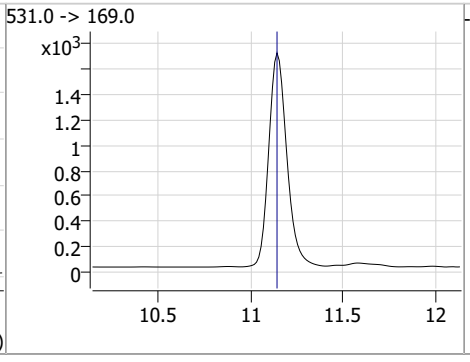


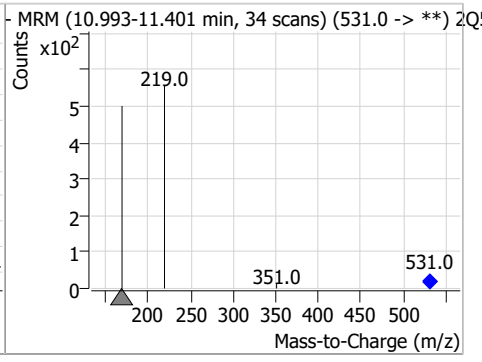




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.23	11.14	0.00	11511				







Manual Integration Approval Summary

Sample Number: JD77804-17
Lab FileID: 2Q5414.D
Injection Time: 12/02/23 08:49
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorononanoic acid	375-95-1		7.88	Split peak
MeFOSAA	2355-31-9		8.41	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5415.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 9:05:06 AM
Sample Name : JD77804-18
Vial : P3-B4
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,493,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	165103	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	98588	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	51424	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	40703	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	69783	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	32077	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13999	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20222	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	22419	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	18381	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	16797	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6165	2.50	µg/L	-0.037
		302.0 -> 80.0	15760			
M3-PFHxS	7.472	402.0 -> 99.0	6654	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6011	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1715	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2731	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4141	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	40670	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	24802	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	32457	5.00	µg/L	-0.037
M7-MeFOSE	10.766	623.0 -> 59.0	76890	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	103871	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	12490	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	10654	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	12427	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	74850	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6643	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	72981	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	28031	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	33183	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	52181	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1715	7.07	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 141.4%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2731	5.08	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.6%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4141	5.56	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.2%		
13C2-PFDoDA	9.219	615.0 -> 570.0	22419	1.00	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 80.2%		
13C2-PFTeDA	9.964	715.0 -> 670.0	18381	1.12	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.6%		
13C3-PFBS	5.846	302.0 -> 99.0	6165	2.50	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.8%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6654	2.57	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.7%			
13C4-PFBA	3.314	217.0 -> 172.0	165103	9.80	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.0%			
13C4-PFHpA	6.770	367.0 -> 322.0	40703	2.40	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.0%			
13C5-PFHxA	5.930	318.0 -> 273.0	51424	2.37	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.9%			
13C5-PFPeA	4.798	268.0 -> 223.0	98588	5.04	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.8%			
13C6-PFDA	8.352	519.0 -> 474.0	13999	1.20	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.7%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20222	1.05	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.8%			
13C8-FOSA	9.653	506.0 -> 78.0	16797	2.00	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 79.8%			
13C8-PFOA	7.360	421.0 -> 376.0	69783	2.31	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.4%			
13C8-PFOS	8.512	507.0 -> 99.0	6011	2.22	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.8%			
13C9-PFNA	7.875	472.0 -> 427.0	32077	1.24	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	40670	5.03	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.6%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	24802	10.02	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 100.2%			
d3-MeFOSA	10.871	515.0 -> 169.0	10654	1.91	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 76.6%			
d5-EtFOSAA	8.593	589.0 -> 419.0	32457	4.86	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.1%			
d7-MeFOSE	10.766	623.0 -> 59.0	76890	20.77	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 83.1%			
d9-EtFOSE	11.049	639.0 -> 59.0	103871	21.19	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 84.7%			
d5-EtFOSA	11.141	531.0 -> 169.0	12490	2.09	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 83.7%			
Target Compounds							QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.163	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	9.881	613.0 -> 569.0	0		µg/L	m	1
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

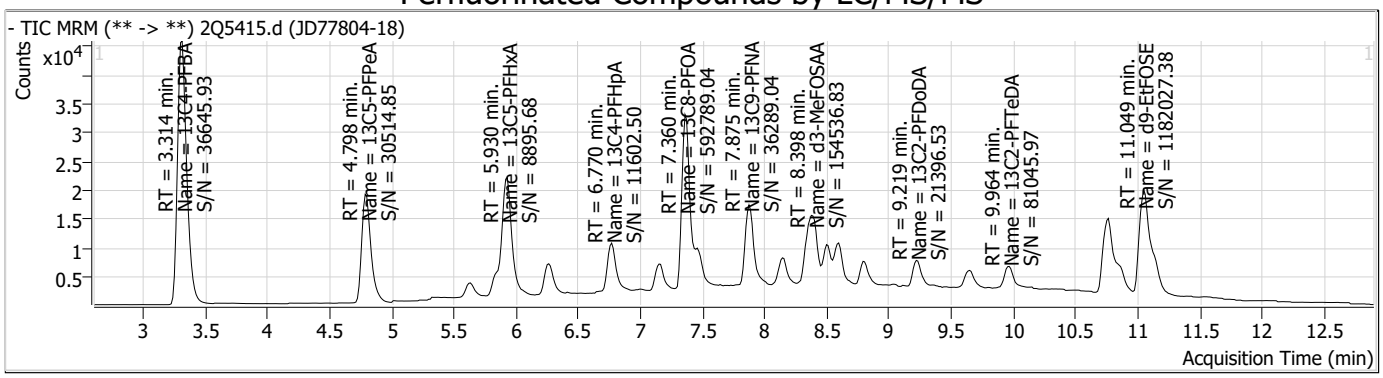
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	7.326	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	6.701	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	8.157	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.402	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

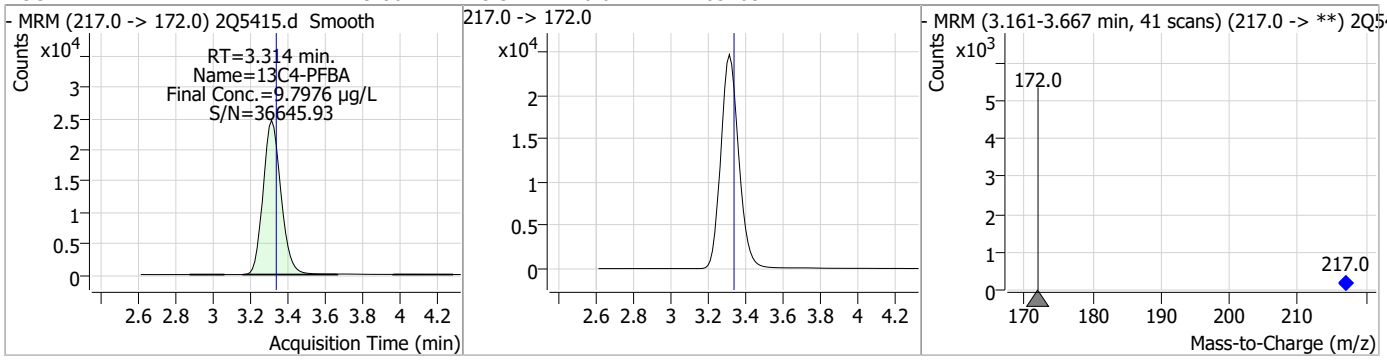
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

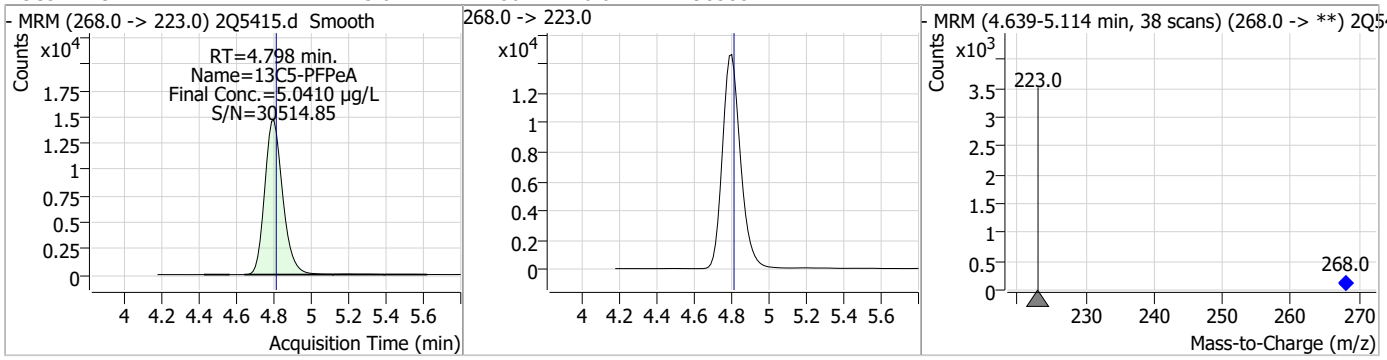
Perfluorinated Compounds by LC/MS/MS



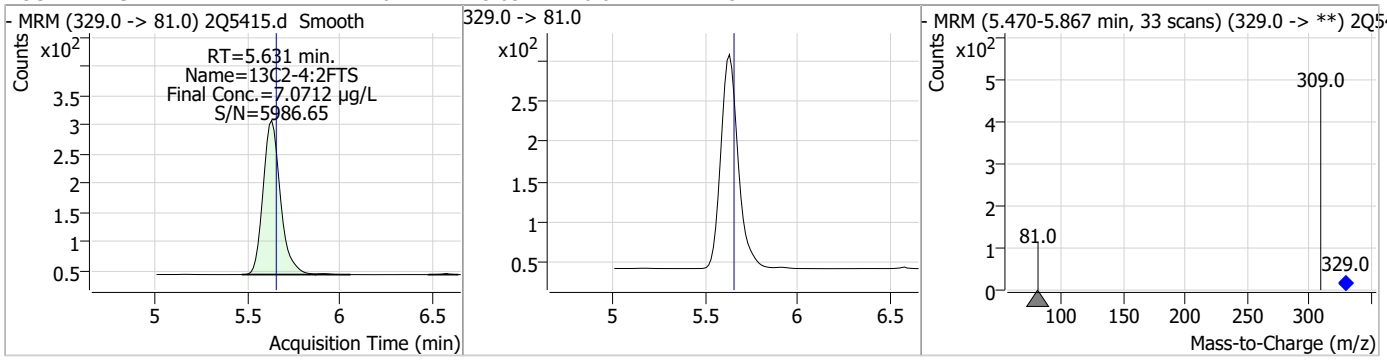
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.80	3.31	-0.02	165103				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.04	4.80	-0.01	98588				

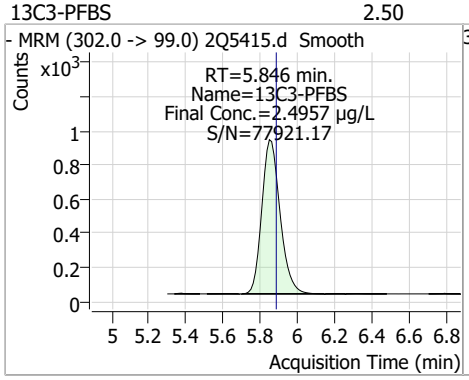


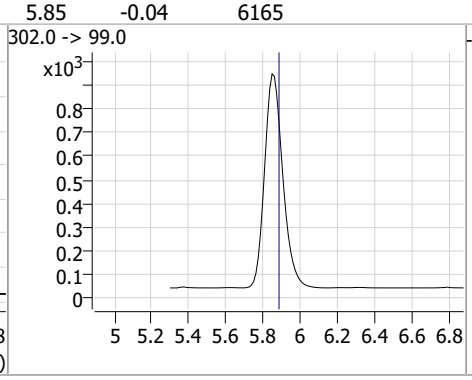
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	7.07	5.63	-0.02	1715				

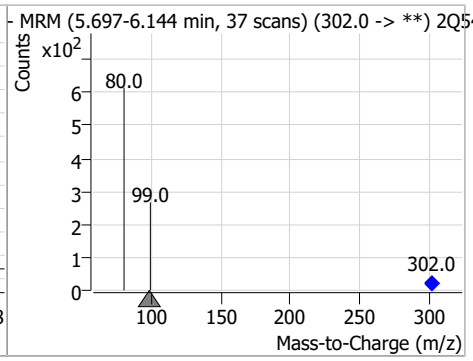


Perfluorinated Compounds by LC/MS/MS

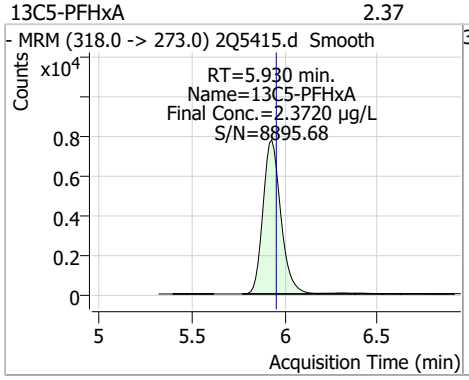
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.50	5.85	-0.04	6165				

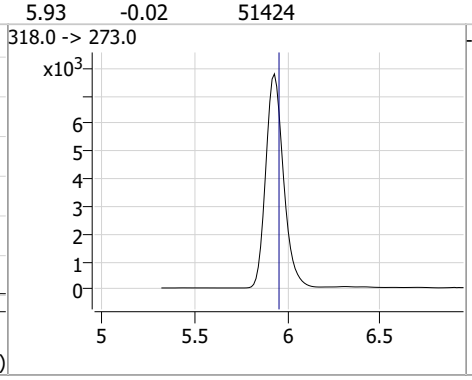


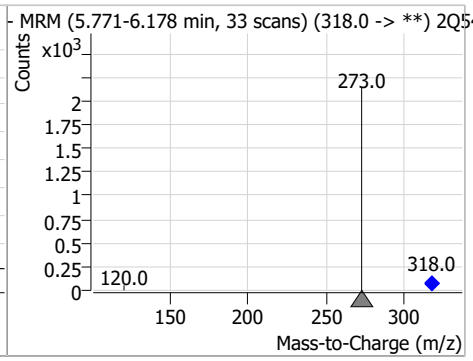




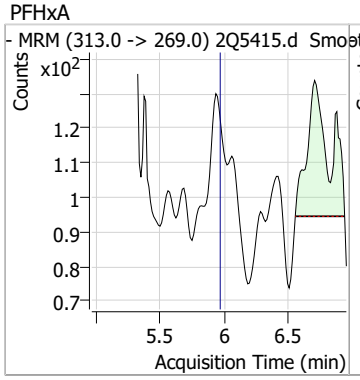
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.37	5.93	-0.02	51424				

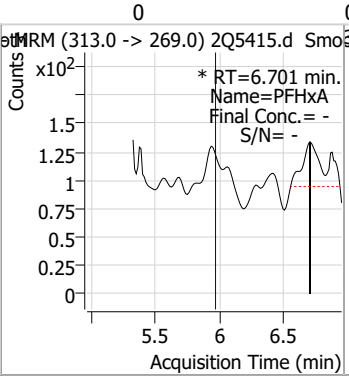


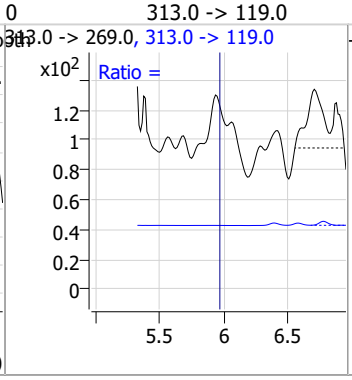


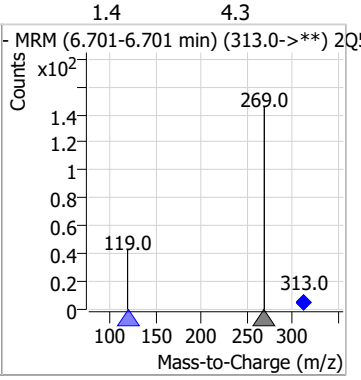


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

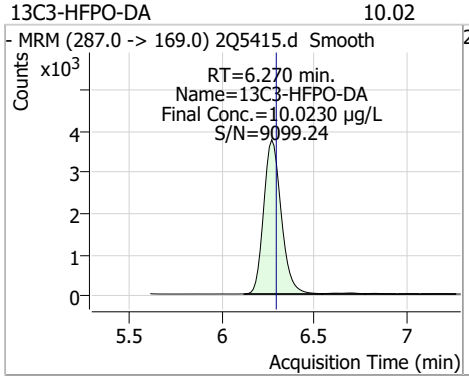


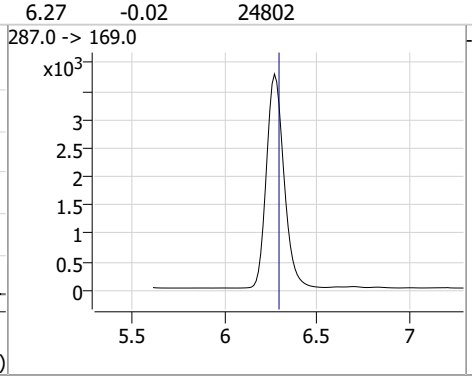


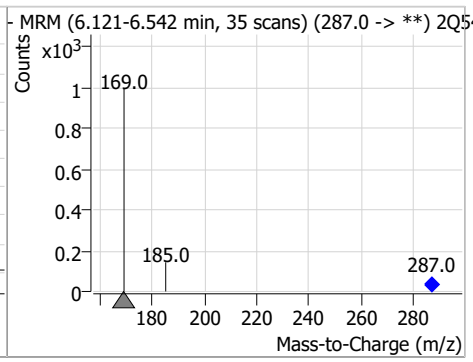




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.02	6.27	-0.02	24802				

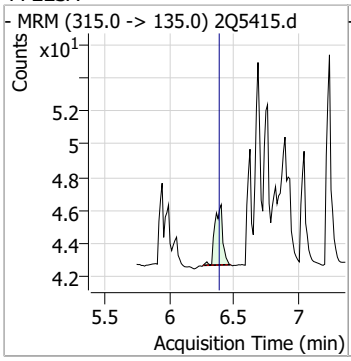


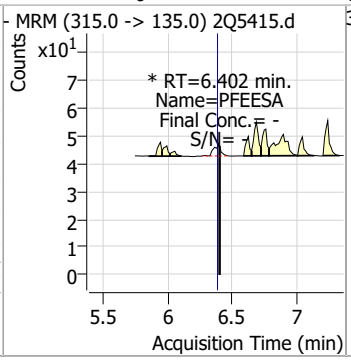


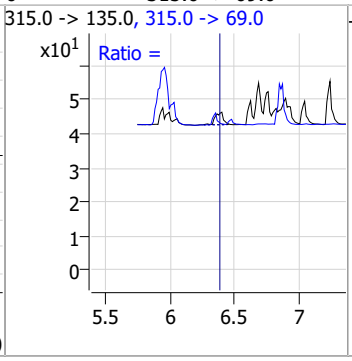


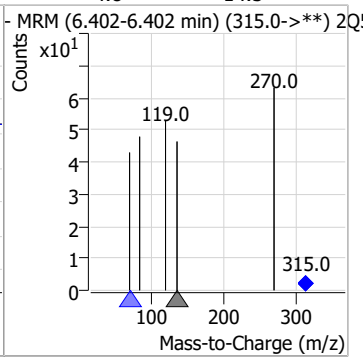
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

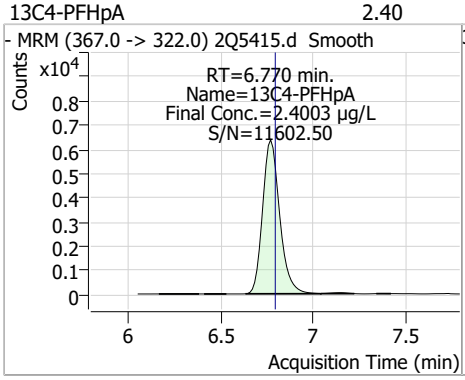


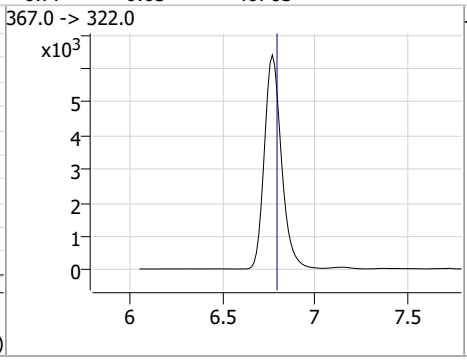


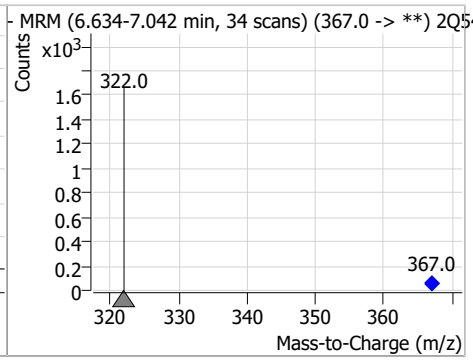




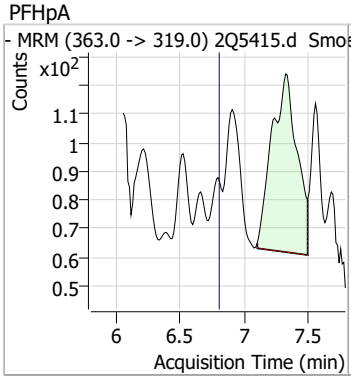
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.40	6.77	-0.03	40703				

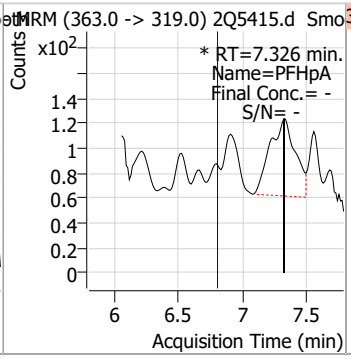


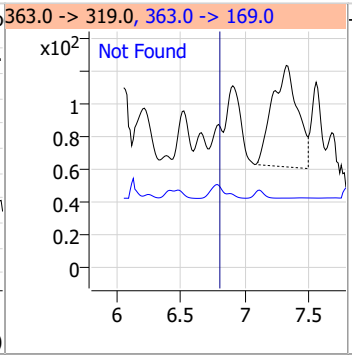


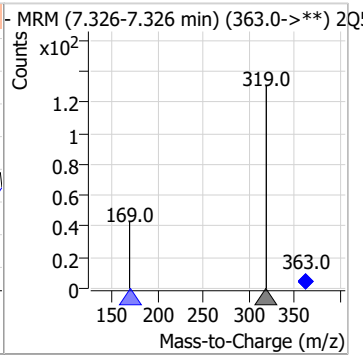


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5

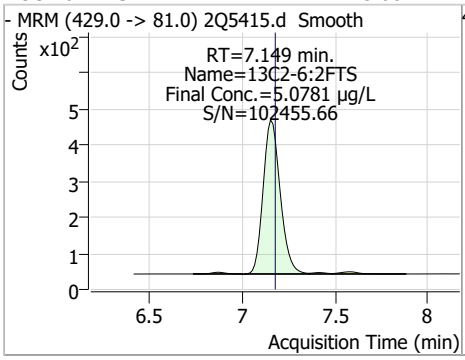


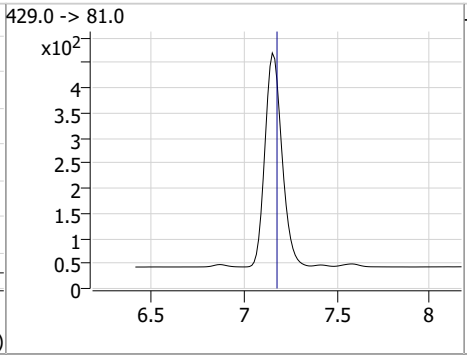


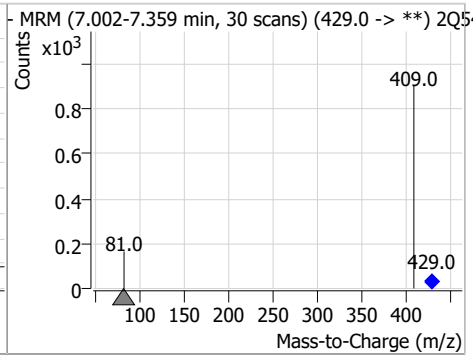




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.08	7.15	-0.03	2731				

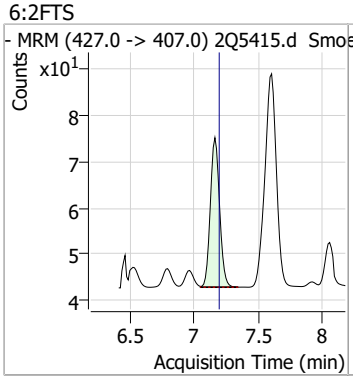


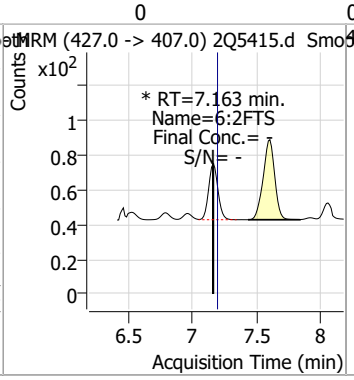


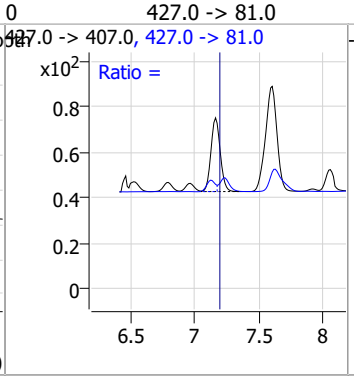


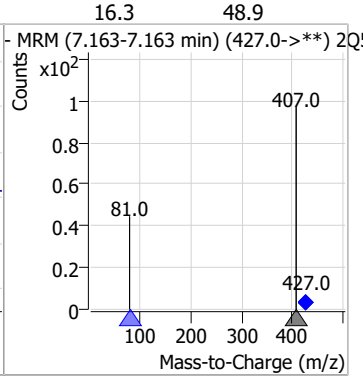
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9

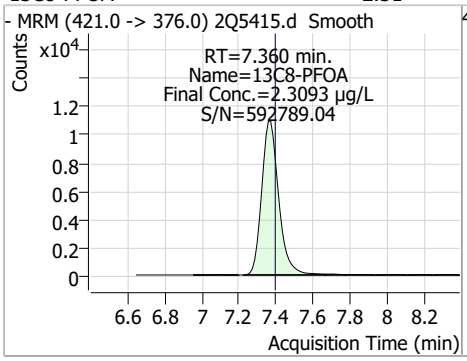


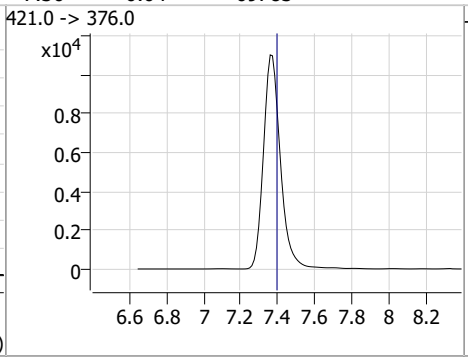


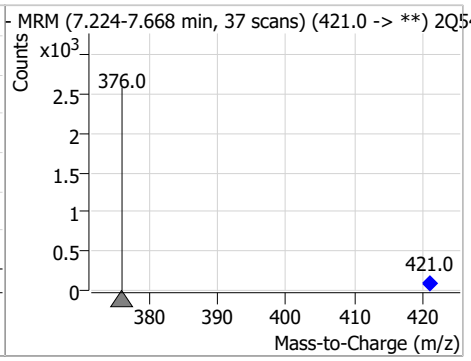




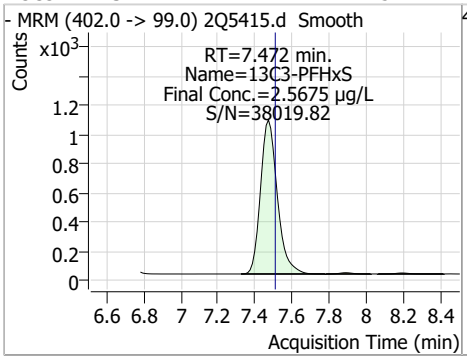
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.31	7.36	-0.04	69783				

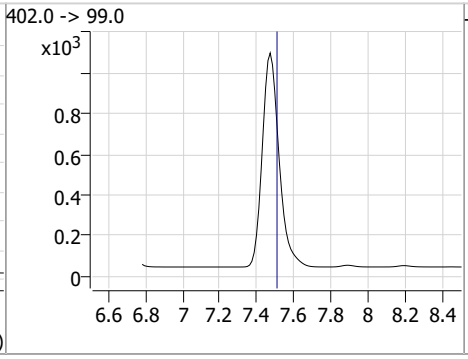


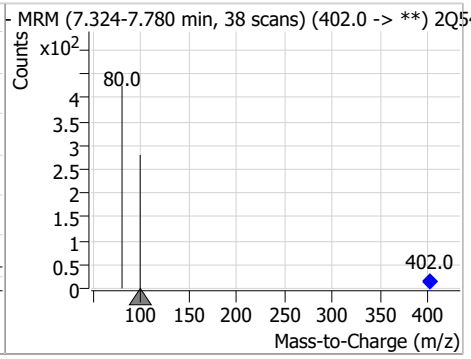




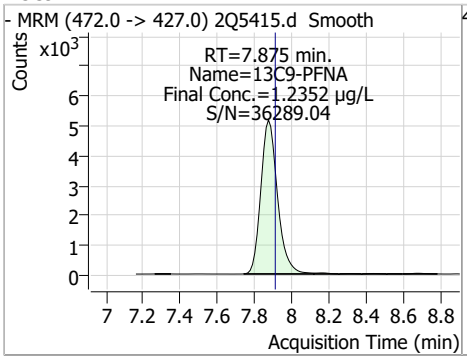
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.57	7.47	-0.04	6654				

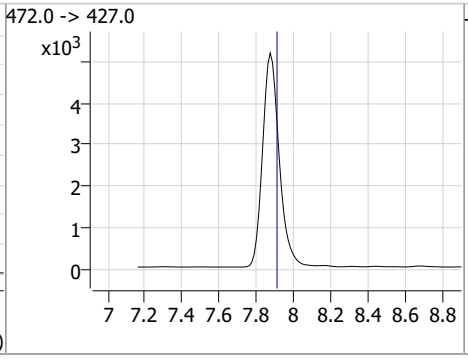


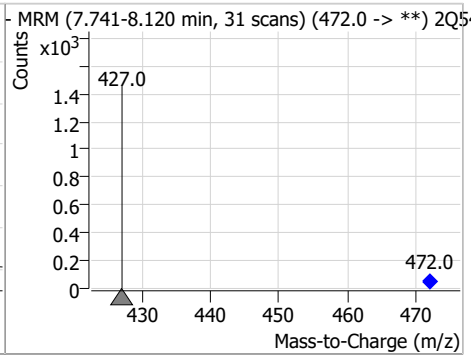




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.24	7.88	-0.04	32077				

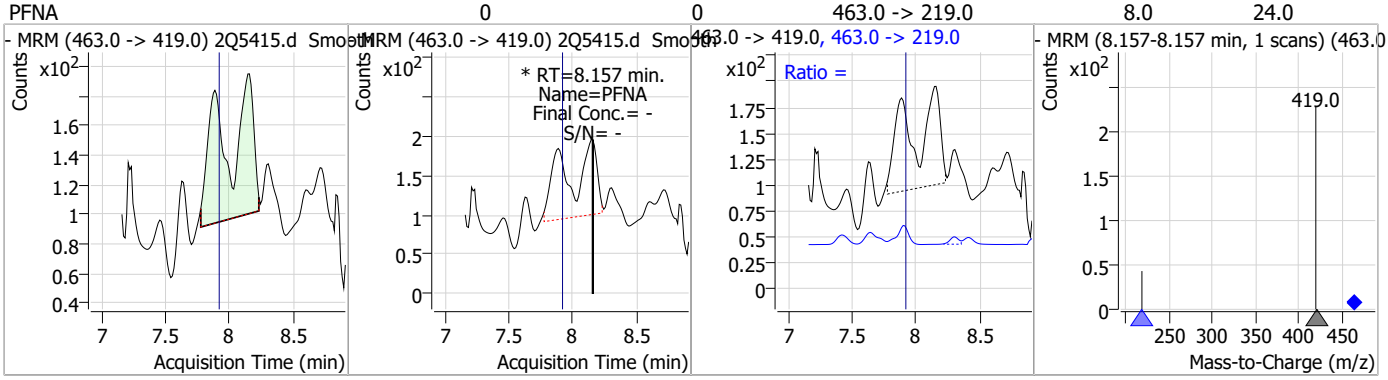




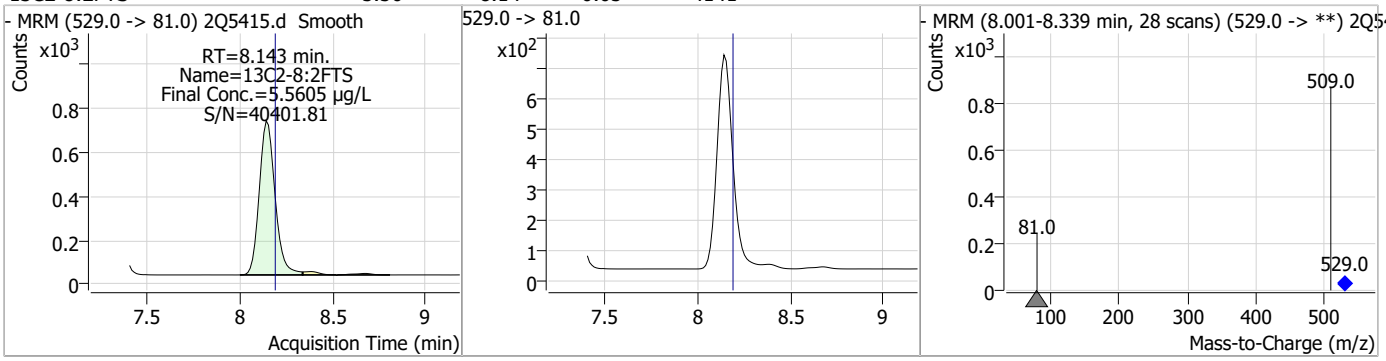


Perfluorinated Compounds by LC/MS/MS

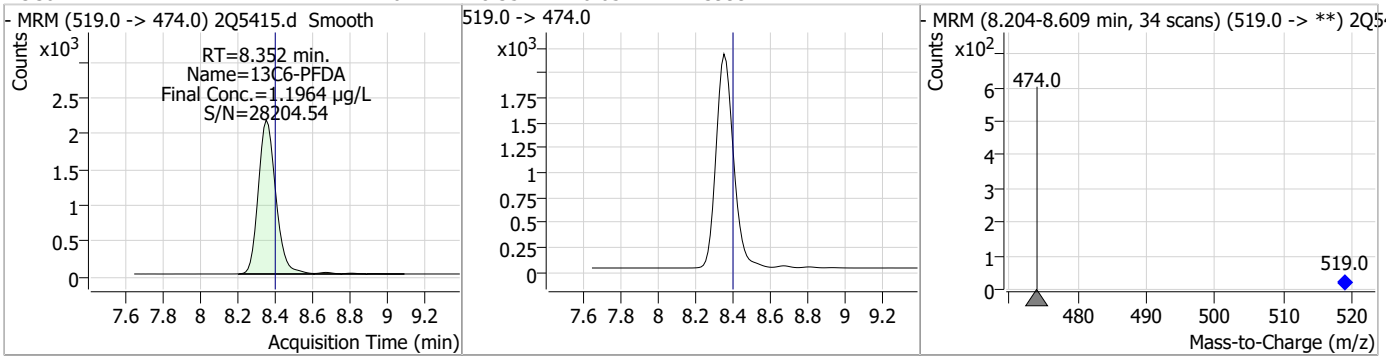
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



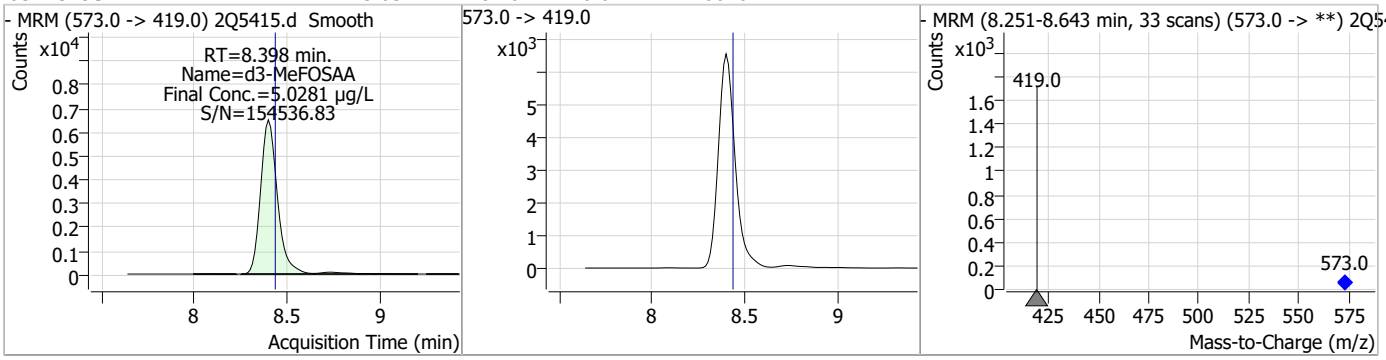
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.56	8.14	-0.05	4141				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.35	-0.05	13999				

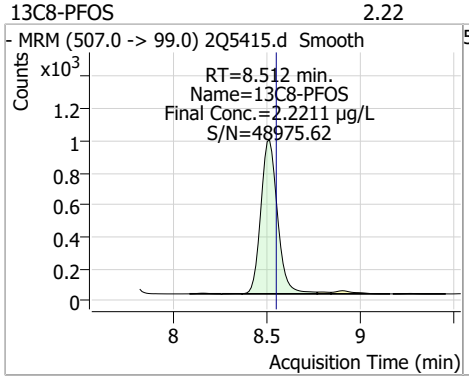


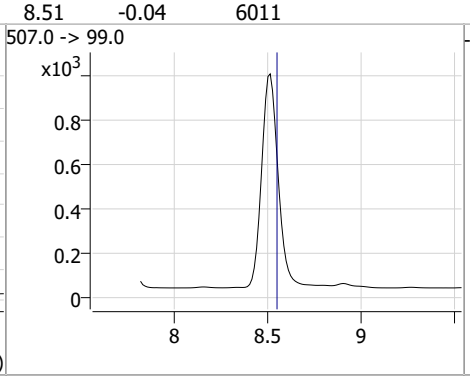
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.03	8.40	-0.04	40670				

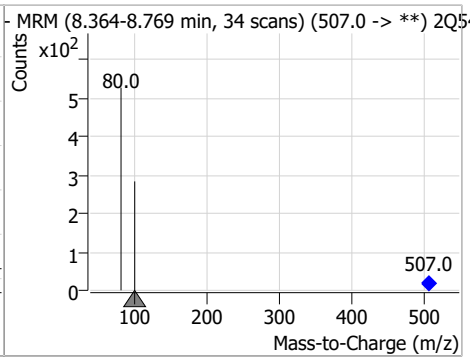


Perfluorinated Compounds by LC/MS/MS

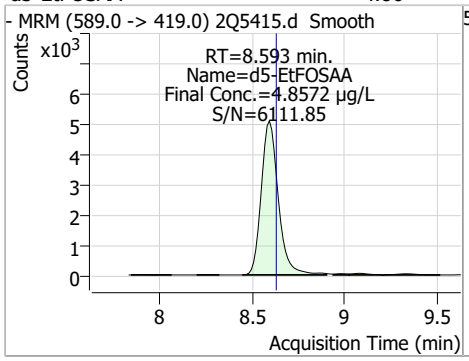
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.22	8.51	-0.04	6011				

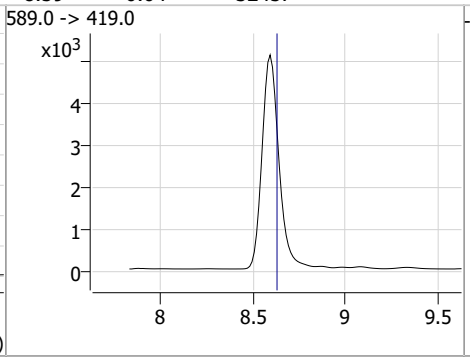


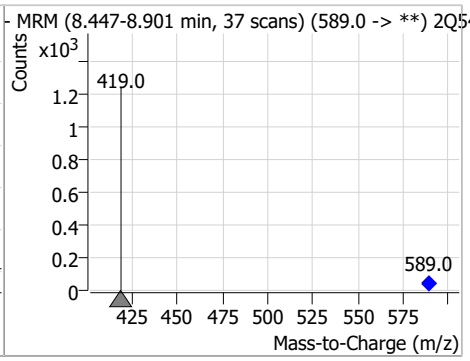




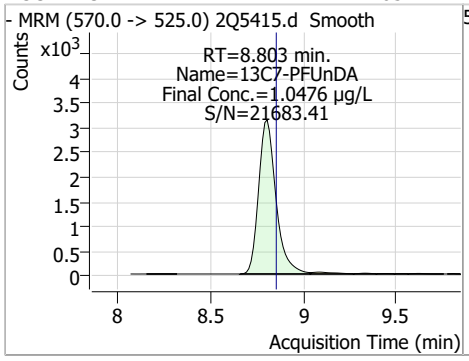
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.86	8.59	-0.04	32457				

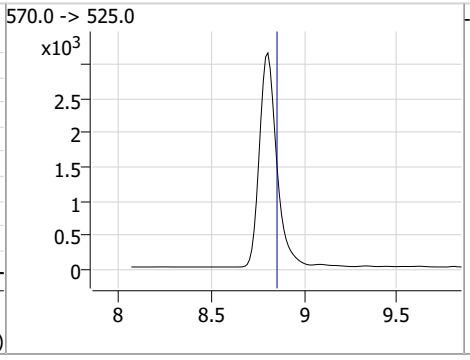


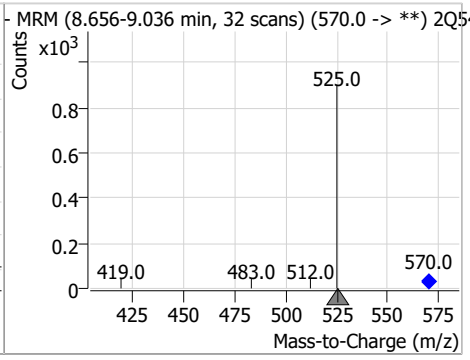




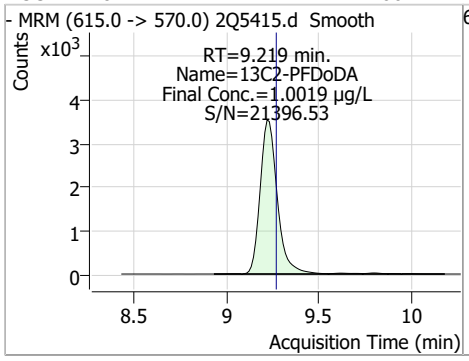
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.05	8.80	-0.05	20222				

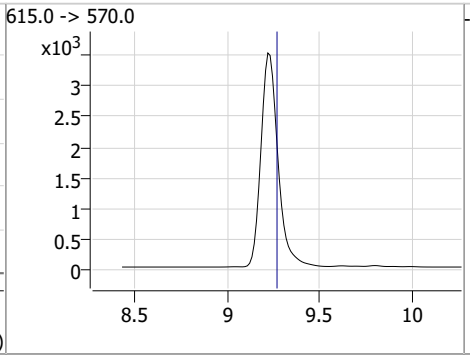


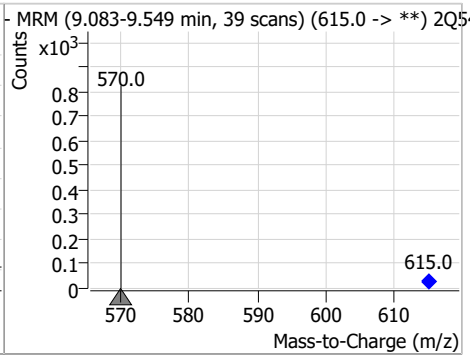




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.00	9.22	-0.05	22419				

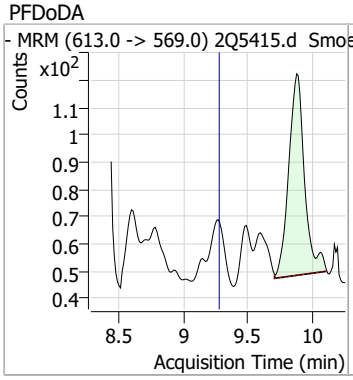


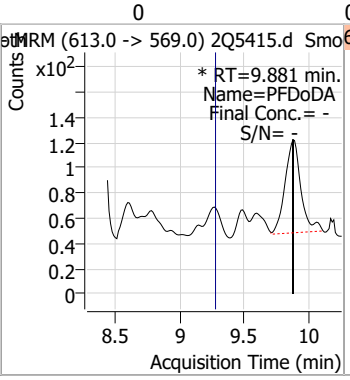


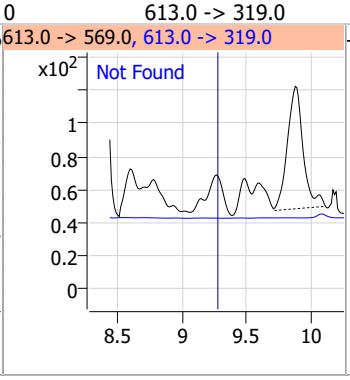


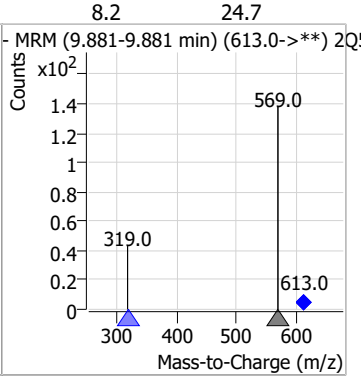
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA		0		0	613.0 -> 319.0		8.2	24.7

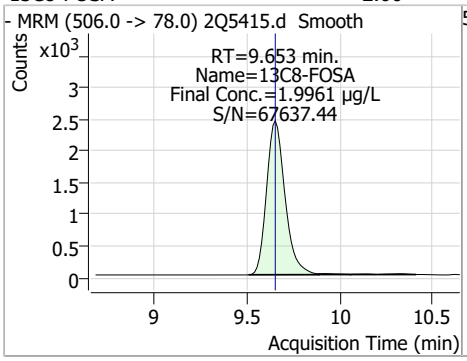


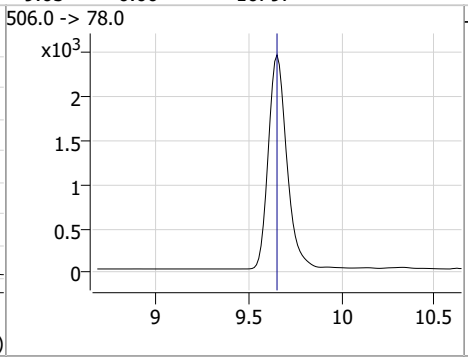


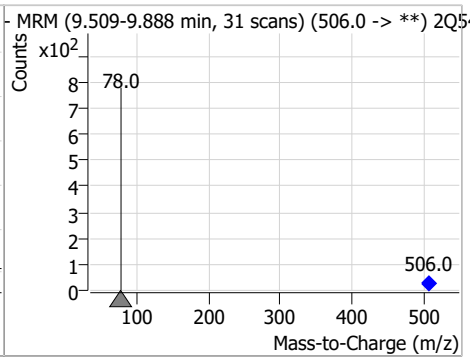




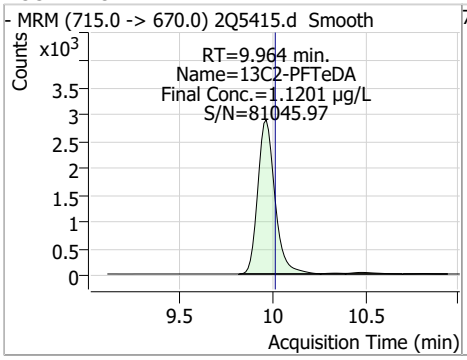
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.00	9.65	0.00	16797				

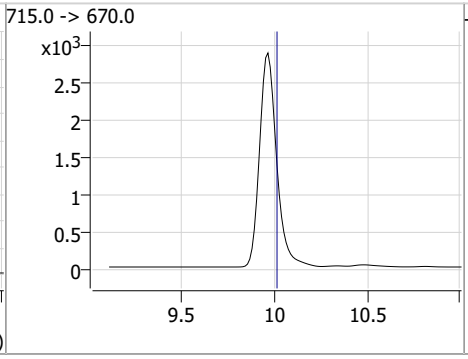


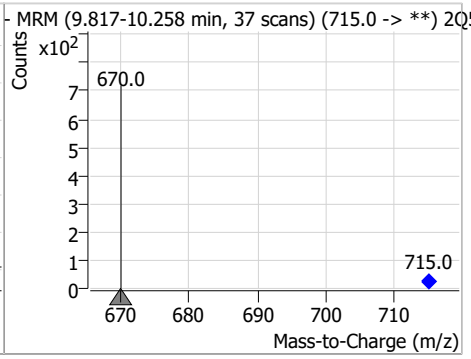




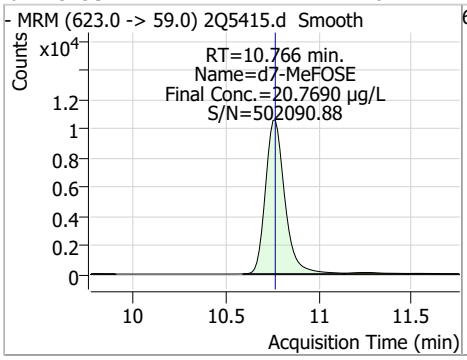
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.12	9.96	-0.05	18381				

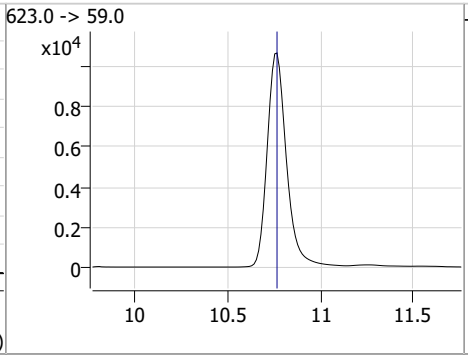


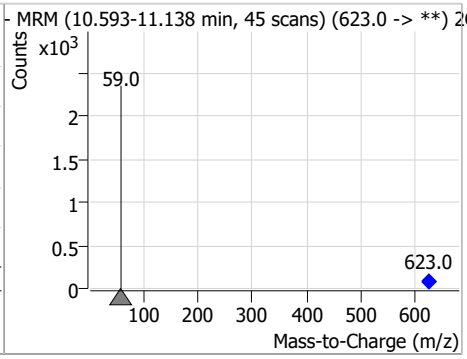




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	20.77	10.77	0.00	76890				

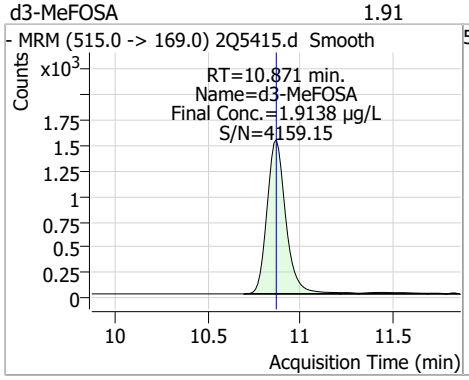


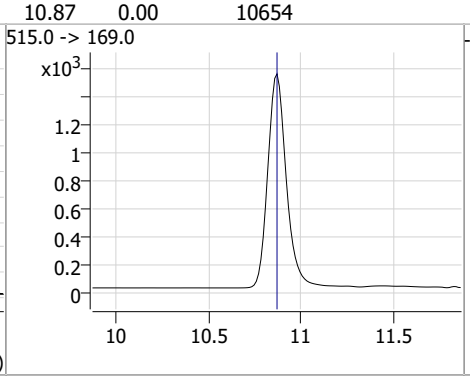


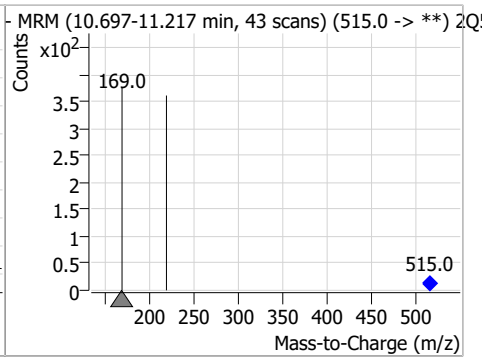


Perfluorinated Compounds by LC/MS/MS

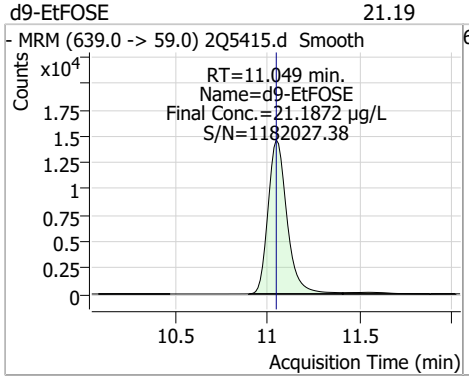
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.91	10.87	0.00	10654				

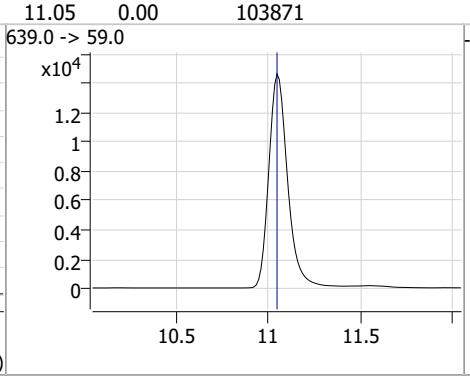


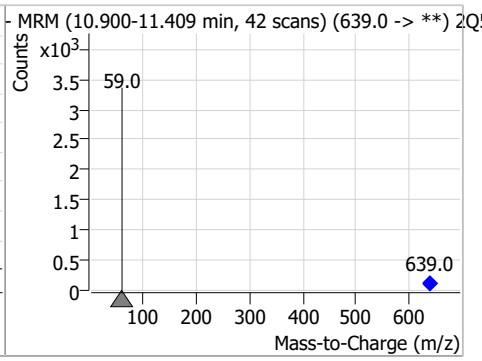




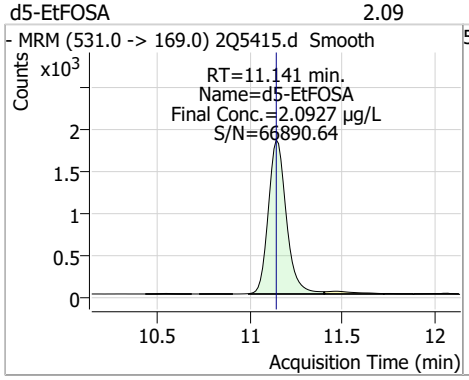
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	21.19	11.05	0.00	103871				

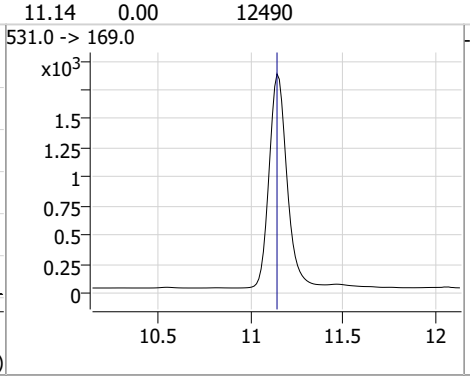


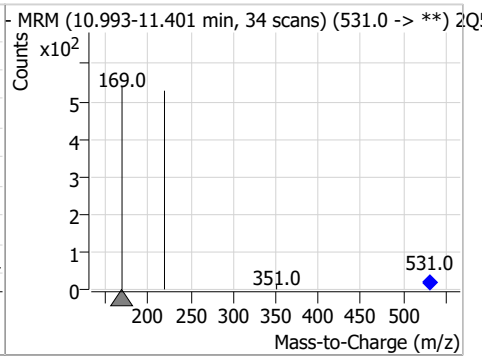




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.09	11.14	0.00	12490				







Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5416.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/2/2023 9:20:19 AM
Sample Name	:	JD77804-19
Vial	:	P3-B5
DA Method File	:	T2Q95.batch.bin
Batch Name	:	T2Q96.batch.bin
Sample Information	:	OP50811,T2Q96,555,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	164593	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	98051	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	53400	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	42537	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	68108	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	31030	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	14138	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20256	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	19963	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	13028	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	16503	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6022	2.50	µg/L	-0.037
		302.0 -> 80.0	14840			
M3-PFHxS	7.472	402.0 -> 99.0	6339	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	5384	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1298	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2608	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4119	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	34546	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	25388	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	28732	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	69373	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	89595	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	9021	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	8642	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	10323	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	72009	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6817	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	63779	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	26849	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	34568	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	49680	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1298	5.21	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.3%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2608	4.73	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4119	5.39	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.8%		
13C2-PFDoDA	9.219	615.0 -> 570.0	19963	0.93	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 74.5%		
13C2-PFTeDA	9.964	715.0 -> 670.0	13028	0.83	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 66.3%		
13C3-PFBS	5.846	302.0 -> 99.0	6022	2.38	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6339	2.38	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.3%			
13C4-PFBA	3.314	217.0 -> 172.0	164593	10.15	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.5%			
13C4-PFHpA	6.770	367.0 -> 322.0	42537	2.63	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.4%			
13C5-PFHxA	5.930	318.0 -> 273.0	53400	2.59	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.5%			
13C5-PFPeA	4.798	268.0 -> 223.0	98051	5.27	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.3%			
13C6-PFDA	8.352	519.0 -> 474.0	14138	1.26	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.9%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20256	1.10	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.6%			
13C8-FOSA	9.653	506.0 -> 78.0	16503	2.36	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.4%			
13C8-PFOA	7.360	421.0 -> 376.0	68108	2.58	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.2%			
13C8-PFOS	8.499	507.0 -> 99.0	5384	2.40	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.8%			
13C9-PFNA	7.875	472.0 -> 427.0	31030	1.15	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	34546	5.14	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.8%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	25388	10.78	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 107.8%			
d3-MeFOSA	10.871	515.0 -> 169.0	8642	1.87	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 74.8%			
d5-EtFOSAA	8.593	589.0 -> 419.0	28732	5.18	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.5%			
d7-MeFOSE	10.753	623.0 -> 59.0	69373	22.56	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 90.2%			
d9-EtFOSE	11.049	639.0 -> 59.0	89595	22.00	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 88.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	9021	1.82	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 72.8%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.594	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.190	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

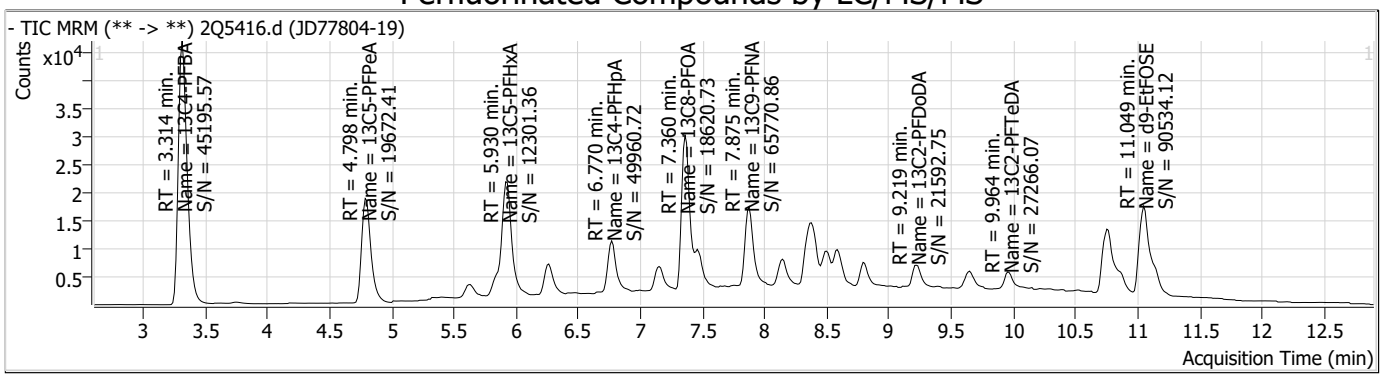
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.876	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.360	413.0 -> 369.0	0		µg/L	m	1
		413.0 -> 169.0	0				
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.229	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

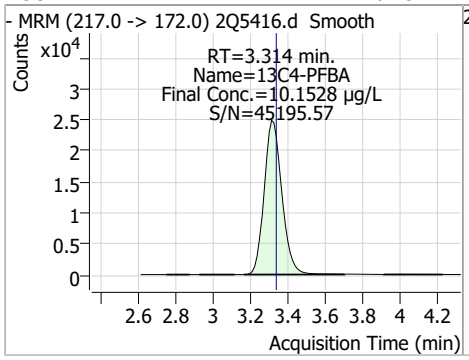
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

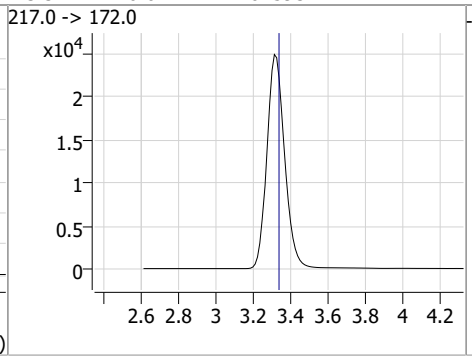
= Qualifier out of range, m = manually integrated, + = Area summed

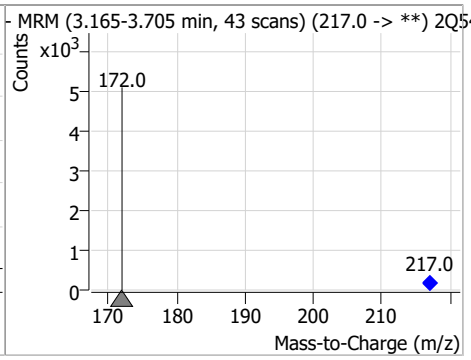
Perfluorinated Compounds by LC/MS/MS



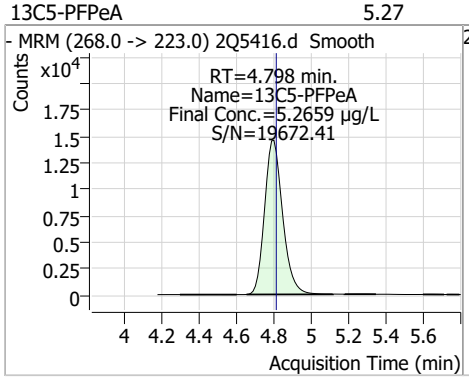
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.15	3.31	-0.02	164593				

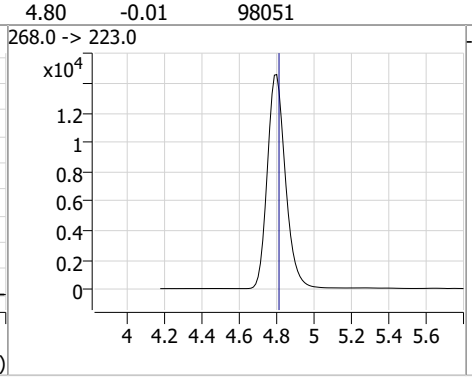


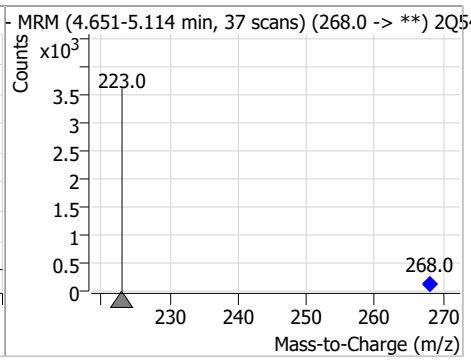




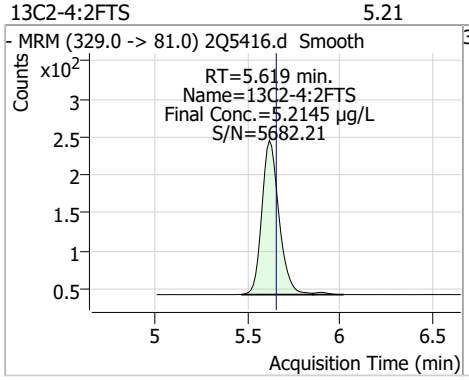
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.27	4.80	-0.01	98051				

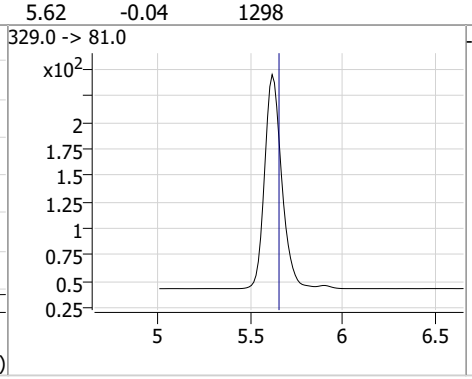


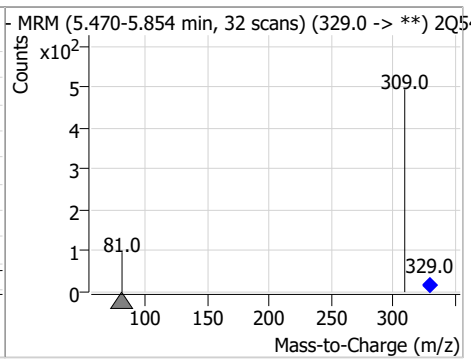




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.21	5.62	-0.04	1298				

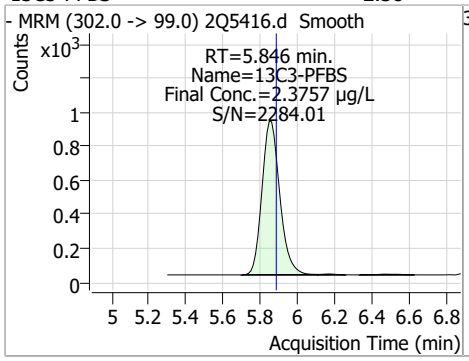


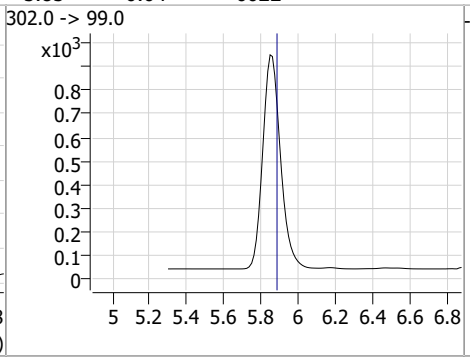


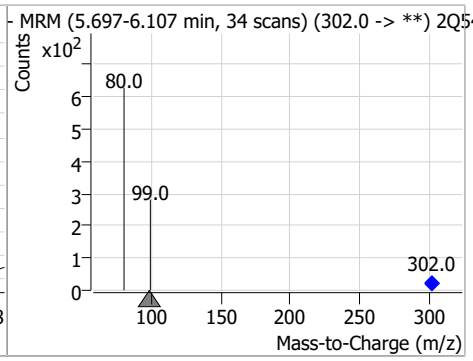


Perfluorinated Compounds by LC/MS/MS

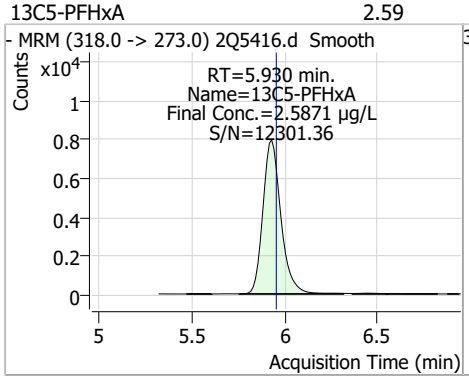
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.38	5.85	-0.04	6022				

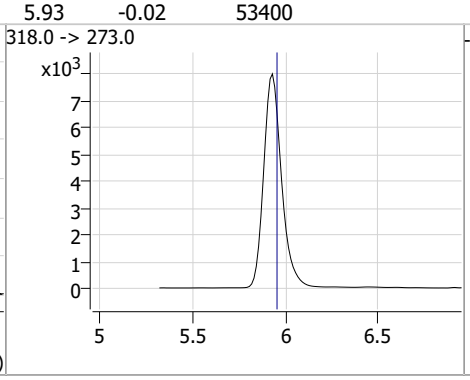


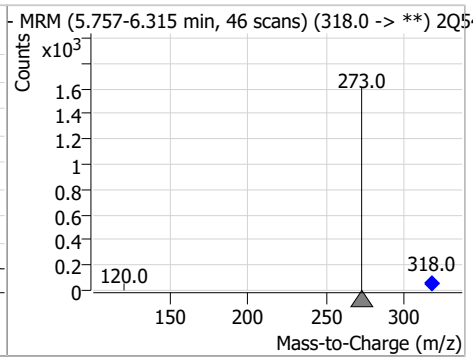




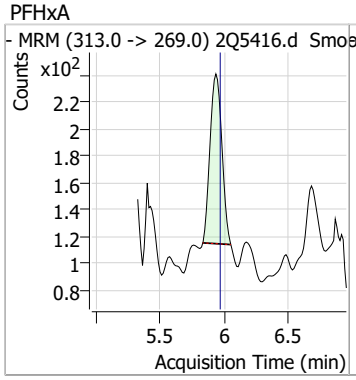
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.59	5.93	-0.02	53400				

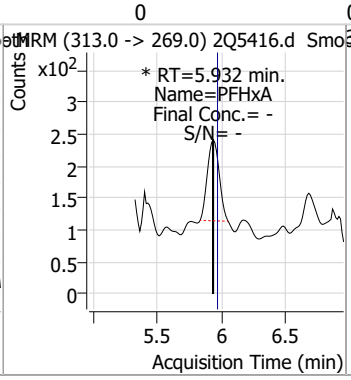


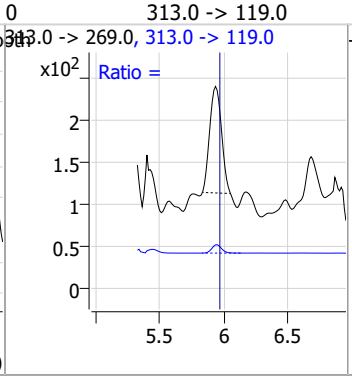


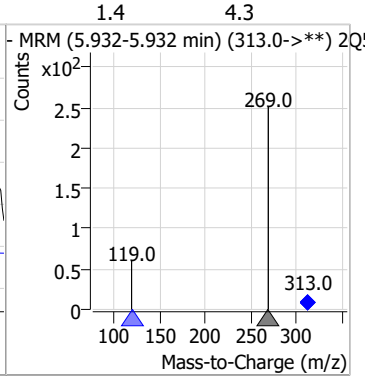


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

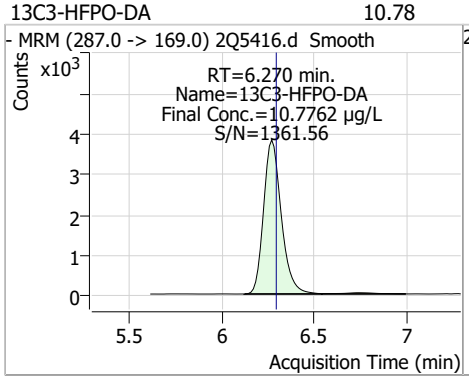


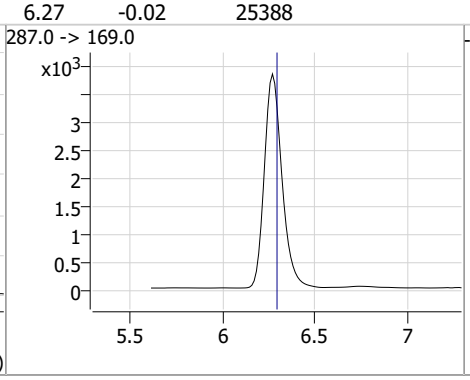


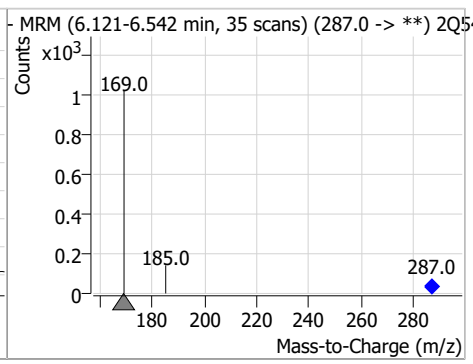




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.78	6.27	-0.02	25388				

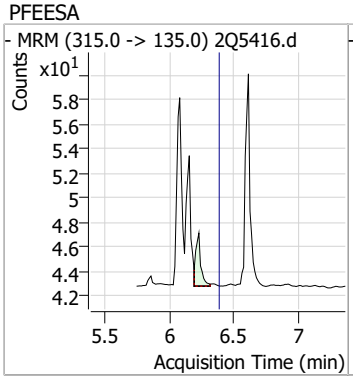


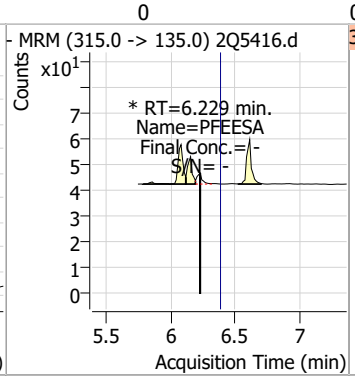


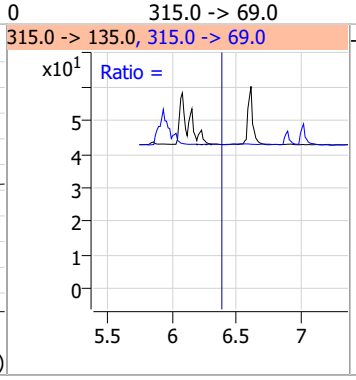


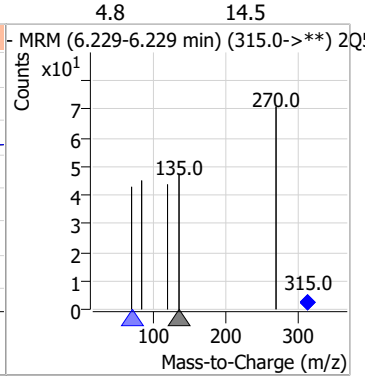
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

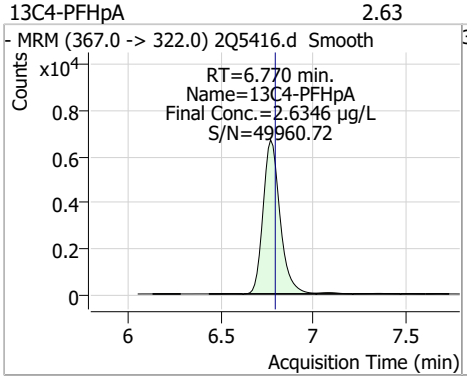


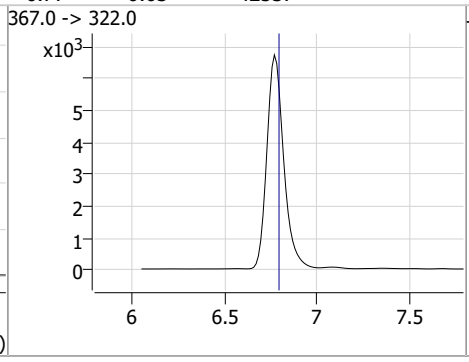


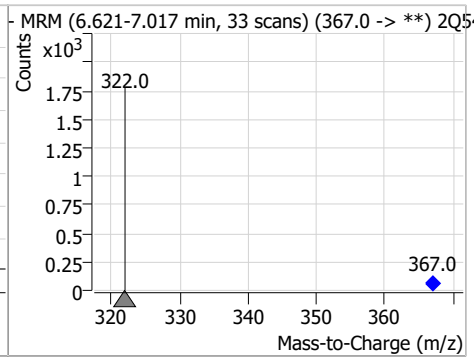




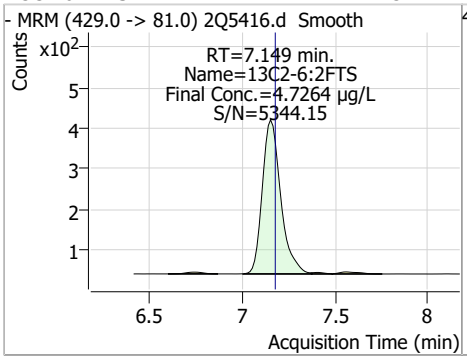
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.63	6.77	-0.03	42537				

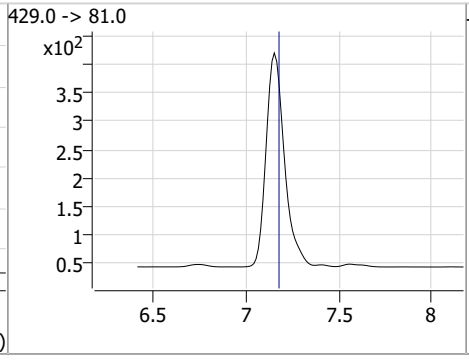


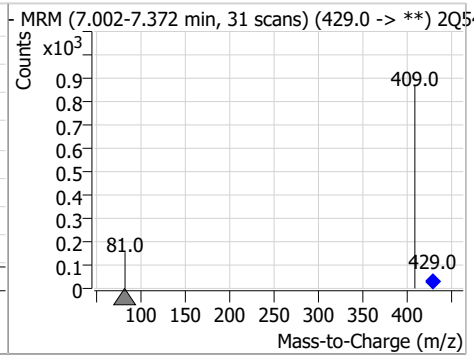




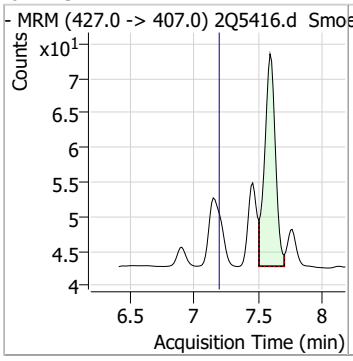
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.73	7.15	-0.03	2608				

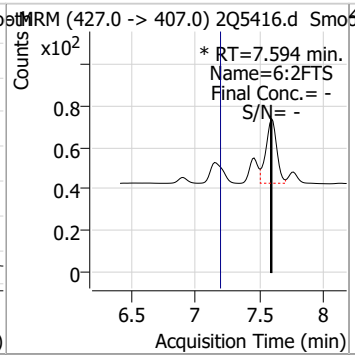


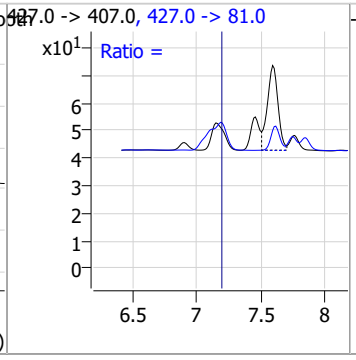


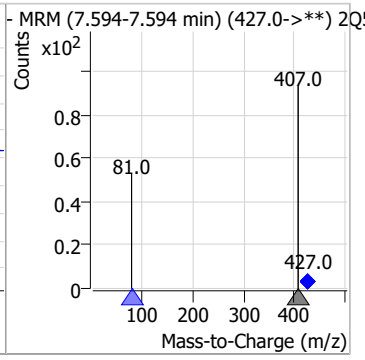


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9



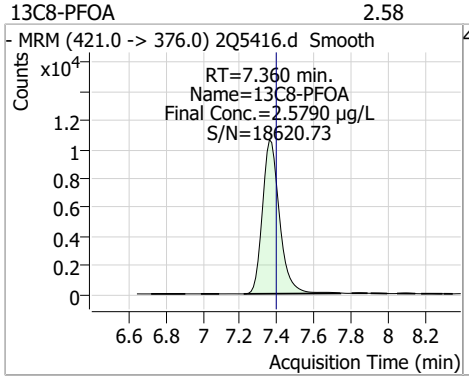


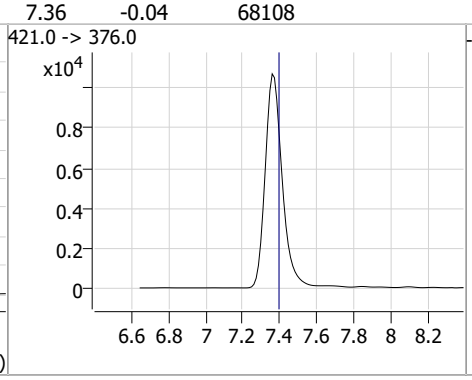


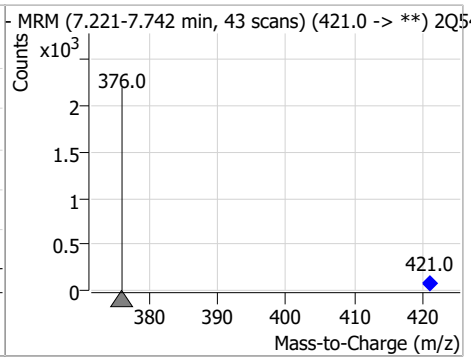


Perfluorinated Compounds by LC/MS/MS

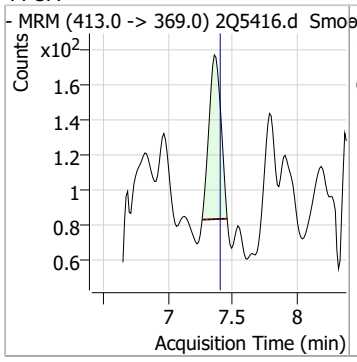
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.58	7.36	-0.04	68108				

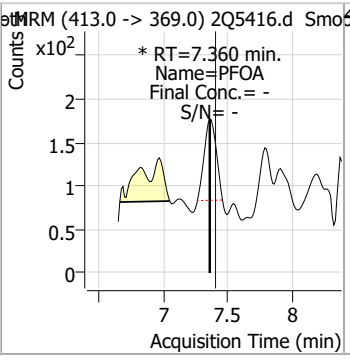


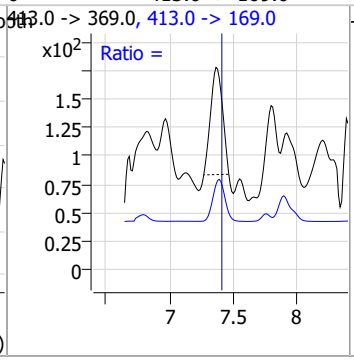


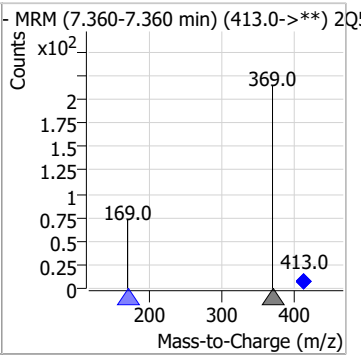


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA		0		0	413.0 -> 169.0		9.6	28.8

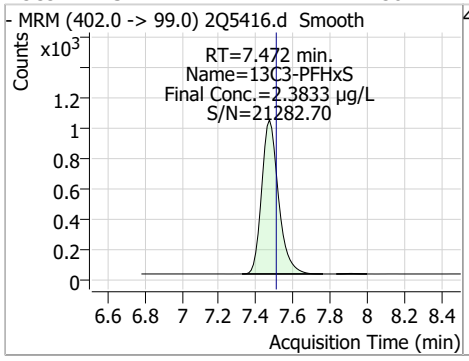


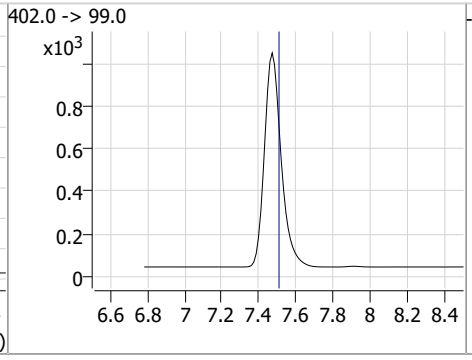


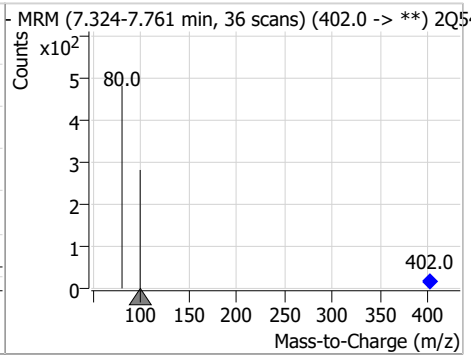




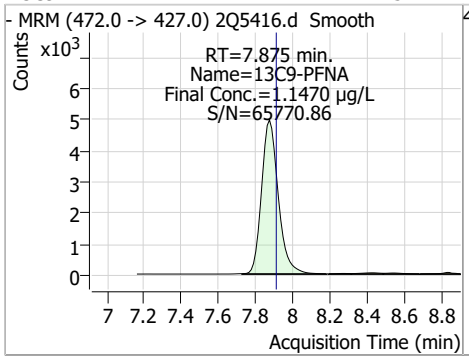
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.38	7.47	-0.04	6339				

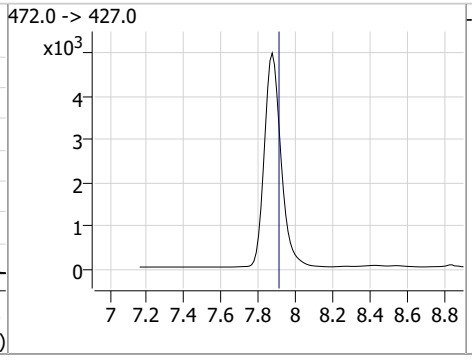


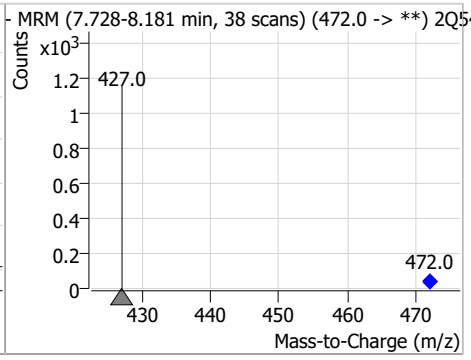




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.15	7.88	-0.04	31030				

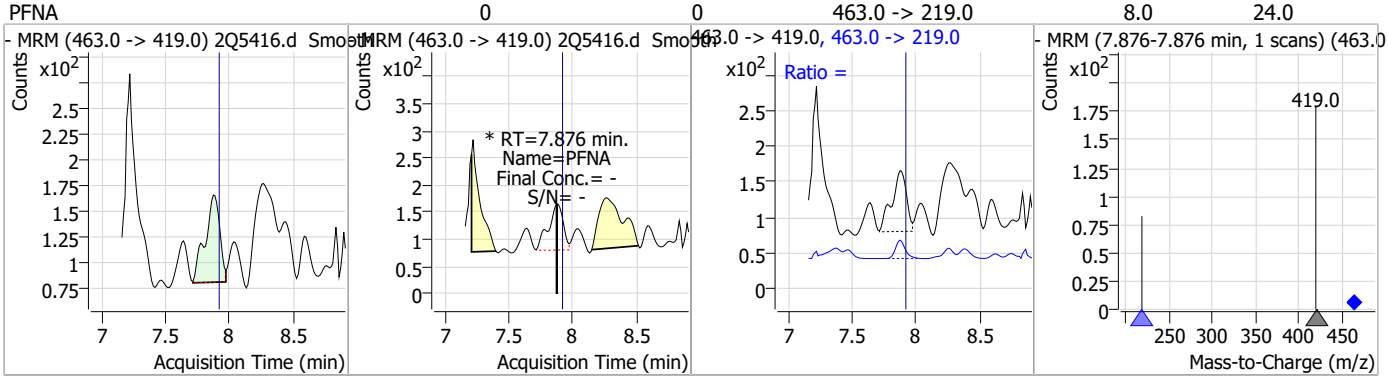




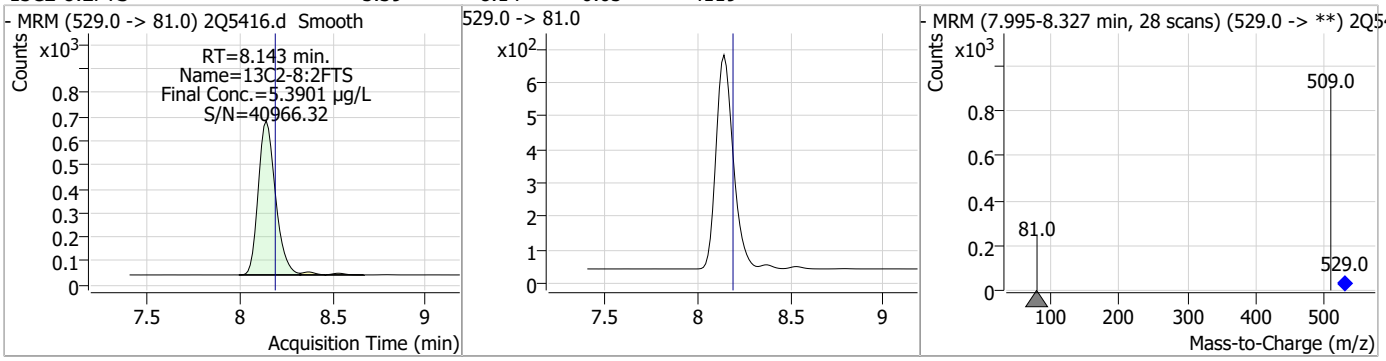


Perfluorinated Compounds by LC/MS/MS

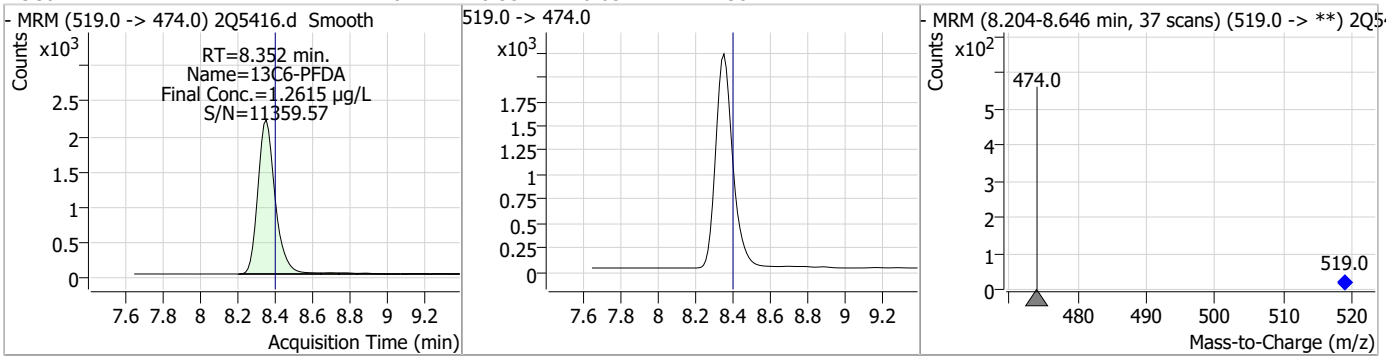
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



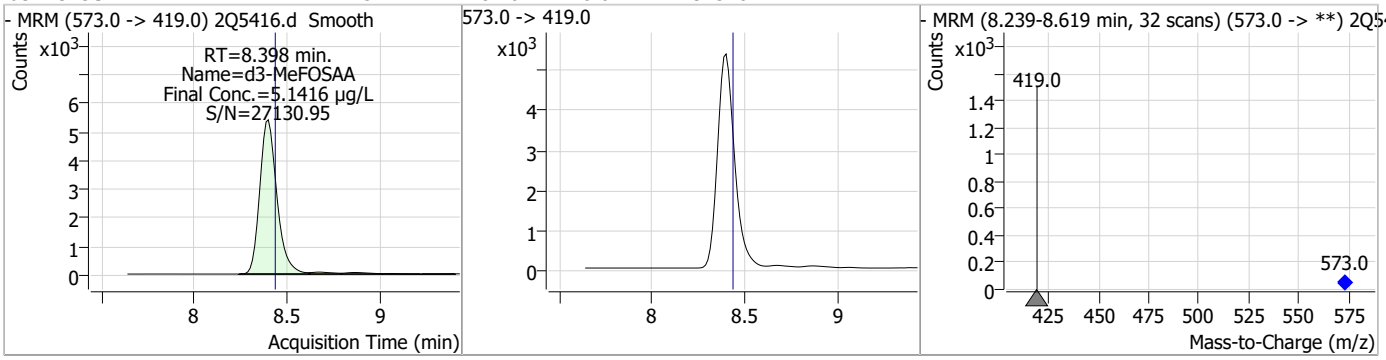
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.39	8.14	-0.05	4119				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.26	8.35	-0.05	14138				

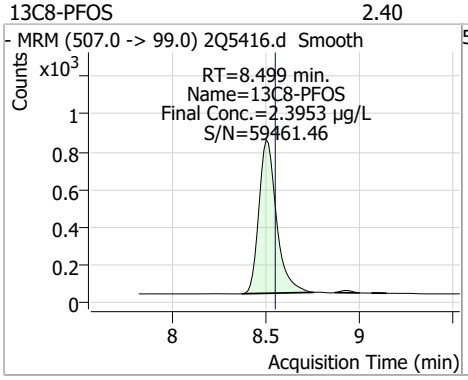


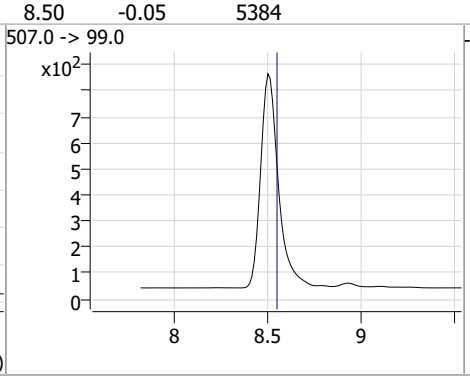
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.14	8.40	-0.04	34546				

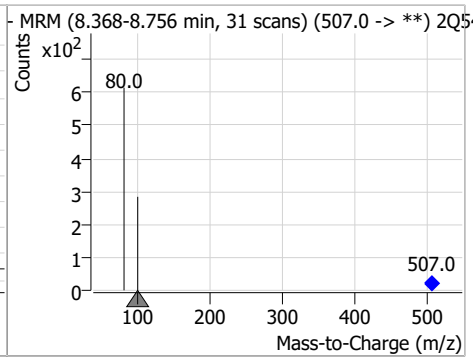


Perfluorinated Compounds by LC/MS/MS

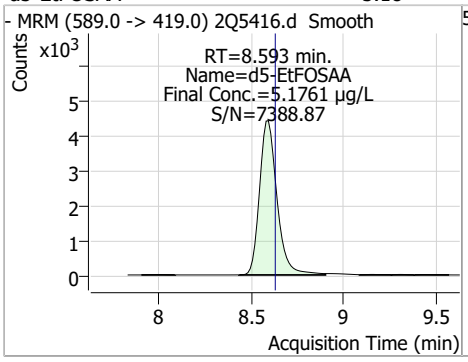
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.40	8.50	-0.05	5384				

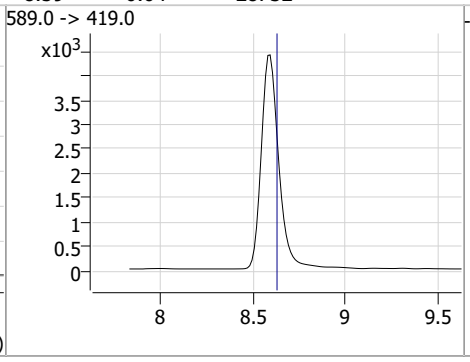


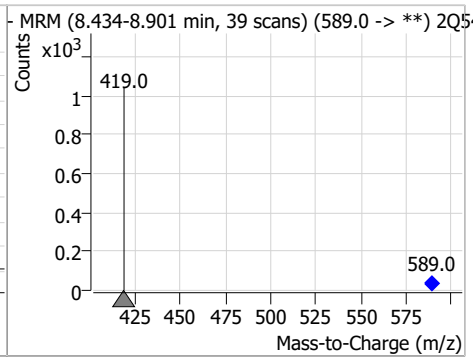




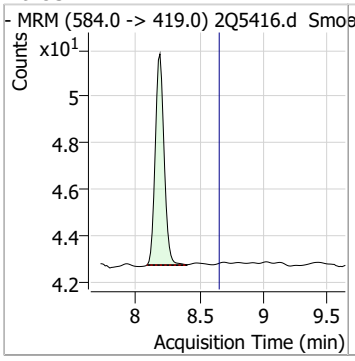
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.18	8.59	-0.04	28732				

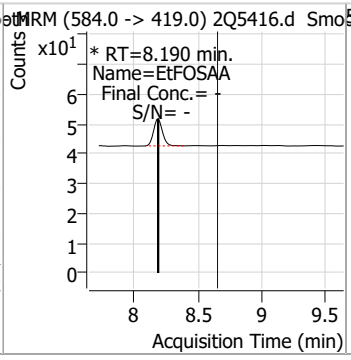


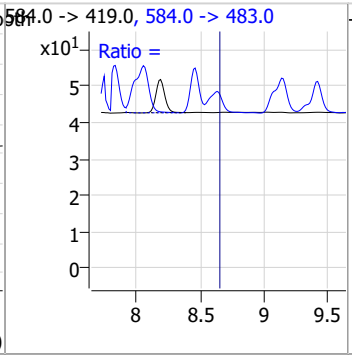


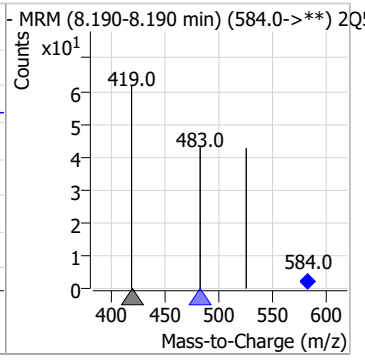


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1

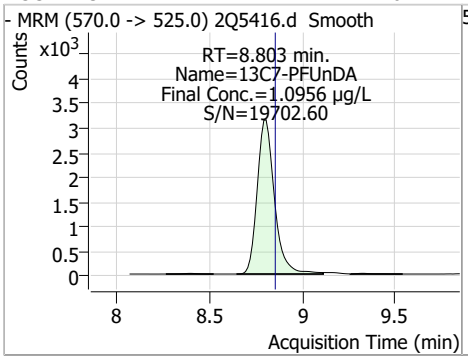


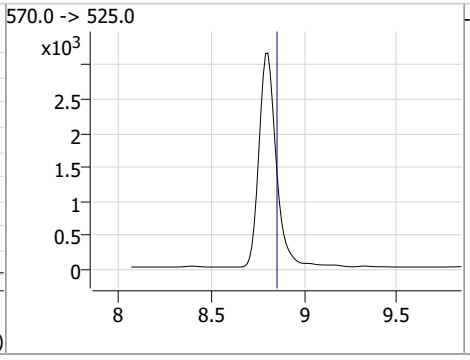


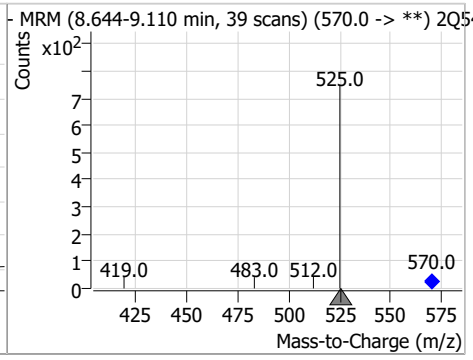




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.10	8.80	-0.05	20256				

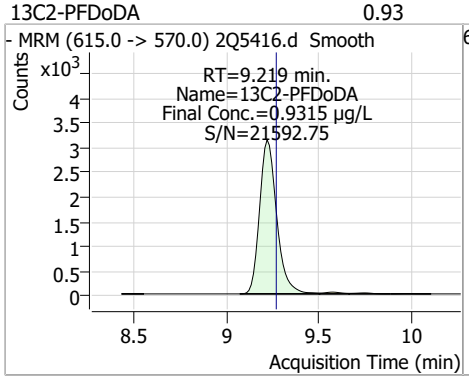


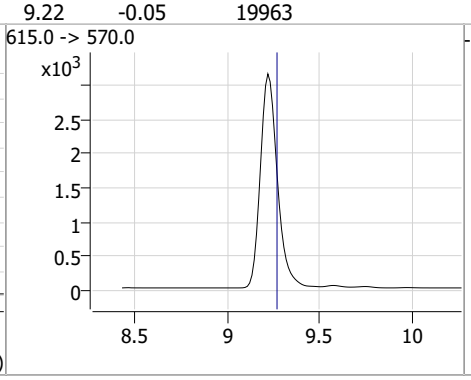


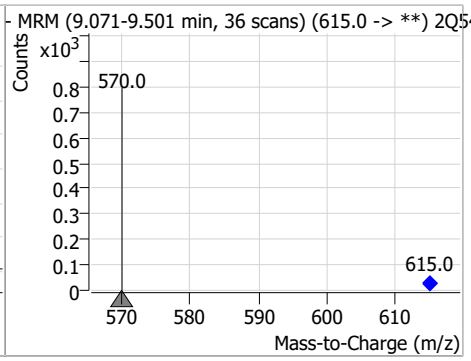


Perfluorinated Compounds by LC/MS/MS

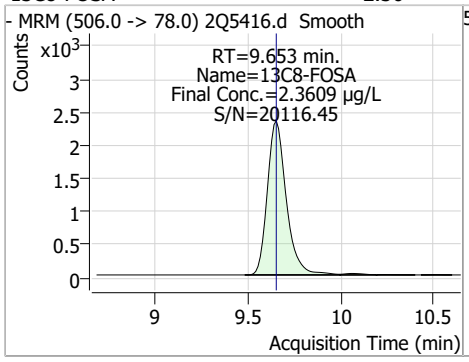
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.93	9.22	-0.05	19963				

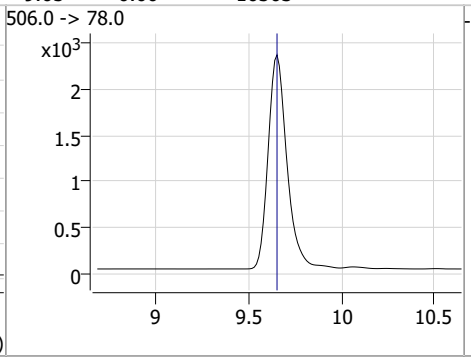


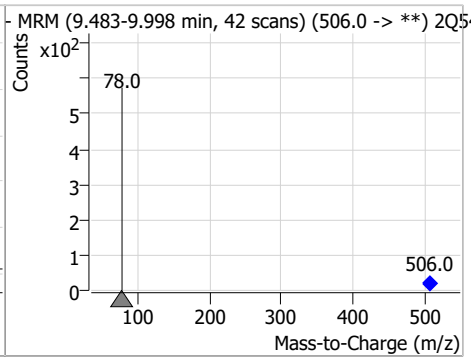




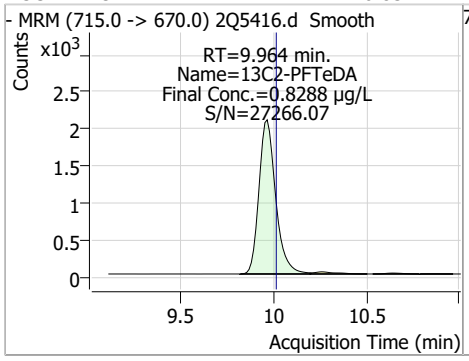
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.36	9.65	0.00	16503				

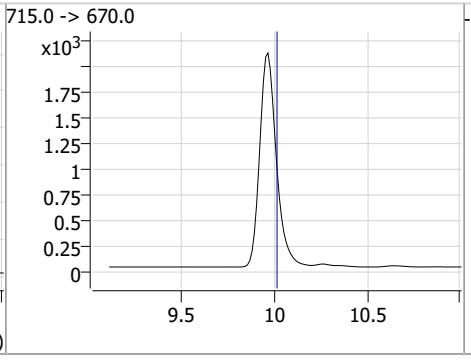


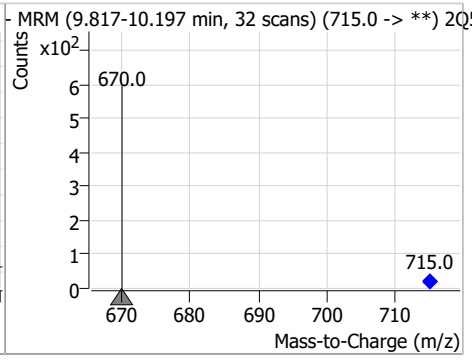




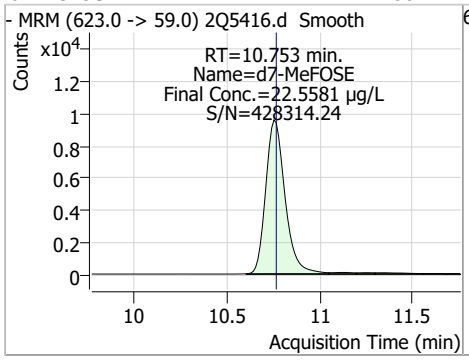
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.83	9.96	-0.05	13028				

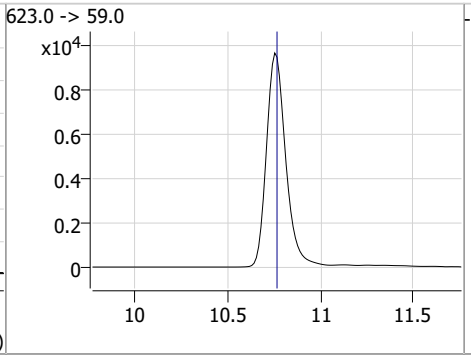


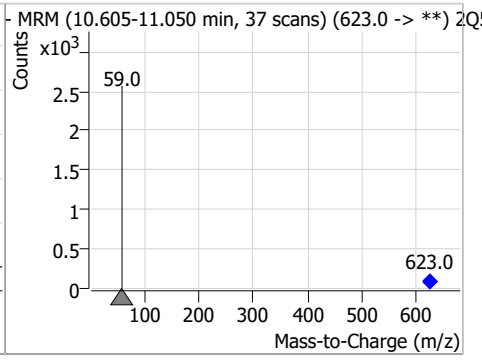




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	22.56	10.75	-0.01	69373				

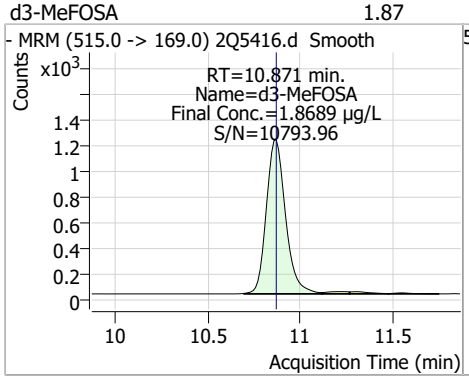


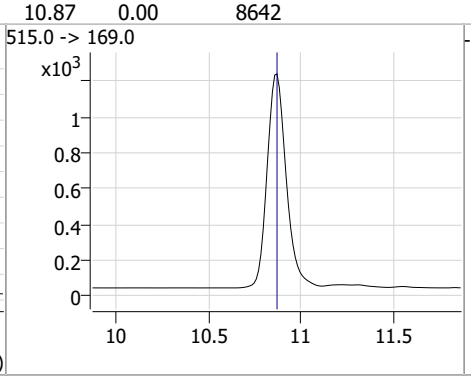


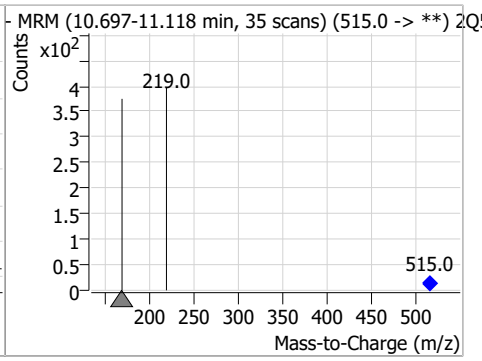


Perfluorinated Compounds by LC/MS/MS

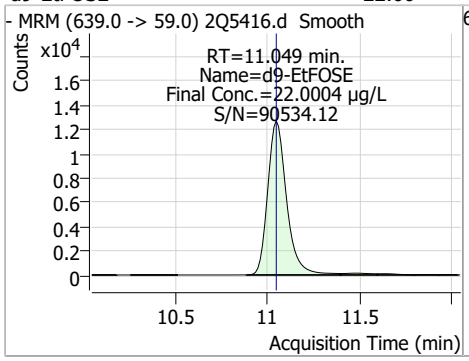
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.87	10.87	0.00	8642				

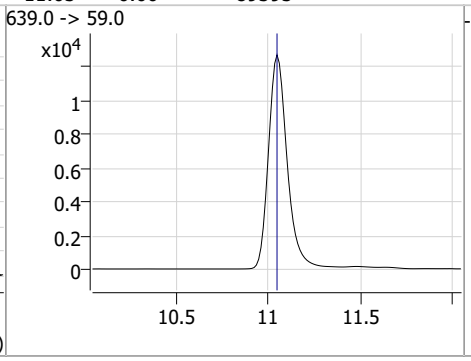


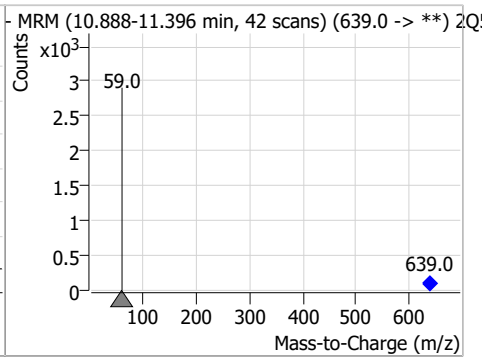




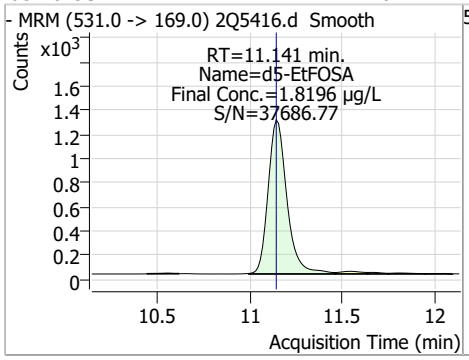
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.00	11.05	0.00	89595				

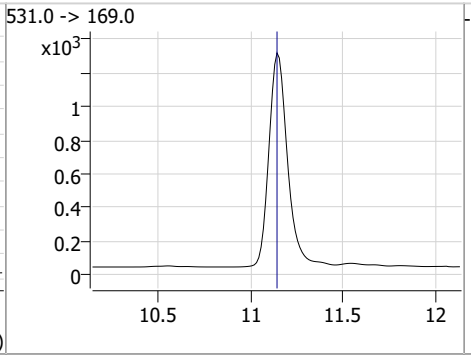


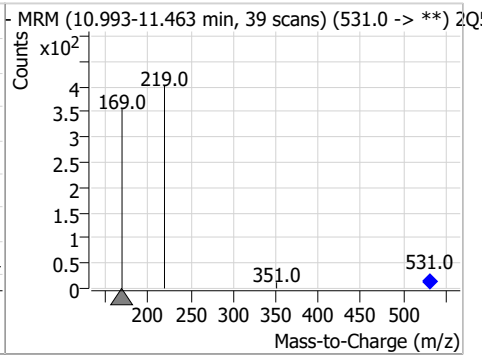




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.82	11.14	0.00	9021				







Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5417.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/2/2023 9:35:32 AM
Sample Name	:	JD77804-20
Vial	:	P3-B6
DA Method File	:	T2Q95.batch.bin
Batch Name	:	T2Q96.batch.bin
Sample Information	:	OP50811,T2Q96,512,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	142318	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	85084	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	46666	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	36937	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	61366	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	28328	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	10448	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	16290	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	17531	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	11307	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	13255	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5041	2.50	µg/L	-0.037
		302.0 -> 80.0	12820			
M3-PFHxS	7.472	402.0 -> 99.0	5956	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	5372	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1306	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2538	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3569	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	31266	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	21639	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	22701	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	57620	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	72714	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	8127	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	7800	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	10074	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	65181	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6592	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	61690	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	23575	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	31056	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	46318	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1306	5.42	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 108.5%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2538	4.76	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.1%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3569	4.83	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.6%		
13C2-PFDoDA	9.219	615.0 -> 570.0	17531	0.93	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 74.5%		
13C2-PFTeDA	9.964	715.0 -> 670.0	11307	0.82	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 65.5%		
13C3-PFBS	5.846	302.0 -> 99.0	5041	2.06	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5956	2.32	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.6%			
13C4-PFBA	3.314	217.0 -> 172.0	142318	9.70	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 97.0%			
13C4-PFHpA	6.770	367.0 -> 322.0	36937	2.45	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.2%			
13C5-PFHxA	5.930	318.0 -> 273.0	46666	2.42	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.0%			
13C5-PFPeA	4.798	268.0 -> 223.0	85084	4.90	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.0%			
13C6-PFDA	8.352	519.0 -> 474.0	10448	1.06	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 84.9%			
13C7-PFUnDA	8.803	570.0 -> 525.0	16290	1.00	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 80.3%			
13C8-FOSA	9.653	506.0 -> 78.0	13255	1.94	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 77.7%			
13C8-PFOA	7.372	421.0 -> 376.0	61366	2.40	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.1%			
13C8-PFOS	8.499	507.0 -> 99.0	5372	2.45	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.9%			
13C9-PFNA	7.875	472.0 -> 427.0	28328	1.17	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.2%			
d3-MeFOSAA	8.398	573.0 -> 419.0	31266	4.77	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.4%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	21639	9.85	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.5%			
d3-MeFOSA	10.871	515.0 -> 169.0	7800	1.73	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 69.1%			
d5-EtFOSAA	8.593	589.0 -> 419.0	22701	4.19	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 83.8%			
d7-MeFOSE	10.753	623.0 -> 59.0	57620	19.20	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 76.8%			
d9-EtFOSE	11.049	639.0 -> 59.0	72714	18.30	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 73.2%			
d5-EtFOSA	11.141	531.0 -> 169.0	8127	1.68	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 67.2%			
Target Compounds							QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.618	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

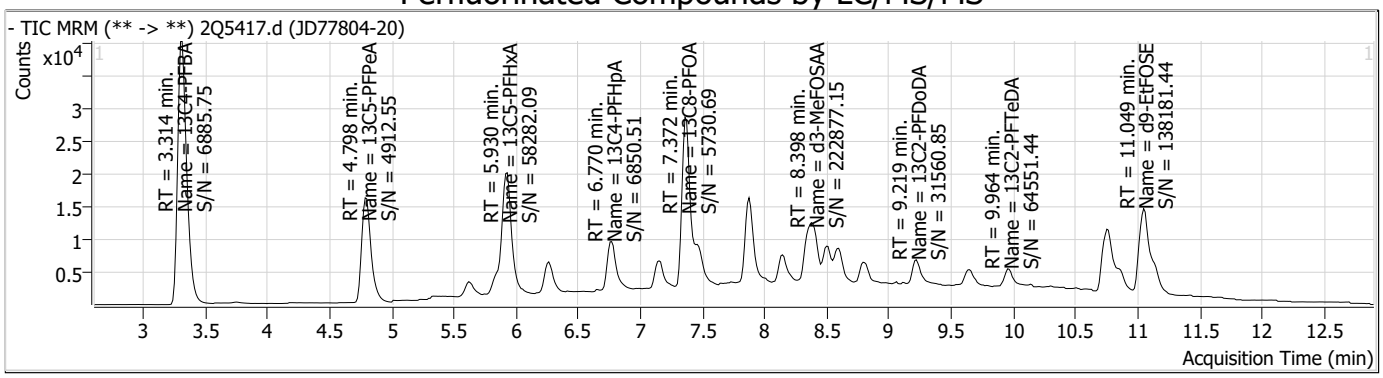
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	837	0.05	µg/L	#	83
		313.0 -> 119.0	72				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.900	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.373	413.0 -> 369.0	1512	0.06	µg/L	#	59
		413.0 -> 169.0	7				
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.167	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

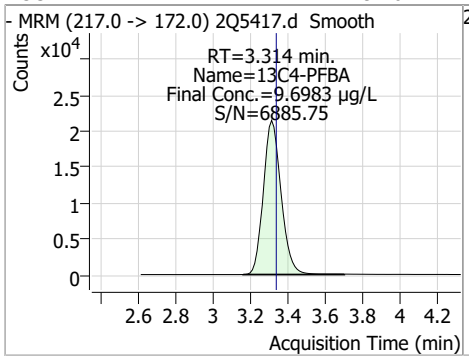
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

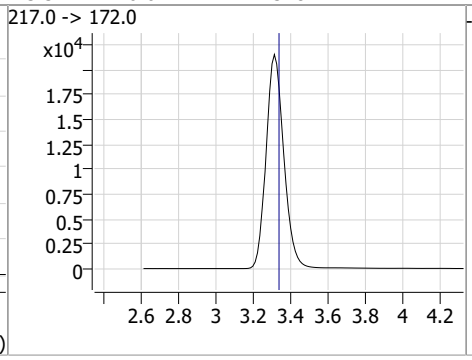
= Qualifier out of range, m = manually integrated, + = Area summed

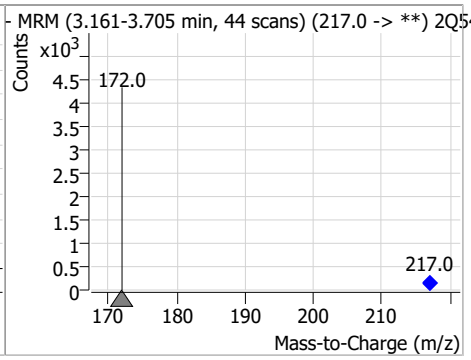
Perfluorinated Compounds by LC/MS/MS



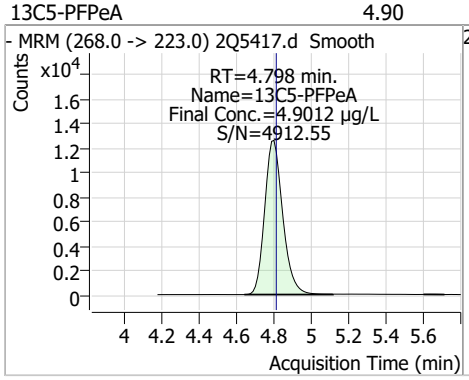
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.70	3.31	-0.02	142318				

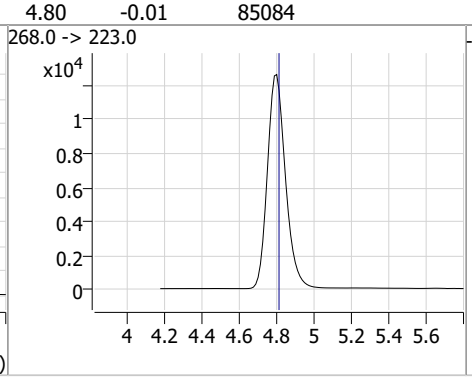


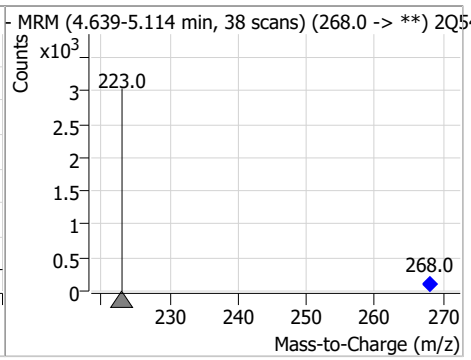




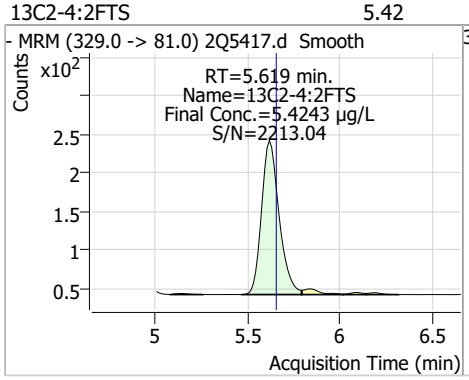
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.90	4.80	-0.01	85084				

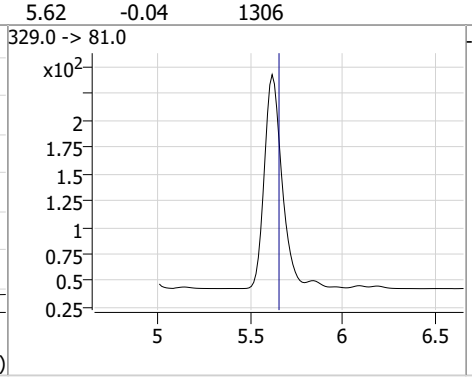


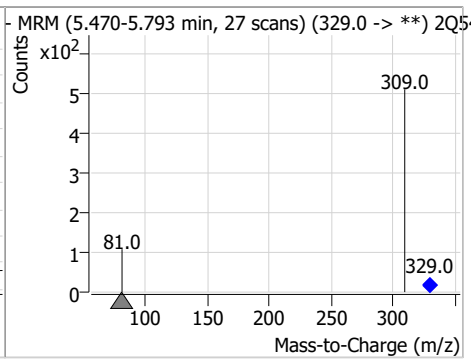




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.42	5.62	-0.04	1306				

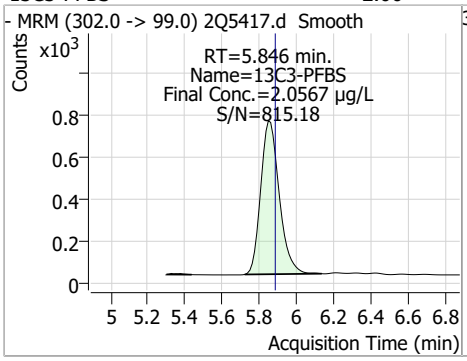


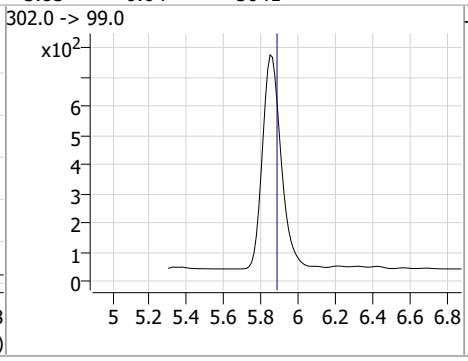


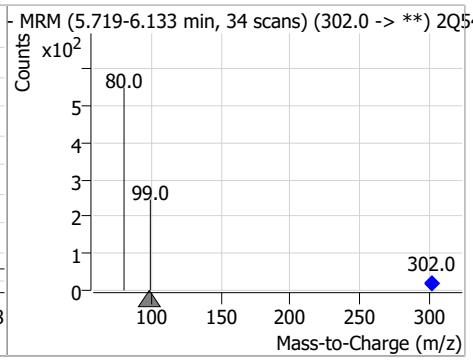


Perfluorinated Compounds by LC/MS/MS

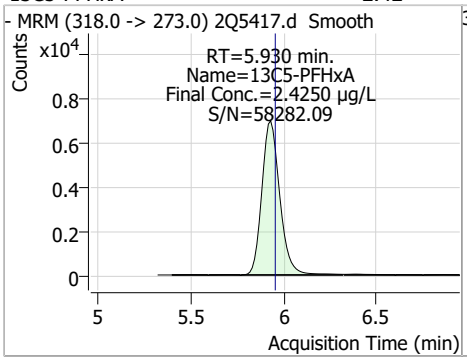
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.06	5.85	-0.04	5041				

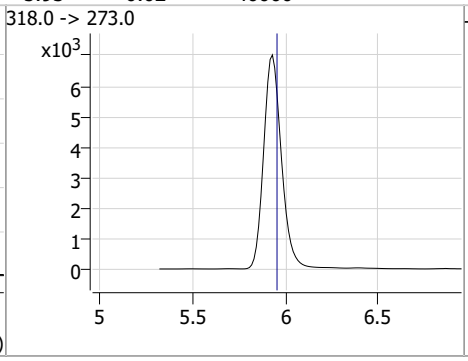


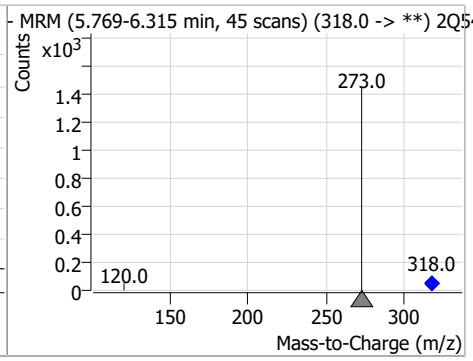




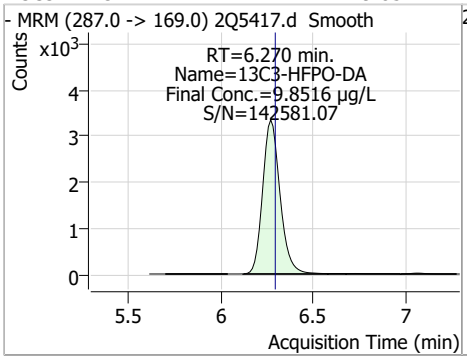
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.42	5.93	-0.02	46666				

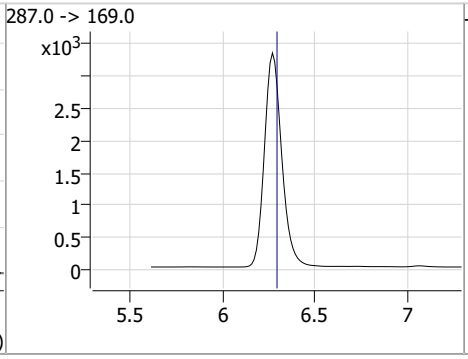


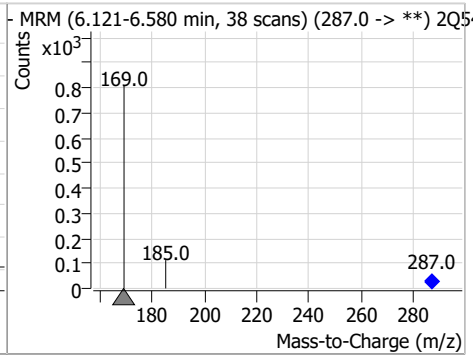




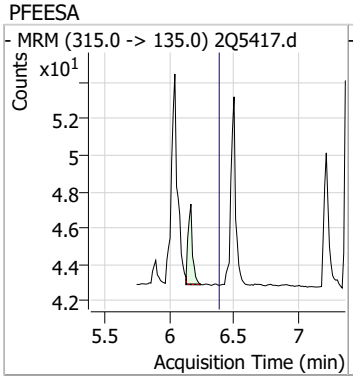
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.85	6.27	-0.02	21639				

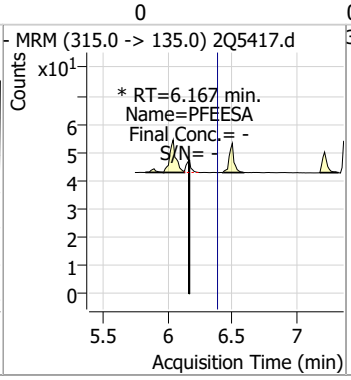


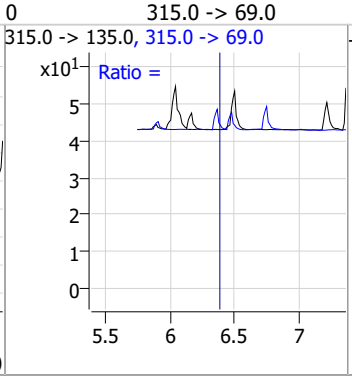


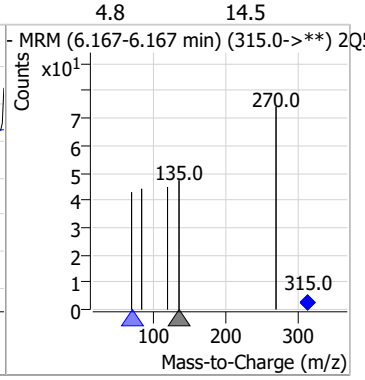


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5



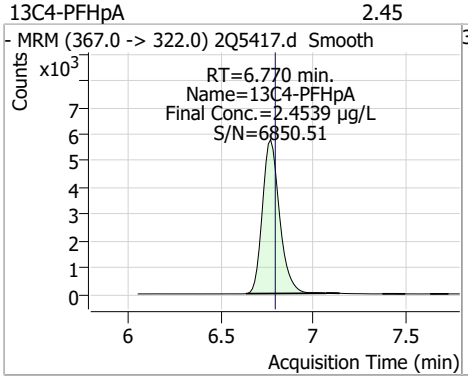


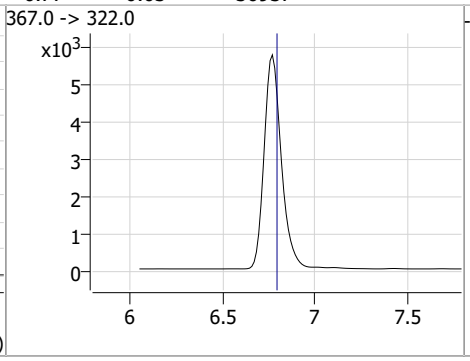


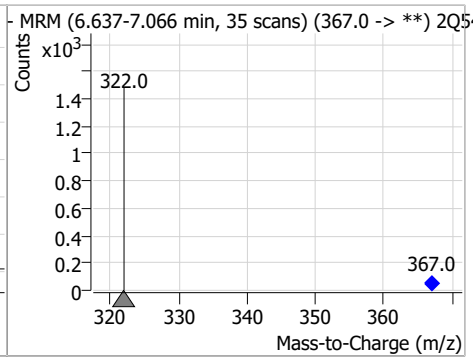


Perfluorinated Compounds by LC/MS/MS

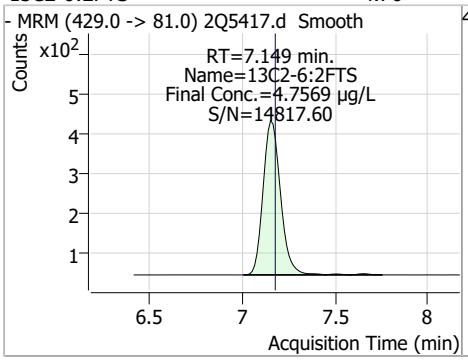
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.45	6.77	-0.03	36937				

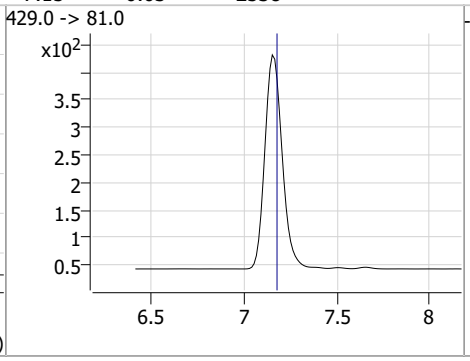


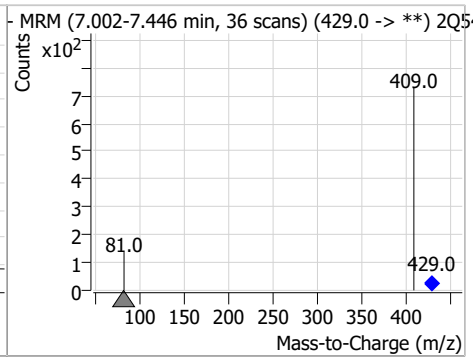




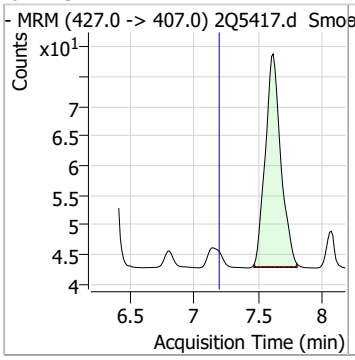
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.76	7.15	-0.03	2538				

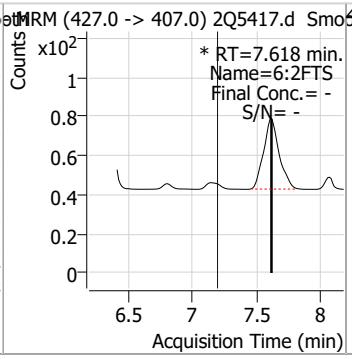


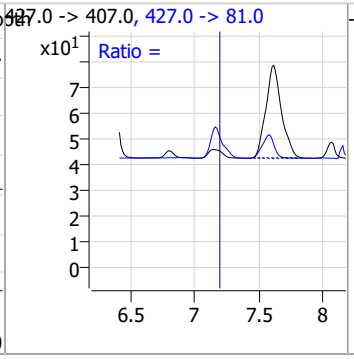


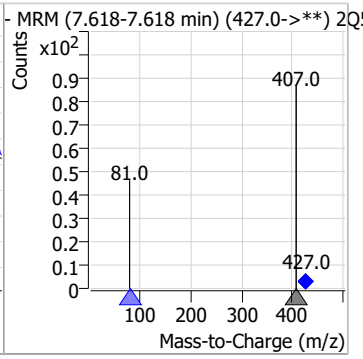


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9

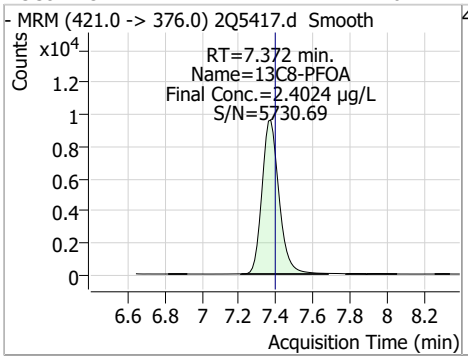


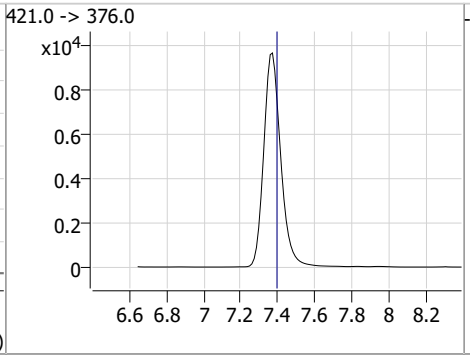


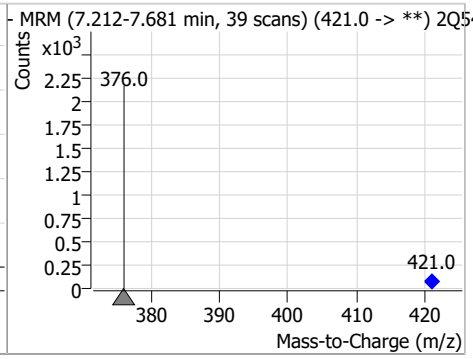




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.40	7.37	-0.02	61366				

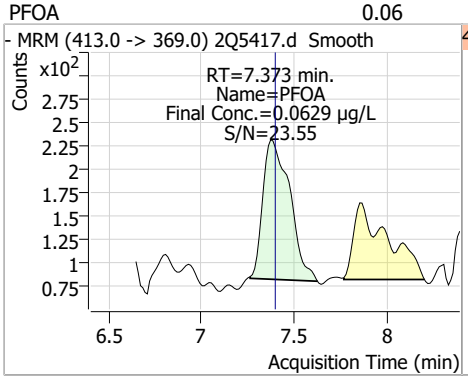


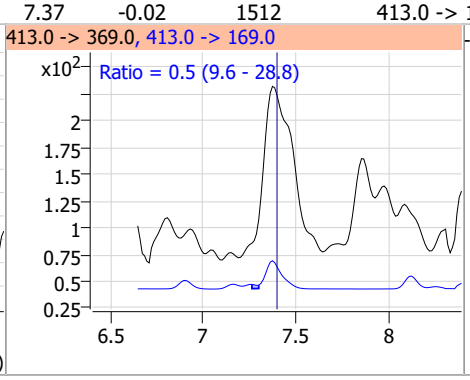


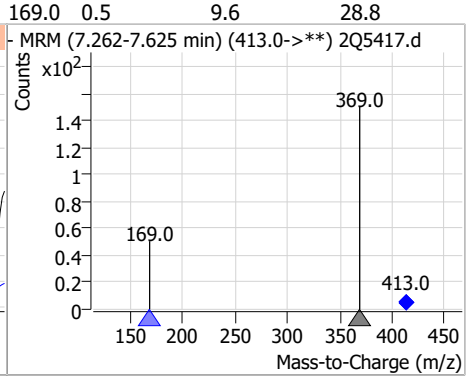


Perfluorinated Compounds by LC/MS/MS

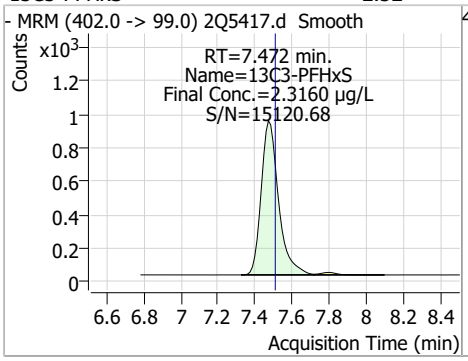
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.06	7.37	-0.02	1512	413.0 -> 169.0	0.5	9.6	28.8

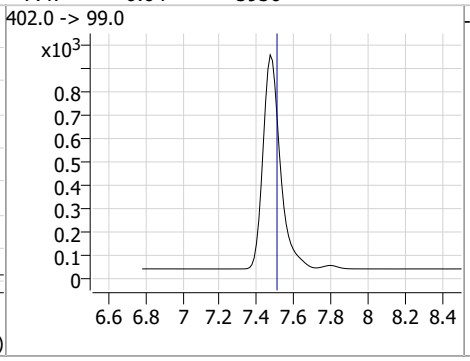


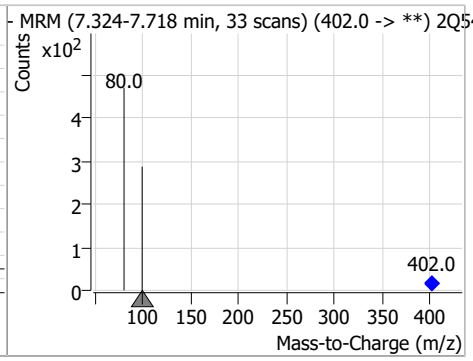




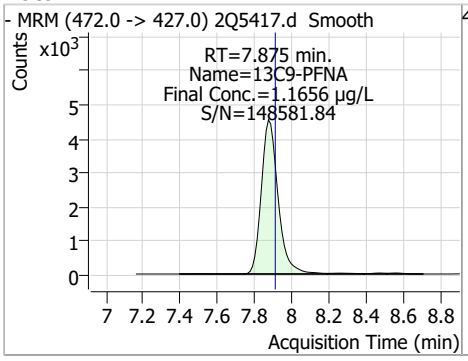
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.32	7.47	-0.04	5956				

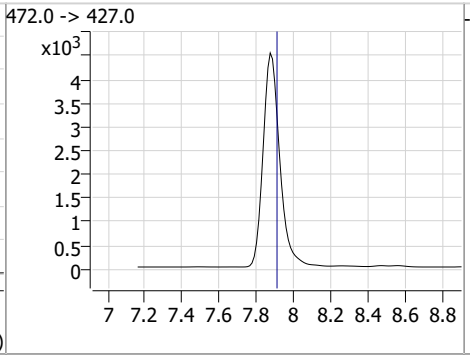


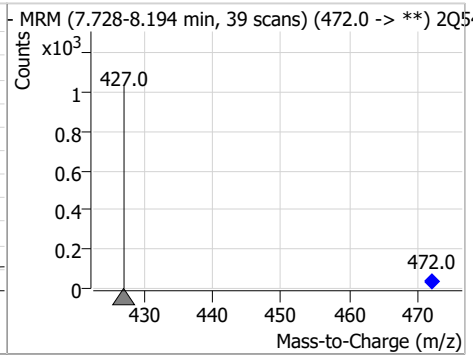




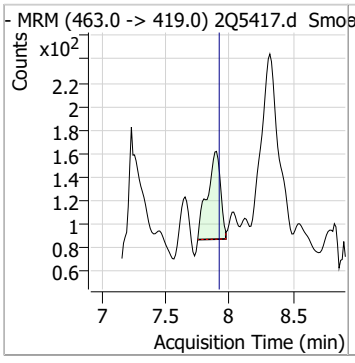
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.17	7.88	-0.04	28328				

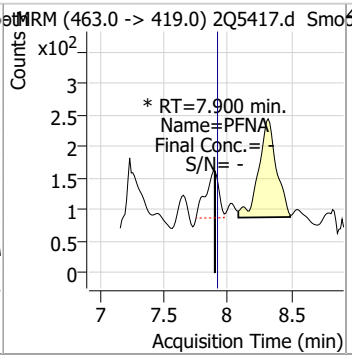


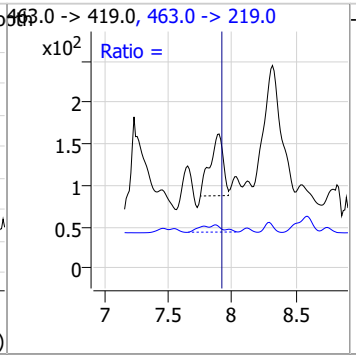


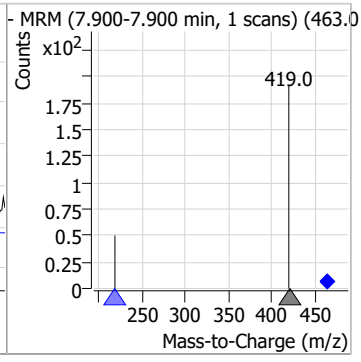


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



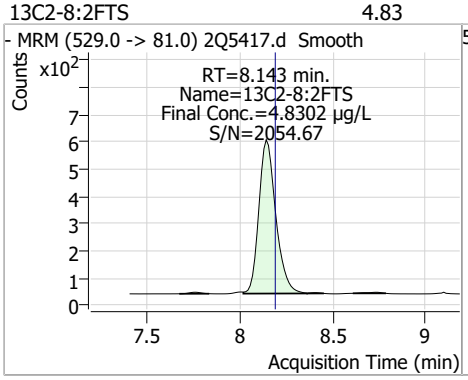


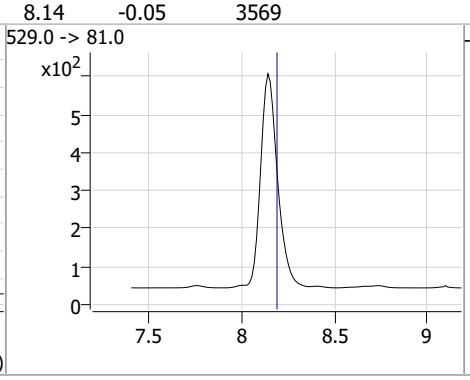


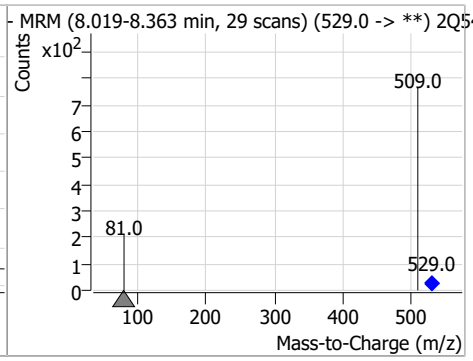


Perfluorinated Compounds by LC/MS/MS

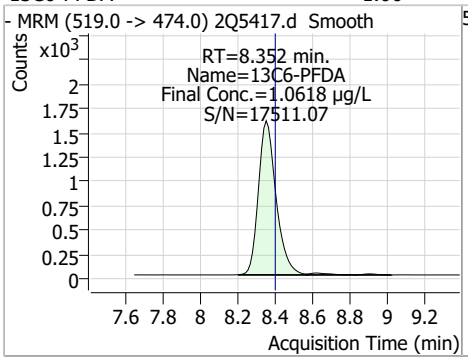
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.83	8.14	-0.05	3569				

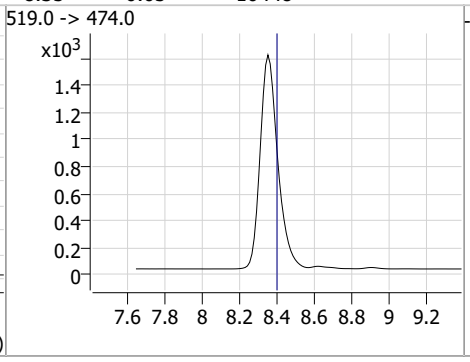


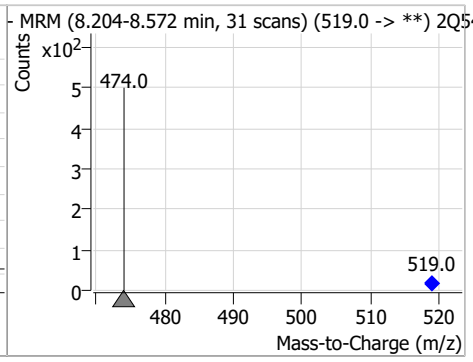




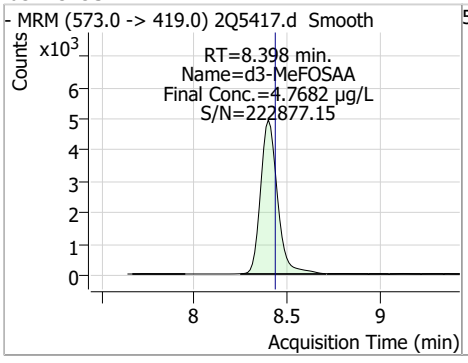
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.06	8.35	-0.05	10448				

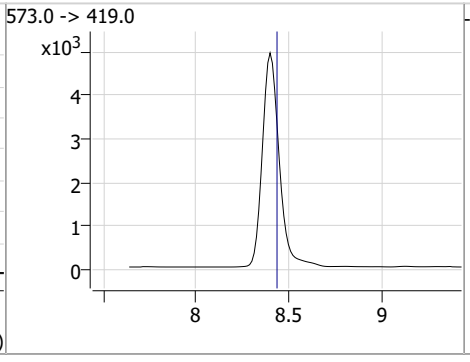


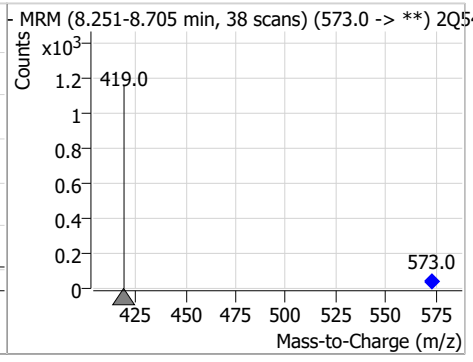




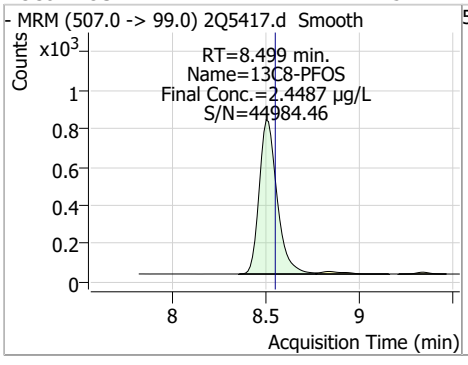
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.77	8.40	-0.04	31266				

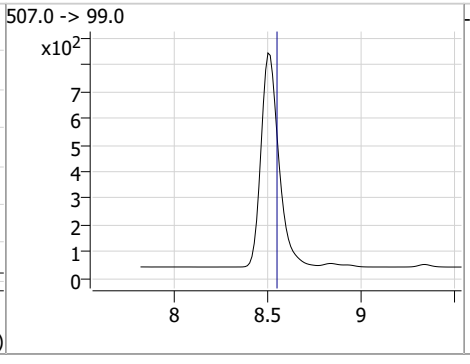


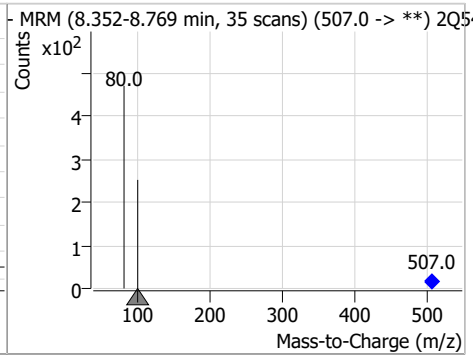




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.45	8.50	-0.05	5372				

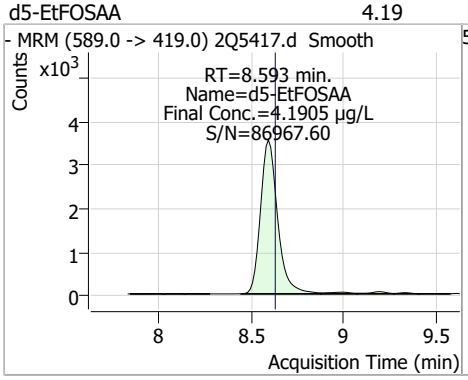


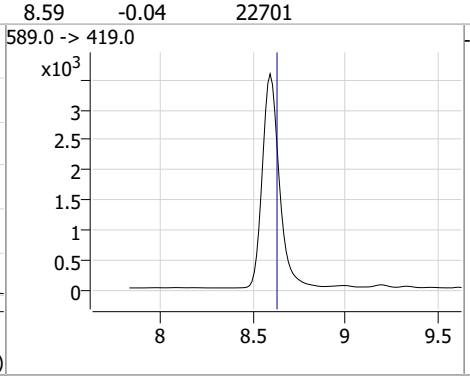


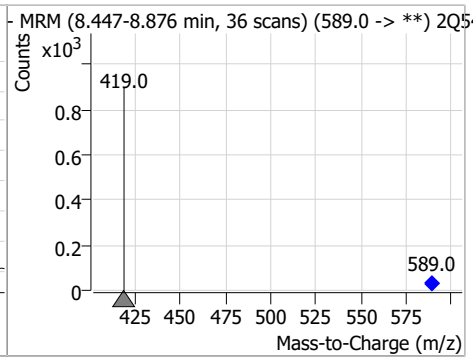


Perfluorinated Compounds by LC/MS/MS

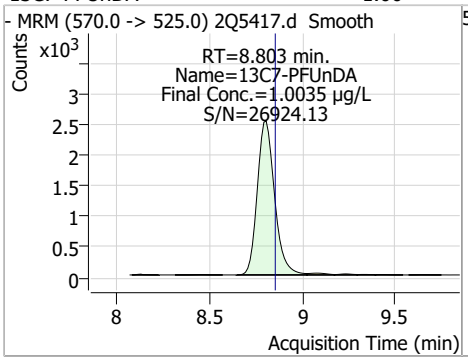
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.19	8.59	-0.04	22701				

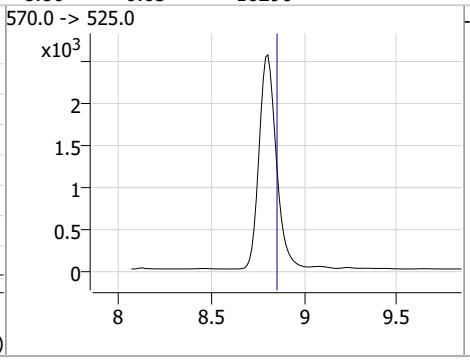


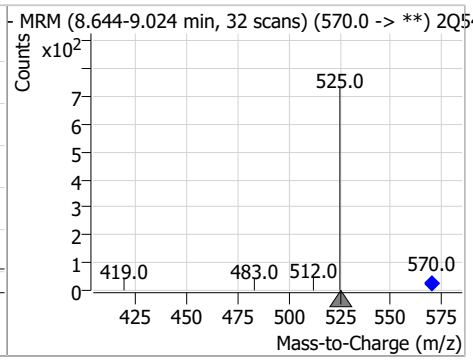




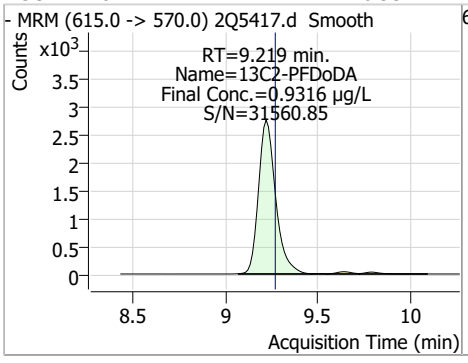
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.00	8.80	-0.05	16290				

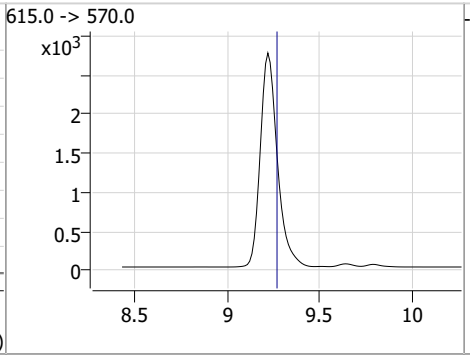


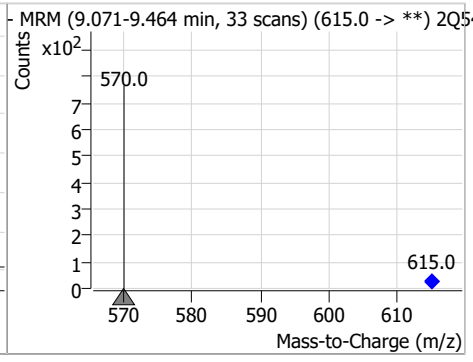




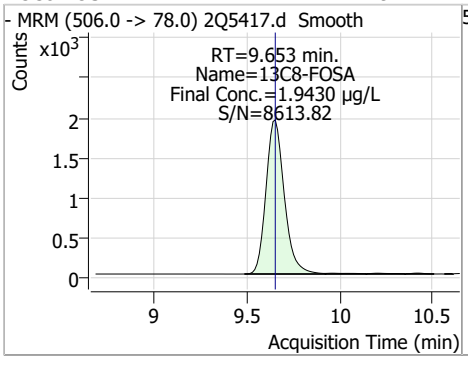
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	0.93	9.22	-0.05	17531				

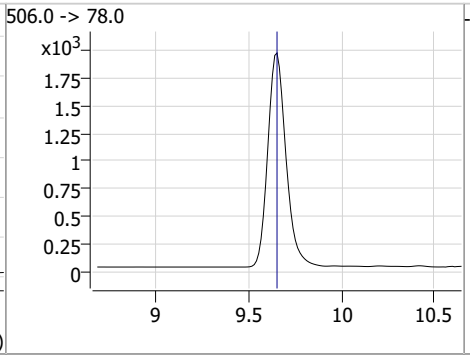


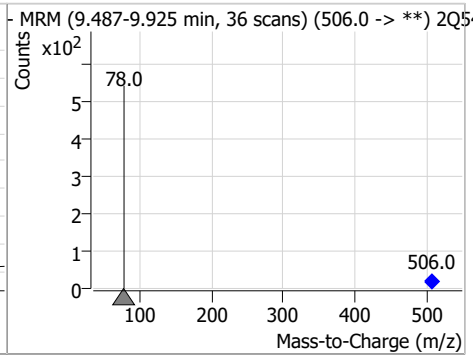




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	1.94	9.65	0.00	13255				

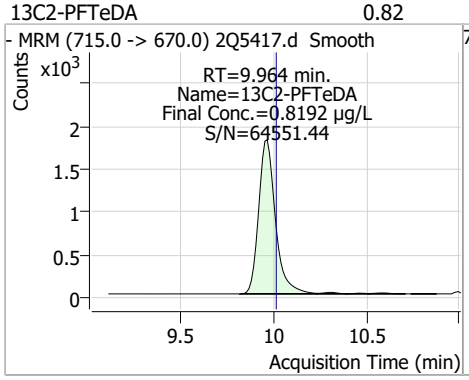


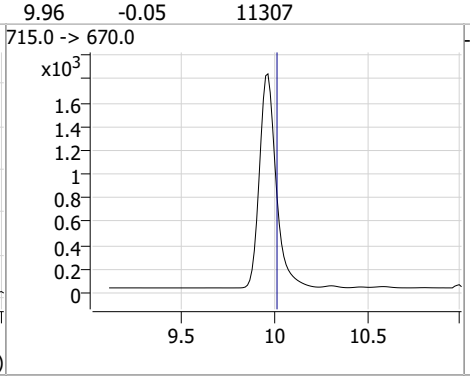


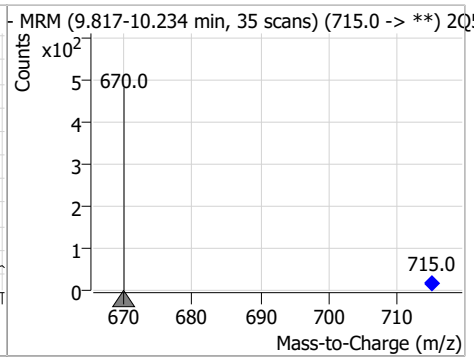


Perfluorinated Compounds by LC/MS/MS

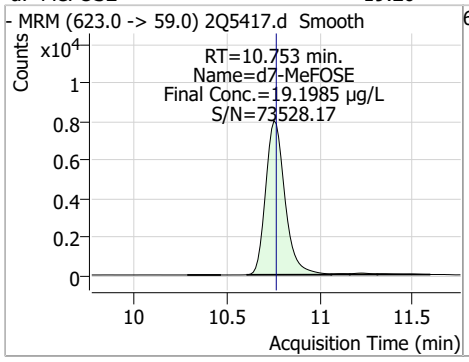
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.82	9.96	-0.05	11307				

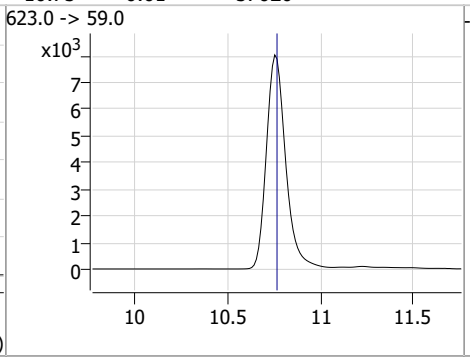


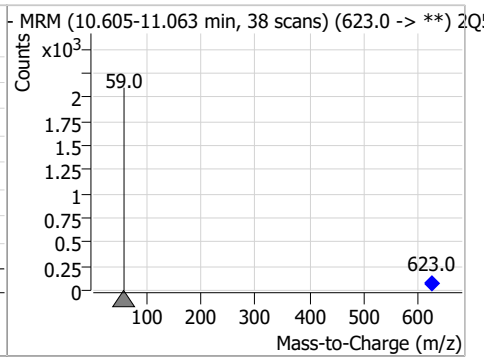




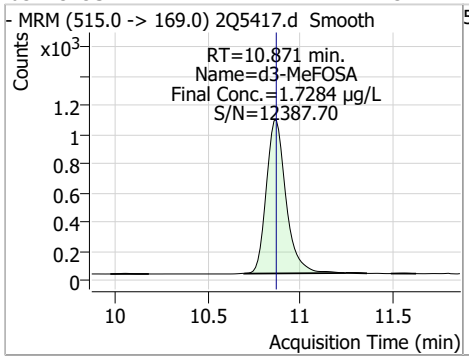
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	19.20	10.75	-0.01	57620				

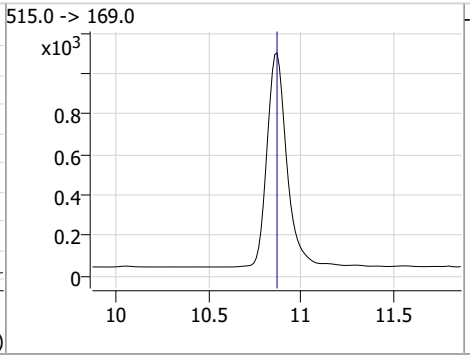


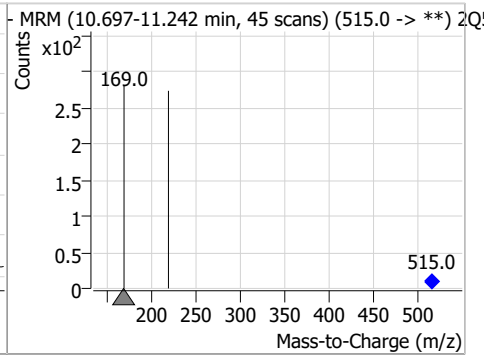




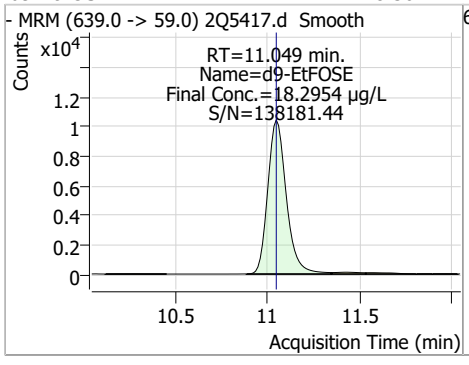
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.73	10.87	0.00	7800				

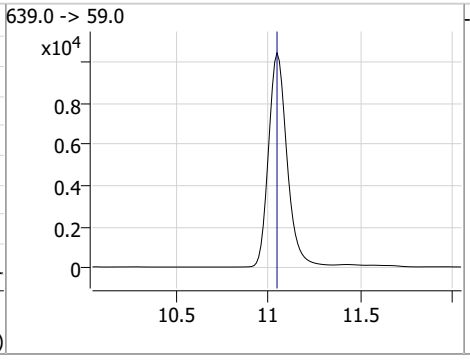


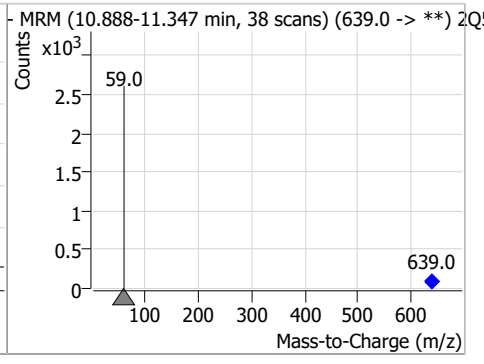




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	18.30	11.05	0.00	72714				

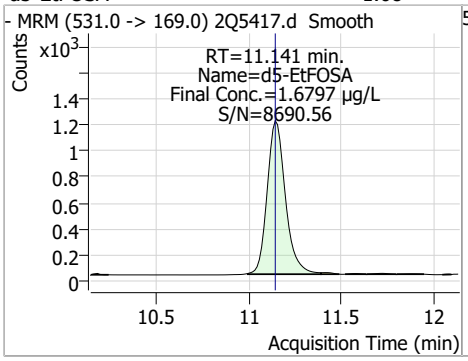


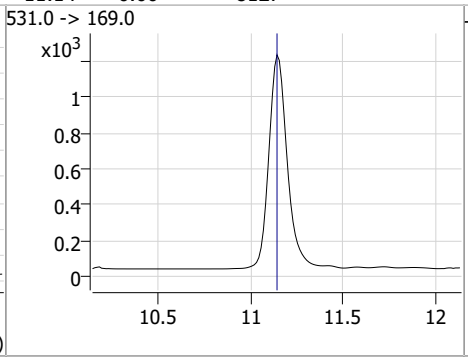


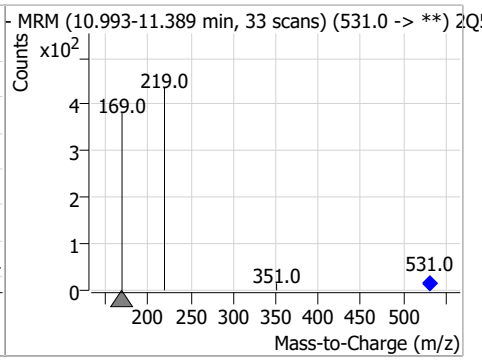


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.68	11.14	0.00	8127				







Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5387.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 1:57:23 AM
Sample Name : OP50811-MB
Vial : P2-E9
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	163138	10.00	µg/L	-0.037
M5-PFPeA	4.798	268.0 -> 223.0	99071	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	51619	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	41781	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	69338	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	30897	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	14372	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	22800	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	24337	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	17973	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	18610	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6335	2.50	µg/L	-0.037
		302.0 -> 80.0	15625			
M3-PFHxS	7.472	402.0 -> 99.0	5753	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6348	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1434	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2742	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4609	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	42844	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	25230	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	33940	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	80936	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	109310	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10798	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	8329	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	9734	2.50	µg/L	-0.037
13C3-PFBA	3.305	216.0 -> 172.0	67208	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	5841	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	62943	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	25588	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	32341	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	45019	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1434	6.72	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 134.5%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2742	5.80	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 116.0%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4609	7.04	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 140.8%		
13C2-PFDoDA	9.219	615.0 -> 570.0	24337	1.19	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.3%		
13C2-PFTeDA	9.964	715.0 -> 670.0	17973	1.20	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.0%		
13C3-PFBS	5.846	302.0 -> 99.0	6335	2.92	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 116.7%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5753	2.52	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.0%			
13C4-PFBA	3.302	217.0 -> 172.0	163138	10.78	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 107.8%			
13C4-PFHpA	6.770	367.0 -> 322.0	41781	2.86	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 114.2%			
13C5-PFHxA	5.930	318.0 -> 273.0	51619	2.76	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 110.4%			
13C5-PFPeA	4.798	268.0 -> 223.0	99071	5.87	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 117.4%			
13C6-PFDA	8.352	519.0 -> 474.0	14372	1.35	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 107.7%			
13C7-PFUnDA	8.803	570.0 -> 525.0	22800	1.29	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 103.5%			
13C8-FOSA	9.653	506.0 -> 78.0	18610	2.82	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 112.9%			
13C8-PFOA	7.372	421.0 -> 376.0	69338	2.66	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.4%			
13C8-PFOS	8.512	507.0 -> 99.0	6348	2.99	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 119.8%			
13C9-PFNA	7.875	472.0 -> 427.0	30897	1.22	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.7%			
d3-MeFOSAA	8.398	573.0 -> 419.0	42844	6.76	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 135.2%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	25230	11.82	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 118.2%			
d3-MeFOSA	10.871	515.0 -> 169.0	8329	1.91	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 76.4%			
d5-EtFOSAA	8.593	589.0 -> 419.0	33940	6.48	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 129.7%			
d7-MeFOSE	10.753	623.0 -> 59.0	80936	27.91	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 111.6%			
d9-EtFOSE	11.049	639.0 -> 59.0	109310	28.46	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 113.9%			
d5-EtFOSA	11.141	531.0 -> 169.0	10798	2.31	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.4%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.163	427.0 -> 407.0	225	0.06	µg/L		75
		427.0 -> 81.0	41				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.312	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	8.045	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

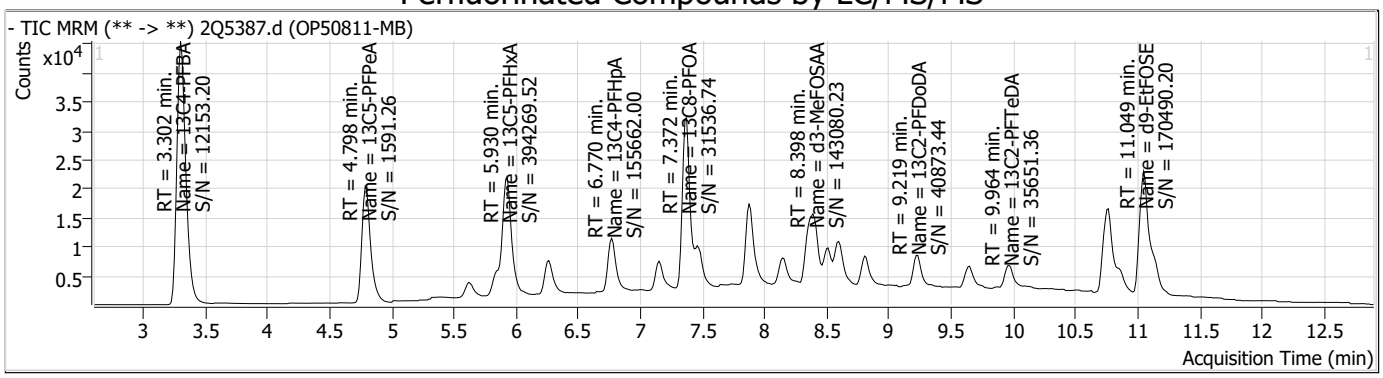
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	7.313	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	6.391	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.900	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.402	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

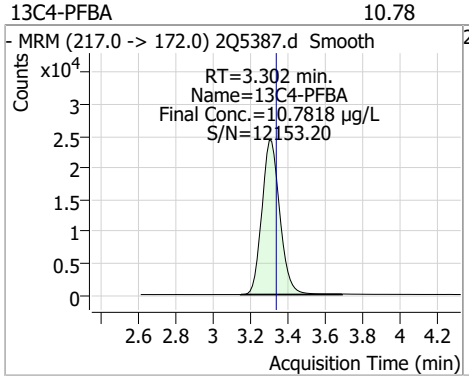
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

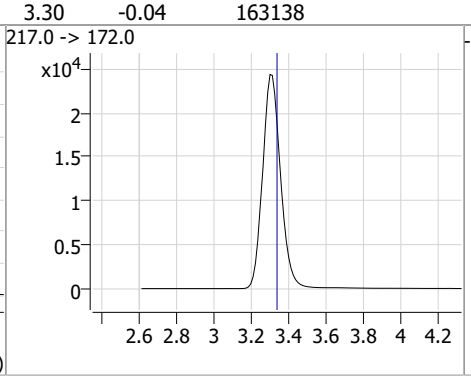
= Qualifier out of range, m = manually integrated, + = Area summed

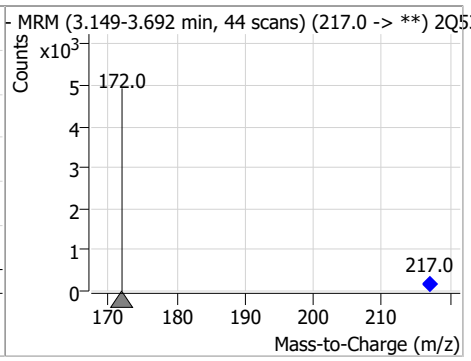
Perfluorinated Compounds by LC/MS/MS



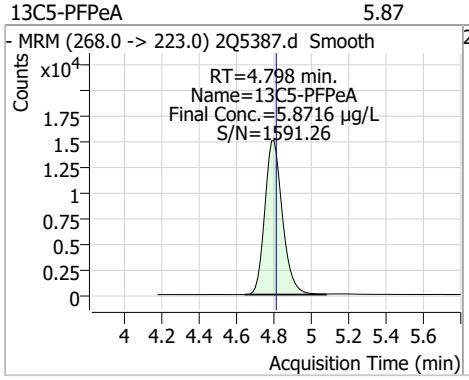
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.78	3.30	-0.04	163138				

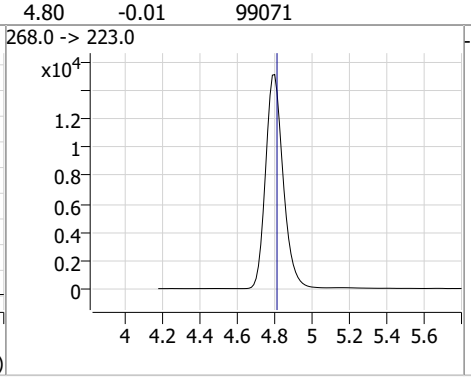


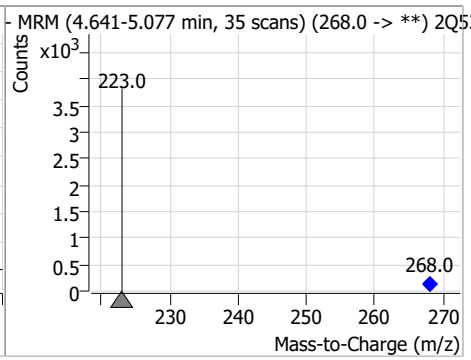




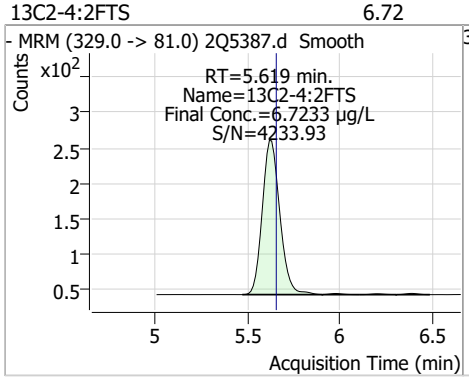
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.87	4.80	-0.01	99071				

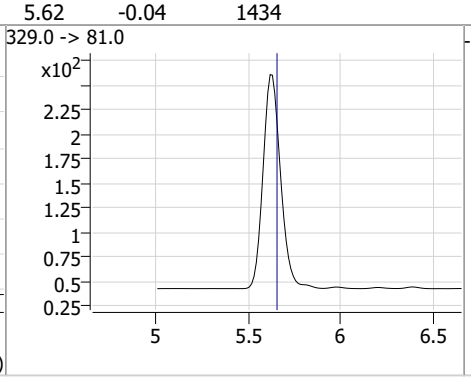


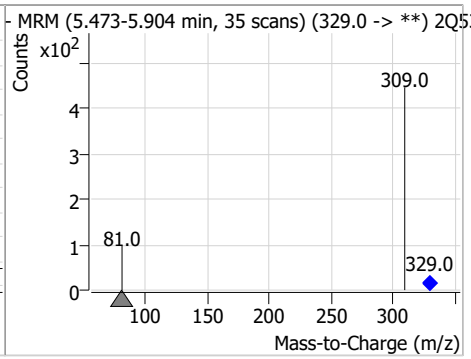




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	6.72	5.62	-0.04	1434				

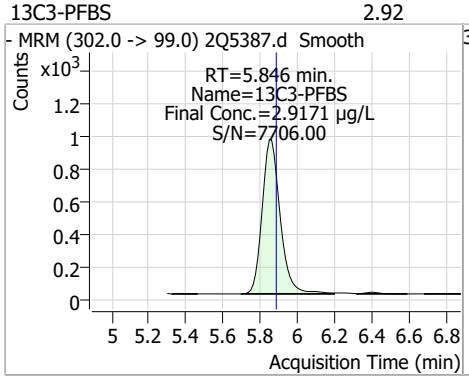


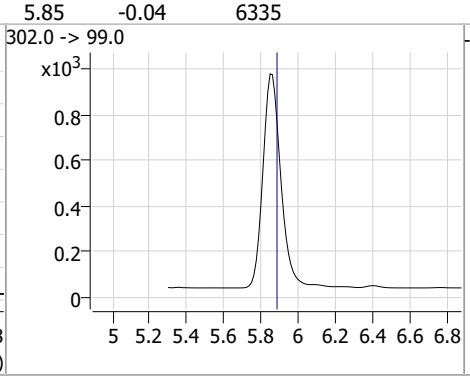


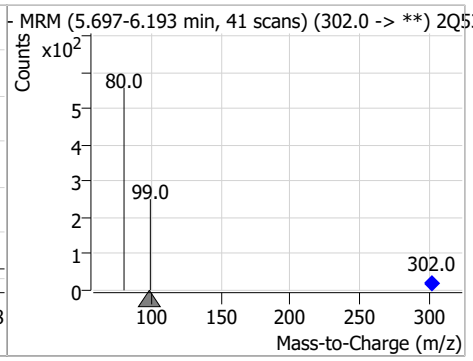


Perfluorinated Compounds by LC/MS/MS

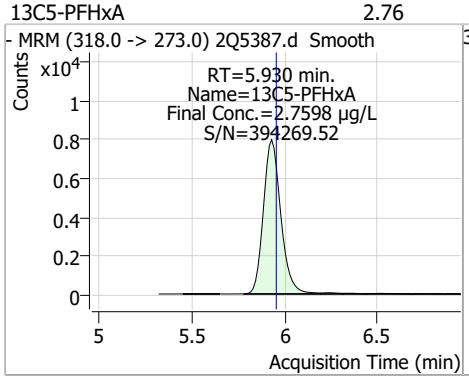
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.92	5.85	-0.04	6335				

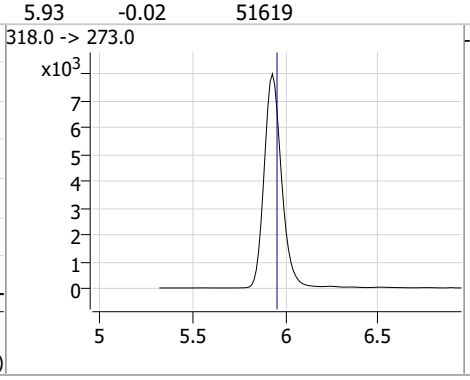


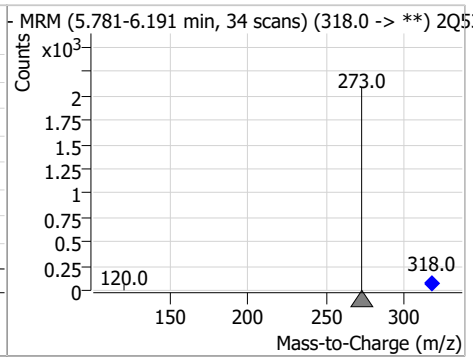




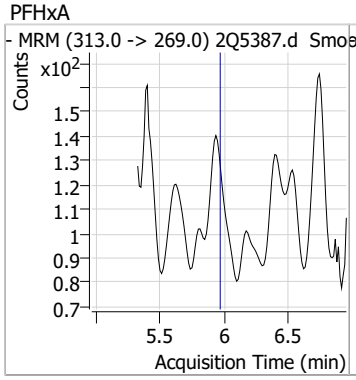
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.76	5.93	-0.02	51619				

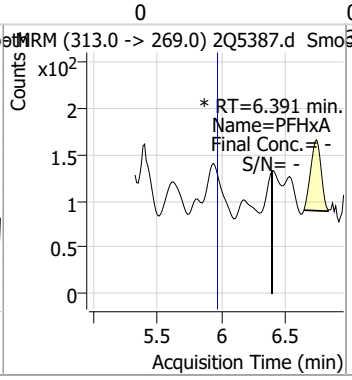


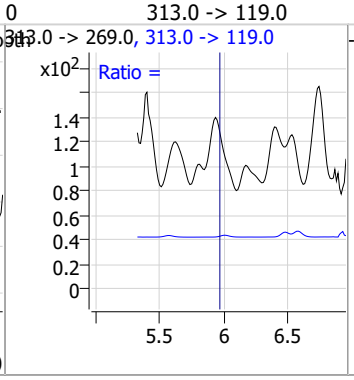


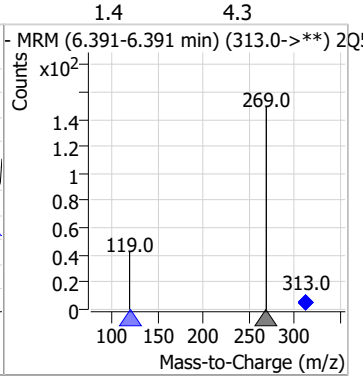


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

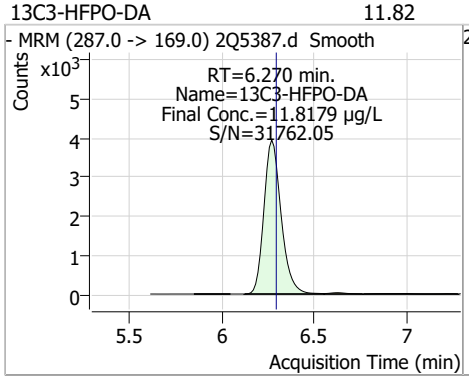


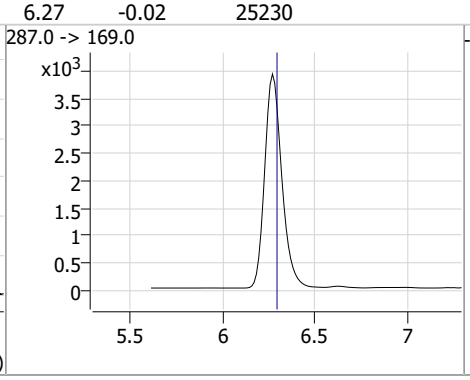


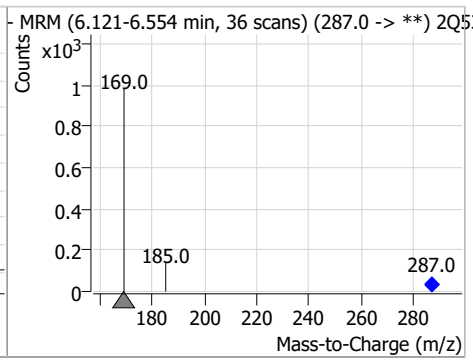




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	11.82	6.27	-0.02	25230				

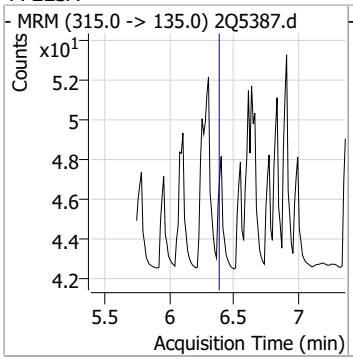


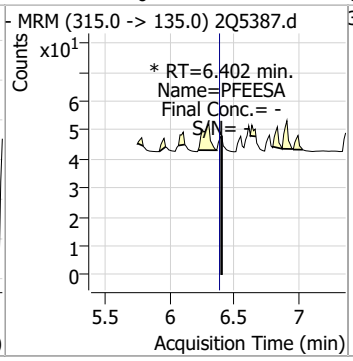


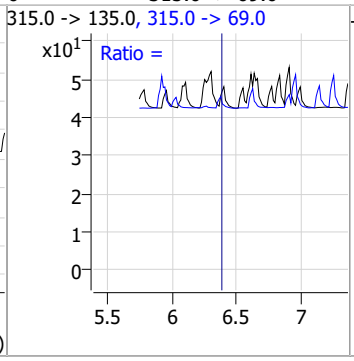


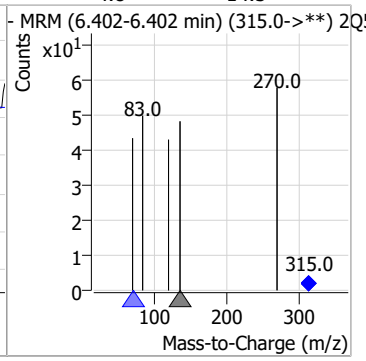
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

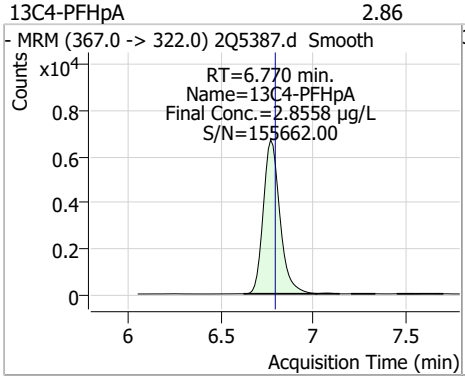


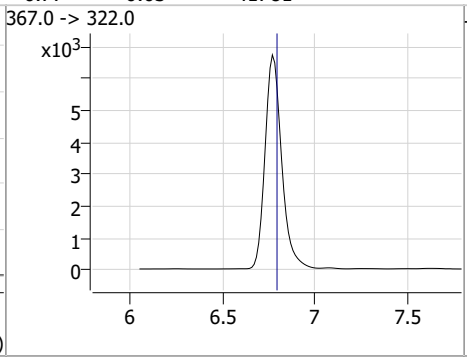


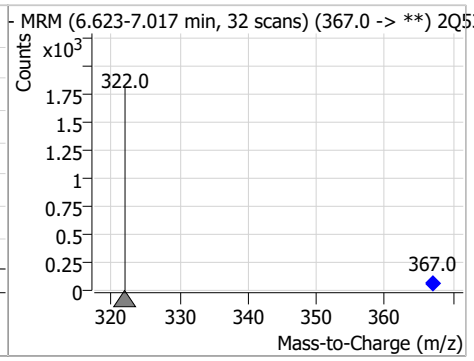




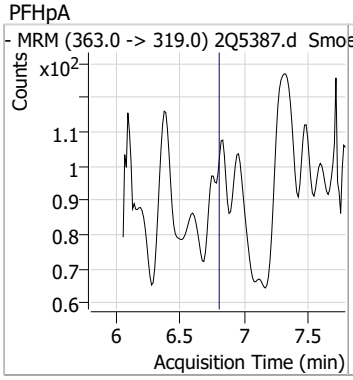
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.86	6.77	-0.03	41781				

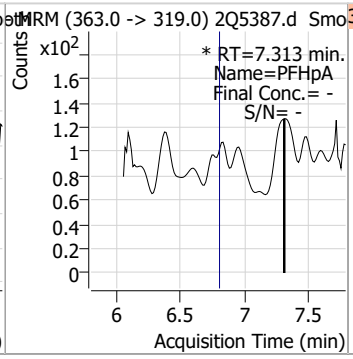


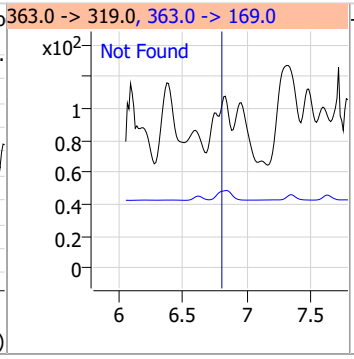


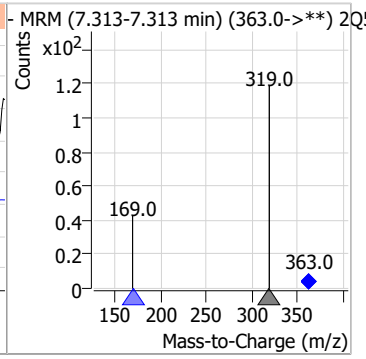


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5

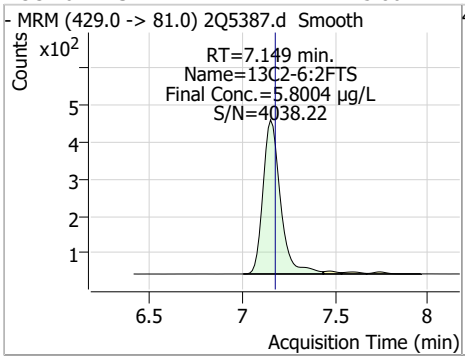


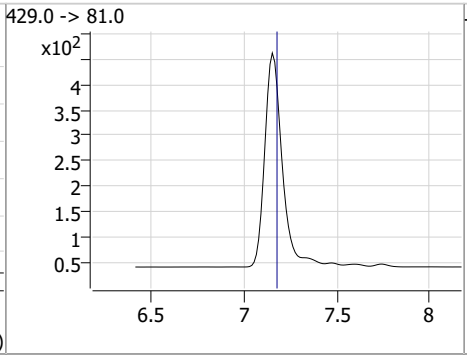


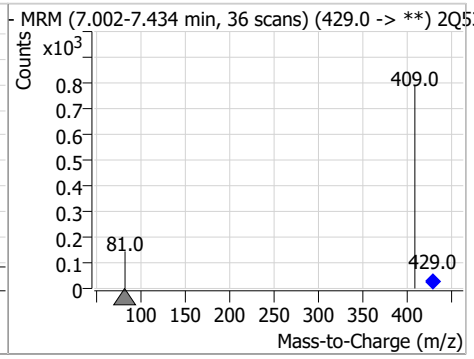




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.80	7.15	-0.03	2742				

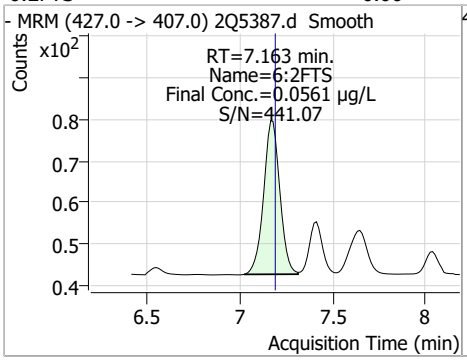


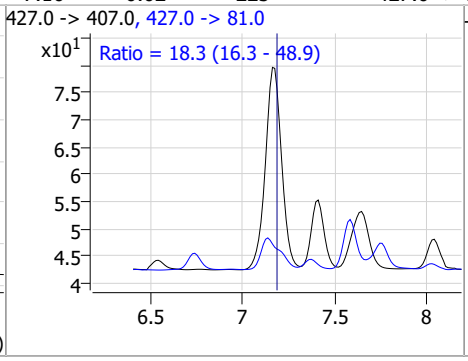


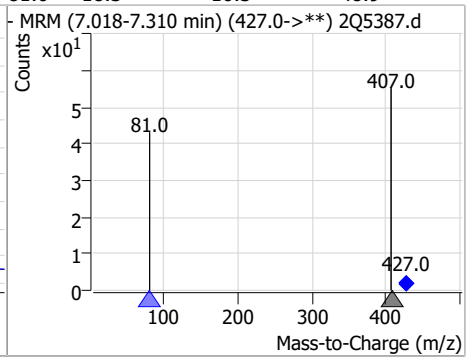


Perfluorinated Compounds by LC/MS/MS

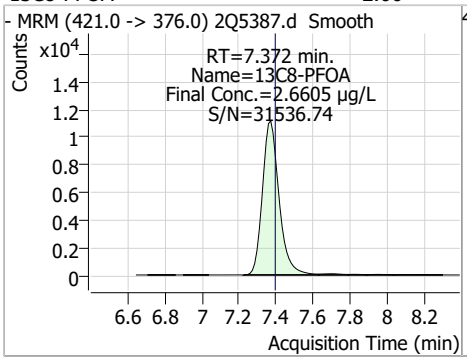
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.06	7.16	-0.02	225	427.0 -> 81.0	18.3	16.3	48.9

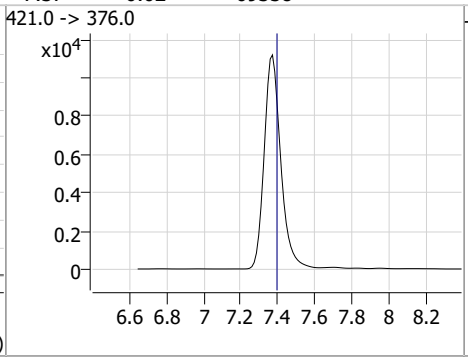


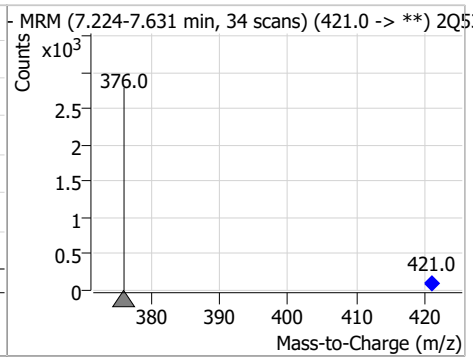




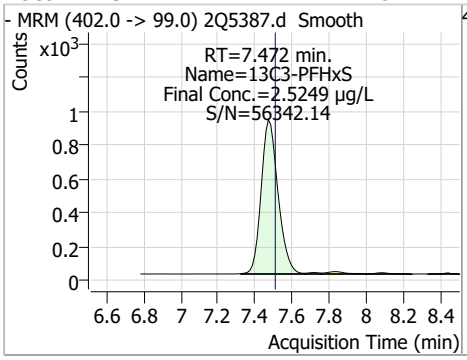
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.66	7.37	-0.02	69338				

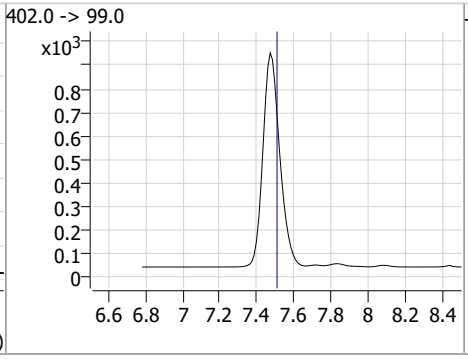


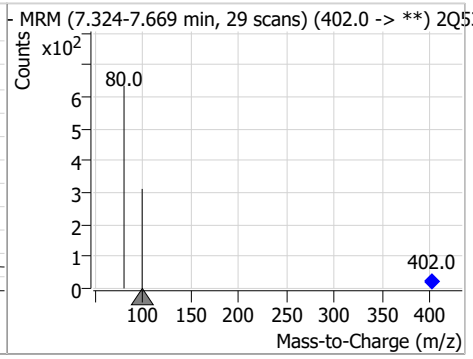




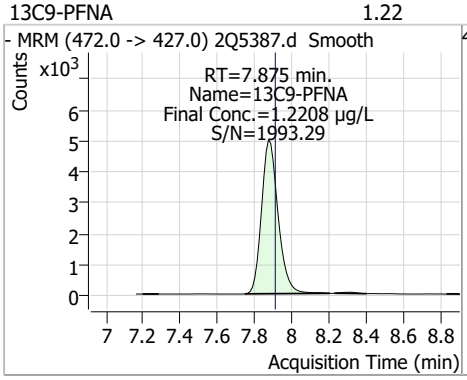
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.52	7.47	-0.04	5753				

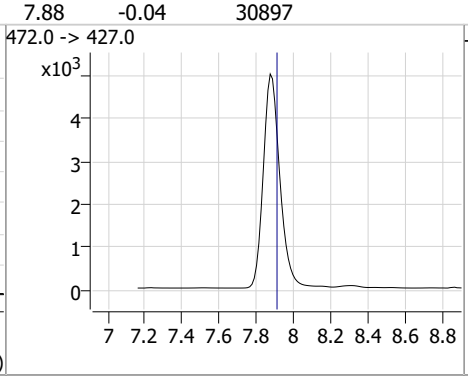


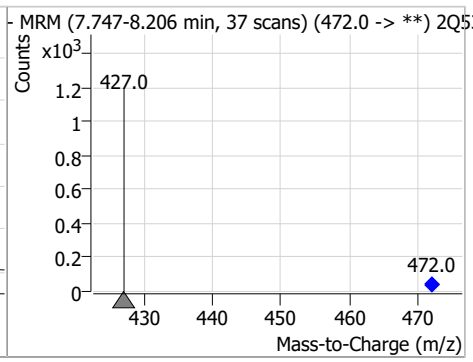




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.22	7.88	-0.04	30897				

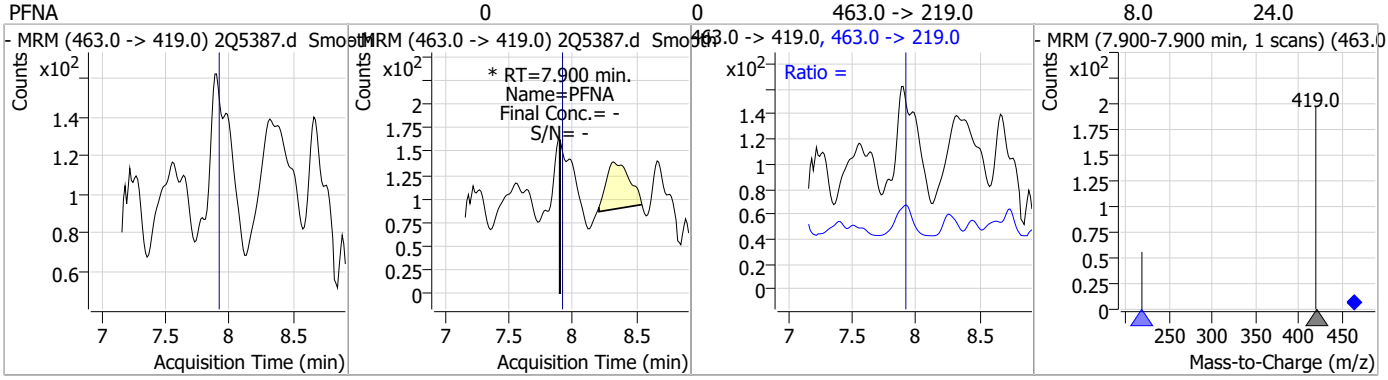




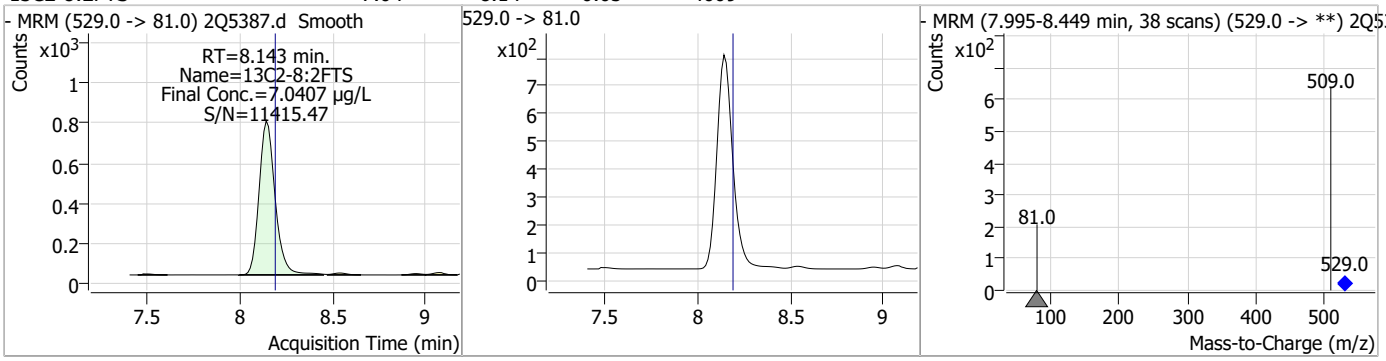


Perfluorinated Compounds by LC/MS/MS

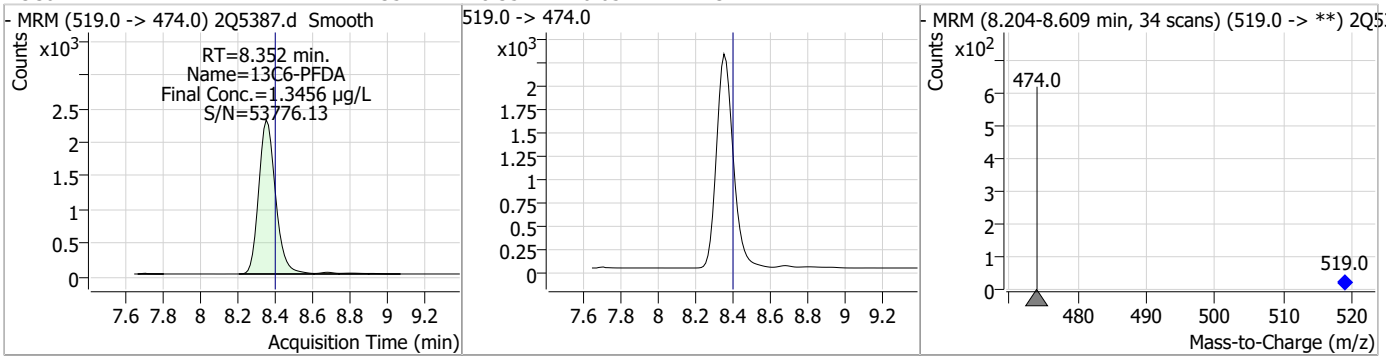
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



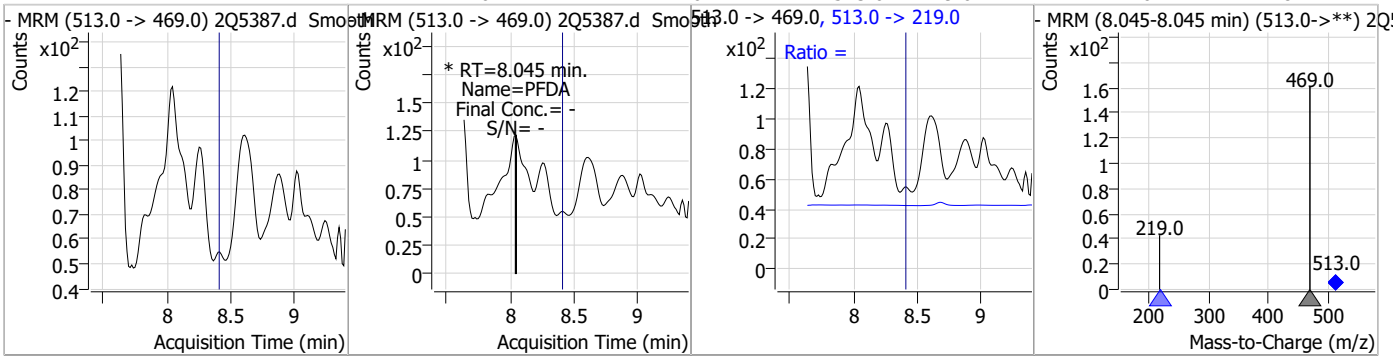
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	7.04	8.14	-0.05	4609				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.35	8.35	-0.05	14372				

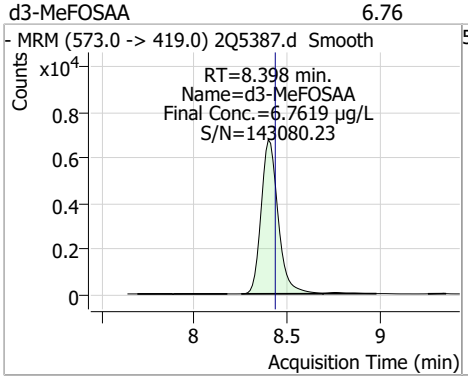


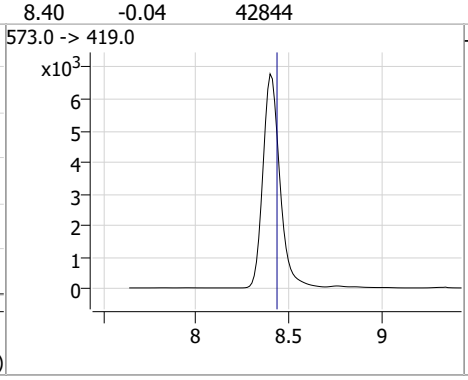
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8

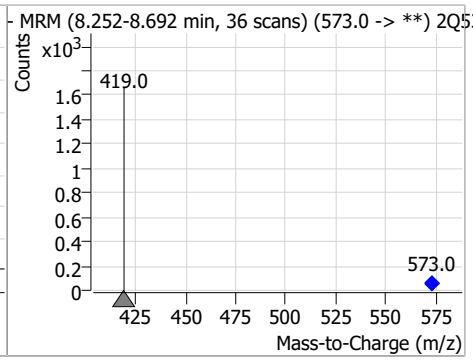


Perfluorinated Compounds by LC/MS/MS

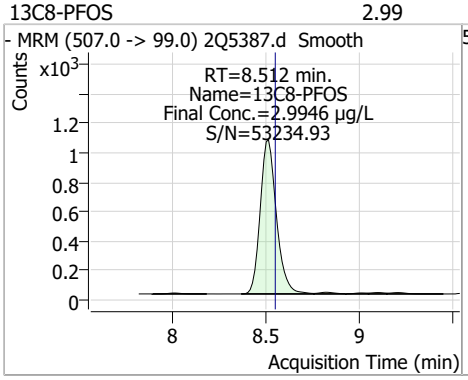
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	6.76	8.40	-0.04	42844				

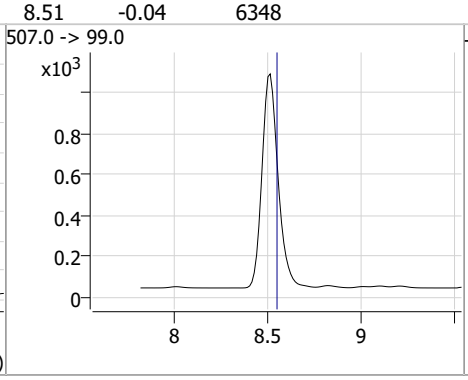


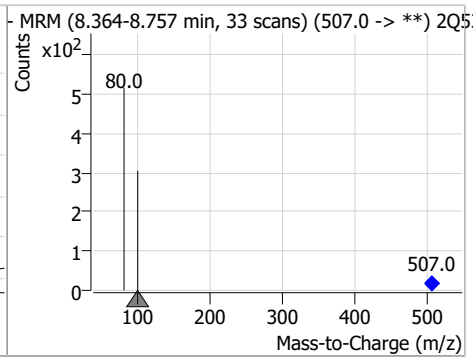




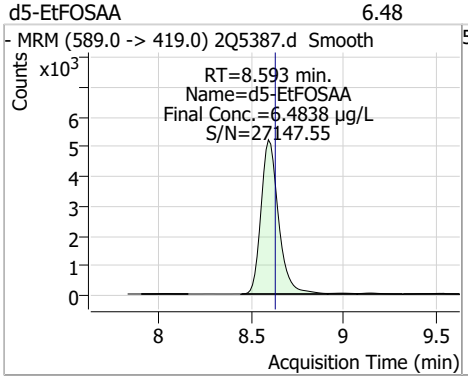
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.99	8.51	-0.04	6348				

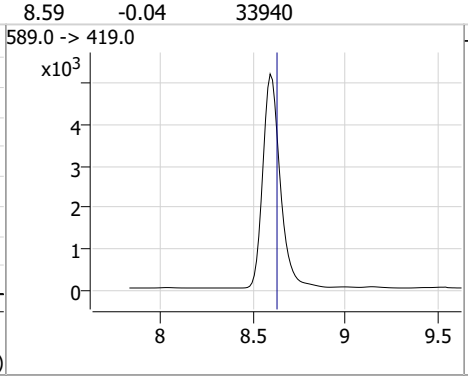


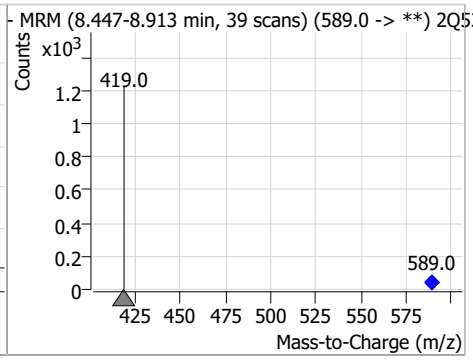




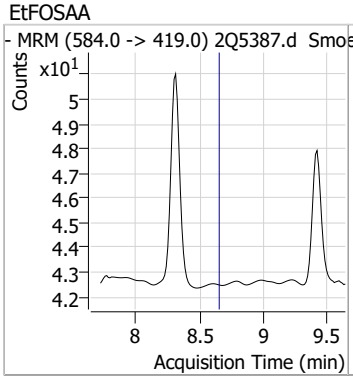
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	6.48	8.59	-0.04	33940				

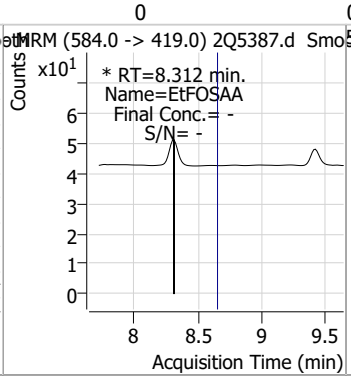


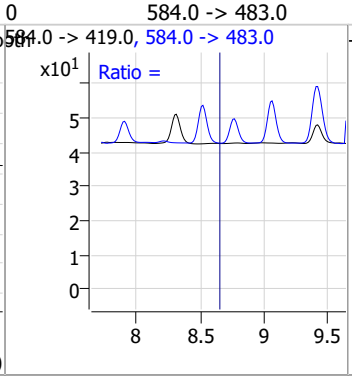


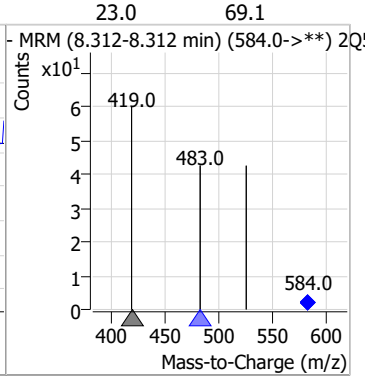


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		23.0	69.1



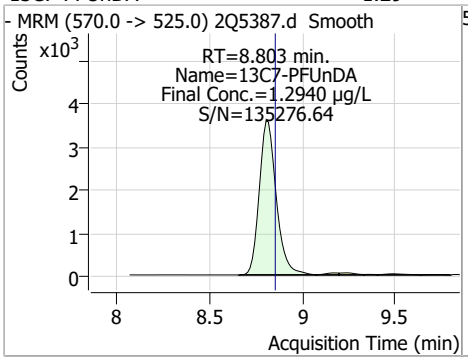


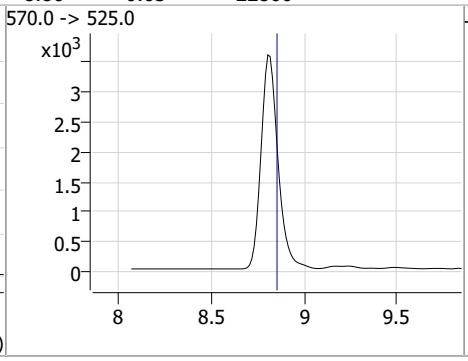


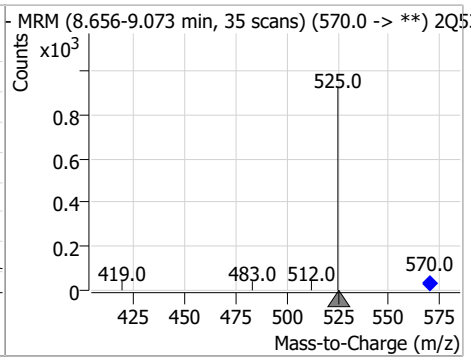


Perfluorinated Compounds by LC/MS/MS

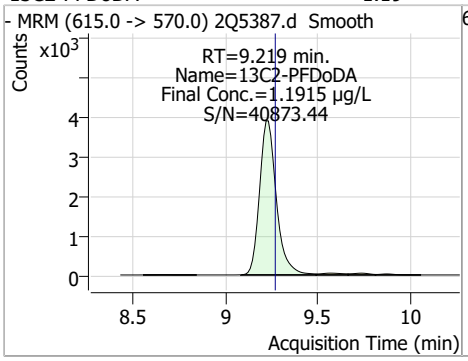
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.29	8.80	-0.05	22800				

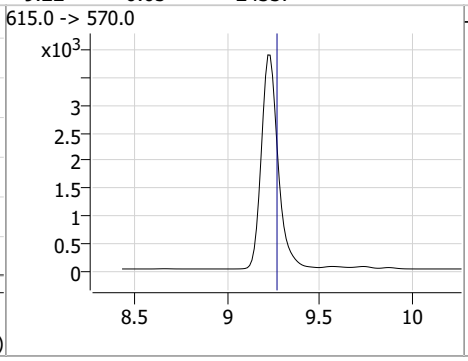


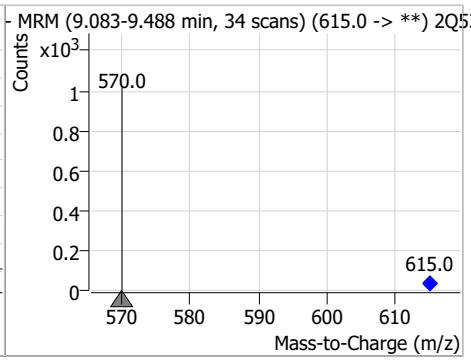




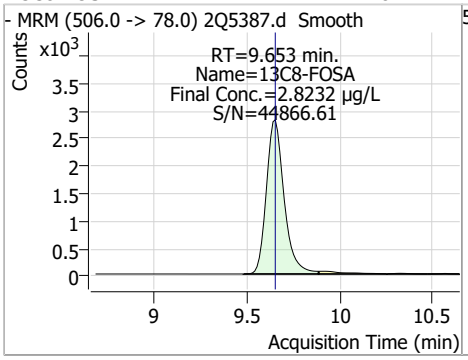
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.19	9.22	-0.05	24337				

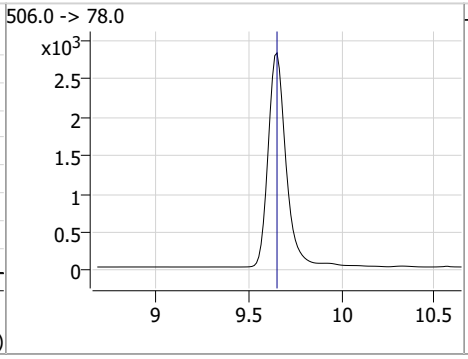


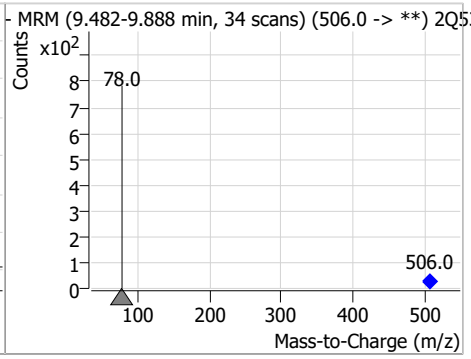




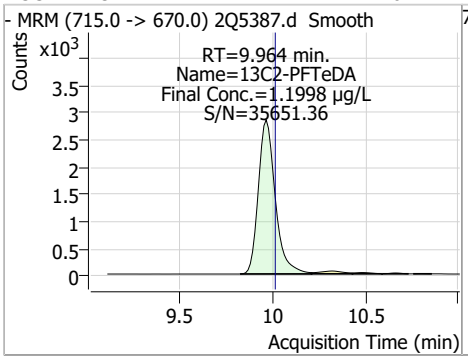
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.82	9.65	0.00	18610				

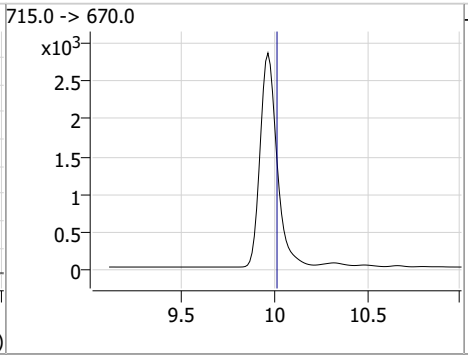


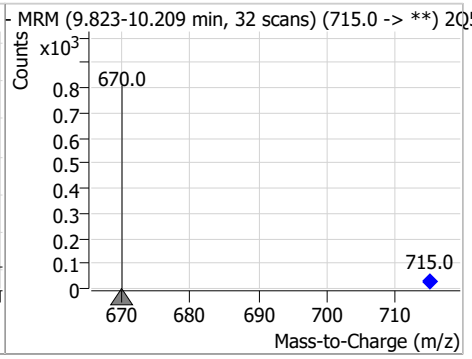




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.20	9.96	-0.05	17973				

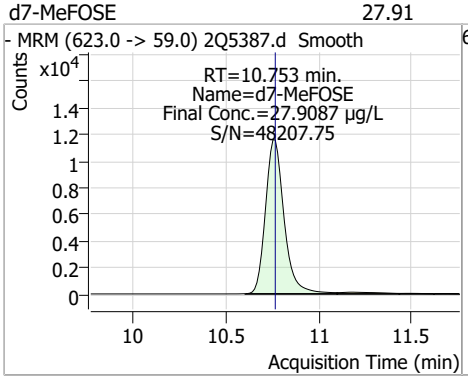


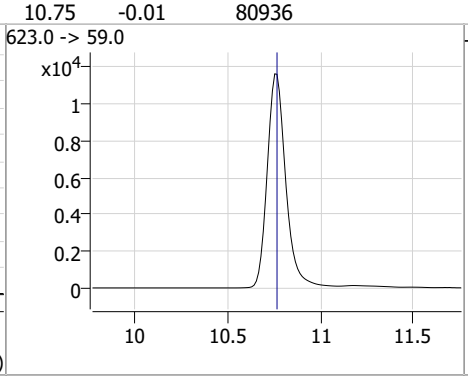


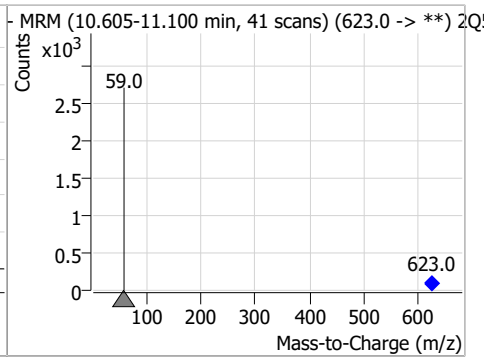


Perfluorinated Compounds by LC/MS/MS

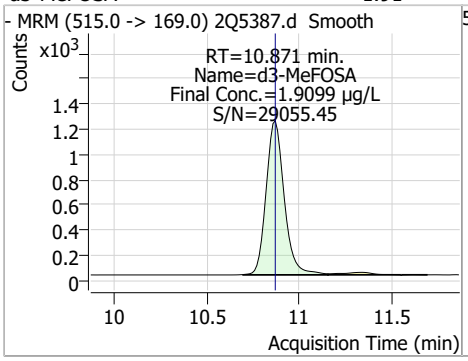
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	27.91	10.75	-0.01	80936				

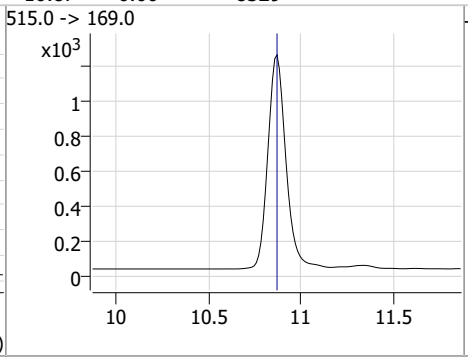


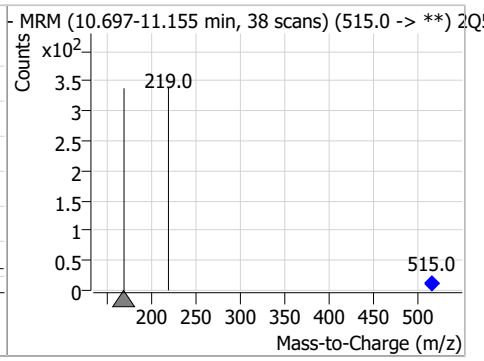




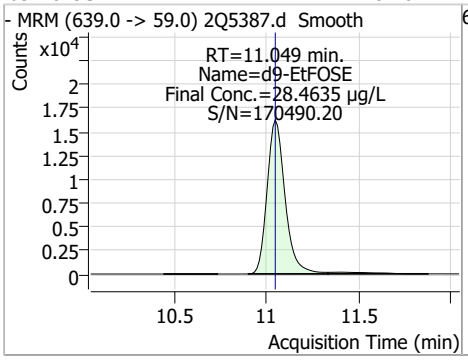
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.91	10.87	0.00	8329				

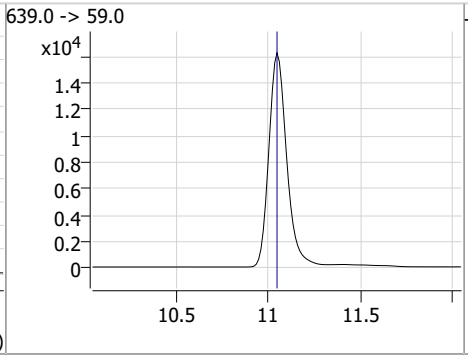


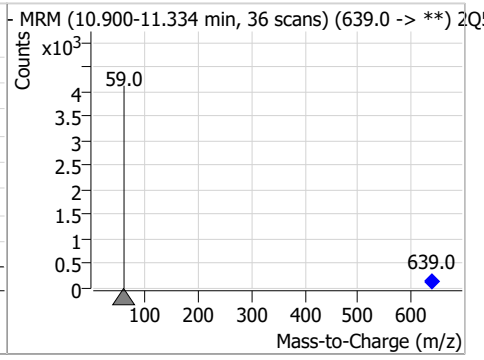




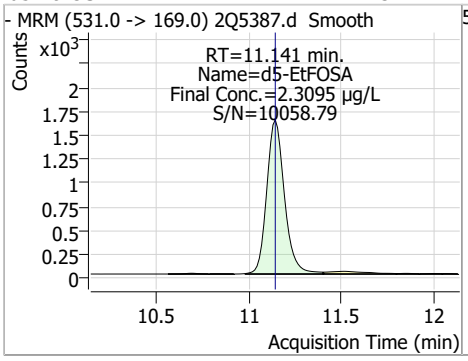
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	28.46	11.05	0.00	109310				

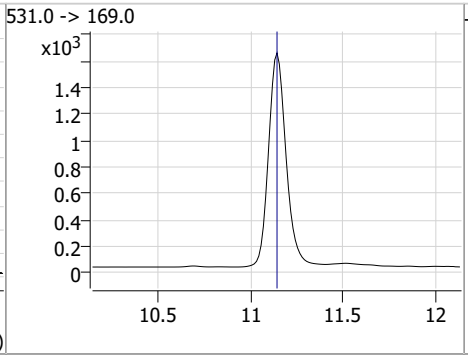


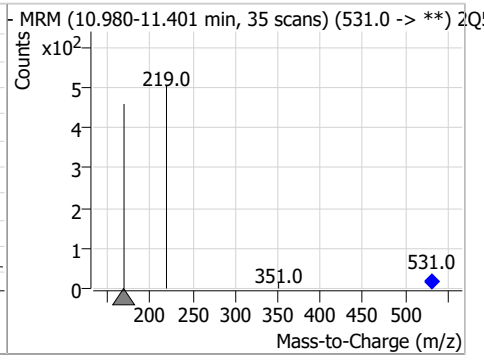




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.31	11.14	0.00	10798				







Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5271.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 7:22:33 PM
Sample Name : IBLK
Vial : P1-A1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	160964	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	99531	5.00	µg/L	0.000
M5-PFHxA	5.942	318.0 -> 273.0	53805	1.25	µg/L	-0.012
M4-PFHpA	6.795	367.0 -> 322.0	42959	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	66289	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	31628	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	14216	1.25	µg/L	-0.012
M7-PFUnDA	8.840	570.0 -> 525.0	24973	1.25	µg/L	-0.012
M2-PFDoDA	9.268	615.0 -> 570.0	24319	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	19731	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	19802	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6109	2.50	µg/L	-0.012
		302.0 -> 80.0	13907			
M3-PFHxS	7.496	402.0 -> 99.0	5580	2.50	µg/L	-0.012
M8-PFOS	8.548	507.0 -> 99.0	6076	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1188	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	2929	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4739	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	41390	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	25561	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	35002	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	89785	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	122994	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	14205	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	13300	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	10486	2.50	µg/L	0.000
13C3-PFBA	3.330	216.0 -> 172.0	69991	5.00	µg/L	-0.012
18O2-PFHxS	7.496	403.0 -> 84.0	6513	2.50	µg/L	-0.012
13C4-PFOA	7.397	417.0 -> 372.0	66478	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	25740	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	35391	1.25	µg/L	0.000
13C2-PFHxA	5.943	315.0 -> 270.0	50878	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1188	5.00	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.9%		
13C2-6:2FTS	7.175	429.0 -> 81.0	2929	5.56	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.1%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4739	6.49	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 129.8%		
13C2-PFDoDA	9.268	615.0 -> 570.0	24319	1.18	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 94.7%		
13C2-PFTeDA	10.013	715.0 -> 670.0	19731	1.31	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 104.7%		
13C3-PFBS	5.871	302.0 -> 99.0	6109	2.52	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.9%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.496	402.0 -> 99.0	5580	2.20 µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 87.8%		
13C4-PFBA	3.339	217.0 -> 172.0	160964	10.22 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.2%		
13C4-PFHpA	6.795	367.0 -> 322.0	42959	2.60 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.9%		
13C5-PFHxA	5.942	318.0 -> 273.0	53805	2.55 µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.8%		
13C5-PFPeA	4.810	268.0 -> 223.0	99531	5.22 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.4%		
13C6-PFDA	8.388	519.0 -> 474.0	14216	1.32 µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 105.8%		
13C7-PFUnDA	8.840	570.0 -> 525.0	24973	1.41 µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 112.7%		
13C8-FOSA	9.653	506.0 -> 78.0	19802	2.79 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 111.6%		
13C8-PFOA	7.397	421.0 -> 376.0	66289	2.41 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.3%		
13C8-PFOS	8.548	507.0 -> 99.0	6076	2.66 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.4%		
13C9-PFNA	7.912	472.0 -> 427.0	31628	1.14 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.4%		
d3-MeFOSAA	8.435	573.0 -> 419.0	41390	6.06 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 121.3%		
13C3-HFPO-DA	6.295	287.0 -> 169.0	25561	10.59 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 105.9%		
d3-MeFOSA	10.871	515.0 -> 169.0	13300	2.83 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 113.3%		
d5-EtFOSAA	8.630	589.0 -> 419.0	35002	6.21 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 124.1%		
d7-MeFOSE	10.766	623.0 -> 59.0	89785	28.74 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 115.0%		
d9-EtFOSE	11.049	639.0 -> 59.0	122994	29.73 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 118.9%		
d5-EtFOSA	11.141	531.0 -> 169.0	14205	2.82 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 112.8%		
Target Compounds						**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.		
		327.0 -> 81.0				
6:2FTS	7.618	427.0 -> 407.0	679	0.16 µg/L		80
		427.0 -> 81.0	143			
8:2FTS	-	527.0 -> 507.0	-	N.D.		
		527.0 -> 81.0				
EtFOSAA	8.631	584.0 -> 419.0	41	0.01 µg/L		31
		584.0 -> 483.0				
FOSA	-	498.0 -> 78.0	-	N.D.		
		498.0 -> 478.0				
MeFOSAA	-	570.0 -> 419.0	-	N.D.		
		570.0 -> 512.0				
PFBA	-	213.0 -> 169.0	-	N.D.		
PFBS	-	299.0 -> 80.0	-	N.D.		
		299.0 -> 99.0				
PFDA	8.978	513.0 -> 469.0	513	0.05 µg/L	#	75
		513.0 -> 219.0	24			
PFDoDA	-	613.0 -> 569.0	-	N.D.		
		613.0 -> 319.0				

Perfluorinated Compounds by LC/MS/MS

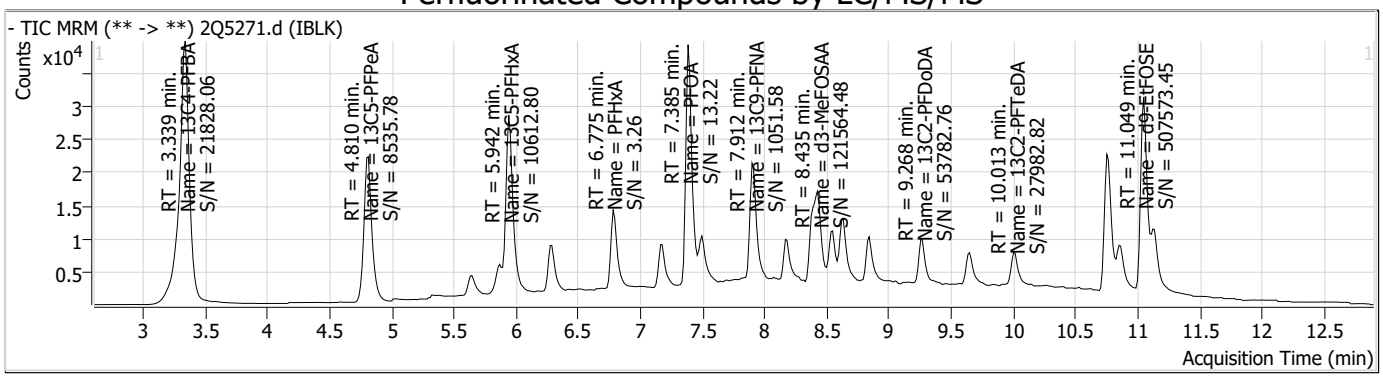
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	-	363.0 -> 319.0	-	N.D.			
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	6.775	313.0 -> 269.0	427	0.02	µg/L		97
		313.0 -> 119.0	8				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.691	463.0 -> 419.0	460	0.02	µg/L		85
		463.0 -> 219.0	43				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	7.385	413.0 -> 369.0	579	0.02	µg/L		58
		413.0 -> 169.0					
PFOS	8.549	499.0 -> 80.0	158	0.03	µg/L		33
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	11.142	526.0 -> 219.0	191	0.03	µg/L		97
		526.0 -> 169.0	264				
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	10.896	512.0 -> 169.0	197	0.03	µg/L		13
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	10.149	699.0 -> 80.0	122	0.05	µg/L		29
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.365	315.0 -> 135.0	96	0.01	µg/L	#	50
		315.0 -> 69.0	27				

Perfluorinated Compounds by LC/MS/MS

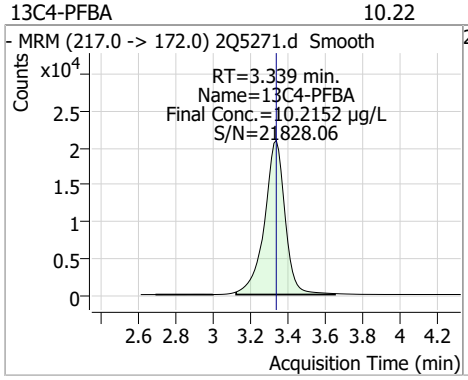
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

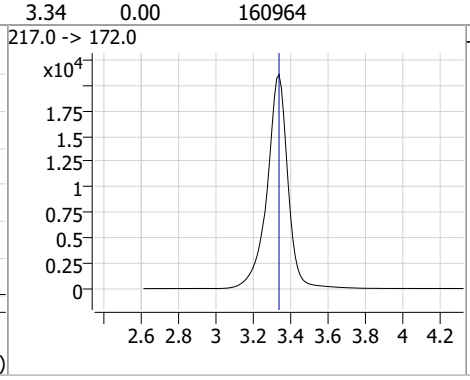
= Qualifier out of range, m = manually integrated, + = Area summed

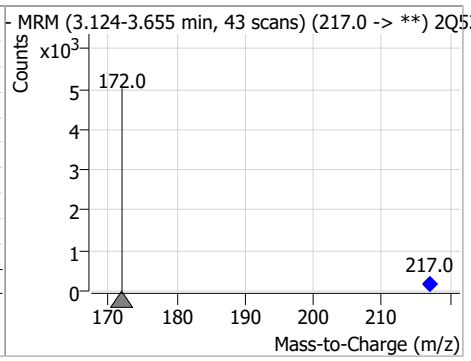
Perfluorinated Compounds by LC/MS/MS



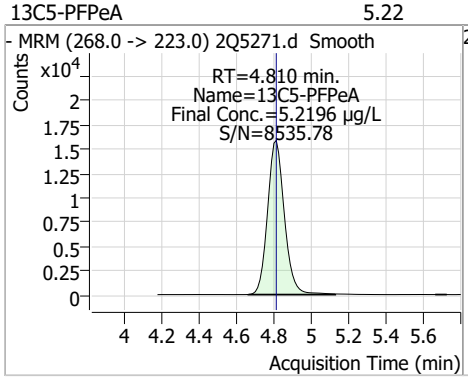
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.22	3.34	0.00	160964				

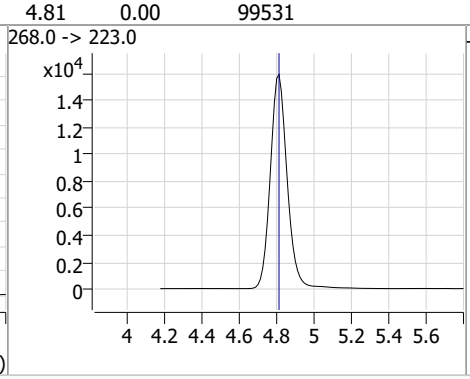


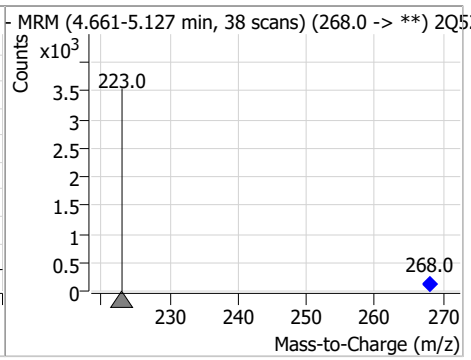




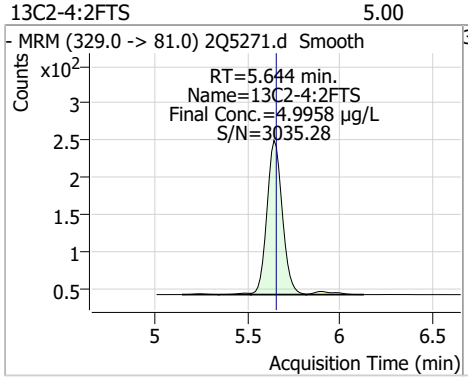
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.22	4.81	0.00	99531				

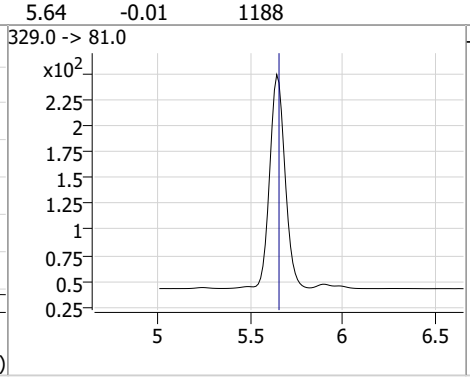


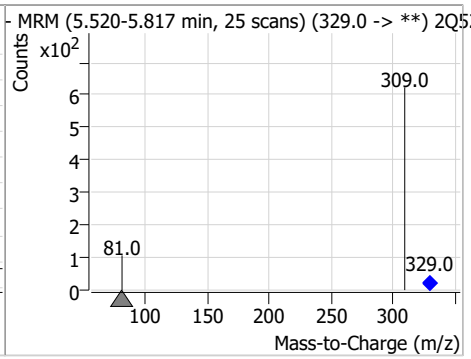




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.00	5.64	-0.01	1188				

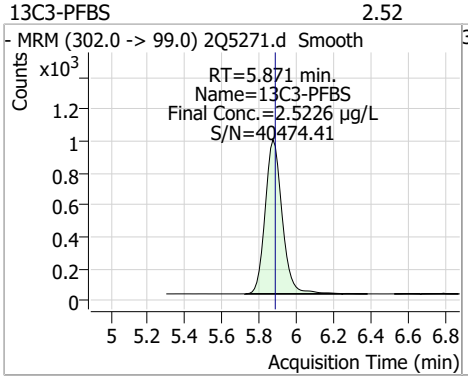


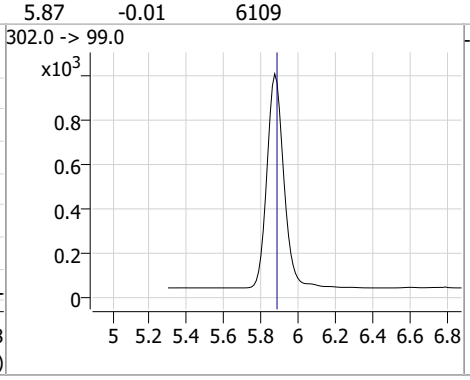


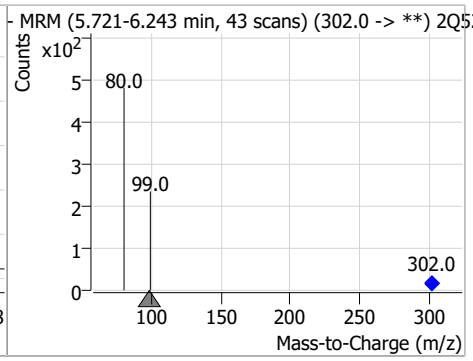


Perfluorinated Compounds by LC/MS/MS

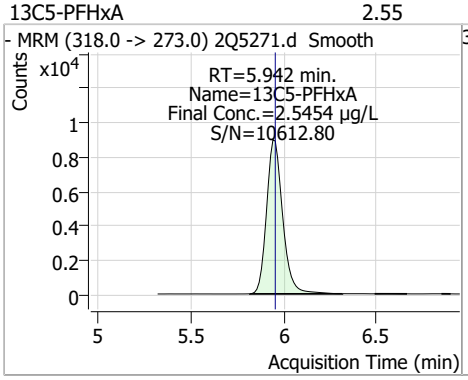
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.52	5.87	-0.01	6109				

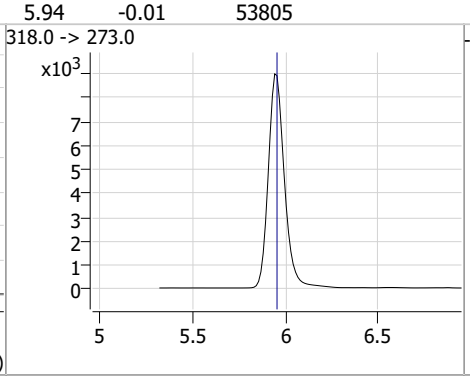


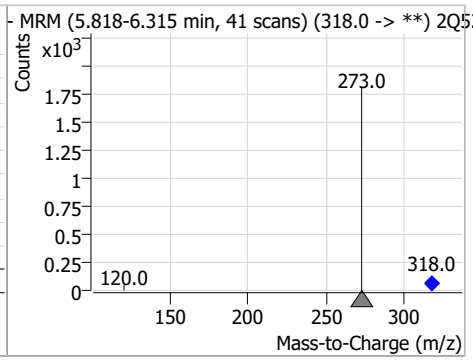




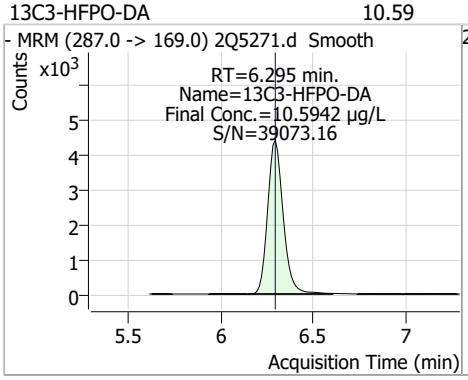
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.55	5.94	-0.01	53805				

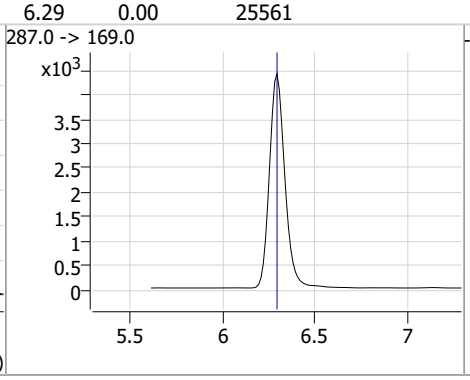


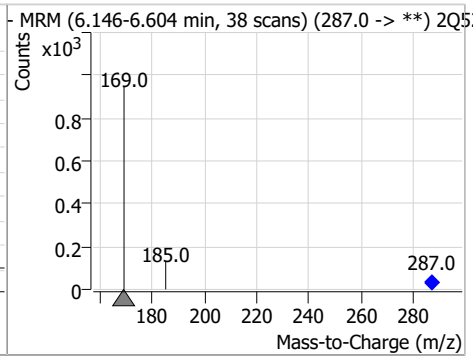




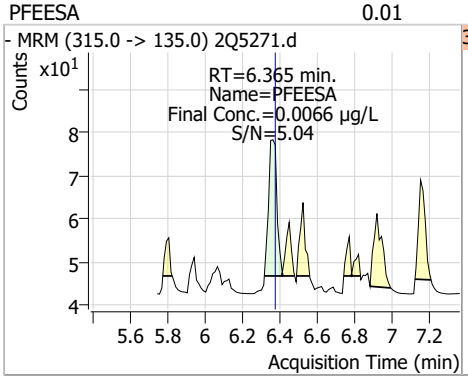
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.59	6.29	0.00	25561				

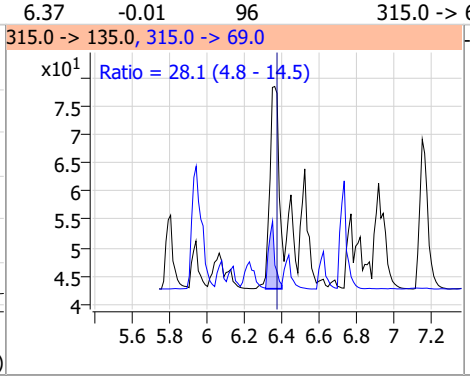


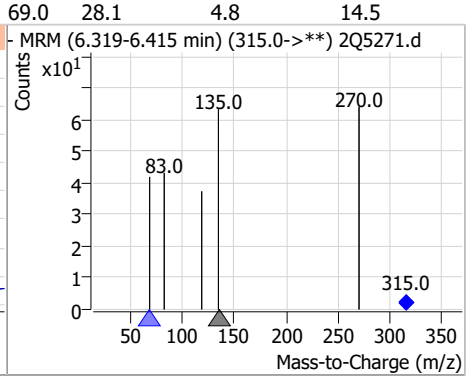




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	0.01	6.37	-0.01	96	315.0 -> 69.0	28.1	4.8	14.5

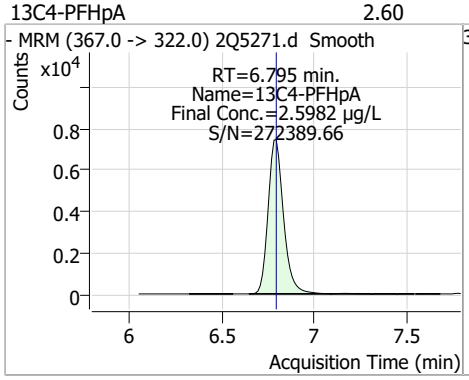


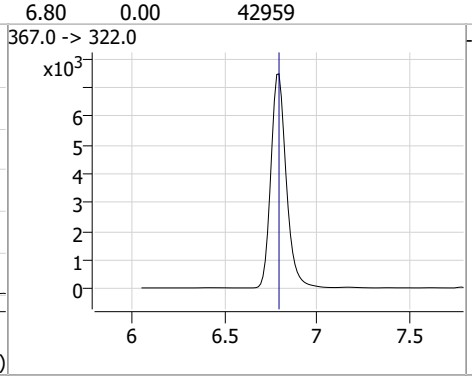


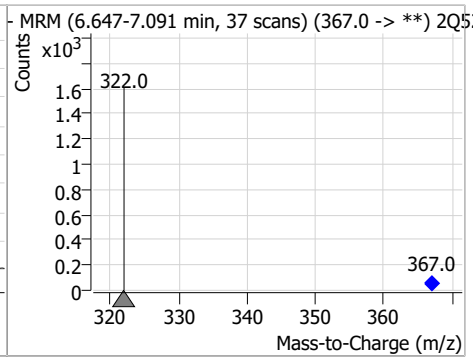


Perfluorinated Compounds by LC/MS/MS

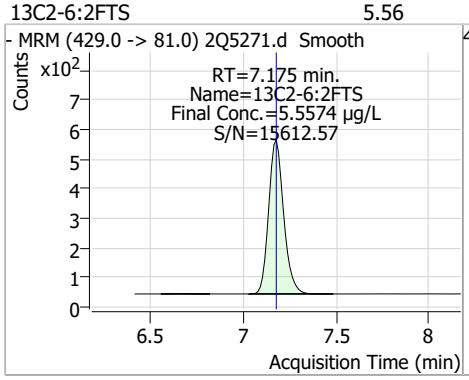
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.60	6.80	0.00	42959				

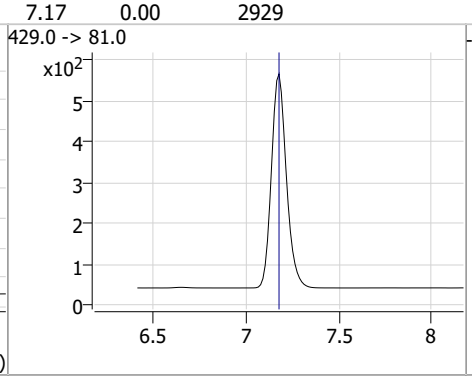


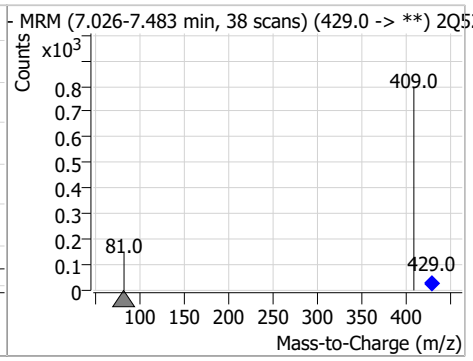




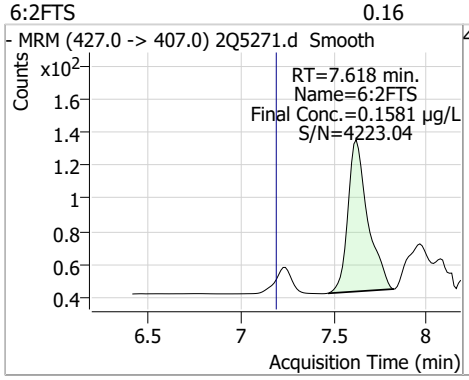
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.56	7.17	0.00	2929				

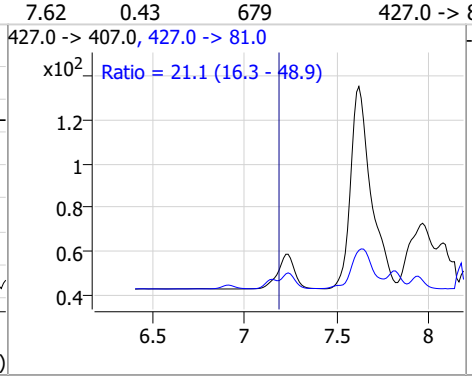


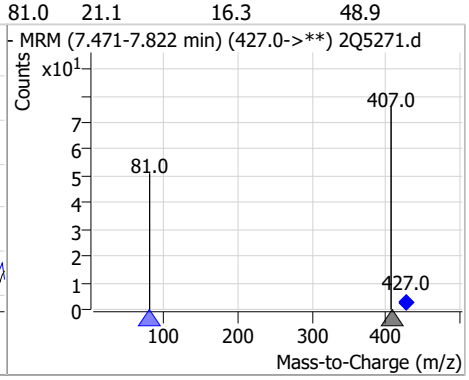




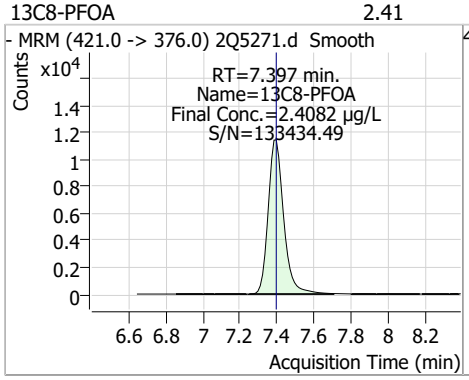
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.16	7.62	0.43	679	427.0 -> 81.0	21.1	16.3	48.9

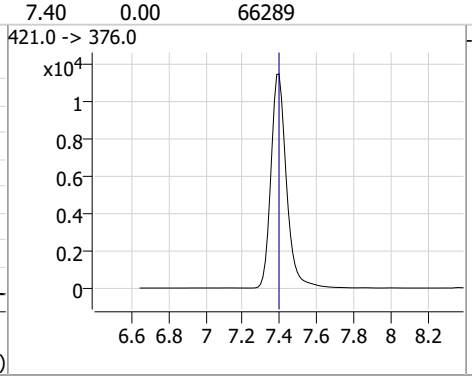


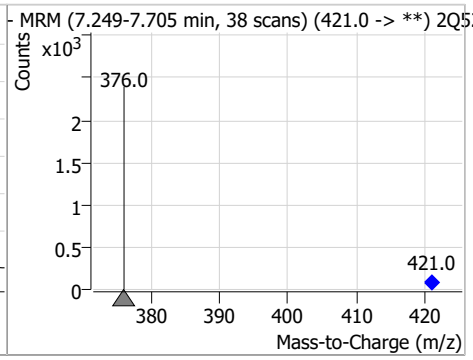




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.41	7.40	0.00	66289				

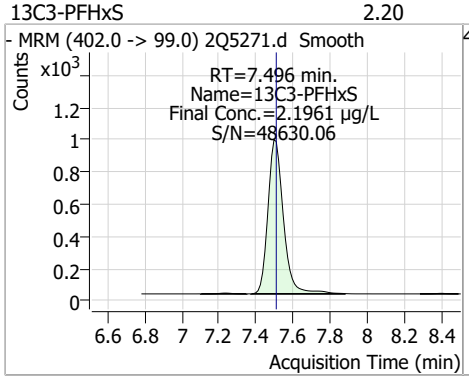


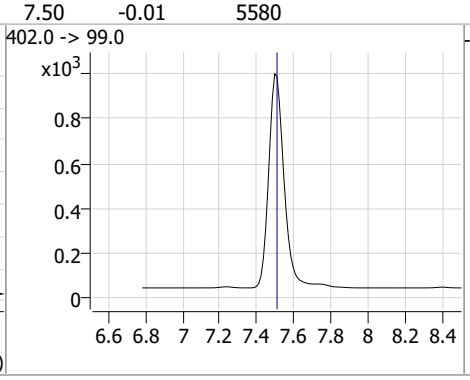


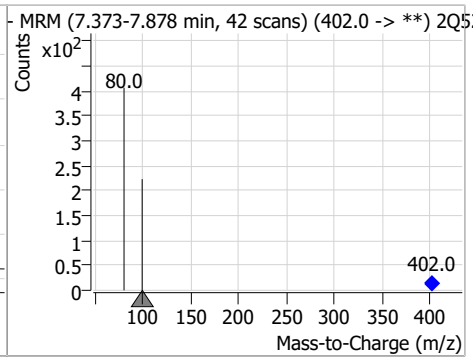


Perfluorinated Compounds by LC/MS/MS

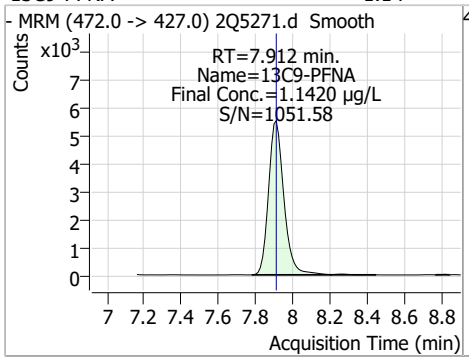
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.20	7.50	-0.01	5580				

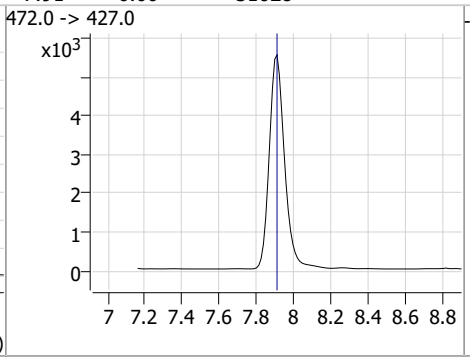


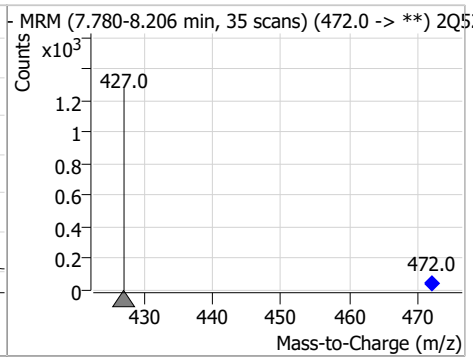




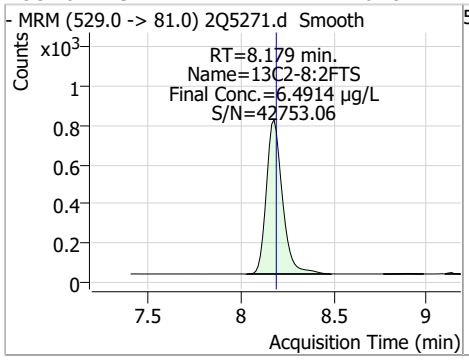
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.91	0.00	31628				

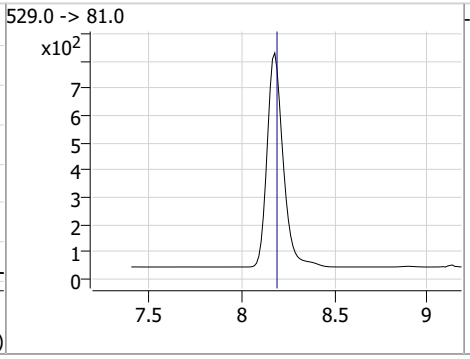


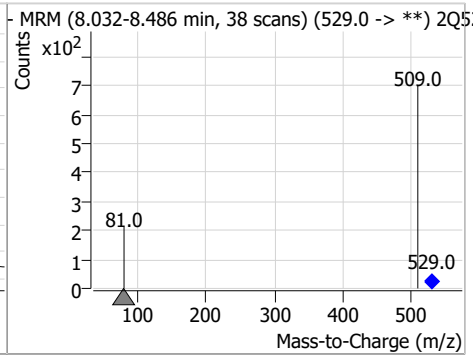




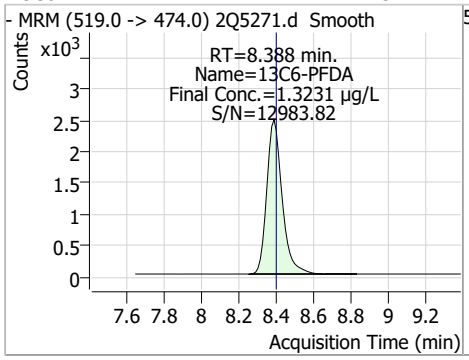
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.49	8.18	-0.01	4739				

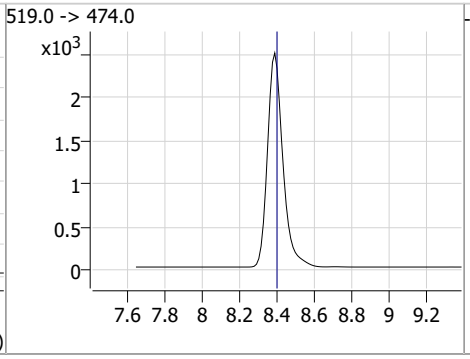


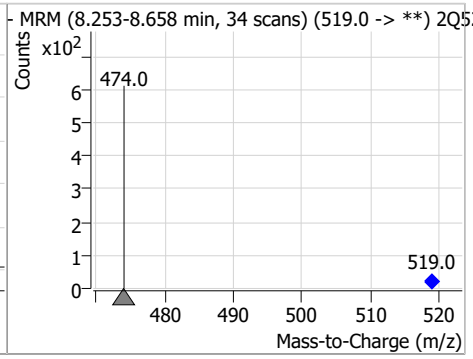




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.32	8.39	-0.01	14216				

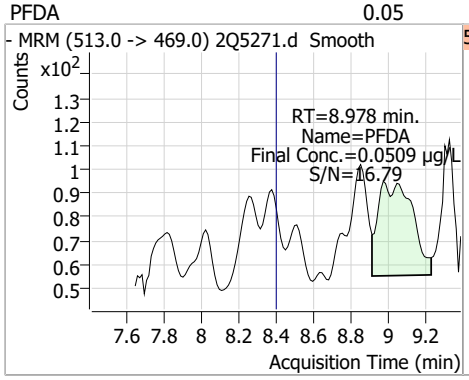


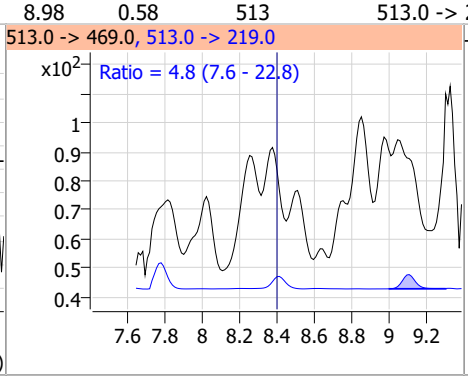


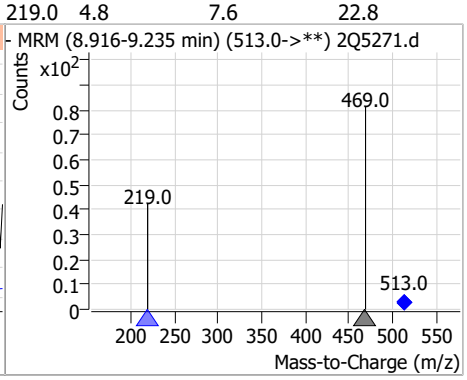


Perfluorinated Compounds by LC/MS/MS

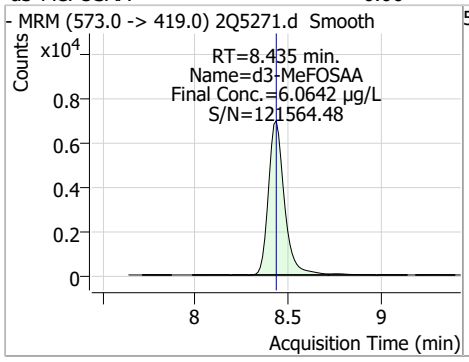
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.05	8.98	0.58	513	513.0 -> 219.0	4.8	7.6	22.8

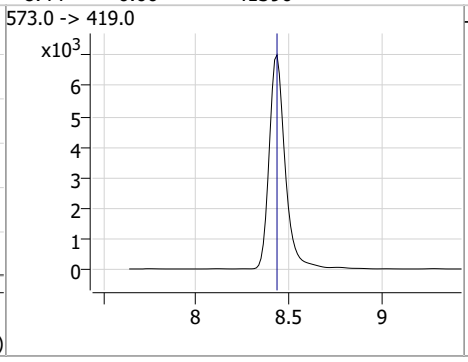


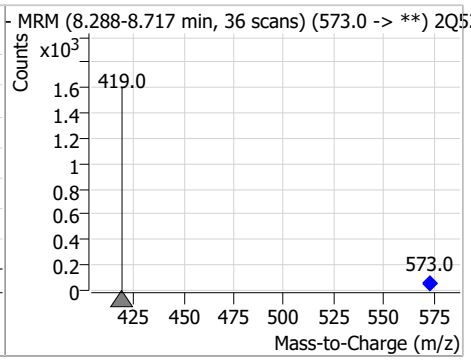




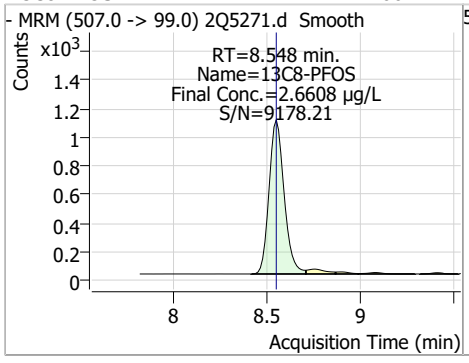
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	6.06	8.44	0.00	41390				

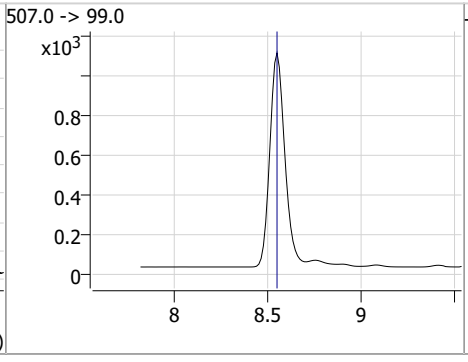


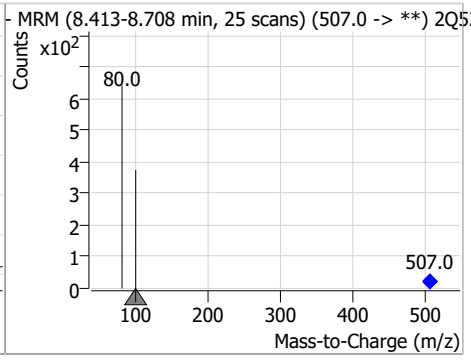




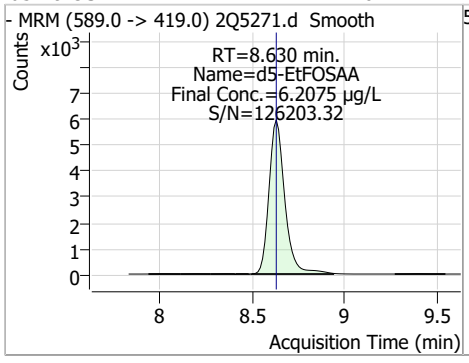
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.66	8.55	0.00	6076				

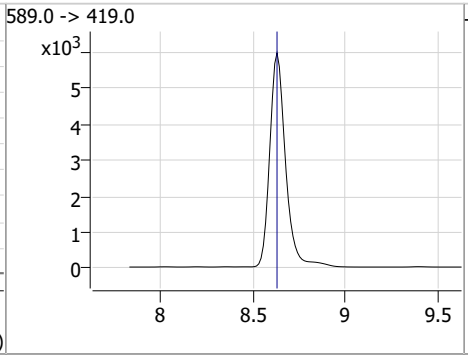


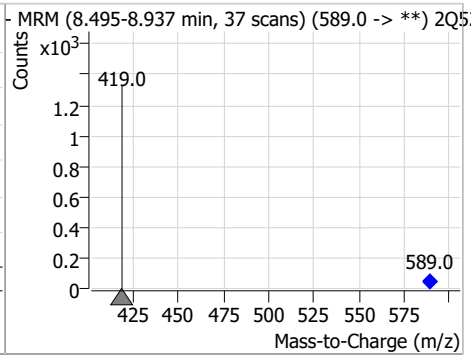




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	6.21	8.63	0.00	35002				

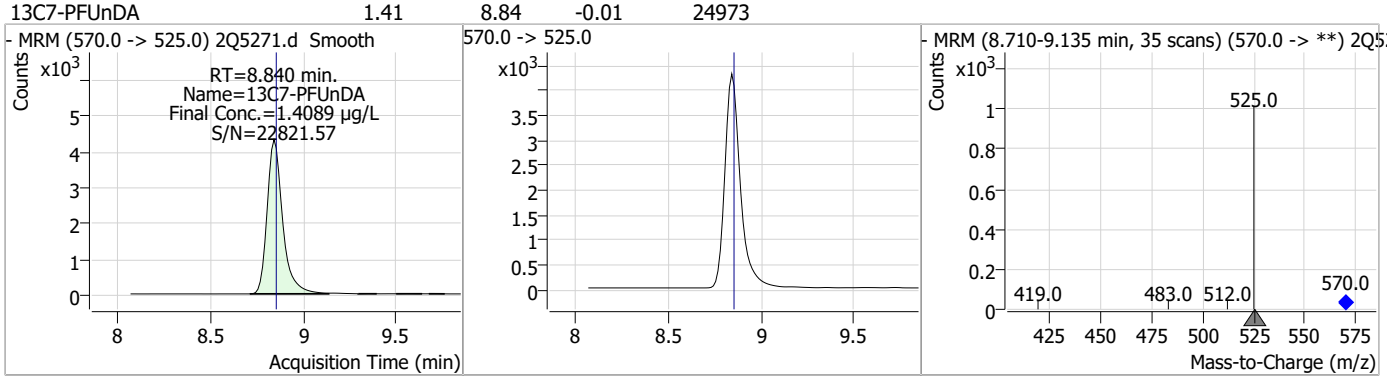




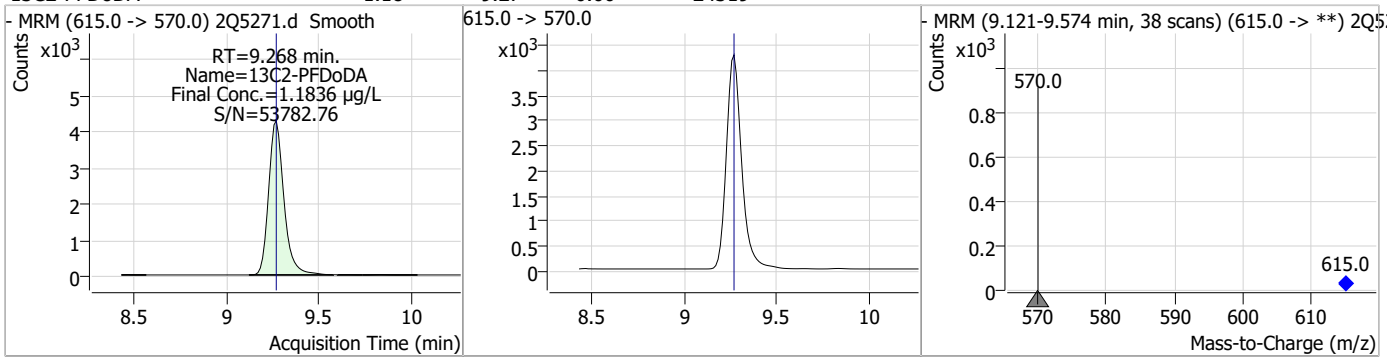


Perfluorinated Compounds by LC/MS/MS

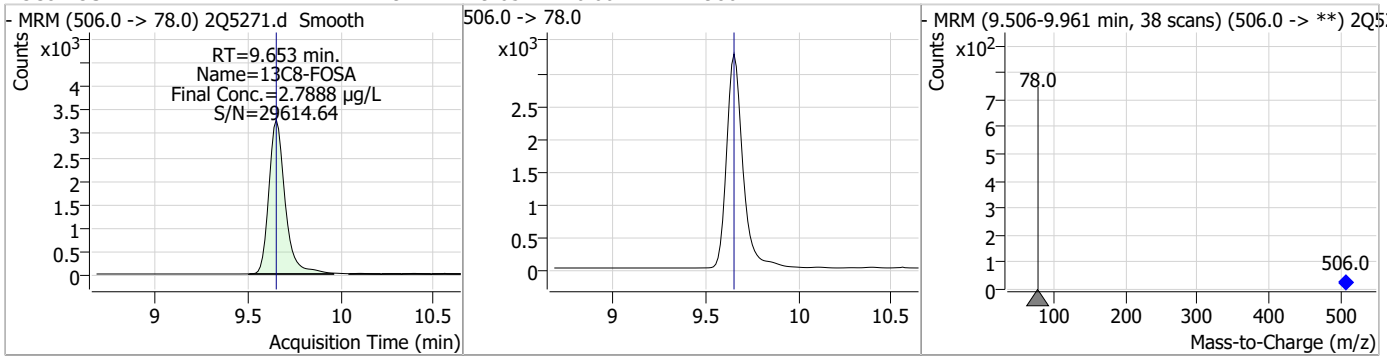
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.41	8.84	-0.01	24973				



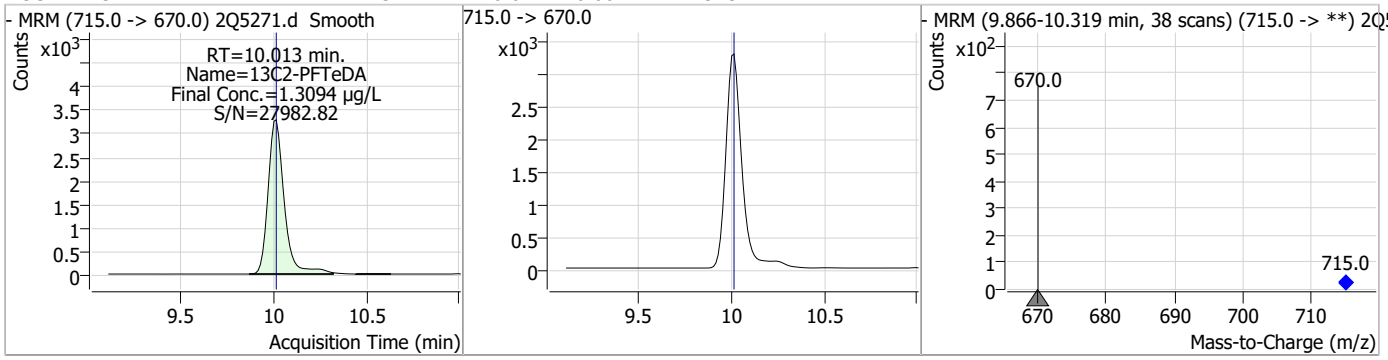
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.18	9.27	0.00	24319				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.79	9.65	0.00	19802				

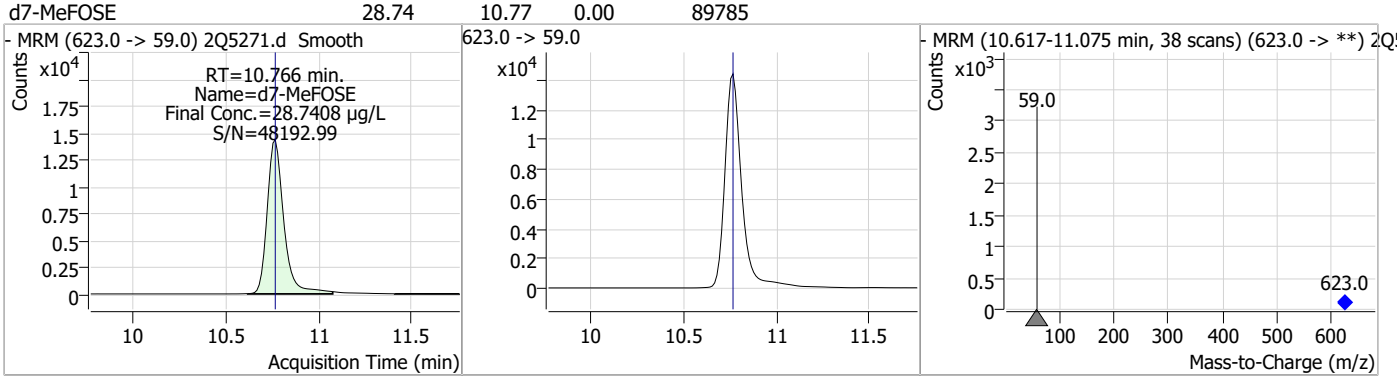


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.31	10.01	0.00	19731				

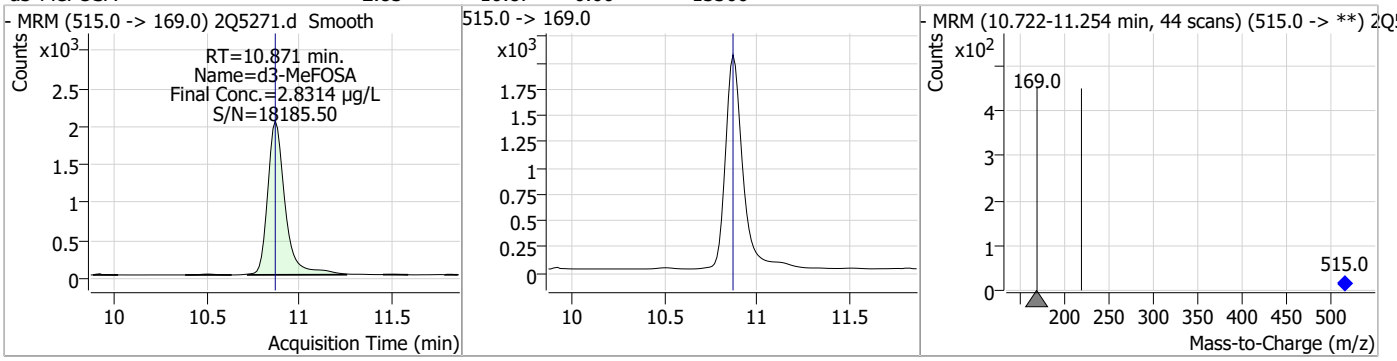


Perfluorinated Compounds by LC/MS/MS

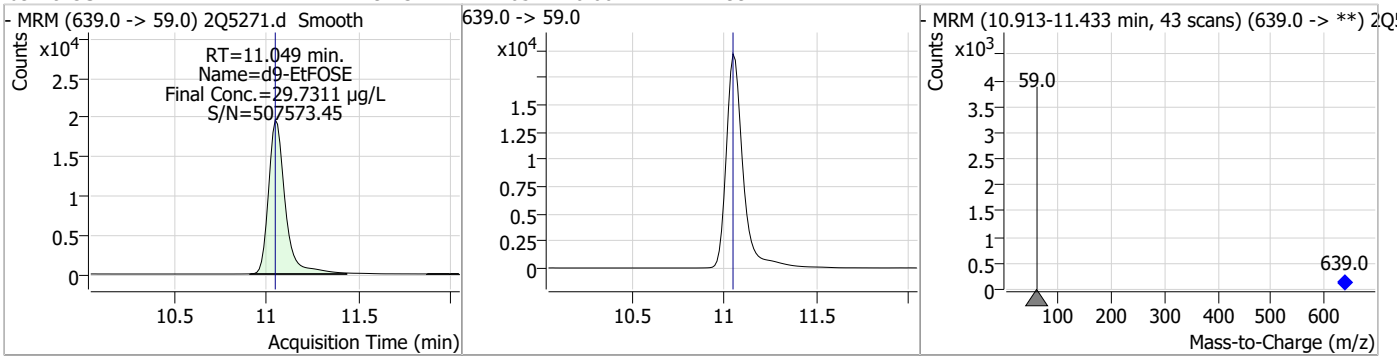
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	28.74	10.77	0.00	89785				



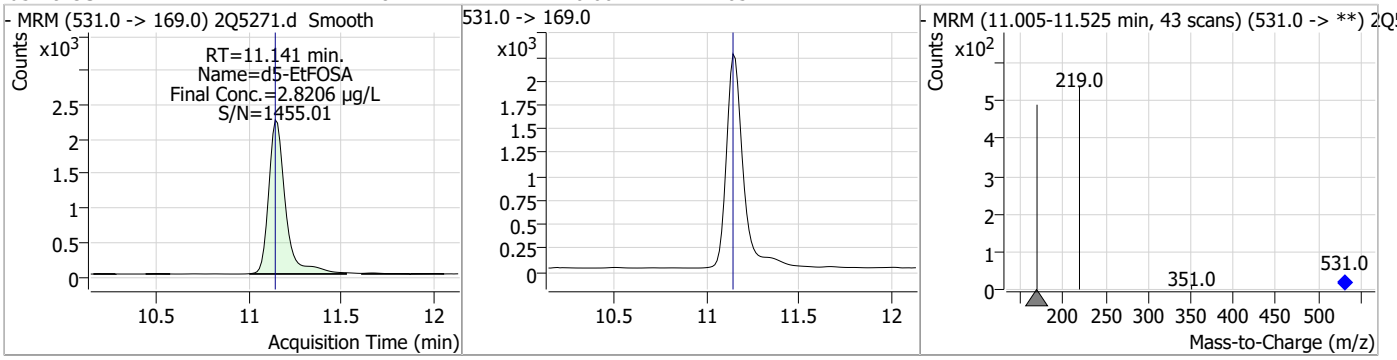
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.83	10.87	0.00	13300				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	29.73	11.05	0.00	122994				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.82	11.14	0.00	14205				



Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5398.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 4:45:08 AM
Sample Name : iccb
Vial : P1-A1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,514,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	152140	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	93653	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	50596	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	39990	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	67438	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	32867	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13410	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	22291	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23770	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	17110	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	20159	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5475	2.50	µg/L	-0.037
		302.0 -> 80.0	14613			
M3-PFHxS	7.472	402.0 -> 99.0	5498	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6147	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1307	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2358	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3927	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	43915	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	24641	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	33493	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	84707	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	114445	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	12716	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	12481	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	11421	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	66381	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6043	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	64953	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	25675	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	30183	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	48273	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1307	5.93	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.5%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2358	4.82	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3927	5.80	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 115.9%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23770	1.16	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 92.8%		
13C2-PFTeDA	9.964	715.0 -> 670.0	17110	1.14	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.1%		
13C3-PFBS	5.846	302.0 -> 99.0	5475	2.44	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.5%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5498	2.33	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.3%		
13C4-PFBA	3.314	217.0 -> 172.0	152140	10.18	µg/L	-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.8%		
13C4-PFHpA	6.770	367.0 -> 322.0	39990	2.55	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%		
13C5-PFHxA	5.930	318.0 -> 273.0	50596	2.52	µg/L	-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.9%		
13C5-PFPeA	4.785	268.0 -> 223.0	93653	5.18	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.5%		
13C6-PFDA	8.352	519.0 -> 474.0	13410	1.25	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.1%		
13C7-PFUnDA	8.803	570.0 -> 525.0	22291	1.26	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.9%		
13C8-FOSA	9.653	506.0 -> 78.0	20159	2.61	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.3%		
13C8-PFOA	7.360	421.0 -> 376.0	67438	2.51	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.3%		
13C8-PFOS	8.512	507.0 -> 99.0	6147	2.47	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.9%		
13C9-PFNA	7.875	472.0 -> 427.0	32867	1.39	µg/L	-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 111.3%		
d3-MeFOSAA	8.398	573.0 -> 419.0	43915	5.91	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.2%		
13C3-HFPO-DA	6.270	287.0 -> 169.0	24641	10.76	µg/L	-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 107.6%		
d3-MeFOSA	10.871	515.0 -> 169.0	12481	2.44	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.6%		
d5-EtFOSAA	8.593	589.0 -> 419.0	33493	5.45	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.1%		
d7-MeFOSE	10.753	623.0 -> 59.0	84707	24.90	µg/L	-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 99.6%		
d9-EtFOSE	11.049	639.0 -> 59.0	114445	25.40	µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 101.6%		
d5-EtFOSA	11.141	531.0 -> 169.0	12716	2.32	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.7%		
Target Compounds						QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.		
		327.0 -> 81.0				
6:2FTS	-	427.0 -> 407.0	-	N.D.		
		427.0 -> 81.0				
8:2FTS	-	527.0 -> 507.0	-	N.D.		
		527.0 -> 81.0				
EtFOSAA	-	584.0 -> 419.0	-	N.D.		
		584.0 -> 483.0				
FOSA	-	498.0 -> 78.0	-	N.D.		
		498.0 -> 478.0				
MeFOSAA	-	570.0 -> 419.0	-	N.D.		
		570.0 -> 512.0				
PFBA	-	213.0 -> 169.0	-	N.D.		
PFBS	-	299.0 -> 80.0	-	N.D.		
		299.0 -> 99.0				
PFDA	-	513.0 -> 469.0	-	N.D.		
		513.0 -> 219.0				
PFDoDA	9.906	613.0 -> 569.0	0		µg/L	m 1
		613.0 -> 319.0				

Perfluorinated Compounds by LC/MS/MS

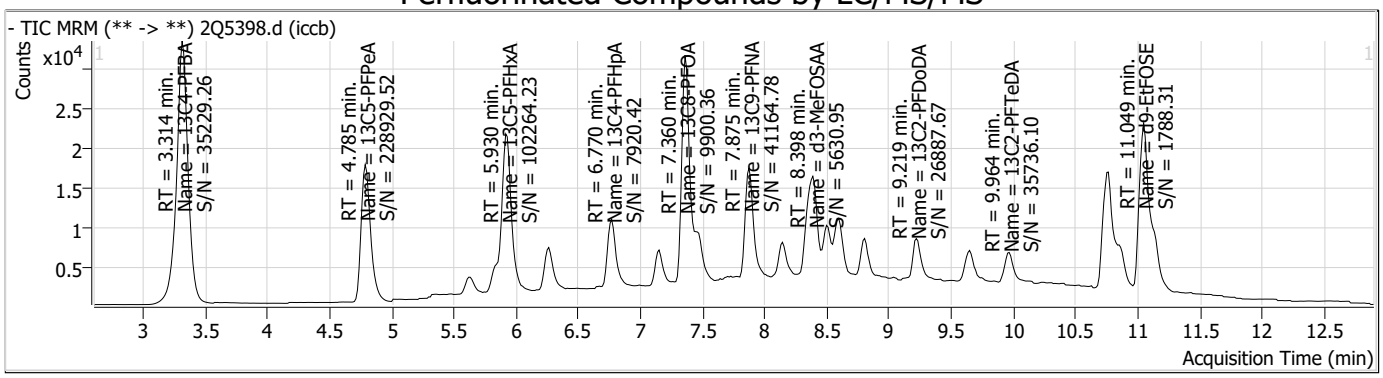
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.672	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	6.602	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.888	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.415	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0					

Perfluorinated Compounds by LC/MS/MS

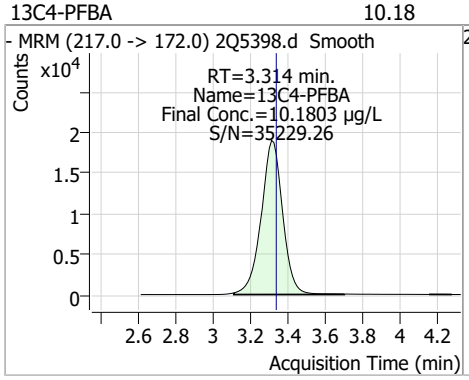
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

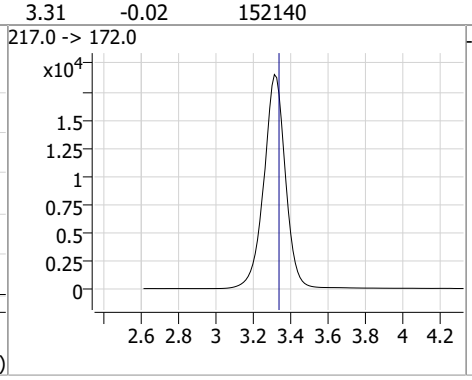
= Qualifier out of range, m = manually integrated, + = Area summed

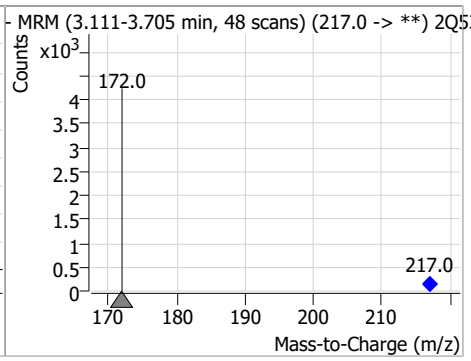
Perfluorinated Compounds by LC/MS/MS



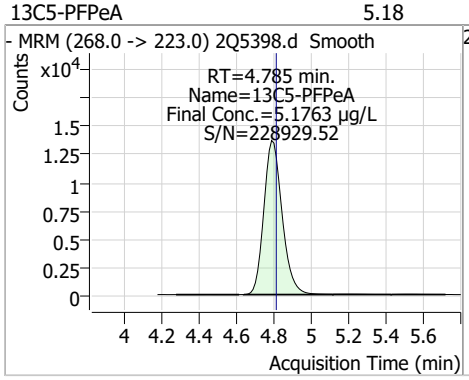
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.18	3.31	-0.02	152140				

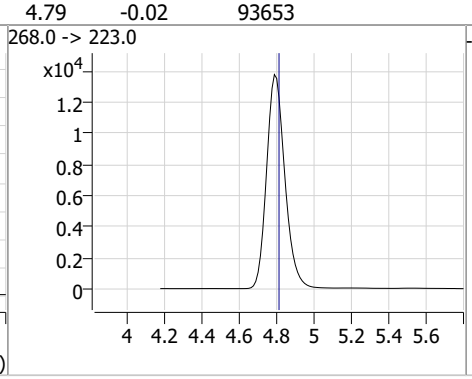


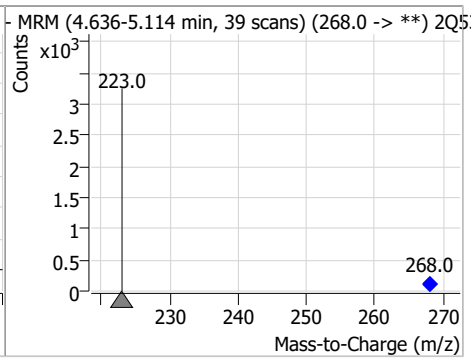




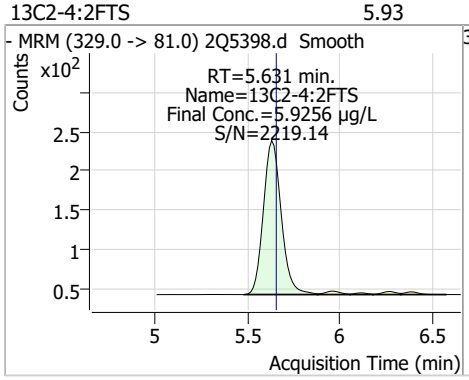
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.18	4.79	-0.02	93653				

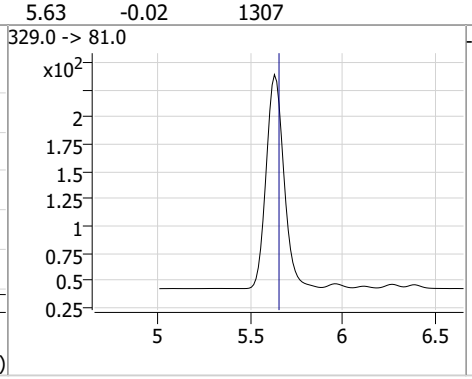


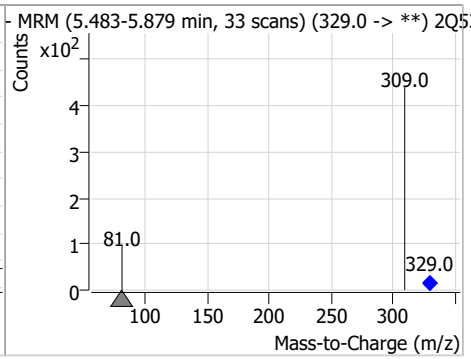




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.93	5.63	-0.02	1307				

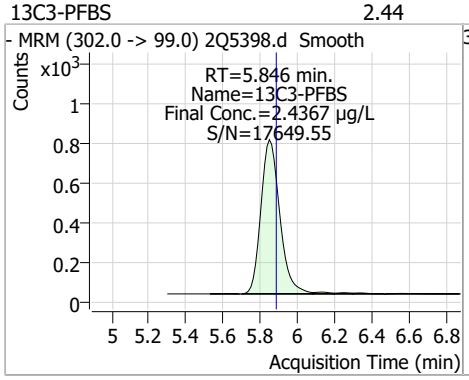


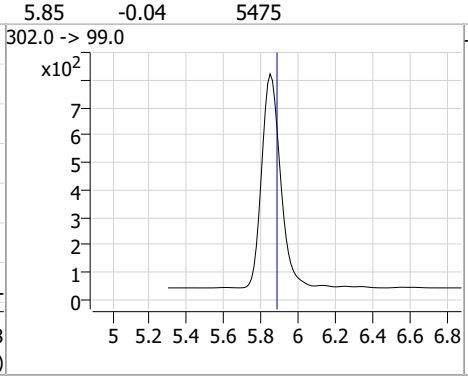


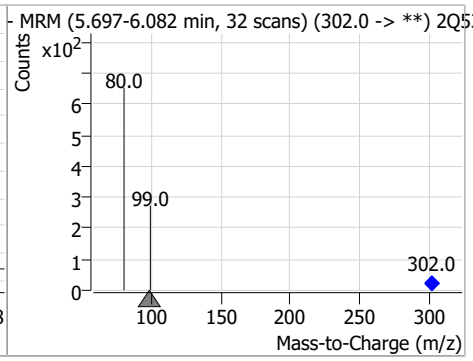


Perfluorinated Compounds by LC/MS/MS

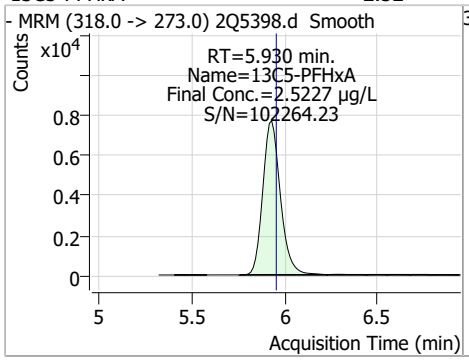
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.44	5.85	-0.04	5475				

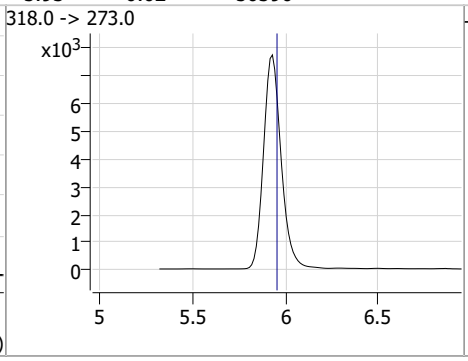


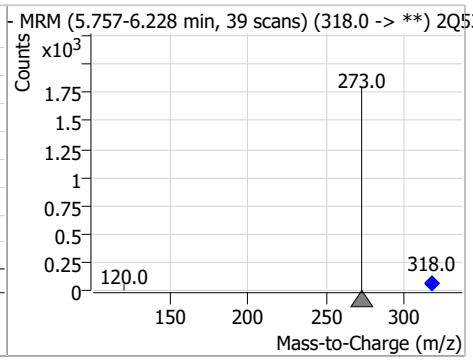




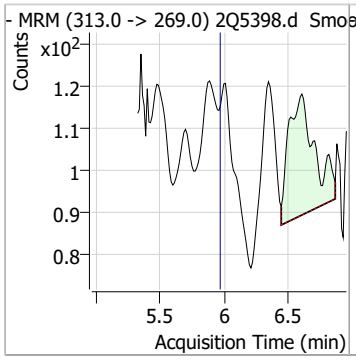
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.52	5.93	-0.02	50596				

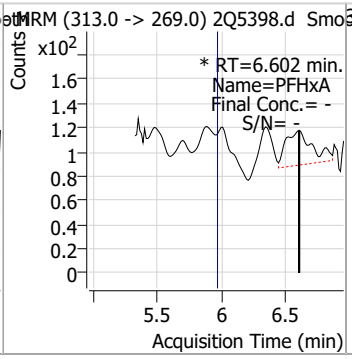


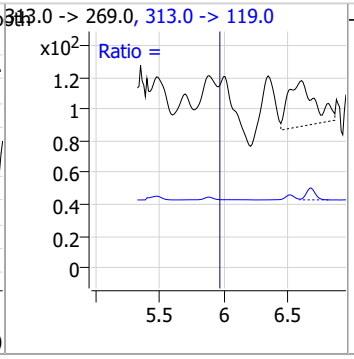


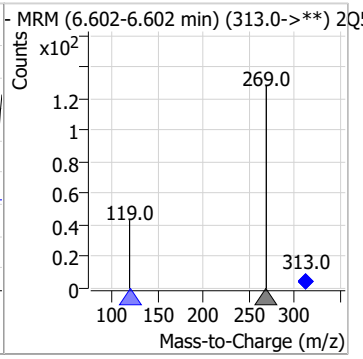


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

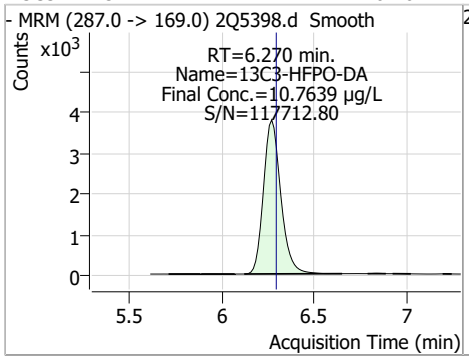


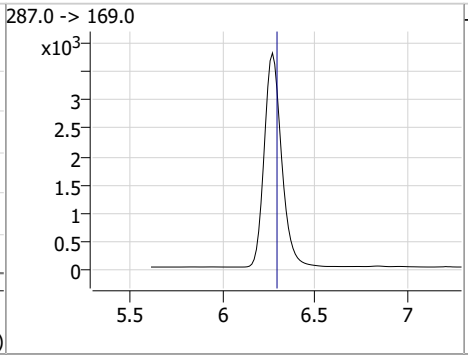


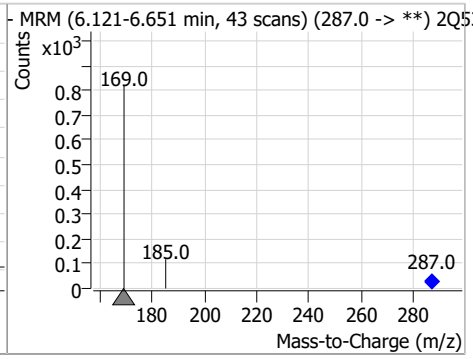




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.76	6.27	-0.02	24641				

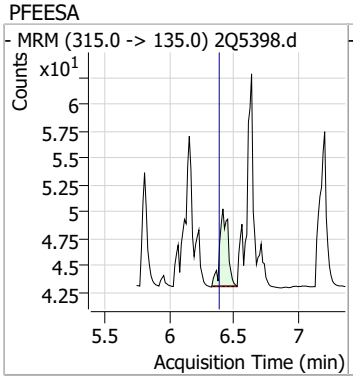


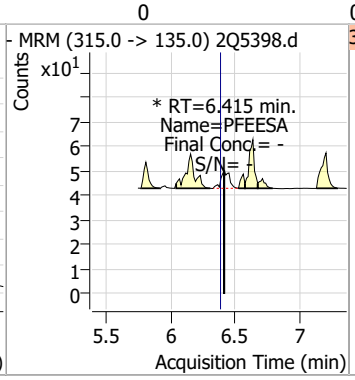


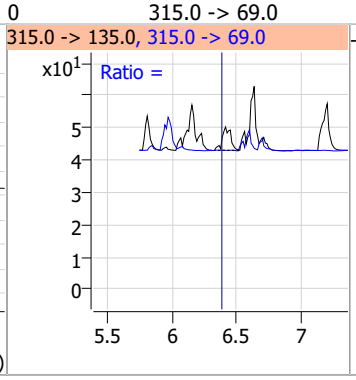


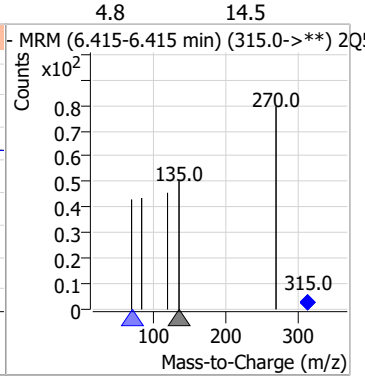
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

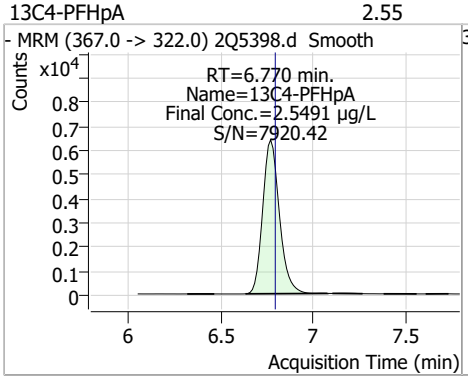


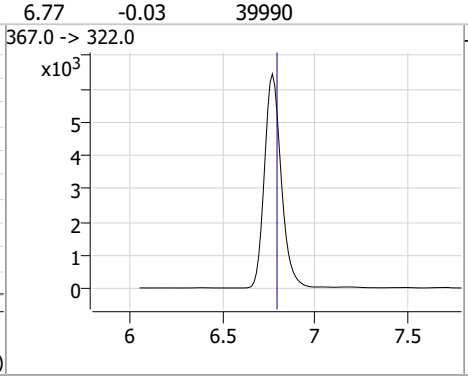


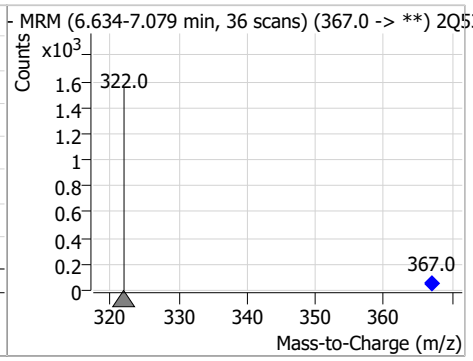




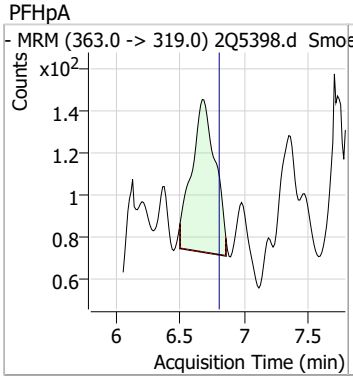
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.55	6.77	-0.03	39990				

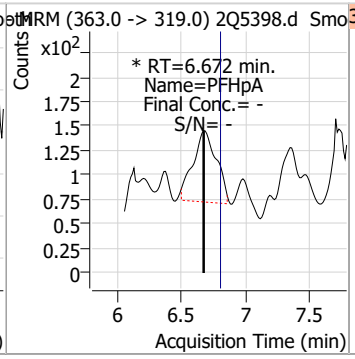


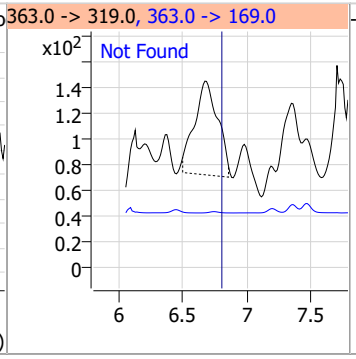


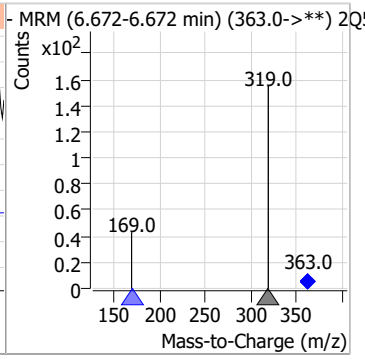


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5

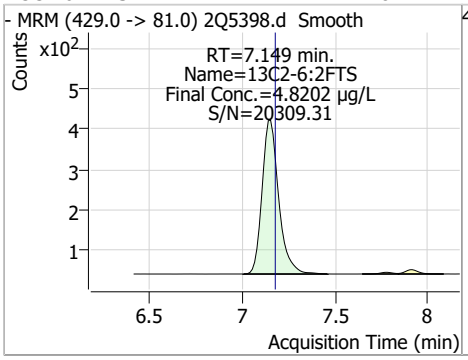


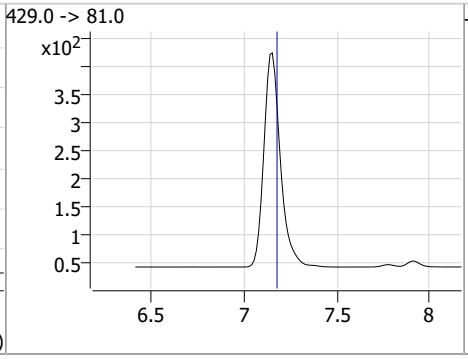


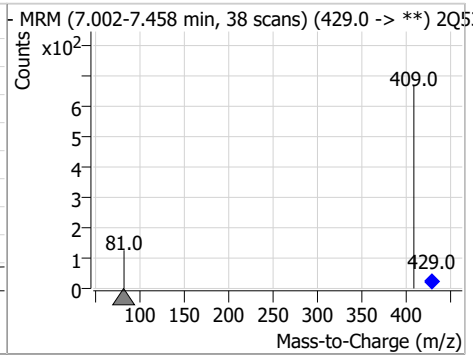




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.82	7.15	-0.03	2358				

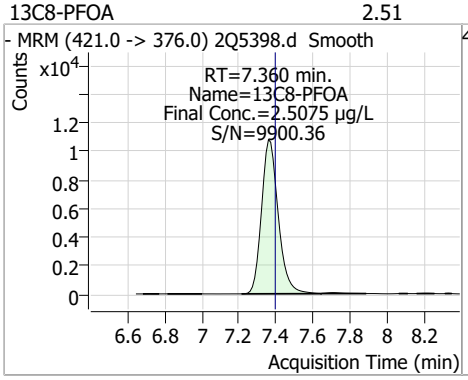


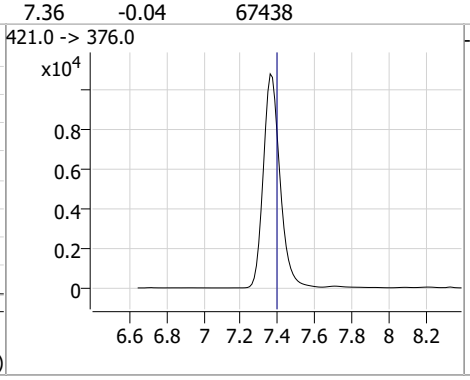


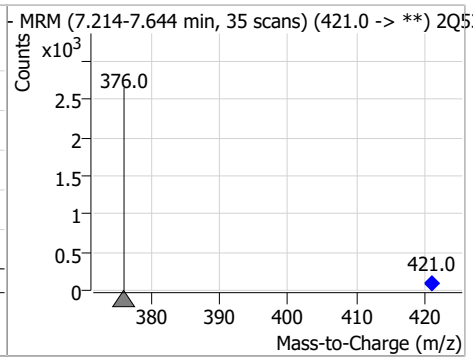


Perfluorinated Compounds by LC/MS/MS

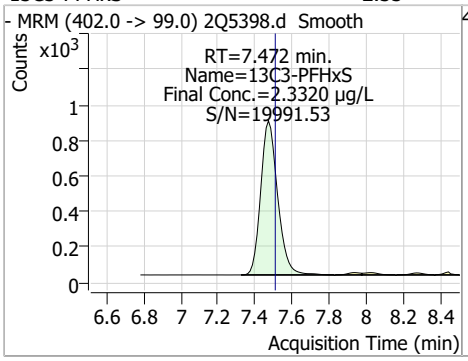
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.51	7.36	-0.04	67438				

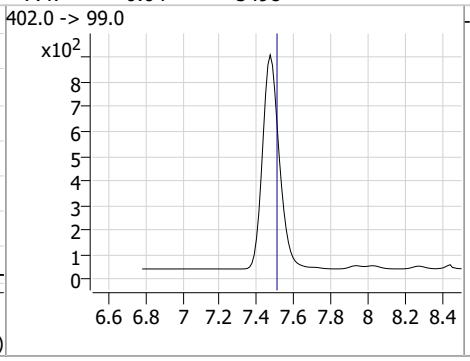


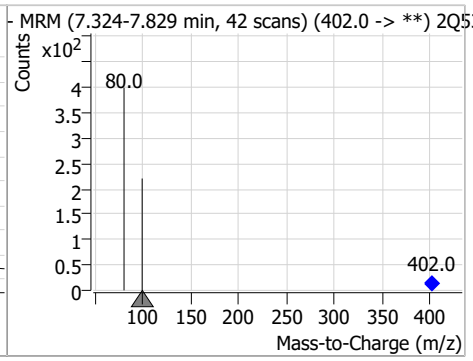




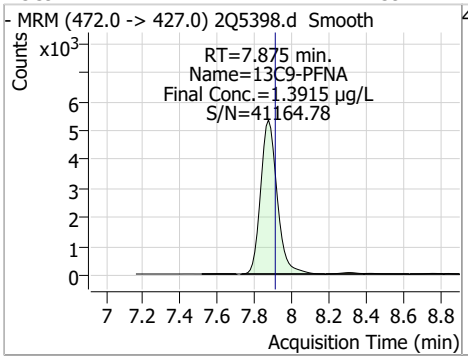
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.33	7.47	-0.04	5498				

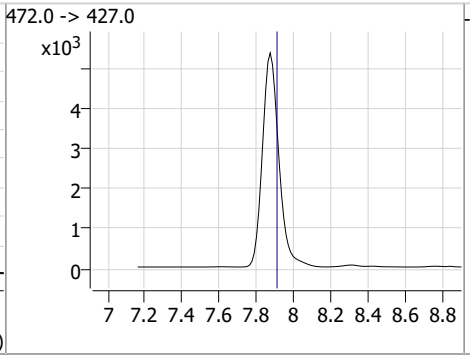


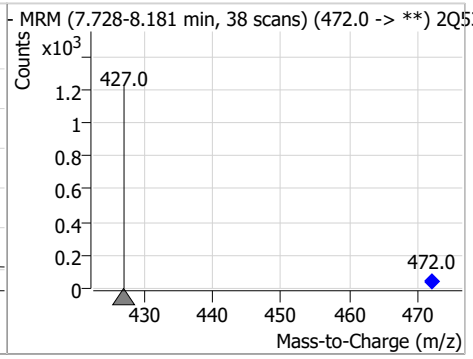




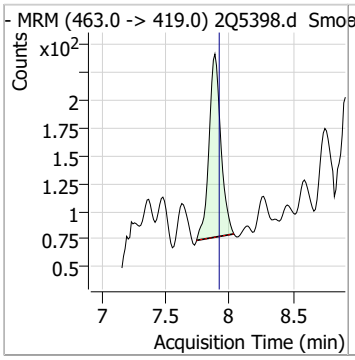
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.39	7.88	-0.04	32867				

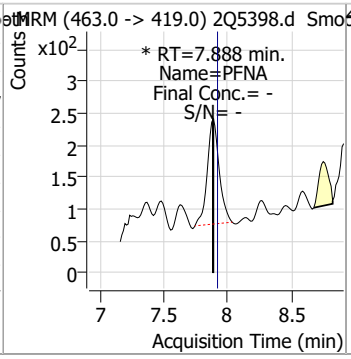


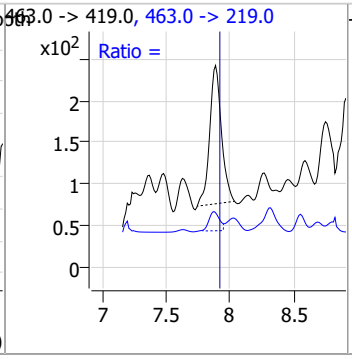


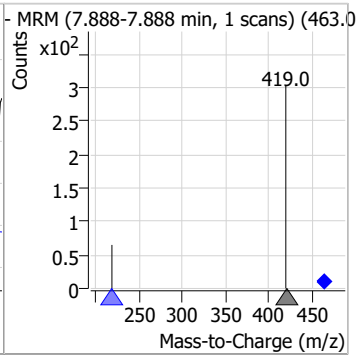


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



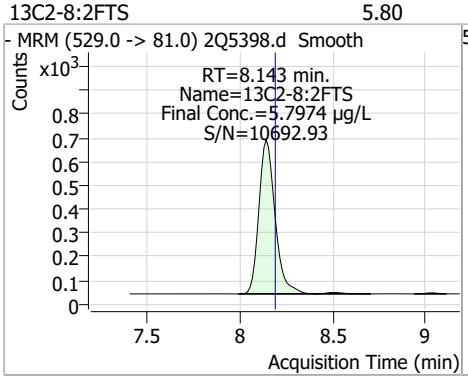


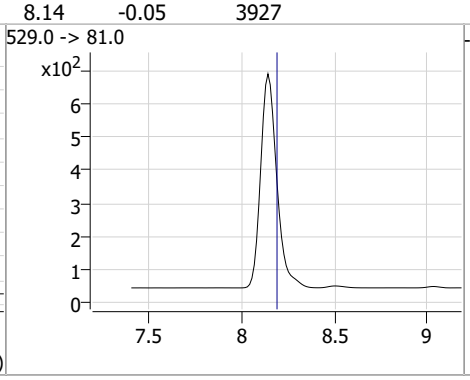


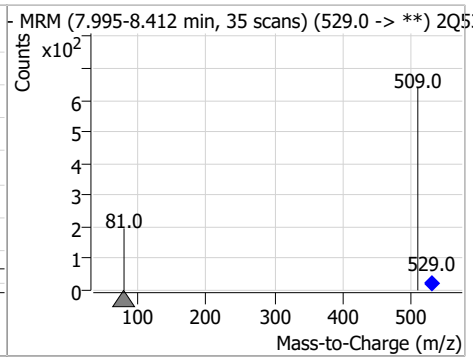


Perfluorinated Compounds by LC/MS/MS

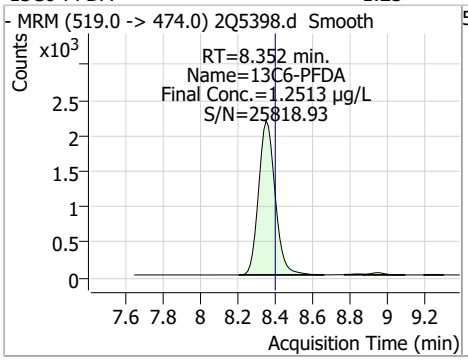
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.80	8.14	-0.05	3927				

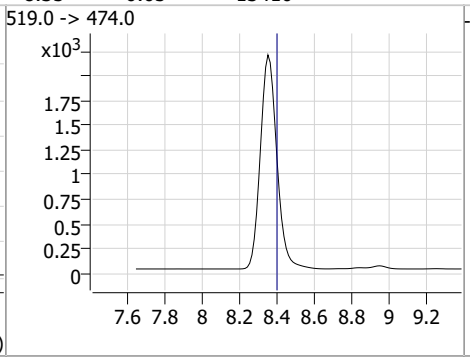


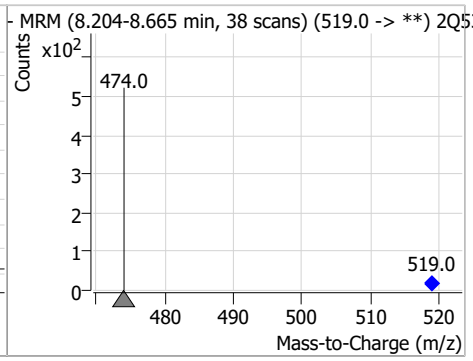




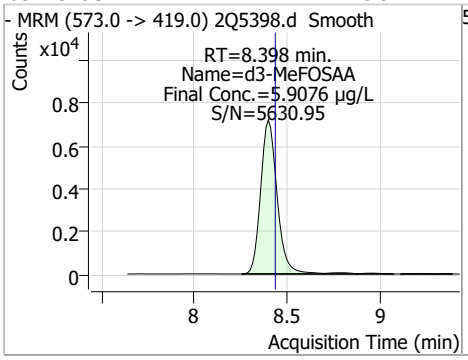
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.25	8.35	-0.05	13410				

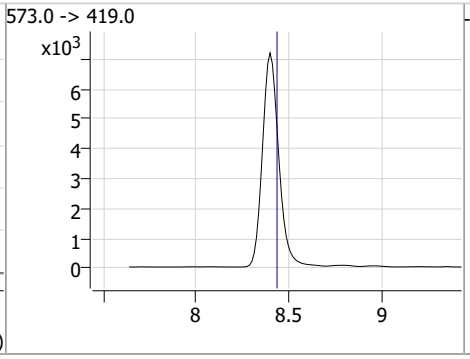


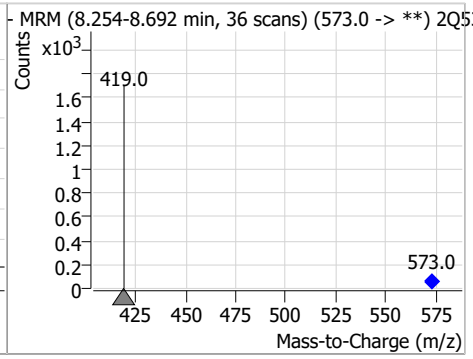




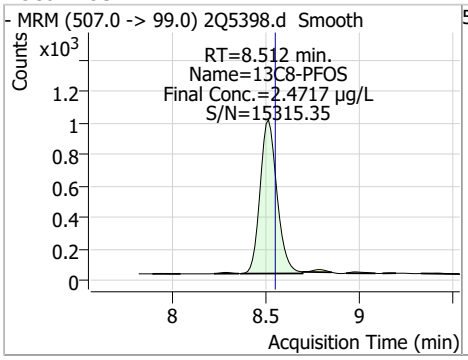
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.91	8.40	-0.04	43915				

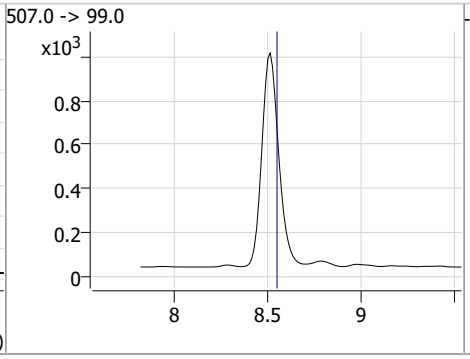


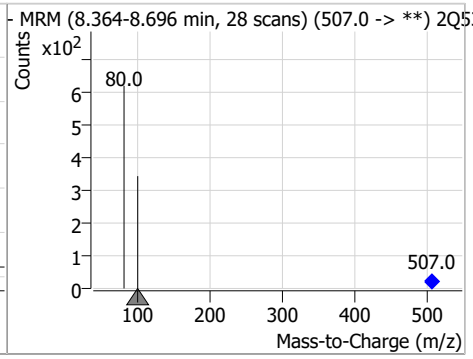




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.47	8.51	-0.04	6147				

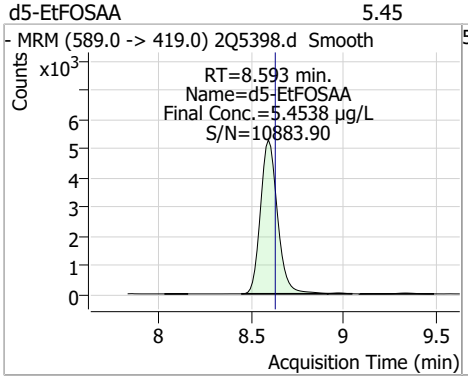


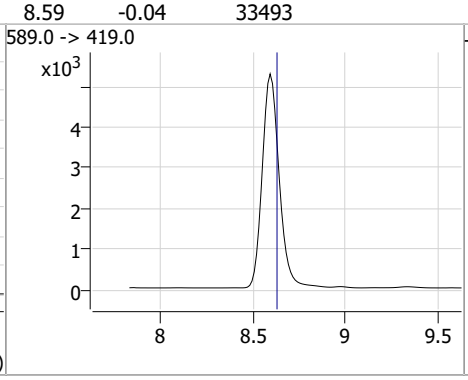


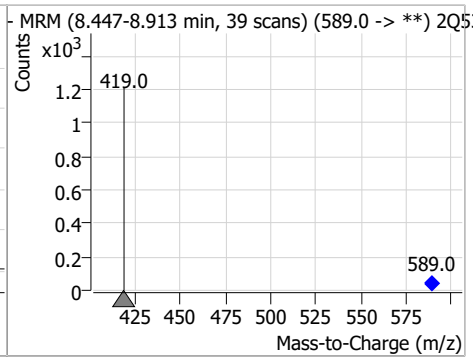


Perfluorinated Compounds by LC/MS/MS

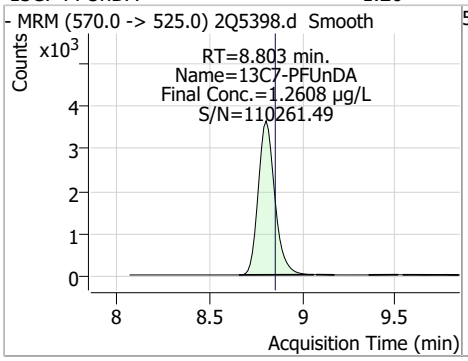
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.45	8.59	-0.04	33493				

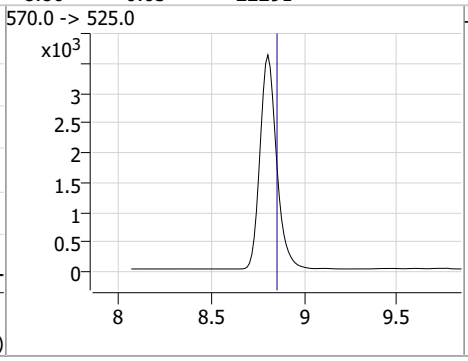


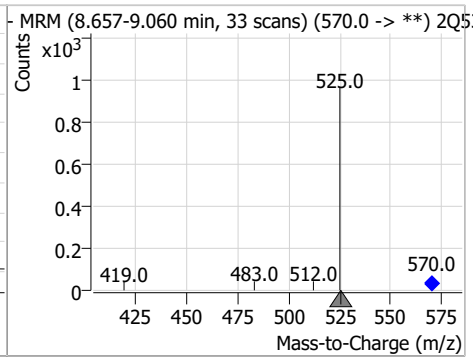




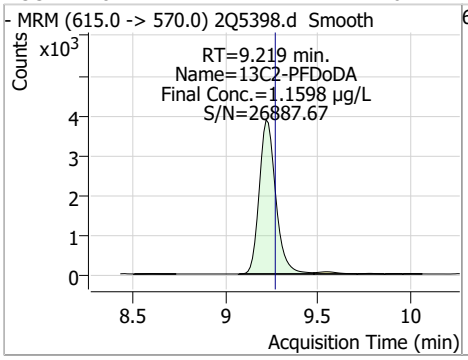
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.26	8.80	-0.05	22291				

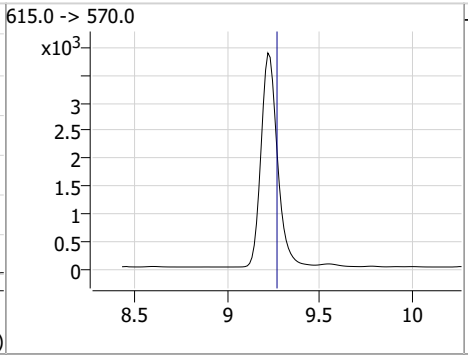


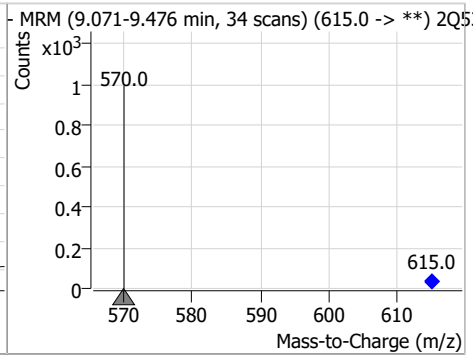




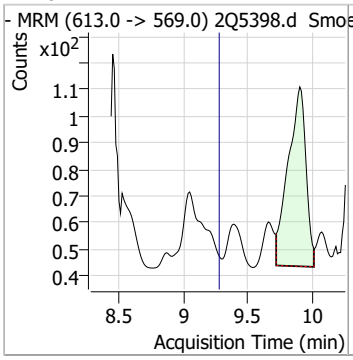
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.16	9.22	-0.05	23770				

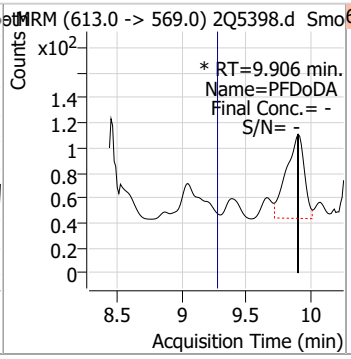


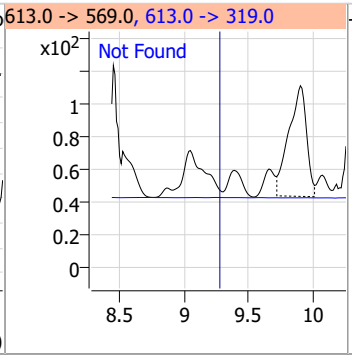


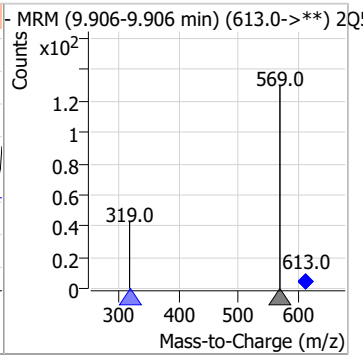


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA		0		0	613.0 -> 319.0		8.2	24.7



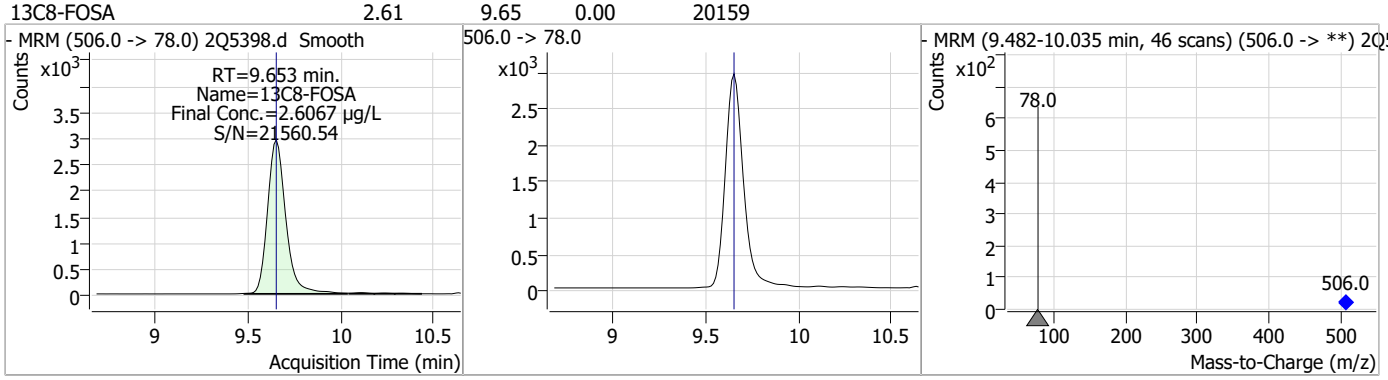




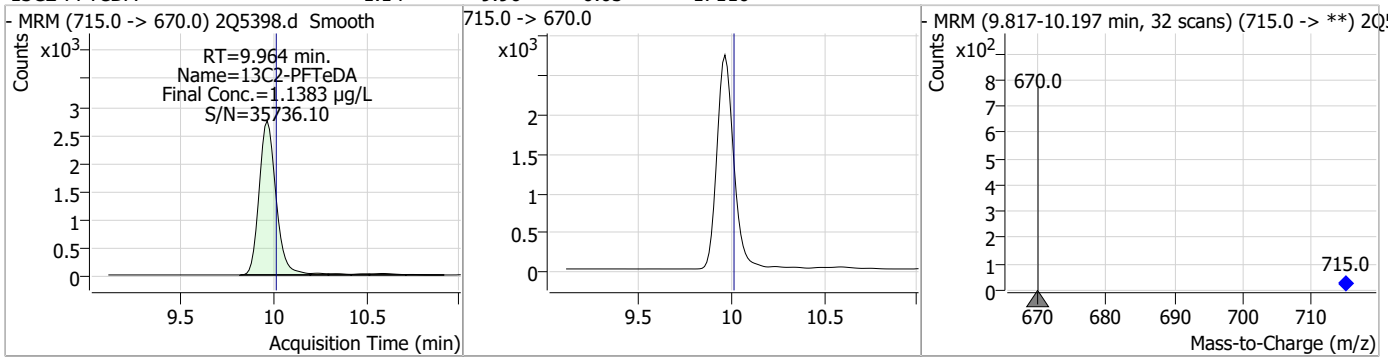


Perfluorinated Compounds by LC/MS/MS

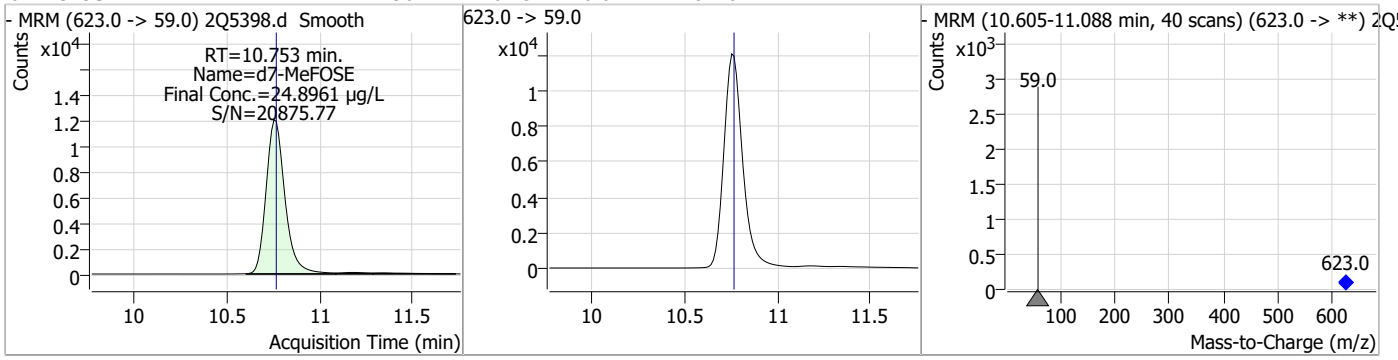
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.61	9.65	0.00	20159				



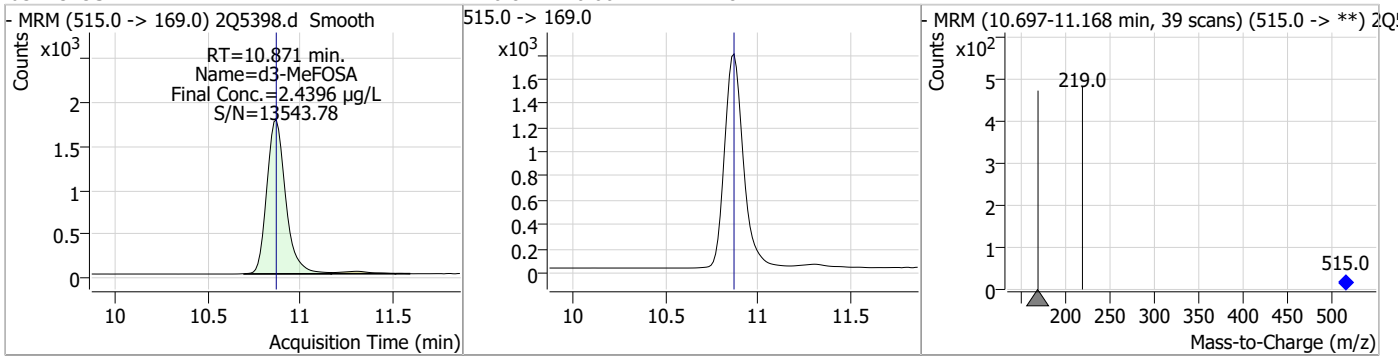
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.14	9.96	-0.05	17110				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.90	10.75	-0.01	84707				

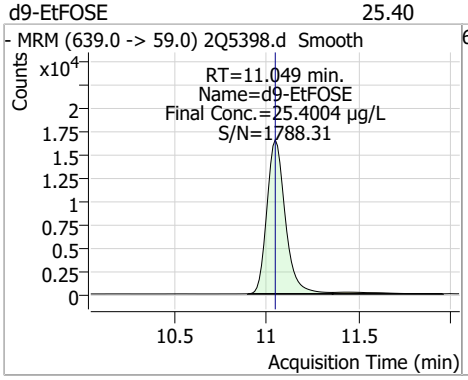


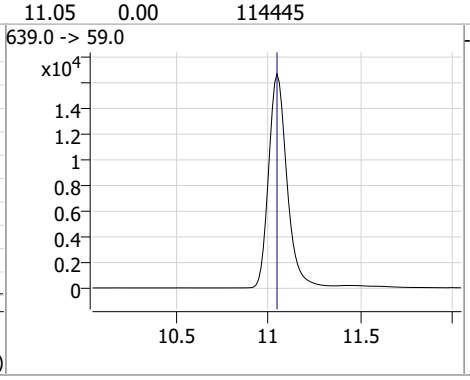
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.44	10.87	0.00	12481				

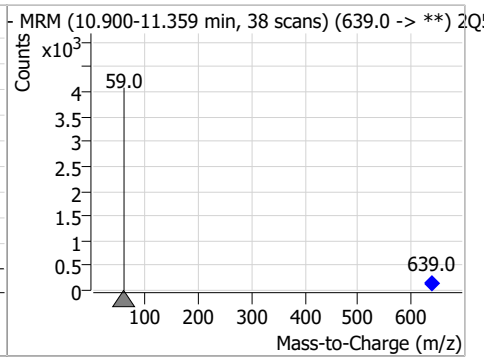


Perfluorinated Compounds by LC/MS/MS

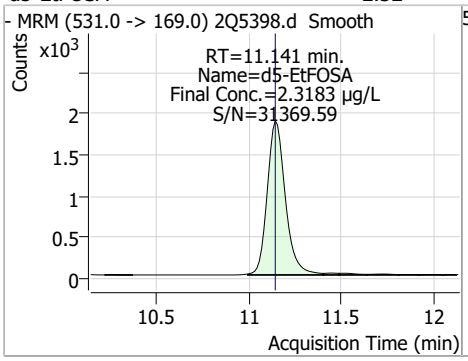
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	25.40	11.05	0.00	114445				

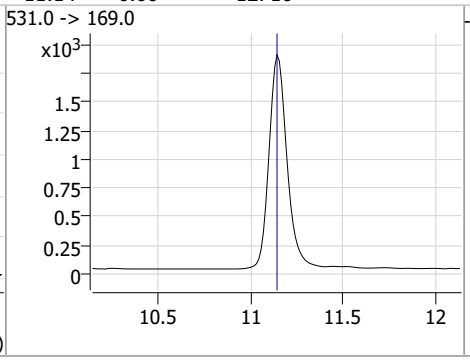


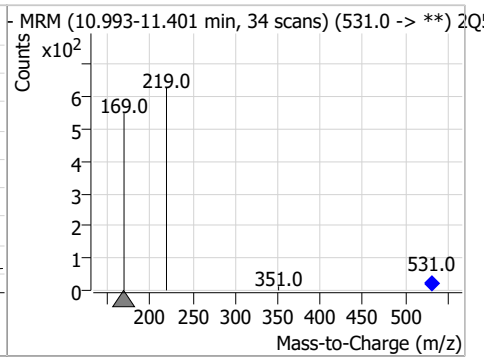




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.32	11.14	0.00	12716				







Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5411.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 8:03:55 AM
Sample Name : iccb
Vial : P1-A1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,522,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	151884	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	93402	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	49680	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	39545	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	64863	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	30994	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	14721	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20999	1.25	µg/L	-0.049
M2-PFDoDA	9.231	615.0 -> 570.0	25116	1.25	µg/L	-0.037
M2-PFTeDA	9.964	715.0 -> 670.0	18094	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19803	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5597	2.50	µg/L	-0.037
		302.0 -> 80.0	14267			
M3-PFHxS	7.472	402.0 -> 99.0	5960	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	5519	2.50	µg/L	-0.037
M2-4:2FTS	5.631	329.0 -> 81.0	1314	5.00	µg/L	-0.025
M2-6:2FTS	7.149	429.0 -> 81.0	2933	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4212	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	40345	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22997	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	34494	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	85487	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	115344	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	13272	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	13276	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	11163	2.50	µg/L	-0.049
13C3-PFBA	3.317	216.0 -> 172.0	66290	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6320	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	61666	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	25485	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	30814	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	46765	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.631	329.0 -> 81.0	1314	5.69	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.9%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2933	5.73	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 114.7%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4212	5.95	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.9%		
13C2-PFDoDA	9.231	615.0 -> 570.0	25116	1.23	µg/L	-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.8%		
13C2-PFTeDA	9.964	715.0 -> 670.0	18094	1.21	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.0%		
13C3-PFBS	5.846	302.0 -> 99.0	5597	2.38	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5960	2.42	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.7%			
13C4-PFBA	3.314	217.0 -> 172.0	151884	10.18	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.8%			
13C4-PFHpA	6.770	367.0 -> 322.0	39545	2.60	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.1%			
13C5-PFHxA	5.930	318.0 -> 273.0	49680	2.56	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.3%			
13C5-PFPeA	4.785	268.0 -> 223.0	93402	5.33	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.6%			
13C6-PFDA	8.352	519.0 -> 474.0	14721	1.38	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 110.7%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20999	1.20	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.7%			
13C8-FOSA	9.653	506.0 -> 78.0	19803	2.62	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.8%			
13C8-PFOA	7.372	421.0 -> 376.0	64863	2.54	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.6%			
13C8-PFOS	8.512	507.0 -> 99.0	5519	2.27	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.8%			
13C9-PFNA	7.875	472.0 -> 427.0	30994	1.29	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 102.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	40345	5.55	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.1%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22997	10.37	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 103.7%			
d3-MeFOSA	10.871	515.0 -> 169.0	13276	2.65	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.2%			
d5-EtFOSAA	8.593	589.0 -> 419.0	34494	5.75	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 114.9%			
d7-MeFOSE	10.753	623.0 -> 59.0	85487	25.70	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 102.8%			
d9-EtFOSE	11.049	639.0 -> 59.0	115344	26.19	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 104.8%			
d5-EtFOSA	11.141	531.0 -> 169.0	13272	2.48	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.0%			
Target Compounds							**QValue**
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.606	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	-	584.0 -> 419.0	-	N.D.			
		584.0 -> 483.0					
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	7.775	570.0 -> 419.0	0		µg/L	m	1
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	-	513.0 -> 469.0	-	N.D.			
		513.0 -> 219.0					
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

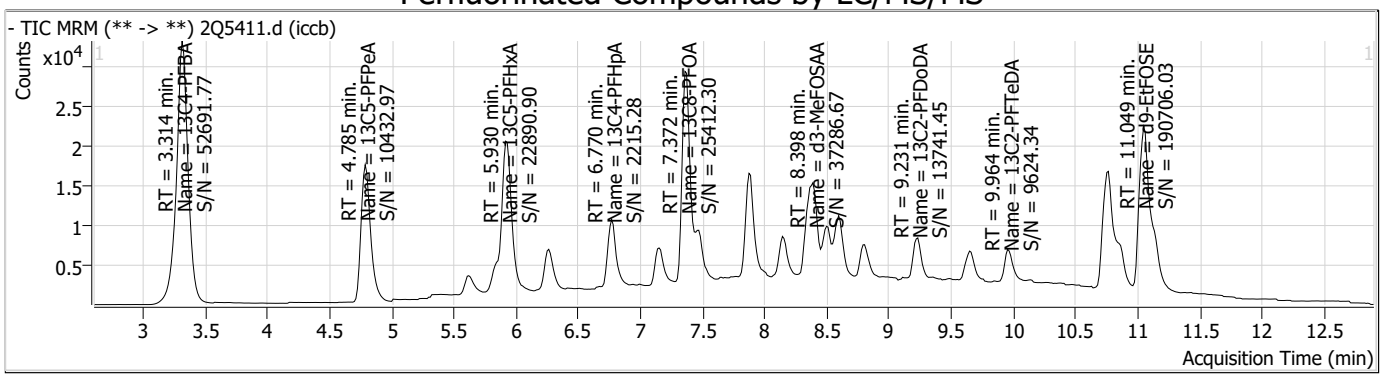
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	6.808	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	5.932	313.0 -> 269.0	0		µg/L	m	1
		313.0 -> 119.0	0				
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.876	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.365	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

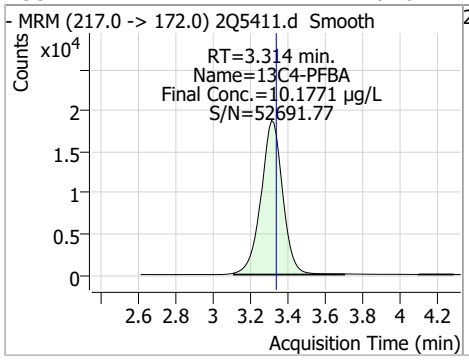
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

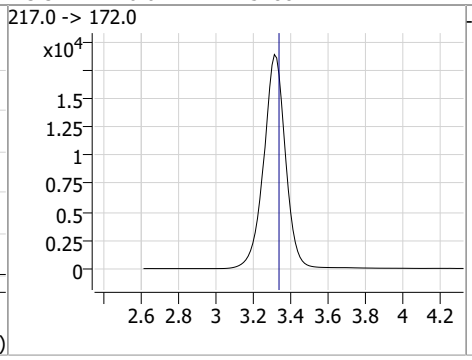
= Qualifier out of range, m = manually integrated, + = Area summed

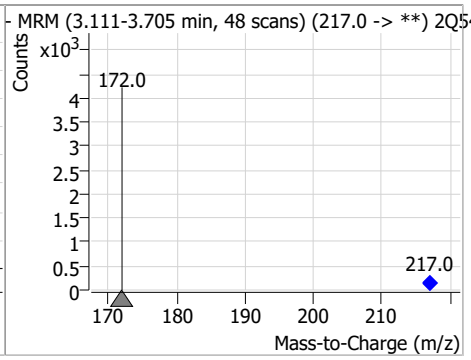
Perfluorinated Compounds by LC/MS/MS



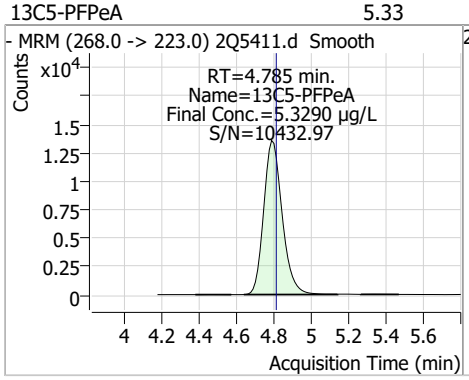
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.18	3.31	-0.02	151884				

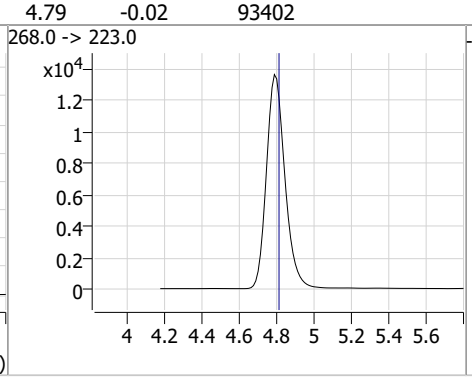


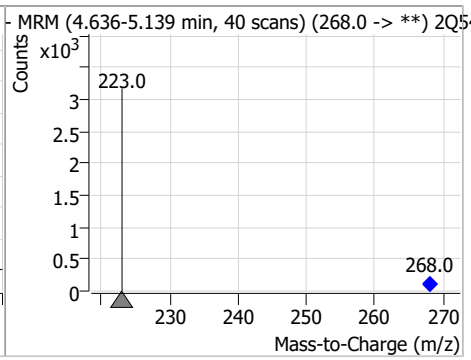




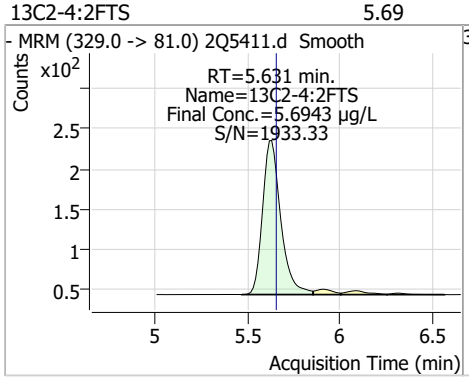
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.33	4.79	-0.02	93402				

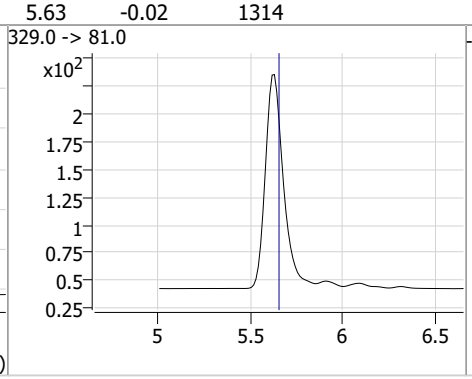


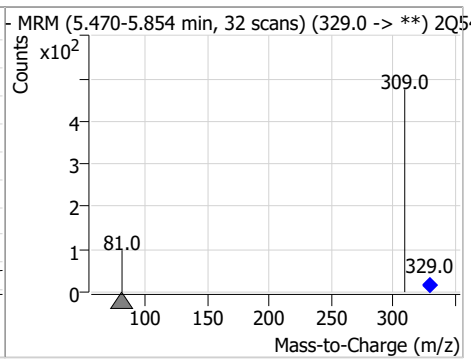




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.69	5.63	-0.02	1314				

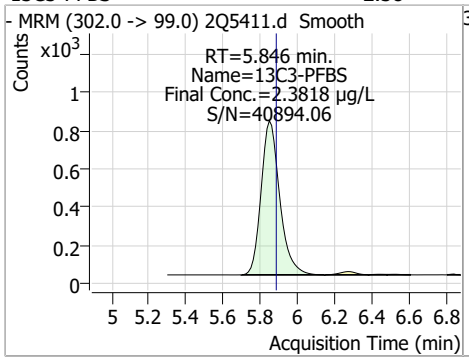


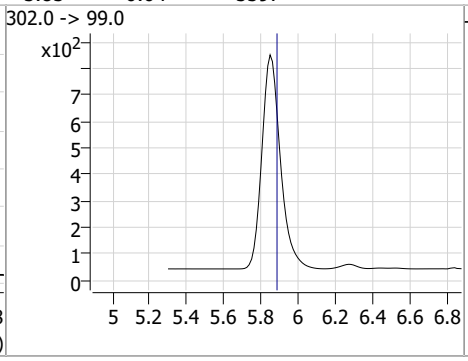


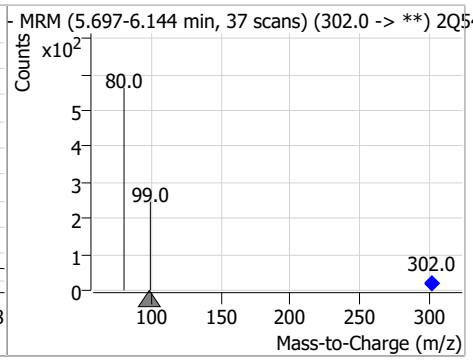


Perfluorinated Compounds by LC/MS/MS

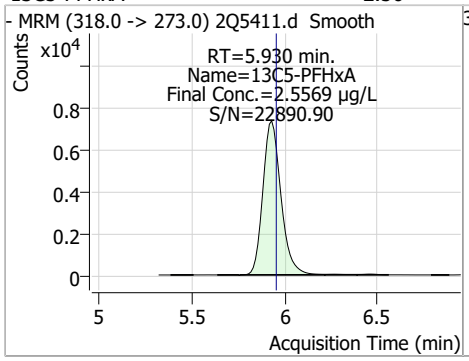
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.38	5.85	-0.04	5597				

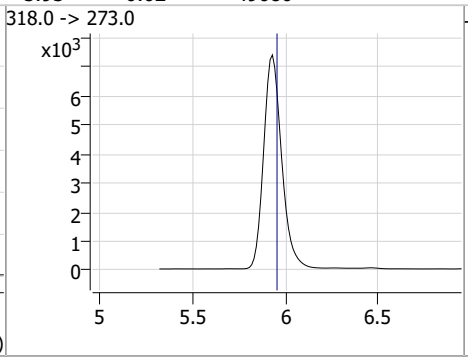


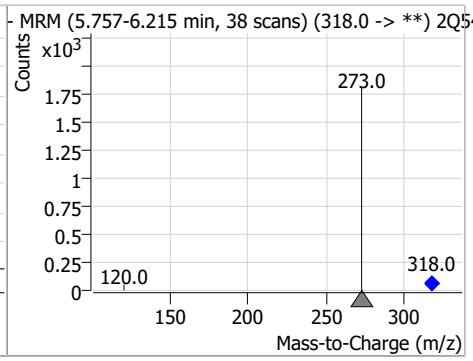




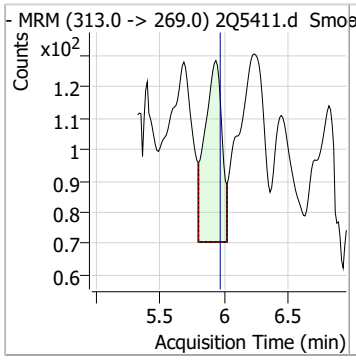
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.56	5.93	-0.02	49680				

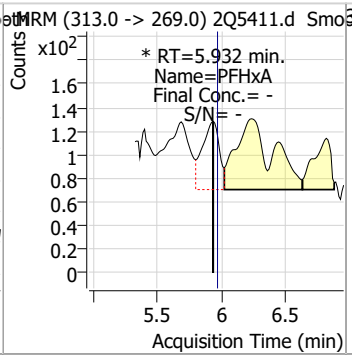


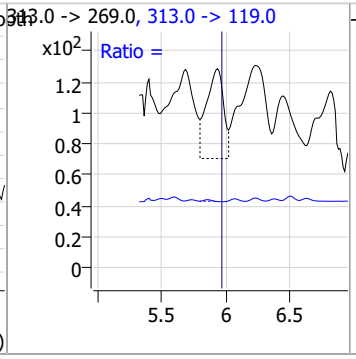


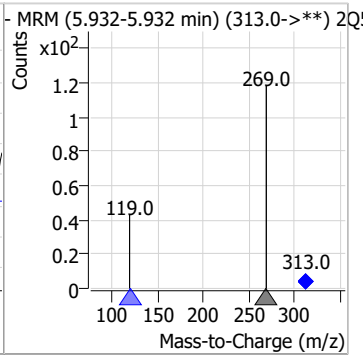


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA		0		0	313.0 -> 119.0		1.4	4.3

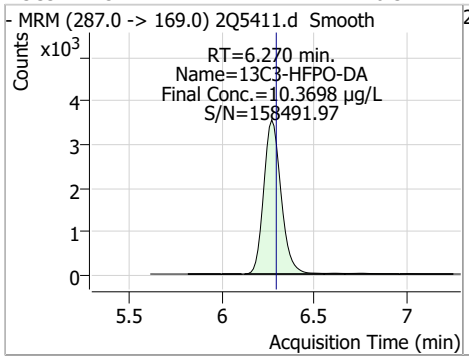


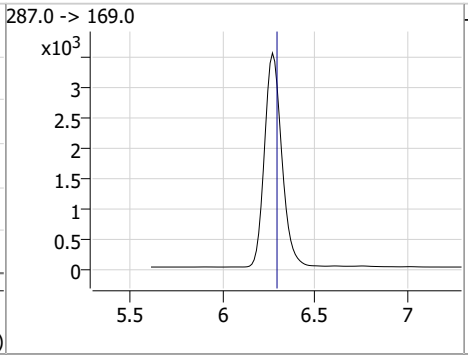


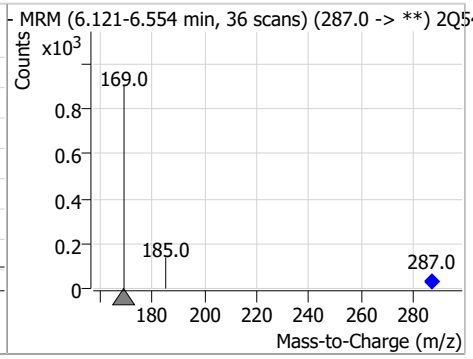




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.37	6.27	-0.02	22997				

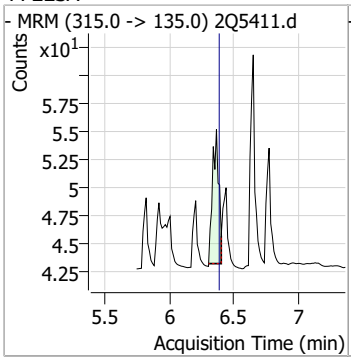


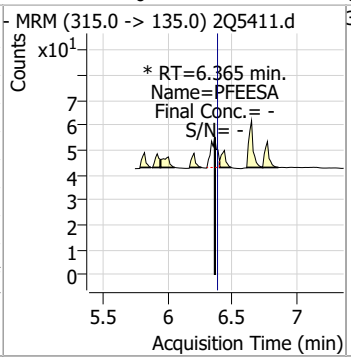


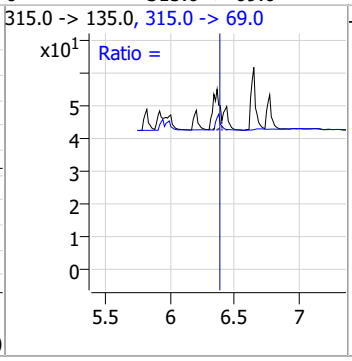


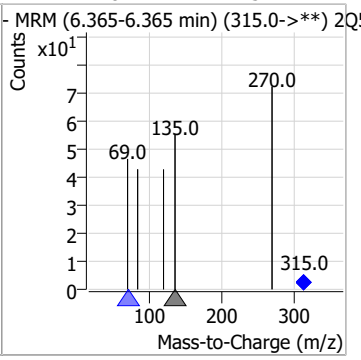
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

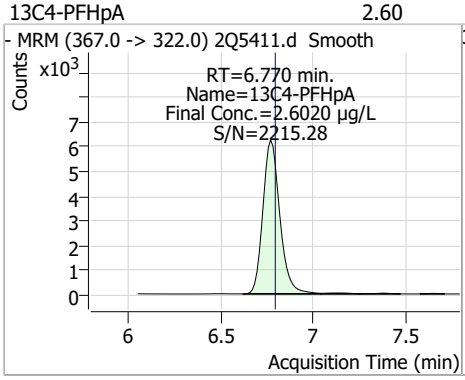


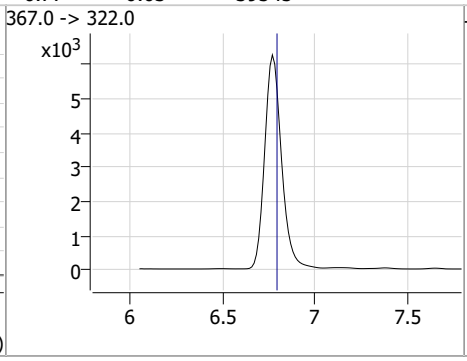


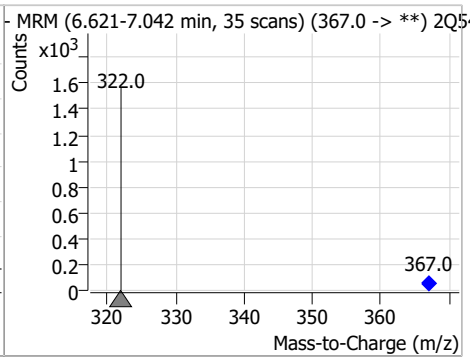




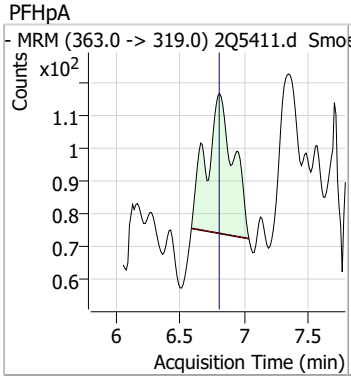
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.60	6.77	-0.03	39545				

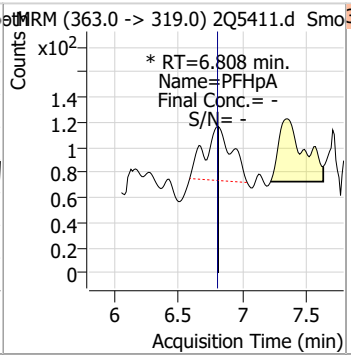


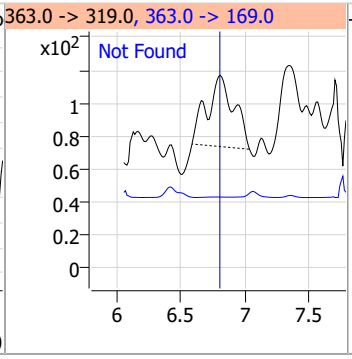


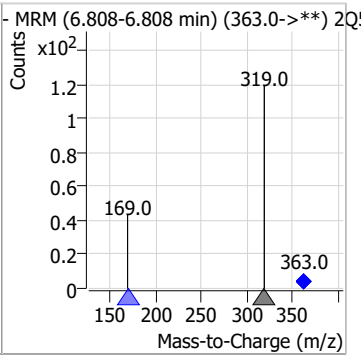


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5

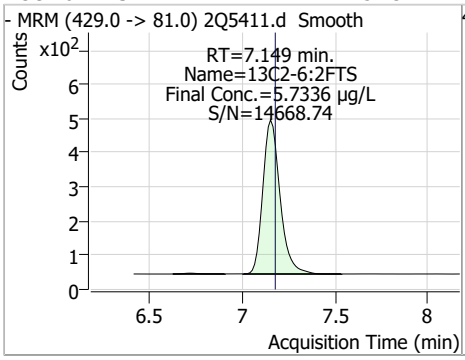


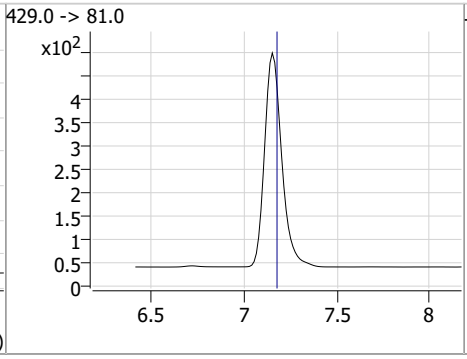


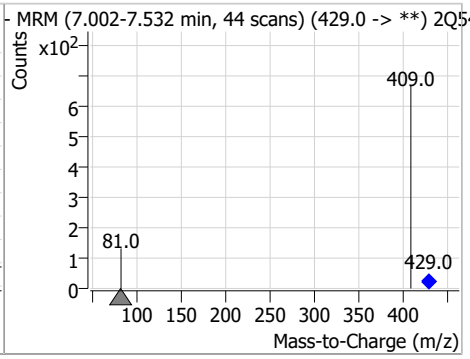




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.73	7.15	-0.03	2933				

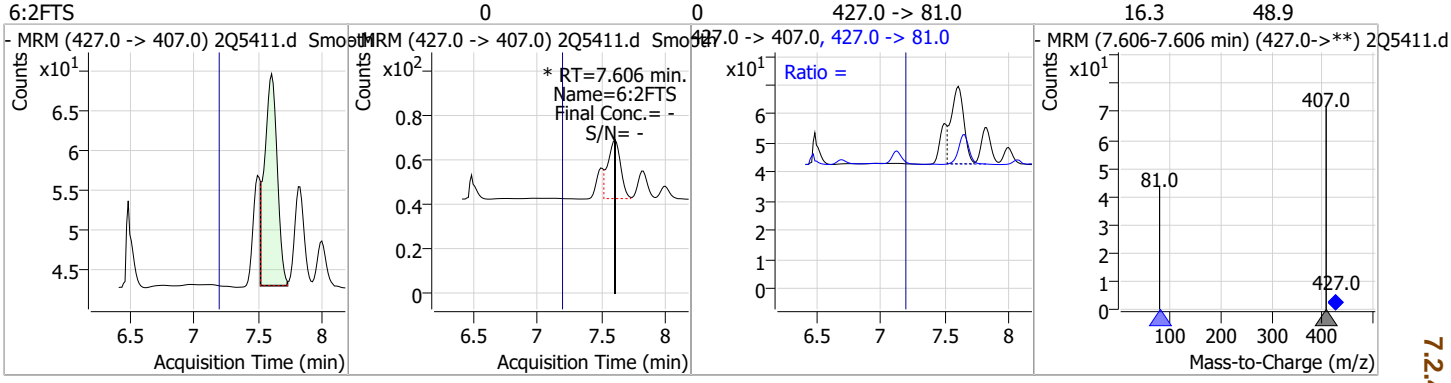




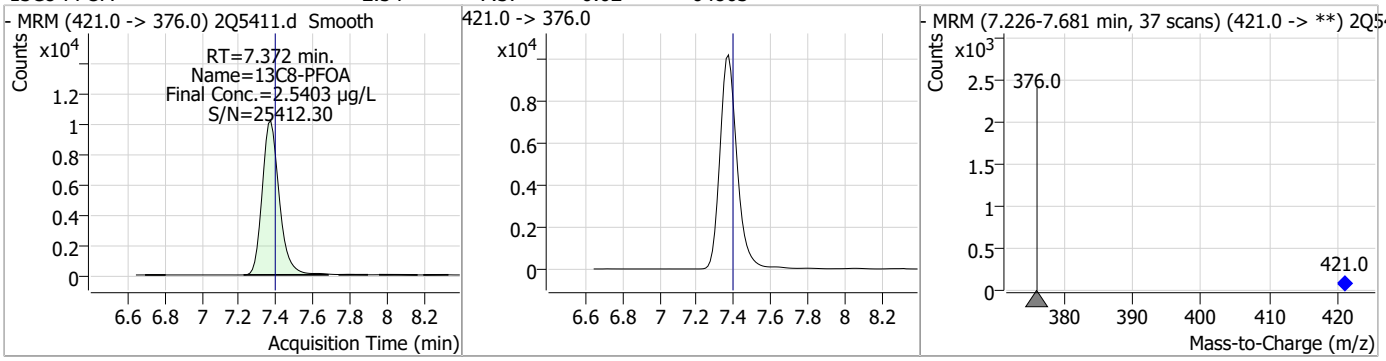


Perfluorinated Compounds by LC/MS/MS

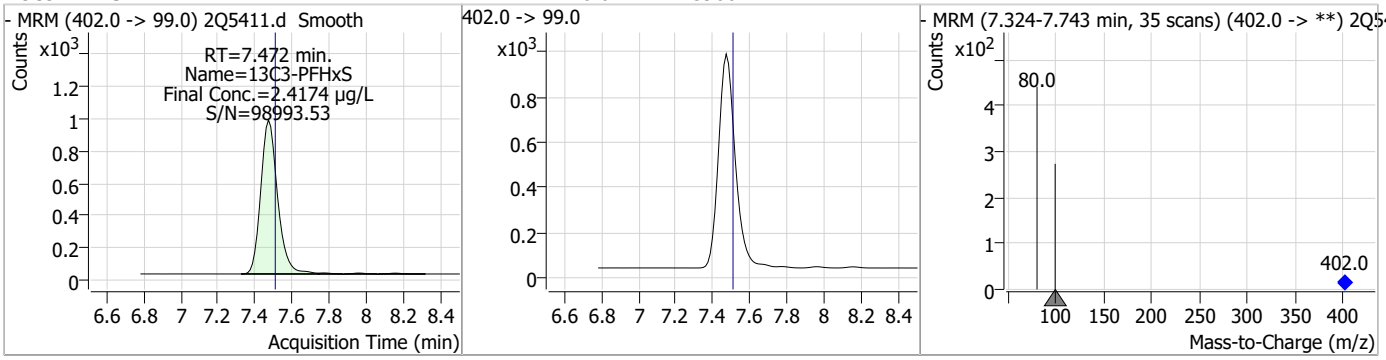
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9



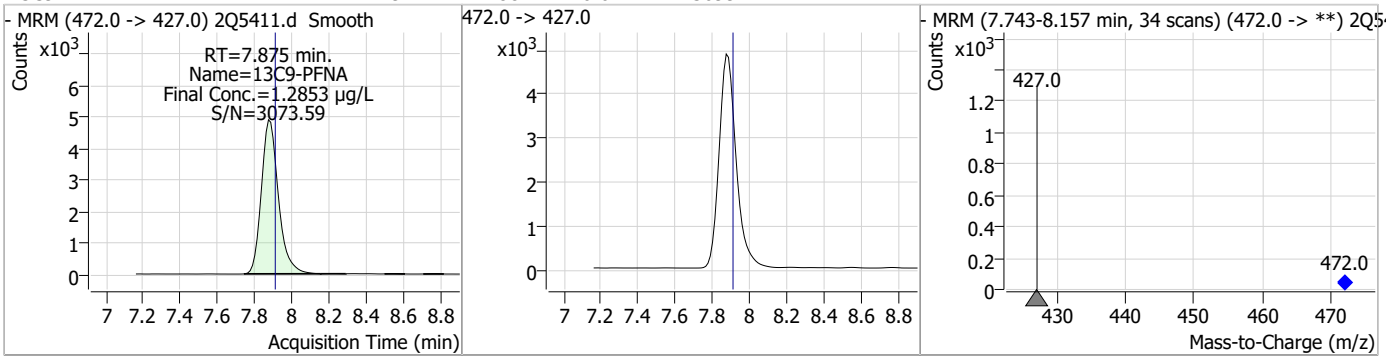
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.54	7.37	-0.02	64863				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.42	7.47	-0.04	5960				

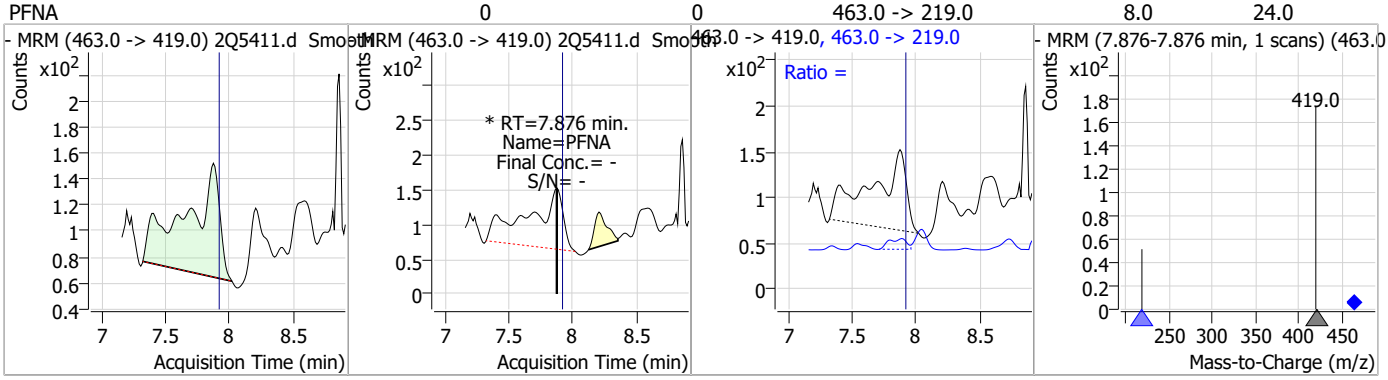


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.29	7.88	-0.04	30994				

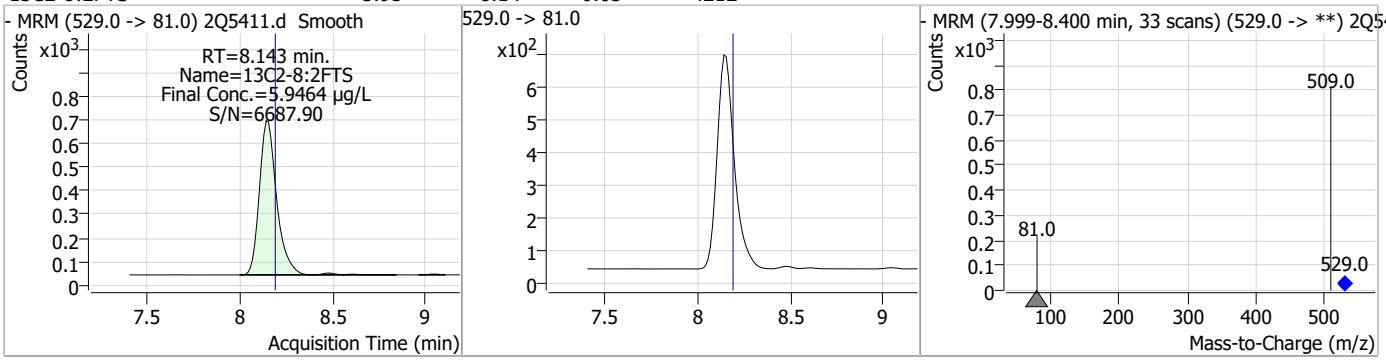


Perfluorinated Compounds by LC/MS/MS

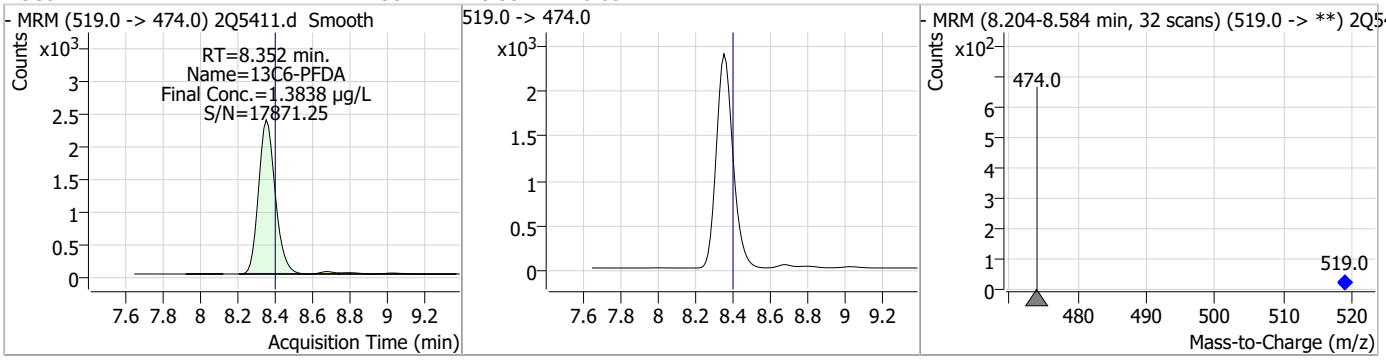
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



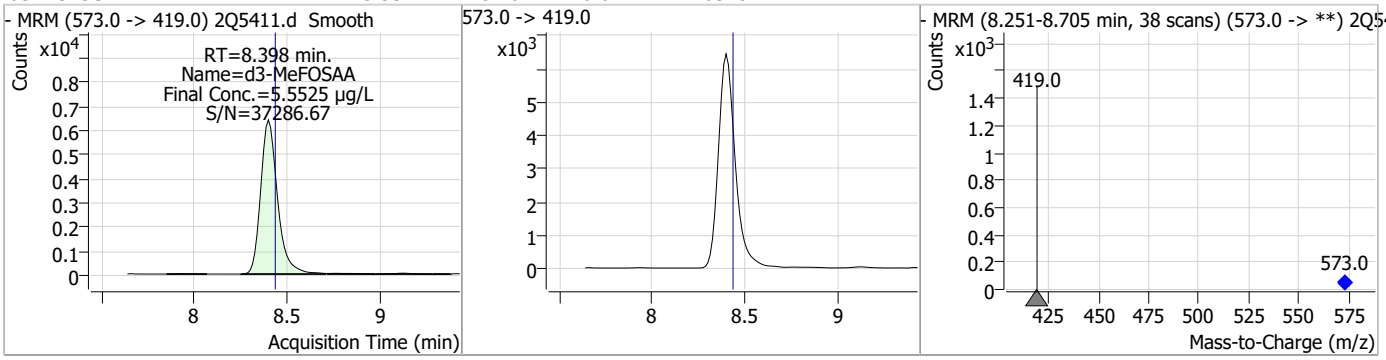
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.95	8.14	-0.05	4212				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.38	8.35	-0.05	14721				

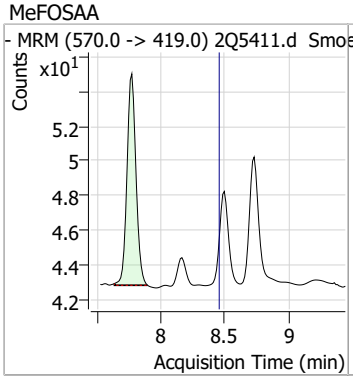


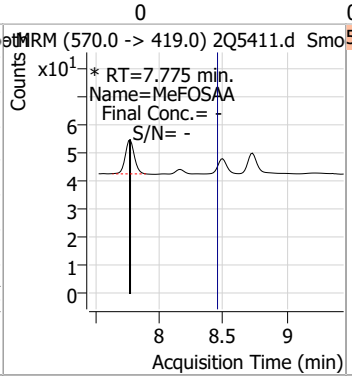
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.55	8.40	-0.04	40345				

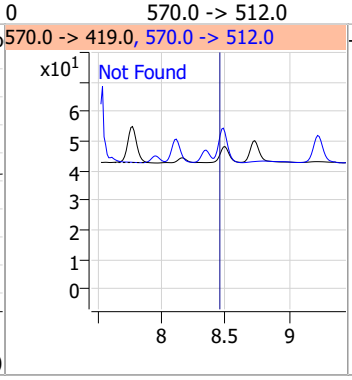


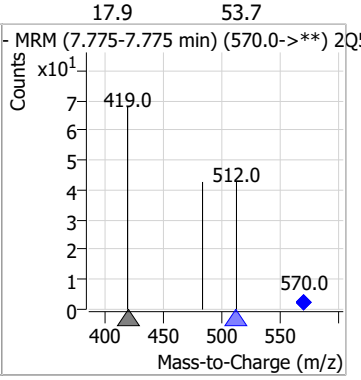
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA		0		0	570.0 -> 512.0		17.9	53.7

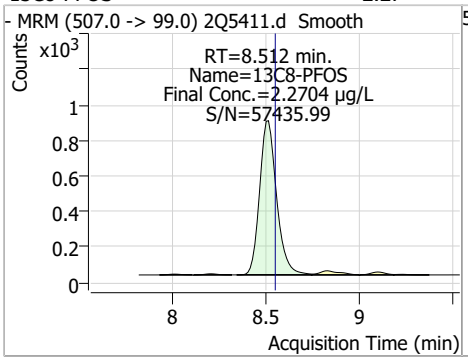


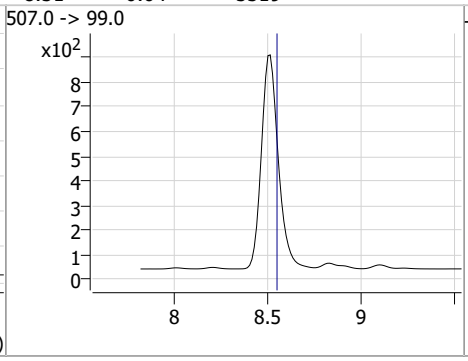


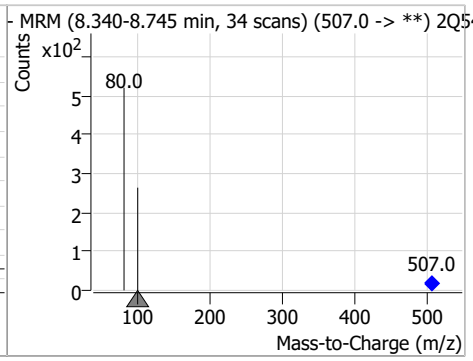




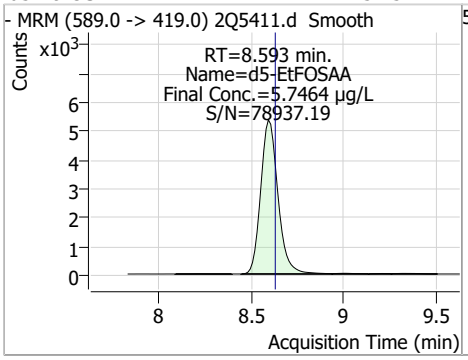
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.27	8.51	-0.04	5519				

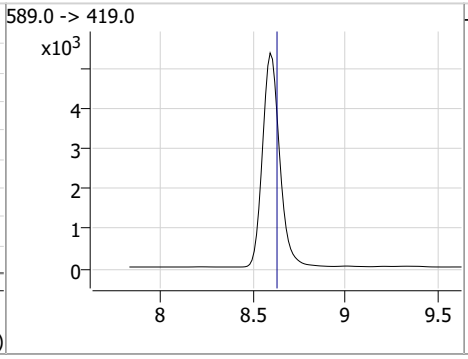


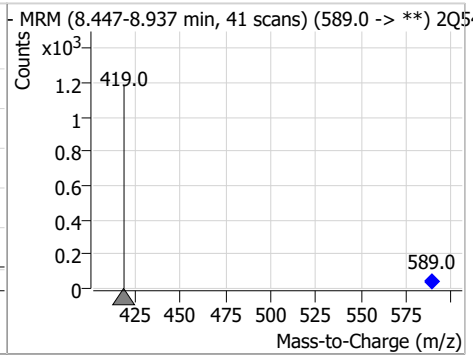




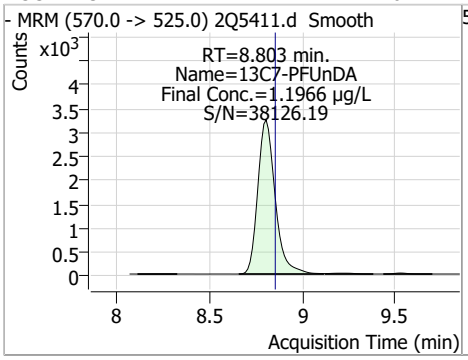
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.75	8.59	-0.04	34494				

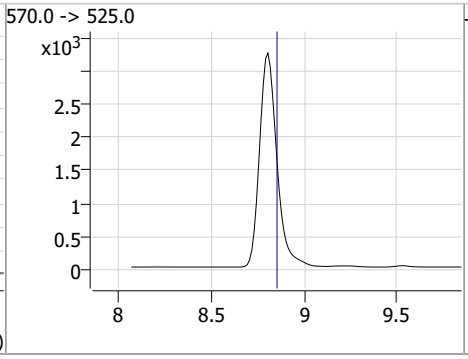


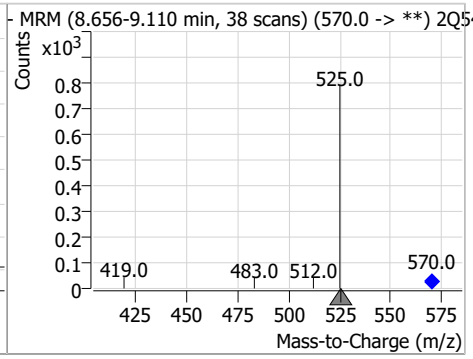




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.20	8.80	-0.05	20999				

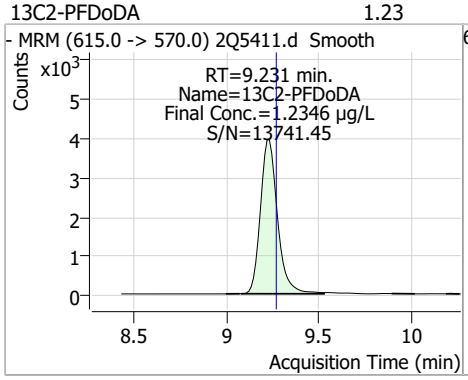


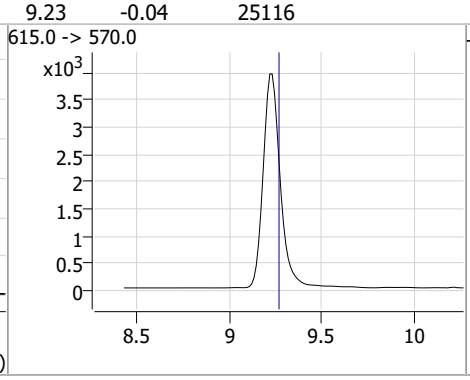


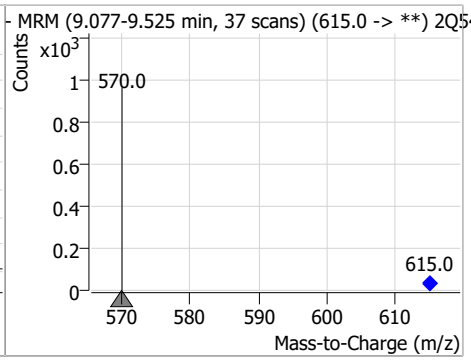


Perfluorinated Compounds by LC/MS/MS

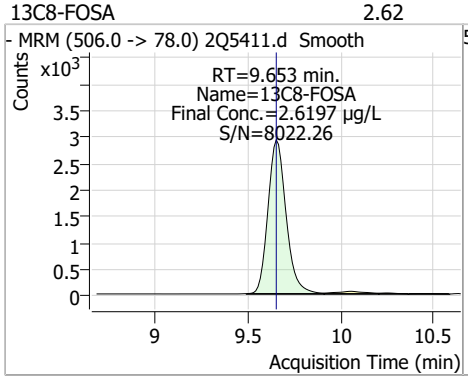
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.23	9.23	-0.04	25116				

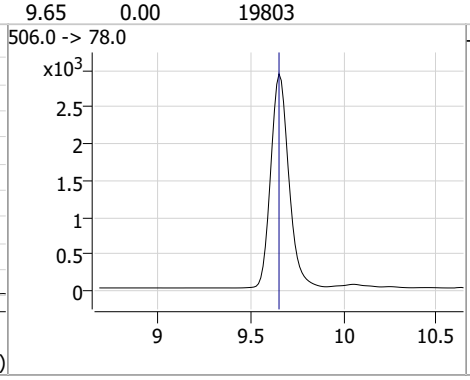


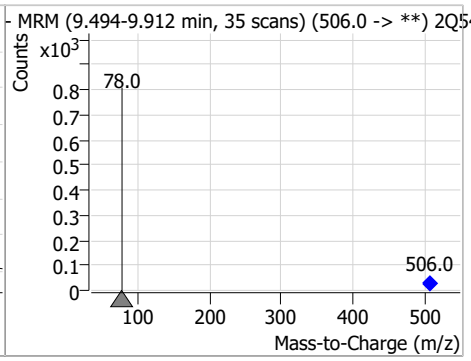




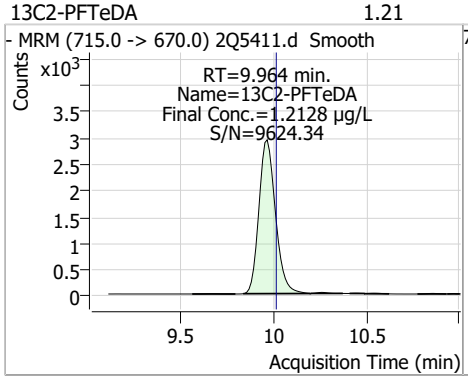
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.62	9.65	0.00	19803				

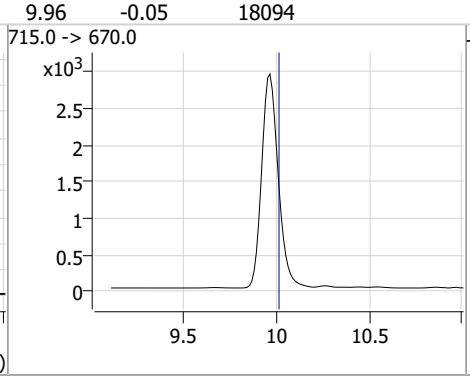


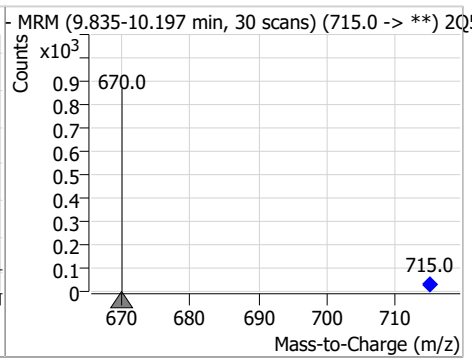




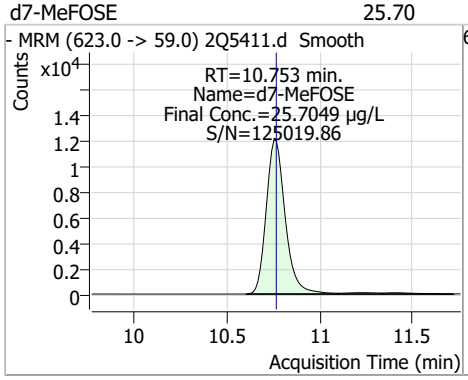
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.21	9.96	-0.05	18094				

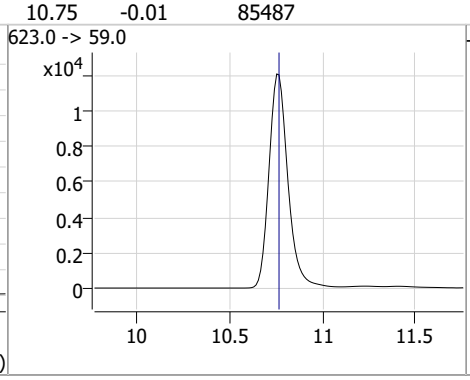


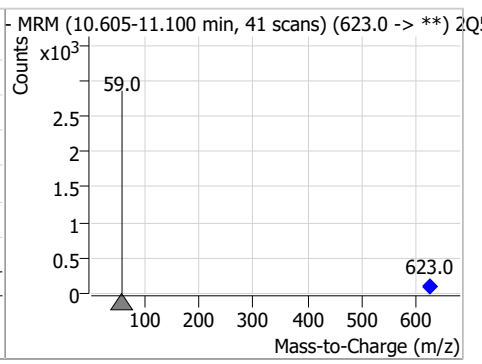




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	25.70	10.75	-0.01	85487				

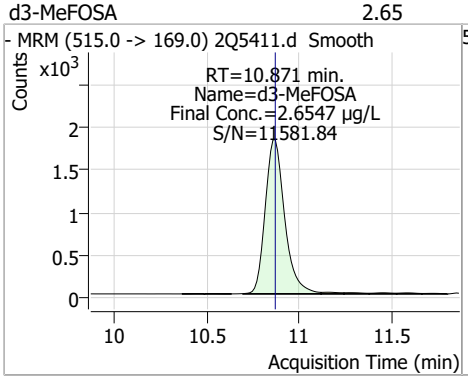


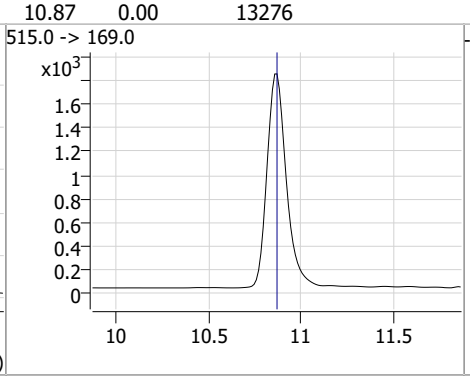


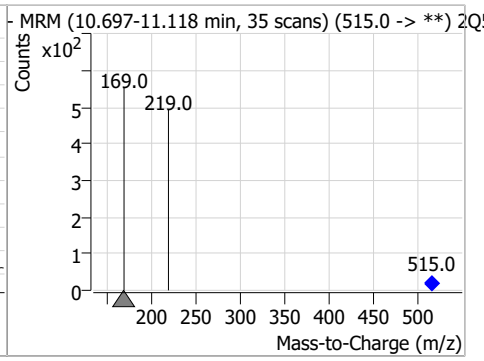


Perfluorinated Compounds by LC/MS/MS

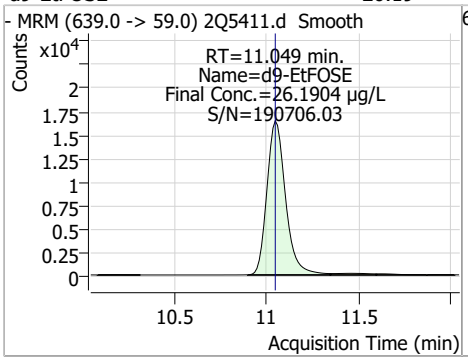
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.65	10.87	0.00	13276				

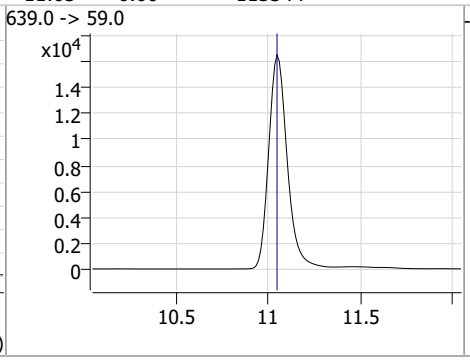


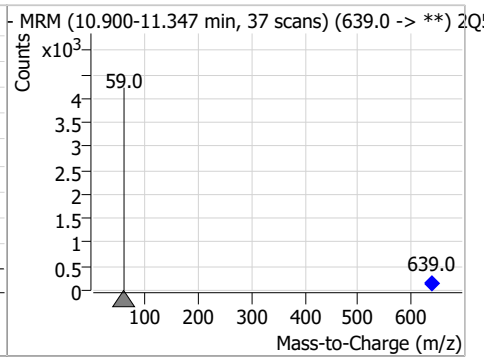




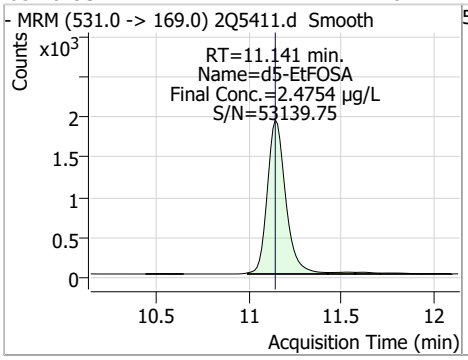
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	26.19	11.05	0.00	115344				

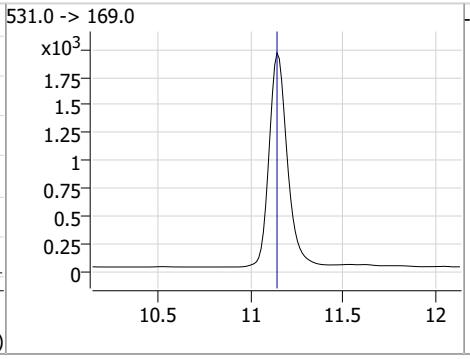


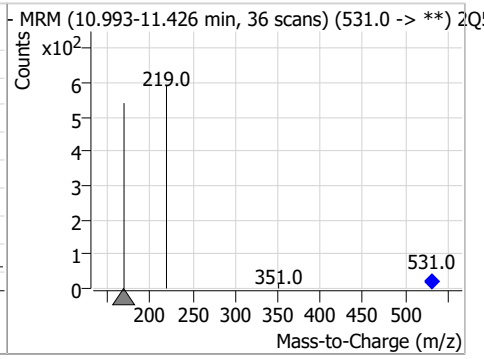




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.48	11.14	0.00	13272				







Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5388.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 2:12:39 AM
Sample Name : OP50811-LLBS:2
Vial : P2-F1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	166074	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	97775	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	53224	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	40723	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	69081	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	32154	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	15130	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	22841	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	26242	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16096	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19933	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5881	2.50	µg/L	-0.037
		302.0 -> 80.0	15382			
M3-PFHxS	7.472	402.0 -> 99.0	5489	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6662	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1478	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	3411	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4017	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	39124	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	25350	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	34095	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	81342	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	103831	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	11110	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	9526	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	11736	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	74226	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6819	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	74710	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	26849	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35443	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	51776	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1478	5.94	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.7%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3411	6.18	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 123.6%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4017	5.25	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.1%		
13C2-PFDoDA	9.219	615.0 -> 570.0	26242	1.22	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.0%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16096	1.02	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 81.9%		
13C3-PFBS	5.846	302.0 -> 99.0	5881	2.32	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.8%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5489	2.06	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 82.5%			
13C4-PFBA	3.314	217.0 -> 172.0	166074	9.94	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.4%			
13C4-PFHpA	6.770	367.0 -> 322.0	40723	2.42	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.8%			
13C5-PFHxA	5.930	318.0 -> 273.0	53224	2.47	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.0%			
13C5-PFPeA	4.798	268.0 -> 223.0	97775	5.04	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.8%			
13C6-PFDA	8.352	519.0 -> 474.0	15130	1.35	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 108.0%			
13C7-PFUnDA	8.803	570.0 -> 525.0	22841	1.24	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.8%			
13C8-FOSA	9.653	506.0 -> 78.0	19933	2.51	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.3%			
13C8-PFOA	7.372	421.0 -> 376.0	69081	2.23	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.3%			
13C8-PFOS	8.512	507.0 -> 99.0	6662	2.61	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.3%			
13C9-PFNA	7.875	472.0 -> 427.0	32154	1.16	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 92.7%			
d3-MeFOSAA	8.398	573.0 -> 419.0	39124	5.12	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.4%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	25350	10.32	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 103.2%			
d3-MeFOSA	10.871	515.0 -> 169.0	9526	1.81	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 72.5%			
d5-EtFOSAA	8.593	589.0 -> 419.0	34095	5.40	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 108.1%			
d7-MeFOSE	10.753	623.0 -> 59.0	81342	23.27	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 93.1%			
d9-EtFOSE	11.049	639.0 -> 59.0	103831	22.43	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 89.7%			
d5-EtFOSA	11.141	531.0 -> 169.0	11110	1.97	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 78.8%			
Target Compounds							**QValue**
4:2FTS	5.619	327.0 -> 307.0	3525	1.43	µg/L		100
		327.0 -> 81.0	1811				
6:2FTS	7.149	427.0 -> 407.0	6459	1.29	µg/L		91
		427.0 -> 81.0	1795				
8:2FTS	8.143	527.0 -> 507.0	6302	1.74	µg/L		90
		527.0 -> 81.0	1893				
EtFOSAA	8.594	584.0 -> 419.0	2521	0.44	µg/L	m	73
		584.0 -> 483.0	708				
FOSA	9.655	498.0 -> 78.0	4791	0.68	µg/L	m	96
		498.0 -> 478.0	258				
MeFOSAA	8.398	570.0 -> 419.0	2451	0.40	µg/L	m	89
		570.0 -> 512.0	726				
PFBA	3.321	213.0 -> 169.0	6374	1.53	µg/L		100
PFBS	5.847	299.0 -> 80.0	2622	0.43	µg/L		89
		299.0 -> 99.0	929				
PFDA	8.352	513.0 -> 469.0	8322	0.36	µg/L		90
		513.0 -> 219.0	1620				
PFDoDA	9.219	613.0 -> 569.0	7183	0.36	µg/L		84
		613.0 -> 319.0	1658				

Perfluorinated Compounds by LC/MS/MS

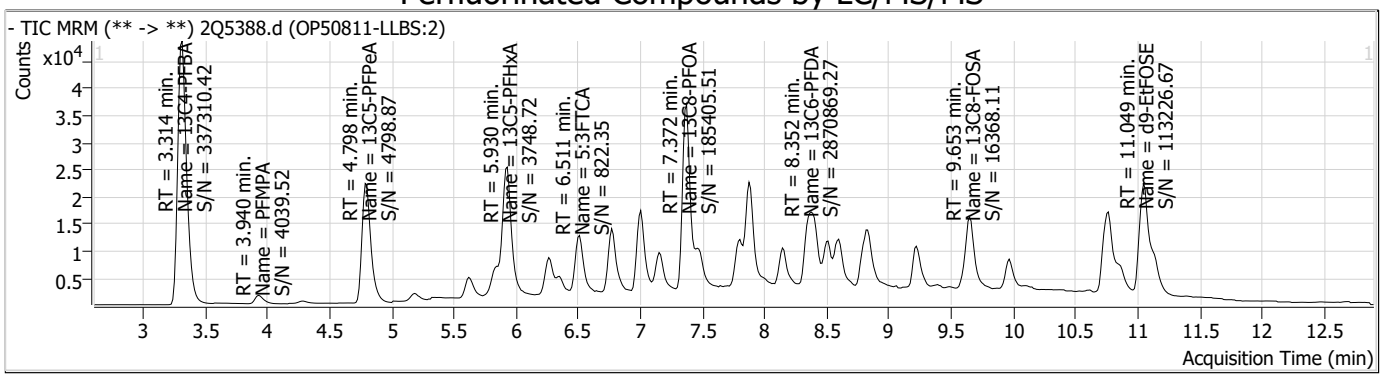
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	1047	0.38	µg/L		91
		599.0 -> 99.0	463				
PFHpA	6.770	363.0 -> 319.0	9533	0.42	µg/L		96
		363.0 -> 169.0	1721				
PFHpS	8.010	449.0 -> 80.0	1469	0.42	µg/L		98
		449.0 -> 99.0	754				
PFHxA	5.932	313.0 -> 269.0	8730	0.41	µg/L		96
		313.0 -> 119.0	374				
PFHxS	7.473	399.0 -> 80.0	1338	0.35	µg/L		68
		399.0 -> 99.0	1109				
PFNA	7.876	463.0 -> 419.0	10100	0.42	µg/L		92
		463.0 -> 219.0	1976				
PFNS	8.964	549.0 -> 80.0	756	0.26	µg/L		67
		549.0 -> 99.0	250				
PFOA	7.373	413.0 -> 369.0	10052	0.37	µg/L		88
		413.0 -> 169.0	2480				
PFOS	8.512	499.0 -> 80.0	1651	0.29	µg/L	m	93
		499.0 -> 99.0	951				
PFPeA	4.799	263.0 -> 219.0	12823	0.73	µg/L		100
PFPeS	6.821	349.0 -> 80.0	1623	0.46	µg/L	#	65
		349.0 -> 99.0	334				
PFTeDA	9.964	713.0 -> 669.0	5709	0.44	µg/L		90
		713.0 -> 219.0	924				
PFTrDA	9.610	663.0 -> 619.0	7472	0.39	µg/L		96
		663.0 -> 369.0	743				
PFUnDA	8.804	563.0 -> 519.0	10182	0.45	µg/L		95
		563.0 -> 269.0	1438				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	29794	1.31	µg/L		92
		633.0 -> 453.0	7331				
9Cl-PF3ONS	8.842	531.0 -> 351.0	20681	1.32	µg/L		97
		533.0 -> 353.0	6300				
ADONA	7.004	377.0 -> 251.0	53791	1.34	µg/L		95
		377.0 -> 85.0	14556				
HFPO-DA	6.271	285.0 -> 169.0	4350	1.59	µg/L		76
		285.0 -> 185.0					
3:3FTCA	4.288	241.0 -> 177.0	1838	1.68	µg/L		96
		241.0 -> 117.0	168				
5:3FTCA	6.511	341.0 -> 237.0	30159	8.19	µg/L		95
		341.0 -> 217.0	22765				
7:3FTCA	7.802	441.0 -> 337.0	28736	7.32	µg/L		85
		441.0 -> 317.0	13663				
EtFOSA	11.142	526.0 -> 219.0	2962	0.62	µg/L		83
		526.0 -> 169.0	4066				
EtFOSE	11.062	630.0 -> 59.0	6896	1.59	µg/L		100
MeFOSA	10.859	512.0 -> 169.0	3577	0.70	µg/L	m	69
		512.0 -> 219.0	2206				
MeFOSE	10.778	616.0 -> 59.0	5695	1.64	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	967	0.34	µg/L		95
		699.0 -> 99.0	425				
NFDHA	5.811	295.0 -> 201.0	1259	0.97	µg/L		69
		201.0 -> 85.0	5486				
		295.0 -> 85.0	268				
PFMBA	5.188	279.0 -> 85.0	7131	0.75	µg/L		100
PFMPA	3.940	229.0 -> 85.0	7628	0.76	µg/L		100
PFEESA	6.353	315.0 -> 135.0	11171	0.77	µg/L		100
		315.0 -> 69.0	1053				

Perfluorinated Compounds by LC/MS/MS

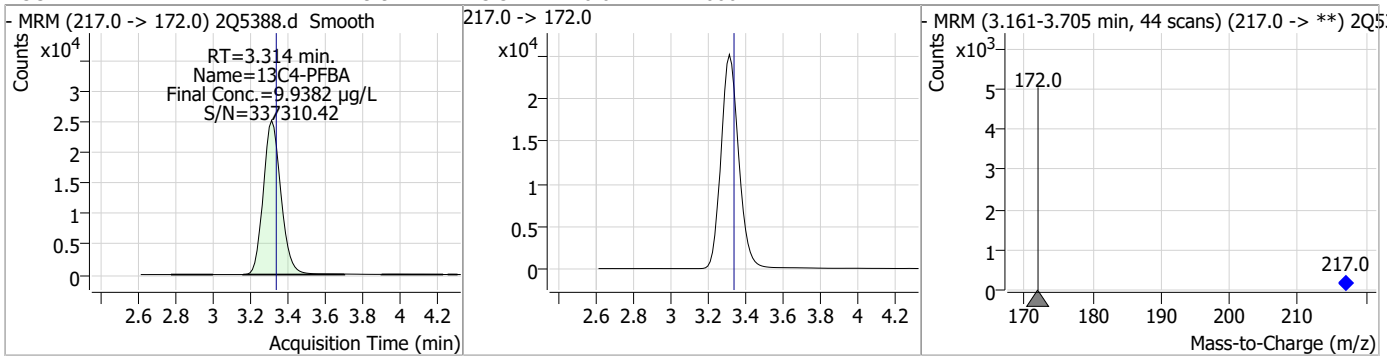
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

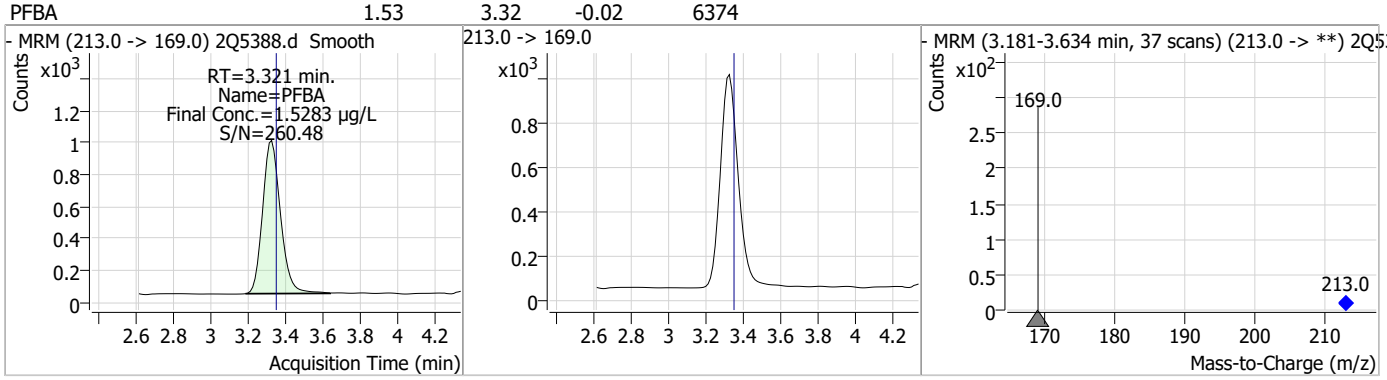
Perfluorinated Compounds by LC/MS/MS



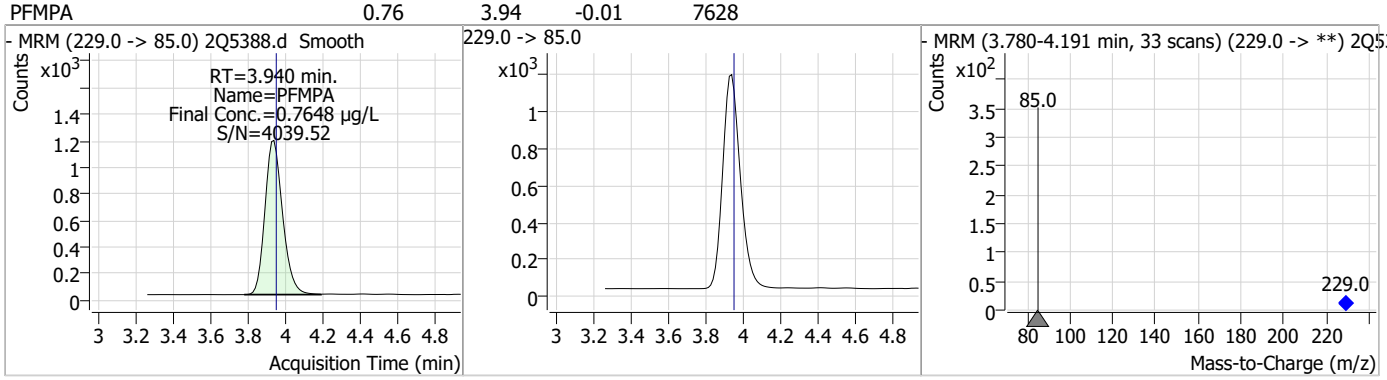
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.94	3.31	-0.02	166074				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	1.53	3.32	-0.02	6374				

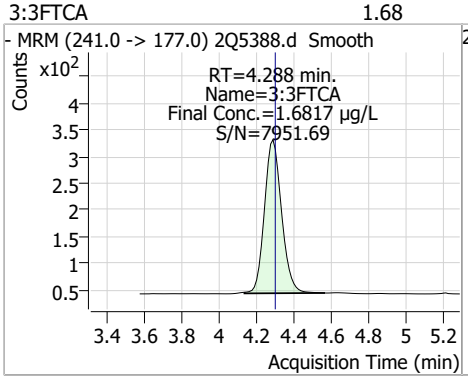


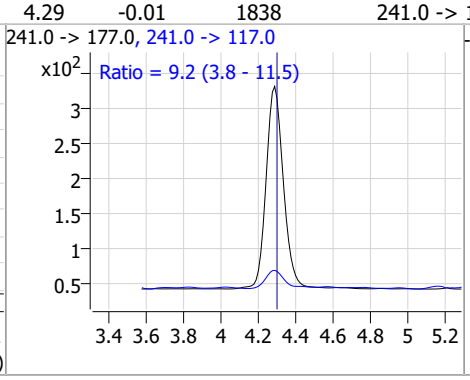
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	0.76	3.94	-0.01	7628				

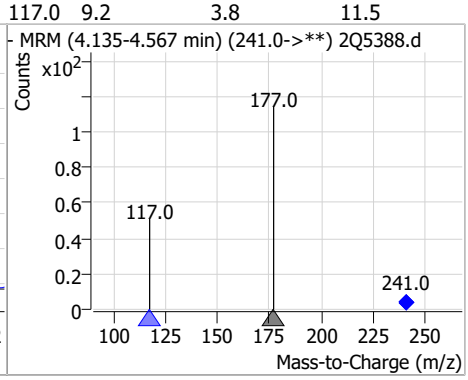


Perfluorinated Compounds by LC/MS/MS

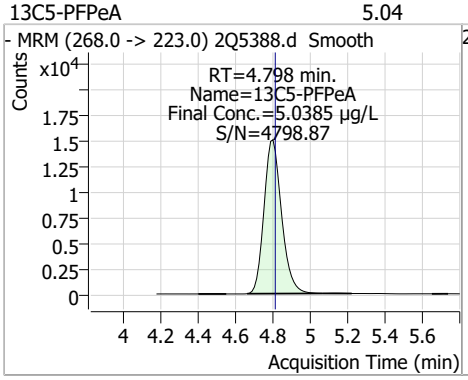
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	1.68	4.29	-0.01	1838	241.0 -> 117.0	9.2	3.8	11.5

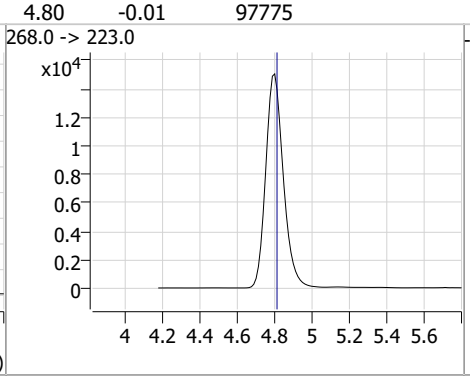


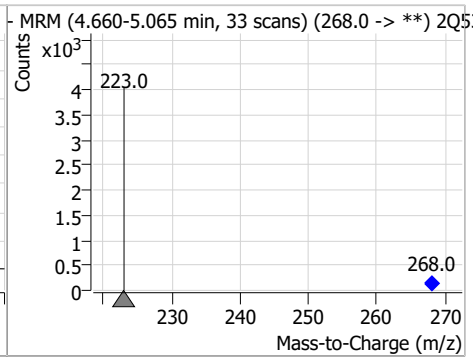




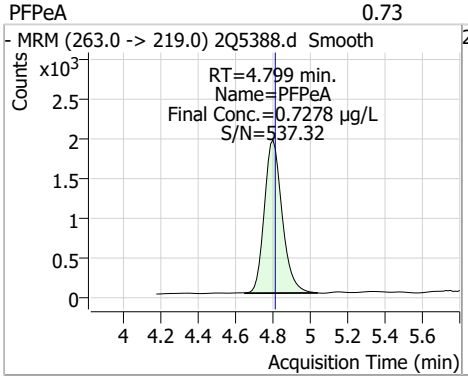
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.04	4.80	-0.01	97775				

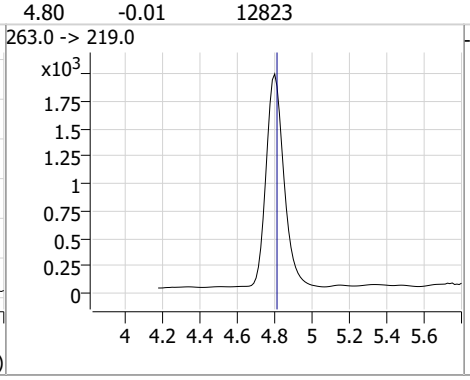


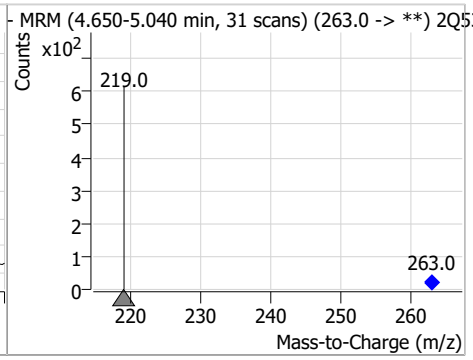




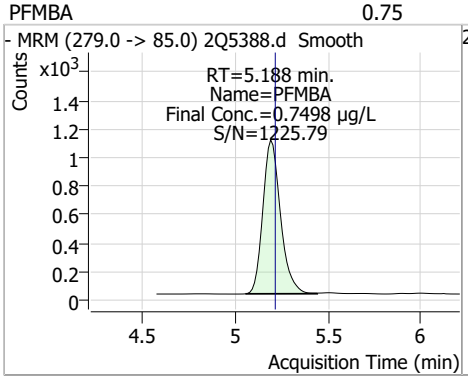
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.73	4.80	-0.01	12823				

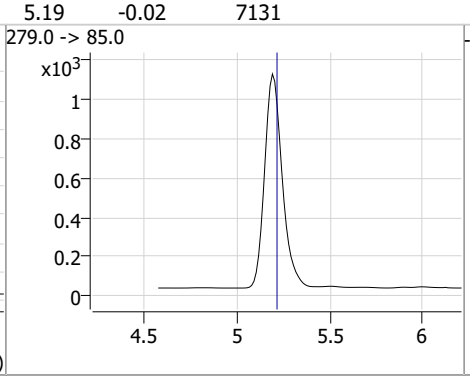


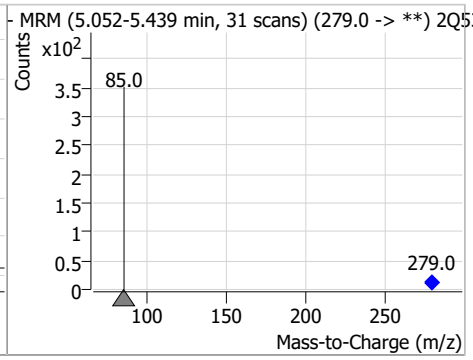




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	0.75	5.19	-0.02	7131				

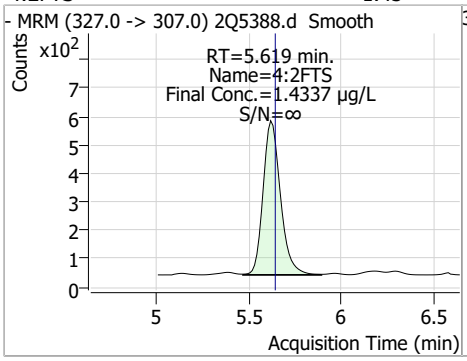


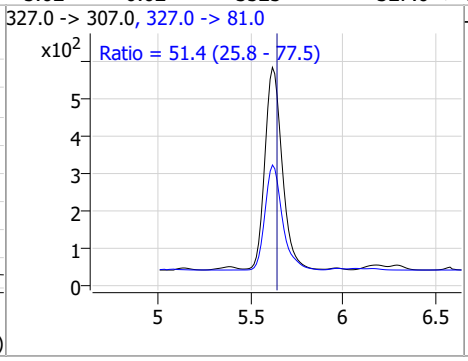


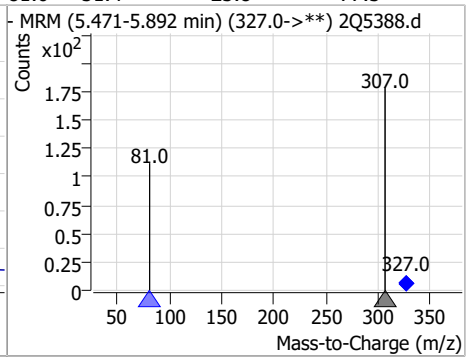


Perfluorinated Compounds by LC/MS/MS

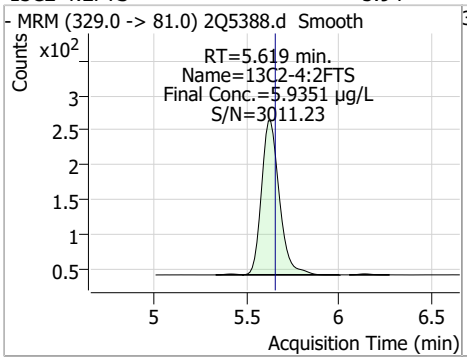
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	1.43	5.62	-0.02	3525	327.0 -> 81.0	51.4	25.8	77.5

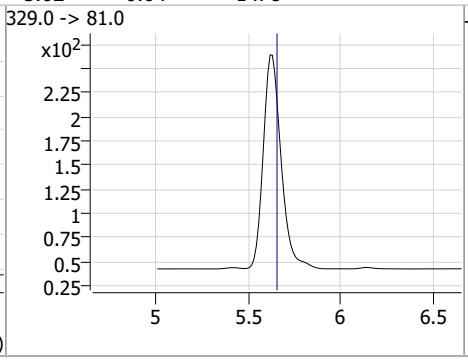


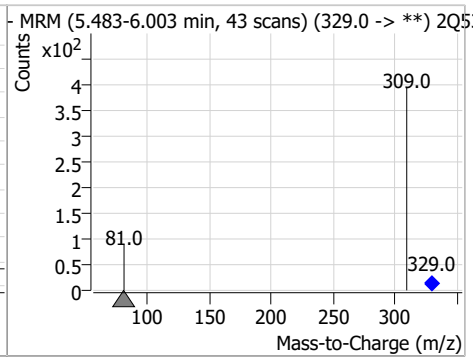




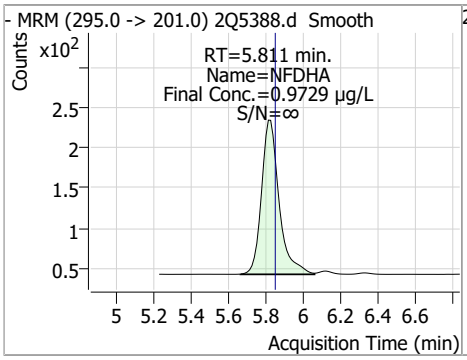
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.94	5.62	-0.04	1478				

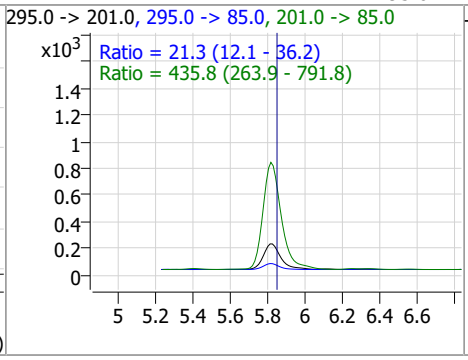


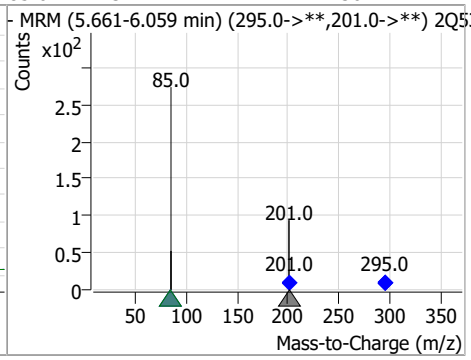




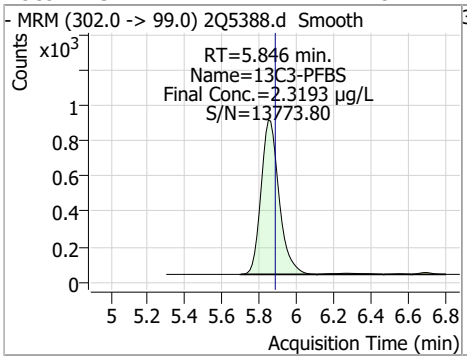
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	0.97	5.81	-0.04	1259	201.0 -> 85.0	435.8	263.9	791.8
					295.0 -> 85.0	21.3	12.1	36.2

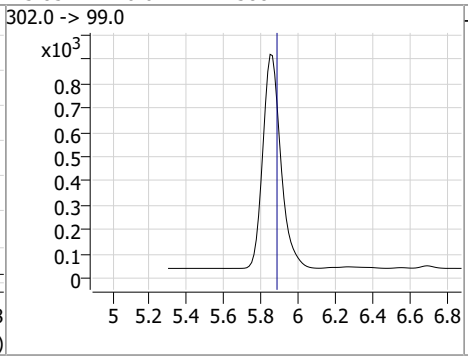


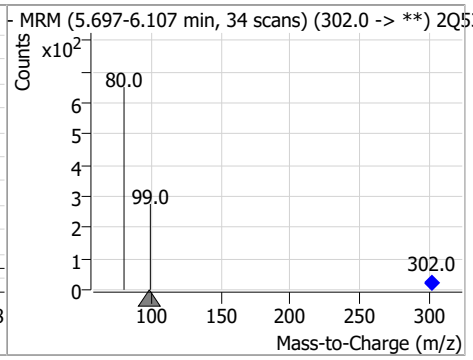




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.32	5.85	-0.04	5881				

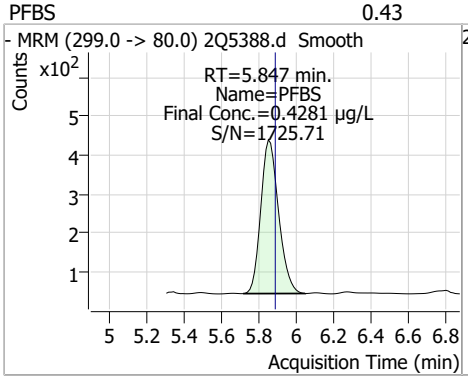


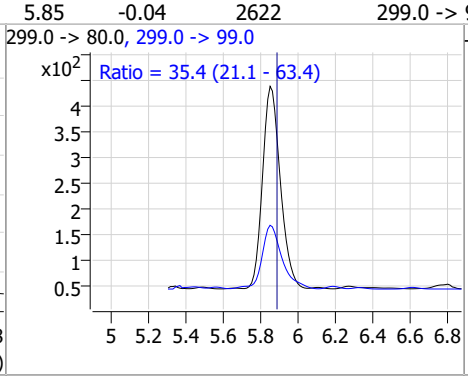


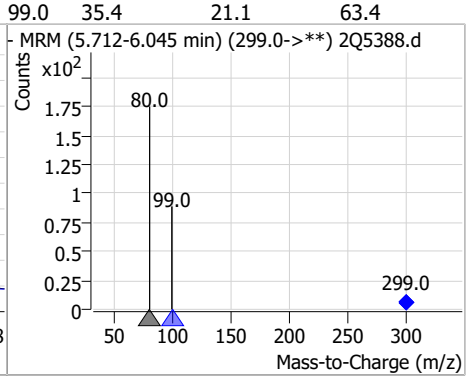


Perfluorinated Compounds by LC/MS/MS

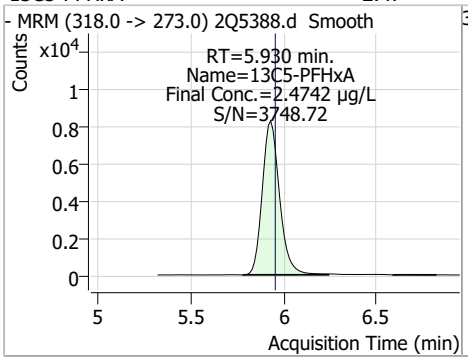
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.43	5.85	-0.04	2622	299.0 -> 99.0	35.4	21.1	63.4

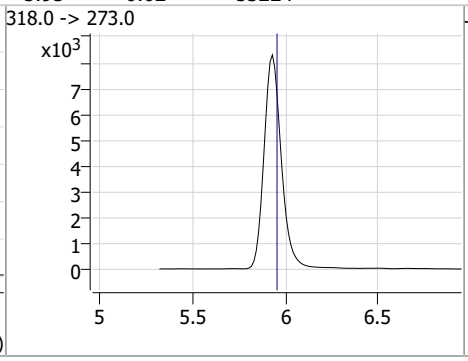


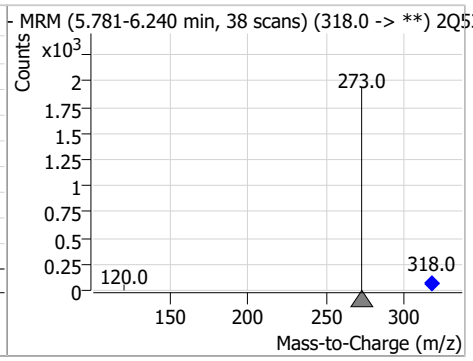




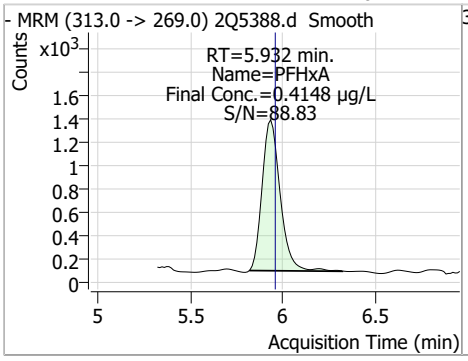
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.47	5.93	-0.02	53224				

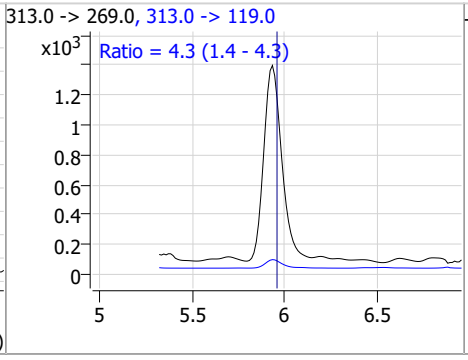


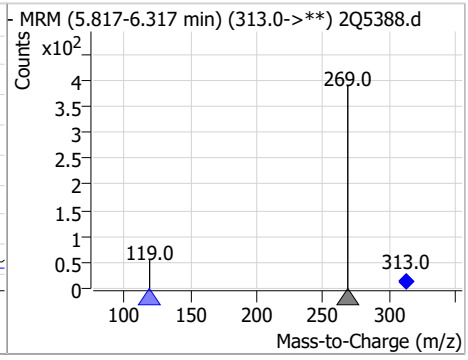




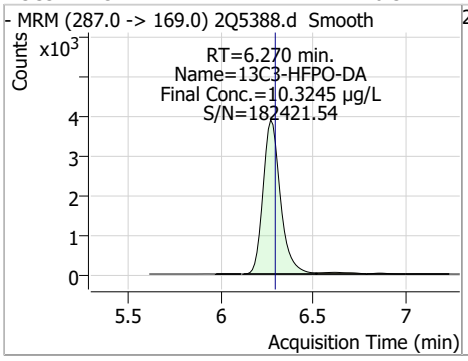
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.41	5.93	-0.02	8730	313.0 -> 119.0	4.3	1.4	4.3

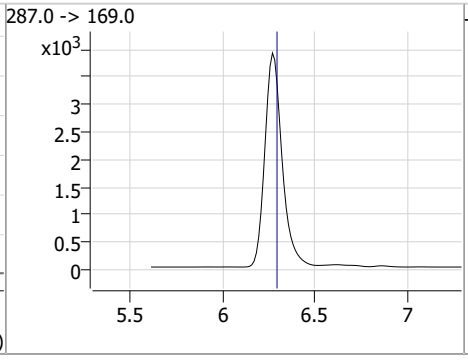


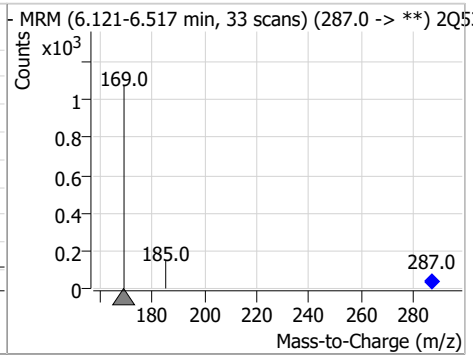




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.32	6.27	-0.02	25350				

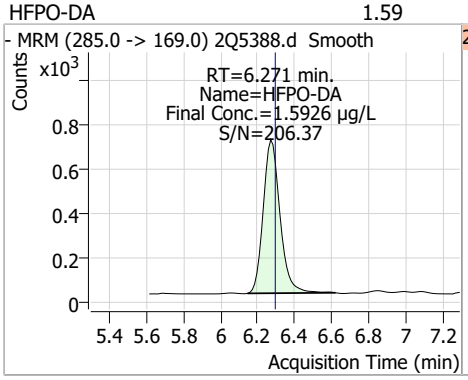


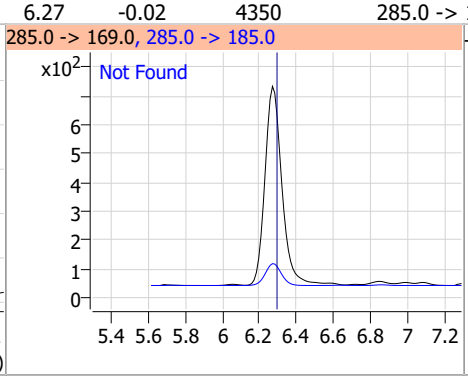


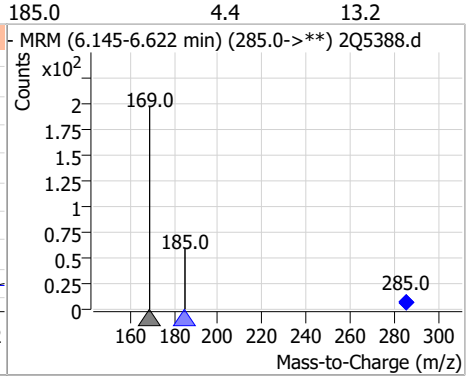


Perfluorinated Compounds by LC/MS/MS

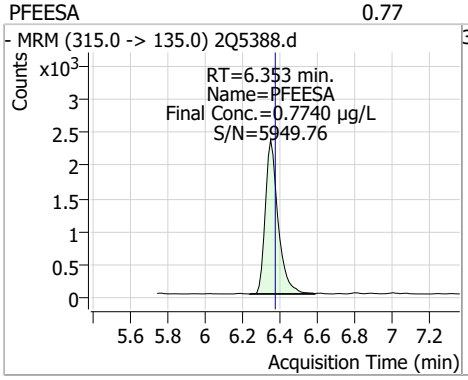
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	1.59	6.27	-0.02	4350	285.0 -> 185.0		4.4	13.2

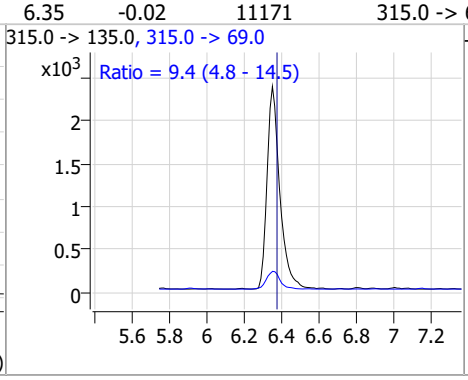


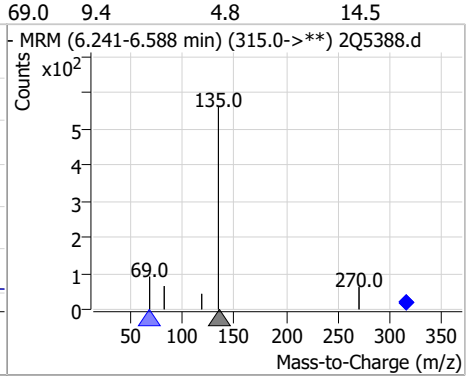




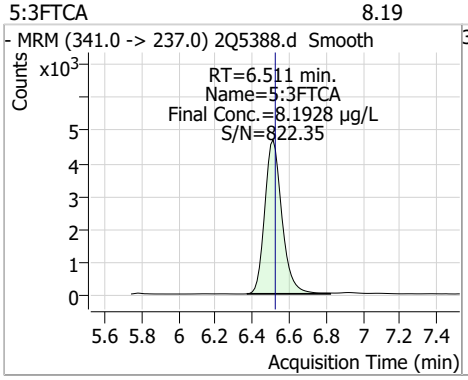
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	0.77	6.35	-0.02	11171	315.0 -> 69.0	9.4	4.8	14.5

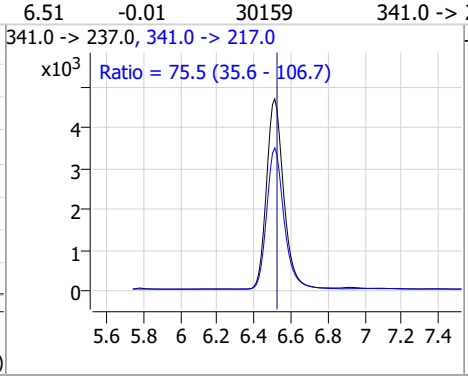


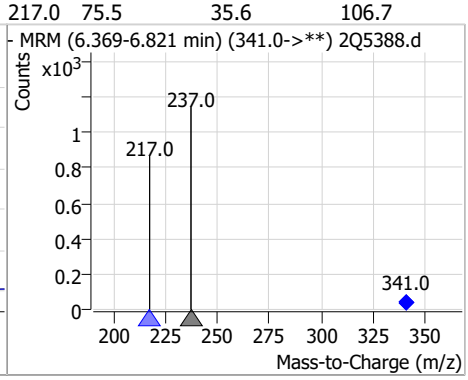




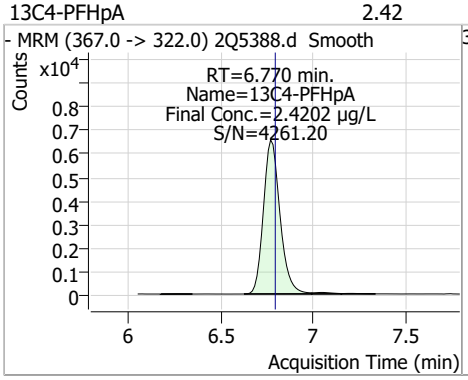
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	8.19	6.51	-0.01	30159	341.0 -> 217.0	75.5	35.6	106.7

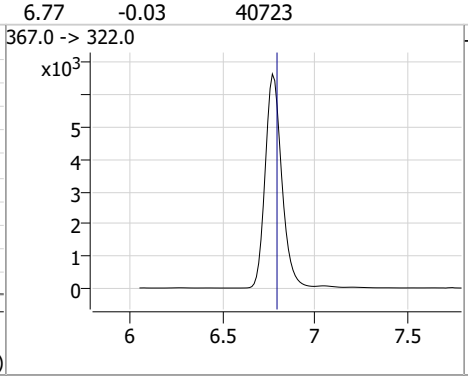


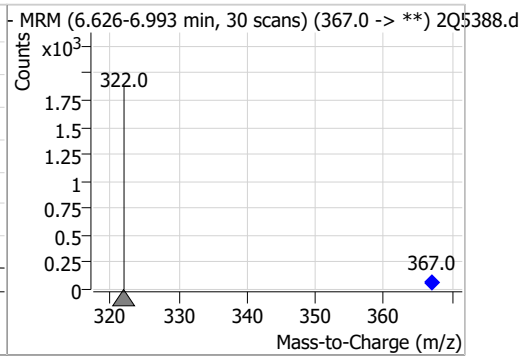




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.42	6.77	-0.03	40723				

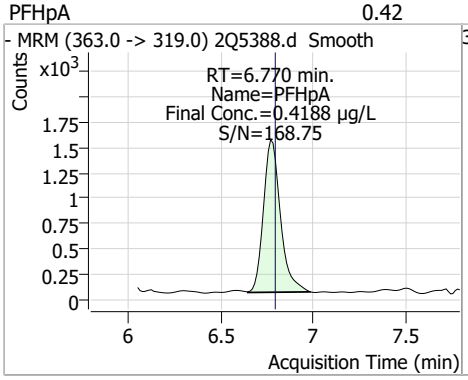


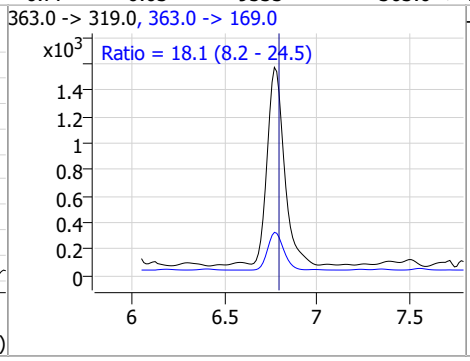


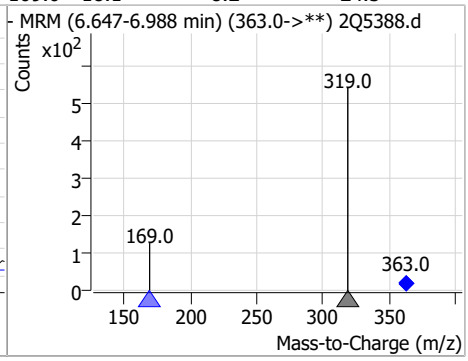


Perfluorinated Compounds by LC/MS/MS

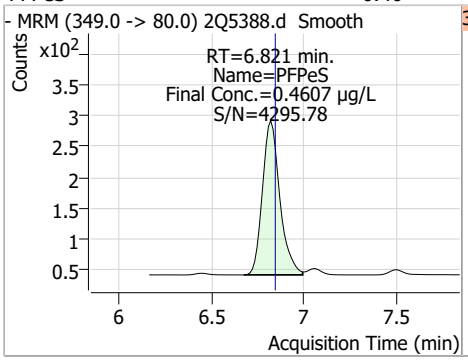
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.42	6.77	-0.03	9533	363.0 -> 169.0	18.1	8.2	24.5

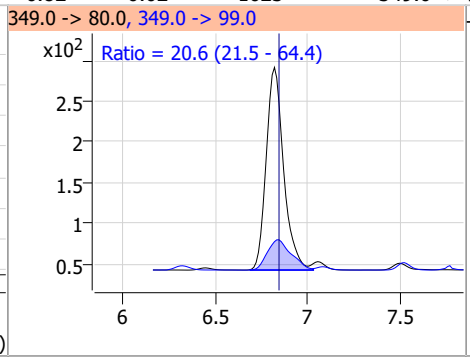


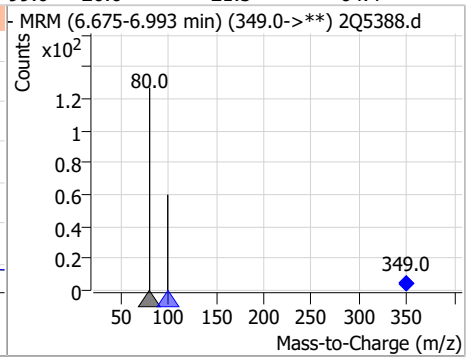




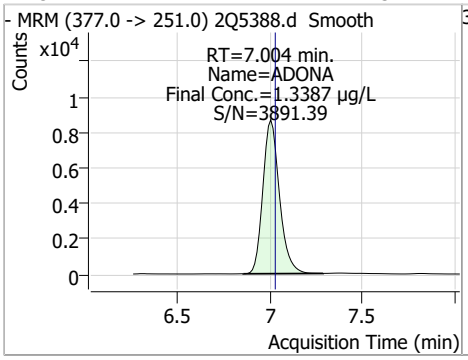
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0.46	6.82	-0.02	1623	349.0 -> 99.0	20.6	21.5	64.4

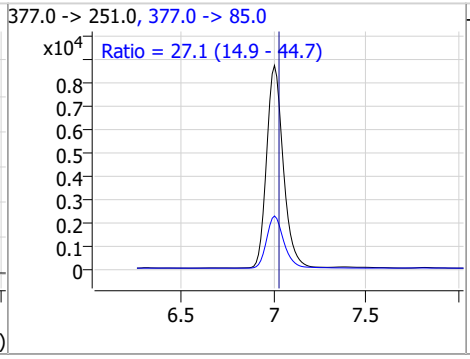


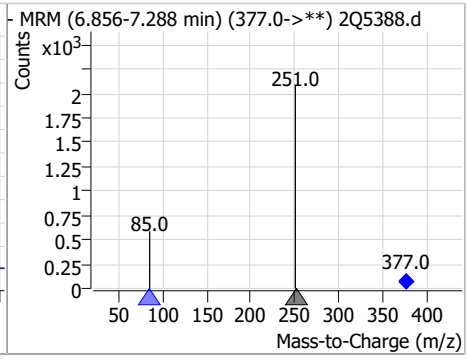




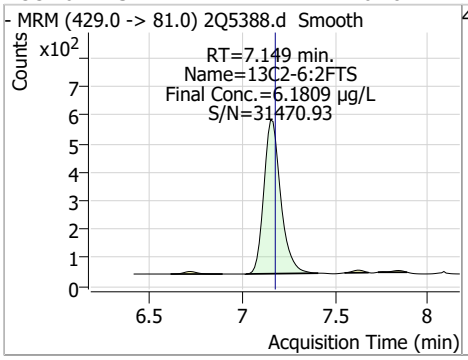
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	1.34	7.00	-0.02	53791	377.0 -> 85.0	27.1	14.9	44.7

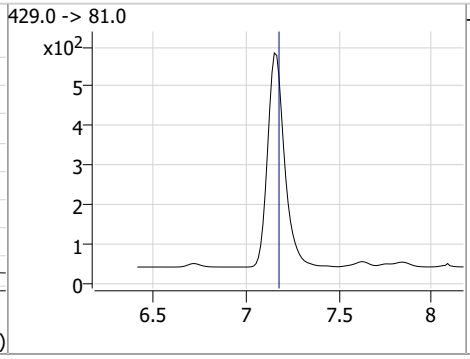


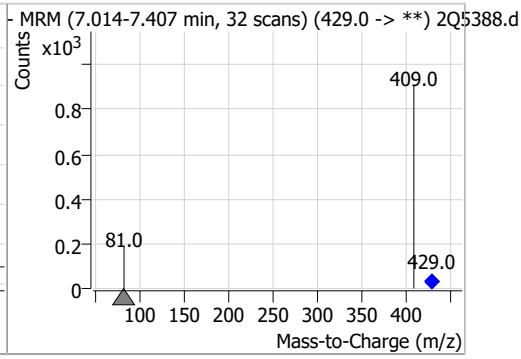




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	6.18	7.15	-0.03	3411				

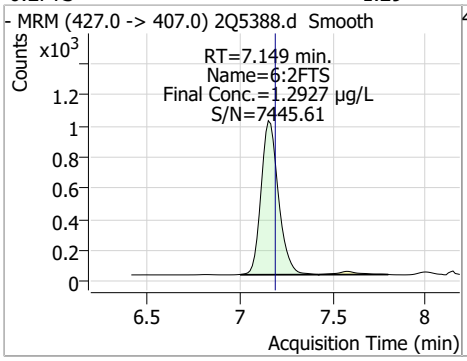


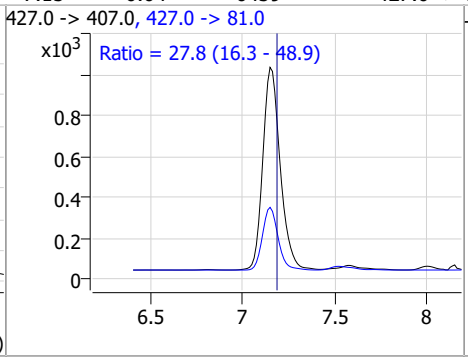


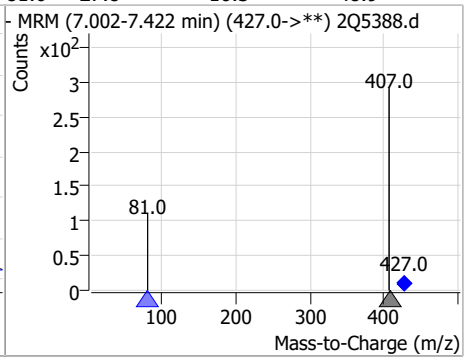


Perfluorinated Compounds by LC/MS/MS

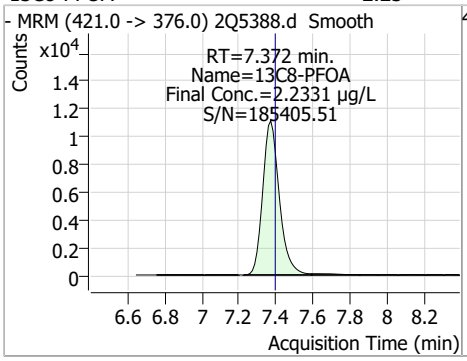
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	1.29	7.15	-0.04	6459	427.0 -> 81.0	27.8	16.3	48.9

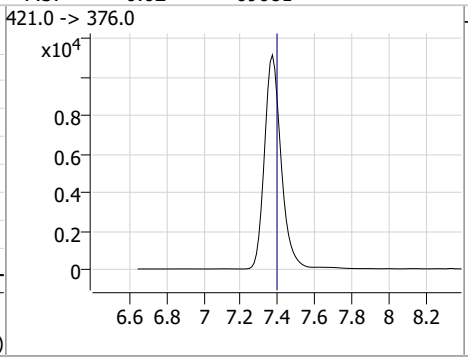


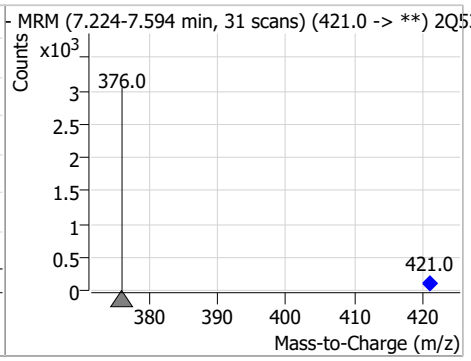




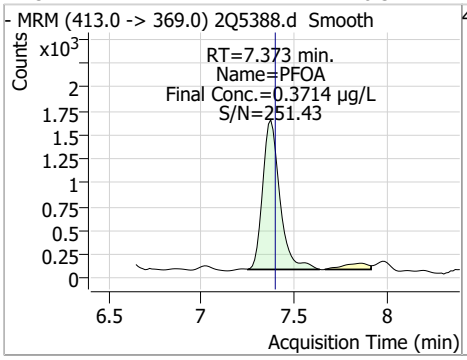
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.23	7.37	-0.02	69081				

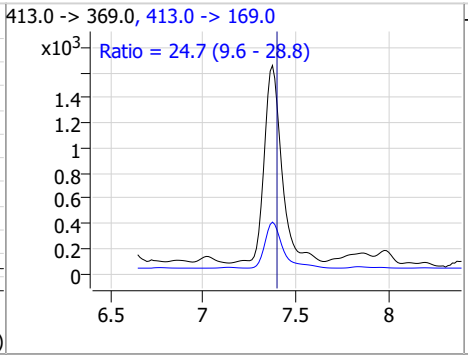


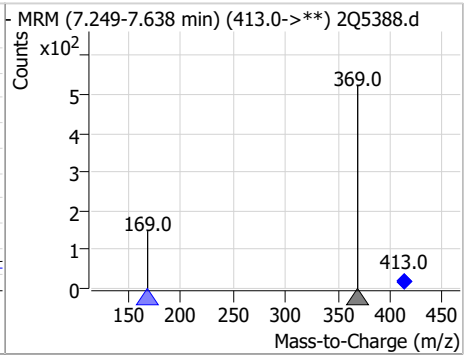




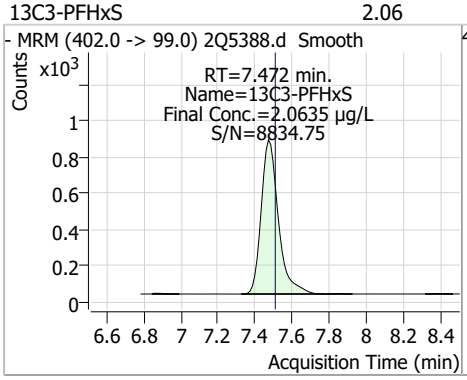
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.37	7.37	-0.02	10052	413.0 -> 169.0	24.7	9.6	28.8

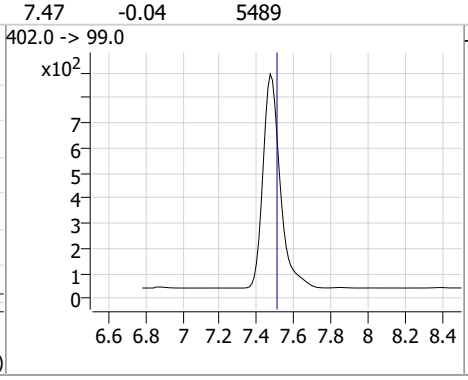


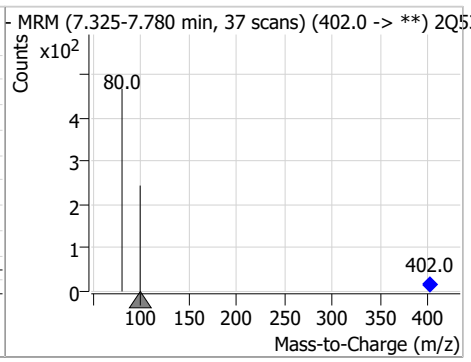




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.06	7.47	-0.04	5489				

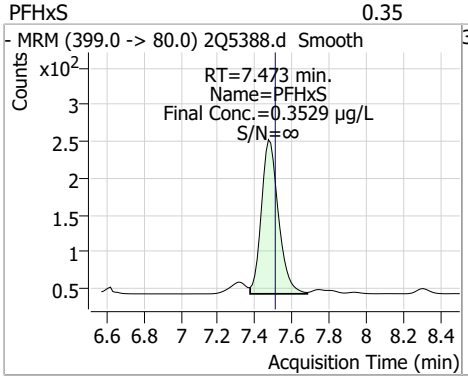


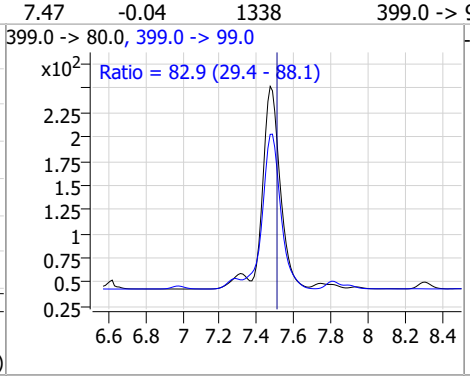


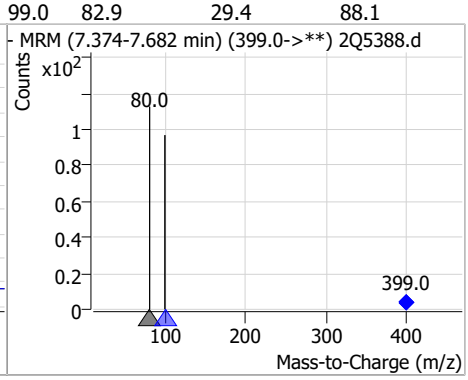


Perfluorinated Compounds by LC/MS/MS

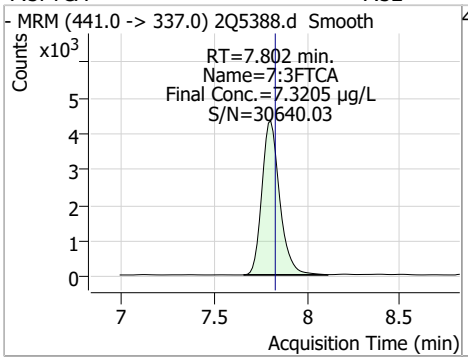
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.35	7.47	-0.04	1338	399.0 -> 99.0	82.9	29.4	88.1

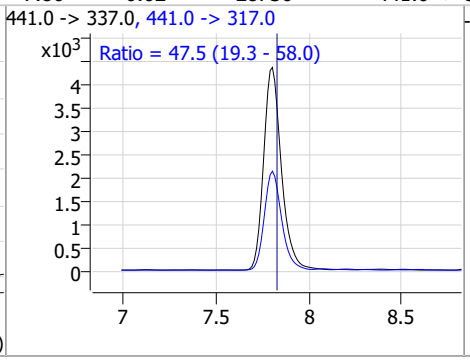


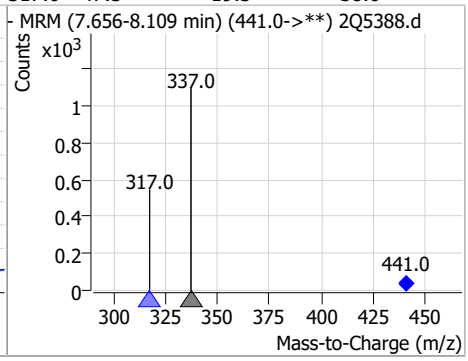




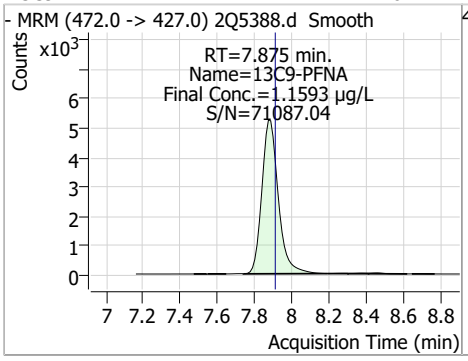
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	7.32	7.80	-0.02	28736	441.0 -> 317.0	47.5	19.3	58.0

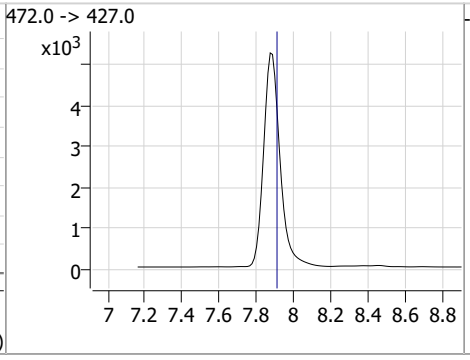


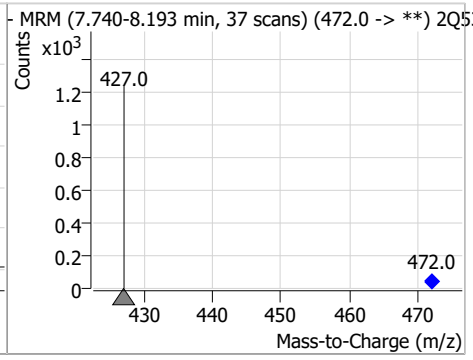




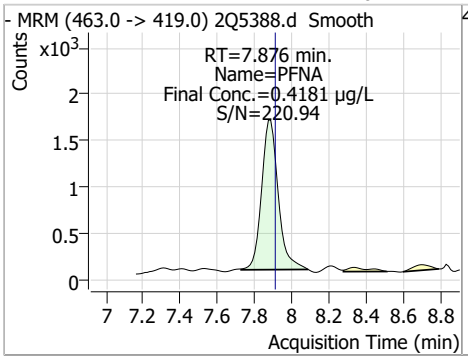
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.16	7.88	-0.04	32154				

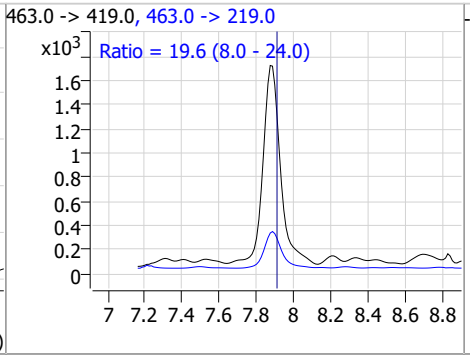


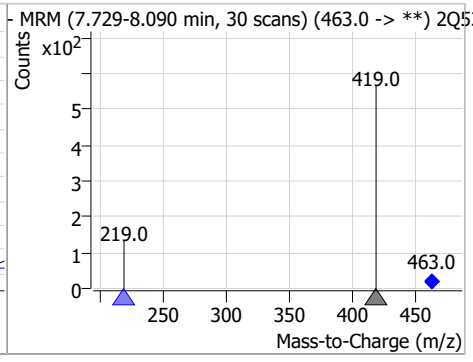




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.42	7.88	-0.04	10100	463.0 -> 219.0	19.6	8.0	24.0

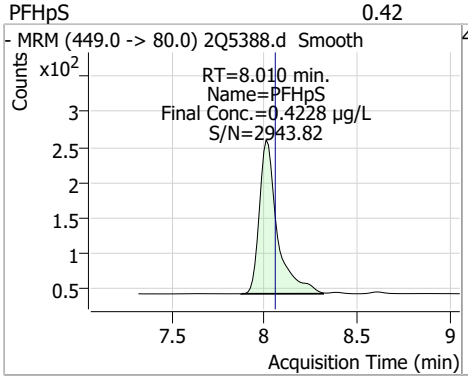


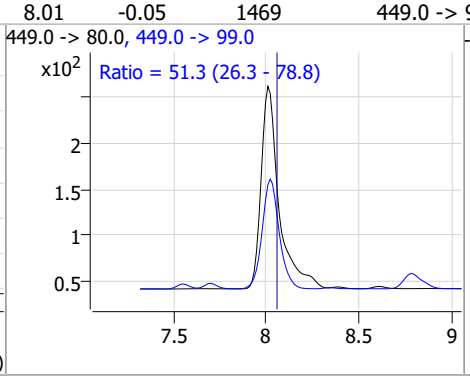


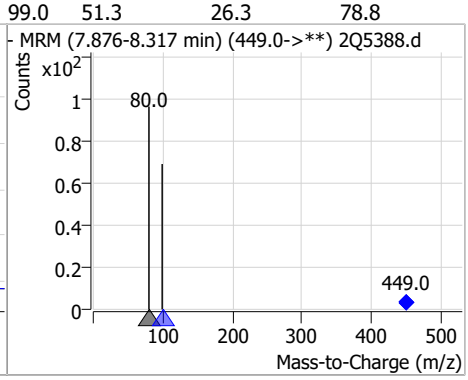


Perfluorinated Compounds by LC/MS/MS

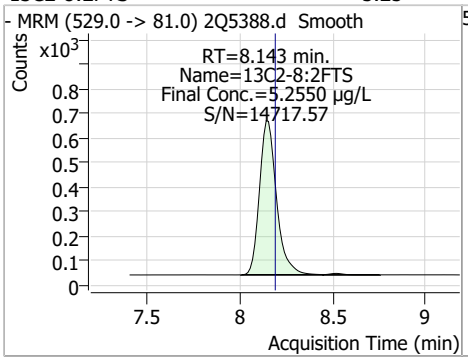
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.42	8.01	-0.05	1469	449.0 -> 99.0	51.3	26.3	78.8

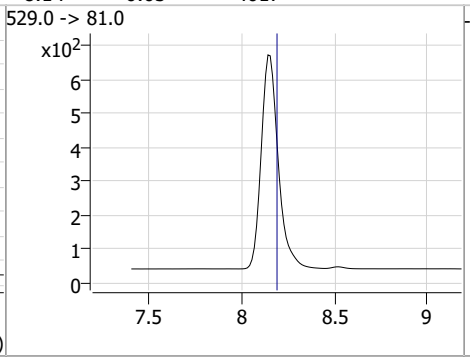


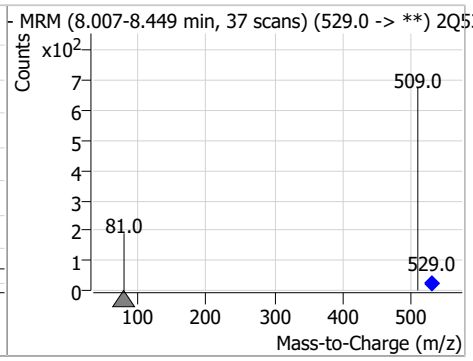




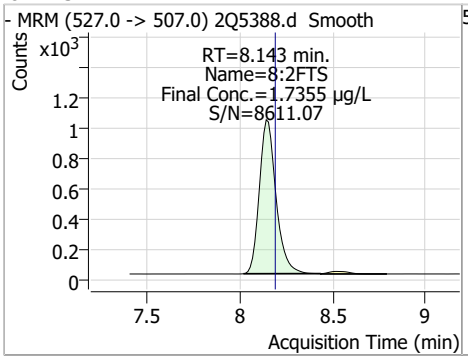
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.25	8.14	-0.05	4017				

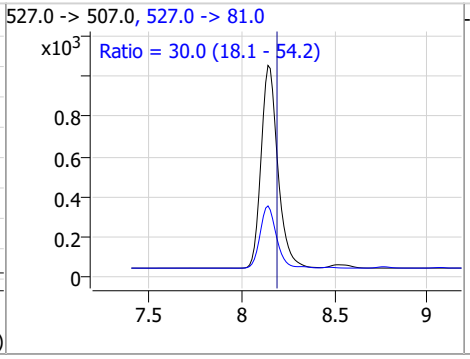


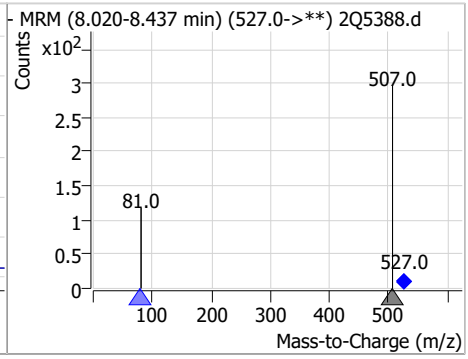




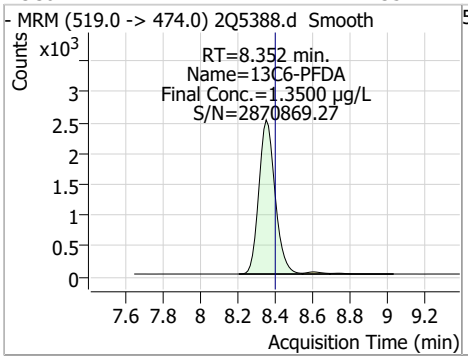
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	1.74	8.14	-0.05	6302	527.0 -> 81.0	30.0	18.1	54.2

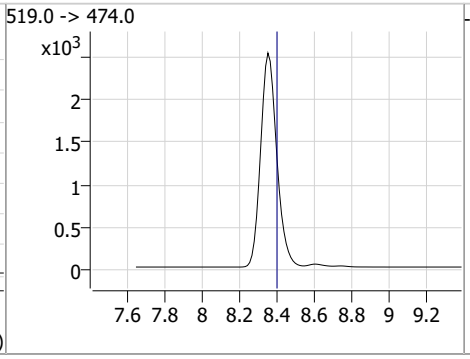


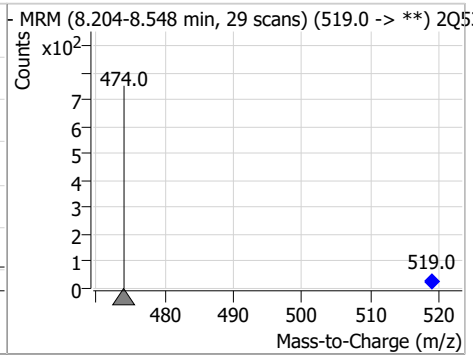




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.35	8.35	-0.05	15130				

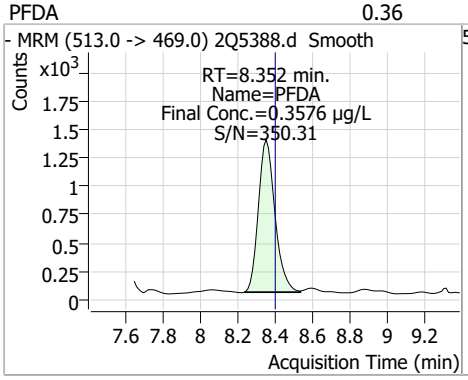


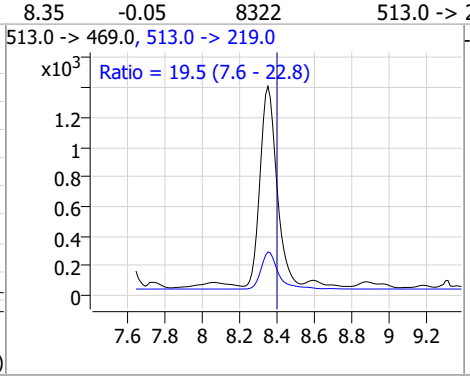


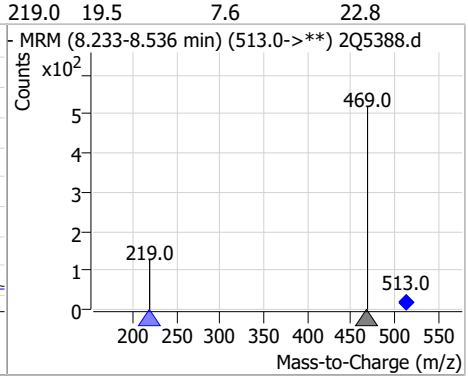


Perfluorinated Compounds by LC/MS/MS

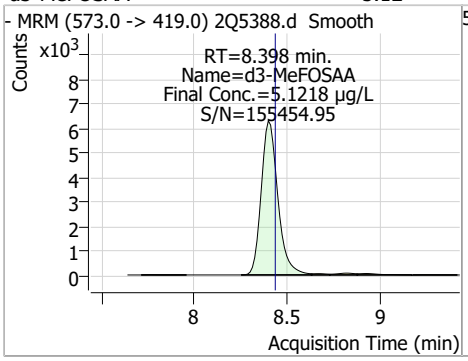
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.36	8.35	-0.05	8322	513.0 -> 219.0	19.5	7.6	22.8

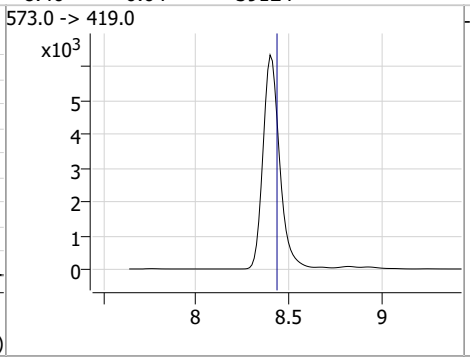


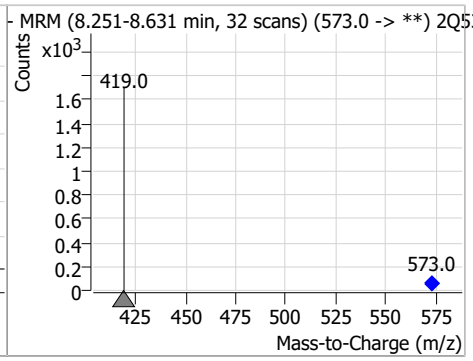




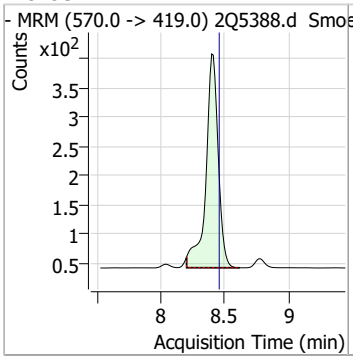
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.12	8.40	-0.04	39124				

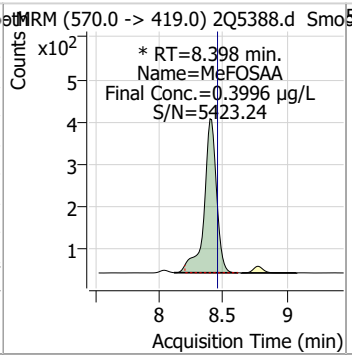


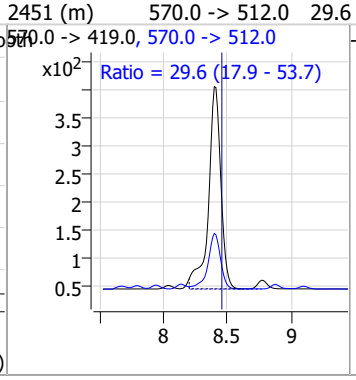


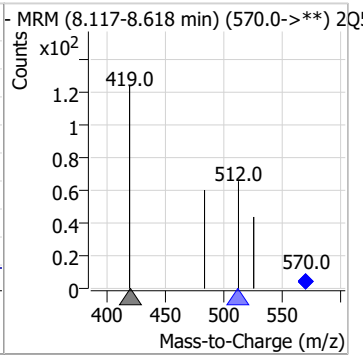


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	0.40	8.40	-0.05	2451 (m)	570.0 -> 512.0	29.6	17.9	53.7

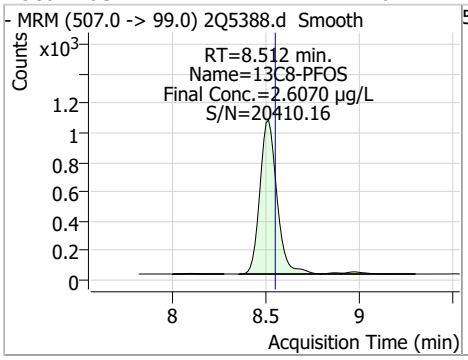


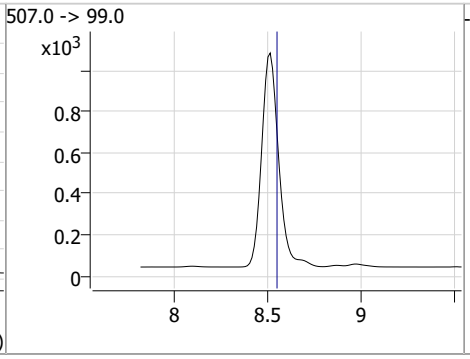


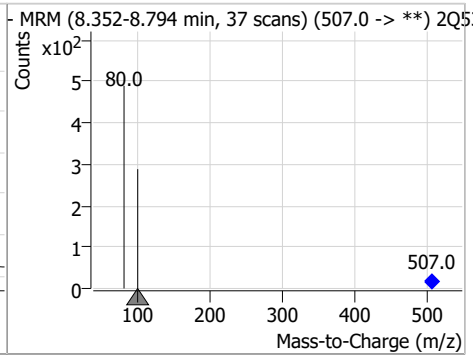




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.61	8.51	-0.04	6662				

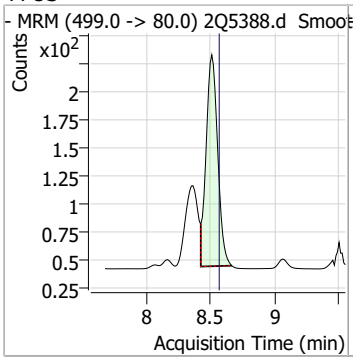


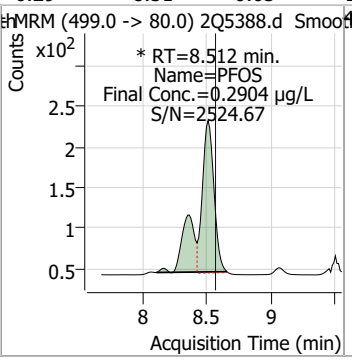


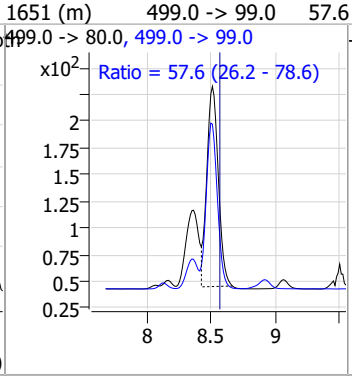


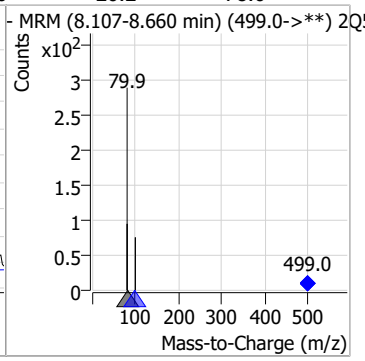
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.29	8.51	-0.05	1651 (m)	499.0 -> 99.0	57.6	26.2	78.6

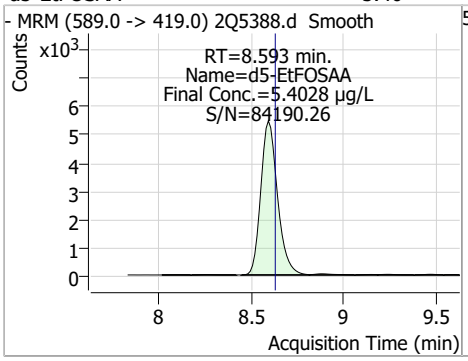


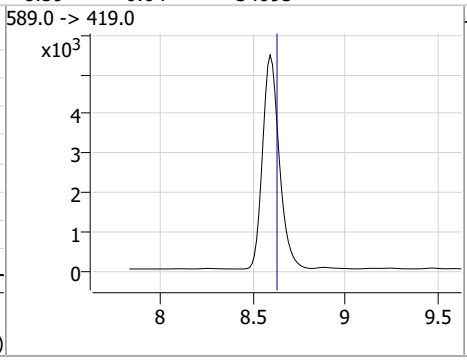


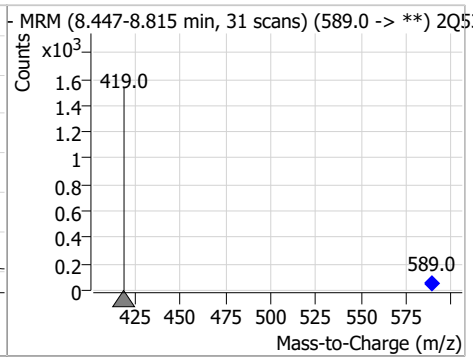




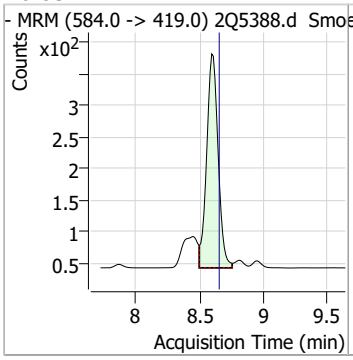
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.40	8.59	-0.04	34095				

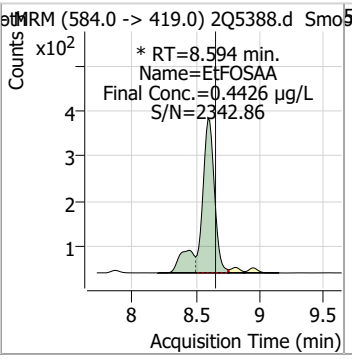


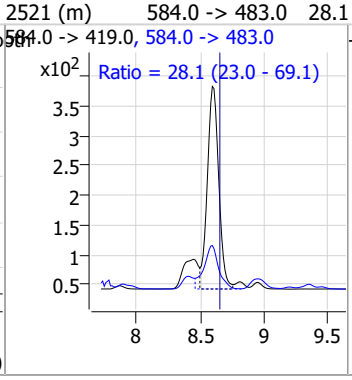


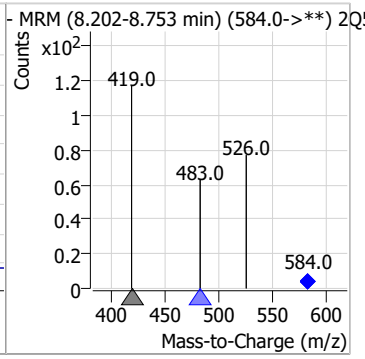


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0.44	8.59	-0.05	2521 (m)	584.0 -> 483.0	28.1	23.0	69.1

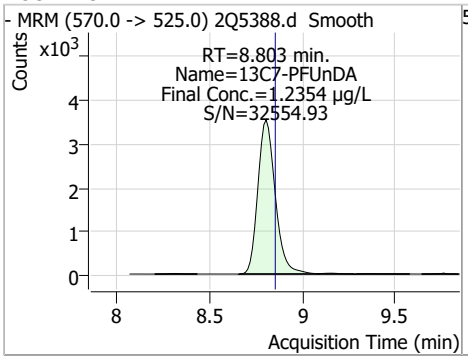


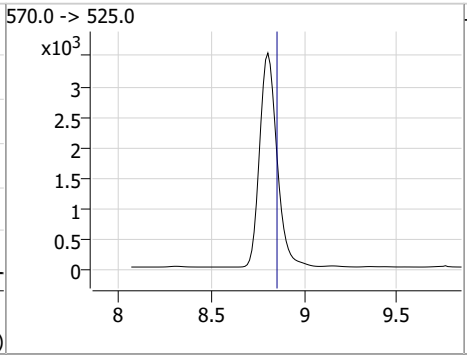


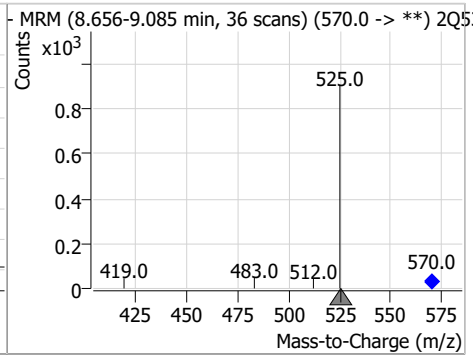




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.24	8.80	-0.05	22841				

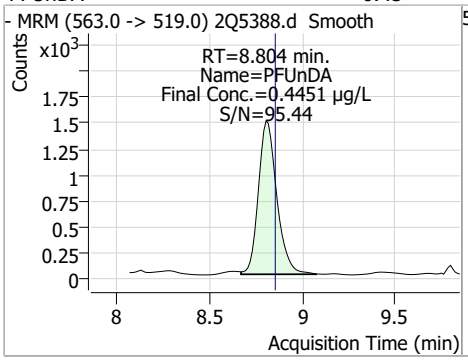


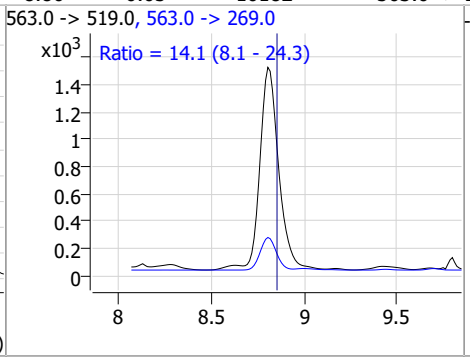


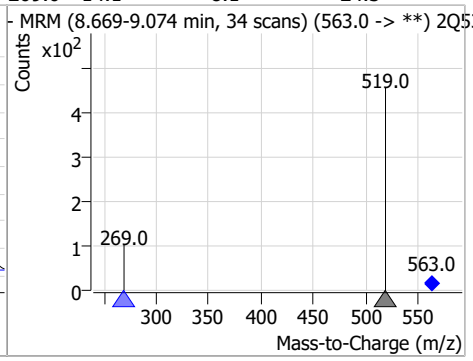


Perfluorinated Compounds by LC/MS/MS

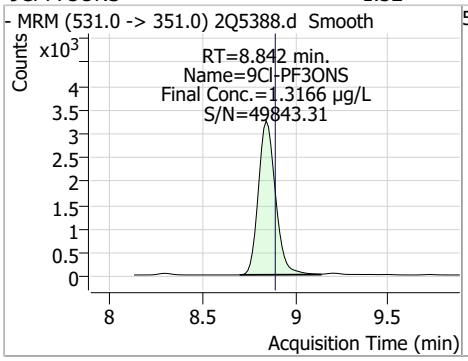
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	0.45	8.80	-0.05	10182	563.0 -> 269.0	14.1	8.1	24.3

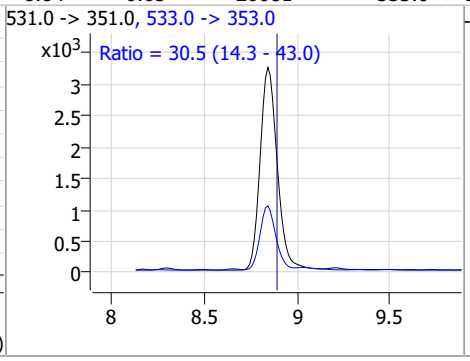


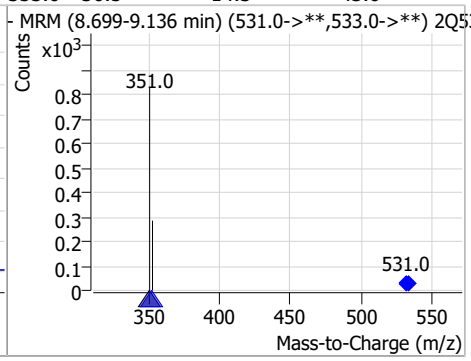




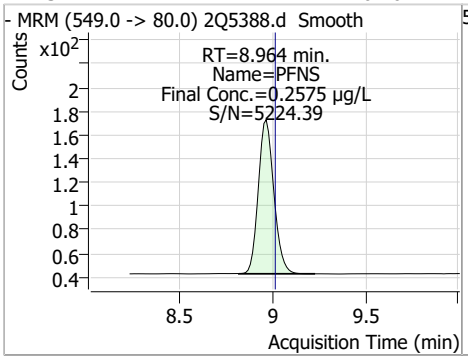
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	1.32	8.84	-0.05	20681	533.0 -> 353.0	30.5	14.3	43.0

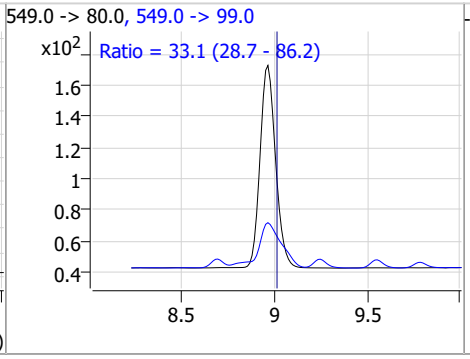


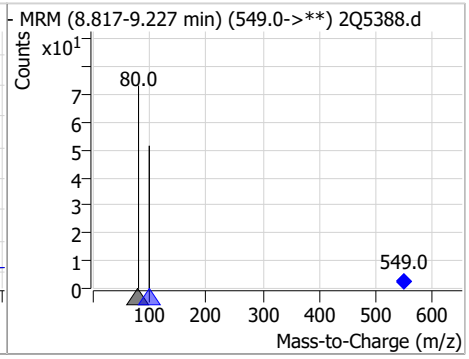




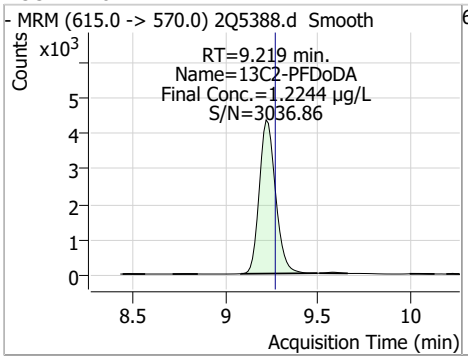
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	0.26	8.96	-0.05	756	549.0 -> 99.0	33.1	28.7	86.2

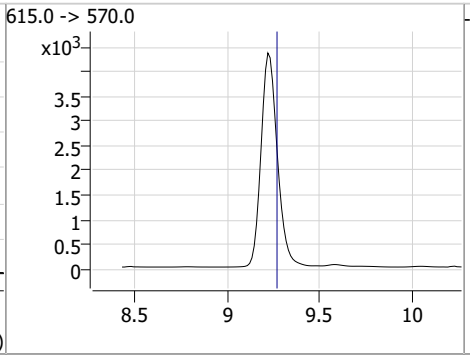


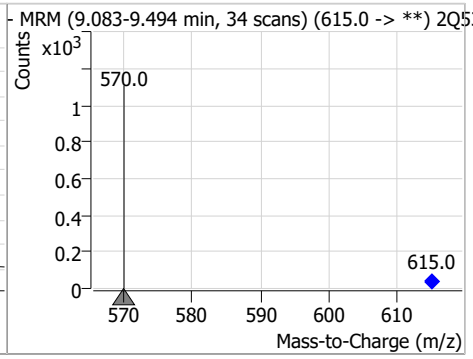




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.22	9.22	-0.05	26242				

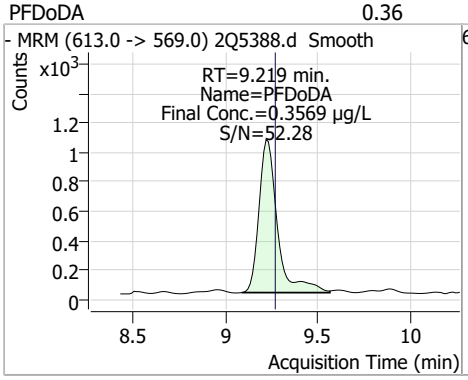


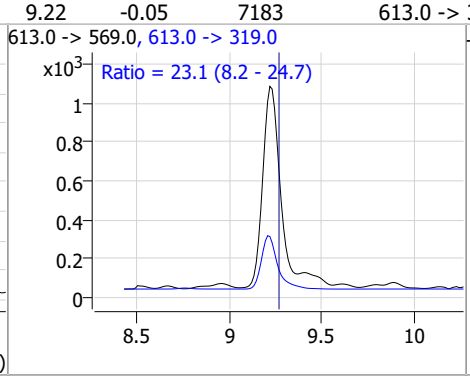


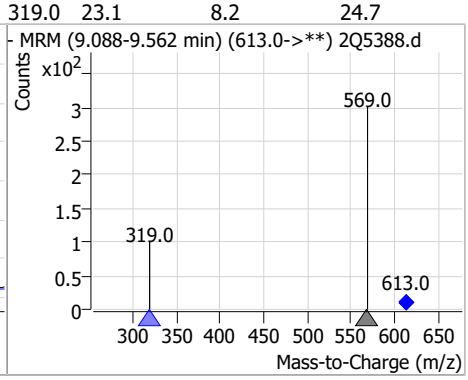


Perfluorinated Compounds by LC/MS/MS

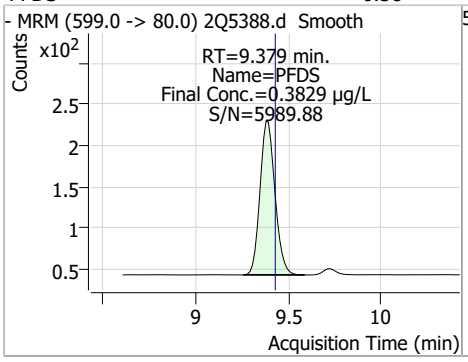
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	0.36	9.22	-0.05	7183	613.0 -> 319.0	23.1	8.2	24.7

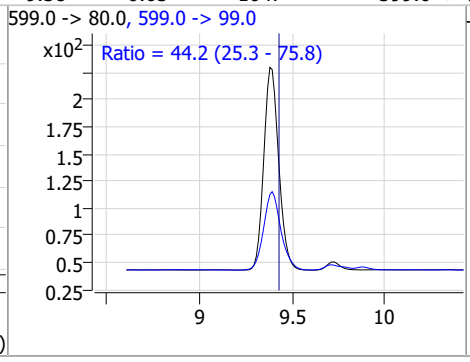


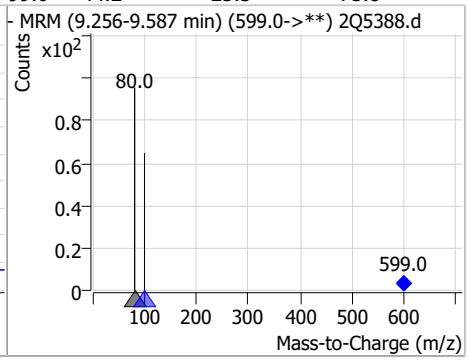




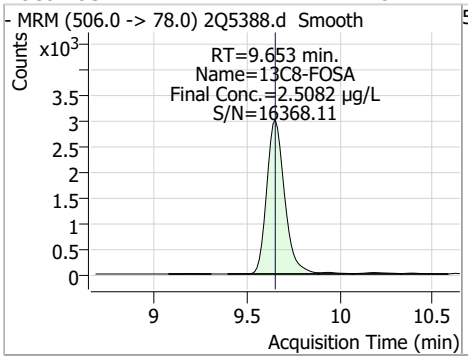
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	0.38	9.38	-0.05	1047	599.0 -> 99.0	44.2	25.3	75.8

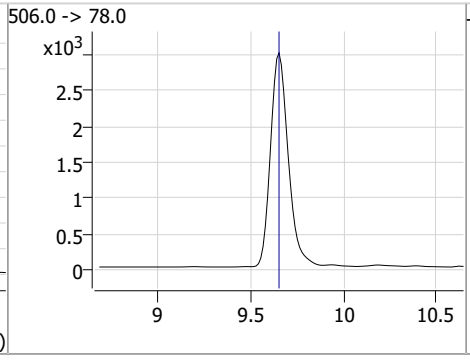


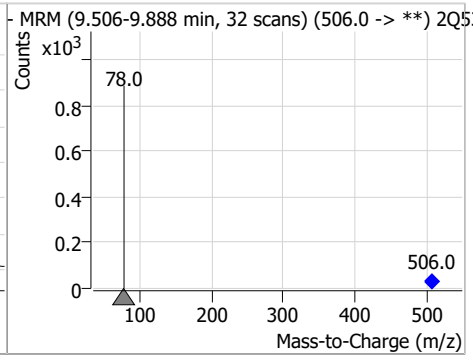




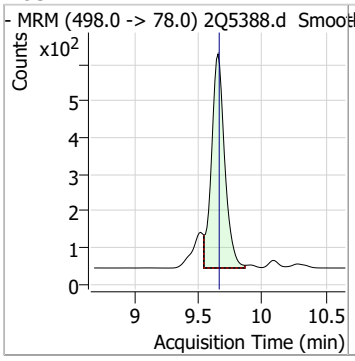
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.51	9.65	0.00	19933				

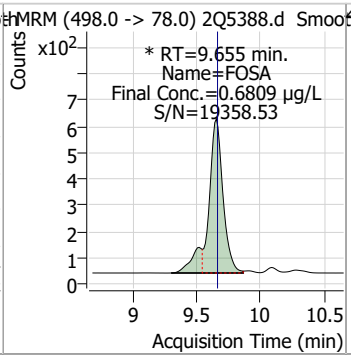


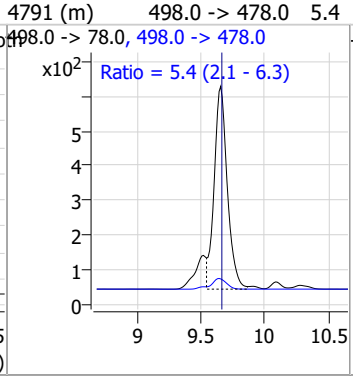


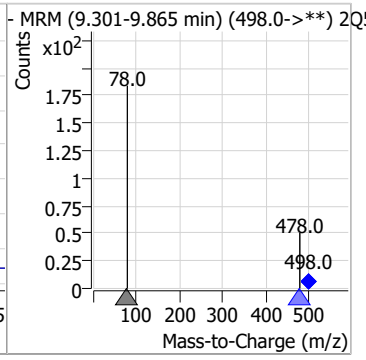


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	0.68	9.65	0.00	4791 (m)	498.0 -> 478.0	5.4	2.1	6.3



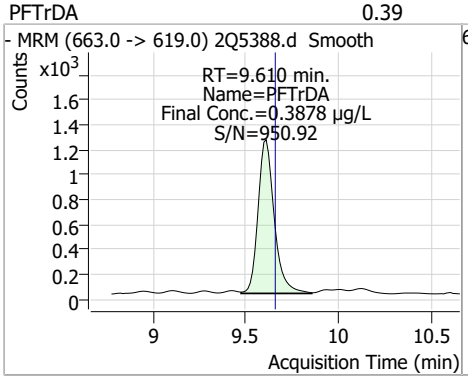


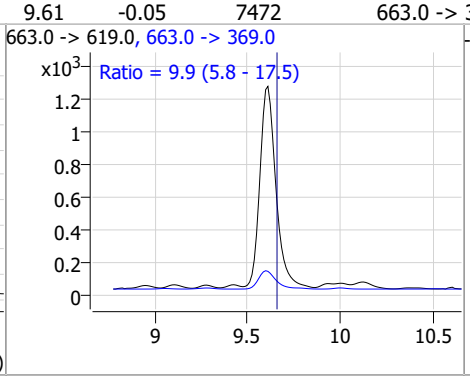


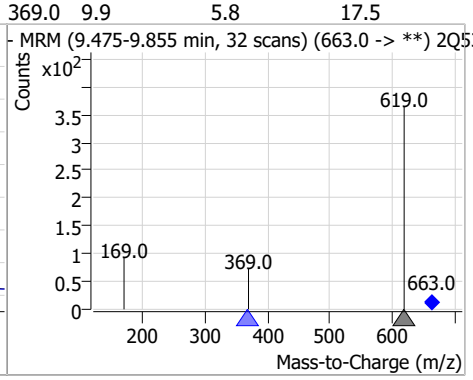


Perfluorinated Compounds by LC/MS/MS

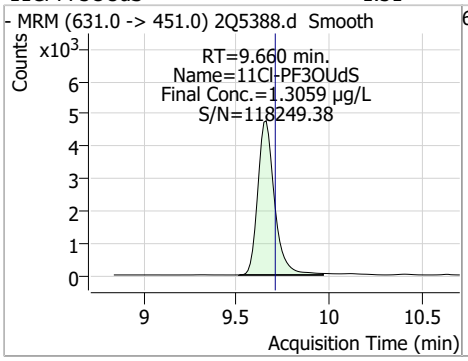
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	0.39	9.61	-0.05	7472	663.0 -> 369.0	9.9	5.8	17.5

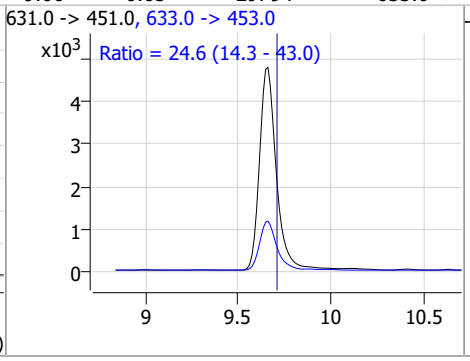


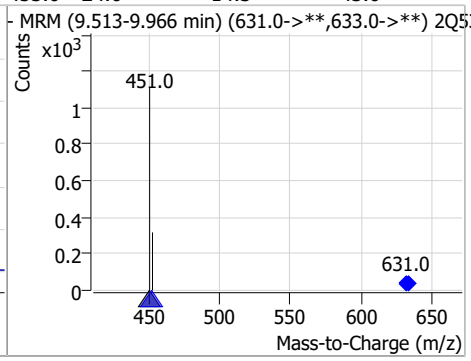




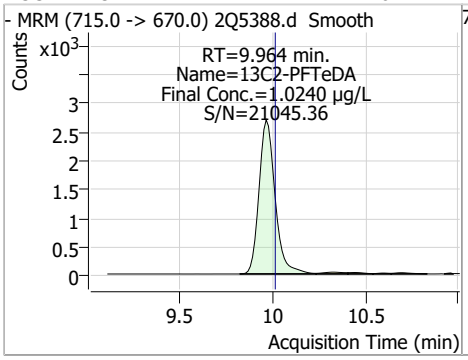
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	1.31	9.66	-0.05	29794	633.0 -> 453.0	24.6	14.3	43.0

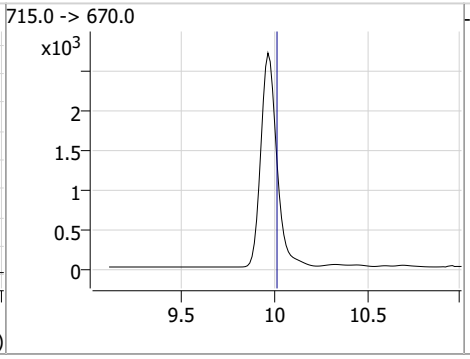


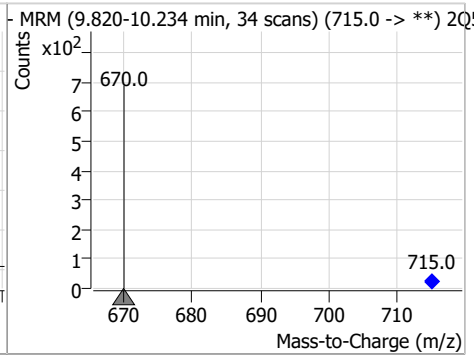




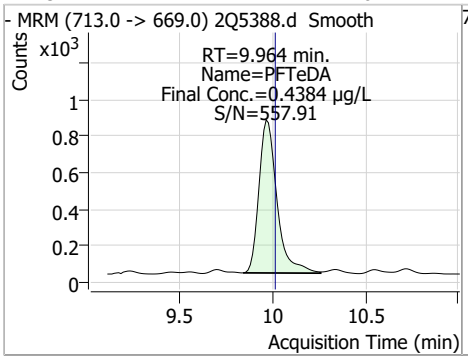
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.02	9.96	-0.05	16096				

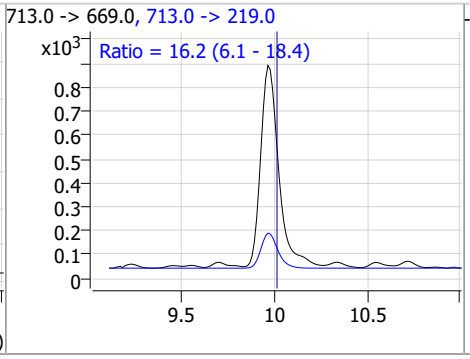


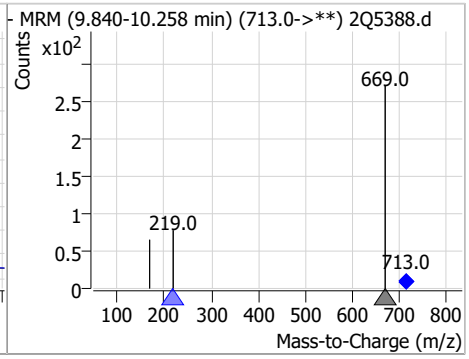




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	0.44	9.96	-0.05	5709	713.0 -> 219.0	16.2	6.1	18.4

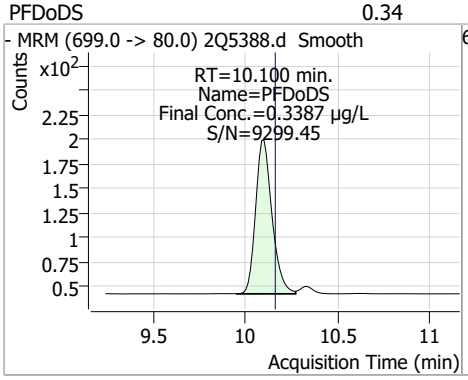


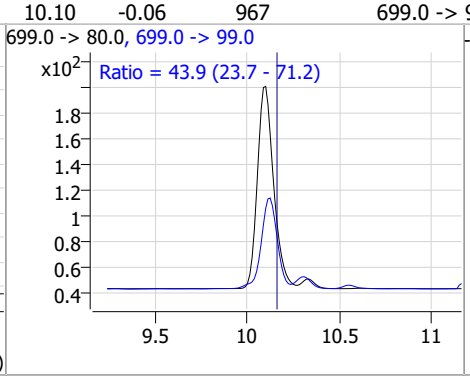


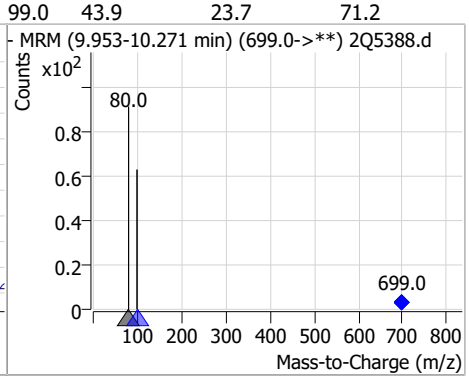


Perfluorinated Compounds by LC/MS/MS

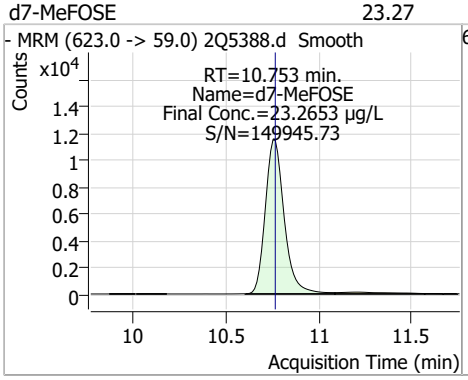
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	0.34	10.10	-0.06	967	699.0 -> 99.0	43.9	23.7	71.2

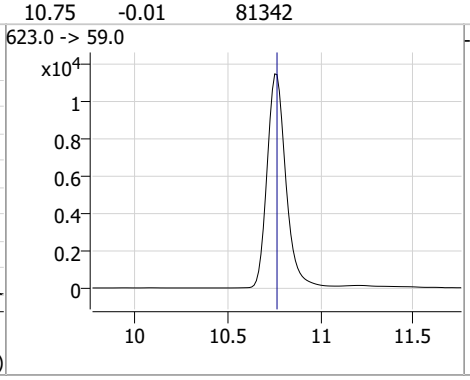


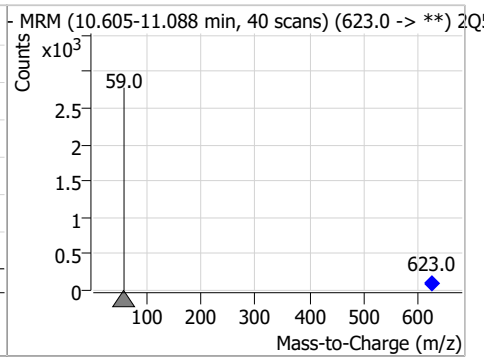




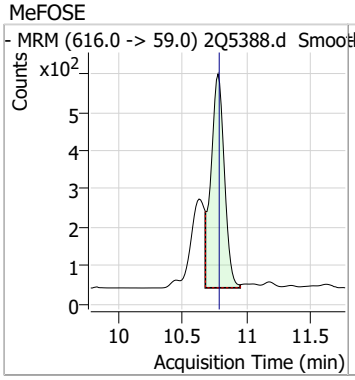
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.27	10.75	-0.01	81342				

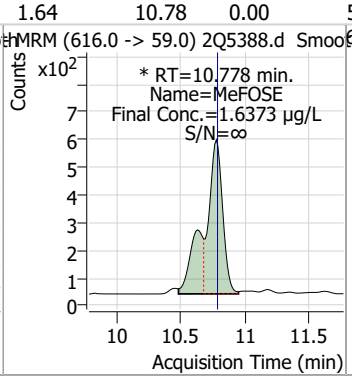


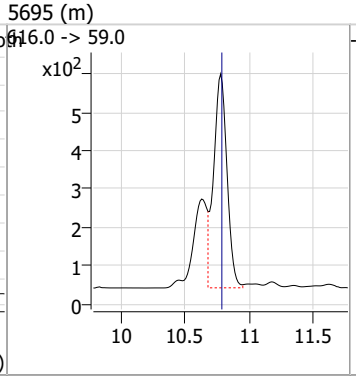


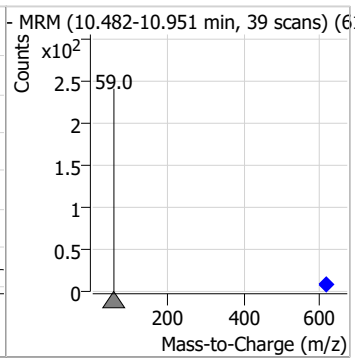


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	1.64	10.78	0.00	5695 (m)				

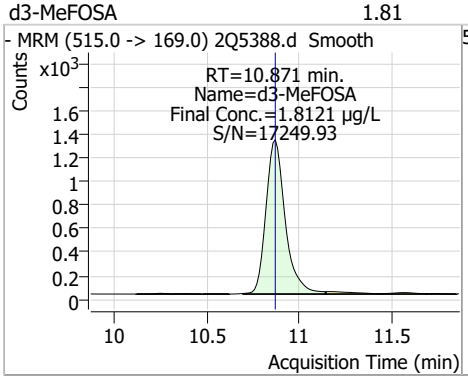


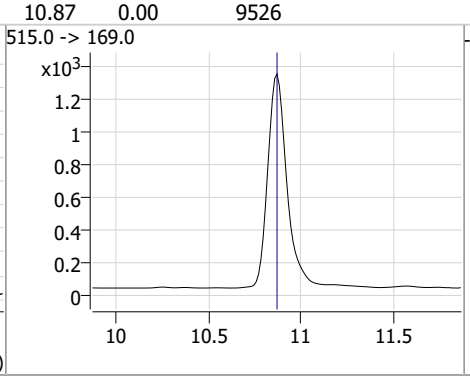


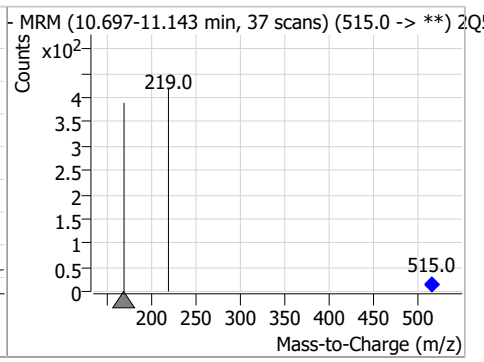




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.81	10.87	0.00	9526				

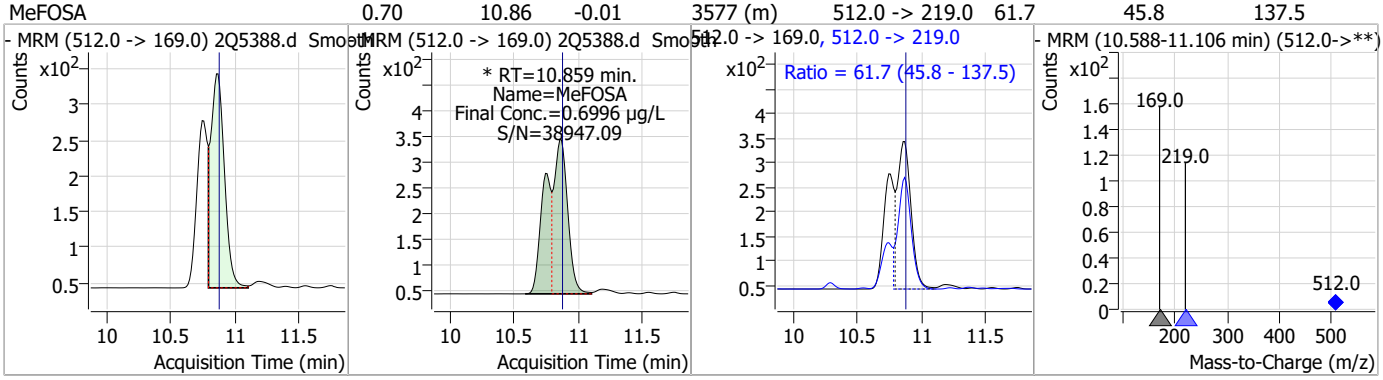




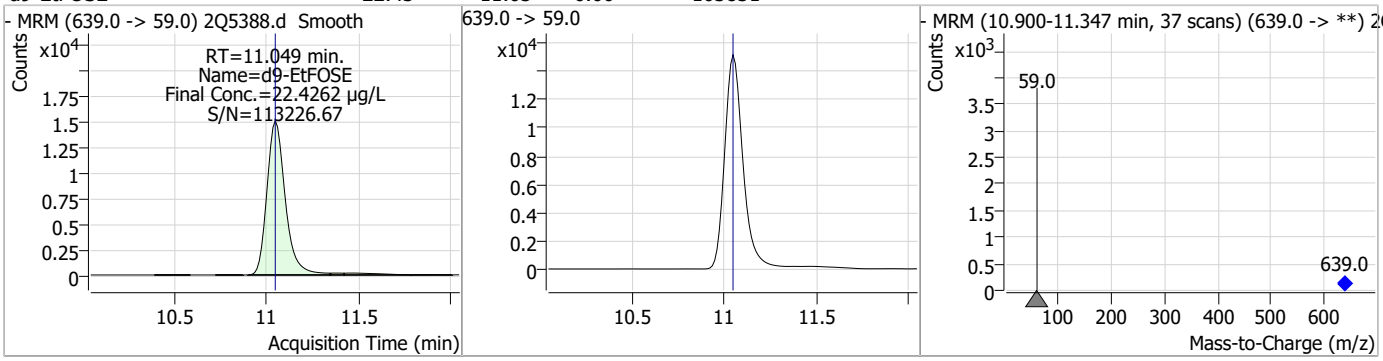


Perfluorinated Compounds by LC/MS/MS

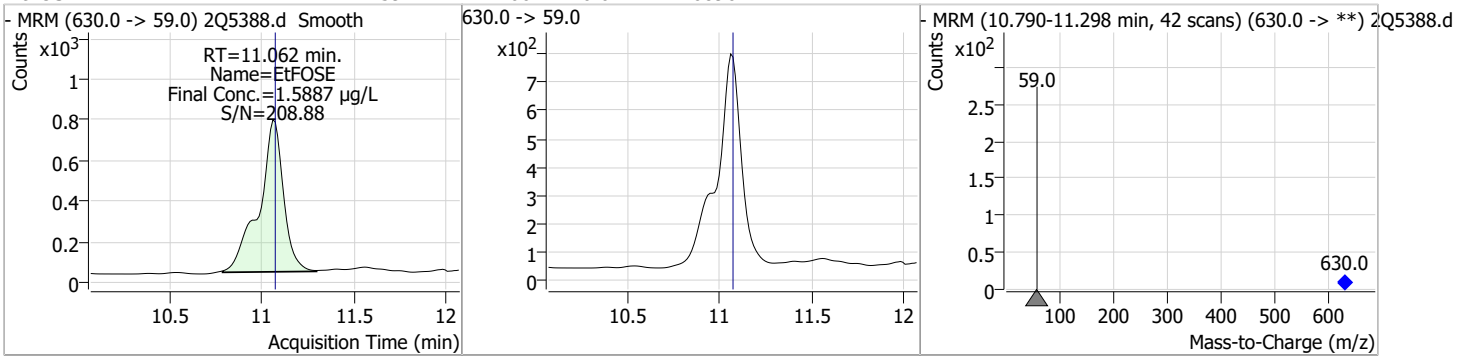
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	0.70	10.86	-0.01	3577 (m)	512.0 -> 219.0	61.7	45.8	137.5



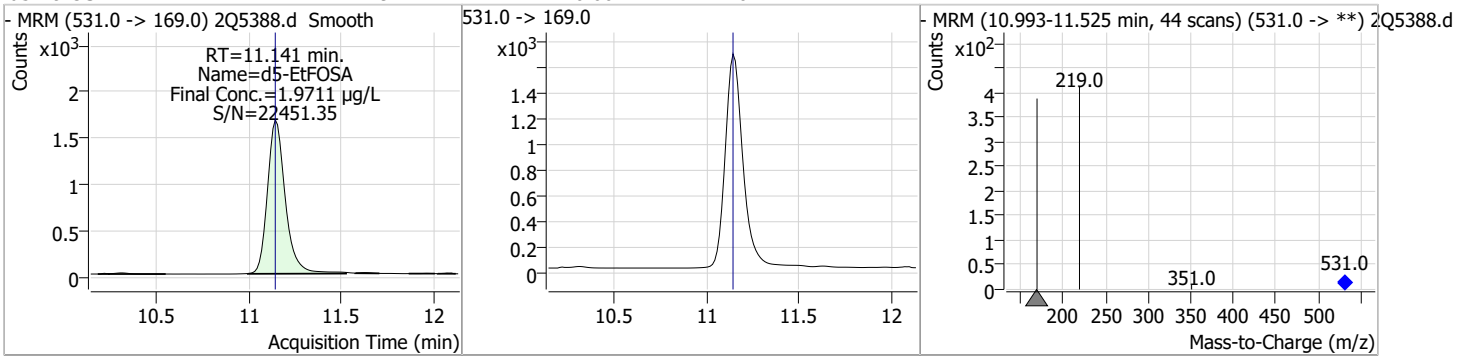
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.43	11.05	0.00	103831				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	1.59	11.06	-0.01	6896				

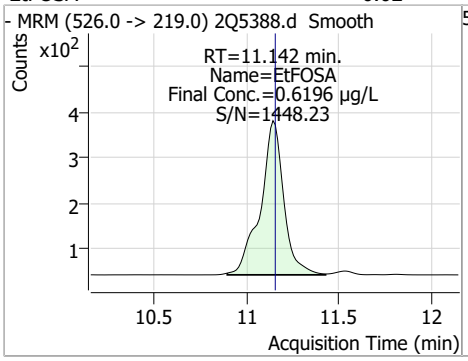


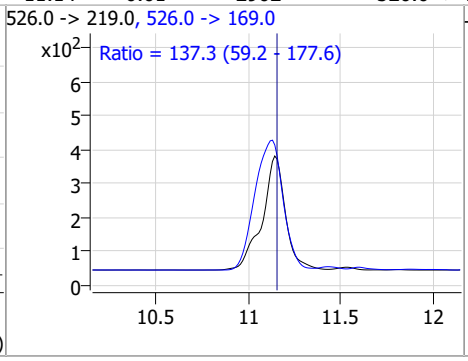
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.97	11.14	0.00	11110				

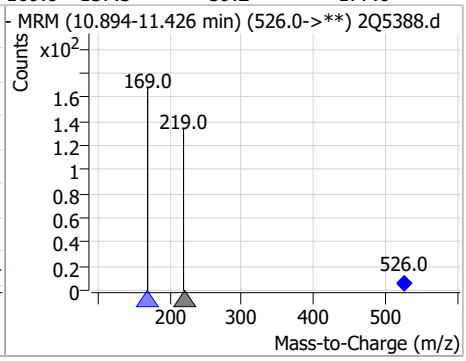


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	0.62	11.14	-0.01	2962	526.0 -> 169.0	137.3	59.2	177.6







Manual Integration Approval Summary

Sample Number: OP50811-LLBS
Lab FileID: 2Q5388.D
Injection Time: 12/02/23 02:12
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
MeFOSAA	2355-31-9		8.40	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.59	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.86	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5389.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 2:27:51 AM
Sample Name : OP50811-BS
Vial : P2-F2
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	160814	10.00	µg/L	-0.025
M5-PFPeA	4.798	268.0 -> 223.0	96502	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	51305	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	41229	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	68631	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	33352	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	12912	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	22275	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	25646	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16785	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	18605	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5870	2.50	µg/L	-0.037
		302.0 -> 80.0	14584			
M3-PFHxS	7.472	402.0 -> 99.0	5903	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6483	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1159	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2850	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4226	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	44717	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	26205	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	33002	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	81331	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	110766	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10352	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	9175	2.50	µg/L	-0.012
13C4-PFOS	8.512	503.0 -> 80.0	11670	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	71606	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	6246	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	69043	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	29724	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	35229	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	49100	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1159	5.08	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.6%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2850	5.64	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.7%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4226	6.04	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 120.7%		
13C2-PFDoDA	9.219	615.0 -> 570.0	25646	1.08	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.5%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16785	0.96	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 77.2%		
13C3-PFBS	5.846	302.0 -> 99.0	5870	2.53	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.1%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5903	2.42	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.9%			
13C4-PFBA	3.314	217.0 -> 172.0	160814	9.98	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.8%			
13C4-PFHpA	6.770	367.0 -> 322.0	41229	2.58	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.4%			
13C5-PFHxA	5.930	318.0 -> 273.0	51305	2.52	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.6%			
13C5-PFPeA	4.798	268.0 -> 223.0	96502	5.24	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.9%			
13C6-PFDA	8.352	519.0 -> 474.0	12912	1.04	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.3%			
13C7-PFUnDA	8.803	570.0 -> 525.0	22275	1.09	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.1%			
13C8-FOSA	9.653	506.0 -> 78.0	18605	2.35	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.2%			
13C8-PFOA	7.372	421.0 -> 376.0	68631	2.40	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.0%			
13C8-PFOS	8.512	507.0 -> 99.0	6483	2.55	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%			
13C9-PFNA	7.875	472.0 -> 427.0	33352	1.21	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	44717	5.89	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 117.7%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	26205	11.25	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 112.5%			
d3-MeFOSA	10.858	515.0 -> 169.0	9175	1.76	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 70.2%			
d5-EtFOSAA	8.593	589.0 -> 419.0	33002	5.26	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.2%			
d7-MeFOSE	10.753	623.0 -> 59.0	81331	23.39	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 93.6%			
d9-EtFOSE	11.049	639.0 -> 59.0	110766	24.06	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 96.2%			
d5-EtFOSA	11.141	531.0 -> 169.0	10352	1.85	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 73.9%			
Target Compounds							QValue
4:2FTS	5.619	327.0 -> 307.0	21176	10.98	µg/L		99
		327.0 -> 81.0	10755				
6:2FTS	7.149	427.0 -> 407.0	40476	9.70	µg/L		95
		427.0 -> 81.0	12135				
8:2FTS	8.143	527.0 -> 507.0	39269	10.28	µg/L		99
		527.0 -> 81.0	14039				
EtFOSAA	8.606	584.0 -> 419.0	13662	2.48	µg/L	m	94
		584.0 -> 483.0	6787				
FOSA	9.643	498.0 -> 78.0	33881	5.16	µg/L	m	97
		498.0 -> 478.0	1094				
MeFOSAA	8.398	570.0 -> 419.0	16037	2.24	µg/L	m	94
		570.0 -> 512.0	5137				
PFBA	3.308	213.0 -> 169.0	39249	9.72	µg/L		100
PFBS	5.847	299.0 -> 80.0	14044	2.30	µg/L		99
		299.0 -> 99.0	6047				
PFDA	8.352	513.0 -> 469.0	55843	2.61	µg/L		97
		513.0 -> 219.0	9109				
PFDoDA	9.219	613.0 -> 569.0	49489	2.52	µg/L		100
		613.0 -> 319.0	8118				

Perfluorinated Compounds by LC/MS/MS

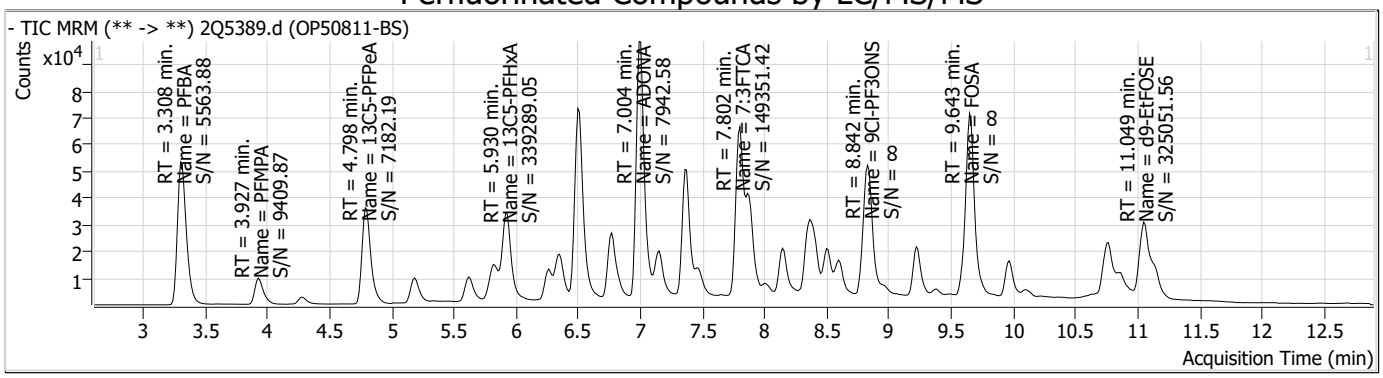
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	6808	2.55	µg/L		92
		599.0 -> 99.0	3054				
PFHpA	6.770	363.0 -> 319.0	57614	2.26	µg/L		95
		363.0 -> 169.0	10656				
PFHpS	8.023	449.0 -> 80.0	9286	2.49	µg/L		97
		449.0 -> 99.0	4663				
PFHxA	5.932	313.0 -> 269.0	50495	2.49	µg/L		99
		313.0 -> 119.0	1683				
PFHxS	7.473	399.0 -> 80.0	9075	2.23	µg/L	m	93
		399.0 -> 99.0	5818				
PFNA	7.876	463.0 -> 419.0	56331	2.25	µg/L		95
		463.0 -> 219.0	10299				
PFNS	8.964	549.0 -> 80.0	5535	1.94	µg/L		94
		549.0 -> 99.0	3428				
PFOA	7.373	413.0 -> 369.0	66426	2.47	µg/L		97
		413.0 -> 169.0	13706				
PFOS	8.512	499.0 -> 80.0	13126	2.37	µg/L	m	86
		499.0 -> 99.0	5563				
PFPeA	4.799	263.0 -> 219.0	83261	4.79	µg/L		100
PFPeS	6.821	349.0 -> 80.0	8377	2.38	µg/L		96
		349.0 -> 99.0	3375				
PFTeDA	9.964	713.0 -> 669.0	33389	2.46	µg/L		96
		713.0 -> 219.0	4631				
PFTrDA	9.610	663.0 -> 619.0	44734	2.38	µg/L		99
		663.0 -> 369.0	5303				
PFUnDA	8.804	563.0 -> 519.0	56728	2.54	µg/L		98
		563.0 -> 269.0	8813				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	197083	8.36	µg/L		100
		633.0 -> 453.0	56235				
9Cl-PF3ONS	8.842	531.0 -> 351.0	138750	8.55	µg/L		98
		533.0 -> 353.0	41055				
ADONA	7.004	377.0 -> 251.0	346260	8.34	µg/L		99
		377.0 -> 85.0	102162				
HFPO-DA	6.271	285.0 -> 169.0	23715	8.40	µg/L		100
		285.0 -> 185.0	2052				
3:3FTCA	4.276	241.0 -> 177.0	11612	10.77	µg/L		98
		241.0 -> 117.0	951				
5:3FTCA	6.511	341.0 -> 237.0	202011	56.93	µg/L		100
		341.0 -> 217.0	144113				
7:3FTCA	7.802	441.0 -> 337.0	217455	57.47	µg/L		99
		441.0 -> 317.0	85468				
EtFOSA	11.154	526.0 -> 219.0	20157	4.53	µg/L	m	86
		526.0 -> 169.0	26887				
EtFOSE	11.062	630.0 -> 59.0	51157	11.05	µg/L		100
MeFOSA	10.871	512.0 -> 169.0	23851	4.84	µg/L	m	80
		512.0 -> 219.0	17308				
MeFOSE	10.778	616.0 -> 59.0	38779	11.15	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	5948	2.14	µg/L		90
		699.0 -> 99.0	3206				
NFDHA	5.823	295.0 -> 201.0	5893	4.73	µg/L		81
		201.0 -> 85.0	34372				
		295.0 -> 85.0	1690				
PFMBA	5.188	279.0 -> 85.0	46755	4.98	µg/L		100
PFMPA	3.927	229.0 -> 85.0	47845	4.86	µg/L		100
PFEESA	6.353	315.0 -> 135.0	70350	5.06	µg/L		99
		315.0 -> 69.0	6956				

Perfluorinated Compounds by LC/MS/MS

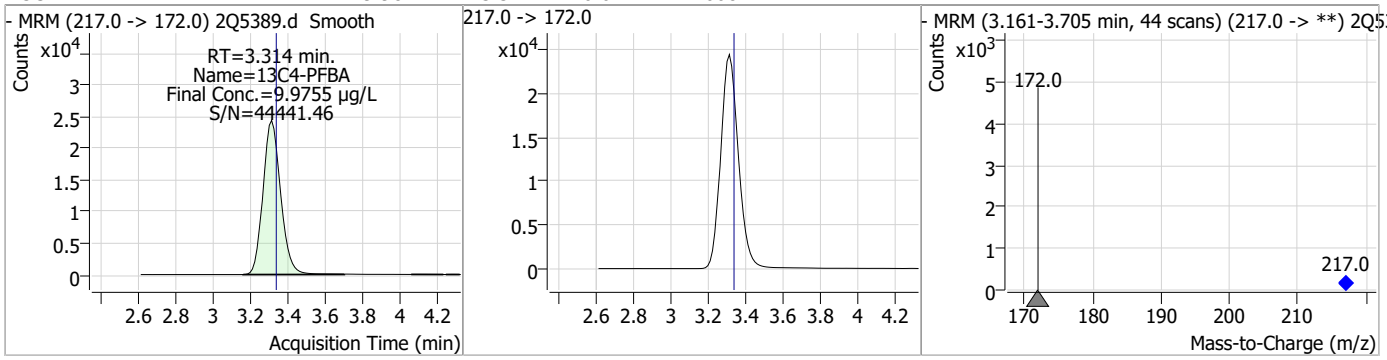
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

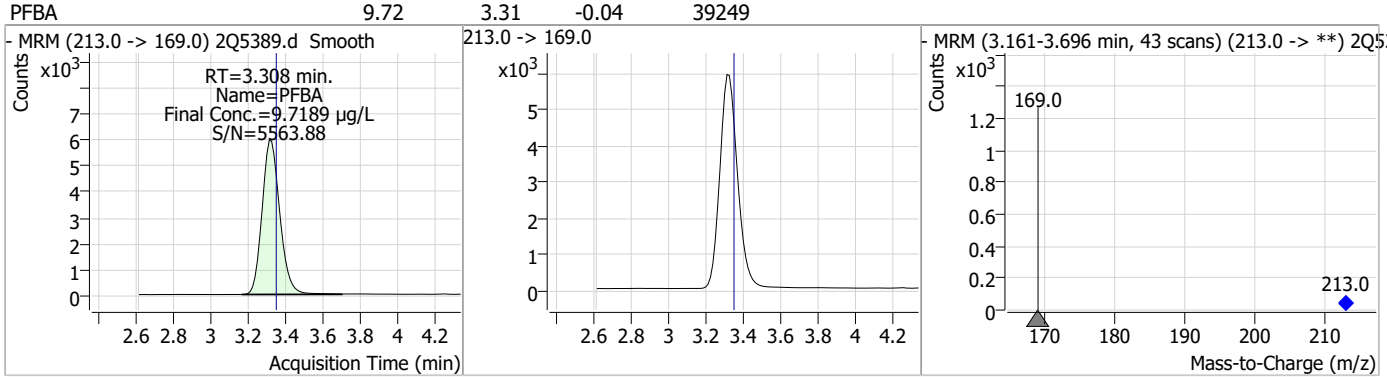
Perfluorinated Compounds by LC/MS/MS



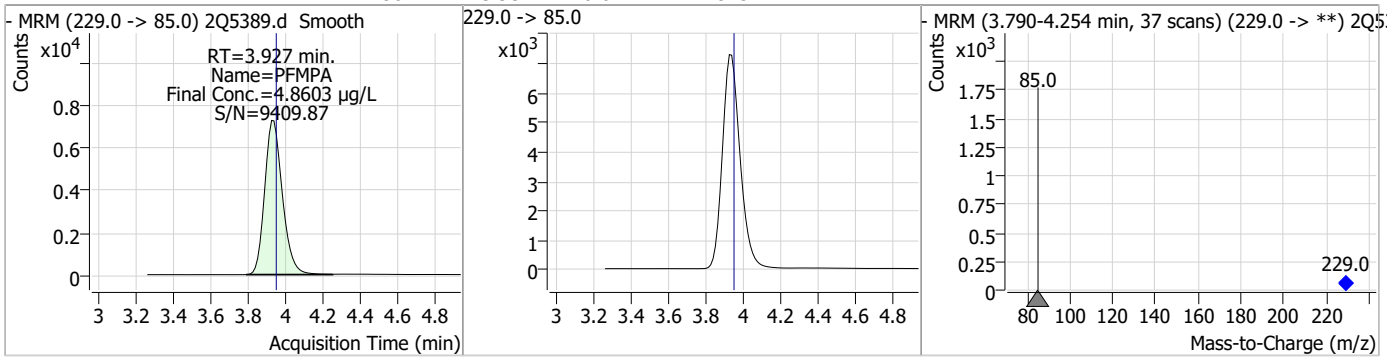
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.98	3.31	-0.02	160814				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	9.72	3.31	-0.04	39249				

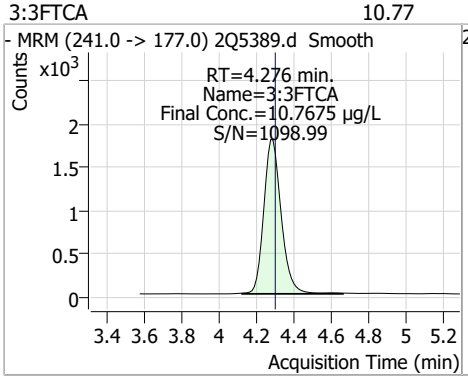


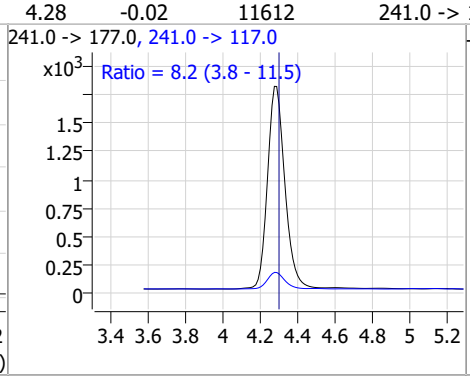
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.86	3.93	-0.02	47845				

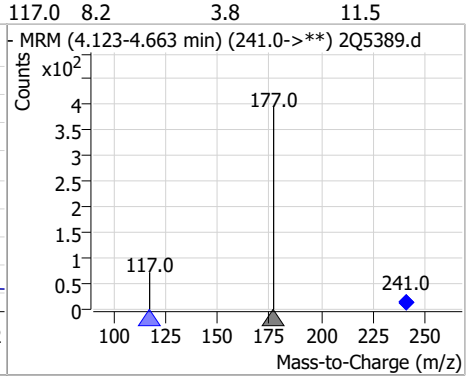


Perfluorinated Compounds by LC/MS/MS

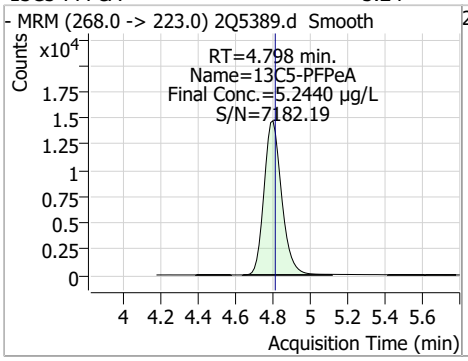
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	10.77	4.28	-0.02	11612	241.0 -> 117.0	8.2	3.8	11.5

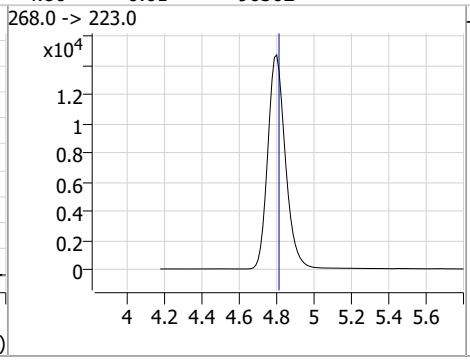


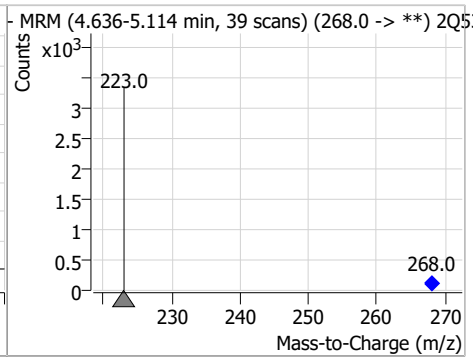




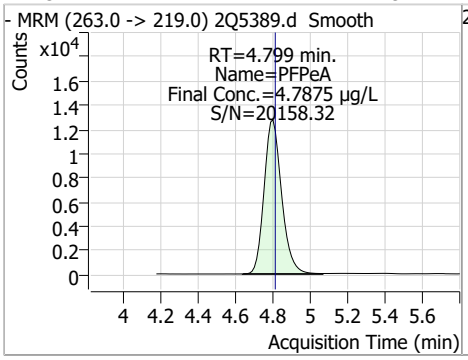
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.24	4.80	-0.01	96502				

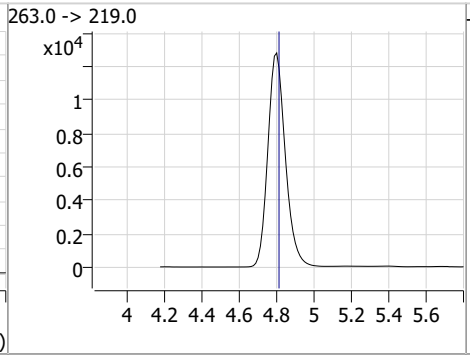


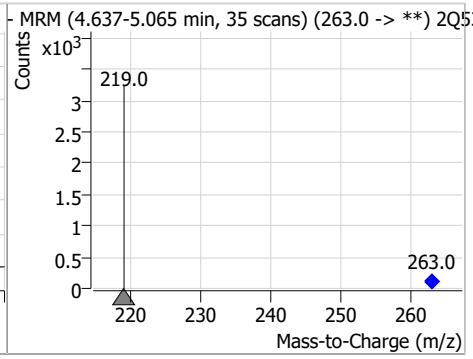




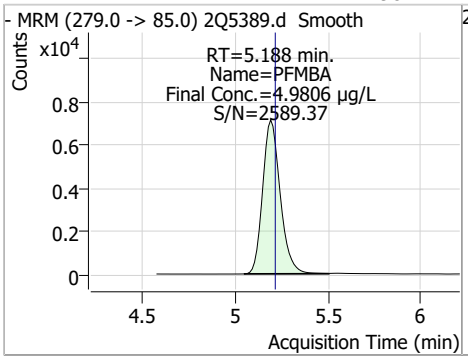
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	4.79	4.80	-0.01	83261				

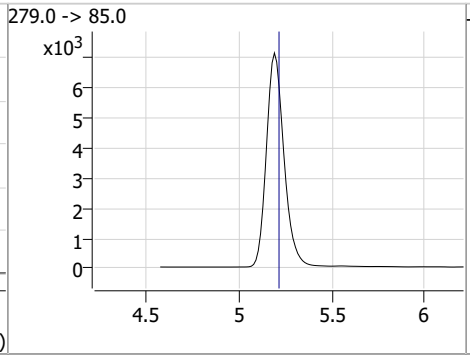


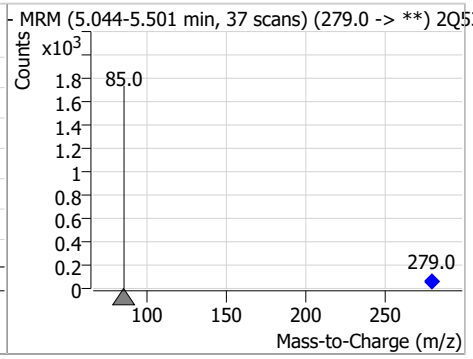




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	4.98	5.19	-0.02	46755				

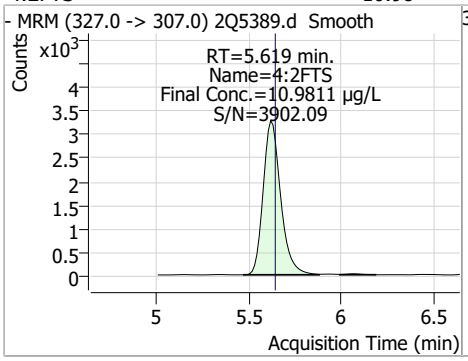


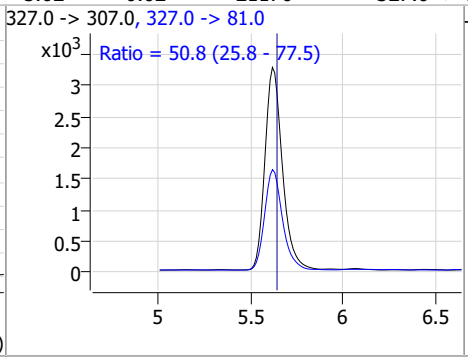


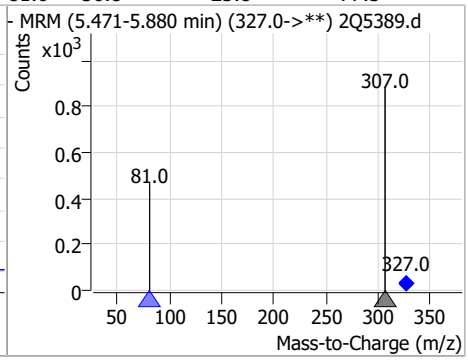


Perfluorinated Compounds by LC/MS/MS

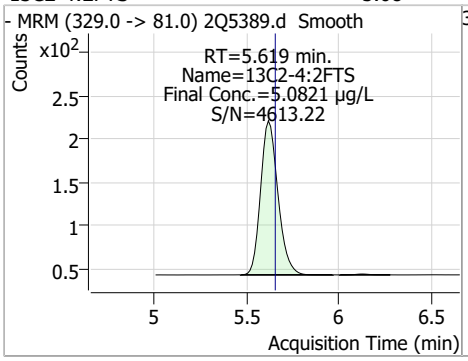
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	10.98	5.62	-0.02	21176	327.0 -> 81.0	50.8	25.8	77.5

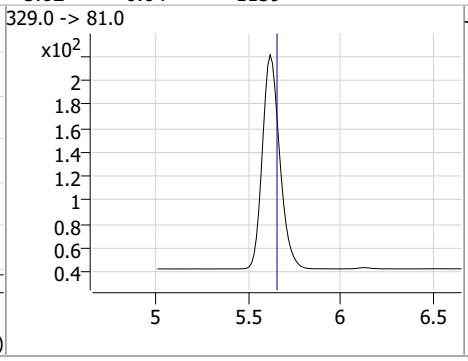


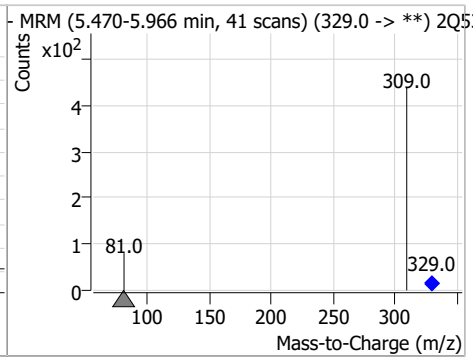




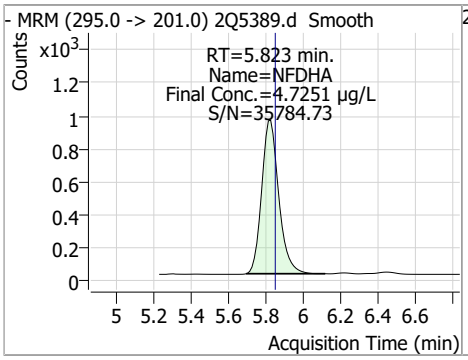
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.08	5.62	-0.04	1159				

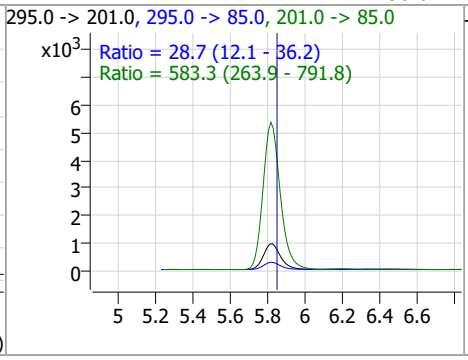


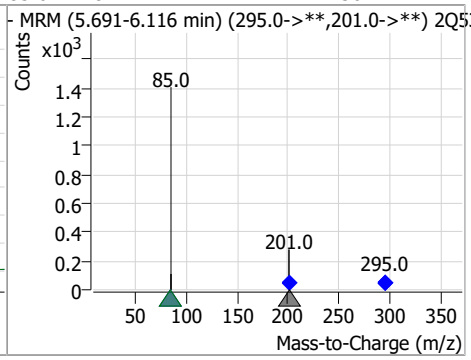




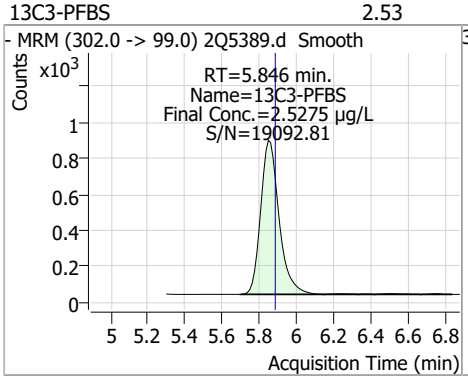
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	4.73	5.82	-0.02	5893	201.0 -> 85.0	583.3	263.9	791.8
					295.0 -> 85.0	28.7	12.1	36.2

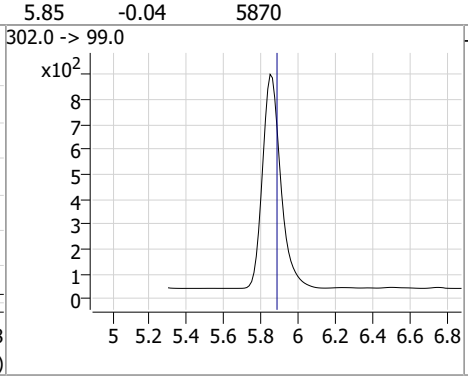


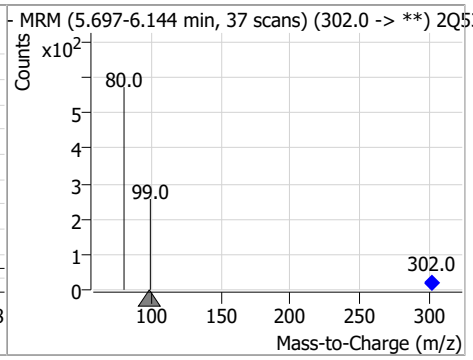




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.53	5.85	-0.04	5870				

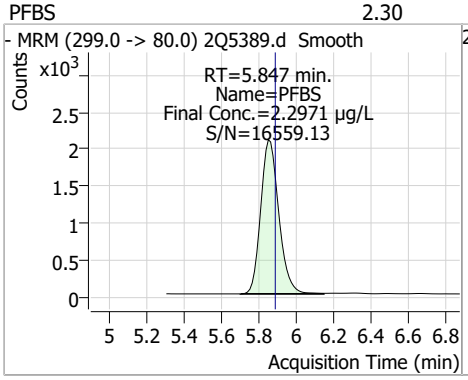


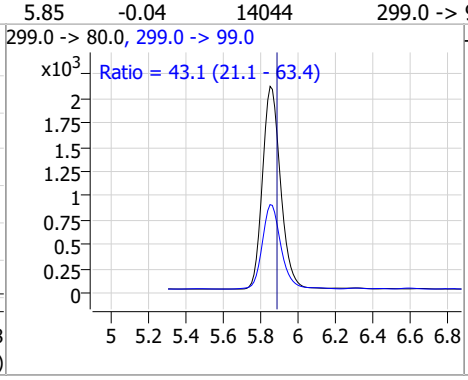


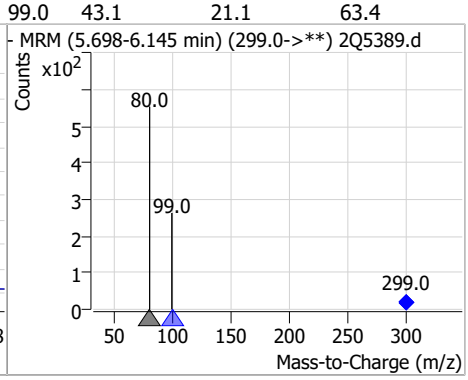


Perfluorinated Compounds by LC/MS/MS

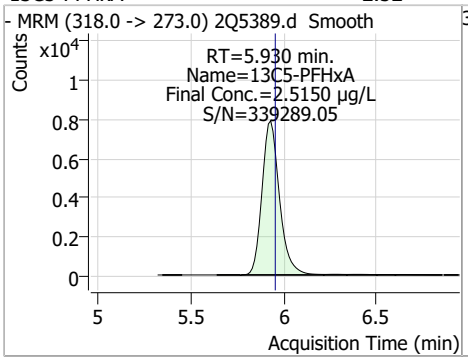
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.30	5.85	-0.04	14044	299.0 -> 99.0	43.1	21.1	63.4

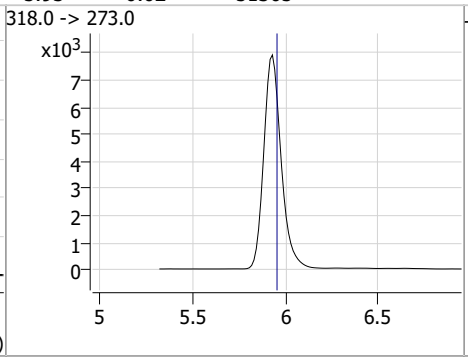


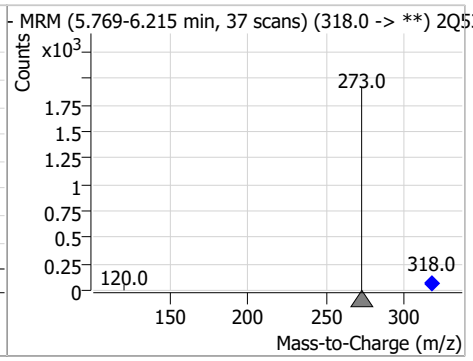




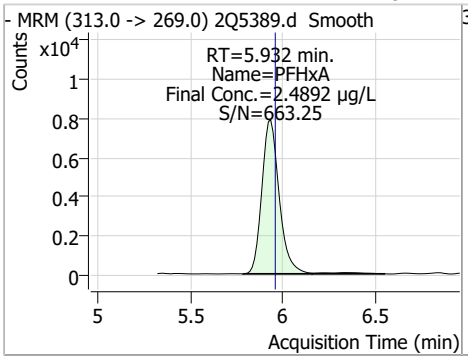
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.52	5.93	-0.02	51305				

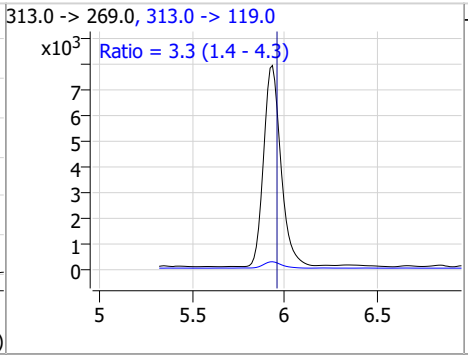


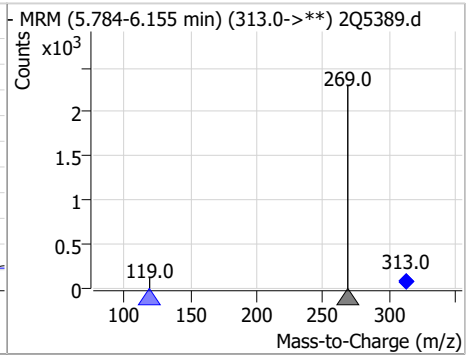




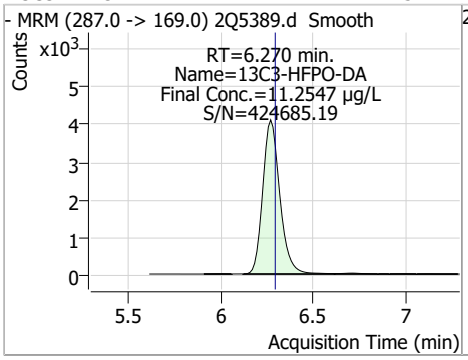
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.49	5.93	-0.02	50495	313.0 -> 119.0	3.3	1.4	4.3

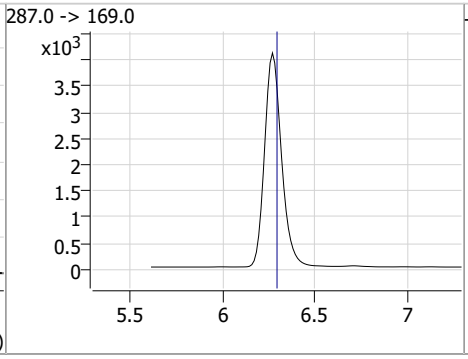


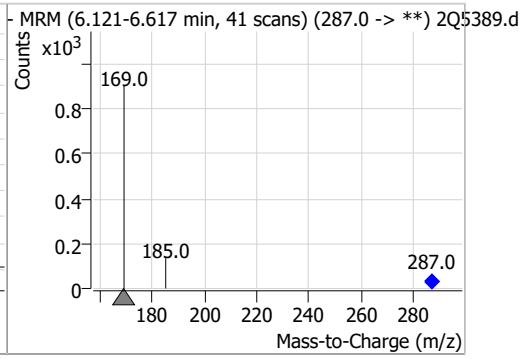




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	11.25	6.27	-0.02	26205				

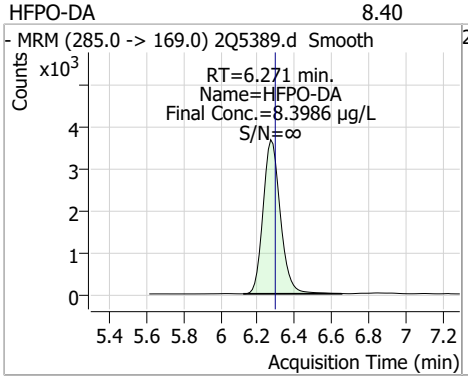


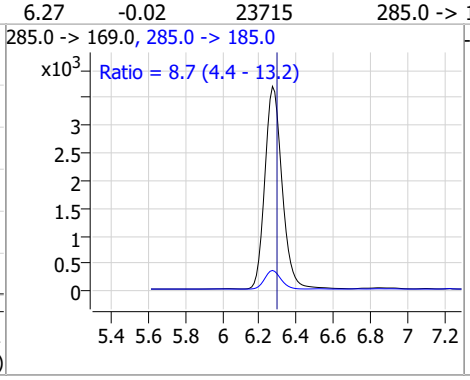


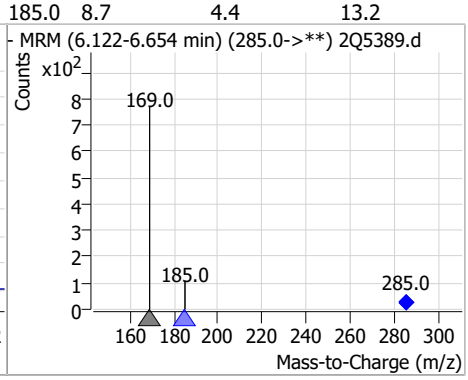


Perfluorinated Compounds by LC/MS/MS

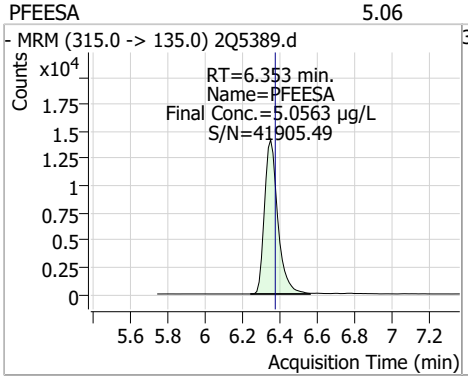
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	8.40	6.27	-0.02	23715	285.0 -> 185.0	8.7	4.4	13.2

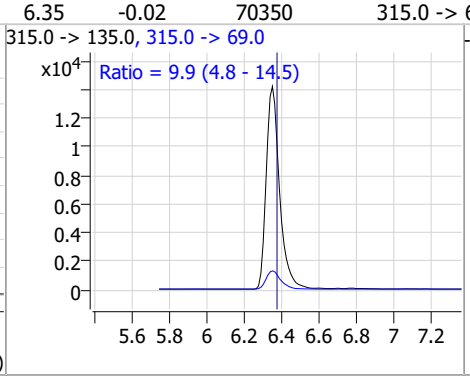


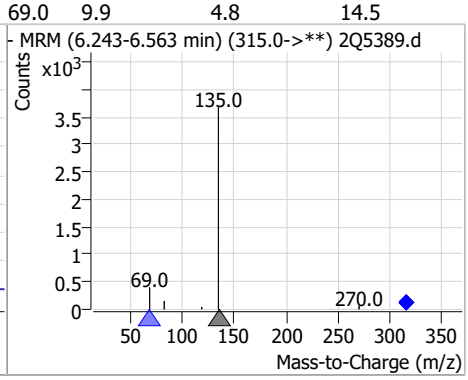




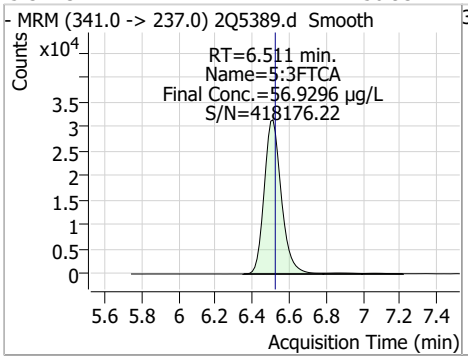
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.06	6.35	-0.02	70350	315.0 -> 69.0	9.9	4.8	14.5

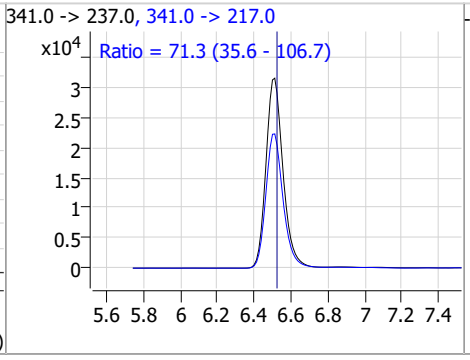


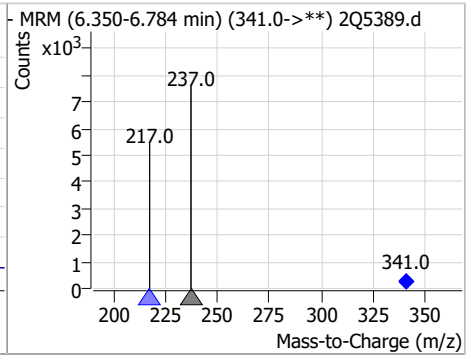




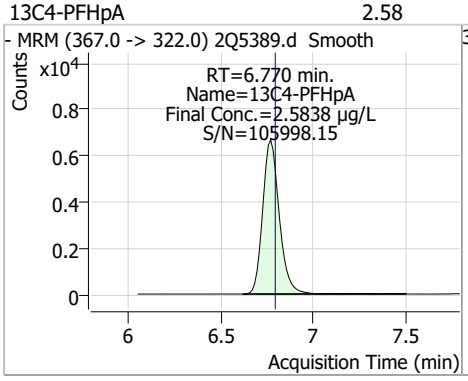
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	56.93	6.51	-0.01	202011	341.0 -> 217.0	71.3	35.6	106.7

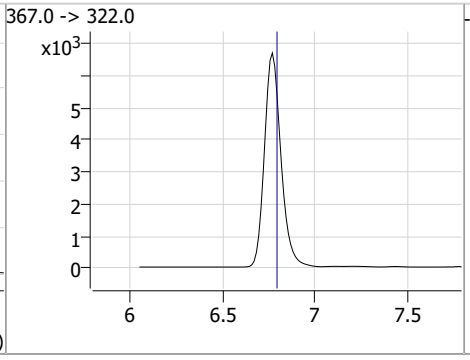


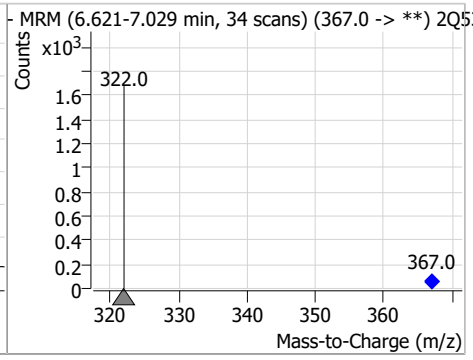




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.58	6.77	-0.03	41229				

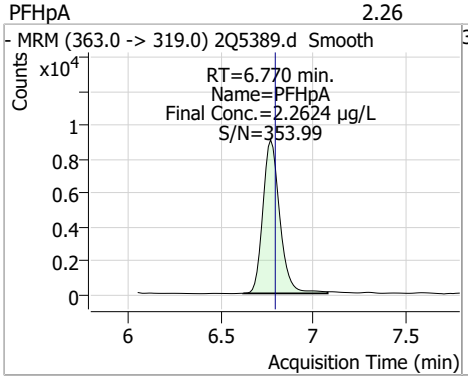


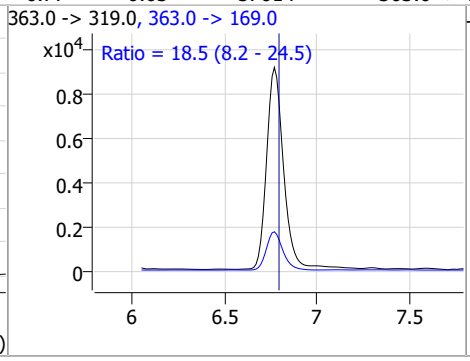


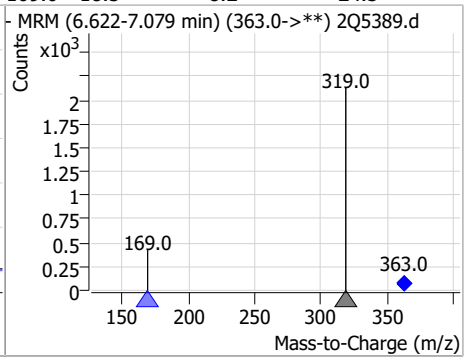


Perfluorinated Compounds by LC/MS/MS

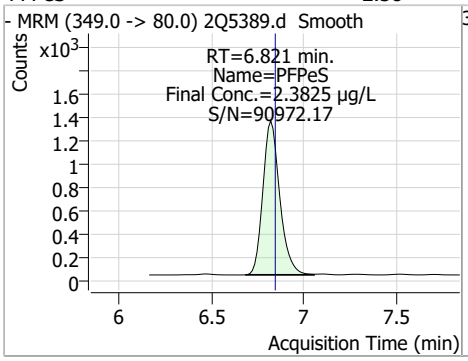
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.26	6.77	-0.03	57614	363.0 -> 169.0	18.5	8.2	24.5

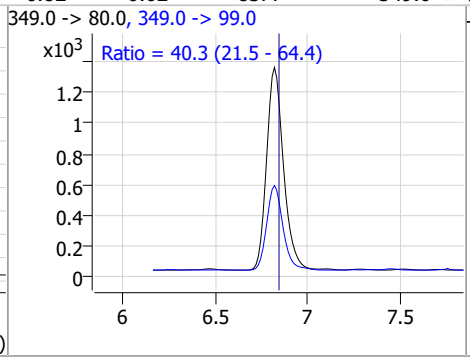


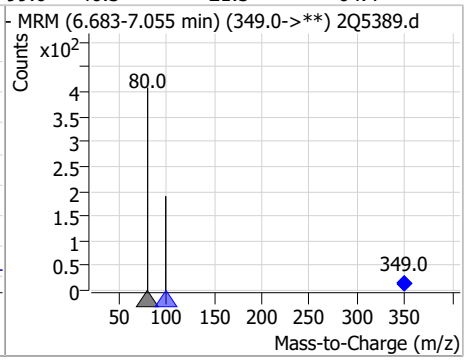




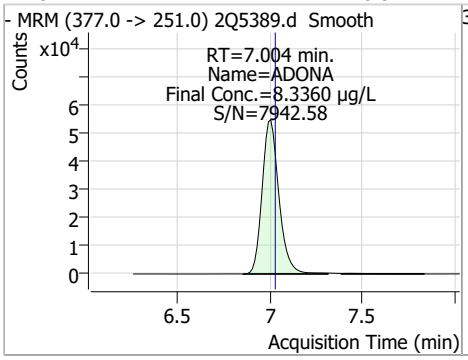
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.38	6.82	-0.02	8377	349.0 -> 99.0	40.3	21.5	64.4

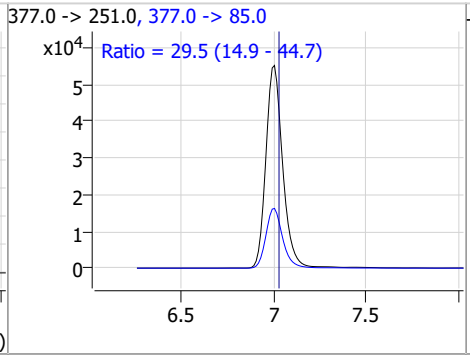


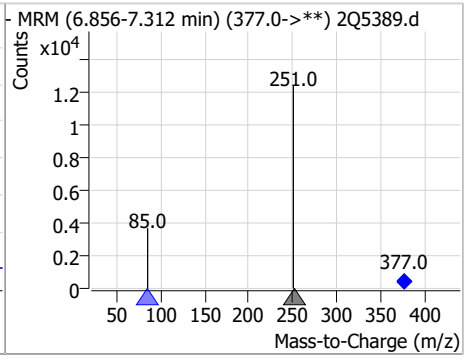




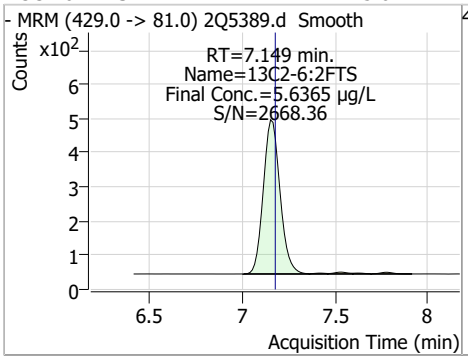
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	8.34	7.00	-0.02	346260	377.0 -> 85.0	29.5	14.9	44.7

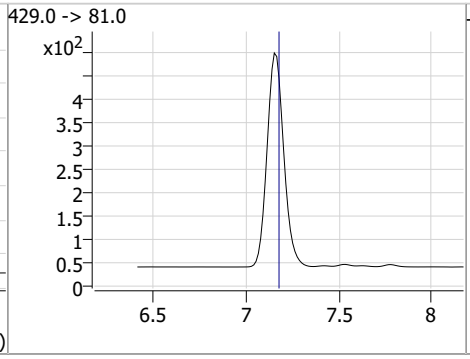


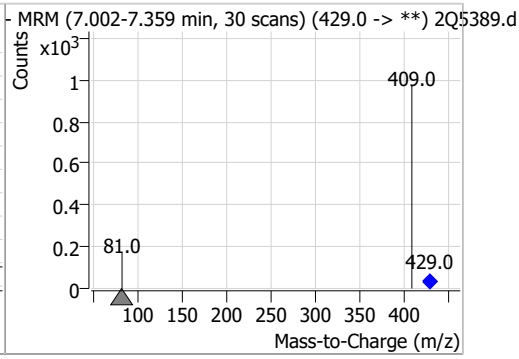




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.64	7.15	-0.03	2850				

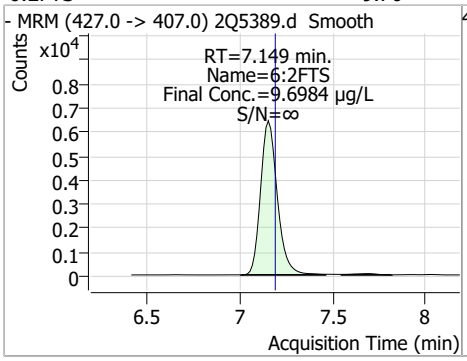


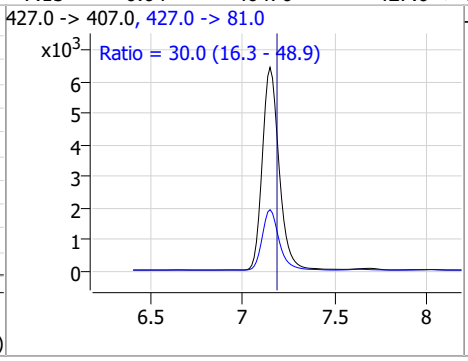


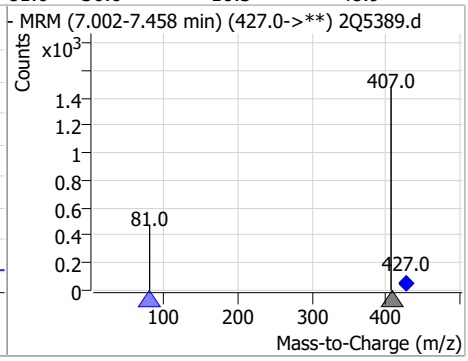


Perfluorinated Compounds by LC/MS/MS

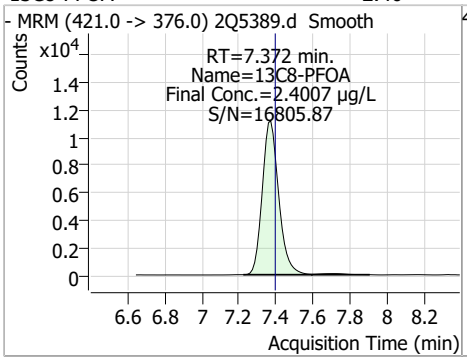
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	9.70	7.15	-0.04	40476	427.0 -> 81.0	30.0	16.3	48.9

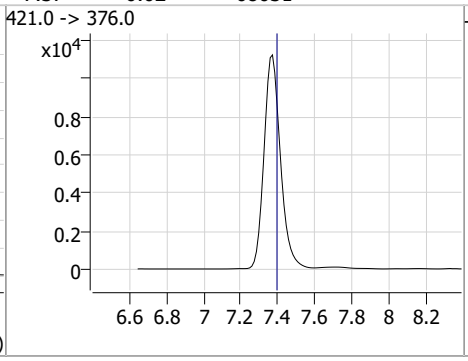


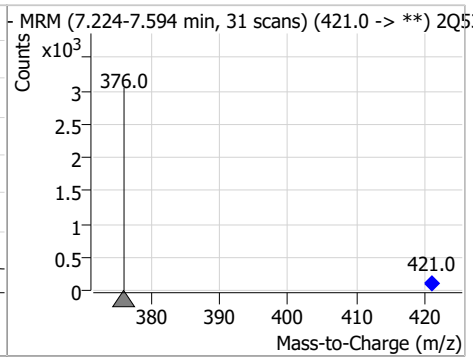




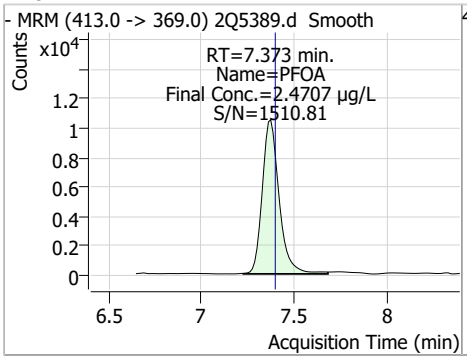
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.40	7.37	-0.02	68631				

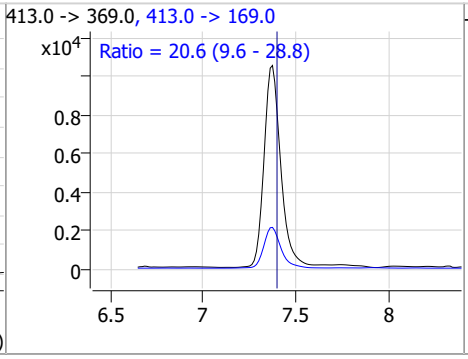


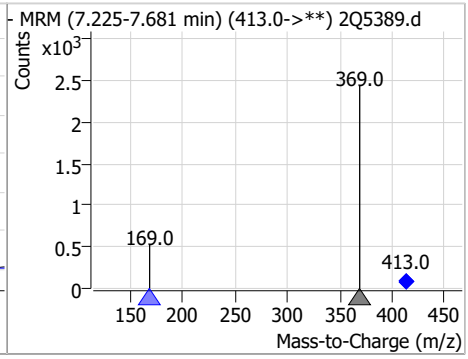




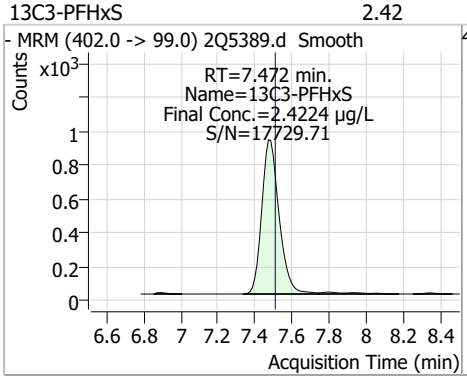
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	2.47	7.37	-0.02	66426	413.0 -> 169.0	20.6	9.6	28.8

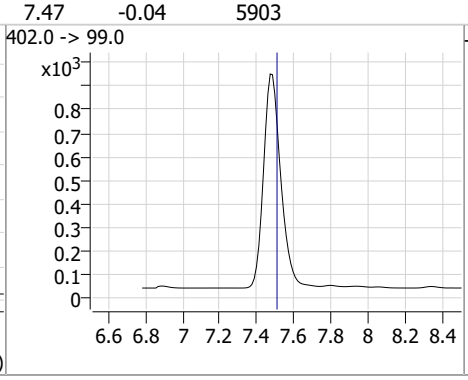


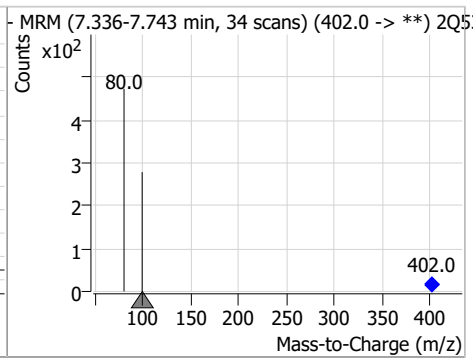




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.42	7.47	-0.04	5903				

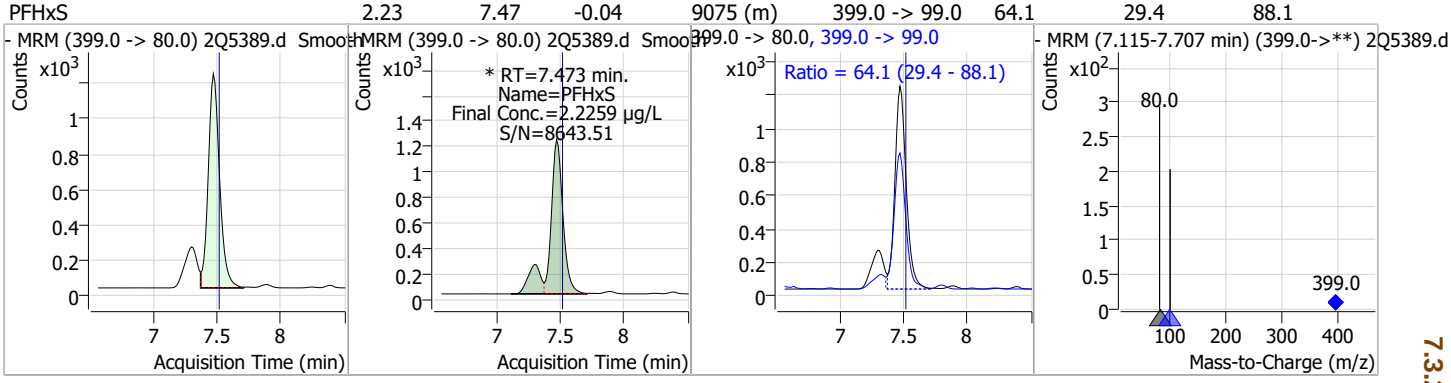




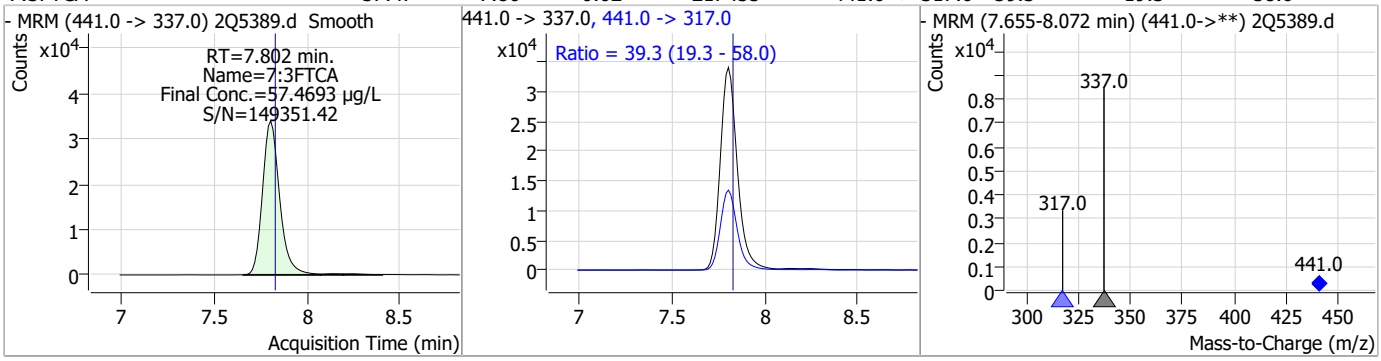


Perfluorinated Compounds by LC/MS/MS

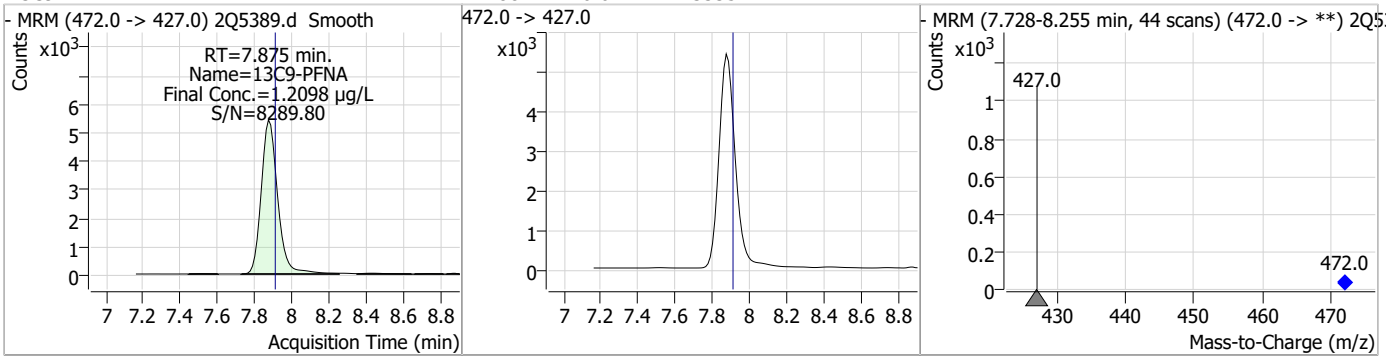
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.23	7.47	-0.04	9075 (m)	399.0 -> 99.0	64.1	29.4	88.1



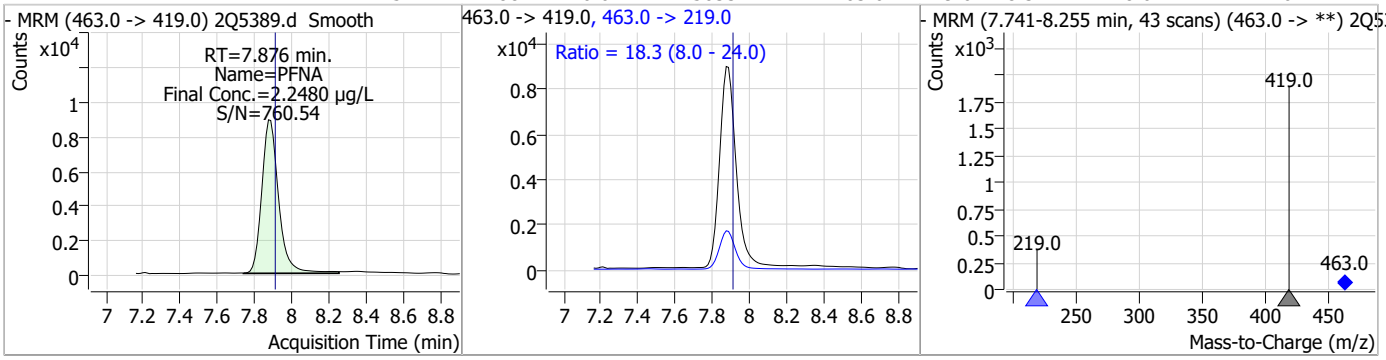
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	57.47	7.80	-0.02	217455	441.0 -> 317.0	39.3	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.21	7.88	-0.04	33352				

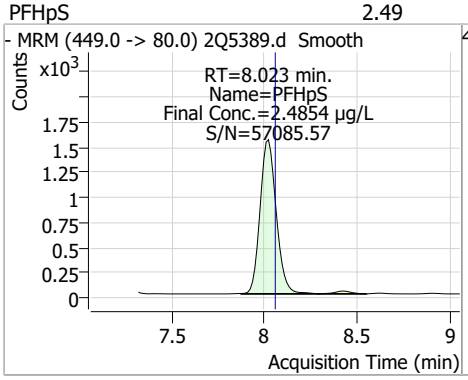


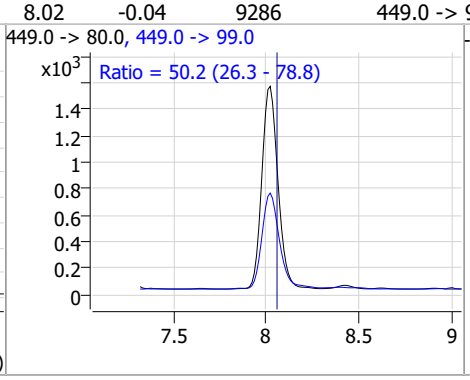
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.25	7.88	-0.04	56331	463.0 -> 219.0	18.3	8.0	24.0

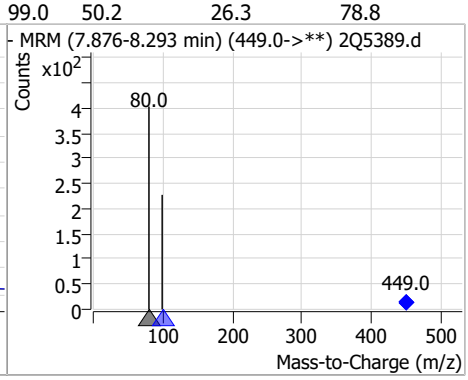


Perfluorinated Compounds by LC/MS/MS

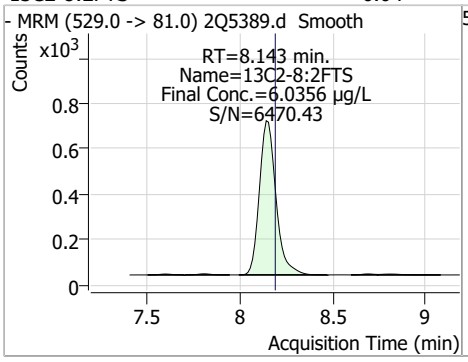
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.49	8.02	-0.04	9286	449.0 -> 99.0	50.2	26.3	78.8

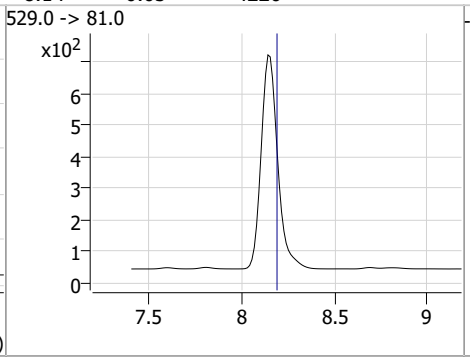


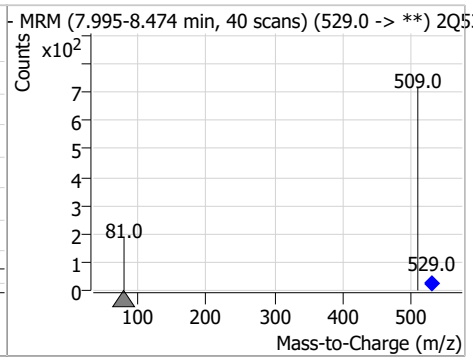




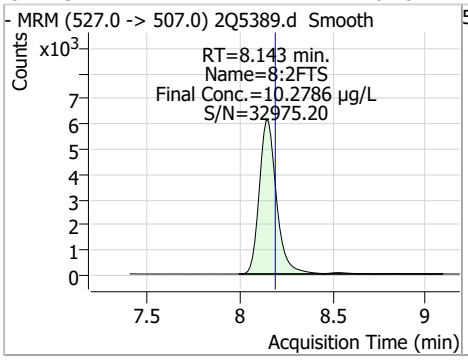
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	6.04	8.14	-0.05	4226				

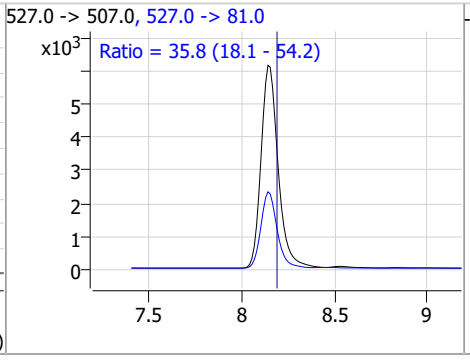


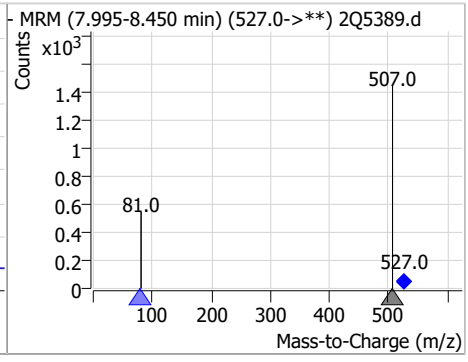




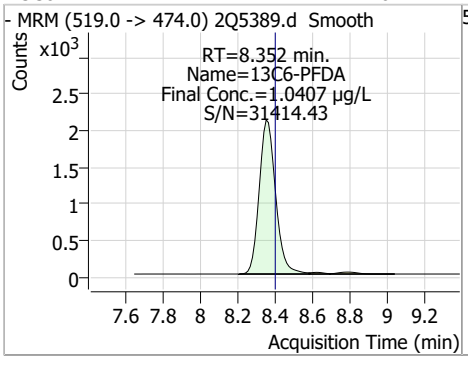
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	10.28	8.14	-0.05	39269	527.0 -> 81.0	35.8	18.1	54.2

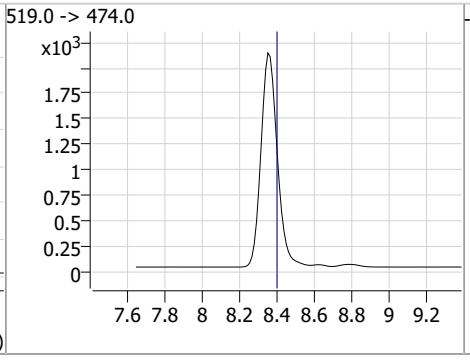


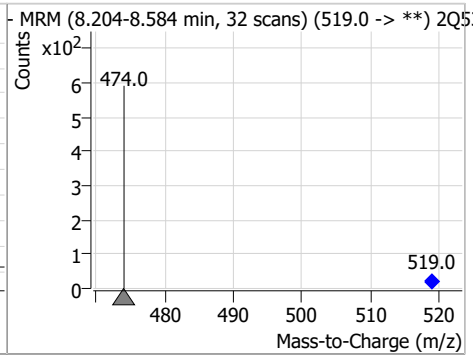




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.04	8.35	-0.05	12912				

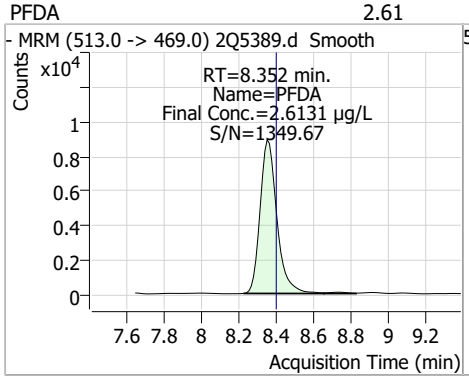


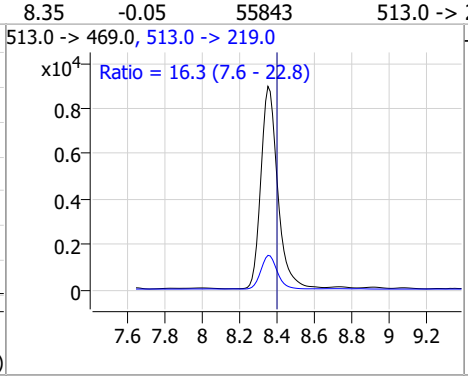


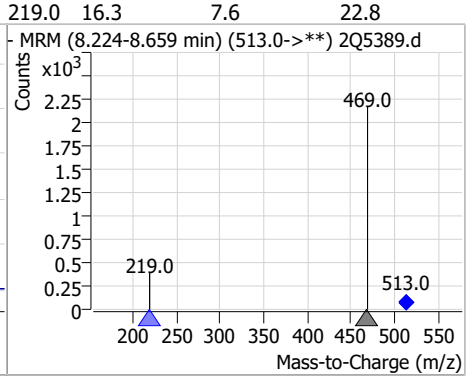


Perfluorinated Compounds by LC/MS/MS

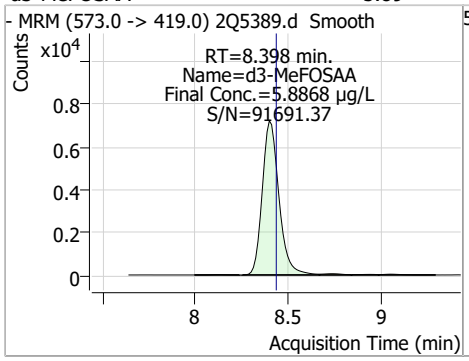
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.61	8.35	-0.05	55843	513.0 -> 219.0	16.3	7.6	22.8

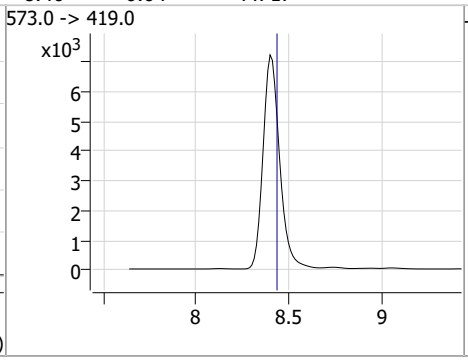


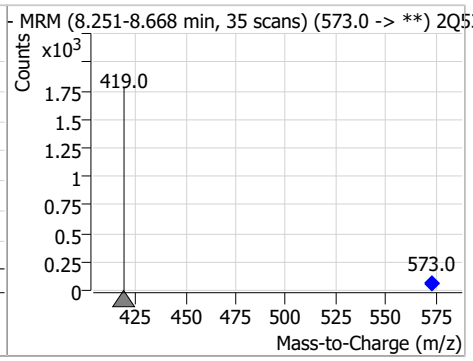




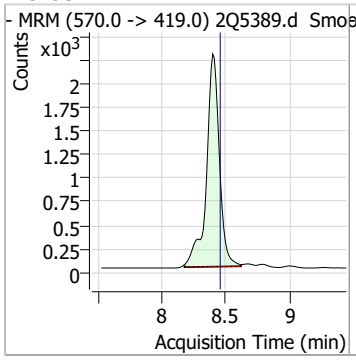
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.89	8.40	-0.04	44717				

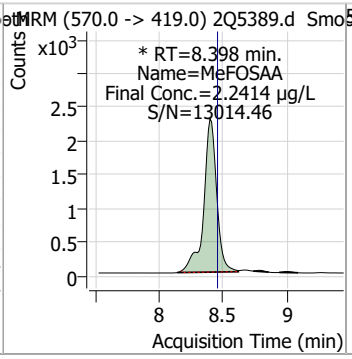


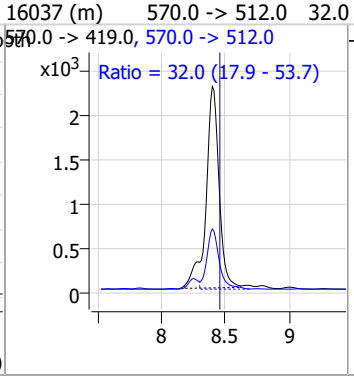


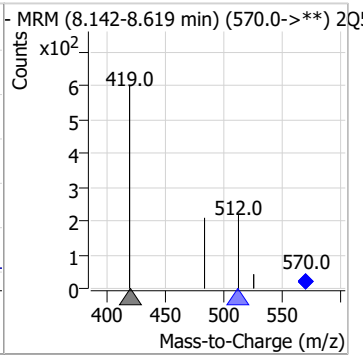


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	2.24	8.40	-0.05	16037 (m)	570.0 -> 512.0	32.0	17.9	53.7

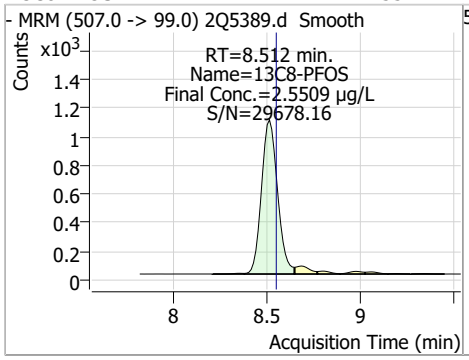


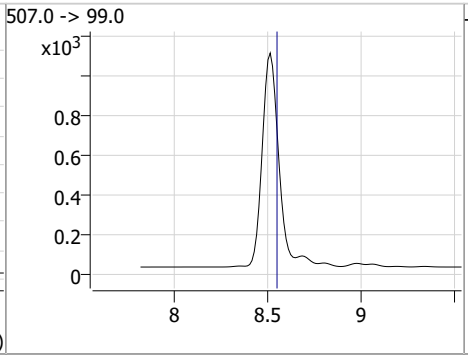


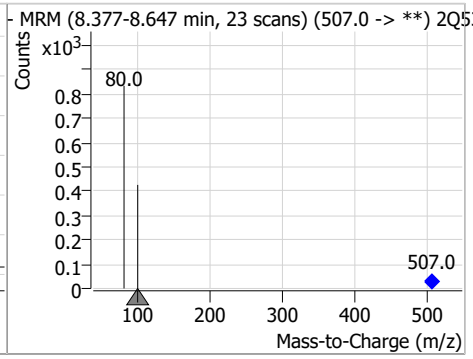




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.55	8.51	-0.04	6483				

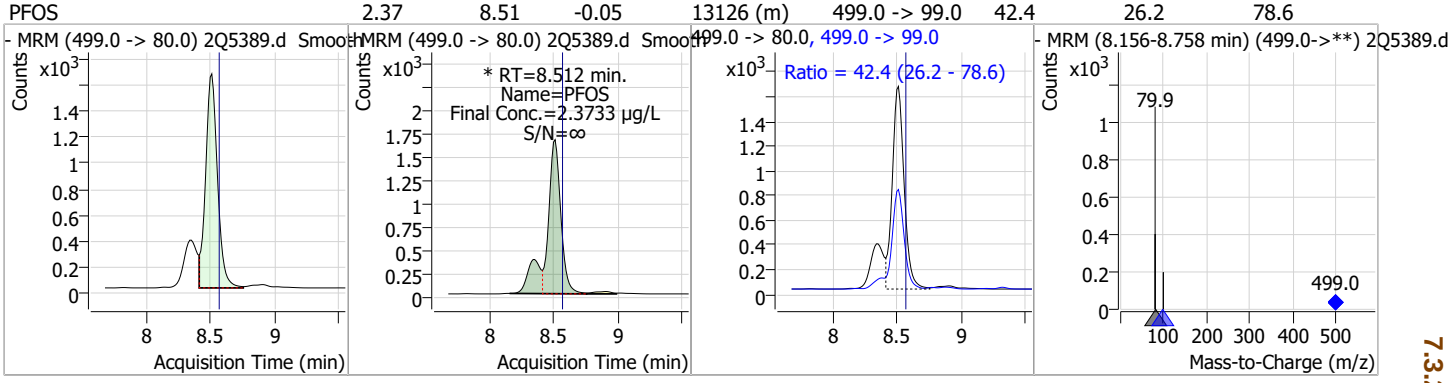




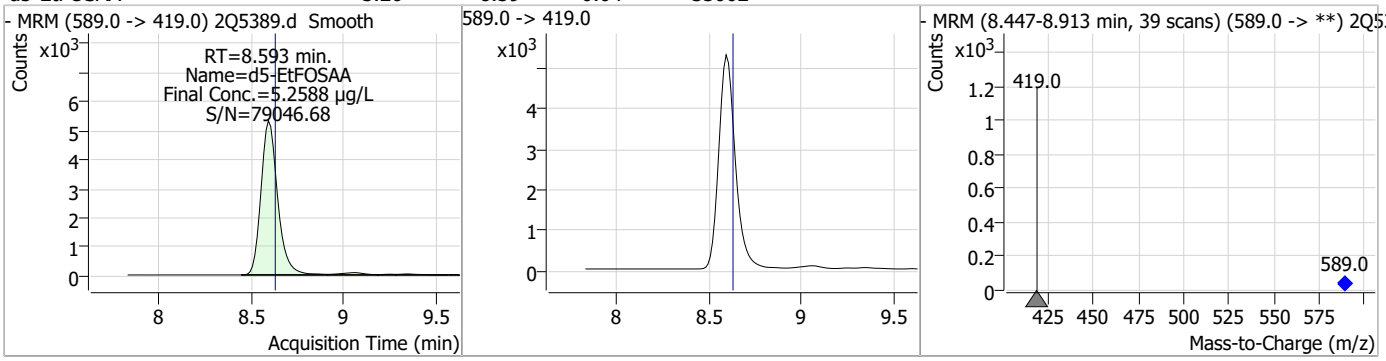


Perfluorinated Compounds by LC/MS/MS

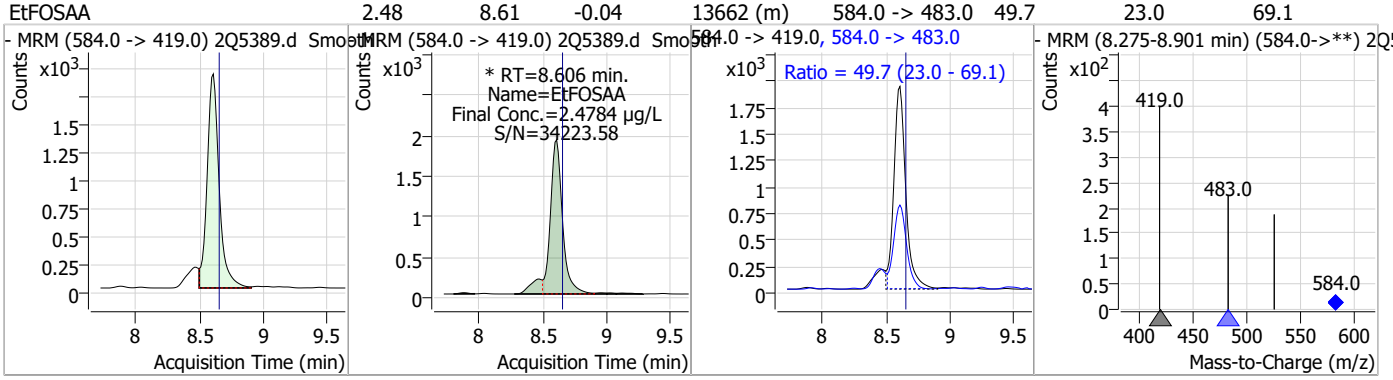
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.37	8.51	-0.05	13126 (m)	499.0 -> 99.0	42.4	26.2	78.6



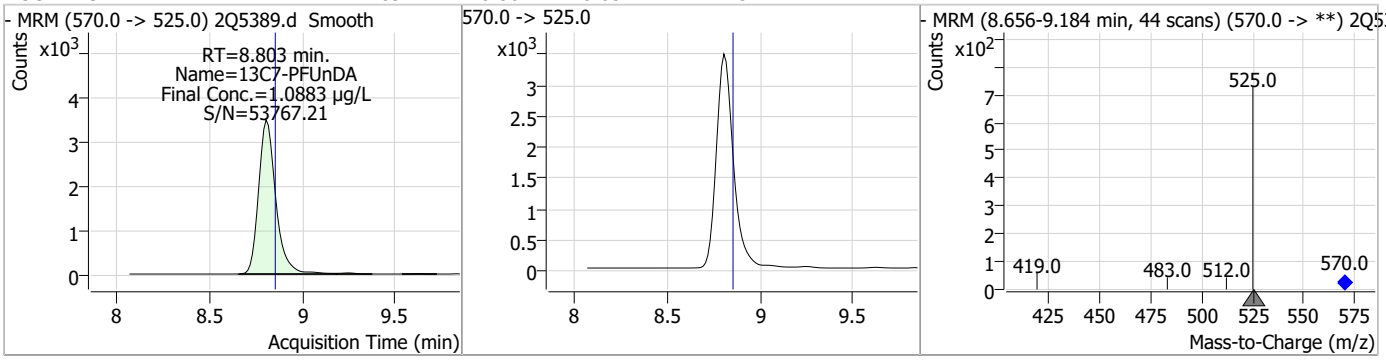
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.26	8.59	-0.04	33002				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.48	8.61	-0.04	13662 (m)	584.0 -> 483.0	49.7	23.0	69.1

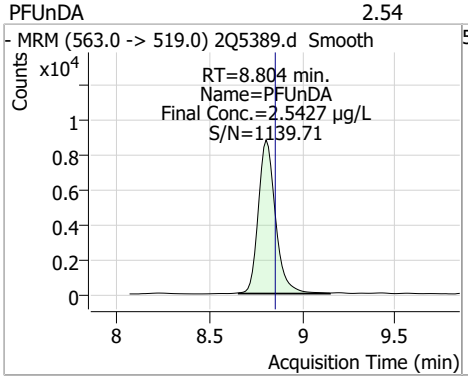


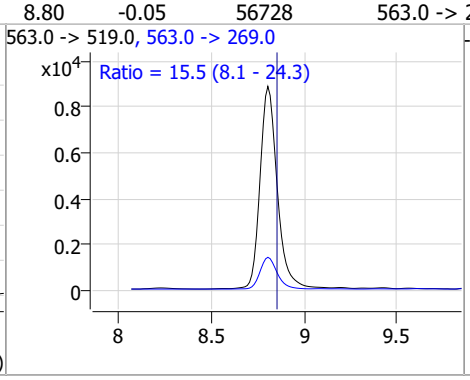
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.09	8.80	-0.05	22275				

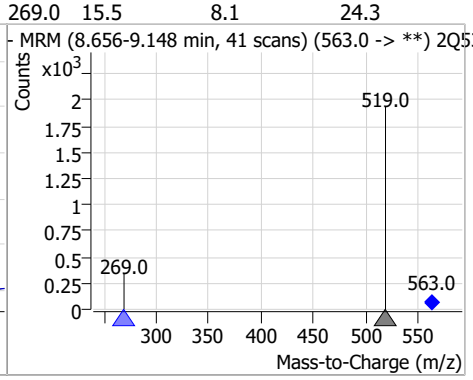


Perfluorinated Compounds by LC/MS/MS

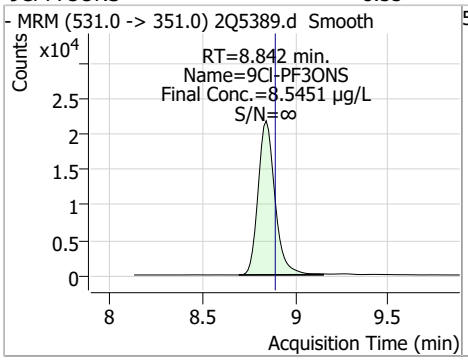
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.54	8.80	-0.05	56728	563.0 -> 269.0	15.5	8.1	24.3

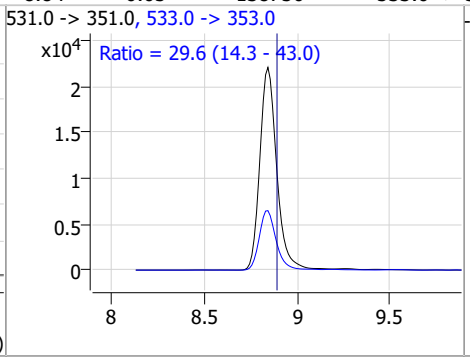


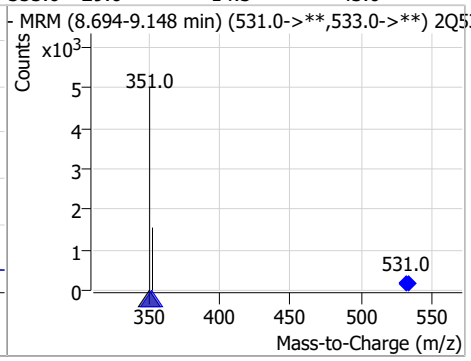




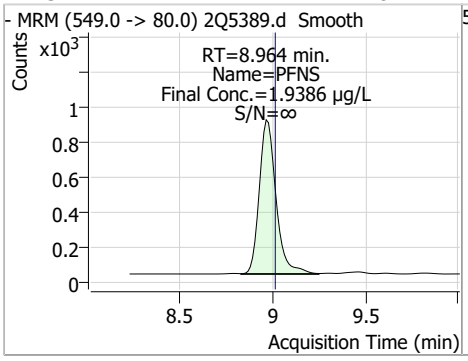
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	8.55	8.84	-0.05	138750	533.0 -> 353.0	29.6	14.3	43.0

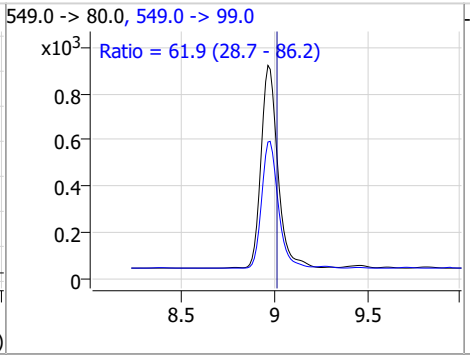


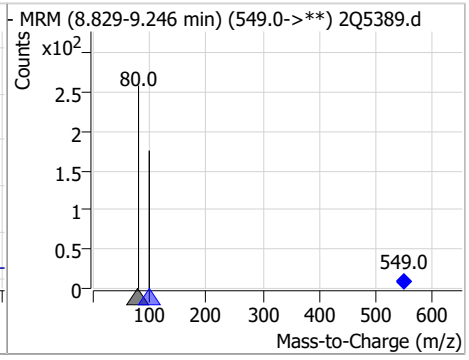




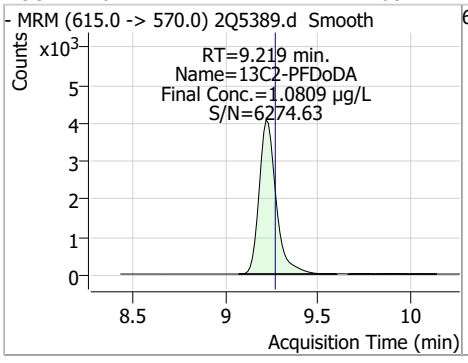
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	1.94	8.96	-0.05	5535	549.0 -> 99.0	61.9	28.7	86.2

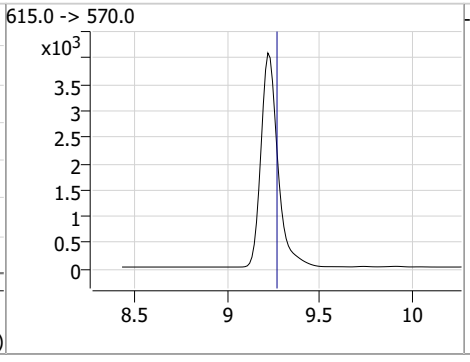


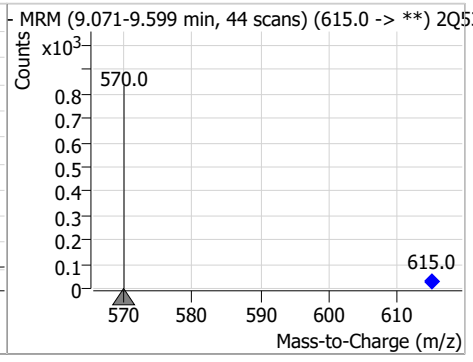




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.08	9.22	-0.05	25646				

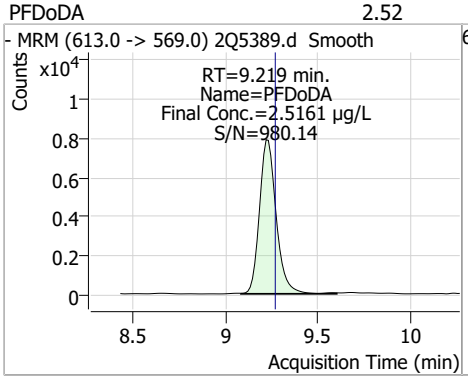


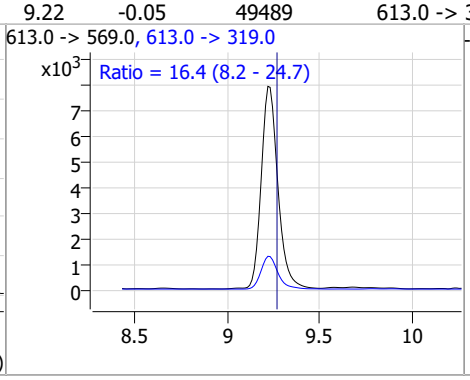


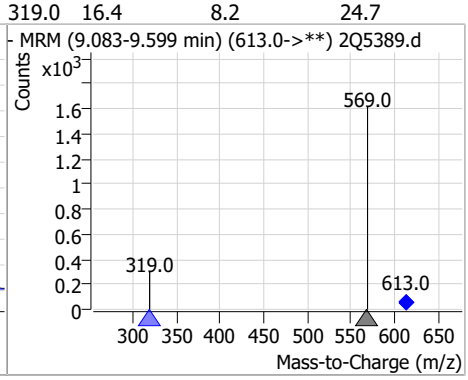


Perfluorinated Compounds by LC/MS/MS

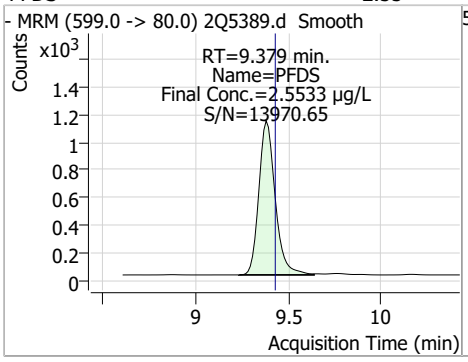
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.52	9.22	-0.05	49489	613.0 -> 319.0	16.4	8.2	24.7

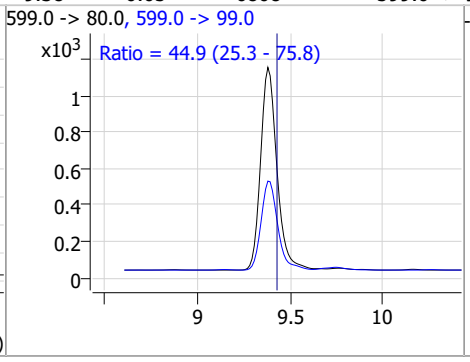


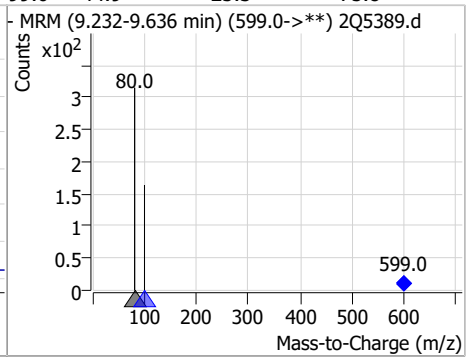




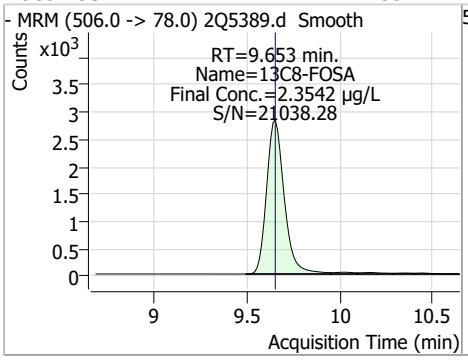
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	2.55	9.38	-0.05	6808	599.0 -> 99.0	44.9	25.3	75.8

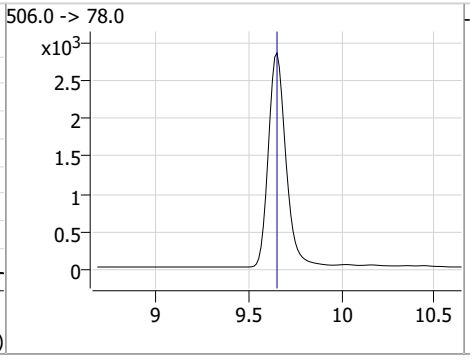


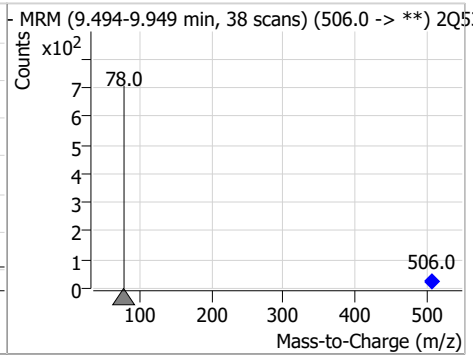




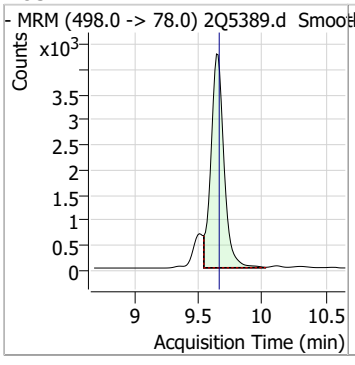
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.35	9.65	0.00	18605				

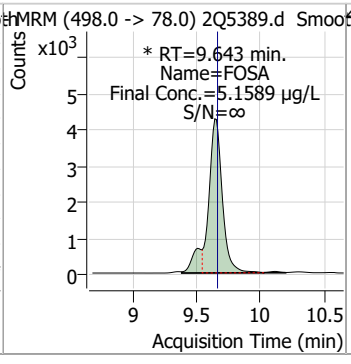


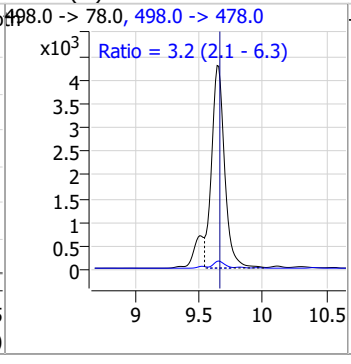


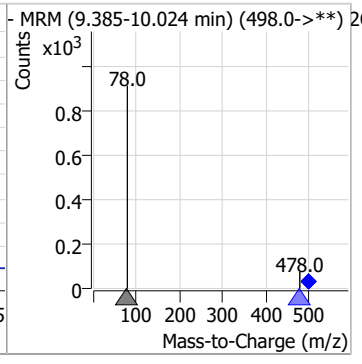


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	5.16	9.64	-0.01	33881 (m)	498.0 -> 478.0	3.2	2.1	6.3



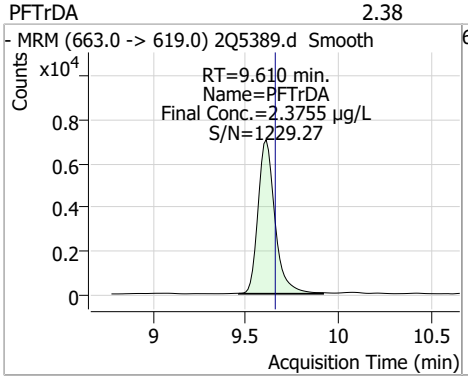


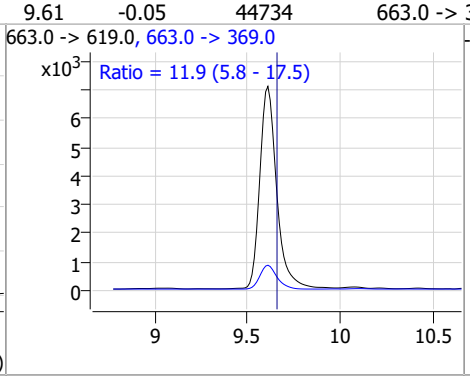


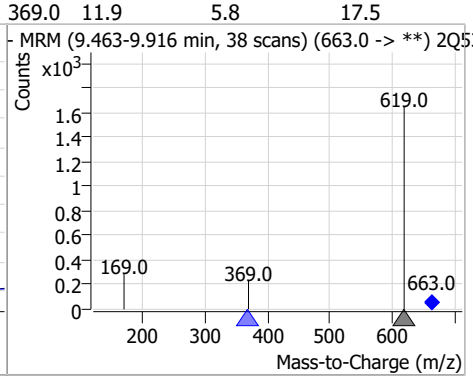


Perfluorinated Compounds by LC/MS/MS

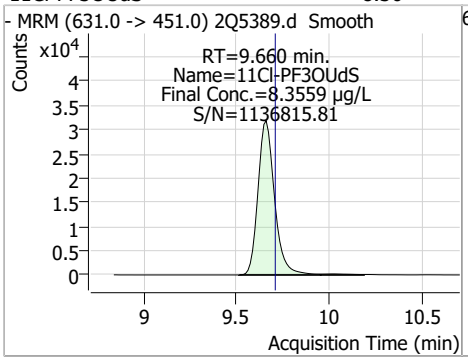
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.38	9.61	-0.05	44734	663.0 -> 369.0	11.9	5.8	17.5

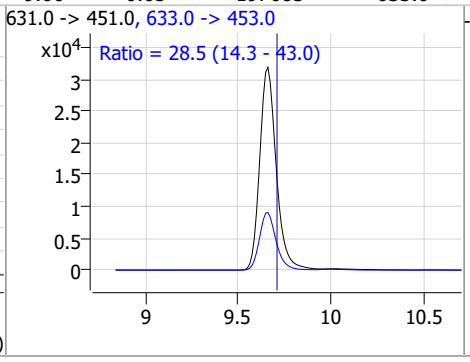


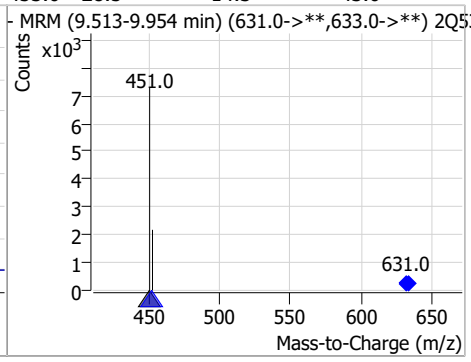




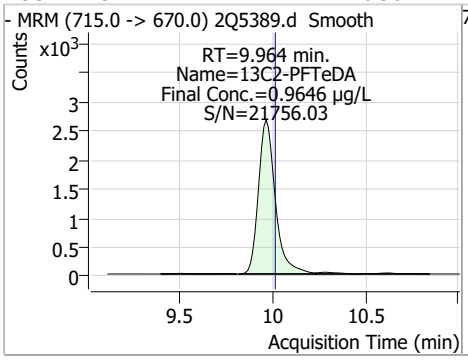
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	8.36	9.66	-0.05	197083	633.0 -> 453.0	28.5	14.3	43.0

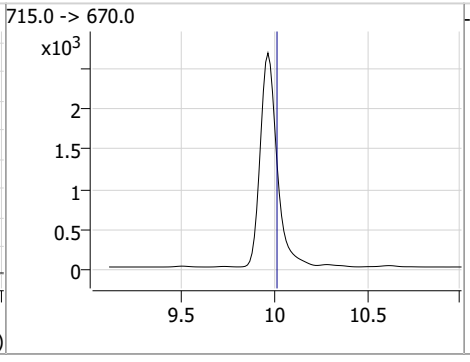


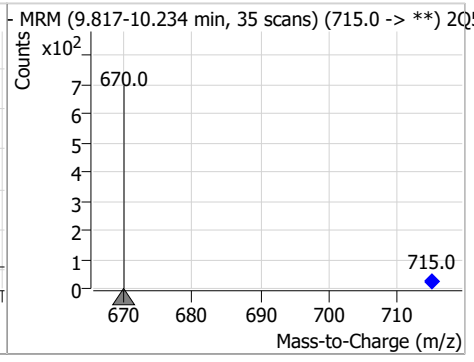




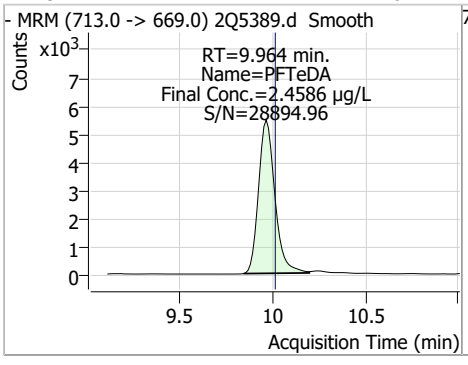
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.96	9.96	-0.05	16785				

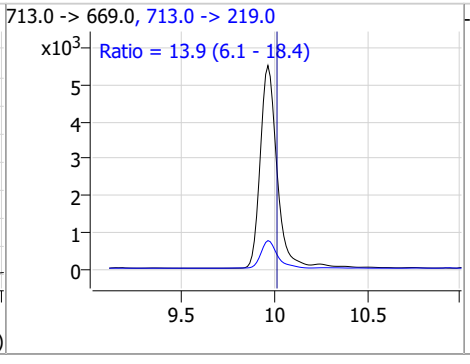


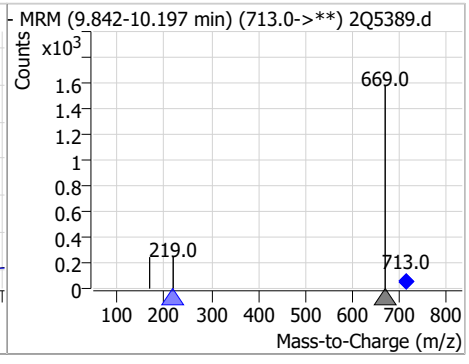




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.46	9.96	-0.05	33389	713.0 -> 219.0	13.9	6.1	18.4

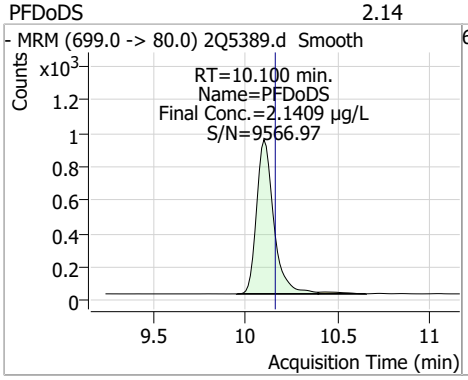


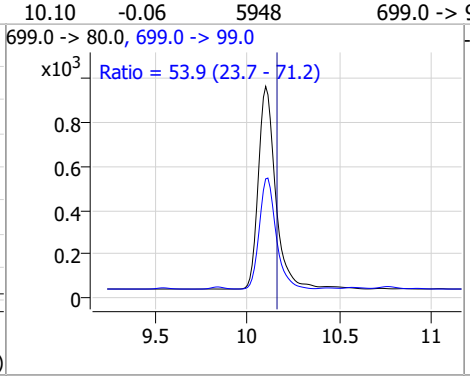


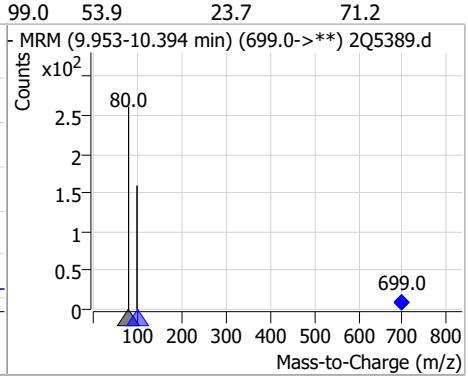


Perfluorinated Compounds by LC/MS/MS

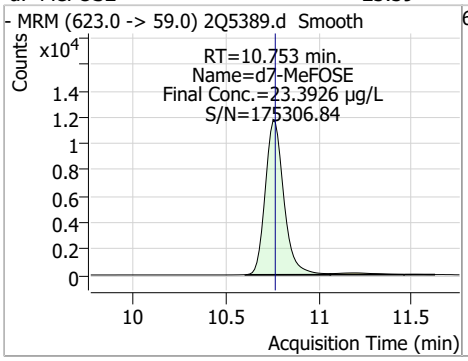
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.14	10.10	-0.06	5948	699.0 -> 99.0	53.9	23.7	71.2

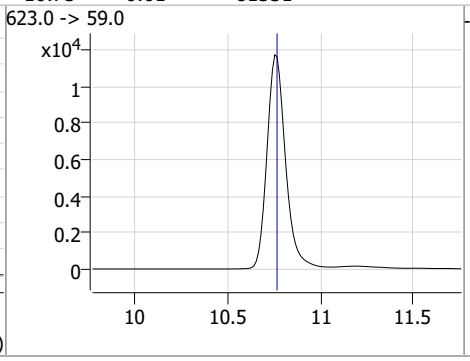


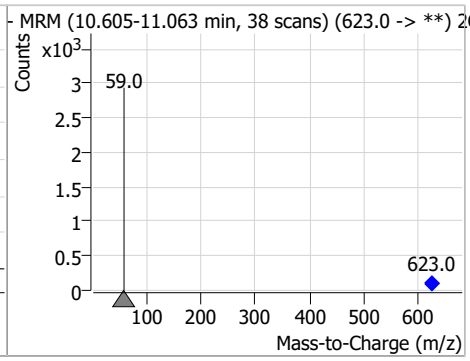




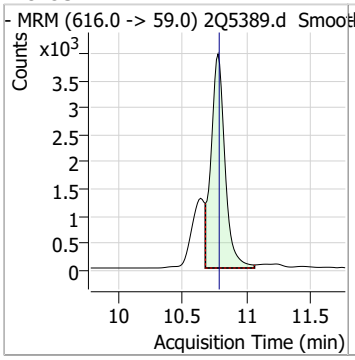
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.39	10.75	-0.01	81331				

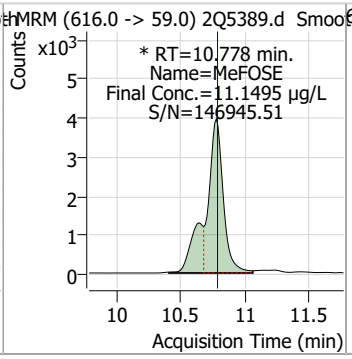


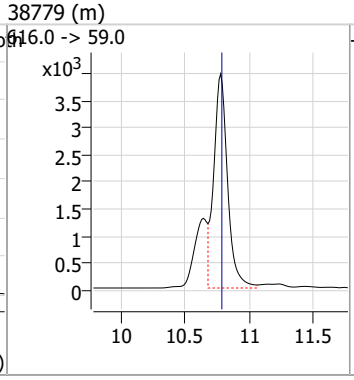


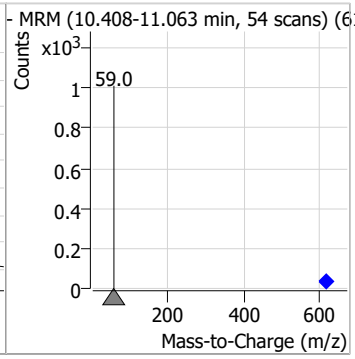


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	11.15	10.78	0.00	38779 (m)				

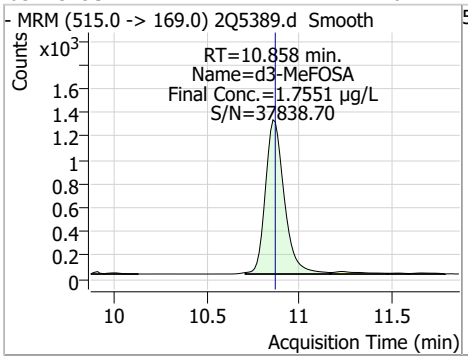


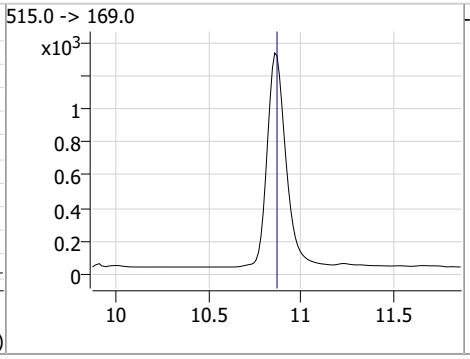


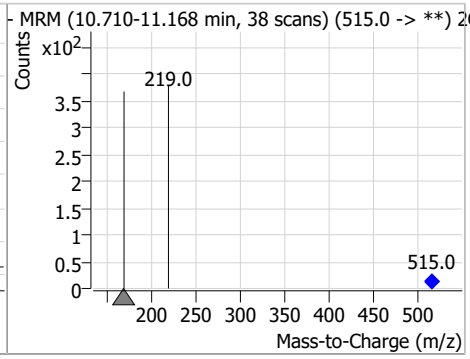




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.76	10.86	-0.01	9175				

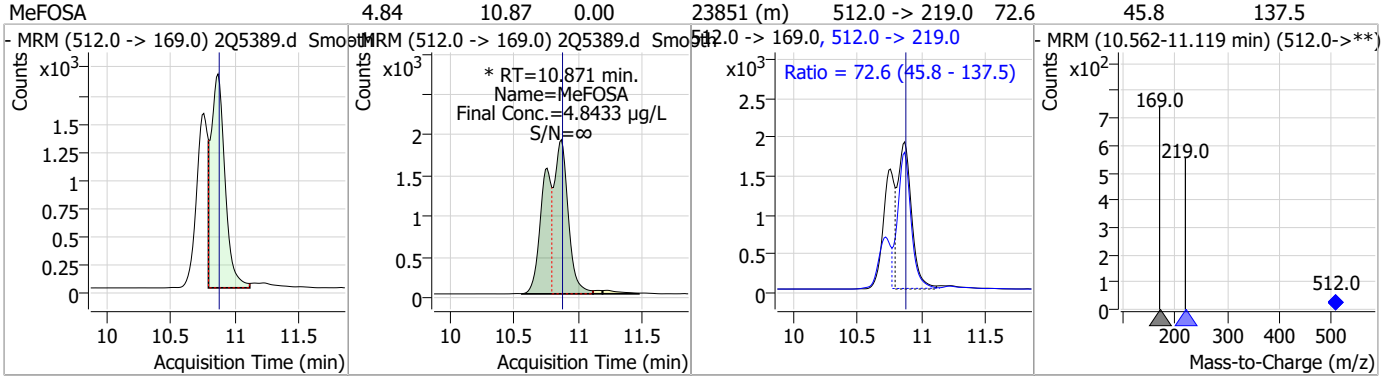




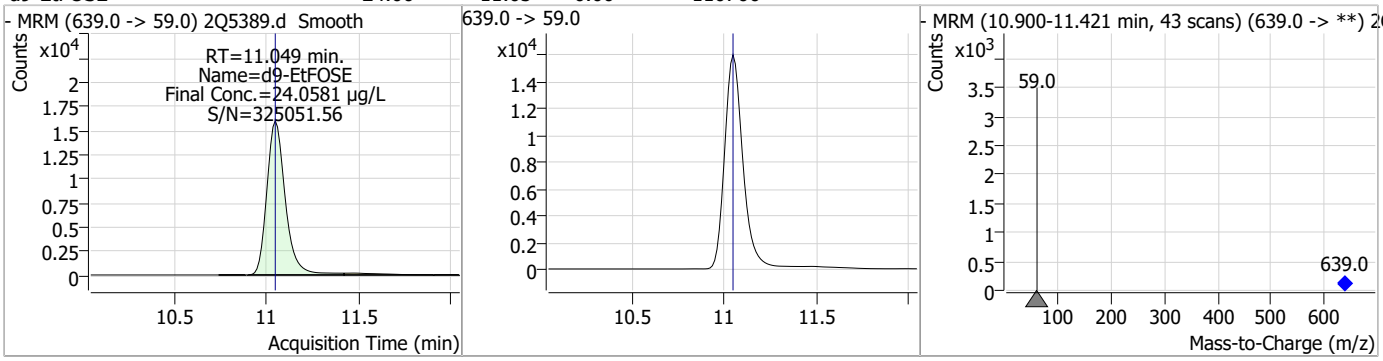


Perfluorinated Compounds by LC/MS/MS

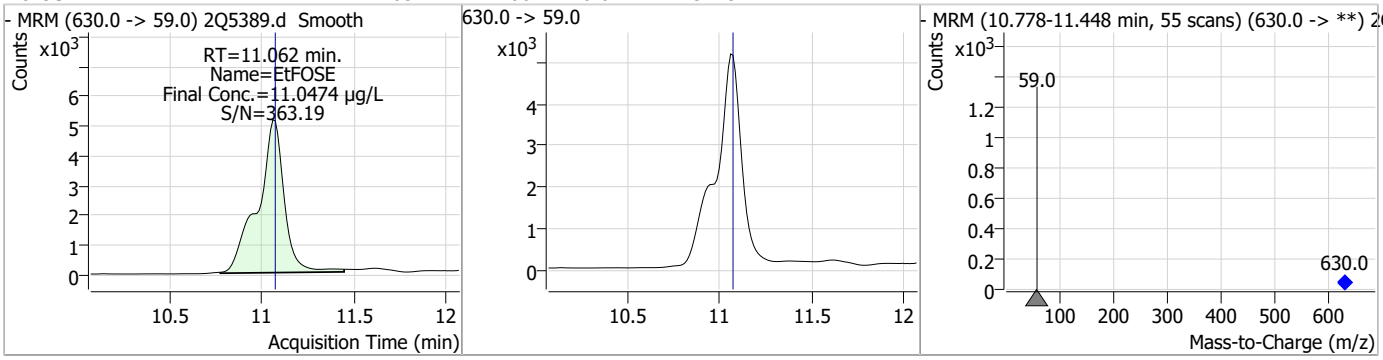
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	4.84	10.87	0.00	23851 (m)	512.0 -> 219.0	72.6	45.8	137.5



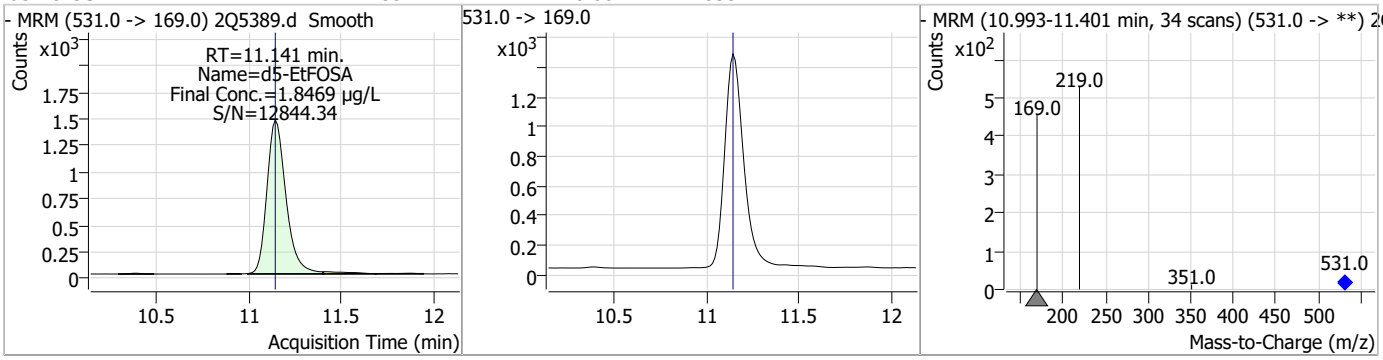
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.06	11.05	0.00	110766				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	11.05	11.06	-0.01	51157				

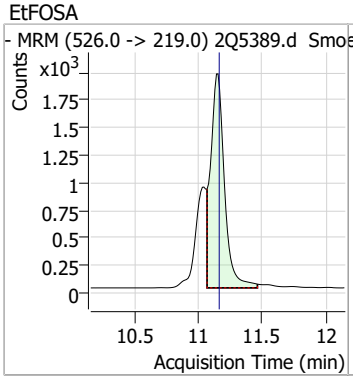


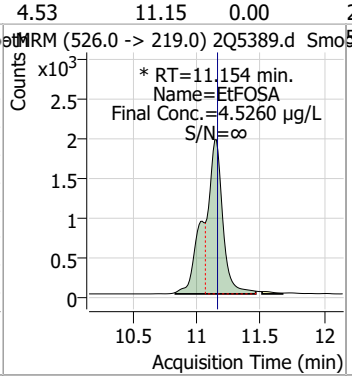
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.85	11.14	0.00	10352				

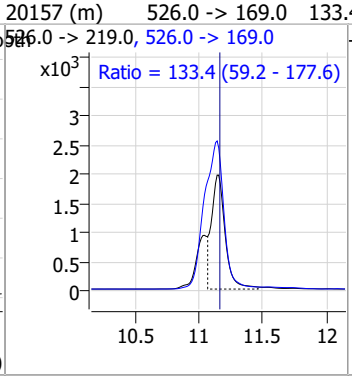


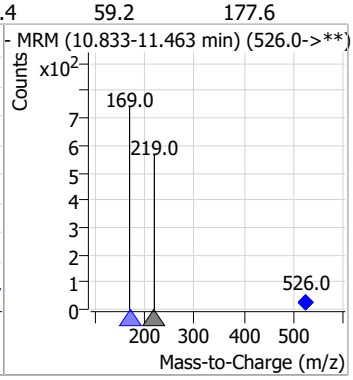
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	4.53	11.15	0.00	20157 (m)	526.0 -> 169.0	133.4	59.2	177.6









Manual Integration Approval Summary

Sample Number: OP50811-BS
Lab FileID: 2Q5389.D
Injection Time: 12/02/23 02:27
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
MeFOSAA	2355-31-9		8.40	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.61	Split peak
PFOSA	754-91-6		9.64	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5390.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 2:43:05 AM
Sample Name : OP50811-MS
Vial : P2-F3
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,549,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	79236	10.00	µg/L	-0.037
M5-PFPeA	4.785	268.0 -> 223.0	80193	5.00	µg/L	-0.025
M5-PFHxA	5.917	318.0 -> 273.0	43393	1.25	µg/L	-0.037
M4-PFHpA	6.770	367.0 -> 322.0	36843	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	61502	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	27574	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	11774	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	20960	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23288	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16468	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	15920	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	4813	2.50	µg/L	-0.037
		302.0 -> 80.0	13078			
M3-PFHxS	7.472	402.0 -> 99.0	5303	2.50	µg/L	-0.037
M8-PFOS	8.499	507.0 -> 99.0	5949	2.50	µg/L	-0.049
M2-4:2FTS	5.619	329.0 -> 81.0	1143	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2884	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3566	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	38340	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	21047	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	30599	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	62903	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	86784	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	9957	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	9009	2.50	µg/L	-0.012
13C4-PFOS	8.500	503.0 -> 80.0	12058	2.50	µg/L	-0.049
13C3-PFBA	3.305	216.0 -> 172.0	68194	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	5608	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	62567	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	26941	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	32899	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	48934	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1143	5.58	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.7%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2884	6.35	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 127.1%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3566	5.67	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.5%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23288	1.08	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.6%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16468	1.04	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.5%		
13C3-PFBS	5.846	302.0 -> 99.0	4813	2.31	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5303	2.42	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.0%			
13C4-PFBA	3.302	217.0 -> 172.0	79236	5.16	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 51.6%			
13C4-PFHpA	6.770	367.0 -> 322.0	36843	2.32	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.7%			
13C5-PFHxA	5.917	318.0 -> 273.0	43393	2.13	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.4%			
13C5-PFPeA	4.785	268.0 -> 223.0	80193	4.37	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 87.5%			
13C6-PFDA	8.352	519.0 -> 474.0	11774	1.05	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 83.8%			
13C7-PFUnDA	8.803	570.0 -> 525.0	20960	1.13	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 90.4%			
13C8-FOSA	9.653	506.0 -> 78.0	15920	1.95	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 78.0%			
13C8-PFOA	7.360	421.0 -> 376.0	61502	2.37	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.0%			
13C8-PFOS	8.499	507.0 -> 99.0	5949	2.27	µg/L		-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.6%			
13C9-PFNA	7.875	472.0 -> 427.0	27574	1.07	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 85.7%			
d3-MeFOSAA	8.398	573.0 -> 419.0	38340	4.89	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.7%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	21047	9.07	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 90.7%			
d3-MeFOSA	10.858	515.0 -> 169.0	9009	1.67	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 66.7%			
d5-EtFOSAA	8.593	589.0 -> 419.0	30599	4.72	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.4%			
d7-MeFOSE	10.753	623.0 -> 59.0	62903	17.51	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 70.0%			
d9-EtFOSE	11.049	639.0 -> 59.0	86784	18.24	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 73.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	9957	1.72	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 68.8%			
Target Compounds							**QValue**
4:2FTS	5.619	327.0 -> 307.0	17282	9.08	µg/L		95
		327.0 -> 81.0	8357				
6:2FTS	7.149	427.0 -> 407.0	34899	8.26	µg/L		95
		427.0 -> 81.0	10341				
8:2FTS	8.143	527.0 -> 507.0	34640	10.74	µg/L		93
		527.0 -> 81.0	11079				
EtFOSAA	8.594	584.0 -> 419.0	10513	2.06	µg/L	m	81
		584.0 -> 483.0	6190				
FOSA	9.643	498.0 -> 78.0	27462	4.89	µg/L		98
		498.0 -> 478.0	1308				
MeFOSAA	8.398	570.0 -> 419.0	12146	1.98	µg/L	m	96
		570.0 -> 512.0	4060				
PFBA	3.308	213.0 -> 169.0	22188	11.15	µg/L		100
PFBS	5.847	299.0 -> 80.0	14355	2.86	µg/L		98
		299.0 -> 99.0	6247				
PFDA	8.352	513.0 -> 469.0	50342	2.58	µg/L		97
		513.0 -> 219.0	8188				
PFDoDA	9.219	613.0 -> 569.0	42569	2.38	µg/L		96
		613.0 -> 319.0	7763				

Perfluorinated Compounds by LC/MS/MS

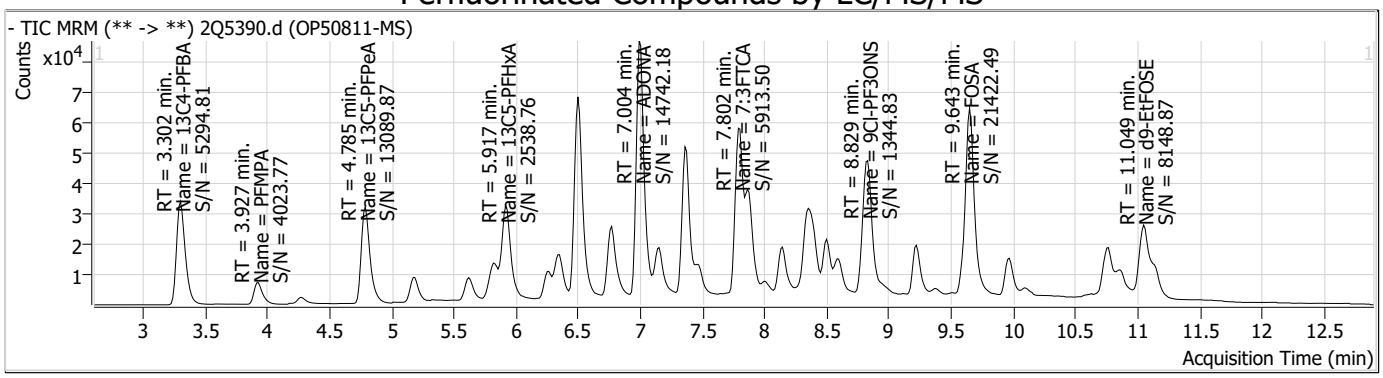
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	4541	1.81	µg/L		66
		599.0 -> 99.0	3370				
PFHpA	6.770	363.0 -> 319.0	55414	2.43	µg/L		96
		363.0 -> 169.0	10075				
PFHpS	8.010	449.0 -> 80.0	8739	2.60	µg/L		96
		449.0 -> 99.0	4841				
PFHxA	5.920	313.0 -> 269.0	50956	2.97	µg/L		100
		313.0 -> 119.0	1513				
PFHxS	7.473	399.0 -> 80.0	10018	2.74	µg/L	m	88
		399.0 -> 99.0	5019				
PFNA	7.876	463.0 -> 419.0	51423	2.48	µg/L		94
		463.0 -> 219.0	9556				
PFNS	8.964	549.0 -> 80.0	5286	2.02	µg/L		94
		549.0 -> 99.0	2801				
PFOA	7.360	413.0 -> 369.0	78840	3.27	µg/L		96
		413.0 -> 169.0	16614				
PFOS	8.512	499.0 -> 80.0	21845	4.30	µg/L	m	77
		499.0 -> 99.0	7898				
PFPeA	4.787	263.0 -> 219.0	77070	5.33	µg/L		100
PFPeS	6.821	349.0 -> 80.0	7064	2.45	µg/L		84
		349.0 -> 99.0	3738				
PFTeDA	9.964	713.0 -> 669.0	34245	2.57	µg/L		93
		713.0 -> 219.0	3238				
PFTrDA	9.610	663.0 -> 619.0	42574	2.49	µg/L		98
		663.0 -> 369.0	5248				
PFUnDA	8.804	563.0 -> 519.0	50529	2.41	µg/L		96
		563.0 -> 269.0	7321				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	180867	9.55	µg/L		99
		633.0 -> 453.0	51202				
9Cl-PF3ONS	8.829	531.0 -> 351.0	128145	9.83	µg/L		97
		533.0 -> 353.0	34881				
ADONA	7.004	377.0 -> 251.0	297913	8.93	µg/L		98
		377.0 -> 85.0	85845				
HFPO-DA	6.271	285.0 -> 169.0	20106	8.87	µg/L		99
		285.0 -> 185.0	1687				
3:3FTCA	4.276	241.0 -> 177.0	8941	9.98	µg/L		99
		241.0 -> 117.0	719				
5:3FTCA	6.499	341.0 -> 237.0	178564	59.50	µg/L		97
		341.0 -> 217.0	131192				
7:3FTCA	7.802	441.0 -> 337.0	195978	61.24	µg/L		97
		441.0 -> 317.0	71929				
EtFOSA	11.142	526.0 -> 219.0	19153	4.47	µg/L	m	88
		526.0 -> 169.0	25165				
EtFOSE	11.062	630.0 -> 59.0	42569	11.73	µg/L		100
MeFOSA	10.859	512.0 -> 169.0	22565	4.67	µg/L	m	79
		512.0 -> 219.0	16171				
MeFOSE	10.778	616.0 -> 59.0	31253	11.62	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	5778	2.27	µg/L		97
		699.0 -> 99.0	2865				
NFDHA	5.811	295.0 -> 201.0	5441	5.16	µg/L		99
		201.0 -> 85.0	28900				
		295.0 -> 85.0	1433				
PFMBA	5.188	279.0 -> 85.0	40562	5.20	µg/L		100
PFMPA	3.927	229.0 -> 85.0	35342	4.32	µg/L		100
PFEESA	6.353	315.0 -> 135.0	60125	5.11	µg/L		98
		315.0 -> 69.0	6269				

Perfluorinated Compounds by LC/MS/MS

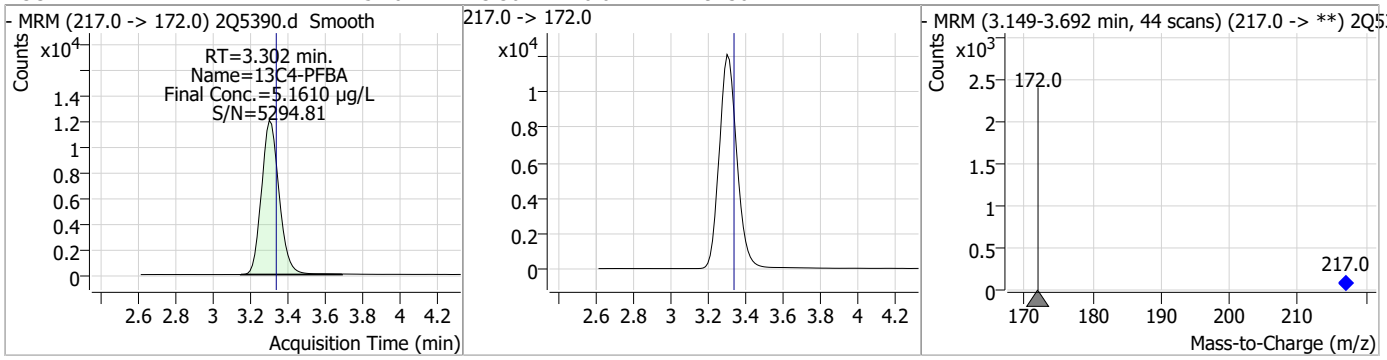
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

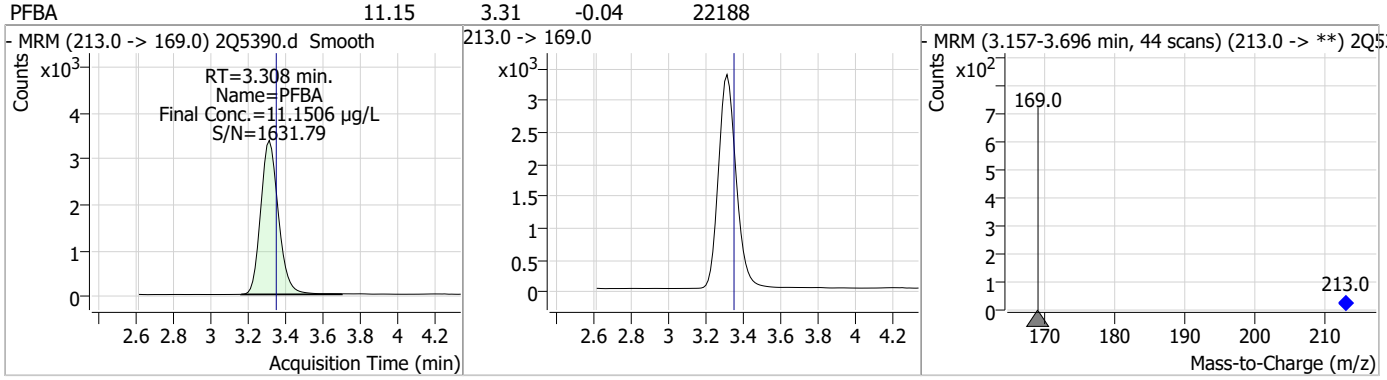
Perfluorinated Compounds by LC/MS/MS



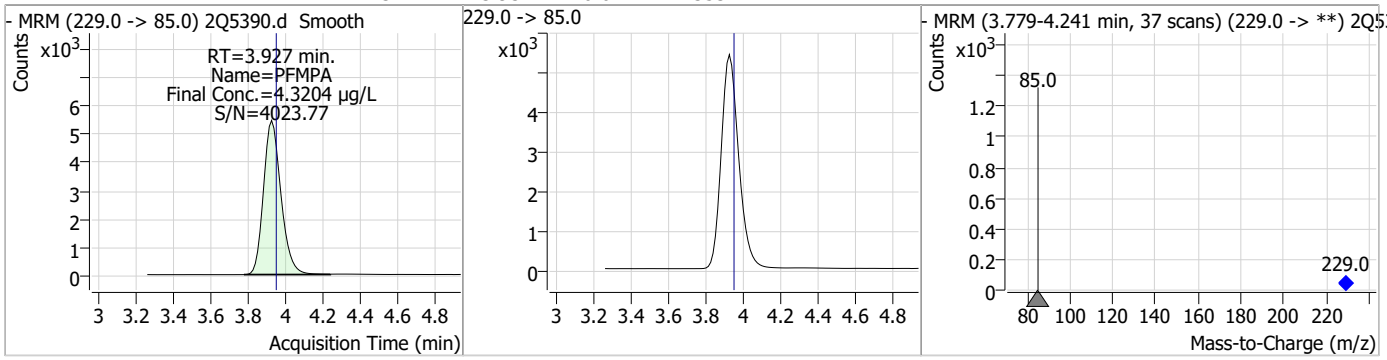
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	5.16	3.30	-0.04	79236				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	11.15	3.31	-0.04	22188				

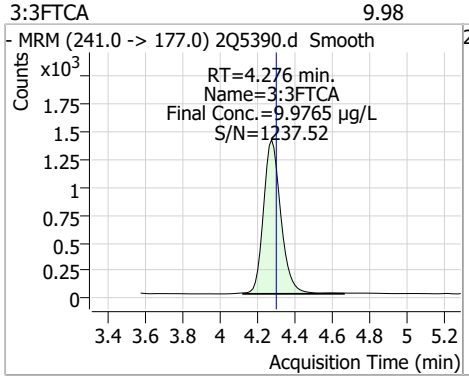


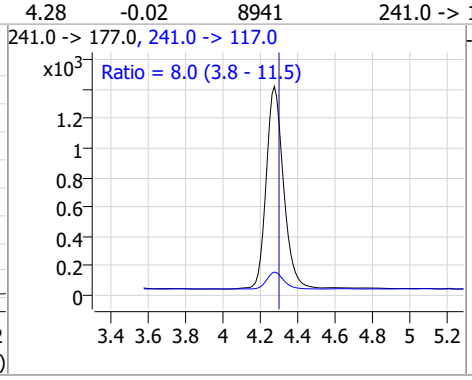
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.32	3.93	-0.02	35342				

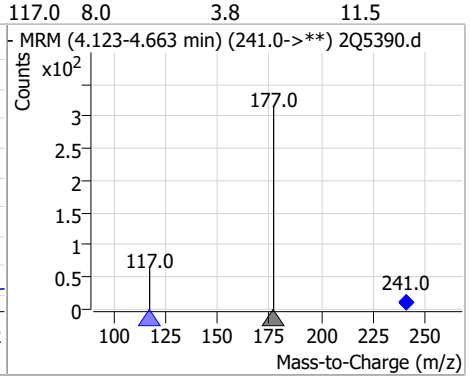


Perfluorinated Compounds by LC/MS/MS

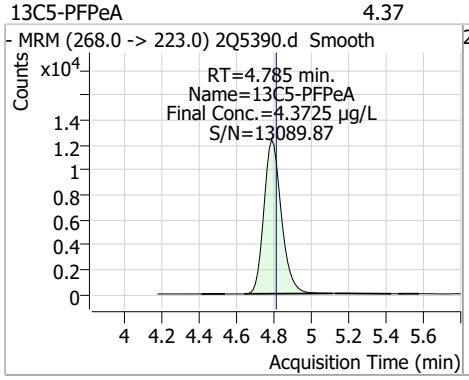
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	9.98	4.28	-0.02	8941	241.0 -> 117.0	8.0	3.8	11.5

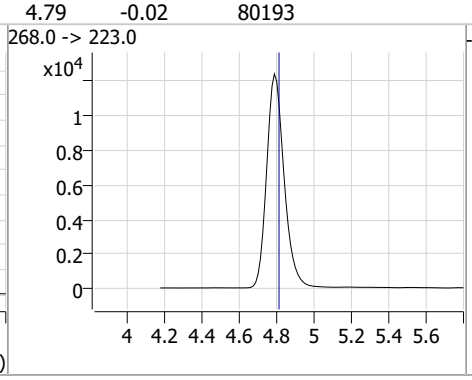


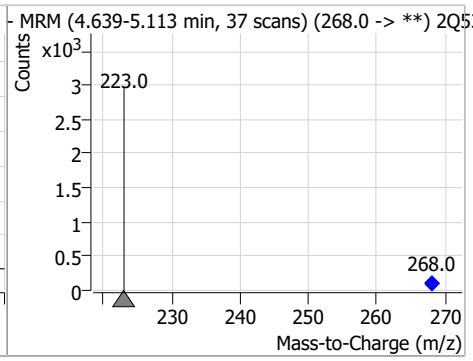




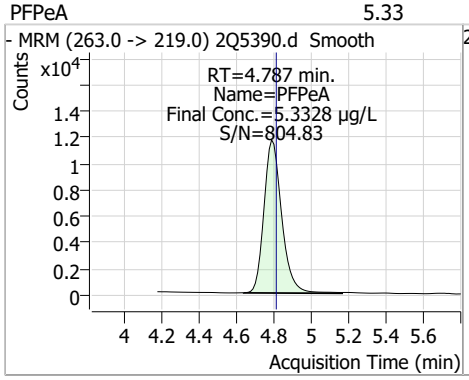
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.37	4.79	-0.02	80193				

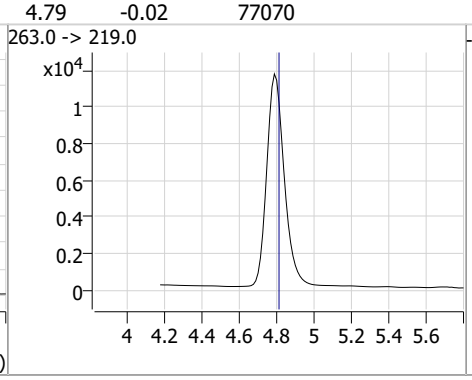


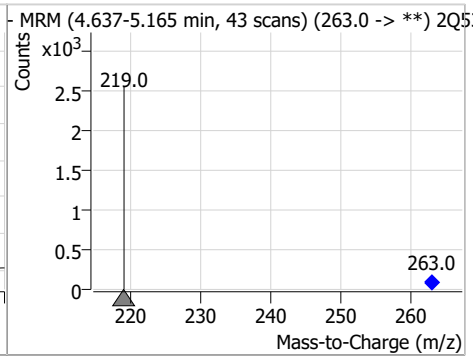




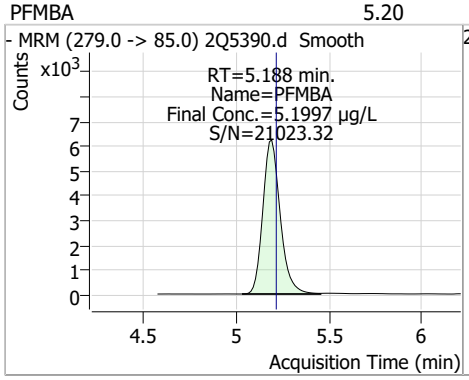
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	5.33	4.79	-0.02	77070				

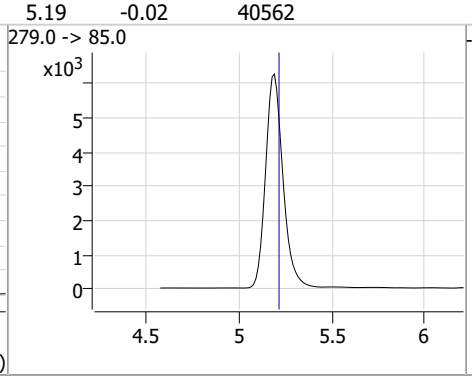


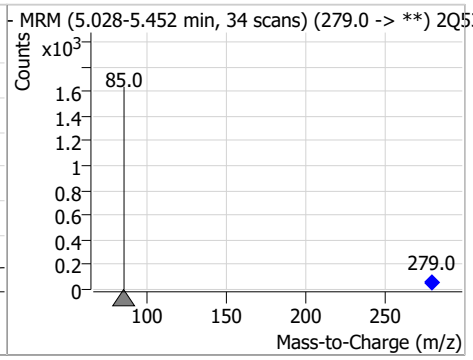




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	5.20	5.19	-0.02	40562				

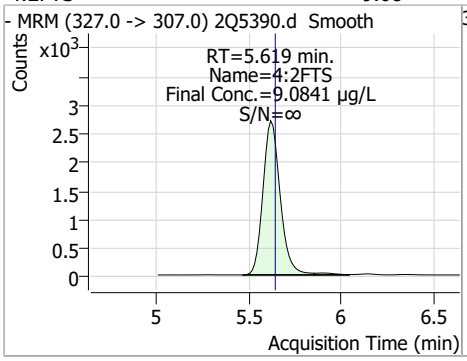


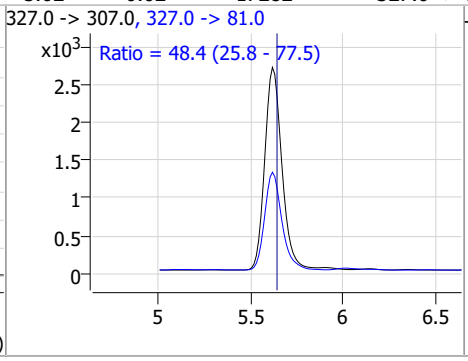


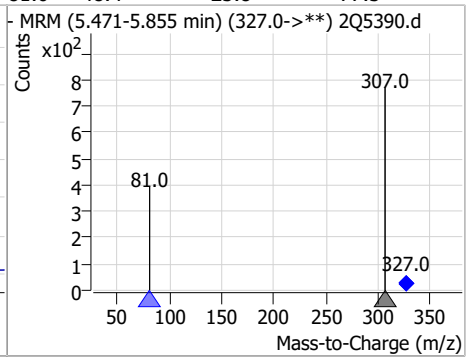


Perfluorinated Compounds by LC/MS/MS

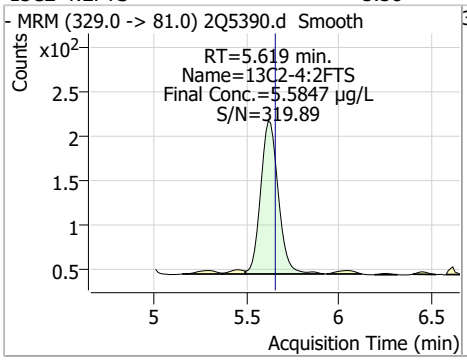
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	9.08	5.62	-0.02	17282	327.0 -> 81.0	48.4	25.8	77.5

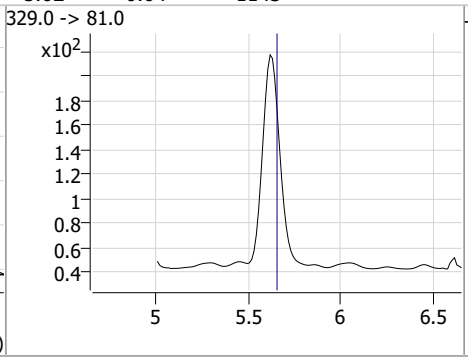


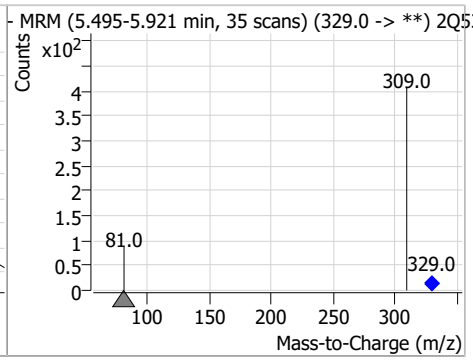




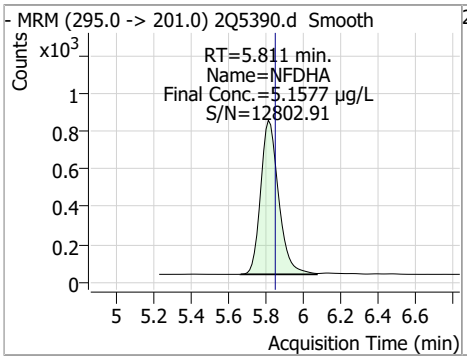
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.58	5.62	-0.04	1143				

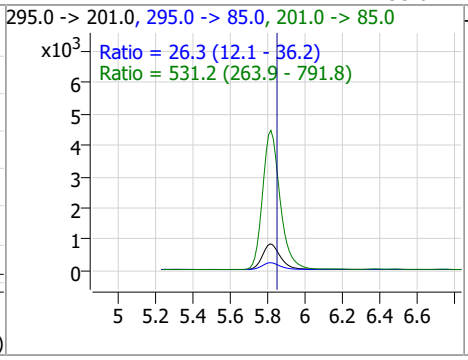


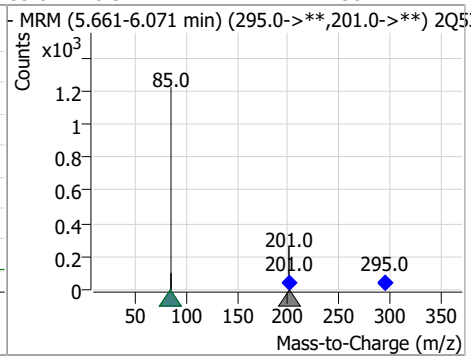




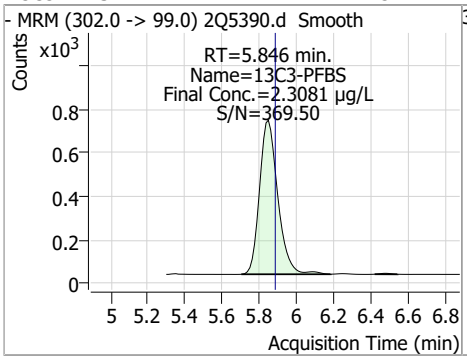
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	5.16	5.81	-0.04	5441	201.0 -> 85.0	531.2	263.9	791.8
					295.0 -> 85.0	26.3	12.1	36.2

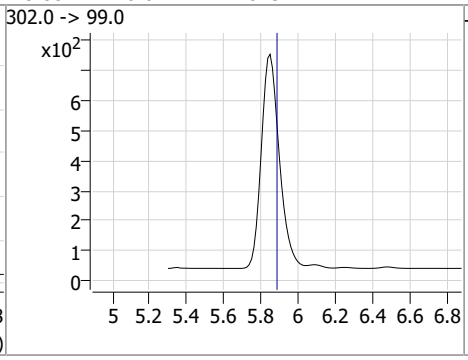


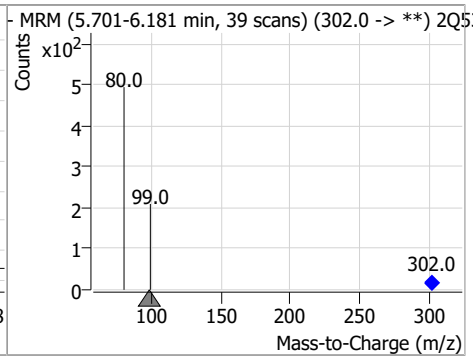




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.31	5.85	-0.04	4813				

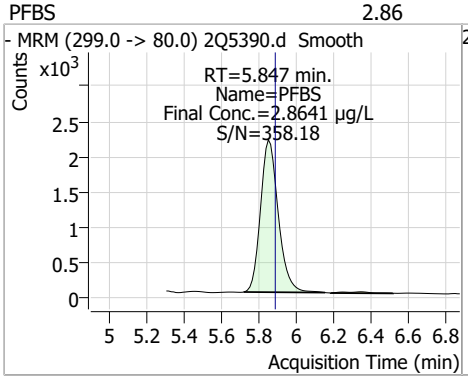


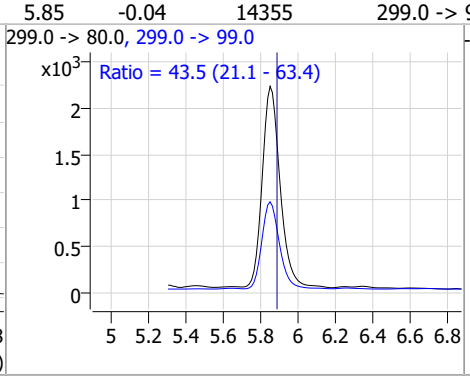


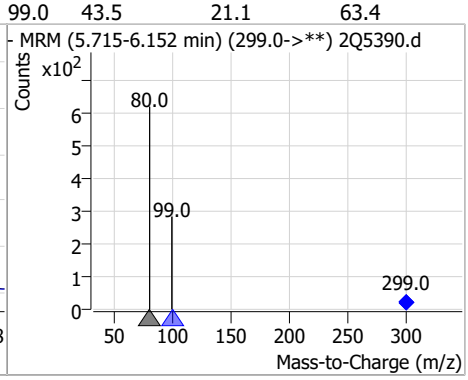


Perfluorinated Compounds by LC/MS/MS

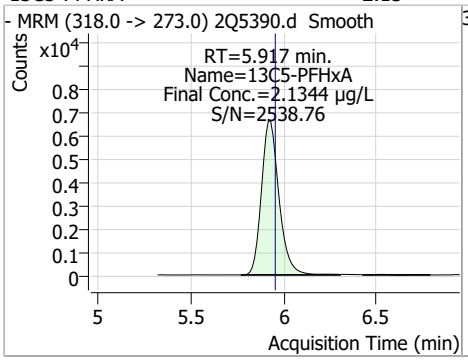
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.86	5.85	-0.04	14355	299.0 -> 99.0	43.5	21.1	63.4

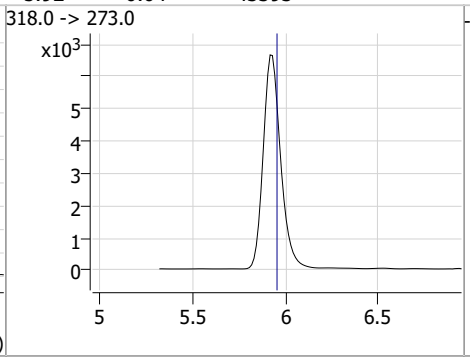


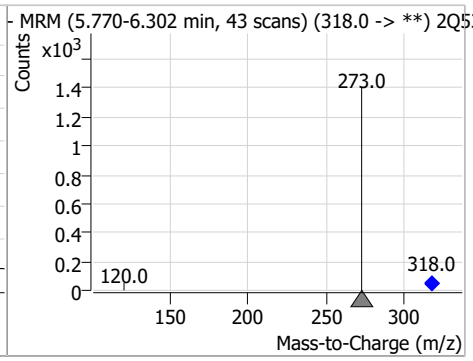




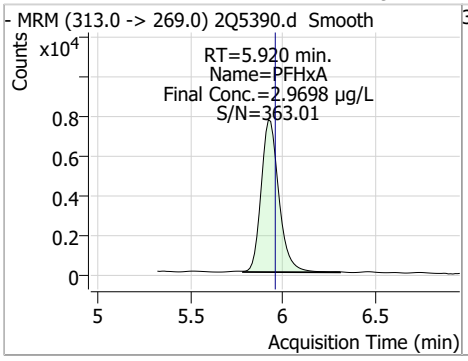
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.13	5.92	-0.04	43393				

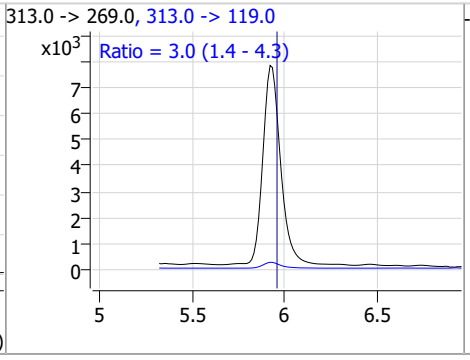


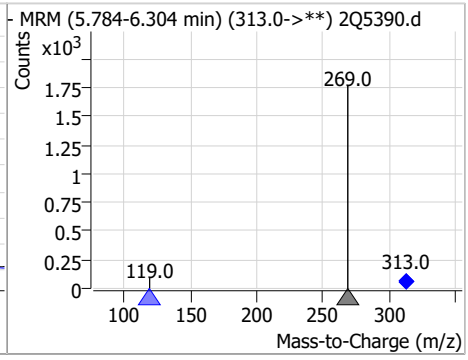




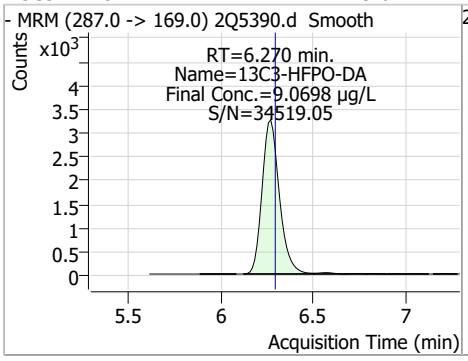
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.97	5.92	-0.04	50956	313.0 -> 119.0	3.0	1.4	4.3

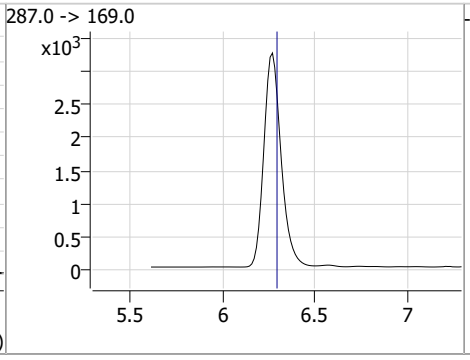


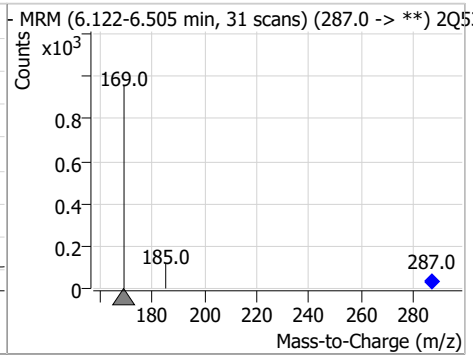




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.07	6.27	-0.02	21047				

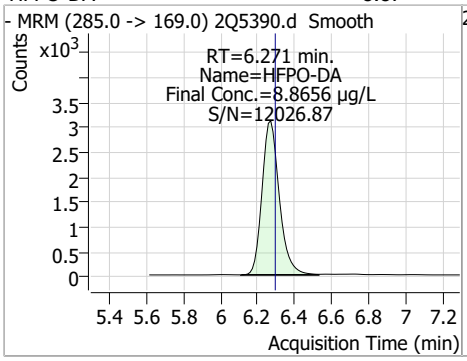


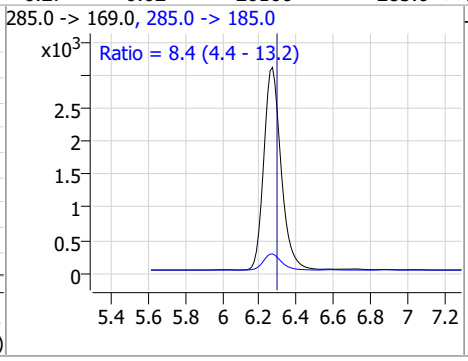


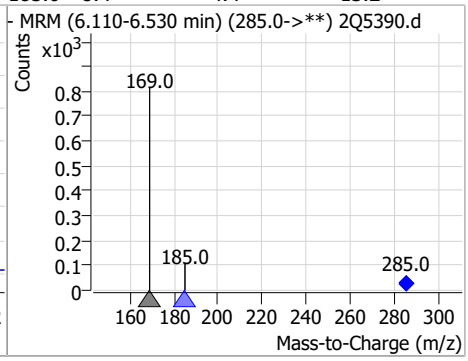


Perfluorinated Compounds by LC/MS/MS

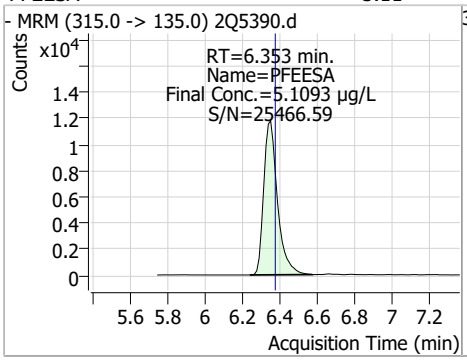
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	8.87	6.27	-0.02	20106	285.0 -> 185.0	8.4	4.4	13.2

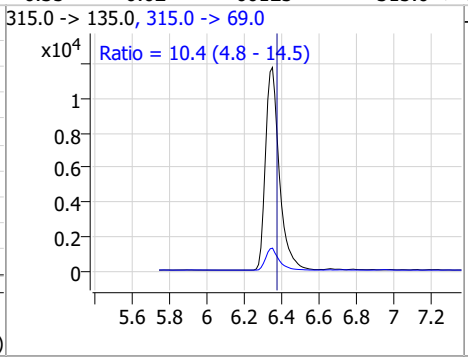


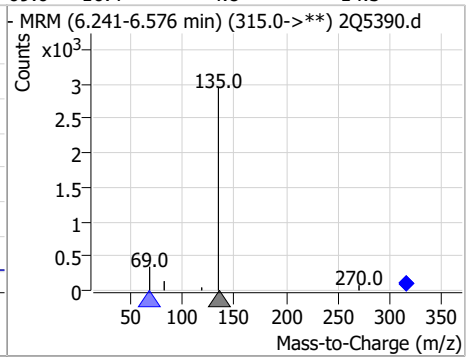




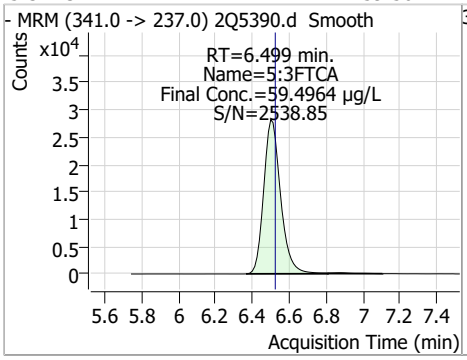
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.11	6.35	-0.02	60125	315.0 -> 69.0	10.4	4.8	14.5

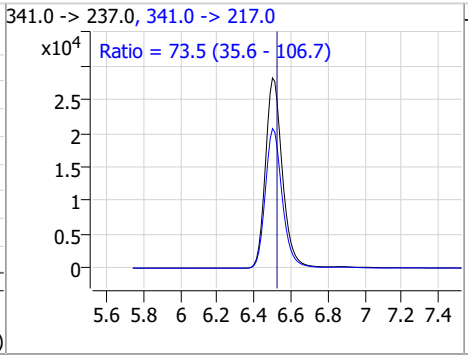


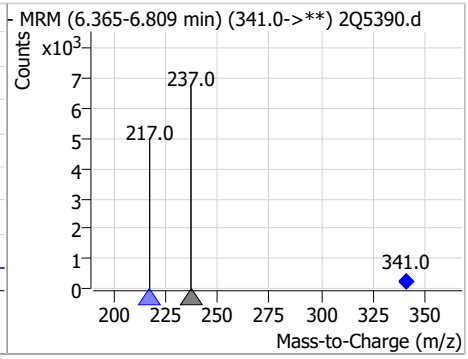




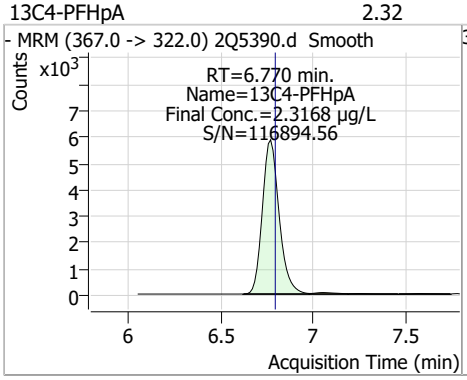
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	59.50	6.50	-0.02	178564	341.0 -> 217.0	73.5	35.6	106.7

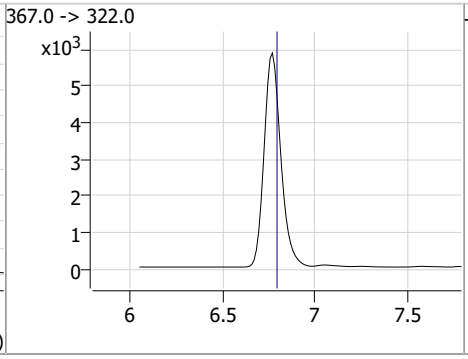


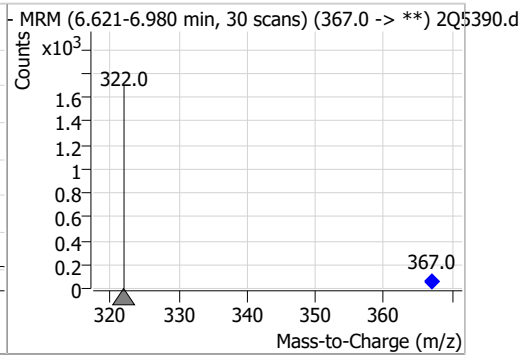




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.32	6.77	-0.03	36843				

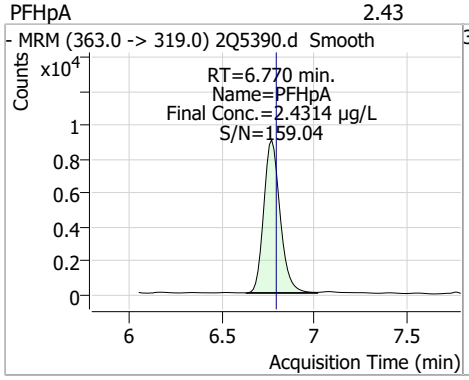


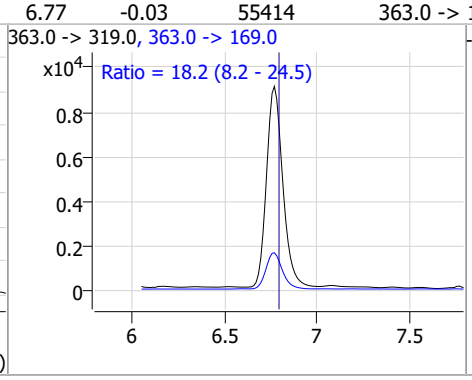


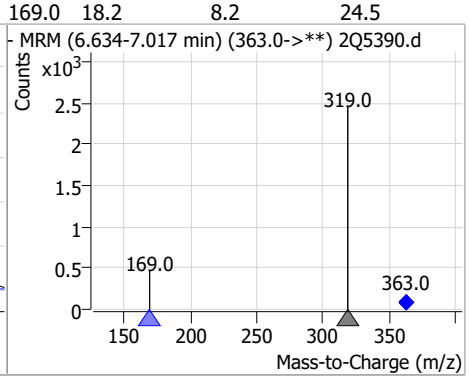


Perfluorinated Compounds by LC/MS/MS

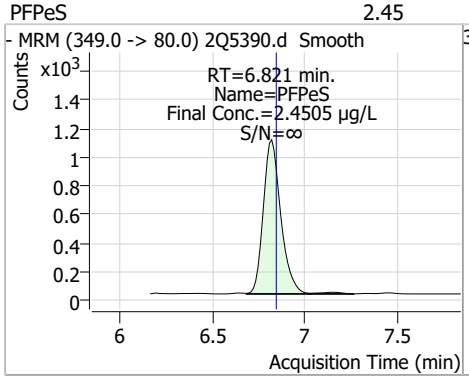
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.43	6.77	-0.03	55414	363.0 -> 169.0	18.2	8.2	24.5

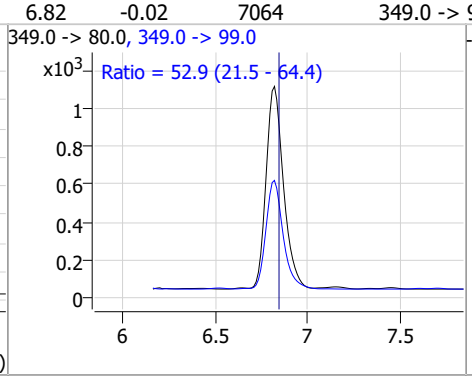


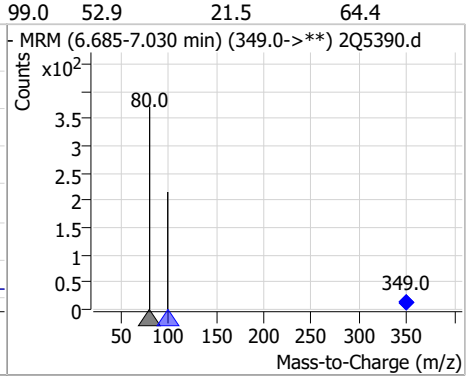




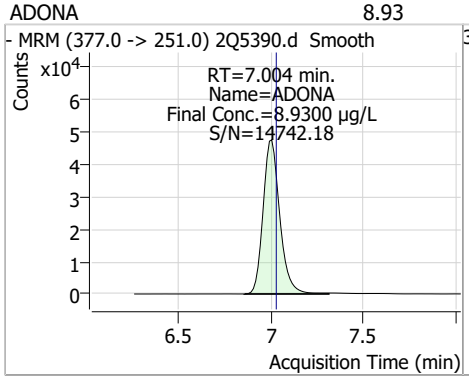
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.45	6.82	-0.02	7064	349.0 -> 99.0	52.9	21.5	64.4

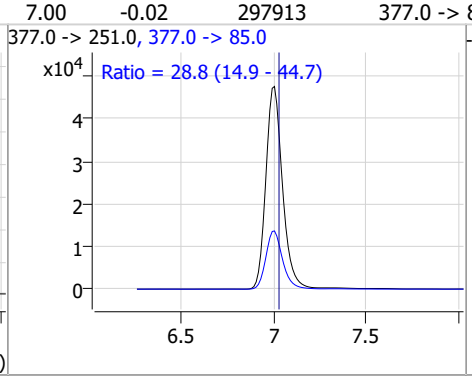


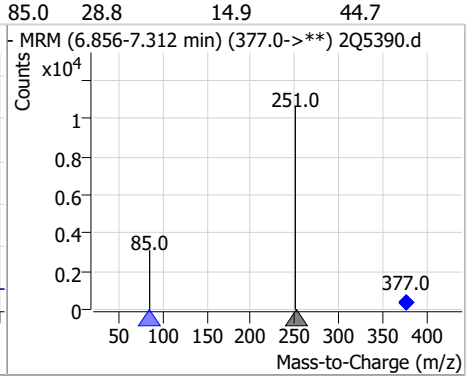




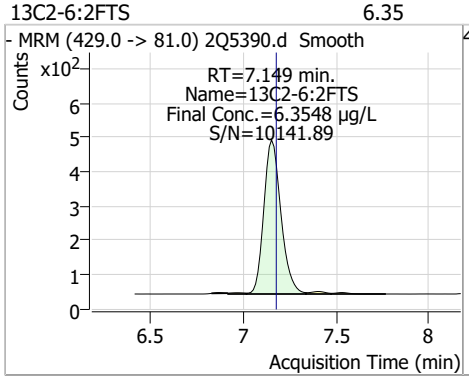
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	8.93	7.00	-0.02	297913	377.0 -> 85.0	28.8	14.9	44.7

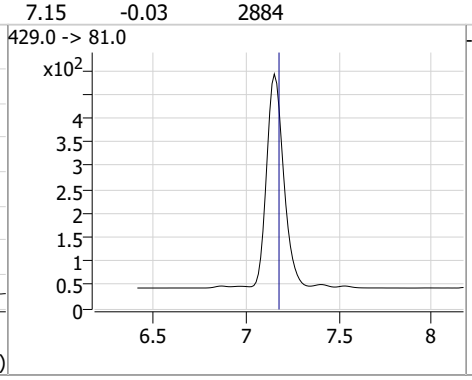


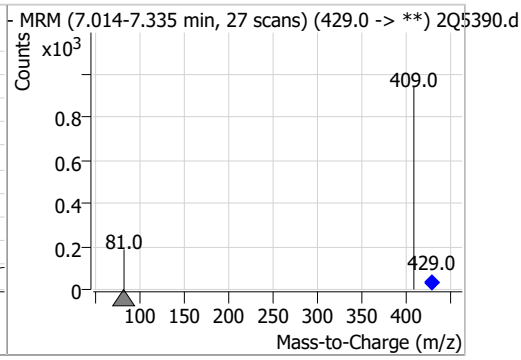




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	6.35	7.15	-0.03	2884				

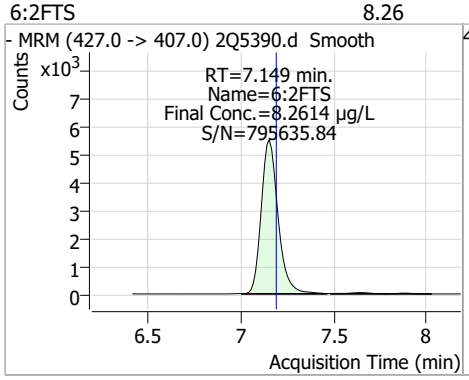


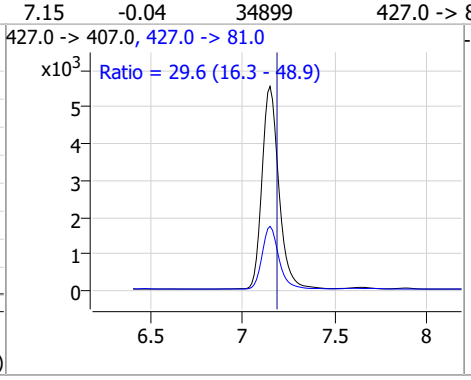


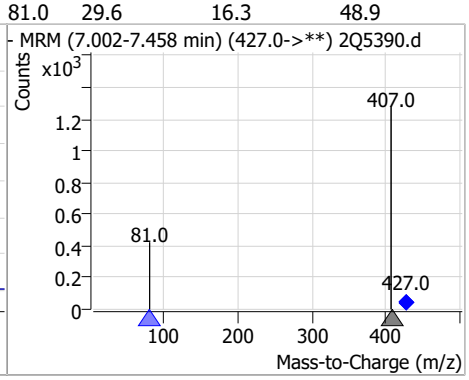


Perfluorinated Compounds by LC/MS/MS

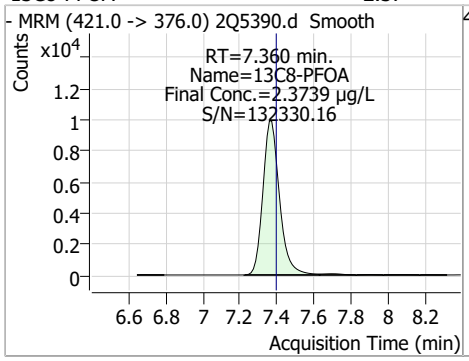
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	8.26	7.15	-0.04	34899	427.0 -> 81.0	29.6	16.3	48.9

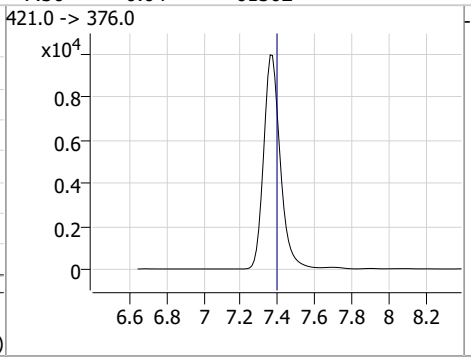


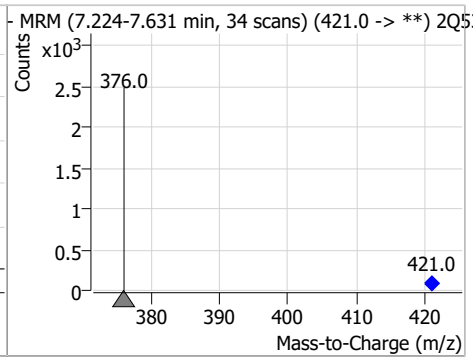




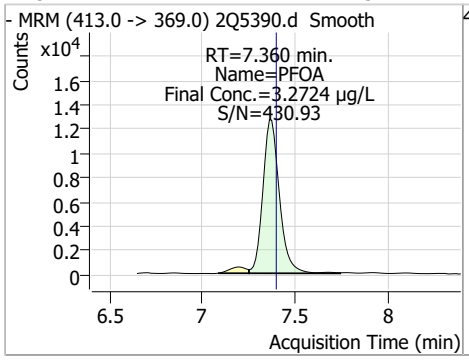
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.37	7.36	-0.04	61502				

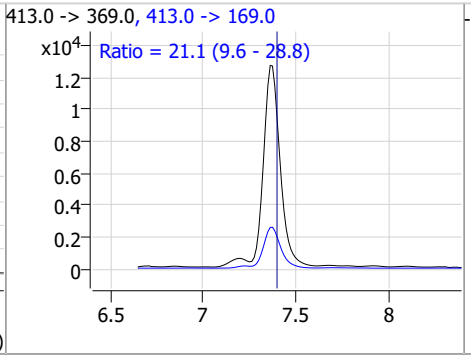


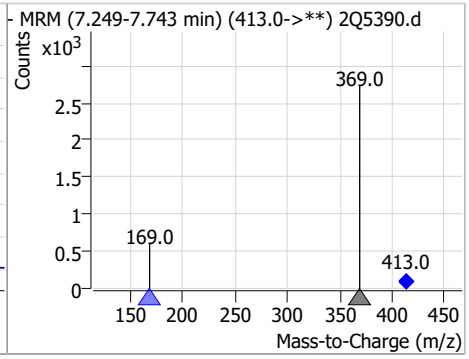




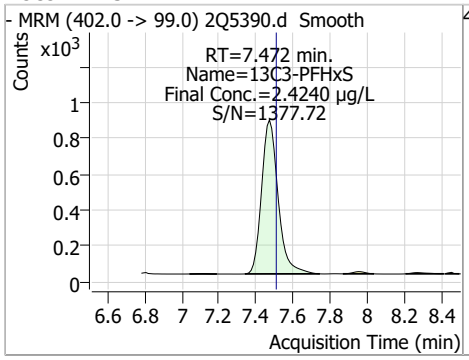
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	3.27	7.36	-0.04	78840	413.0 -> 169.0	21.1	9.6	28.8

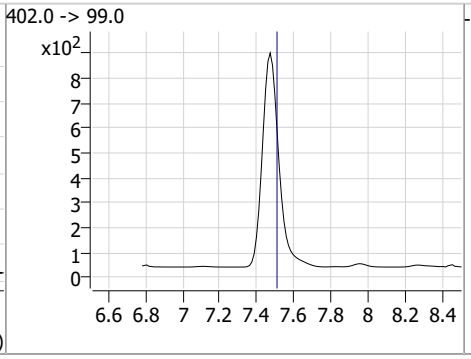


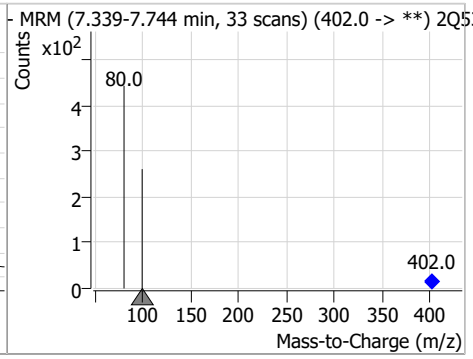




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.42	7.47	-0.04	5303				

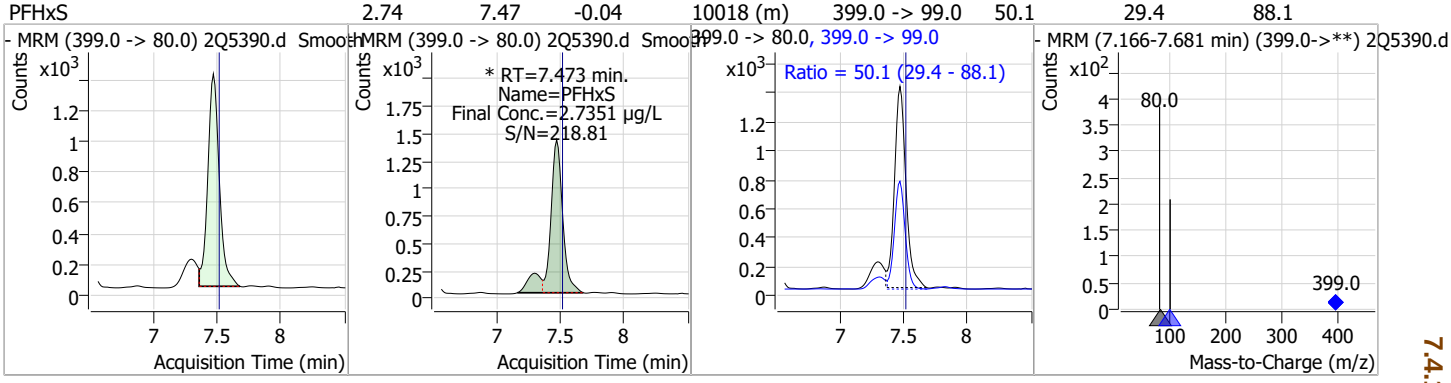




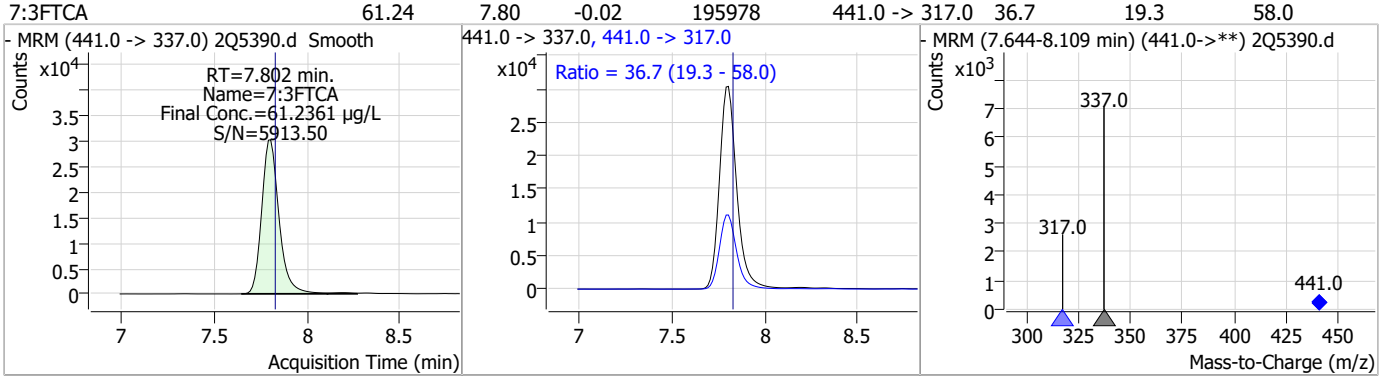


Perfluorinated Compounds by LC/MS/MS

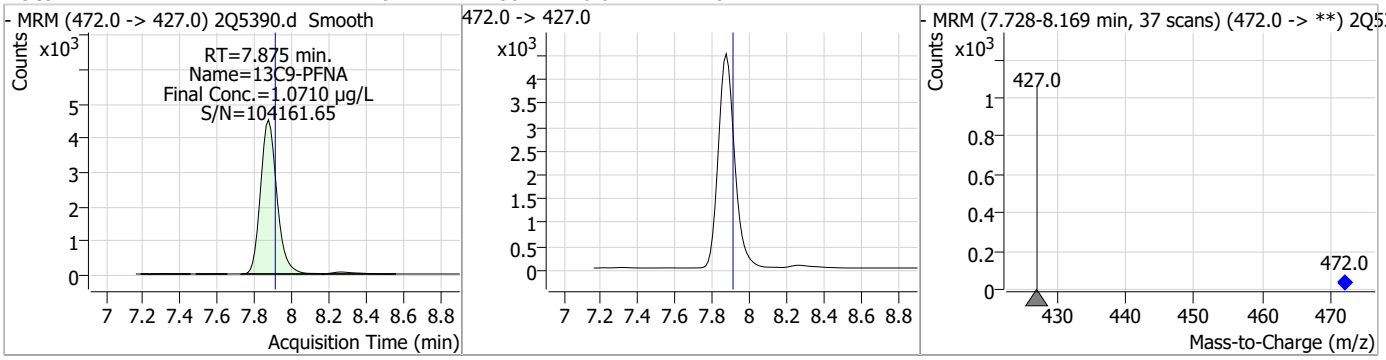
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.74	7.47	-0.04	10018 (m)	399.0 -> 99.0	50.1	29.4	88.1



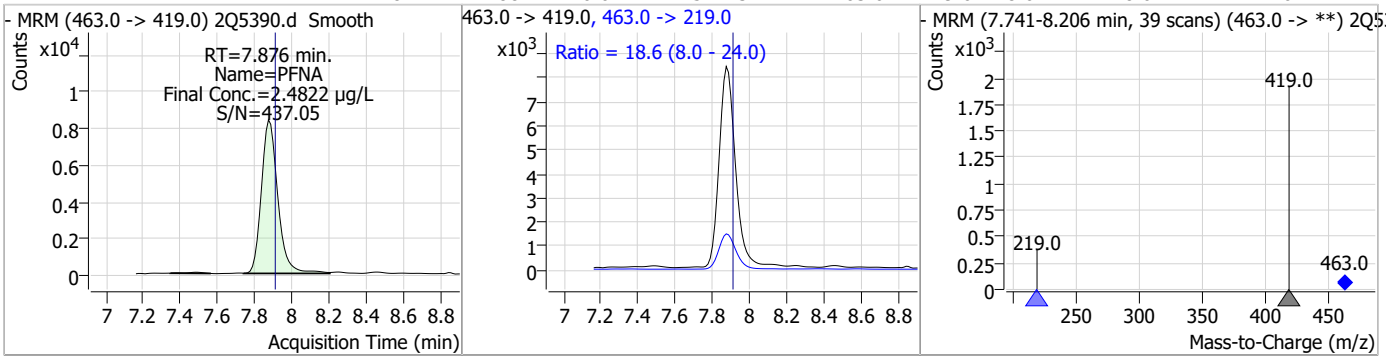
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	61.24	7.80	-0.02	195978	441.0 -> 317.0	36.7	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.07	7.88	-0.04	27574				

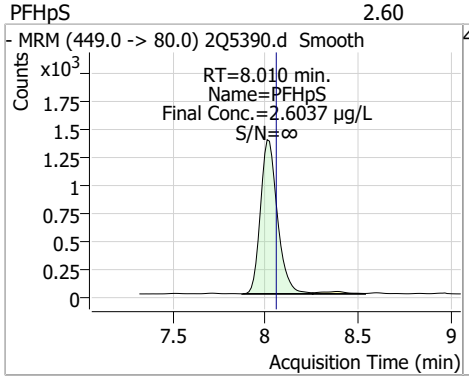


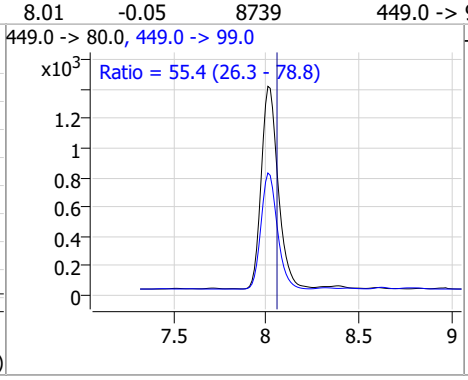
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.48	7.88	-0.04	51423	463.0 -> 219.0	18.6	8.0	24.0

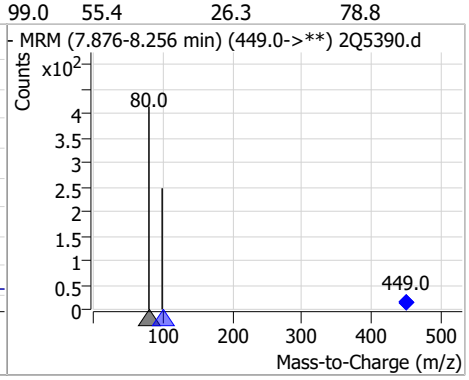


Perfluorinated Compounds by LC/MS/MS

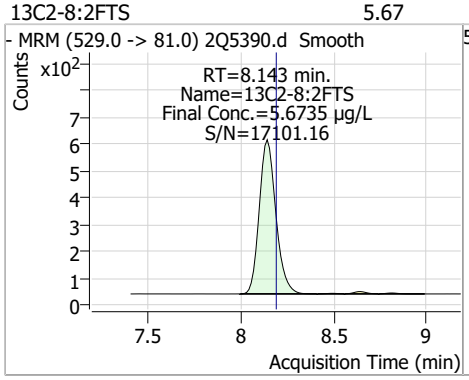
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.60	8.01	-0.05	8739	449.0 -> 99.0	55.4	26.3	78.8

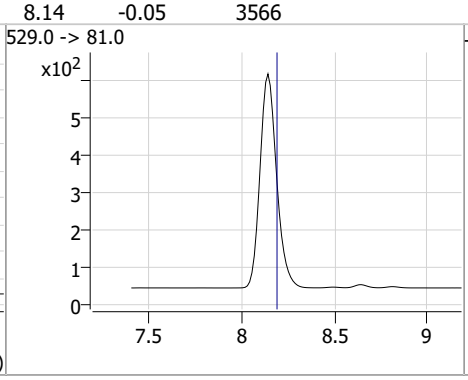


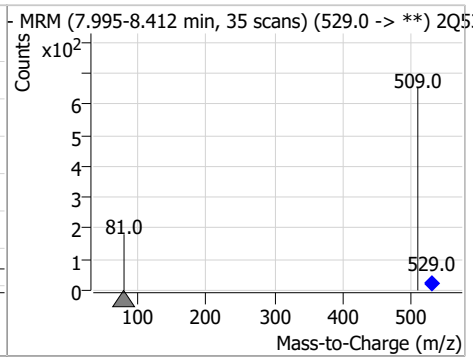




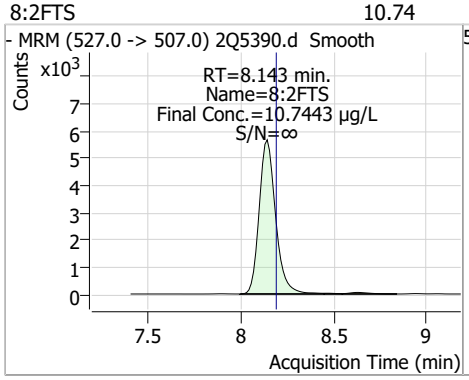
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.67	8.14	-0.05	3566				

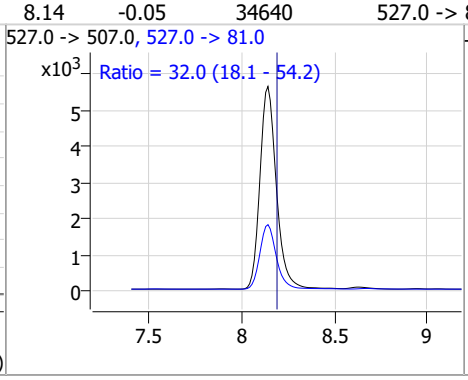


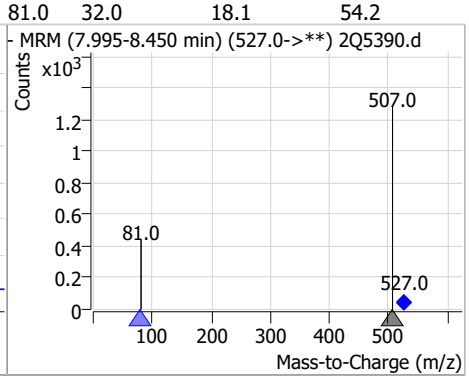




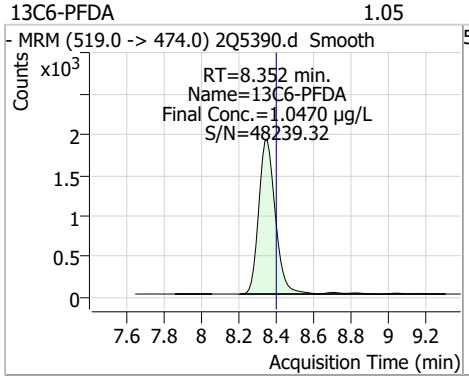
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	10.74	8.14	-0.05	34640	527.0 -> 81.0	32.0	18.1	54.2

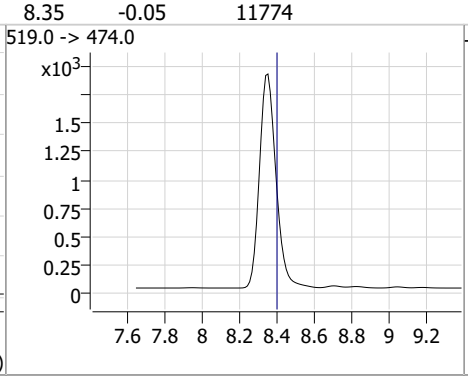


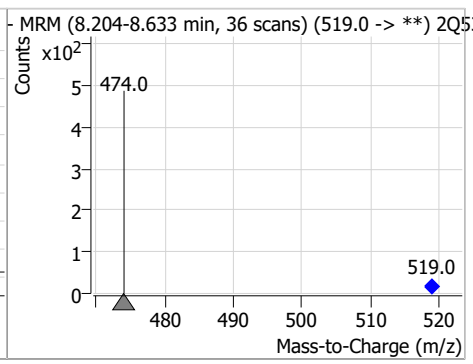




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.05	8.35	-0.05	11774				

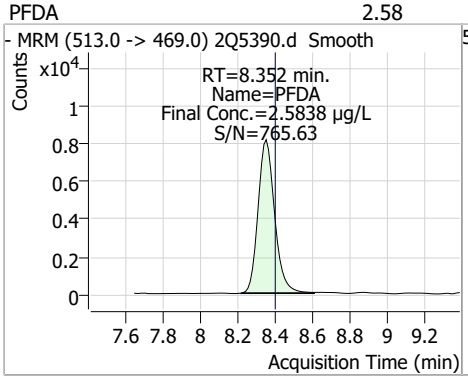


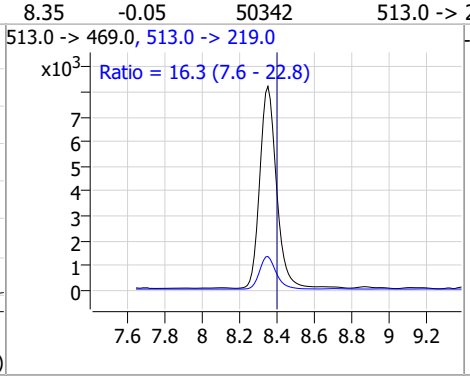


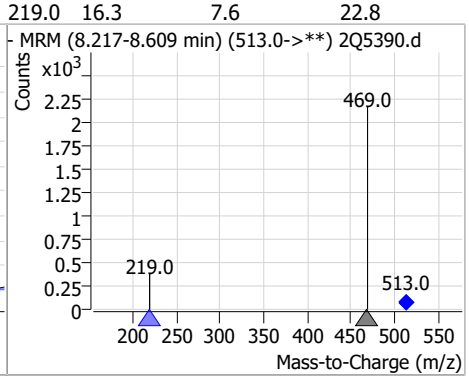


Perfluorinated Compounds by LC/MS/MS

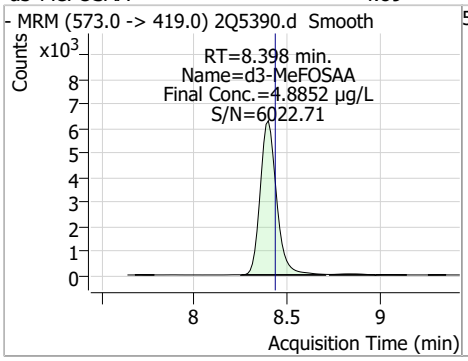
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.58	8.35	-0.05	50342	513.0 -> 219.0	16.3	7.6	22.8

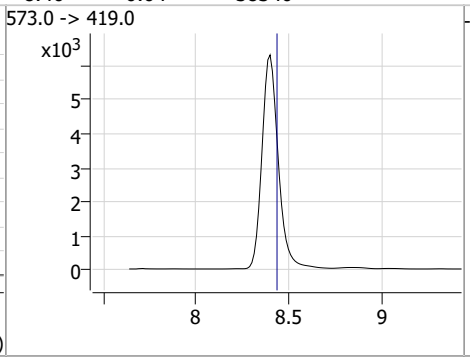


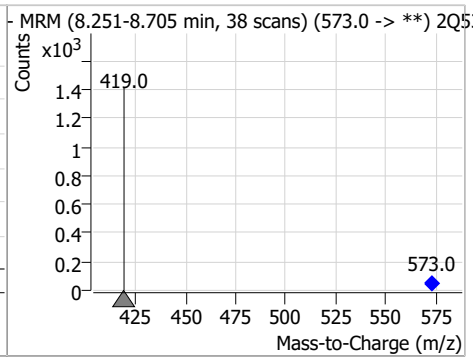




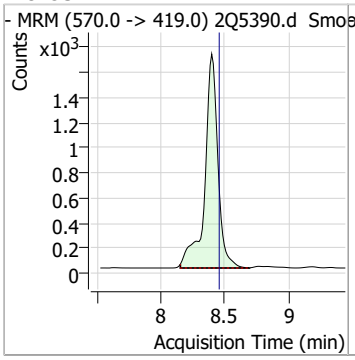
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.89	8.40	-0.04	38340				

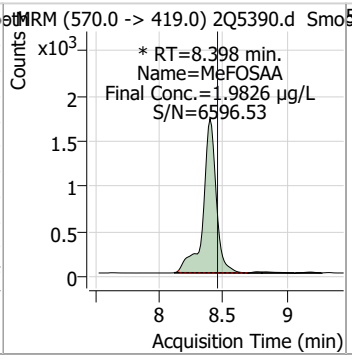


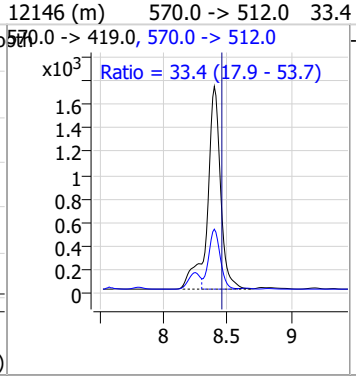


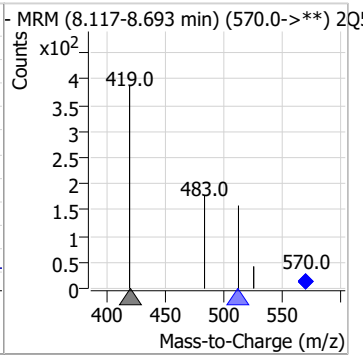


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	1.98	8.40	-0.05	12146 (m)	570.0 -> 512.0	33.4	17.9	53.7

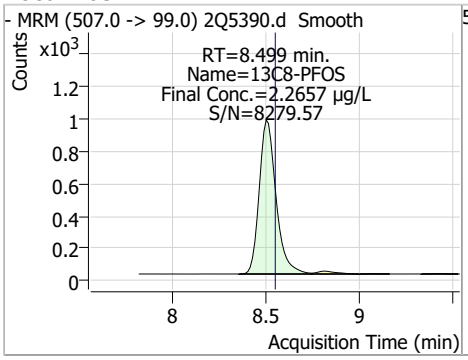


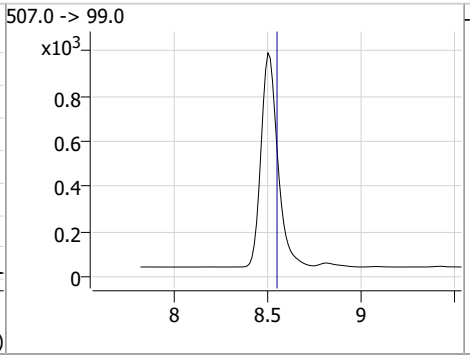


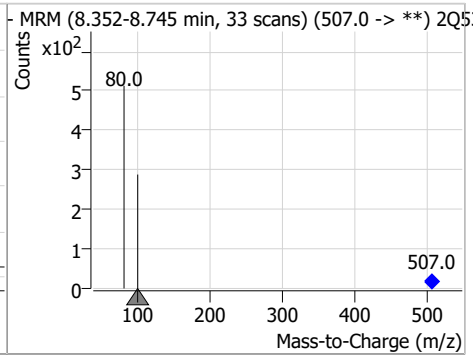




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.27	8.50	-0.05	5949				

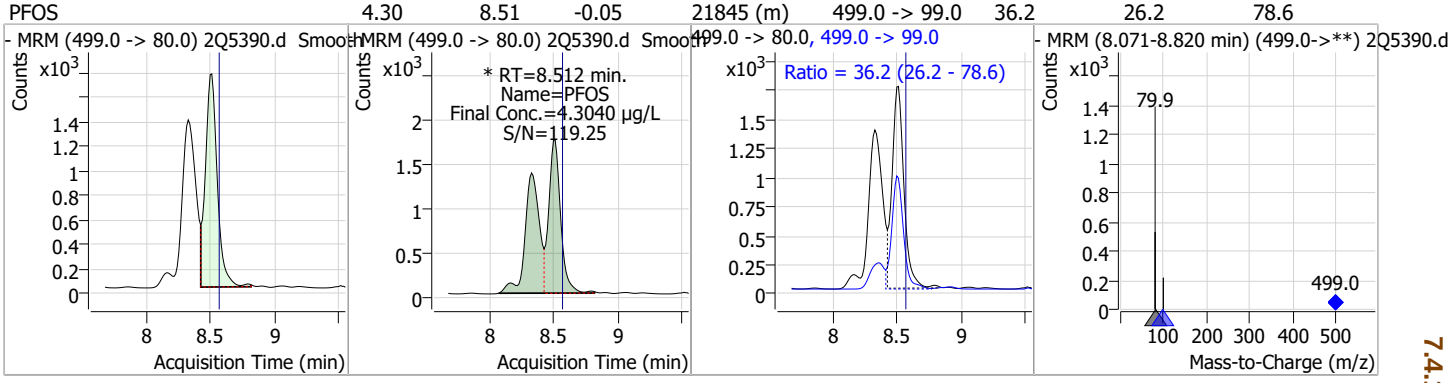




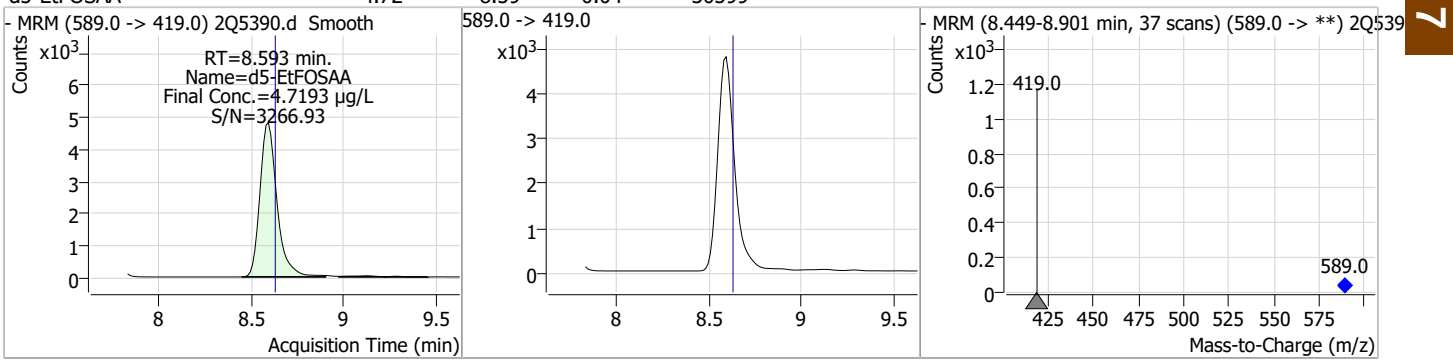


Perfluorinated Compounds by LC/MS/MS

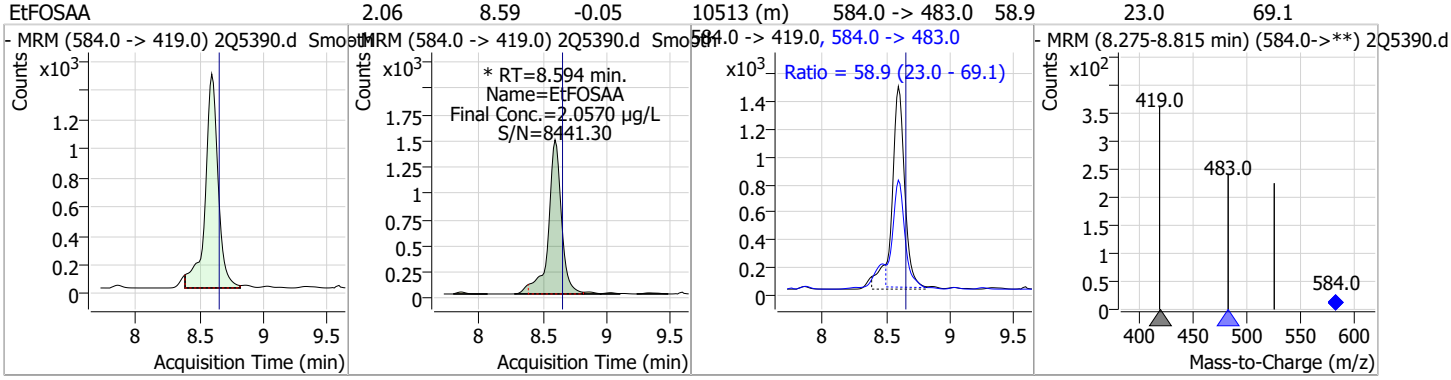
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	4.30	8.51	-0.05	21845 (m)	499.0 -> 99.0	36.2	26.2	78.6



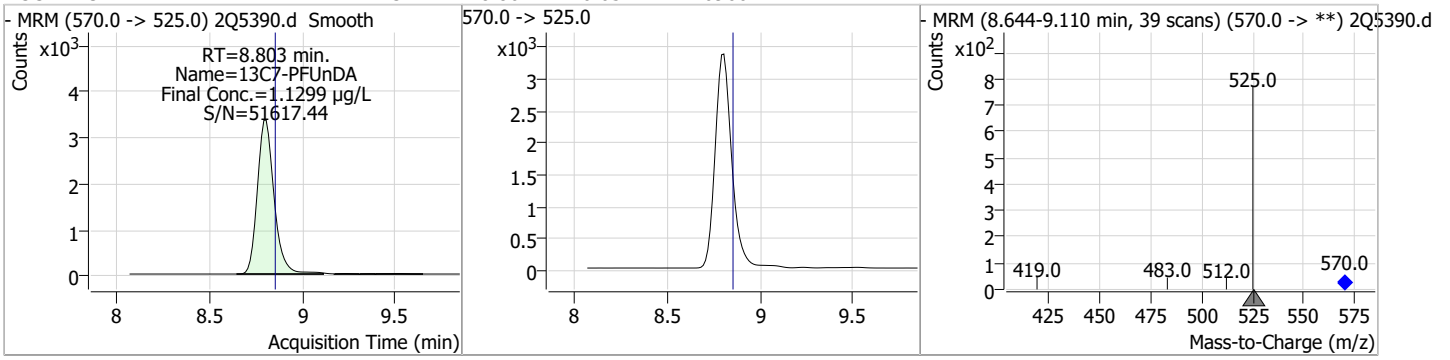
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.72	8.59	-0.04	30599				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.06	8.59	-0.05	10513 (m)	584.0 -> 483.0	58.9	23.0	69.1

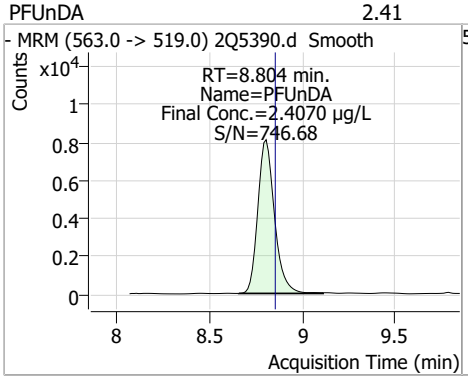


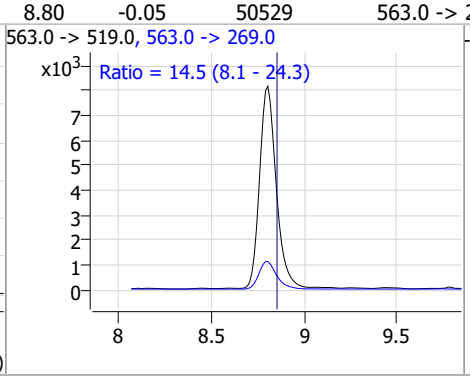
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.13	8.80	-0.05	20960				

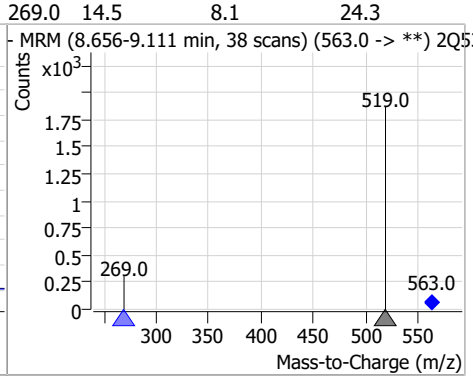


Perfluorinated Compounds by LC/MS/MS

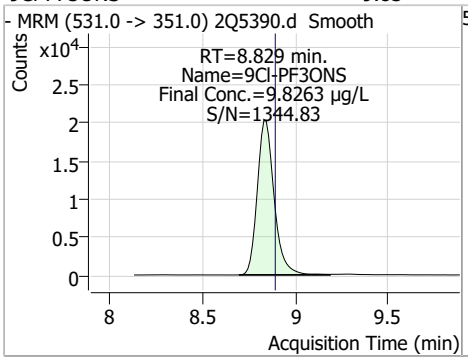
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.41	8.80	-0.05	50529	563.0 -> 269.0	14.5	8.1	24.3

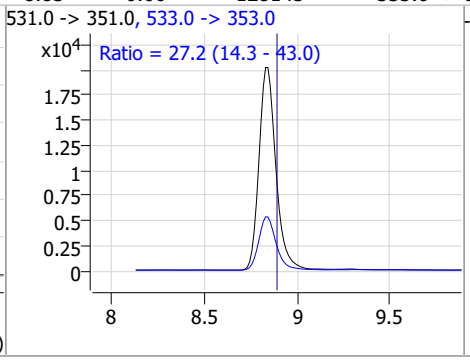


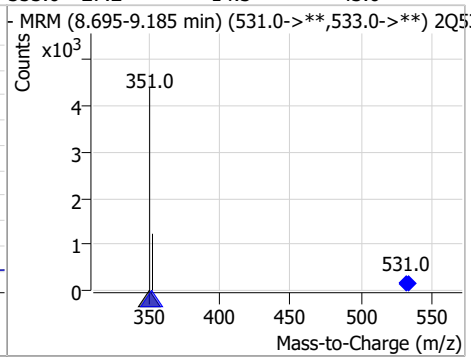




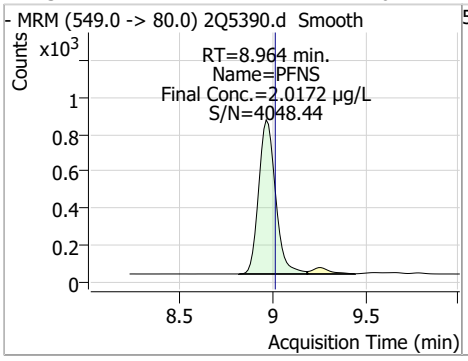
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	9.83	8.83	-0.06	128145	533.0 -> 353.0	27.2	14.3	43.0

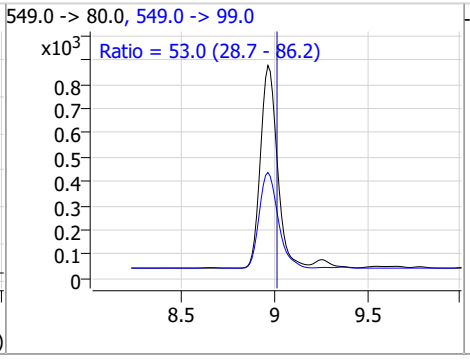


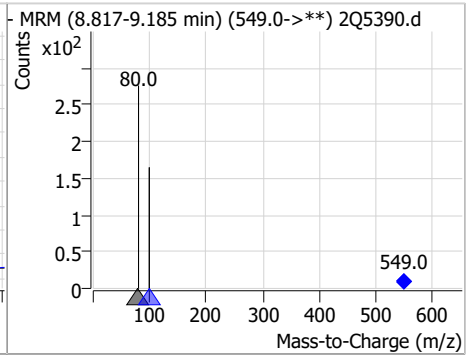




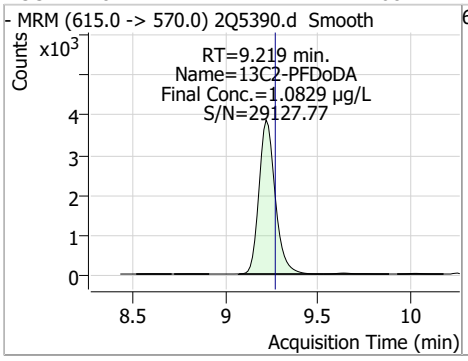
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	2.02	8.96	-0.05	5286	549.0 -> 99.0	53.0	28.7	86.2

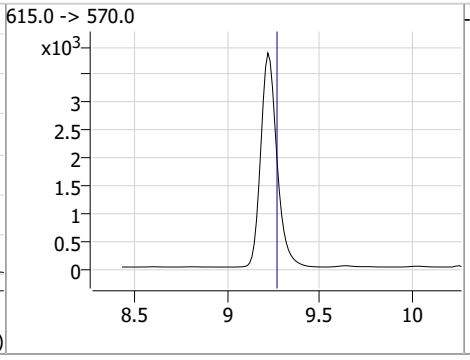


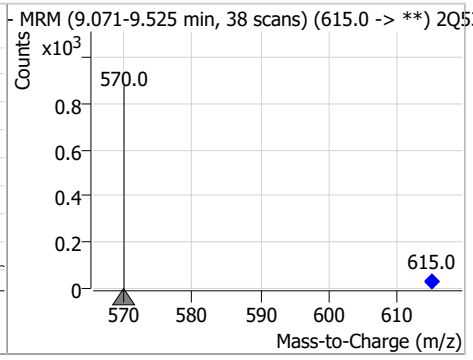




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.08	9.22	-0.05	23288				

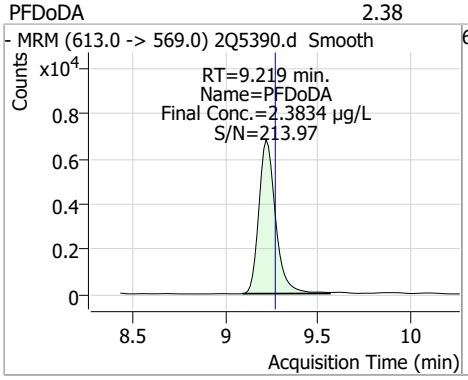


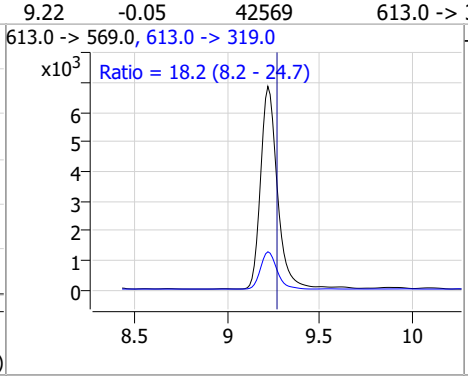


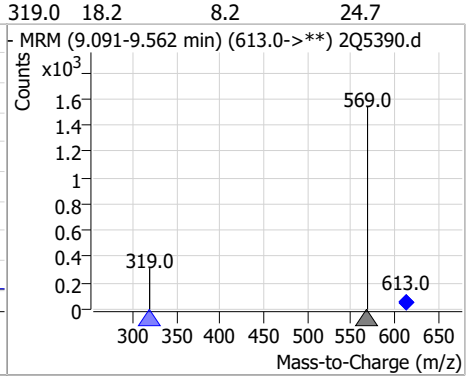


Perfluorinated Compounds by LC/MS/MS

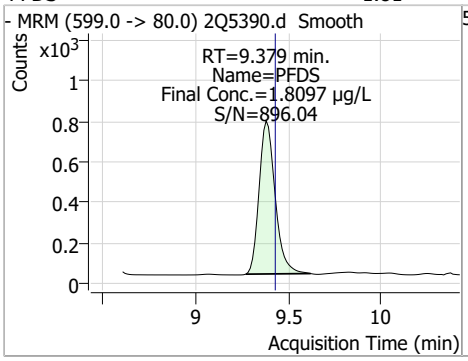
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.38	9.22	-0.05	42569	613.0 -> 319.0	18.2	8.2	24.7

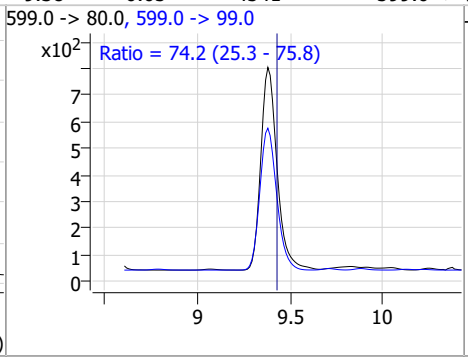


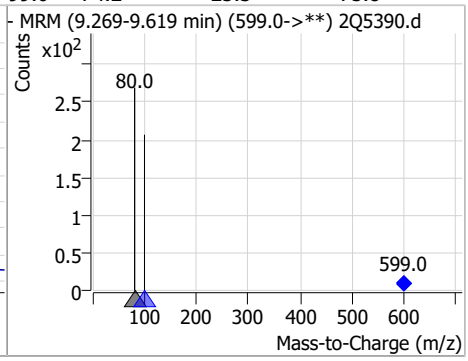




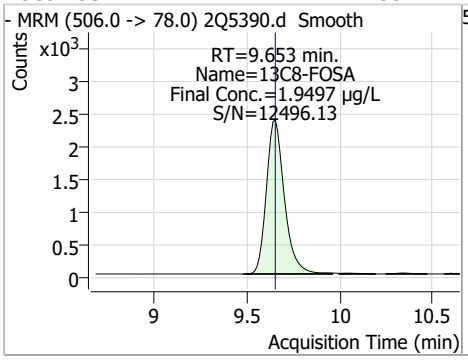
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	1.81	9.38	-0.05	4541	599.0 -> 99.0	74.2	25.3	75.8

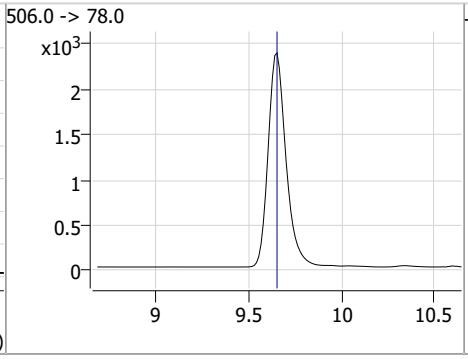


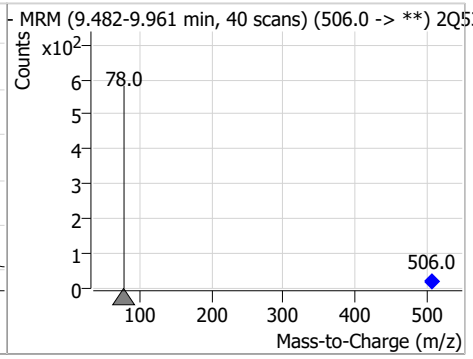




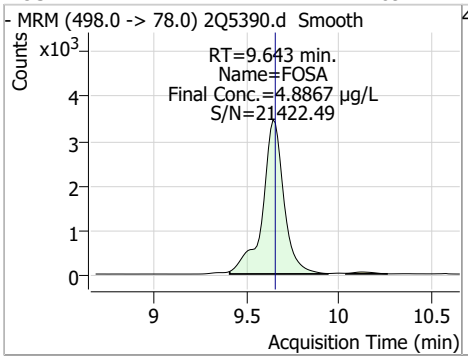
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	1.95	9.65	0.00	15920				

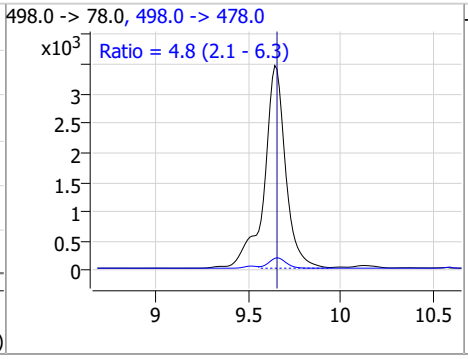


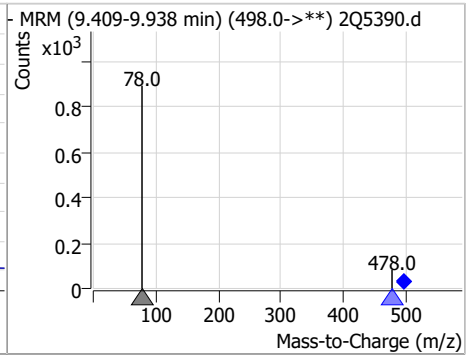




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	4.89	9.64	-0.01	27462	498.0 -> 478.0	4.8	2.1	6.3

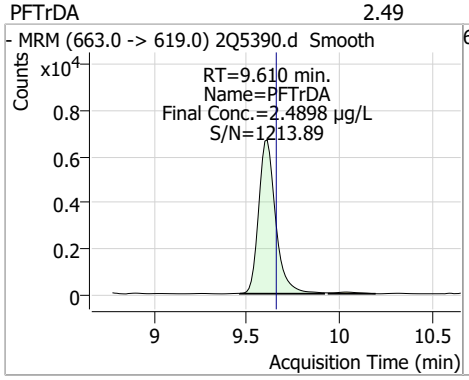


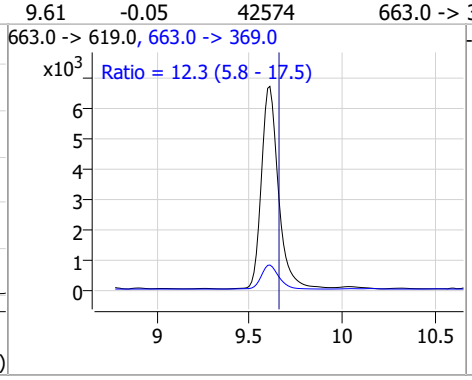


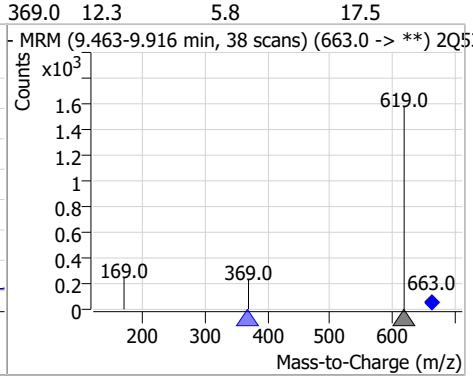


Perfluorinated Compounds by LC/MS/MS

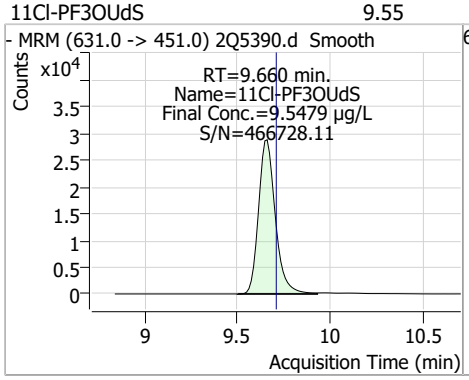
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.49	9.61	-0.05	42574	663.0 -> 369.0	12.3	5.8	17.5

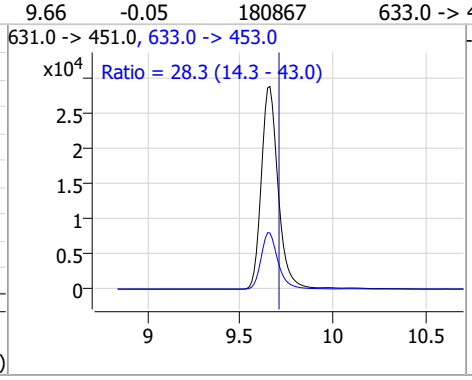


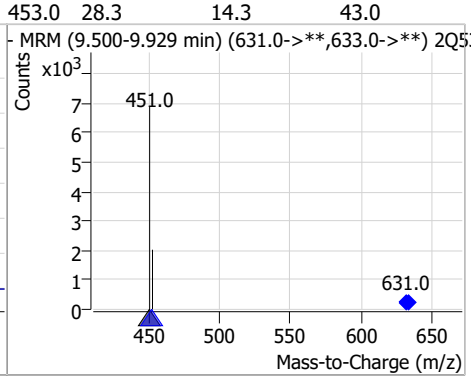




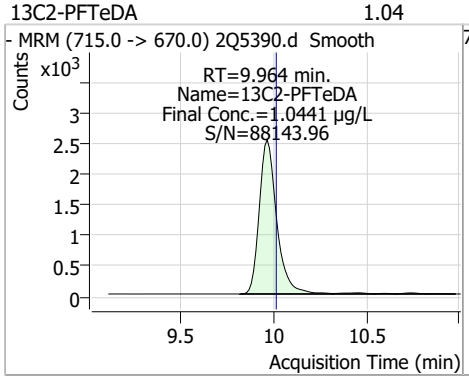
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	9.55	9.66	-0.05	180867	633.0 -> 453.0	28.3	14.3	43.0

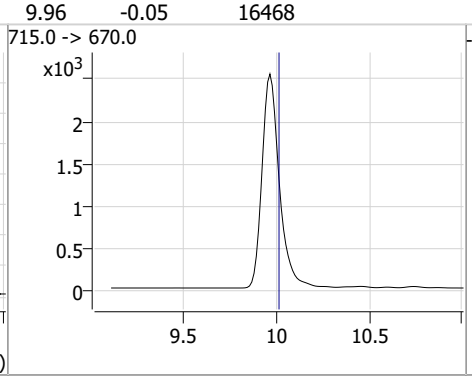


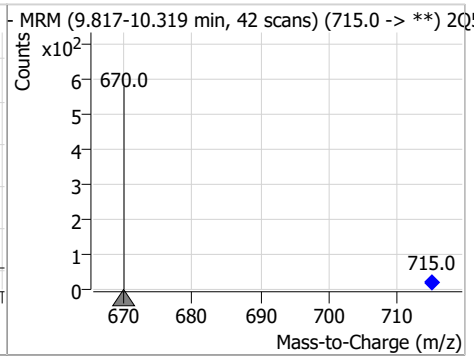




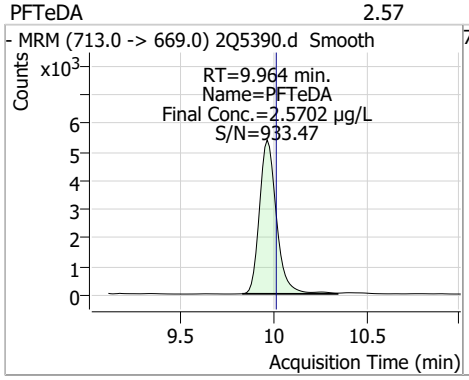
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.04	9.96	-0.05	16468				

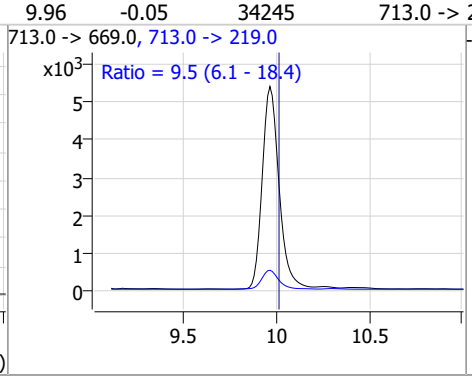


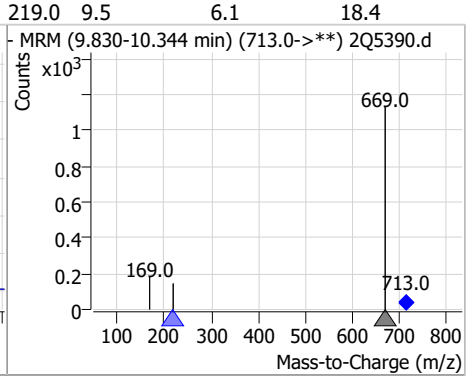




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.57	9.96	-0.05	34245	713.0 -> 219.0	9.5	6.1	18.4

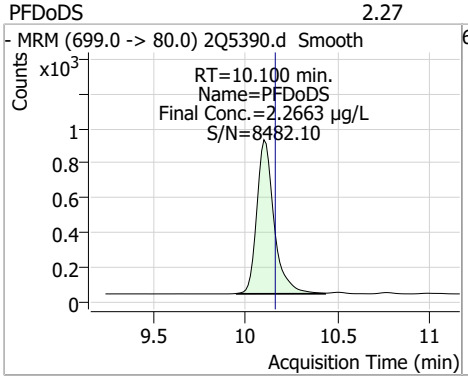


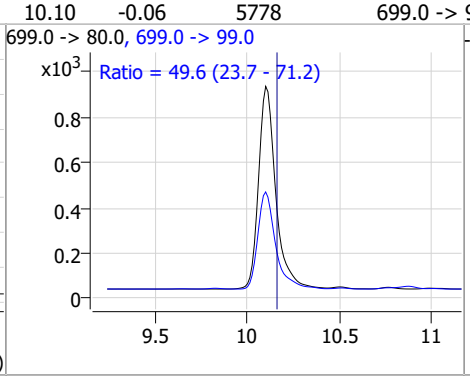


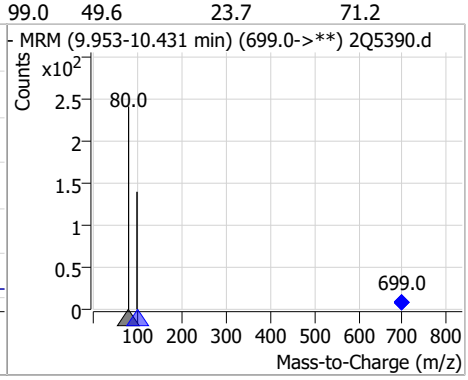


Perfluorinated Compounds by LC/MS/MS

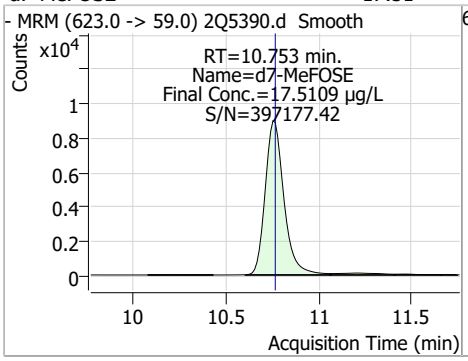
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.27	10.10	-0.06	5778	699.0 -> 99.0	49.6	23.7	71.2

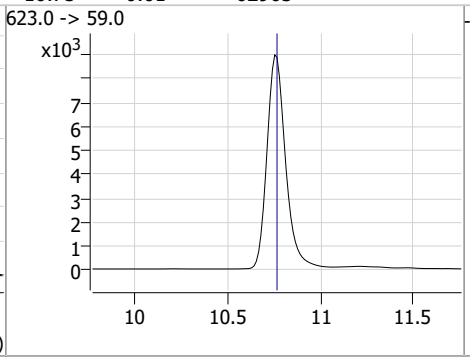


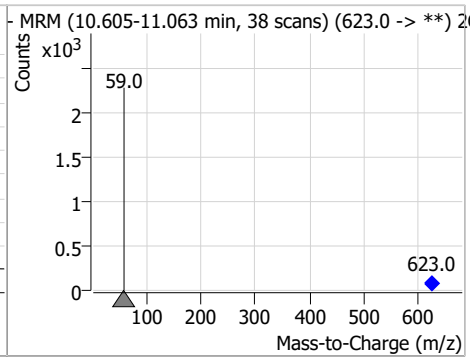




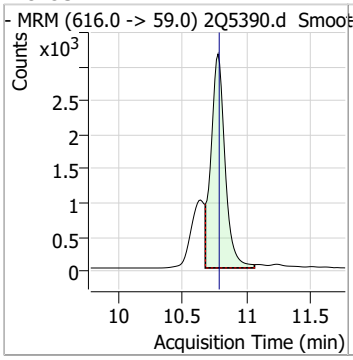
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	17.51	10.75	-0.01	62903				

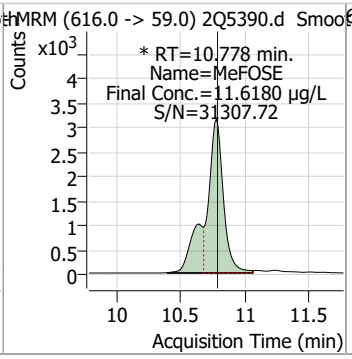


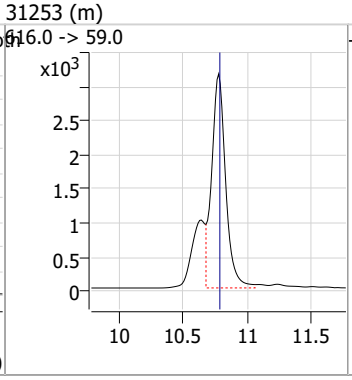


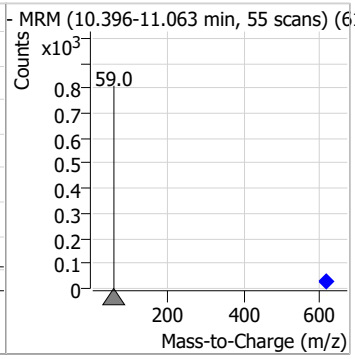


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	11.62	10.78	0.00	31253 (m)				

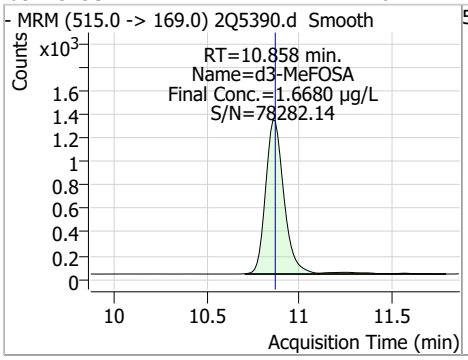


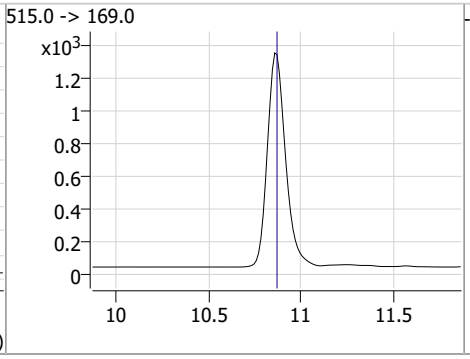


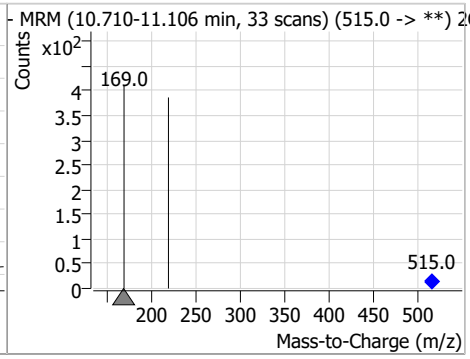




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	1.67	10.86	-0.01	9009				

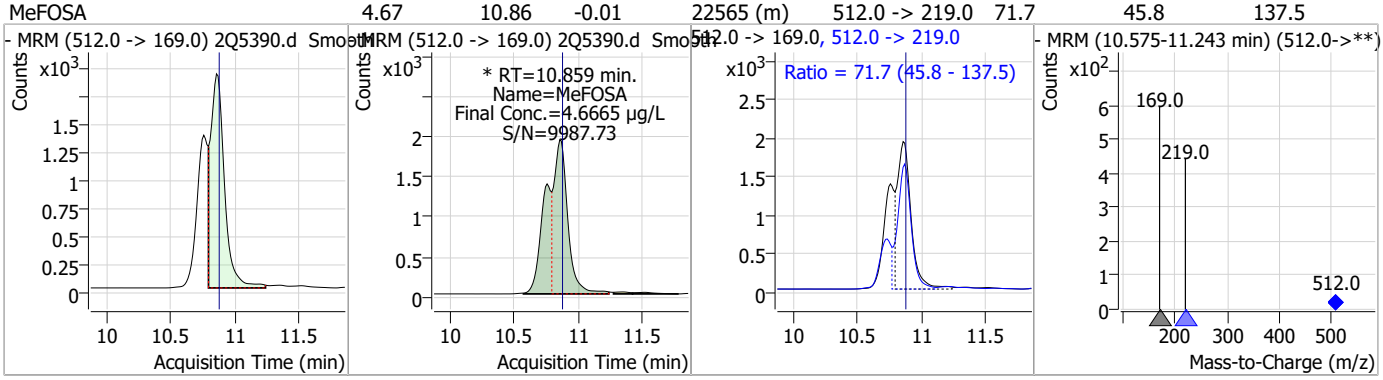




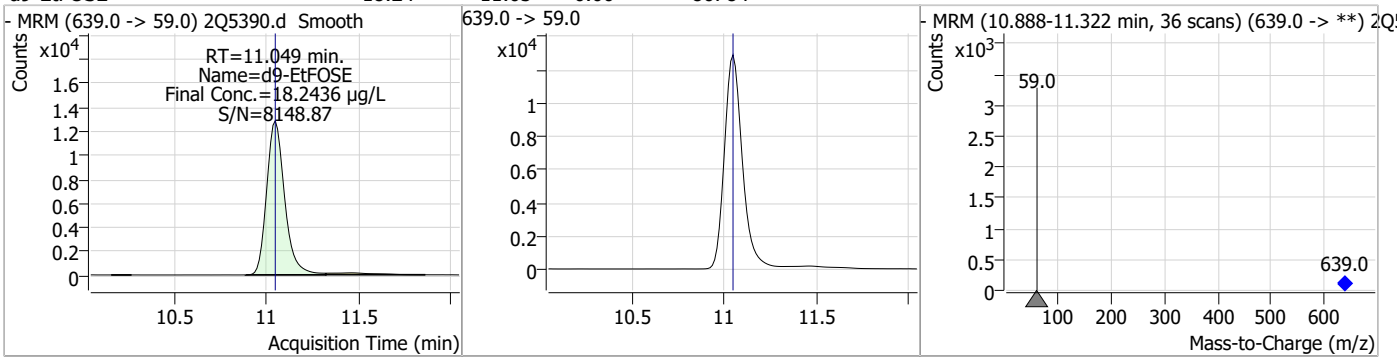


Perfluorinated Compounds by LC/MS/MS

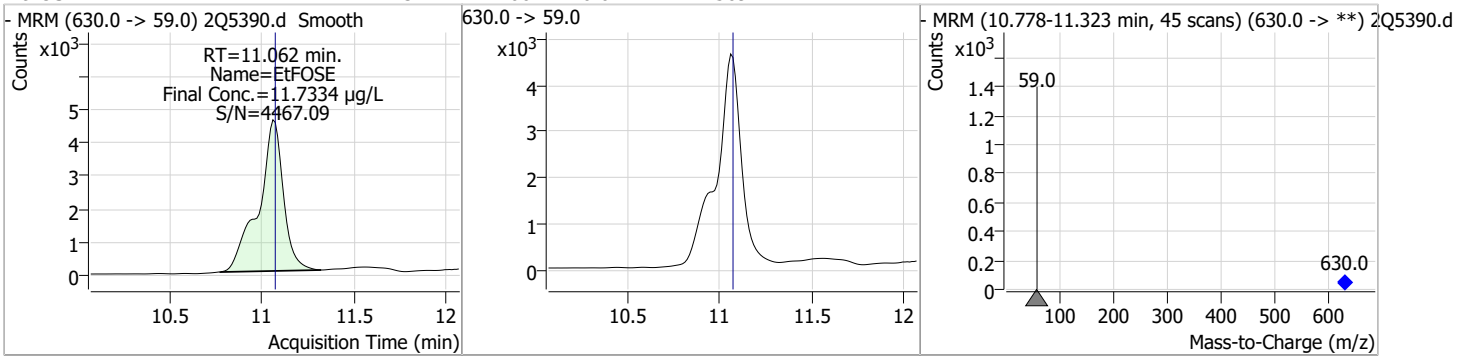
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	4.67	10.86	-0.01	22565 (m)	512.0 -> 219.0	71.7	45.8	137.5



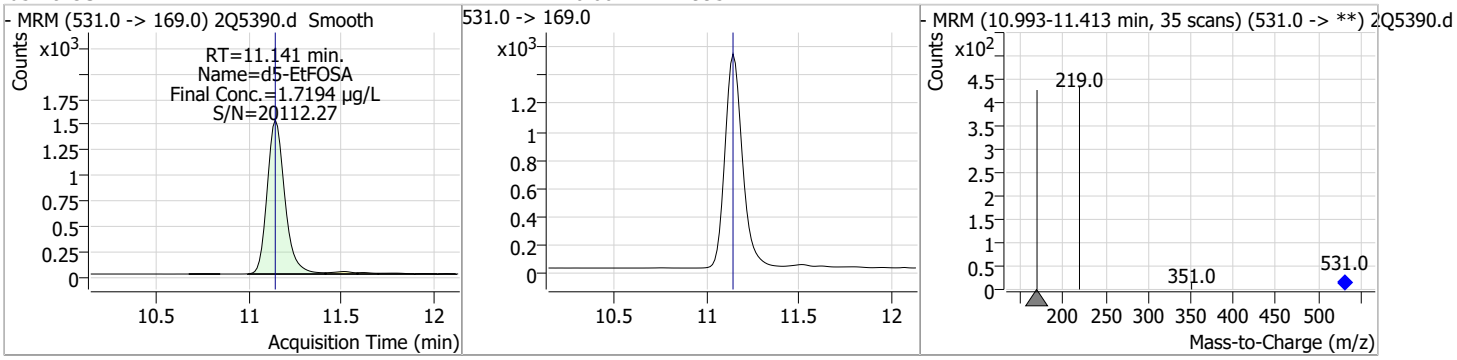
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	18.24	11.05	0.00	86784				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	11.73	11.06	-0.01	42569				

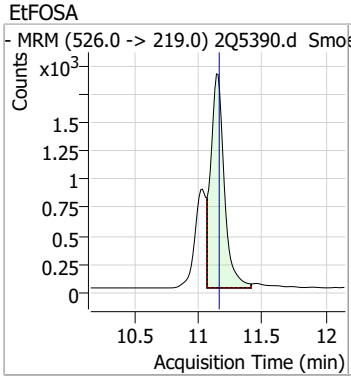


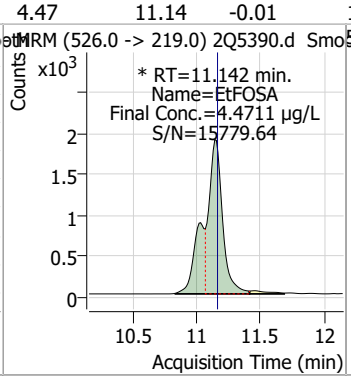
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.72	11.14	0.00	9957				

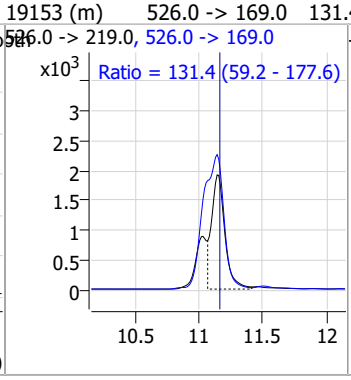


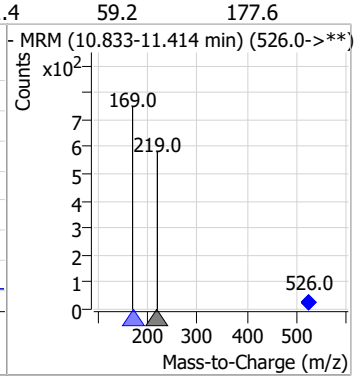
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	4.47	11.14	-0.01	19153 (m)	526.0 -> 169.0	131.4	59.2	177.6









Manual Integration Approval Summary

Sample Number: OP50811-MS
Lab FileID: 2Q5390.D
Injection Time: 12/02/23 02:43
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
MeFOSAA	2355-31-9		8.40	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.59	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.86	Split peak
EtFOSA	4151-50-2		11.14	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5391.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 2:58:17 AM
Sample Name : OP50811-MSD
Vial : P2-F4
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,514,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.302	217.0 -> 172.0	115151	10.00	µg/L	-0.037
M5-PFPeA	4.785	268.0 -> 223.0	95359	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	50839	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	40294	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	68466	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	34099	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	13158	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	21956	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	23373	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	16181	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	19549	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	5717	2.50	µg/L	-0.037
		302.0 -> 80.0	14101			
M3-PFHxS	7.472	402.0 -> 99.0	5955	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6338	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1310	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2516	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	3644	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	41744	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	22525	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	31751	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	78967	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	103363	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	10299	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	10351	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	11490	2.50	µg/L	-0.037
13C3-PFBA	3.305	216.0 -> 172.0	70243	5.00	µg/L	-0.037
18O2-PFHxS	7.472	403.0 -> 84.0	5894	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	68661	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	28415	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	36405	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	50166	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1310	6.09	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 121.8%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2516	5.27	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	3644	5.52	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.3%		
13C2-PFDoDA	9.219	615.0 -> 570.0	23373	1.03	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 82.4%		
13C2-PFTeDA	9.964	715.0 -> 670.0	16181	0.97	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 77.8%		
13C3-PFBS	5.846	302.0 -> 99.0	5717	2.61	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	5955	2.59	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.6%			
13C4-PFBA	3.302	217.0 -> 172.0	115151	7.28	µg/L		-0.037
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 72.8%			
13C4-PFHpA	6.770	367.0 -> 322.0	40294	2.47	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.9%			
13C5-PFHxA	5.930	318.0 -> 273.0	50839	2.44	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.6%			
13C5-PFPeA	4.785	268.0 -> 223.0	95359	5.07	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.4%			
13C6-PFDA	8.352	519.0 -> 474.0	13158	1.11	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.7%			
13C7-PFUnDA	8.803	570.0 -> 525.0	21956	1.12	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.8%			
13C8-FOSA	9.653	506.0 -> 78.0	19549	2.51	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C8-PFOA	7.372	421.0 -> 376.0	68466	2.41	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.3%			
13C8-PFOS	8.512	507.0 -> 99.0	6338	2.53	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.3%			
13C9-PFNA	7.875	472.0 -> 427.0	34099	1.20	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.8%			
d3-MeFOSAA	8.398	573.0 -> 419.0	41744	5.58	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.6%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	22525	9.47	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 94.7%			
d3-MeFOSA	10.871	515.0 -> 169.0	10351	2.01	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.4%			
d5-EtFOSAA	8.593	589.0 -> 419.0	31751	5.14	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.8%			
d7-MeFOSE	10.753	623.0 -> 59.0	78967	23.07	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 92.3%			
d9-EtFOSE	11.049	639.0 -> 59.0	103363	22.80	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 91.2%			
d5-EtFOSA	11.141	531.0 -> 169.0	10299	1.87	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 74.7%			
Target Compounds							**QValue**
4:2FTS	5.619	327.0 -> 307.0	21776	9.99	µg/L		97
		327.0 -> 81.0	11646				
6:2FTS	7.149	427.0 -> 407.0	43471	11.80	µg/L		96
		427.0 -> 81.0	13283				
8:2FTS	8.143	527.0 -> 507.0	39783	12.08	µg/L		96
		527.0 -> 81.0	13428				
EtFOSAA	8.606	584.0 -> 419.0	14662	2.76	µg/L	m	86
		584.0 -> 483.0	8064				
FOSA	9.655	498.0 -> 78.0	35285	5.11	µg/L	m	97
		498.0 -> 478.0	1869				
MeFOSAA	8.398	570.0 -> 419.0	17512	2.62	µg/L	m	90
		570.0 -> 512.0	5202				
PFBA	3.308	213.0 -> 169.0	33164	11.47	µg/L		100
PFBS	5.847	299.0 -> 80.0	15842	2.66	µg/L		98
		299.0 -> 99.0	6865				
PFDA	8.352	513.0 -> 469.0	62092	2.85	µg/L		100
		513.0 -> 219.0	9471				
PFDoDA	9.231	613.0 -> 569.0	46872	2.61	µg/L		95
		613.0 -> 319.0	8741				

Perfluorinated Compounds by LC/MS/MS

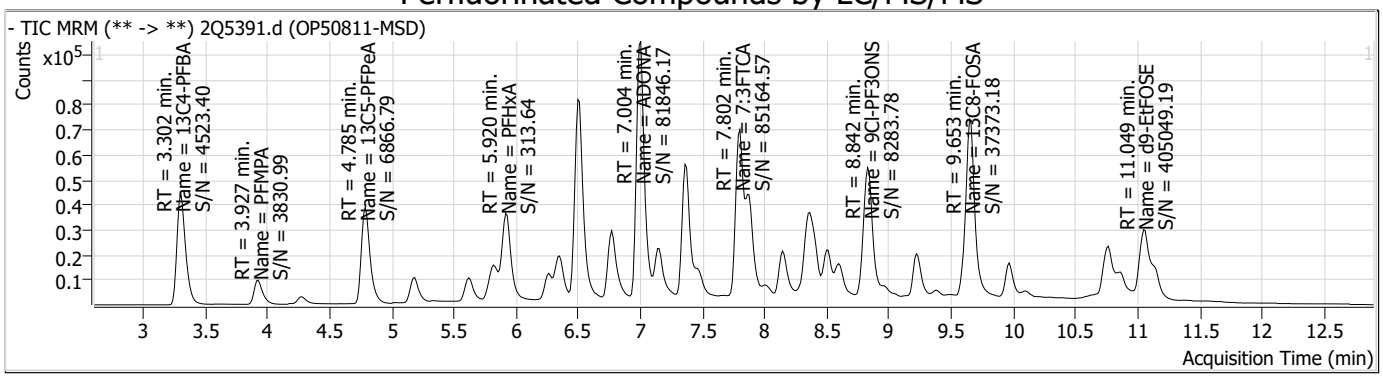
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.391	599.0 -> 80.0	5633	2.14	µg/L		85
		599.0 -> 99.0	3429				
PFHpA	6.770	363.0 -> 319.0	69008	2.76	µg/L		99
		363.0 -> 169.0	11573				
PFHpS	8.023	449.0 -> 80.0	10364	2.75	µg/L		95
		449.0 -> 99.0	5094				
PFHxA	5.920	313.0 -> 269.0	59522	2.96	µg/L		99
		313.0 -> 119.0	2016				
PFHxS	7.473	399.0 -> 80.0	10541	2.56	µg/L	m	100
		399.0 -> 99.0	6155				
PFNA	7.876	463.0 -> 419.0	60098	2.35	µg/L		100
		463.0 -> 219.0	9519				
PFNS	8.964	549.0 -> 80.0	6483	2.32	µg/L		98
		549.0 -> 99.0	3623				
PFOA	7.373	413.0 -> 369.0	89400	3.33	µg/L		98
		413.0 -> 169.0	16473				
PFOS	8.512	499.0 -> 80.0	22295	4.12	µg/L	m	86
		499.0 -> 99.0	9418				
PFPeA	4.787	263.0 -> 219.0	95816	5.58	µg/L		100
PFPeS	6.821	349.0 -> 80.0	8073	2.36	µg/L		89
		349.0 -> 99.0	4021				
PFTeDA	9.964	713.0 -> 669.0	34340	2.62	µg/L		93
		713.0 -> 219.0	5174				
PFTrDA	9.610	663.0 -> 619.0	45972	2.68	µg/L		98
		663.0 -> 369.0	5044				
PFUnDA	8.804	563.0 -> 519.0	53919	2.45	µg/L		97
		563.0 -> 269.0	9437				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	204818	10.10	µg/L		99
		633.0 -> 453.0	59361				
9Cl-PF3ONS	8.842	531.0 -> 351.0	145498	10.42	µg/L		97
		533.0 -> 353.0	44001				
ADONA	7.004	377.0 -> 251.0	366517	10.27	µg/L		98
		377.0 -> 85.0	105750				
HFPO-DA	6.271	285.0 -> 169.0	22675	9.34	µg/L		96
		285.0 -> 185.0	2337				
3:3FTCA	4.276	241.0 -> 177.0	12352	11.59	µg/L		96
		241.0 -> 117.0	1101				
5:3FTCA	6.511	341.0 -> 237.0	223489	63.56	µg/L		99
		341.0 -> 217.0	160953				
7:3FTCA	7.802	441.0 -> 337.0	227813	60.76	µg/L		97
		441.0 -> 317.0	92799				
EtFOSA	11.142	526.0 -> 219.0	22006	4.97	µg/L	m	89
		526.0 -> 169.0	28762				
EtFOSE	11.062	630.0 -> 59.0	50532	11.69	µg/L		100
MeFOSA	10.871	512.0 -> 169.0	27218	4.90	µg/L	m	71
		512.0 -> 219.0	17537				
MeFOSE	10.778	616.0 -> 59.0	38446	11.38	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	5916	2.18	µg/L		94
		699.0 -> 99.0	3044				
NFDHA	5.811	295.0 -> 201.0	6972	5.64	µg/L		94
		201.0 -> 85.0	35634				
		295.0 -> 85.0	1591				
PFMBA	5.188	279.0 -> 85.0	49697	5.36	µg/L		100
PFMPA	3.927	229.0 -> 85.0	47297	4.86	µg/L		100
PFEESA	6.353	315.0 -> 135.0	72334	5.25	µg/L		100
		315.0 -> 69.0	7075				

Perfluorinated Compounds by LC/MS/MS

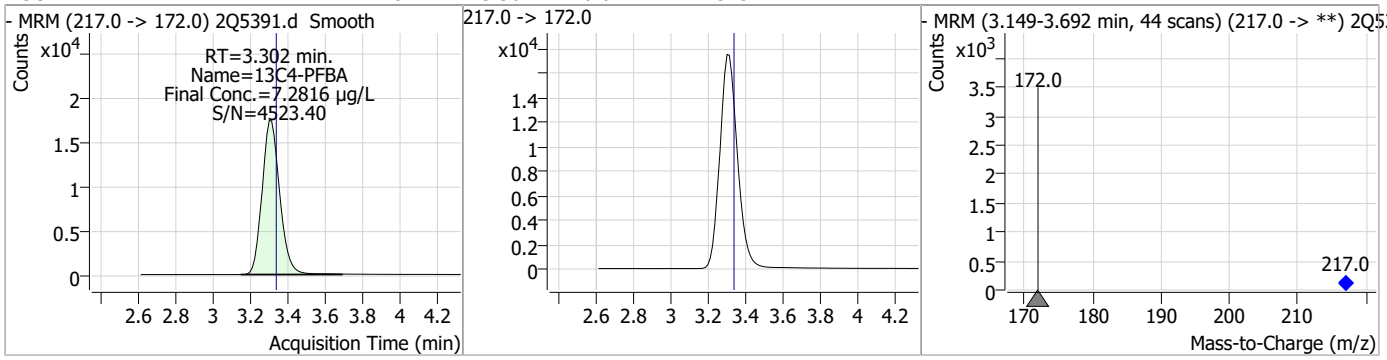
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

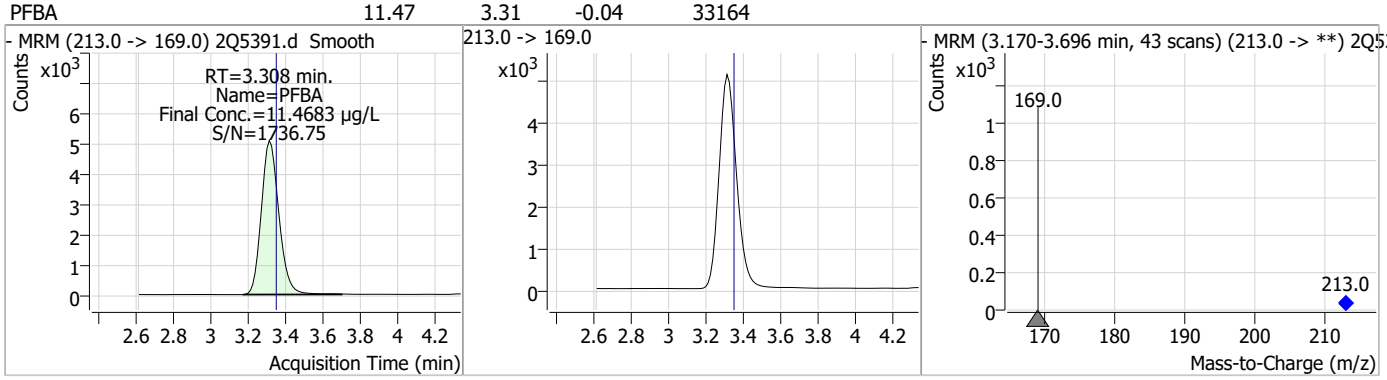
Perfluorinated Compounds by LC/MS/MS



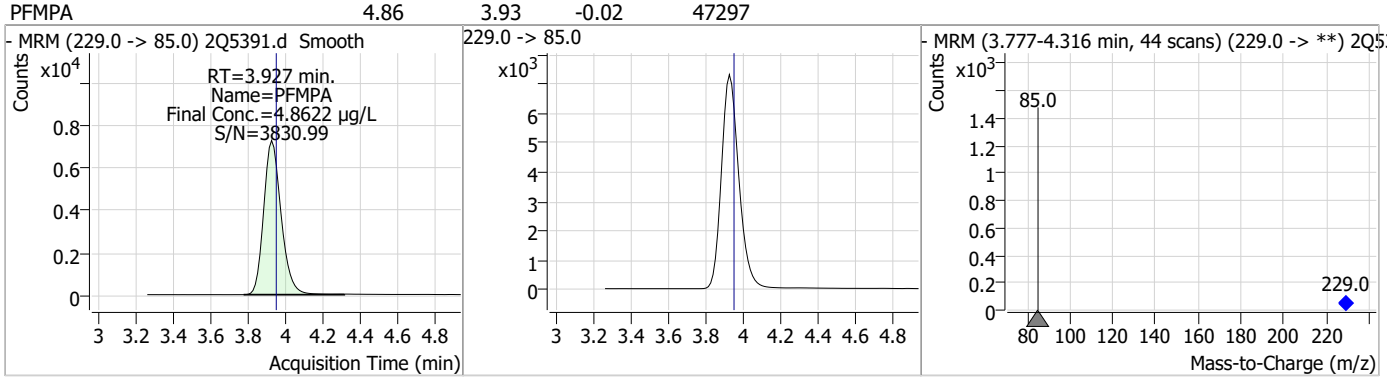
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	7.28	3.30	-0.04	115151				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	11.47	3.31	-0.04	33164				

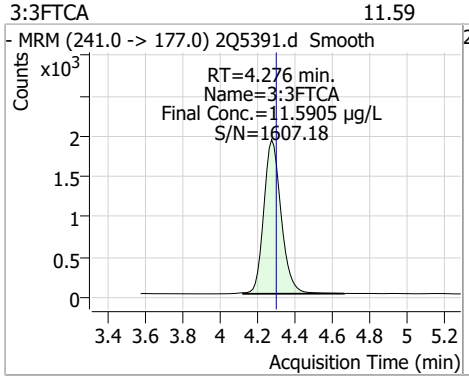


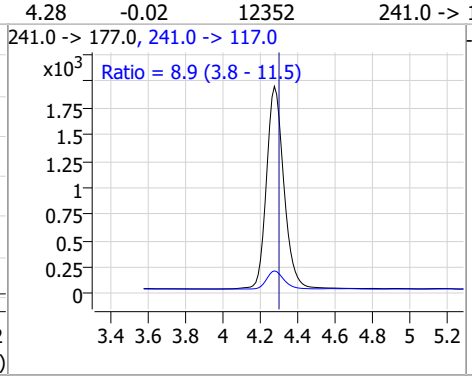
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.86	3.93	-0.02	47297				

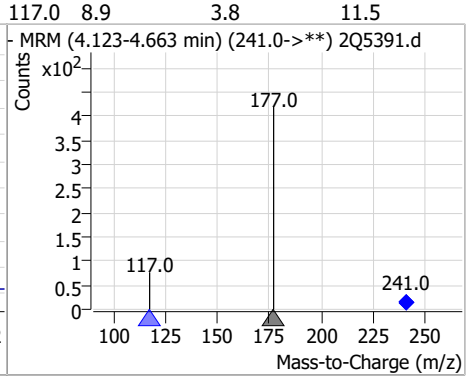


Perfluorinated Compounds by LC/MS/MS

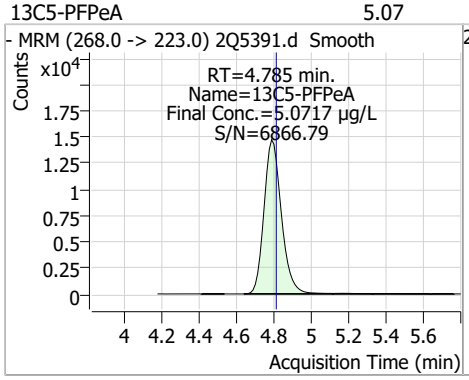
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	11.59	4.28	-0.02	12352	241.0 -> 117.0	8.9	3.8	11.5

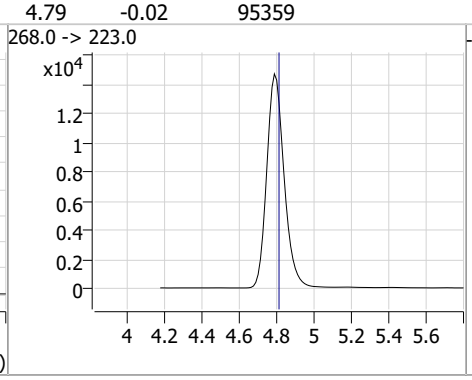


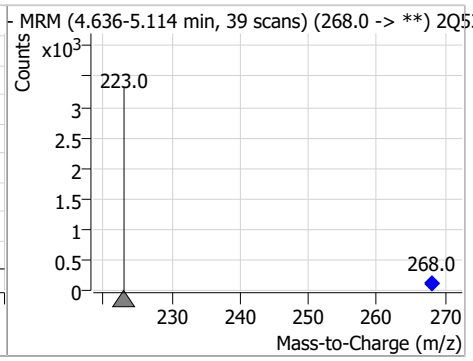




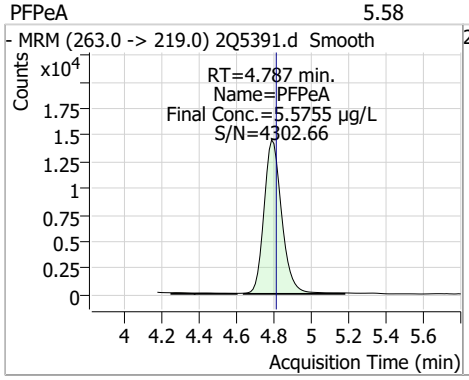
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.07	4.79	-0.02	95359				

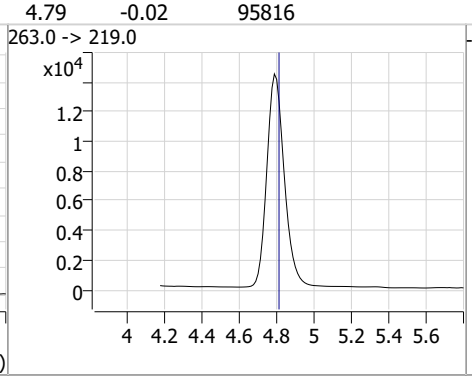


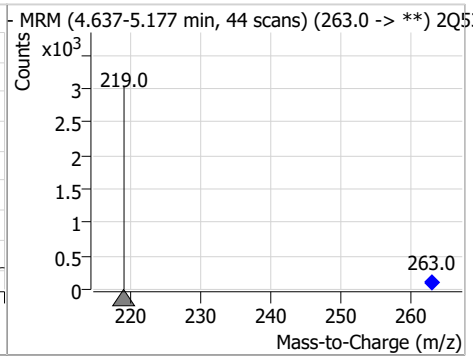




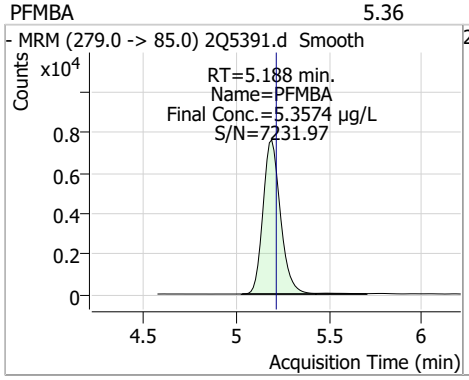
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	5.58	4.79	-0.02	95816				

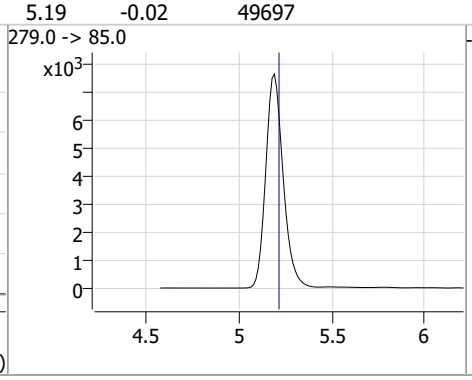


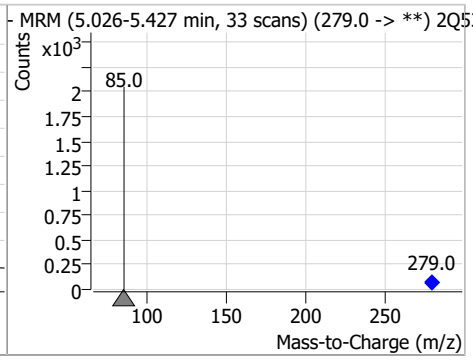




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	5.36	5.19	-0.02	49697				

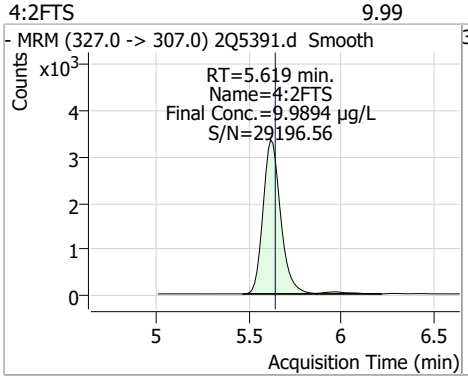


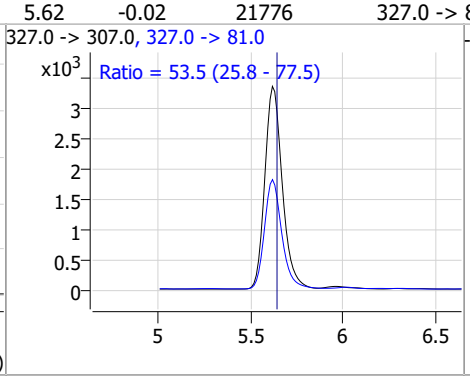


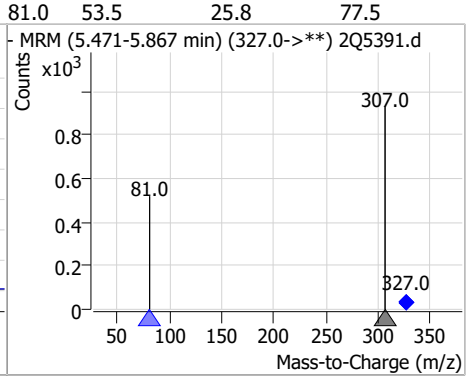


Perfluorinated Compounds by LC/MS/MS

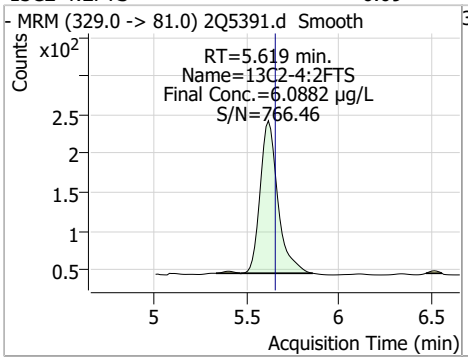
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	9.99	5.62	-0.02	21776	327.0 -> 81.0	53.5	25.8	77.5

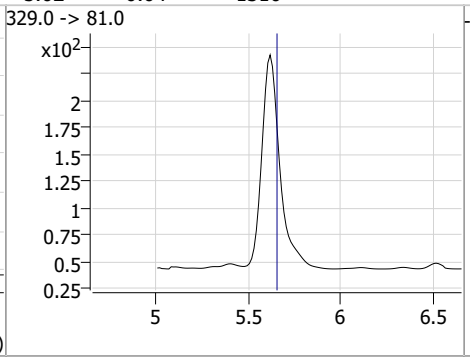


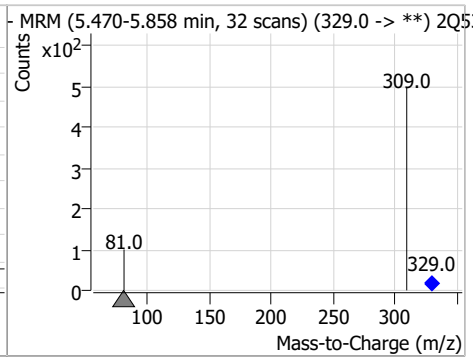




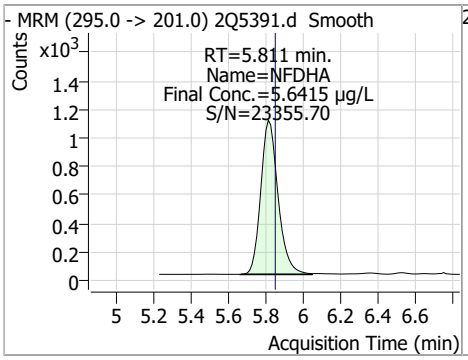
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	6.09	5.62	-0.04	1310				

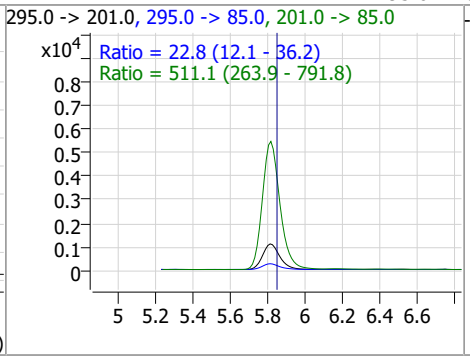


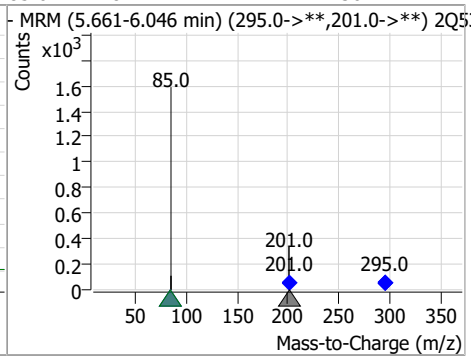




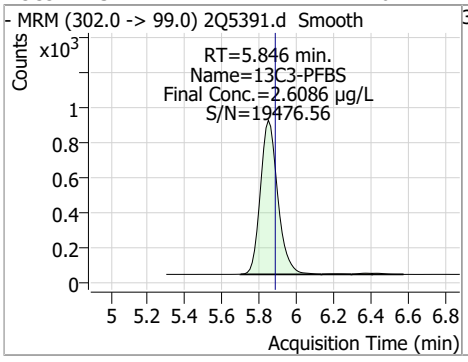
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	5.64	5.81	-0.04	6972	201.0 -> 85.0	511.1	263.9	791.8
					295.0 -> 85.0	22.8	12.1	36.2

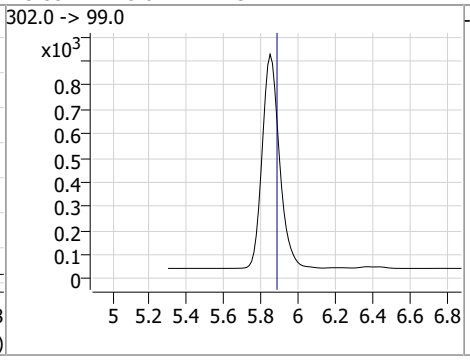


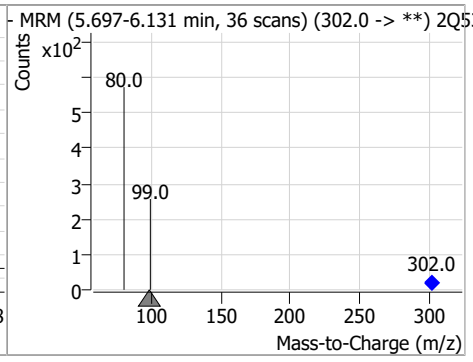




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.61	5.85	-0.04	5717				

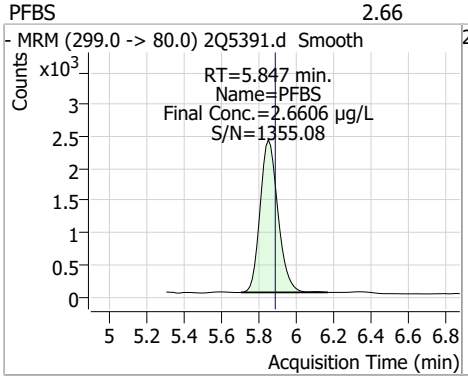


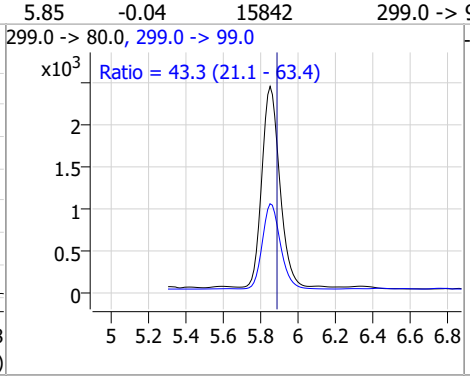


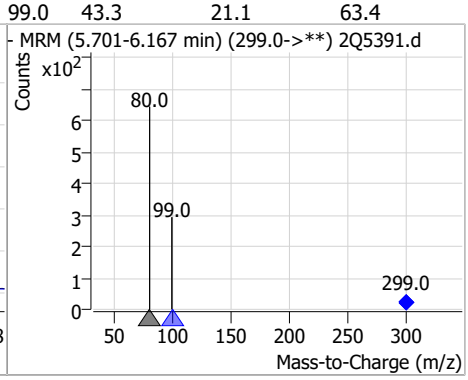


Perfluorinated Compounds by LC/MS/MS

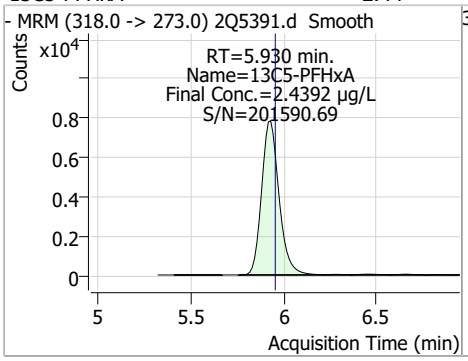
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.66	5.85	-0.04	15842	299.0 -> 99.0	43.3	21.1	63.4

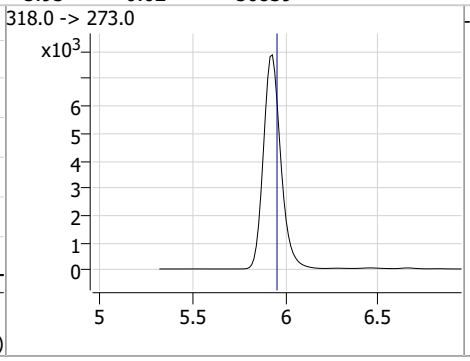


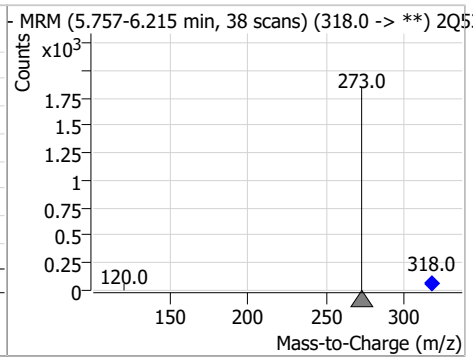




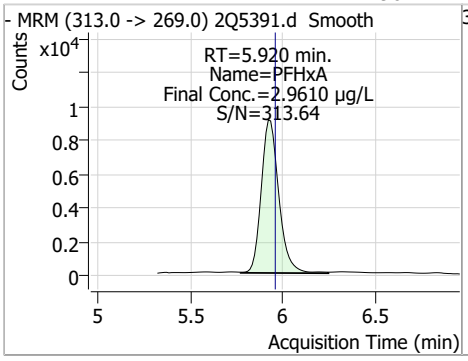
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.44	5.93	-0.02	50839				

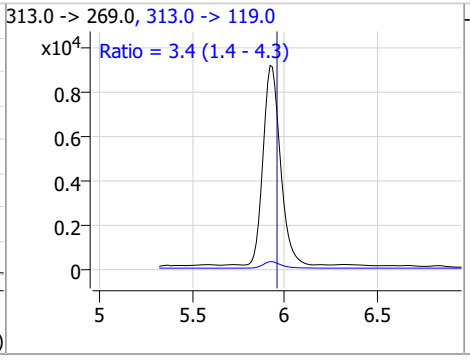


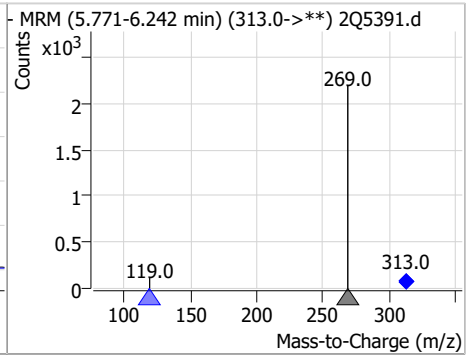




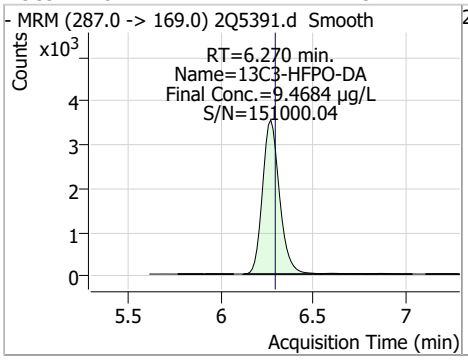
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.96	5.92	-0.04	59522	313.0 -> 119.0	3.4	1.4	4.3

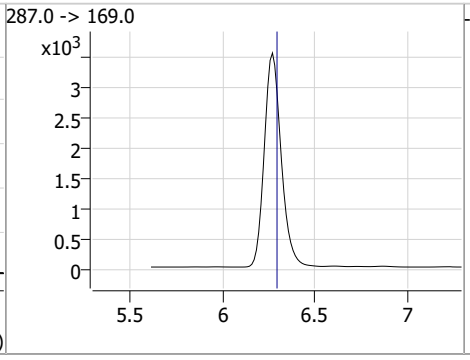


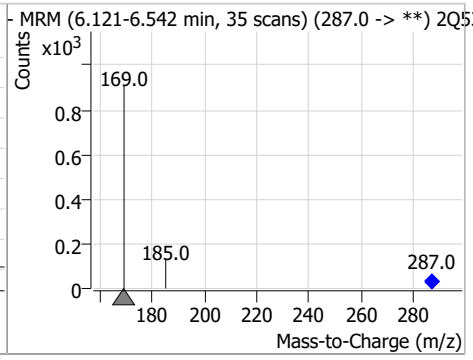




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.47	6.27	-0.02	22525				

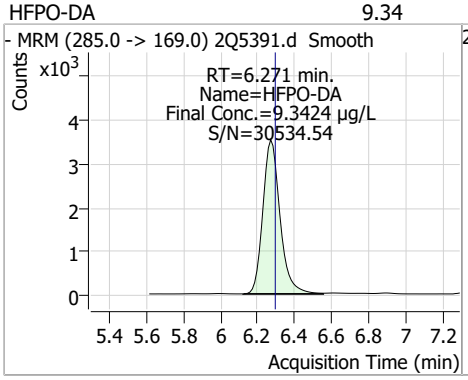


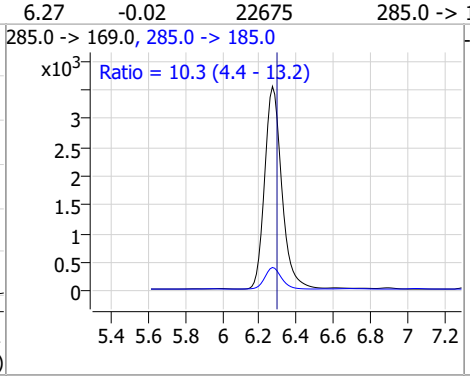


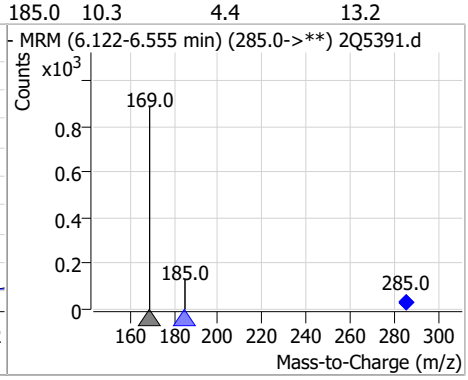


Perfluorinated Compounds by LC/MS/MS

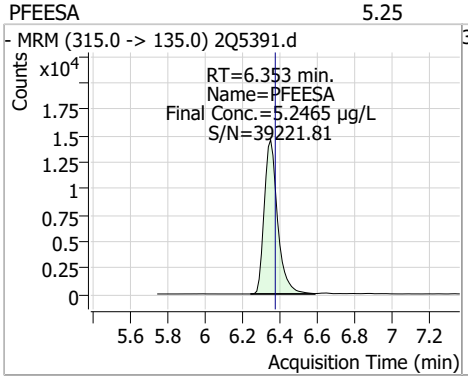
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	9.34	6.27	-0.02	22675	285.0 -> 185.0	10.3	4.4	13.2

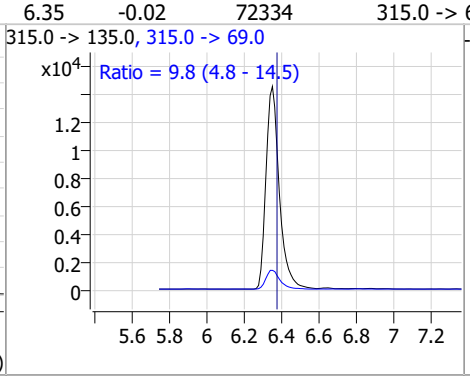


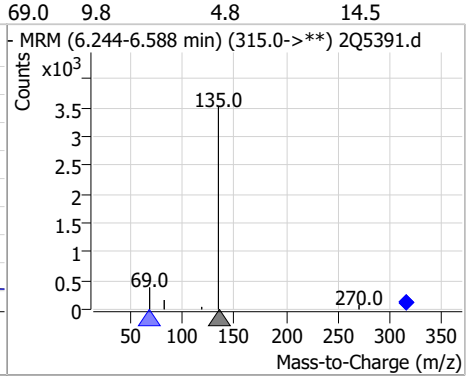




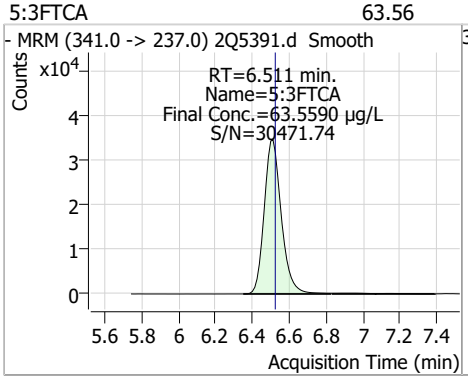
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.25	6.35	-0.02	72334	315.0 -> 69.0	9.8	4.8	14.5

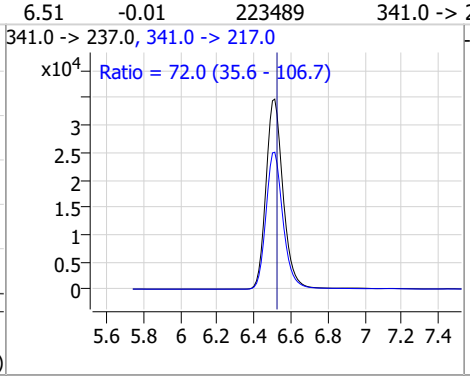


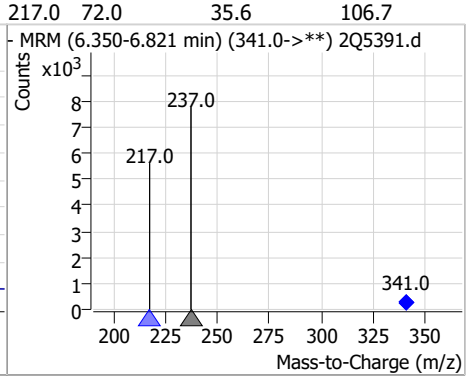




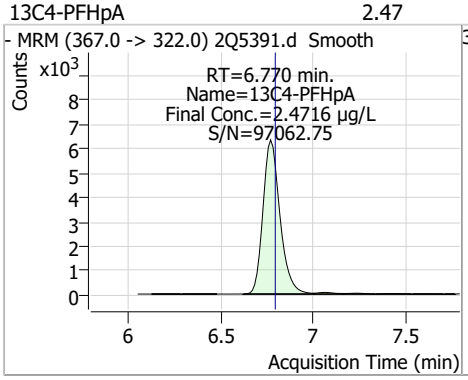
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	63.56	6.51	-0.01	223489	341.0 -> 217.0	72.0	35.6	106.7

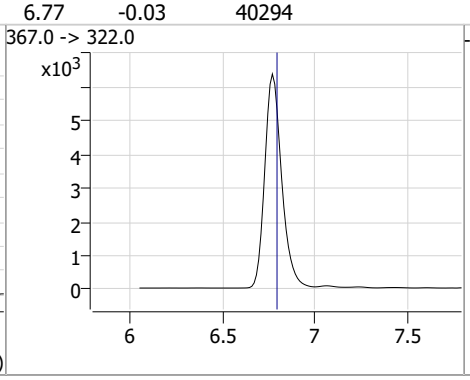


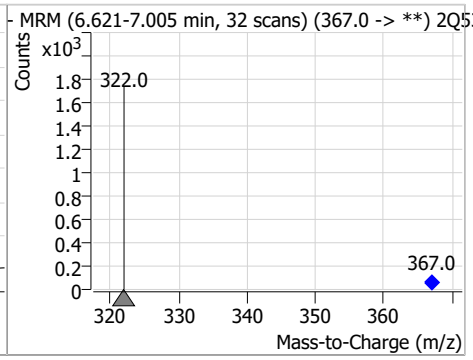




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.47	6.77	-0.03	40294				

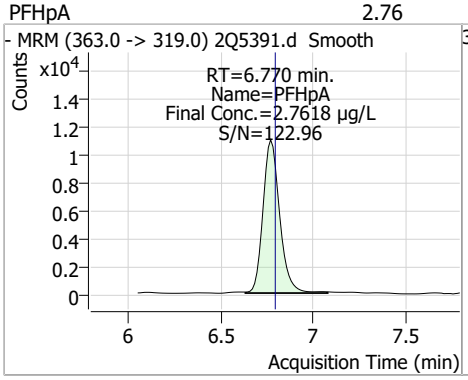


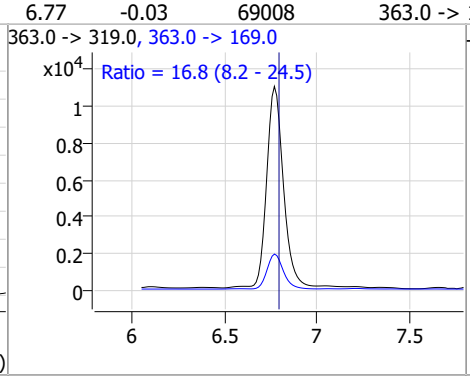


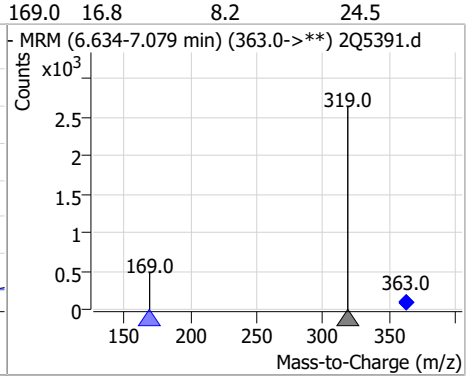


Perfluorinated Compounds by LC/MS/MS

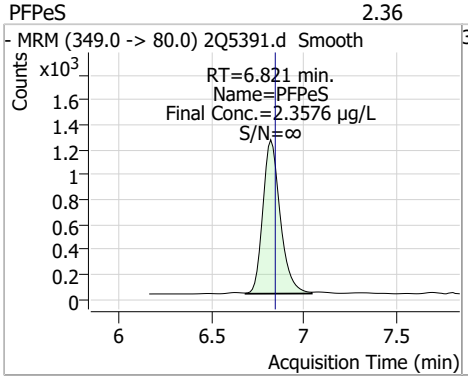
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.76	6.77	-0.03	69008	363.0 -> 169.0	16.8	8.2	24.5

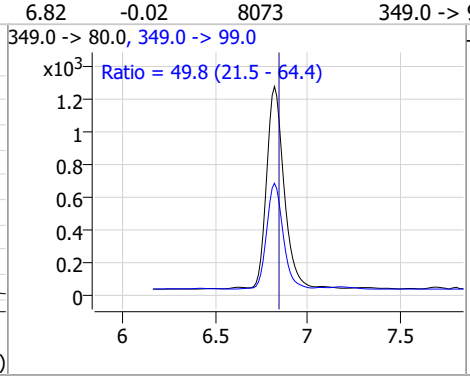


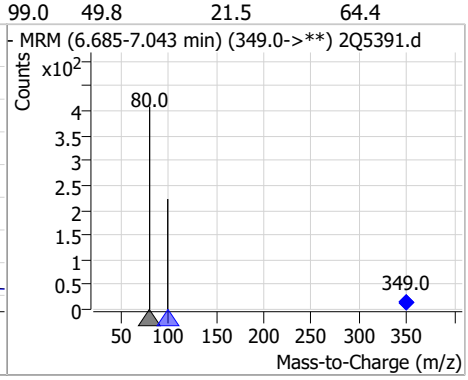




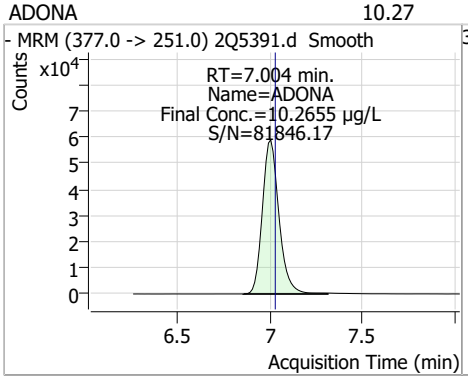
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.36	6.82	-0.02	8073	349.0 -> 99.0	49.8	21.5	64.4

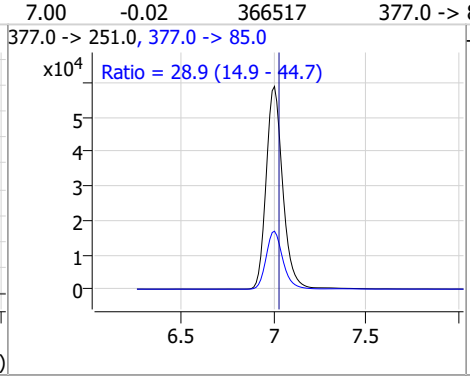


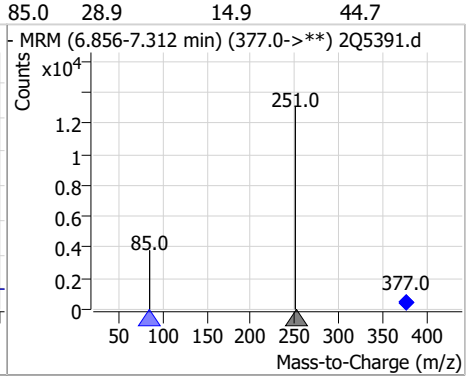




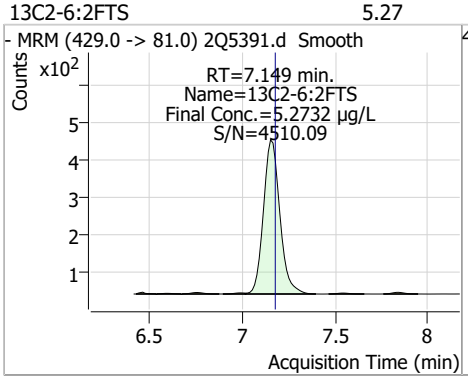
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	10.27	7.00	-0.02	366517	377.0 -> 85.0	28.9	14.9	44.7

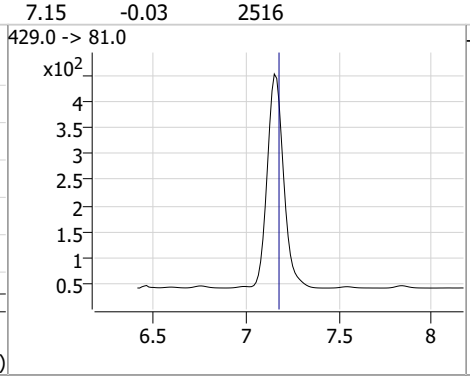


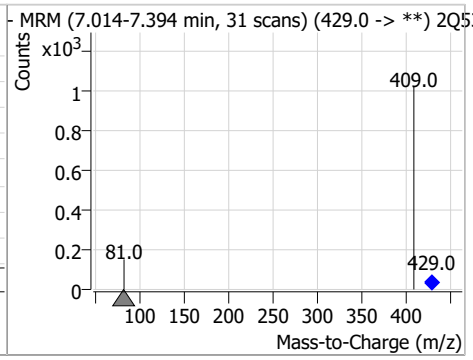




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.27	7.15	-0.03	2516				

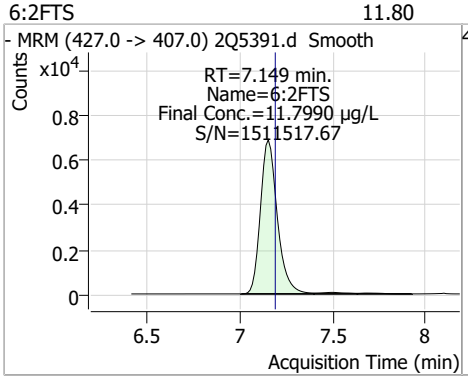


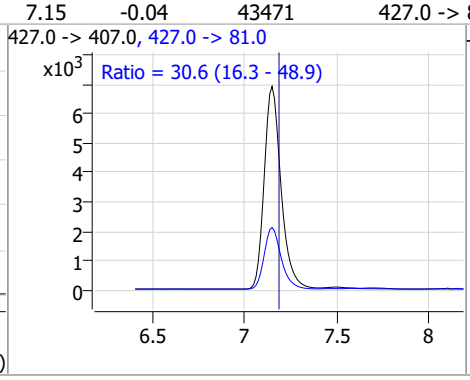


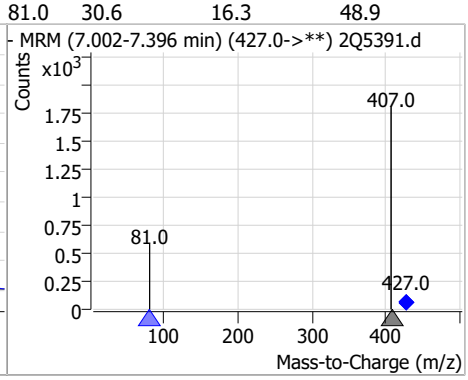


Perfluorinated Compounds by LC/MS/MS

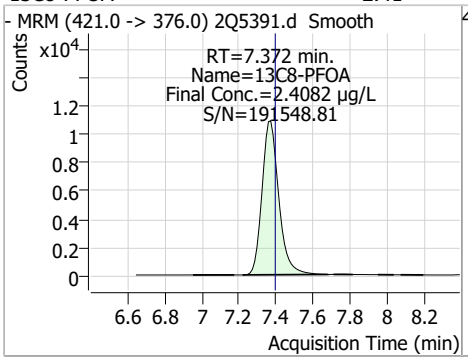
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	11.80	7.15	-0.04	43471	427.0 -> 81.0	30.6	16.3	48.9

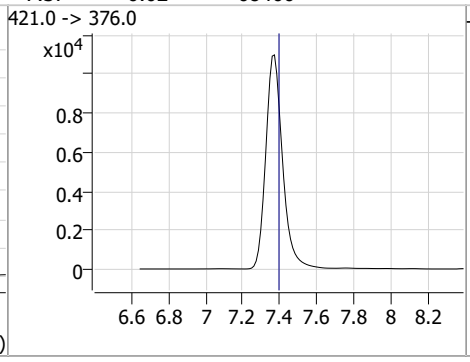


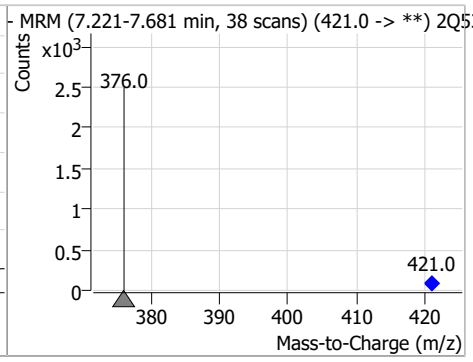




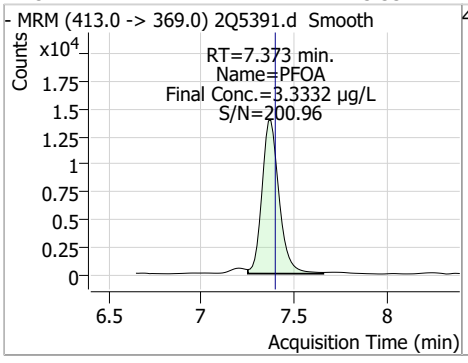
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.41	7.37	-0.02	68466				

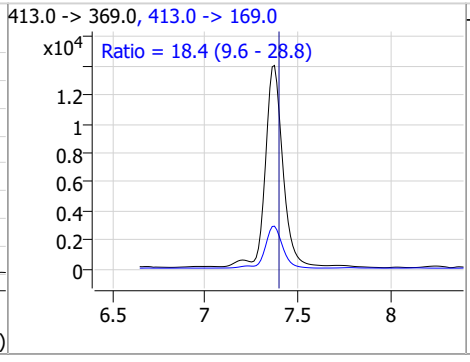


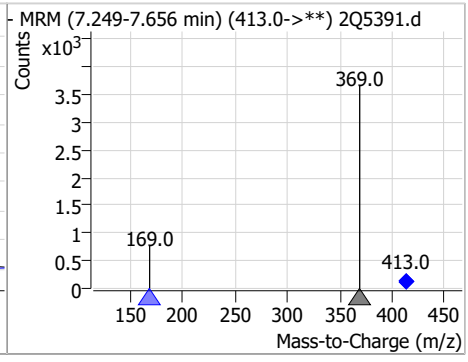




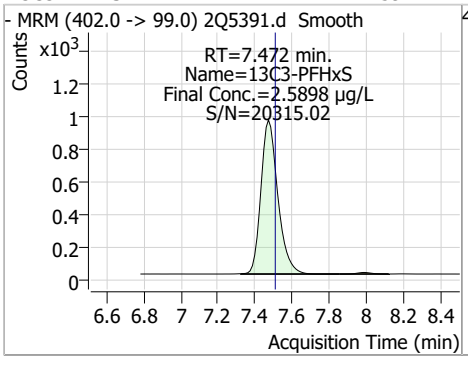
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	3.33	7.37	-0.02	89400	413.0 -> 169.0	18.4	9.6	28.8

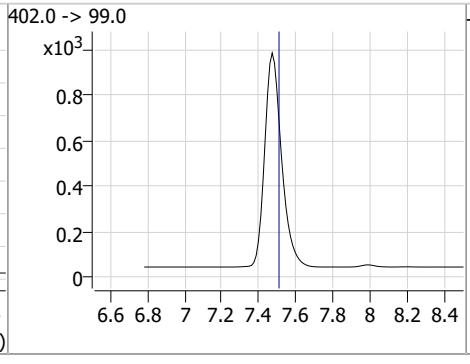


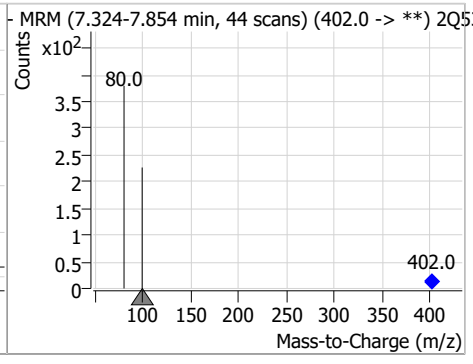




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.59	7.47	-0.04	5955				

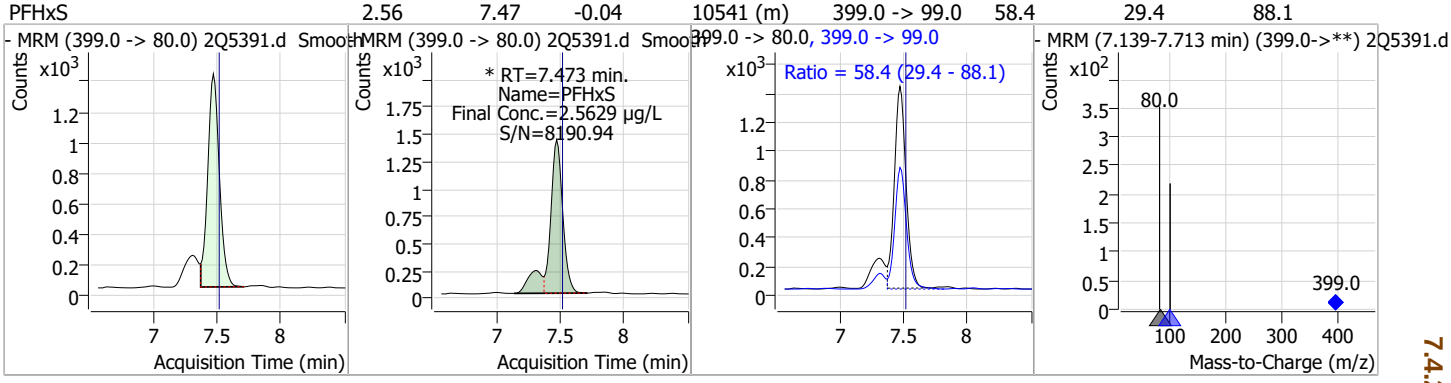




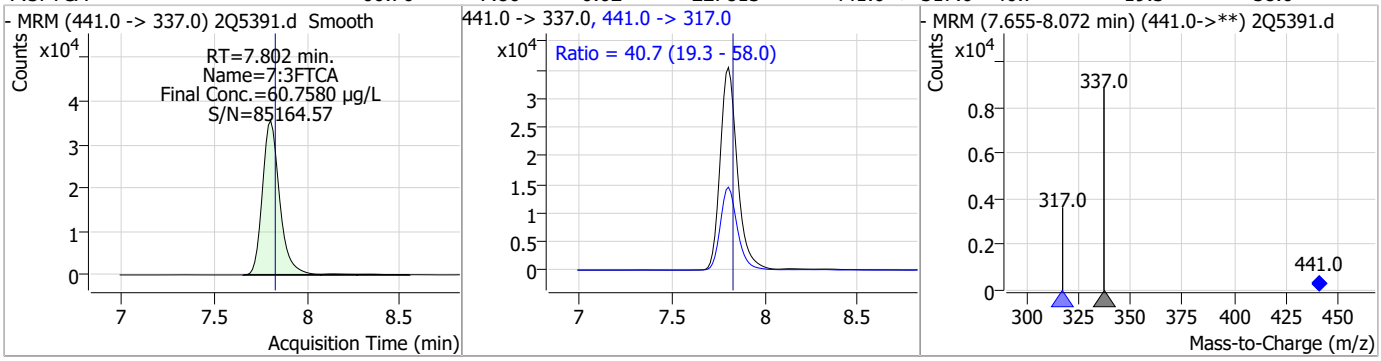


Perfluorinated Compounds by LC/MS/MS

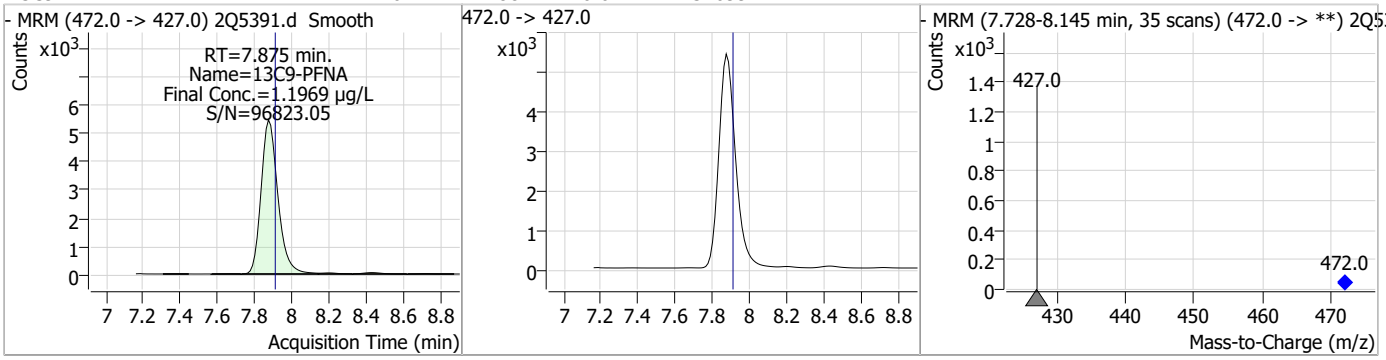
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.56	7.47	-0.04	10541 (m)	399.0 -> 99.0	58.4	29.4	88.1



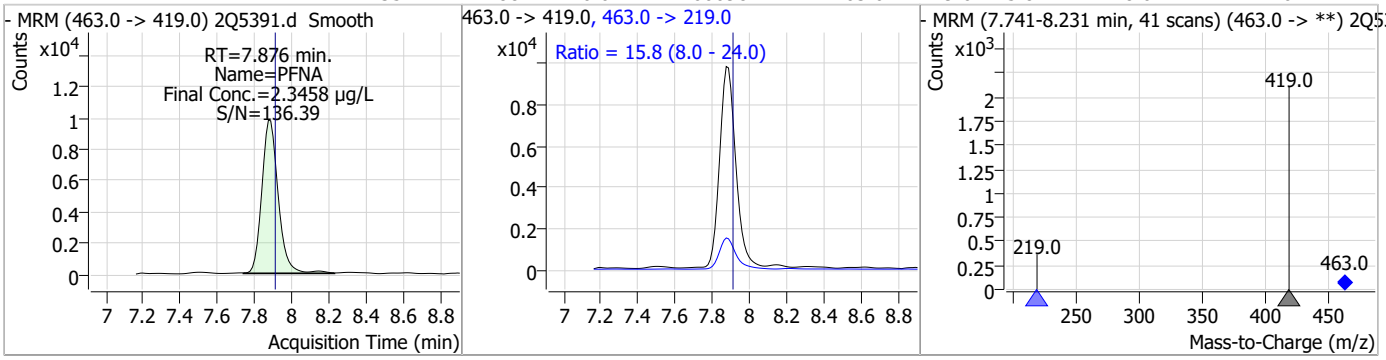
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	60.76	7.80	-0.02	227813	441.0 -> 317.0	40.7	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.20	7.88	-0.04	34099				

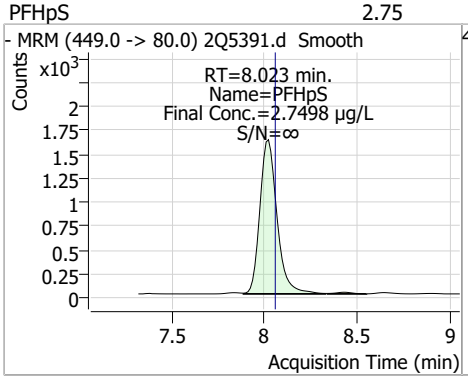


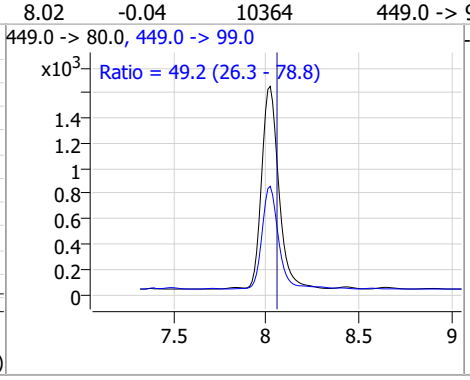
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.35	7.88	-0.04	60098	463.0 -> 219.0	15.8	8.0	24.0

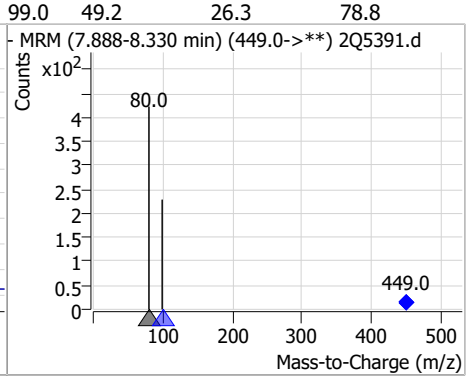


Perfluorinated Compounds by LC/MS/MS

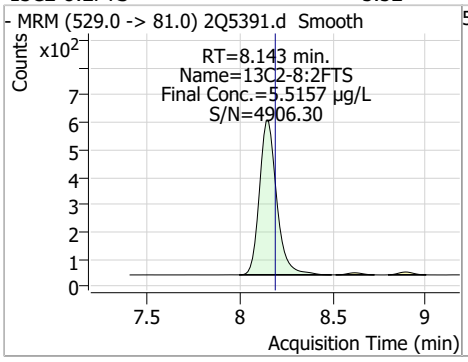
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.75	8.02	-0.04	10364	449.0 -> 99.0	49.2	26.3	78.8

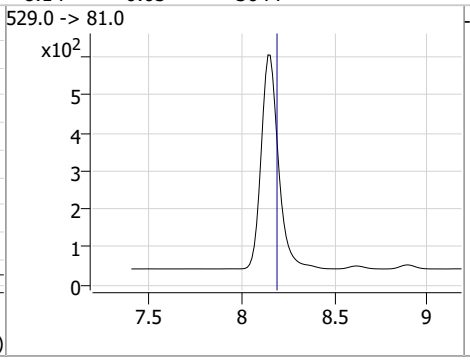


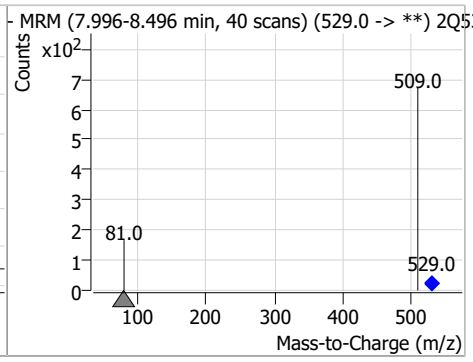




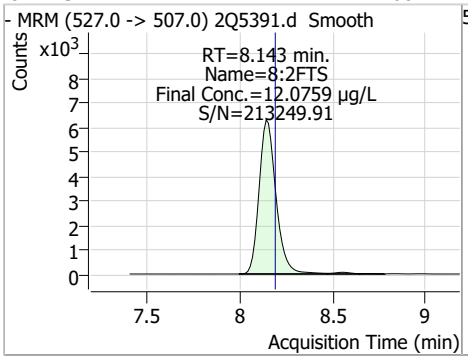
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.52	8.14	-0.05	3644				

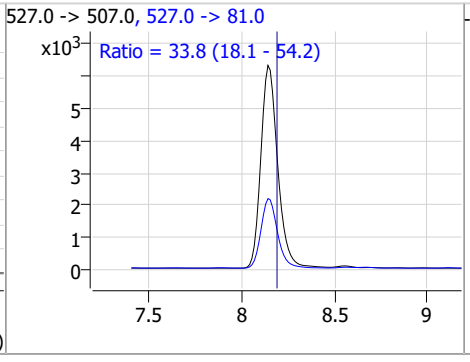


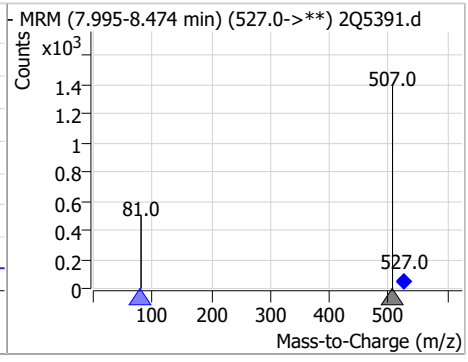




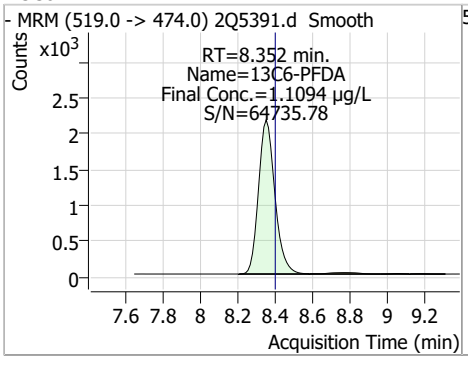
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	12.08	8.14	-0.05	39783	527.0 -> 81.0	33.8	18.1	54.2

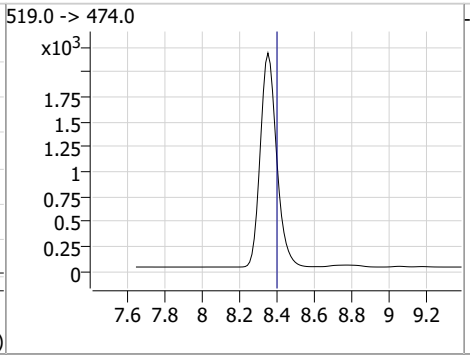


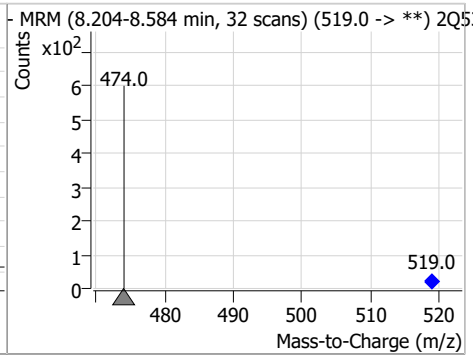




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.11	8.35	-0.05	13158				

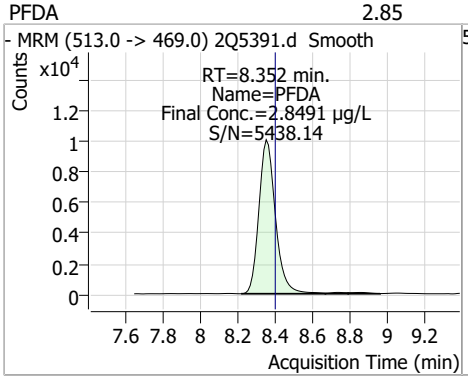


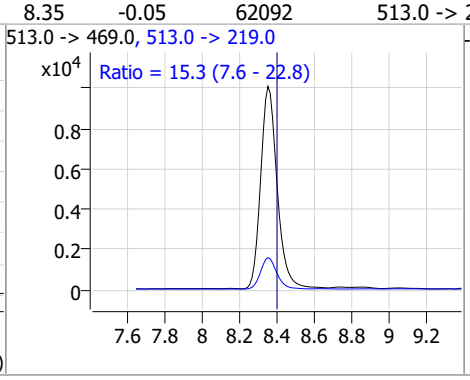


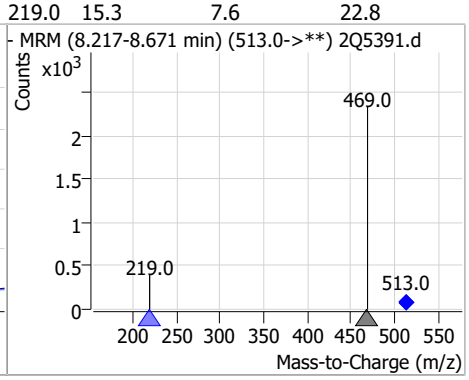


Perfluorinated Compounds by LC/MS/MS

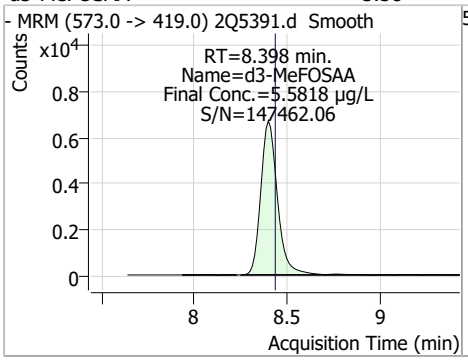
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.85	8.35	-0.05	62092	513.0 -> 219.0	15.3	7.6	22.8

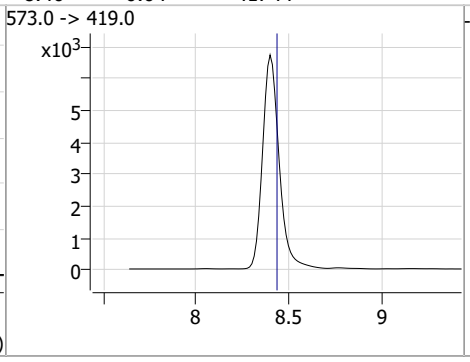


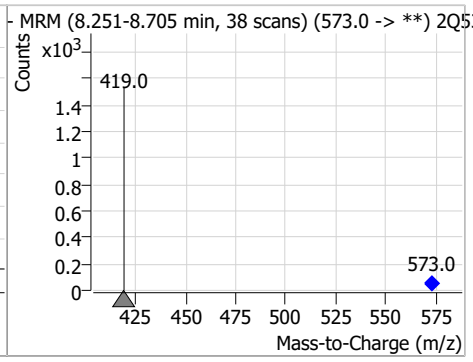




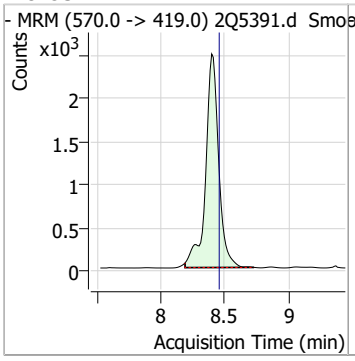
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.58	8.40	-0.04	41744				

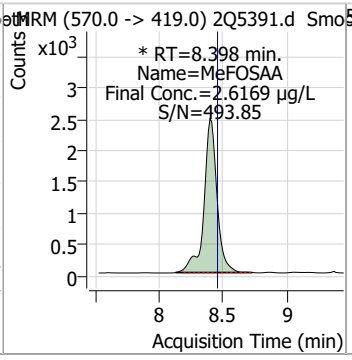


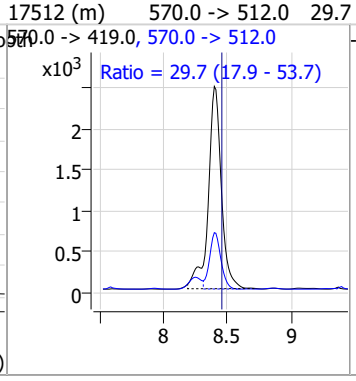


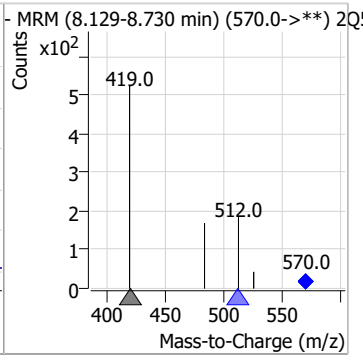


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	2.62	8.40	-0.05	17512 (m)	570.0 -> 512.0	29.7	17.9	53.7

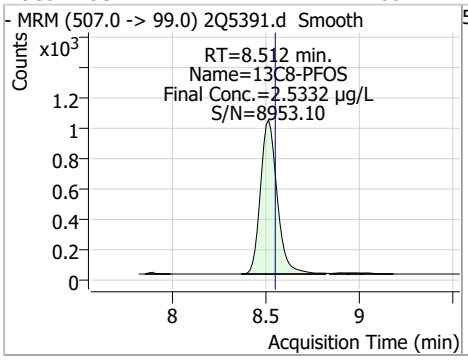


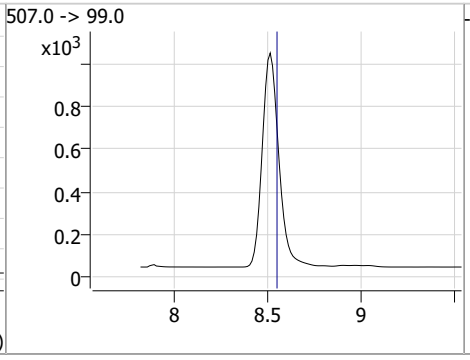


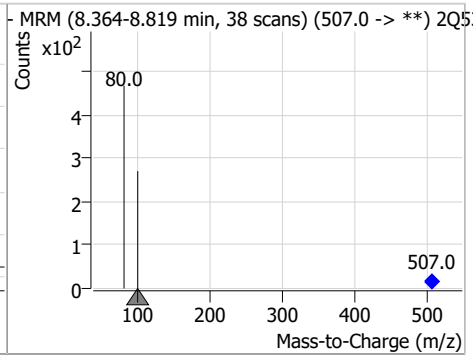




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.53	8.51	-0.04	6338				

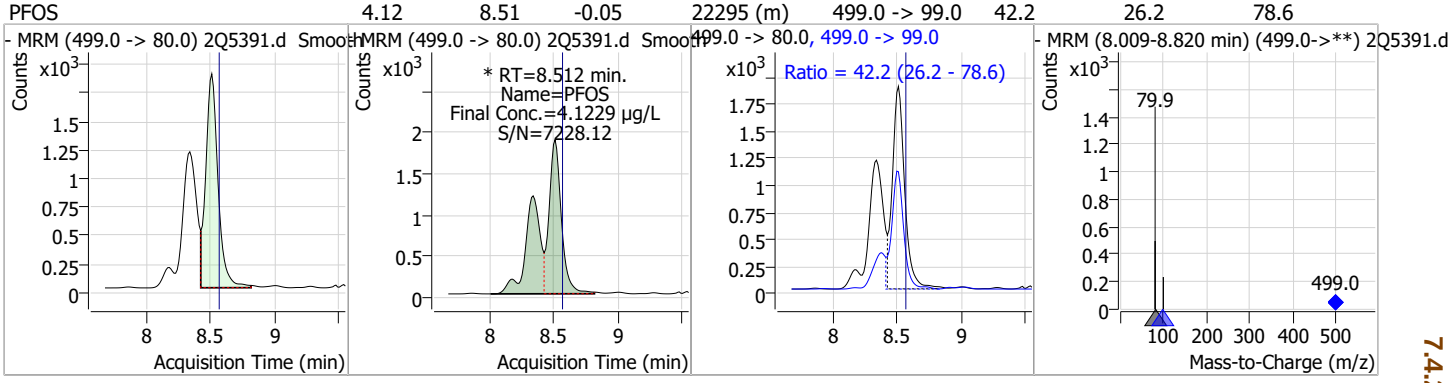




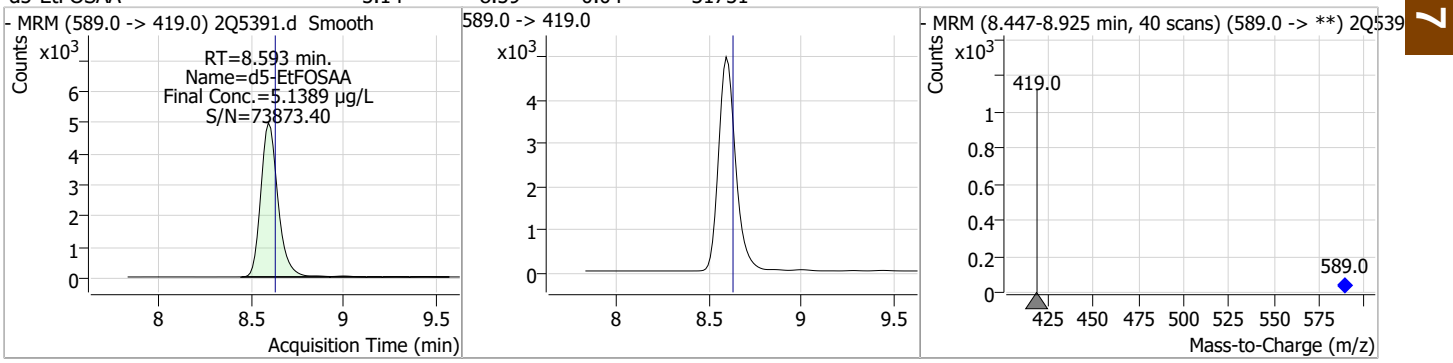


Perfluorinated Compounds by LC/MS/MS

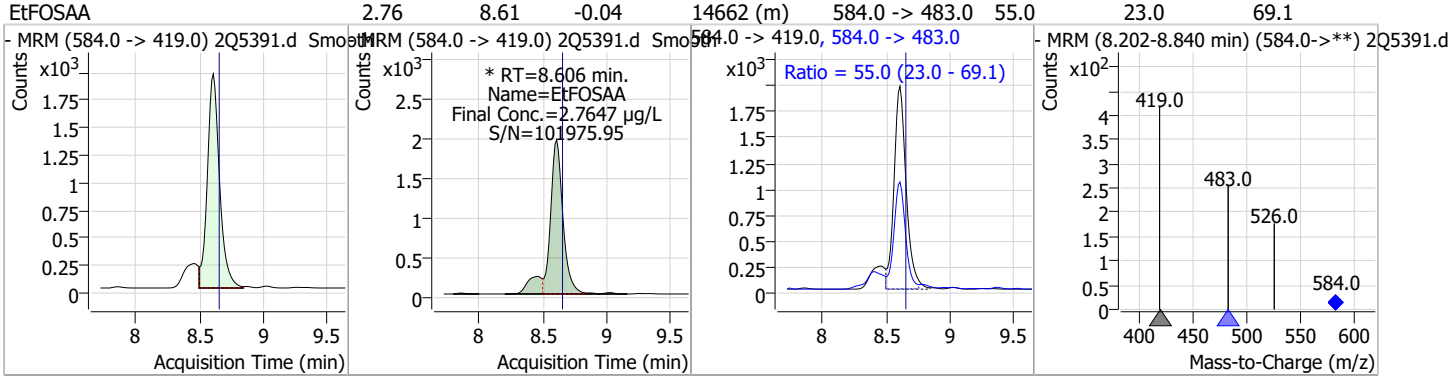
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	4.12	8.51	-0.05	22295 (m)	499.0 -> 99.0	42.2	26.2	78.6



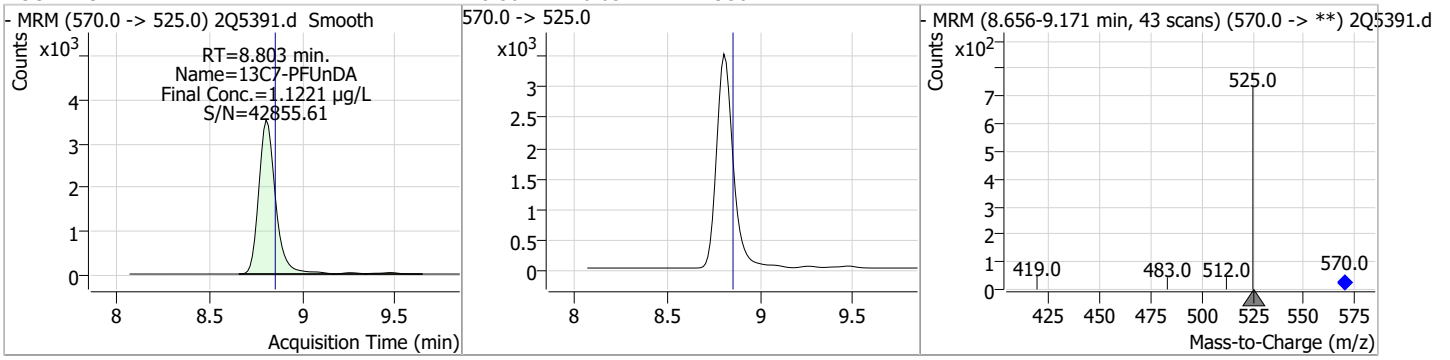
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.14	8.59	-0.04	31751				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.76	8.61	-0.04	14662 (m)	584.0 -> 483.0	55.0	23.0	69.1

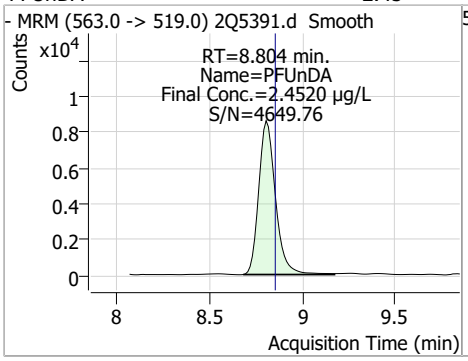


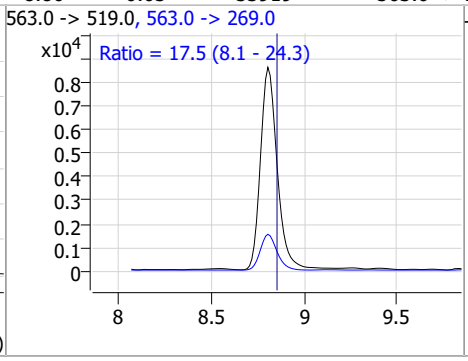
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.12	8.80	-0.05	21956				

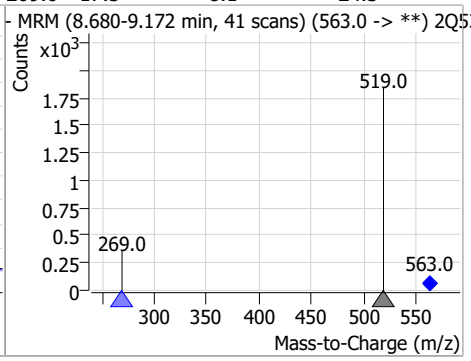


Perfluorinated Compounds by LC/MS/MS

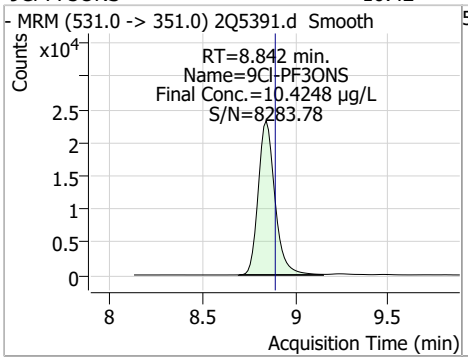
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.45	8.80	-0.05	53919	563.0 -> 269.0	17.5	8.1	24.3

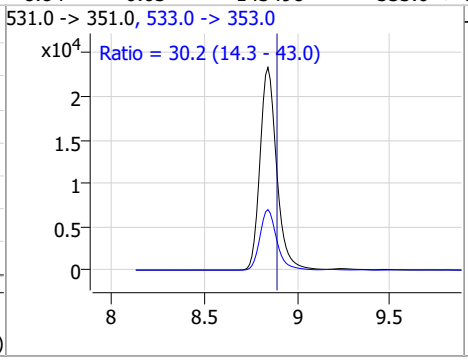


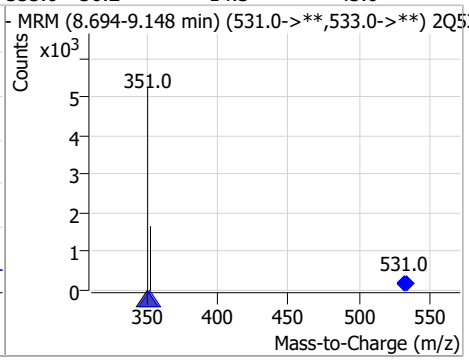




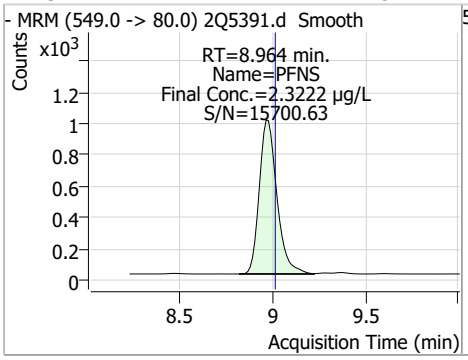
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	10.42	8.84	-0.05	145498	533.0 -> 353.0	30.2	14.3	43.0

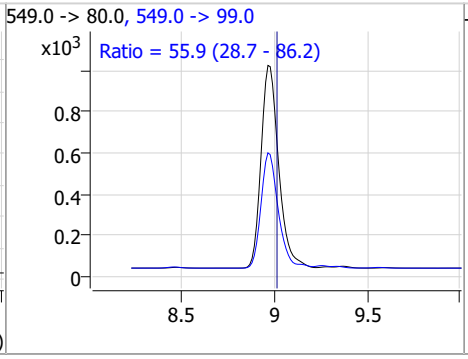


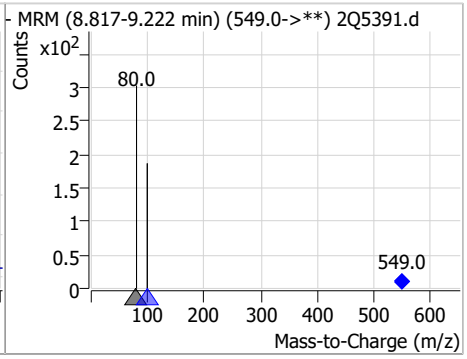




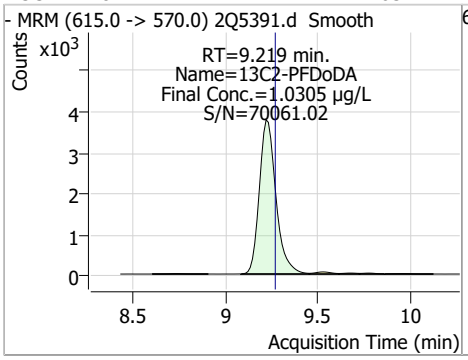
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	2.32	8.96	-0.05	6483	549.0 -> 99.0	55.9	28.7	86.2

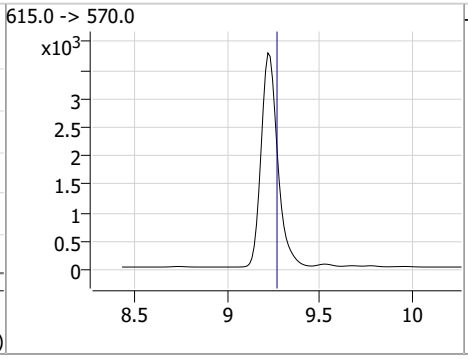


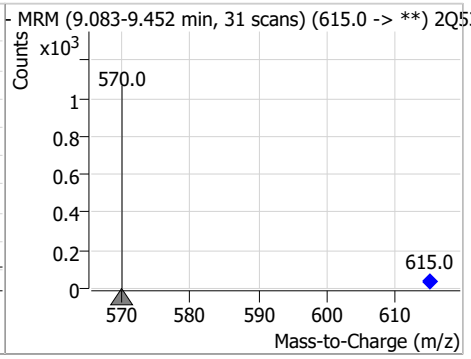




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.03	9.22	-0.05	23373				

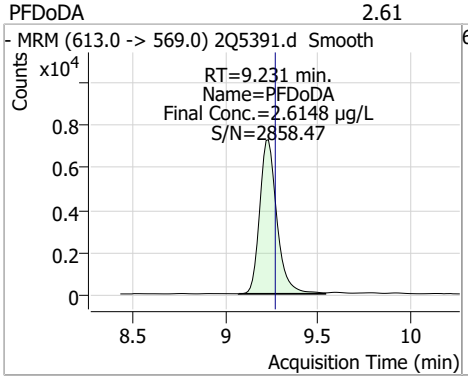


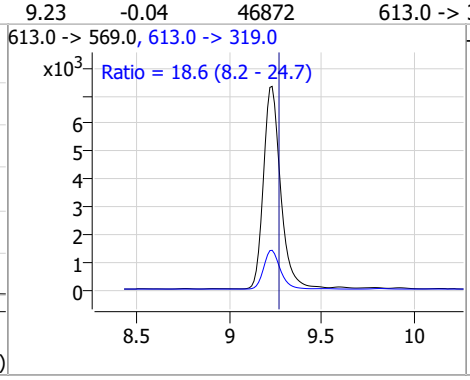


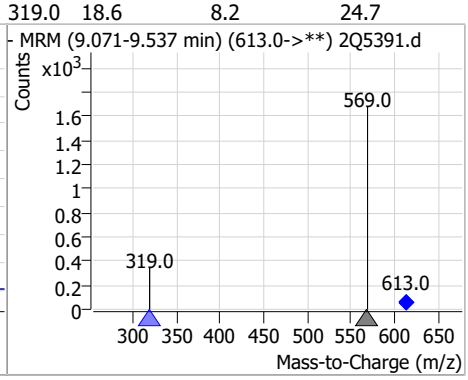


Perfluorinated Compounds by LC/MS/MS

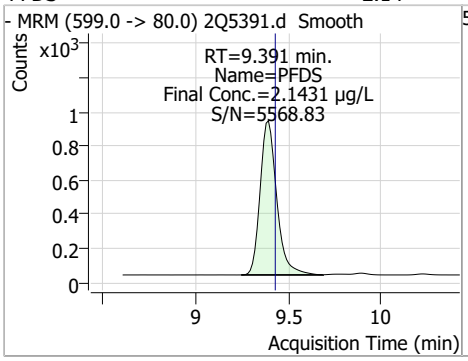
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.61	9.23	-0.04	46872	613.0 -> 319.0	18.6	8.2	24.7

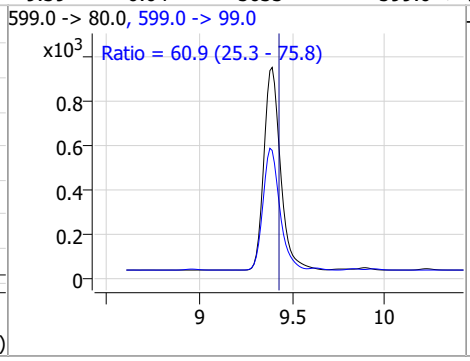


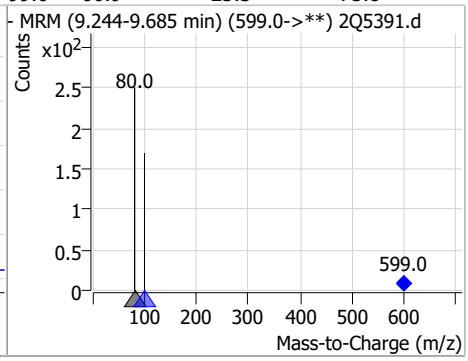




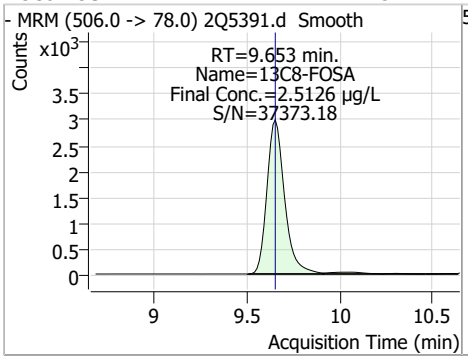
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	2.14	9.39	-0.04	5633	599.0 -> 99.0	60.9	25.3	75.8

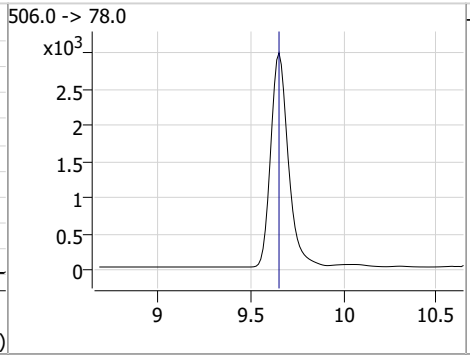


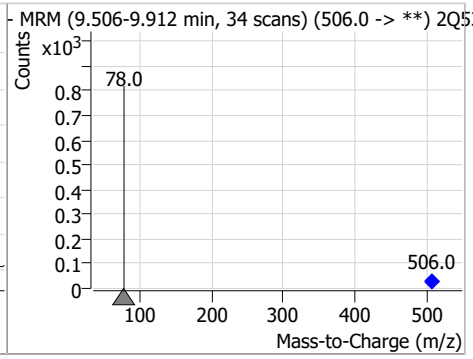




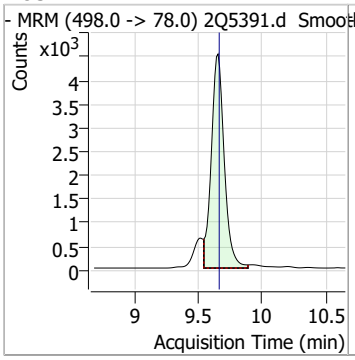
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.51	9.65	0.00	19549				

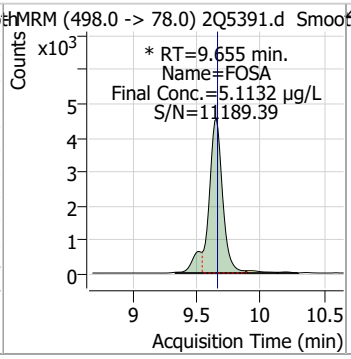


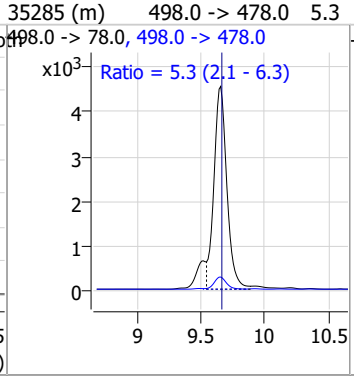


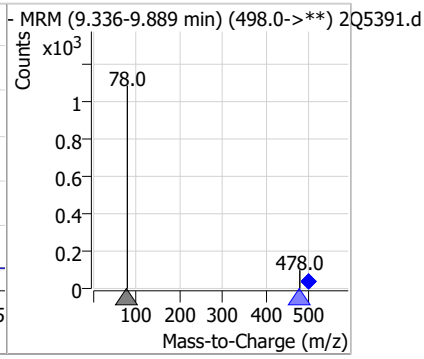


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	5.11	9.65	0.00	35285 (m)	498.0 -> 478.0	5.3	2.1	6.3



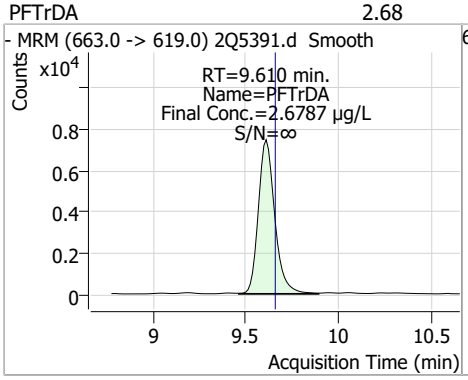


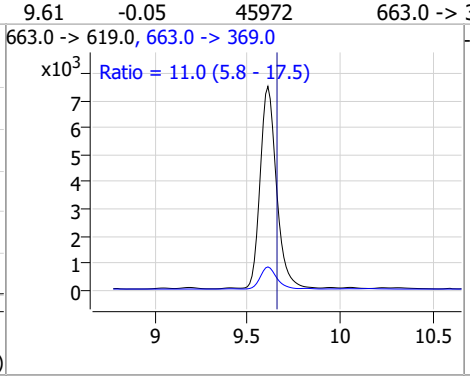


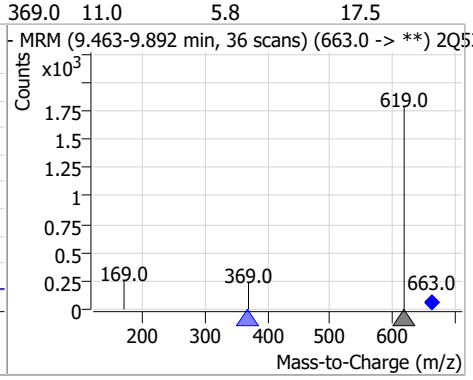


Perfluorinated Compounds by LC/MS/MS

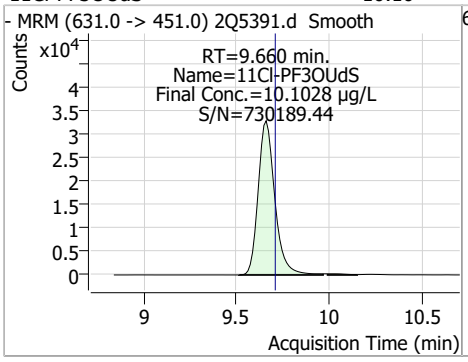
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.68	9.61	-0.05	45972	663.0 -> 369.0	11.0	5.8	17.5

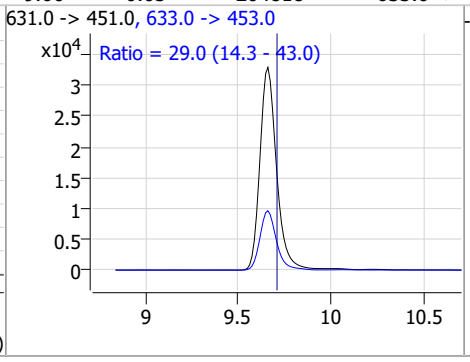


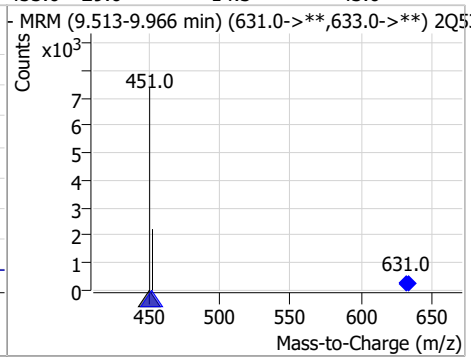




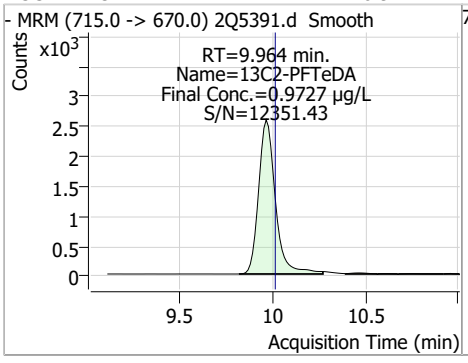
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	10.10	9.66	-0.05	204818	633.0 -> 453.0	29.0	14.3	43.0

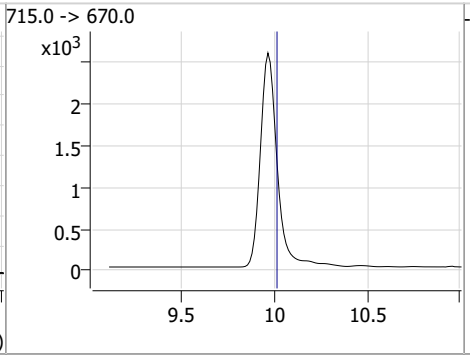


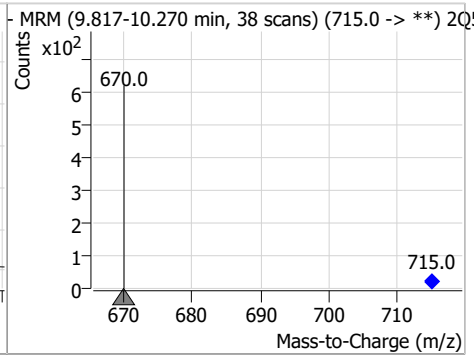




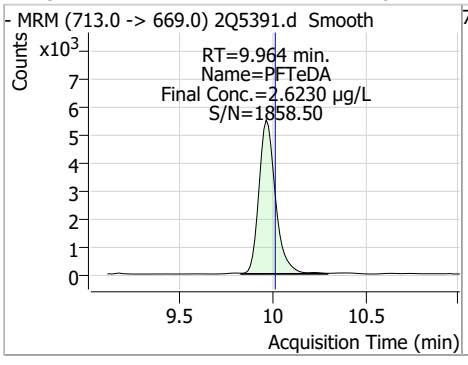
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	0.97	9.96	-0.05	16181				

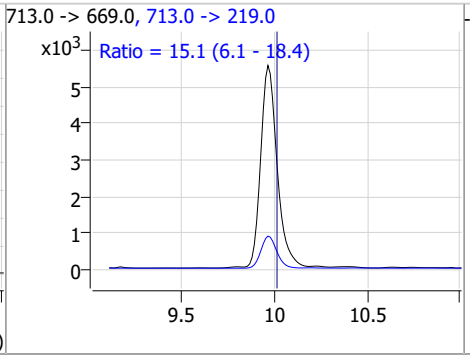


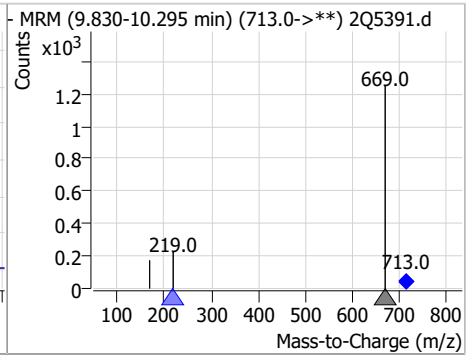




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.62	9.96	-0.05	34340	713.0 -> 219.0	15.1	6.1	18.4

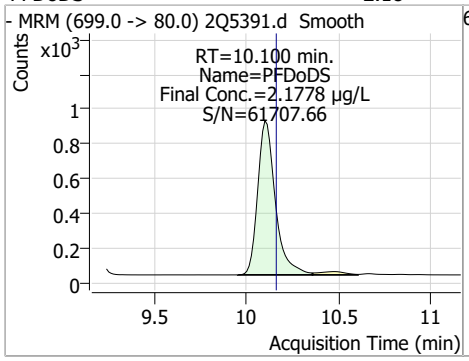


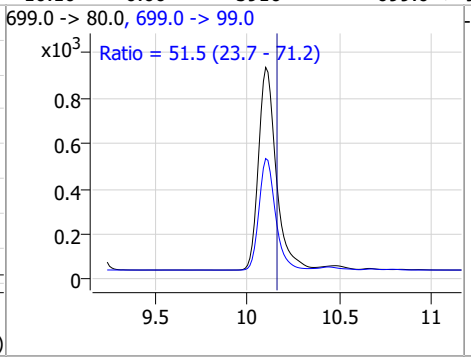


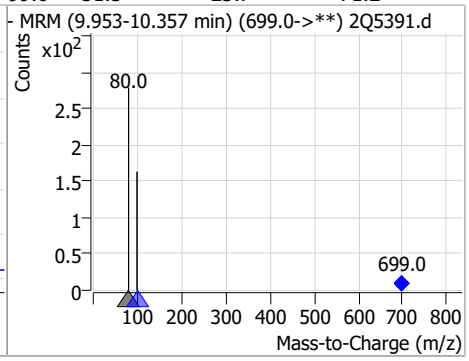


Perfluorinated Compounds by LC/MS/MS

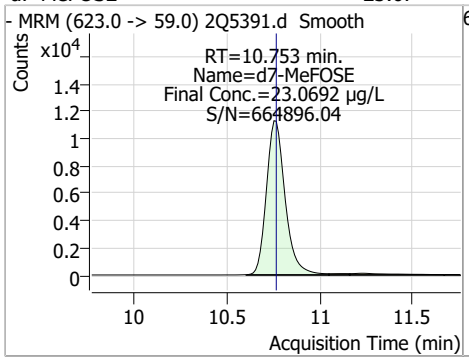
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.18	10.10	-0.06	5916	699.0 -> 99.0	51.5	23.7	71.2

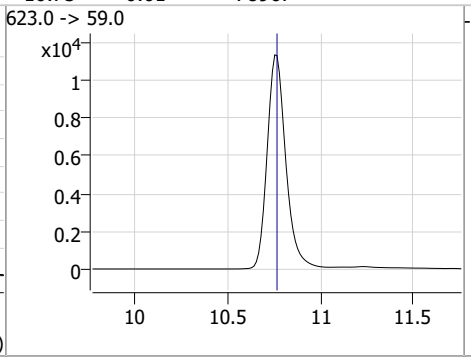


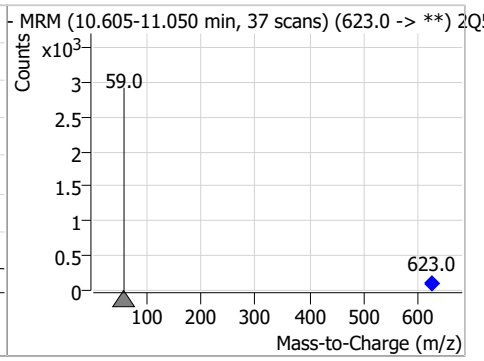




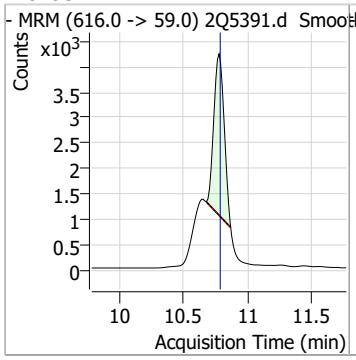
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.07	10.75	-0.01	78967				

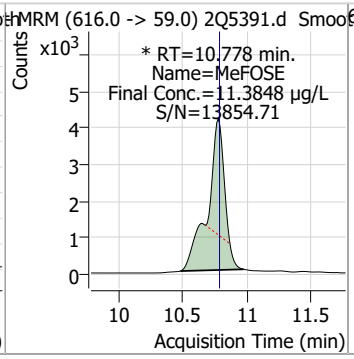


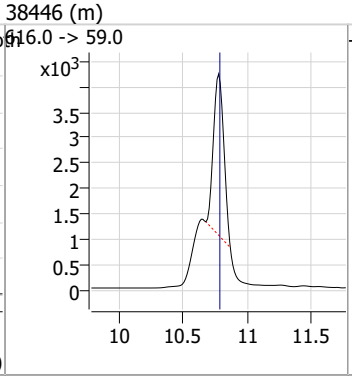


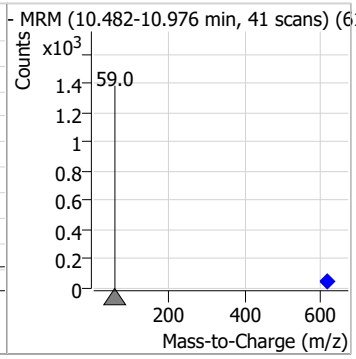


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	11.38	10.78	0.00	38446 (m)				

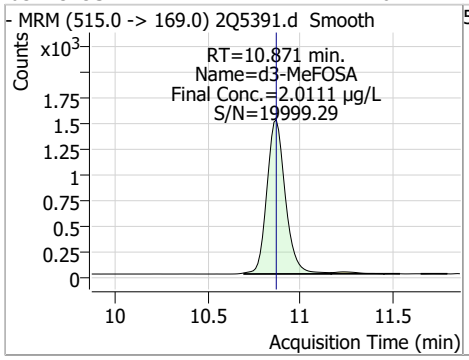


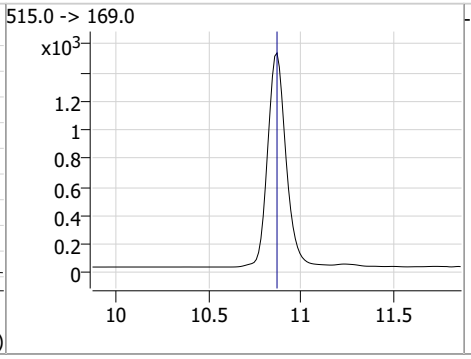


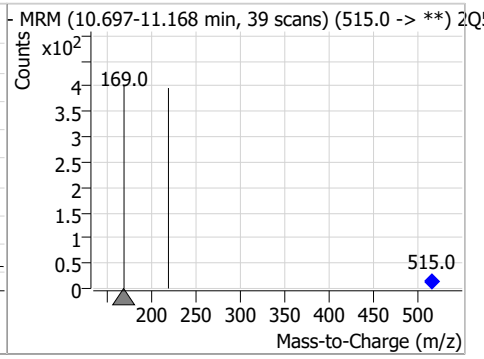




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.01	10.87	0.00	10351				

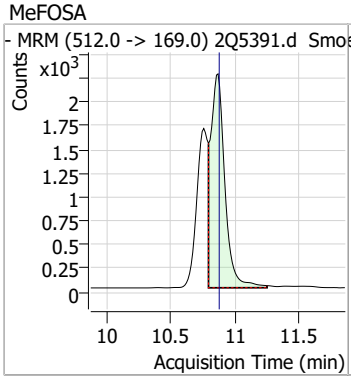


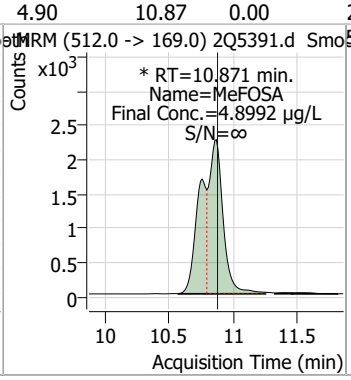


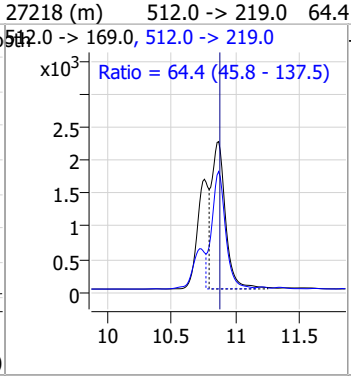


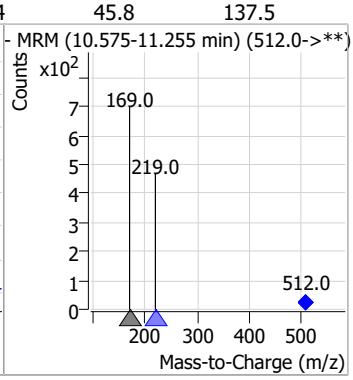
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	4.90	10.87	0.00	27218 (m)	512.0 -> 219.0	64.4	45.8	137.5

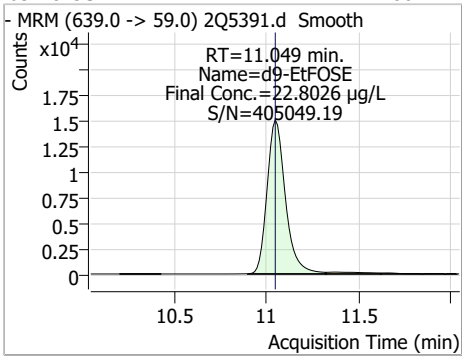


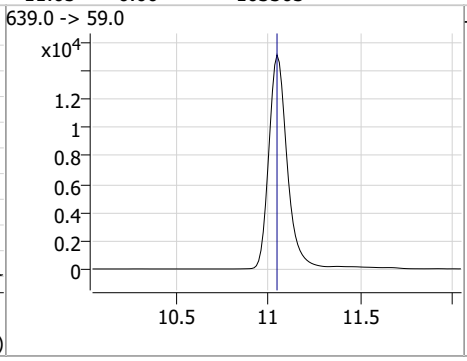


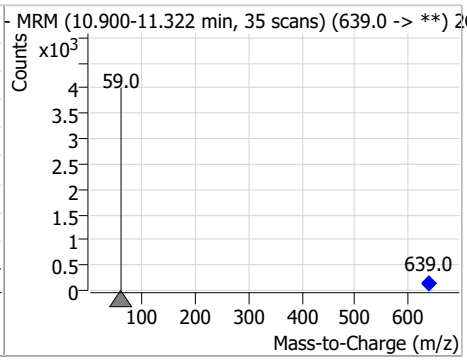




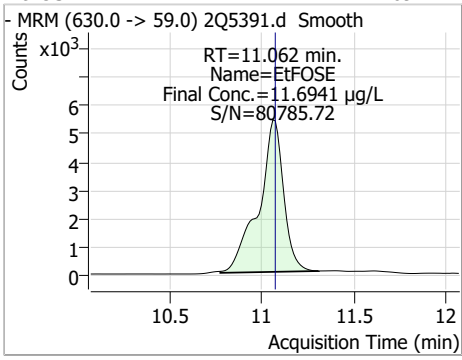
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.80	11.05	0.00	103363				

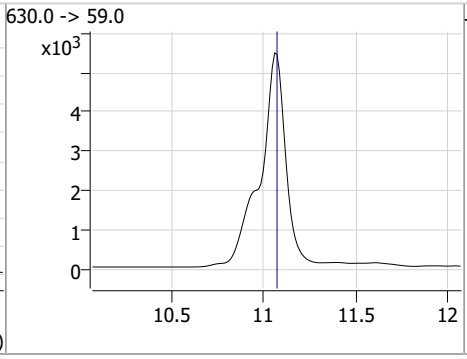


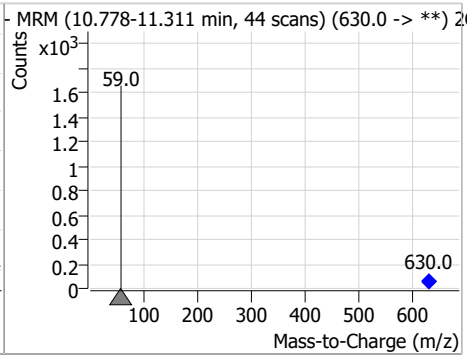




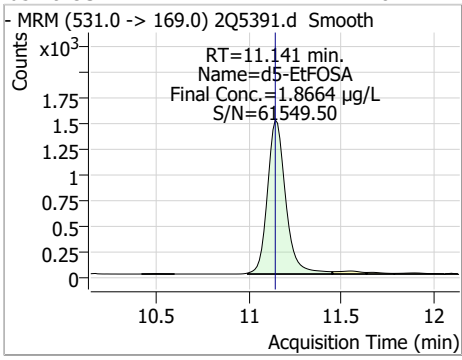
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	11.69	11.06	-0.01	50532				

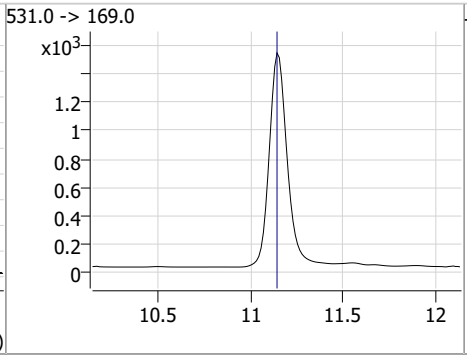


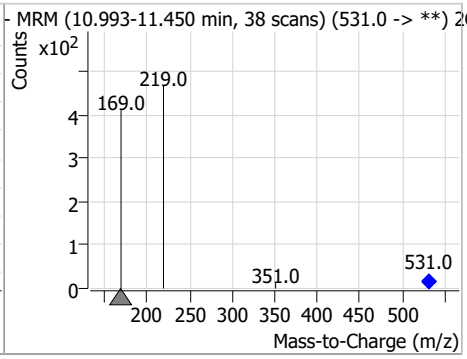




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	1.87	11.14	0.00	10299				

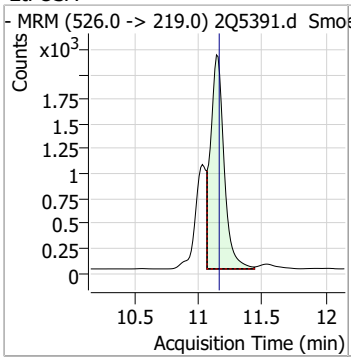


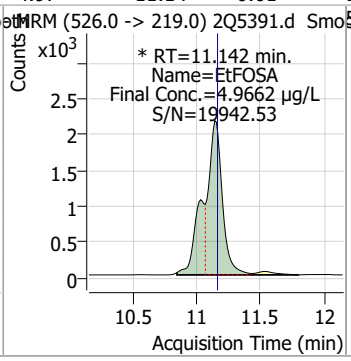


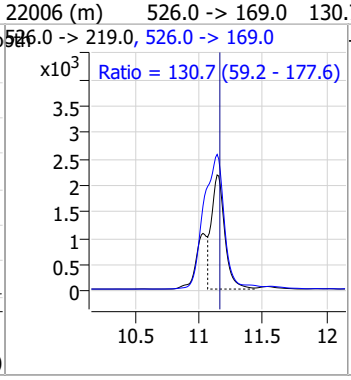


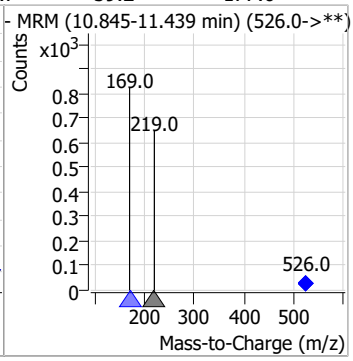
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	4.97	11.14	-0.01	22006 (m)	526.0 -> 169.0	130.7	59.2	177.6









7.4.2

7

Manual Integration Approval Summary

Sample Number: OP50811-MSD
Lab FileID: 2Q5391.D
Injection Time: 12/02/23 02:58
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
MeFOSAA	2355-31-9		8.40	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.61	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSA	4151-50-2		11.14	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5263.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 5:20:43 PM
Sample Name : ic96-1
Vial : P1-A2
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	208153	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	129058	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	70950	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	55231	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	96058	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	45368	1.25	µg/L	0.000
M6-PFDA	8.400	519.0 -> 474.0	18680	1.25	µg/L	0.000
M7-PFUnDA	8.853	570.0 -> 525.0	36607	1.25	µg/L	0.000
M2-PFDoDA	9.280	615.0 -> 570.0	37830	1.25	µg/L	0.012
M2-PFTeDA	10.025	715.0 -> 670.0	25312	1.25	µg/L	0.012
M8-FOSA	9.653	506.0 -> 78.0	26296	2.50	µg/L	0.000
M3-PFBS	5.883	302.0 -> 99.0	7523	2.50	µg/L	0.000
		302.0 -> 80.0	19864			
M3-PFHxS	7.509	402.0 -> 99.0	8316	2.50	µg/L	0.000
M8-PFOS	8.561	507.0 -> 99.0	8597	2.50	µg/L	0.012
M2-4:2FTS	5.644	329.0 -> 81.0	1518	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	3564	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4703	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	48353	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	33582	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	39874	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	113545	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	147433	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	19385	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	16541	2.50	µg/L	0.000
13C4-PFOS	8.561	503.0 -> 80.0	15299	2.50	µg/L	0.012
13C3-PFBA	3.342	216.0 -> 172.0	90342	5.00	µg/L	0.000
18O2-PFHxS	7.509	403.0 -> 84.0	8537	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	91397	2.50	µg/L	0.000
13C2-PFDA	8.401	515.0 -> 470.0	36632	1.25	µg/L	0.000
13C5-PFNA	7.912	468.0 -> 423.0	46983	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	65272	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1518	4.87	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.4%		
13C2-6:2FTS	7.175	429.0 -> 81.0	3564	5.16	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.2%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4703	4.91	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.3%		
13C2-PFDoDA	9.280	615.0 -> 570.0	37830	1.29	µg/L	0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 103.5%		
13C2-PFTeDA	10.025	715.0 -> 670.0	25312	1.18	µg/L	0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 94.4%		
13C3-PFBS	5.883	302.0 -> 99.0	7523	2.37	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.8%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	8316	2.50	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.9%			
13C4-PFBA	3.339	217.0 -> 172.0	208153	10.23	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.3%			
13C4-PFHpA	6.795	367.0 -> 322.0	55231	2.60	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.1%			
13C5-PFHxA	5.955	318.0 -> 273.0	70950	2.62	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.7%			
13C5-PFPeA	4.810	268.0 -> 223.0	129058	5.28	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.5%			
13C6-PFDA	8.400	519.0 -> 474.0	18680	1.22	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.7%			
13C7-PFUnDA	8.853	570.0 -> 525.0	36607	1.45	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 116.1%			
13C8-FOSA	9.653	506.0 -> 78.0	26296	2.54	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.5%			
13C8-PFOA	7.397	421.0 -> 376.0	96058	2.54	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.5%			
13C8-PFOS	8.561	507.0 -> 99.0	8597	2.58	µg/L		0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.2%			
13C9-PFNA	7.912	472.0 -> 427.0	45368	1.23	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.7%			
d3-MeFOSAA	8.435	573.0 -> 419.0	48353	4.86	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	33582	10.85	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 108.5%			
d3-MeFOSA	10.871	515.0 -> 169.0	16541	2.41	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.5%			
d5-EtFOSAA	8.630	589.0 -> 419.0	39874	4.85	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.9%			
d7-MeFOSE	10.766	623.0 -> 59.0	113545	24.91	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 99.6%			
d9-EtFOSE	11.049	639.0 -> 59.0	147433	24.43	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 97.7%			
d5-EtFOSA	11.141	531.0 -> 169.0	19385	2.64	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.5%			
Target Compounds							**QValue**
4:2FTS	5.644	327.0 -> 307.0	1892	0.75	µg/L		80
		327.0 -> 81.0	1245				
6:2FTS	7.175	427.0 -> 407.0	3589	0.69	µg/L		90
		427.0 -> 81.0	1364				
8:2FTS	8.179	527.0 -> 507.0	2359	0.55	µg/L		82
		527.0 -> 81.0	1095				
EtFOSAA	8.643	584.0 -> 419.0	1274	0.19	µg/L	m	95
		584.0 -> 483.0	617				
FOSA	9.655	498.0 -> 78.0	3299	0.35	µg/L	m	98
		498.0 -> 478.0	130				
MeFOSAA	8.436	570.0 -> 419.0	1482	0.20	µg/L	m	73
		570.0 -> 512.0	293				
PFBA	3.346	213.0 -> 169.0	4048	0.77	µg/L		100
PFBS	5.885	299.0 -> 80.0	1488	0.19	µg/L		100
		299.0 -> 99.0	631				
PFDA	8.401	513.0 -> 469.0	5336	0.20	µg/L		87
		513.0 -> 219.0	1102				
PFDoDA	9.280	613.0 -> 569.0	6454	0.22	µg/L		98
		613.0 -> 319.0	992				

Perfluorinated Compounds by LC/MS/MS

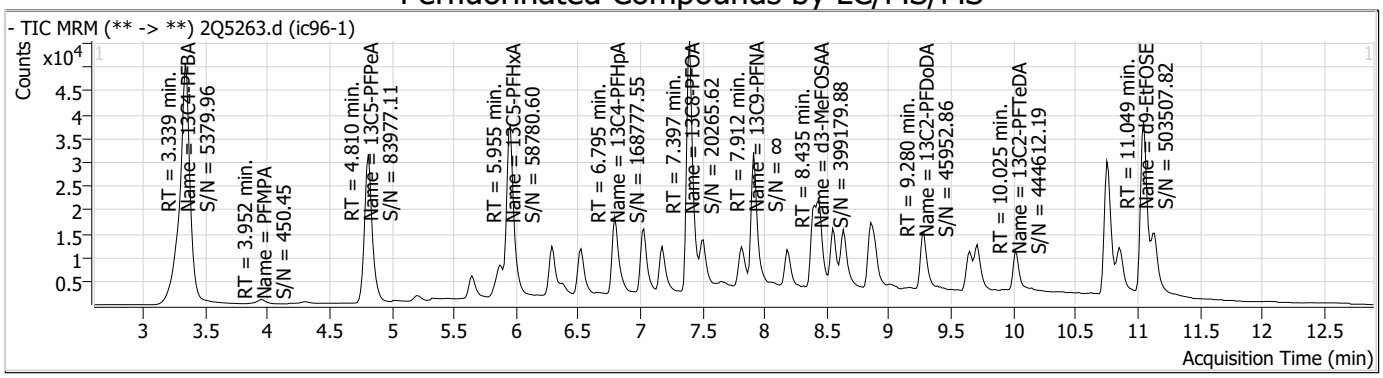
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.440	599.0 -> 80.0	712	0.16	µg/L		80
		599.0 -> 99.0	458				
PFHpA	6.796	363.0 -> 319.0	5519	0.20	µg/L		93
		363.0 -> 169.0	1080				
PFHpS	8.059	449.0 -> 80.0	1127	0.21	µg/L		99
		449.0 -> 99.0	580				
PFHxA	5.957	313.0 -> 269.0	5334	0.19	µg/L		97
		313.0 -> 119.0	104				
PFHxS	7.509	399.0 -> 80.0	1282	0.22	µg/L	m	61
		399.0 -> 99.0	372				
PFNA	7.924	463.0 -> 419.0	6053	0.18	µg/L		85
		463.0 -> 219.0	1345				
PFNS	9.025	549.0 -> 80.0	912	0.24	µg/L		63
		549.0 -> 99.0	276				
PFOA	7.397	413.0 -> 369.0	6916	0.18	µg/L		98
		413.0 -> 169.0	1390				
PFOS	8.549	499.0 -> 80.0	1544	0.21	µg/L	m	76
		499.0 -> 99.0	420				
PFPeA	4.812	263.0 -> 219.0	8744	0.38	µg/L		100
PFPeS	6.858	349.0 -> 80.0	1075	0.24	µg/L		90
		349.0 -> 99.0	532				
PFTeDA	10.026	713.0 -> 669.0	4074	0.20	µg/L		89
		713.0 -> 219.0	670				
PFTrDA	9.659	663.0 -> 619.0	4577	0.16	µg/L		90
		663.0 -> 369.0	715				
PFUnDA	8.853	563.0 -> 519.0	6702	0.18	µg/L		98
		563.0 -> 269.0	1034				
11Cl-PF3OUdS	9.709	631.0 -> 451.0	23699	0.78	µg/L		99
		633.0 -> 453.0	6887				
9Cl-PF3ONS	8.891	531.0 -> 351.0	15303	0.74	µg/L		100
		533.0 -> 353.0	4391				
ADONA	7.029	377.0 -> 251.0	39123	0.73	µg/L		100
		377.0 -> 85.0	11752				
HFPO-DA	6.295	285.0 -> 169.0	3007	0.83	µg/L		76
		285.0 -> 185.0					
3:3FTCA	4.301	241.0 -> 177.0	1370	0.95	µg/L		95
		241.0 -> 117.0	130				
5:3FTCA	6.524	341.0 -> 237.0	22055	4.49	µg/L		95
		341.0 -> 217.0	16515				
7:3FTCA	7.815	441.0 -> 337.0	24603	4.70	µg/L		100
		441.0 -> 317.0	9486				
EtFOSA	11.154	526.0 -> 219.0	3006	0.35	µg/L	m	94
		526.0 -> 169.0	4262				
EtFOSE	11.075	630.0 -> 59.0	5659	0.92	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	3671	0.41	µg/L	m	81
		512.0 -> 219.0	2082				
MeFOSE	10.778	616.0 -> 59.0	4479	0.92	µg/L	m	100
PFDoDS	10.161	699.0 -> 80.0	597	0.16	µg/L	#	29
		699.0 -> 99.0	567				
NFDHA	5.848	295.0 -> 201.0	591	0.34	µg/L		82
		201.0 -> 85.0	3431				
		295.0 -> 85.0	136				
PFMBA	5.213	279.0 -> 85.0	5069	0.40	µg/L		100
PFMPA	3.952	229.0 -> 85.0	4997	0.38	µg/L		100
PFEESA	6.377	315.0 -> 135.0	7013	0.36	µg/L		98
		315.0 -> 69.0	723				

Perfluorinated Compounds by LC/MS/MS

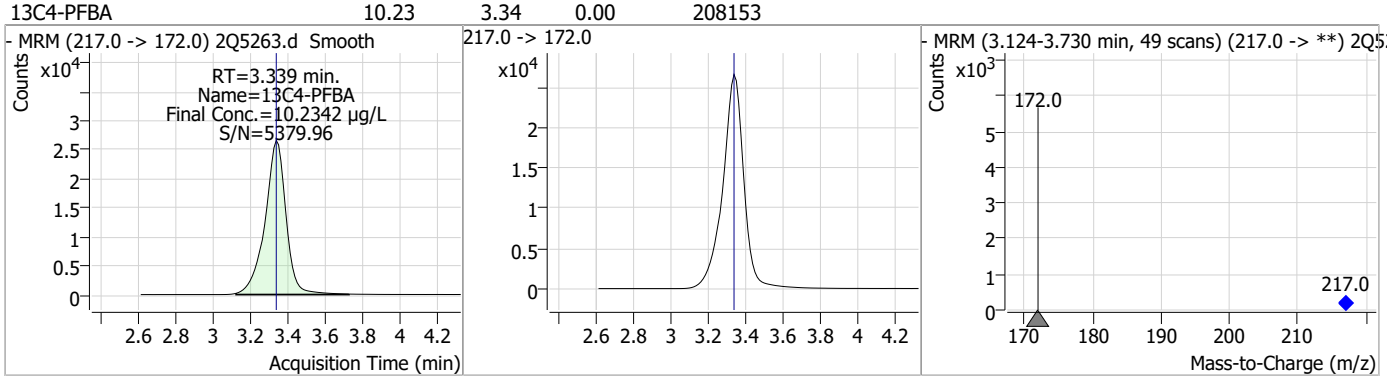
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

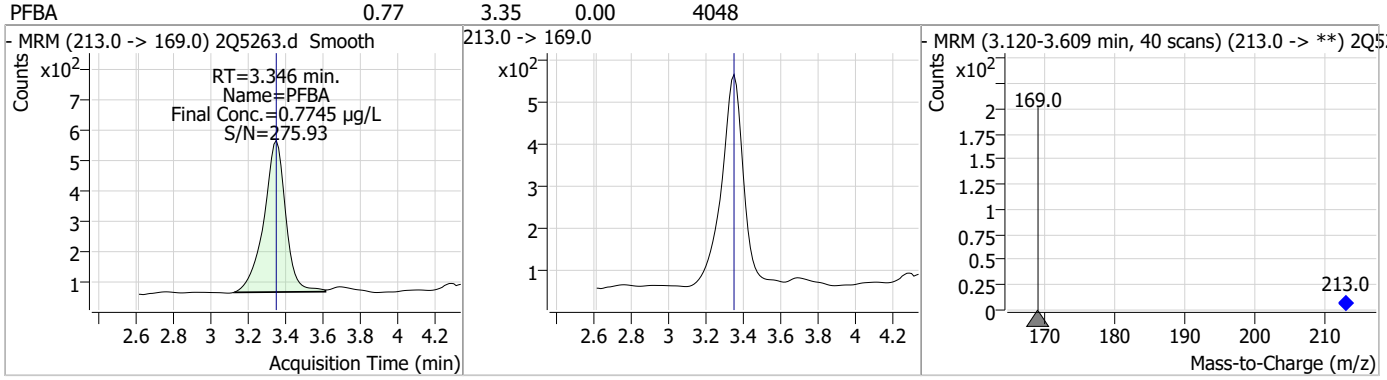
Perfluorinated Compounds by LC/MS/MS



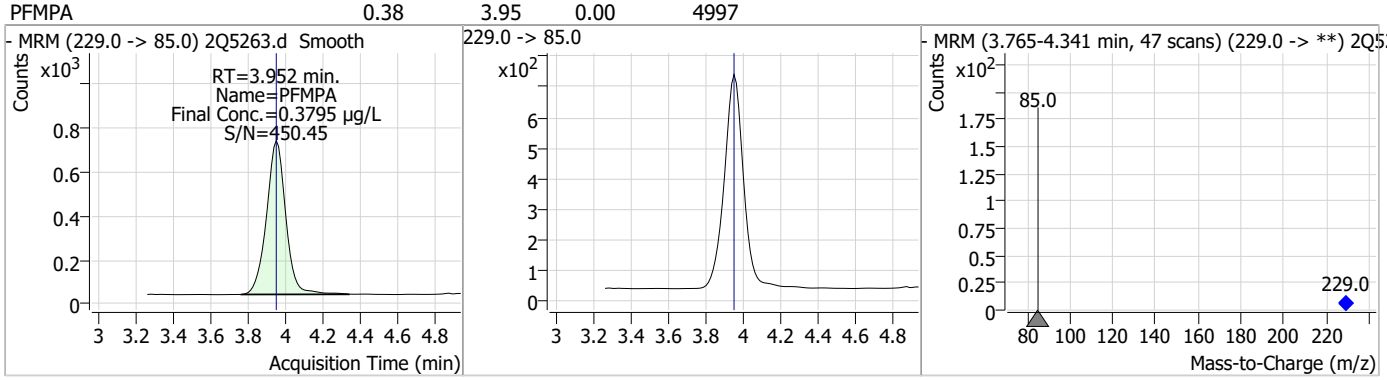
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.23	3.34	0.00	208153				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.77	3.35	0.00	4048				

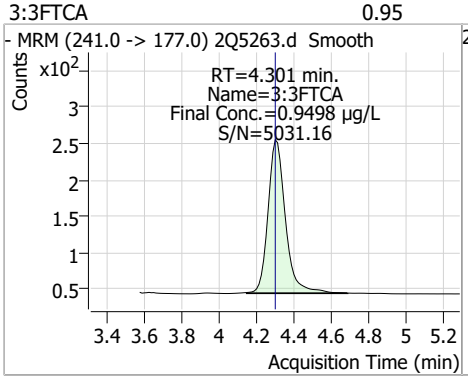


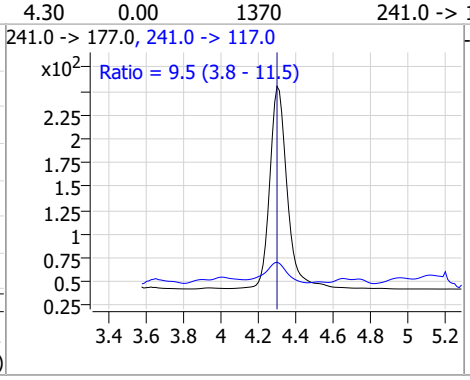
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	0.38	3.95	0.00	4997				

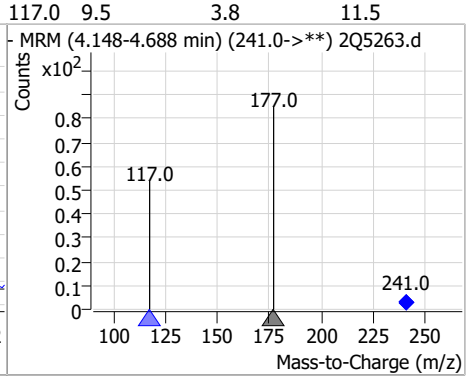


Perfluorinated Compounds by LC/MS/MS

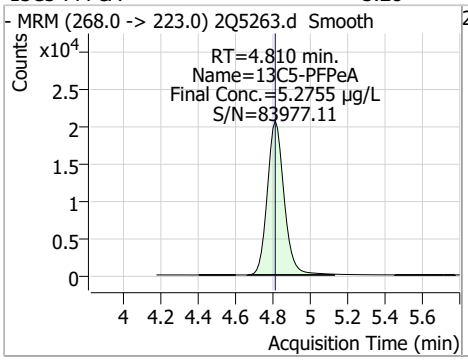
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	0.95	4.30	0.00	1370	241.0 -> 117.0	9.5	3.8	11.5

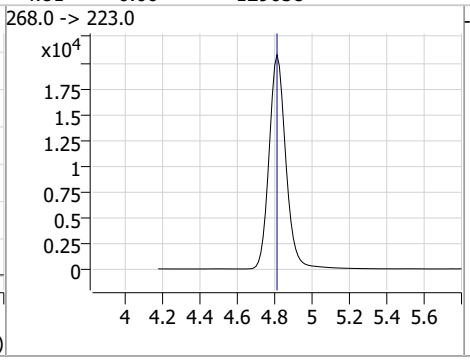


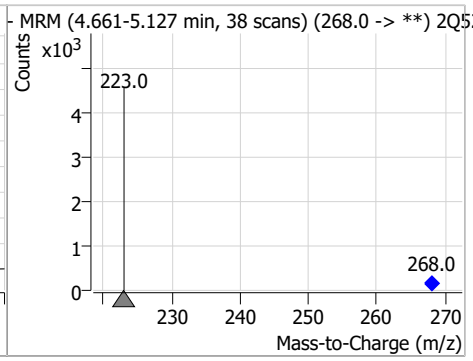




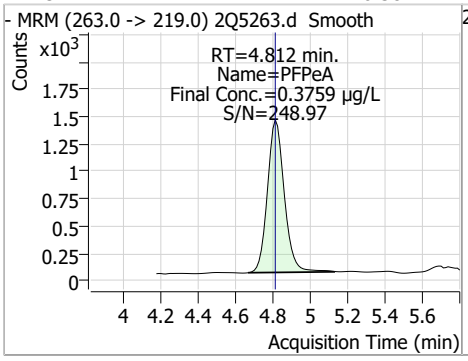
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.28	4.81	0.00	129058				

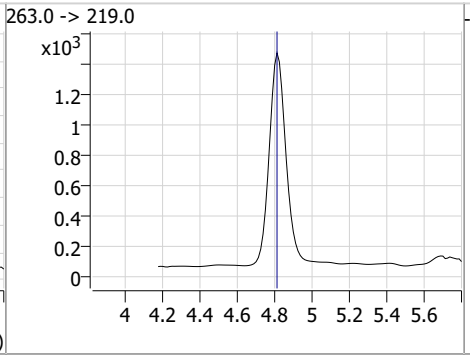


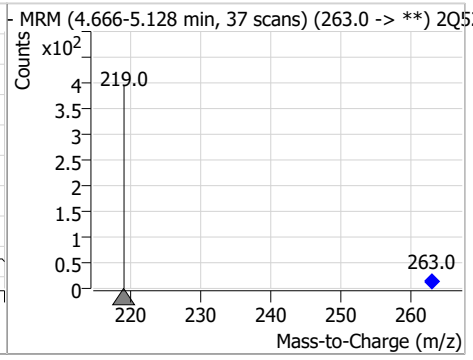




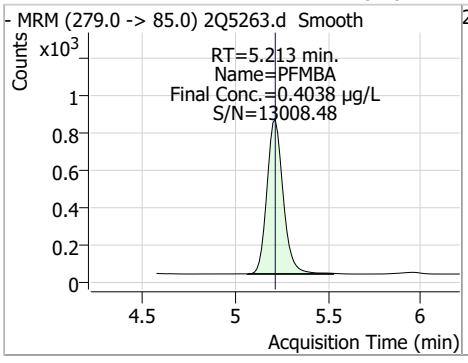
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.38	4.81	0.00	8744				

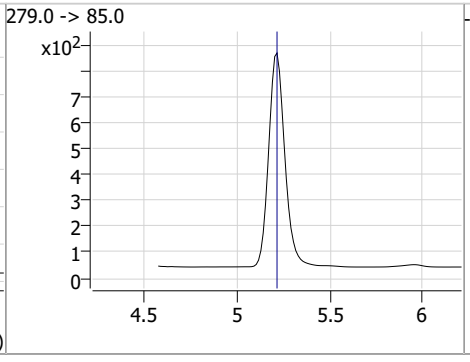


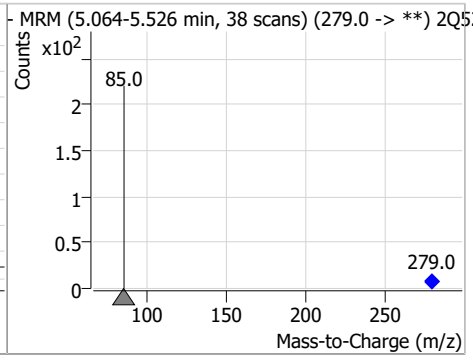




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	0.40	5.21	0.00	5069				

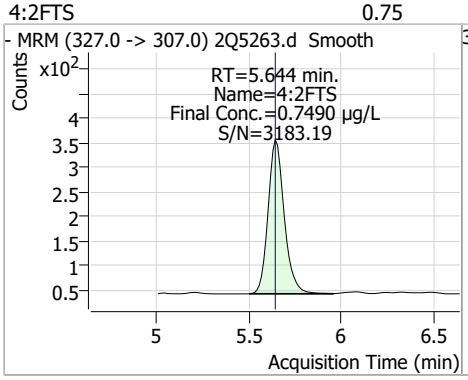


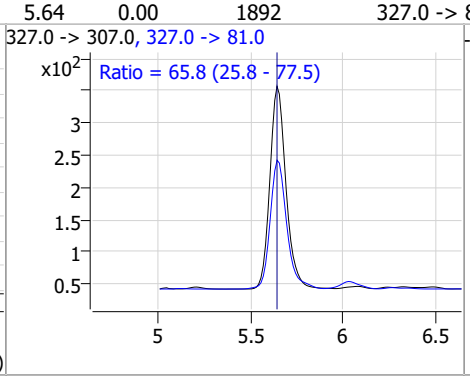


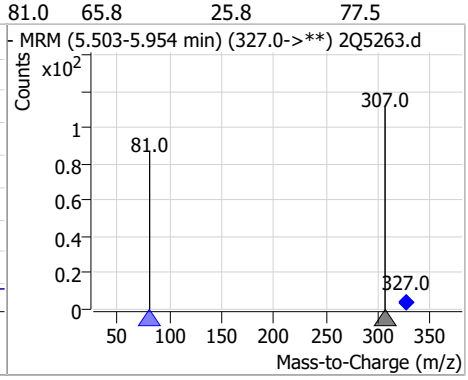


Perfluorinated Compounds by LC/MS/MS

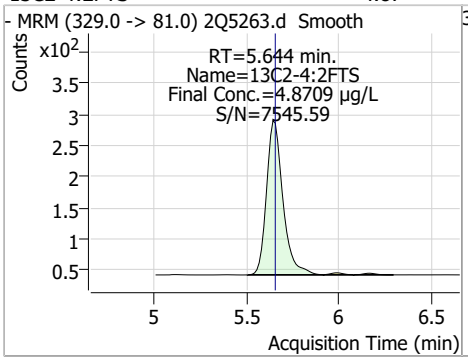
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	0.75	5.64	0.00	1892	327.0 -> 81.0	65.8	25.8	77.5

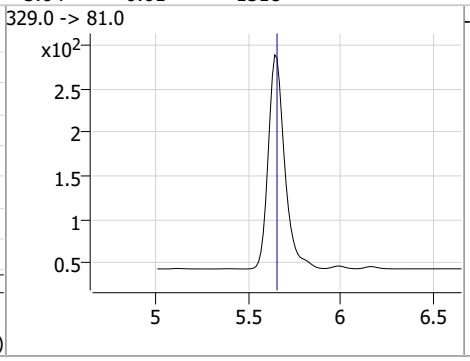


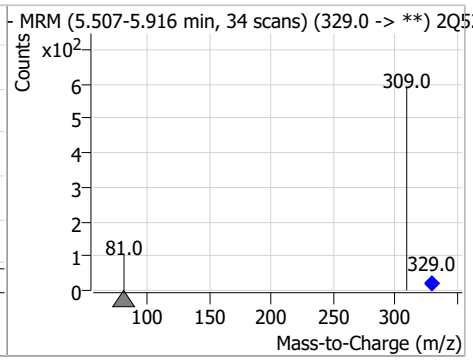




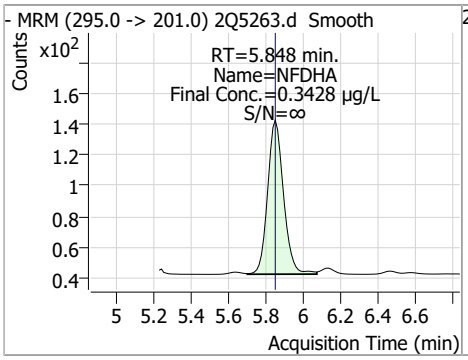
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.87	5.64	-0.01	1518				

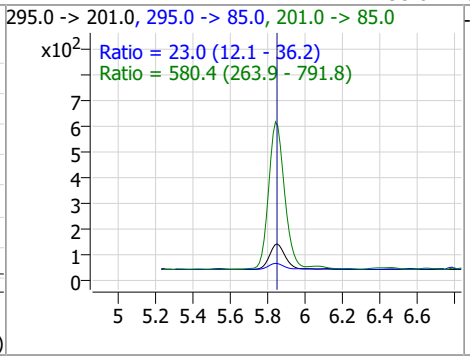


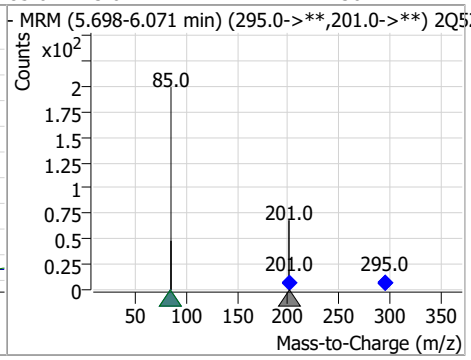




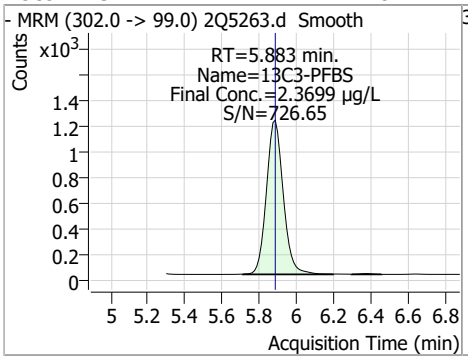
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	0.34	5.85	0.00	591	201.0 -> 85.0	580.4	263.9	791.8
					295.0 -> 85.0	23.0	12.1	36.2

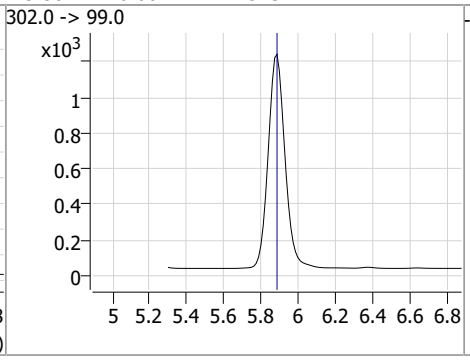


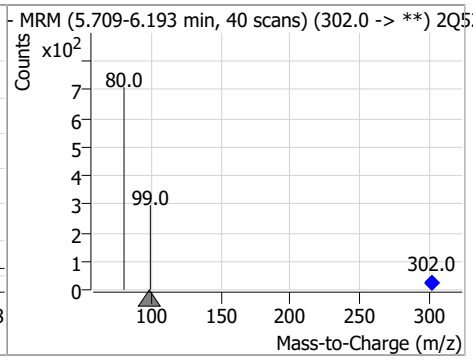




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.37	5.88	0.00	7523				

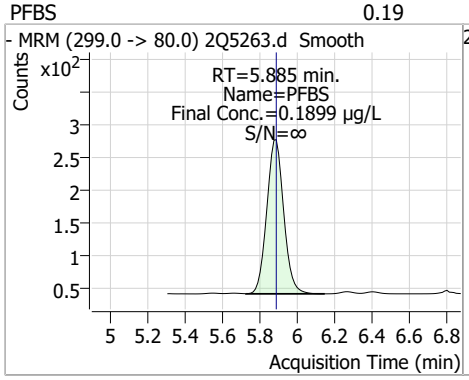


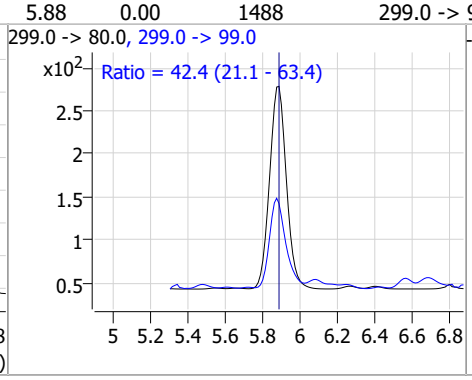


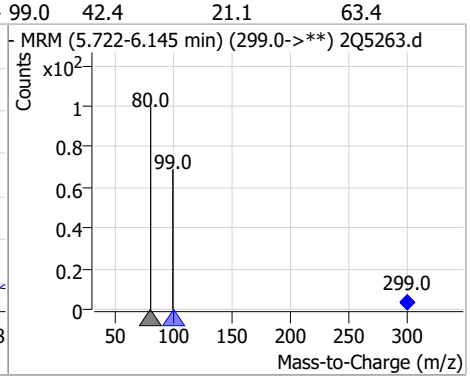


Perfluorinated Compounds by LC/MS/MS

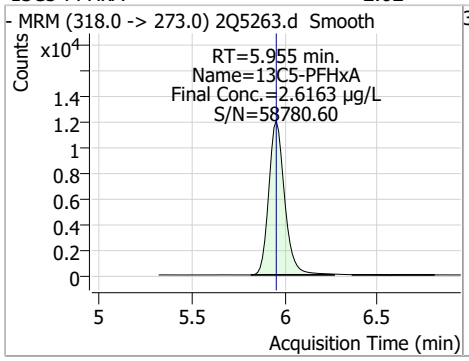
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.19	5.88	0.00	1488	299.0 -> 99.0	42.4	21.1	63.4

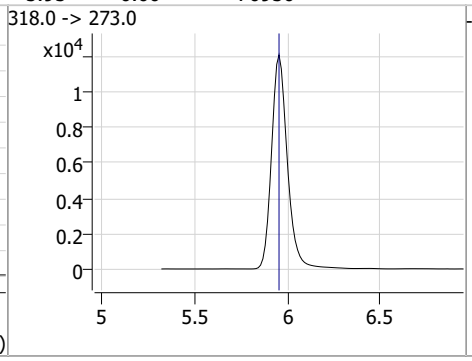


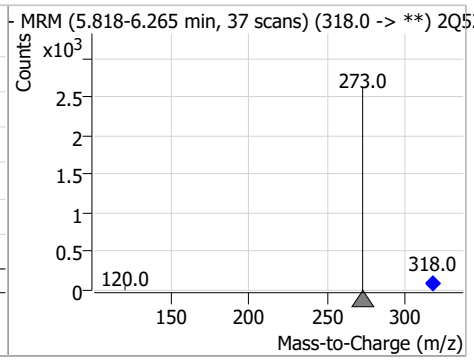




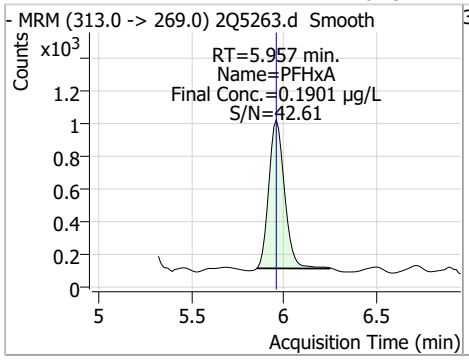
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.62	5.95	0.00	70950				

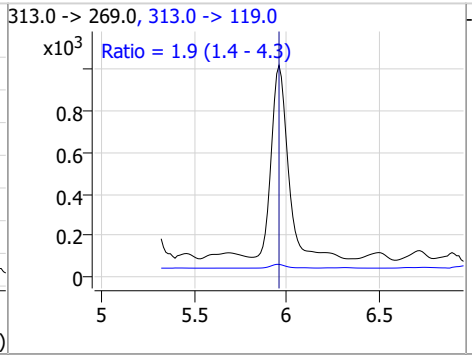


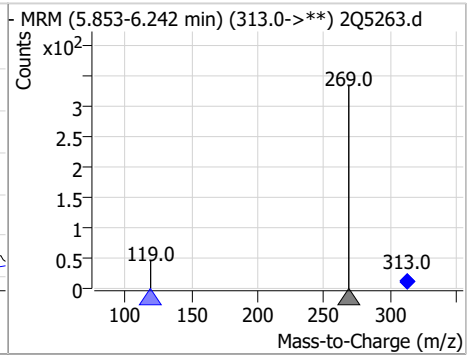




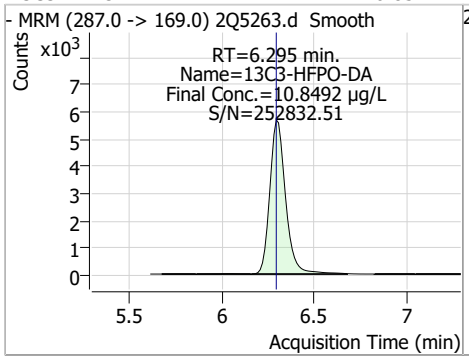
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.19	5.96	0.00	5334	313.0 -> 119.0	1.9	1.4	4.3

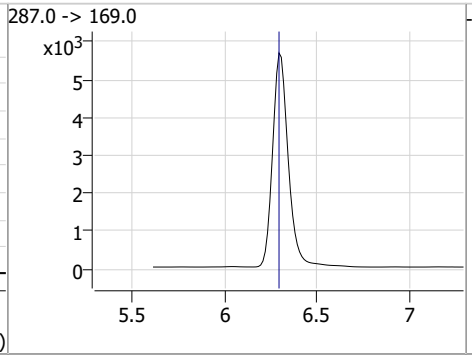


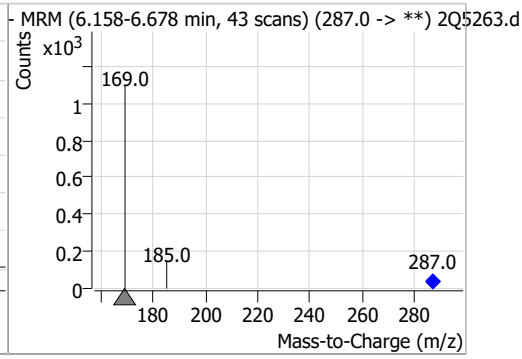




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.85	6.29	0.00	33582				

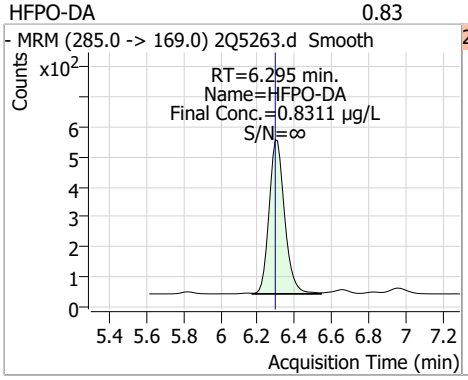


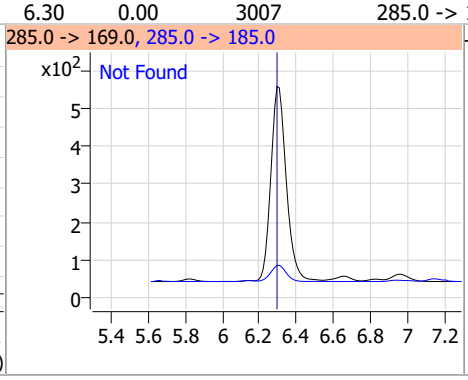


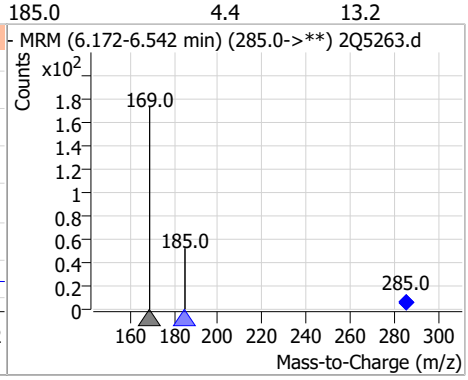


Perfluorinated Compounds by LC/MS/MS

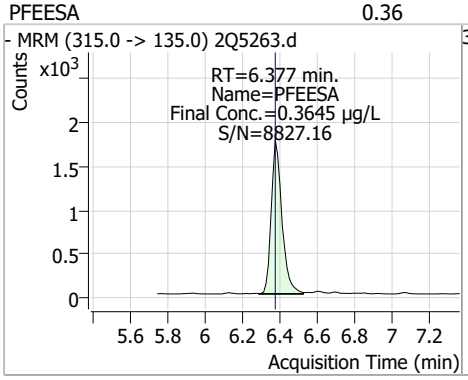
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	0.83	6.30	0.00	3007	285.0 -> 185.0		4.4	13.2

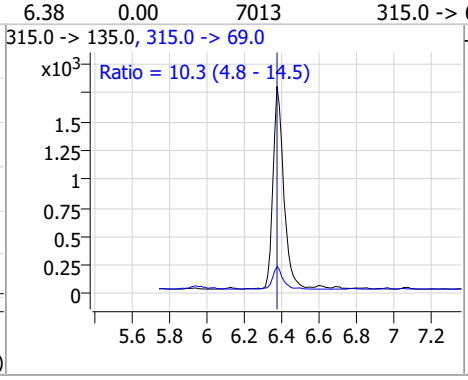


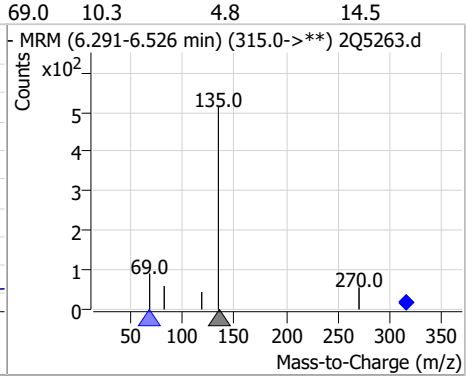




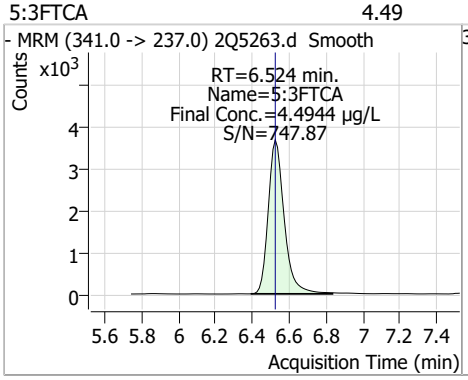
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	0.36	6.38	0.00	7013	315.0 -> 69.0	10.3	4.8	14.5

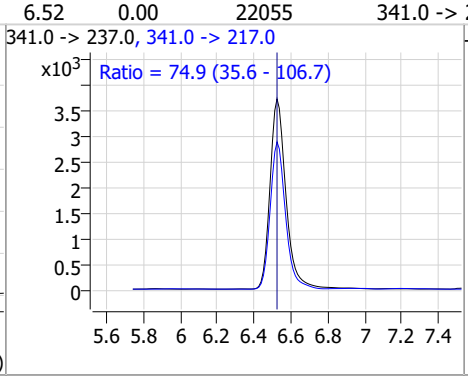


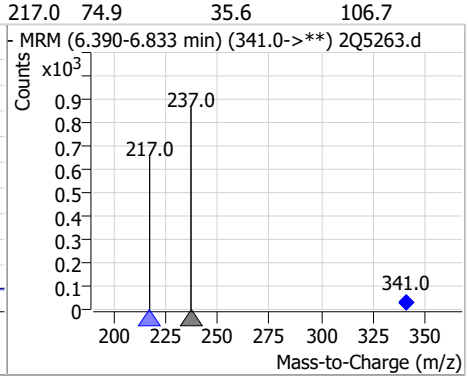




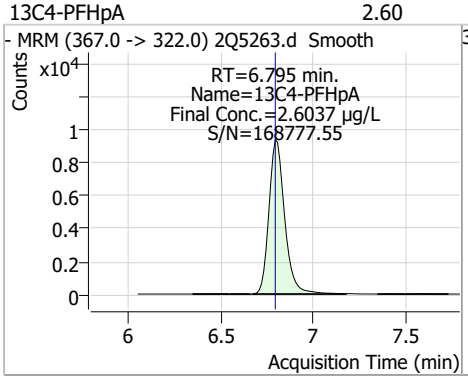
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	4.49	6.52	0.00	22055	341.0 -> 217.0	74.9	35.6	106.7

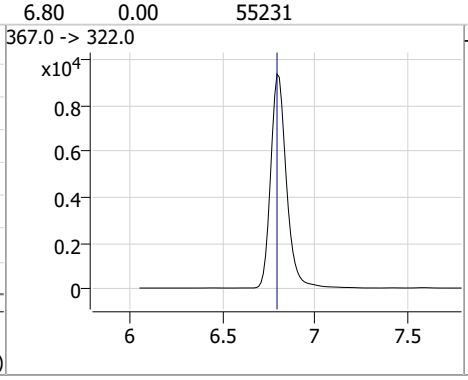


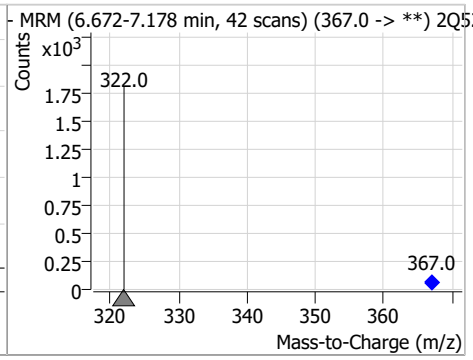




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.60	6.80	0.00	55231				

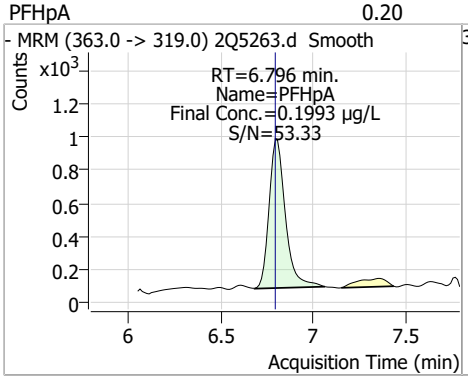


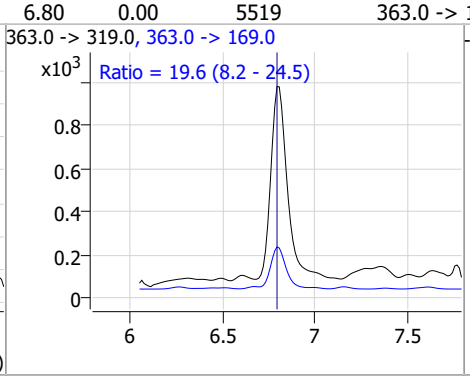


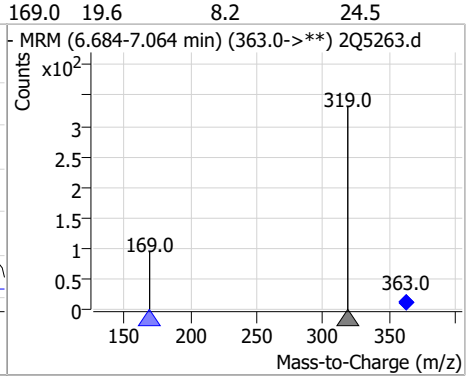


Perfluorinated Compounds by LC/MS/MS

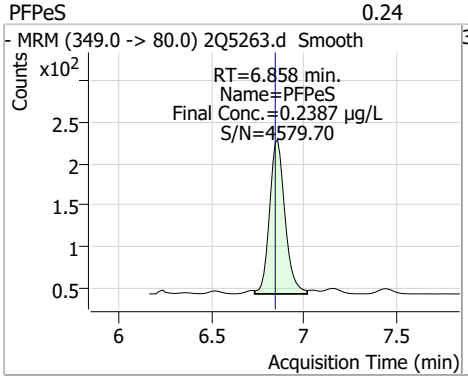
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.20	6.80	0.00	5519	363.0 -> 169.0	19.6	8.2	24.5

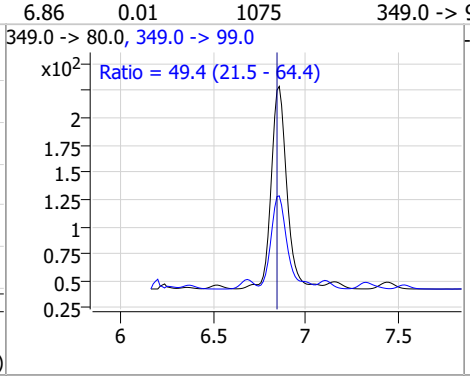


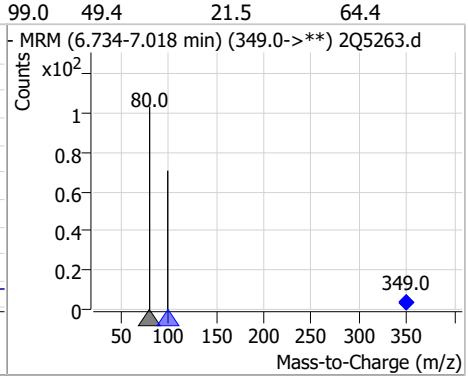




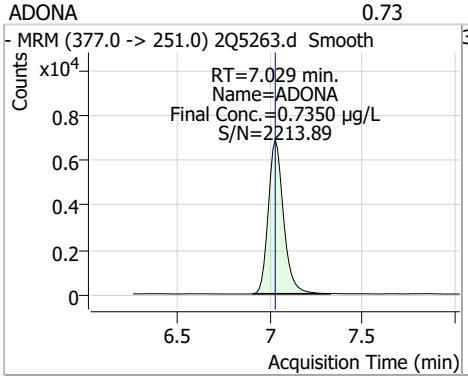
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0.24	6.86	0.01	1075	349.0 -> 99.0	49.4	21.5	64.4

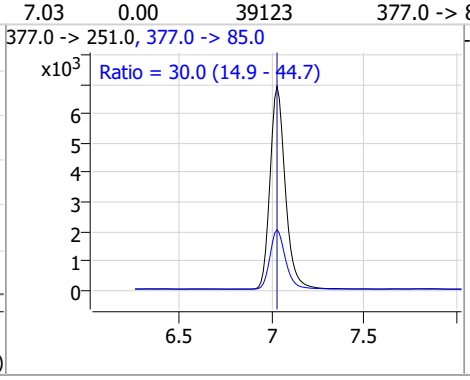


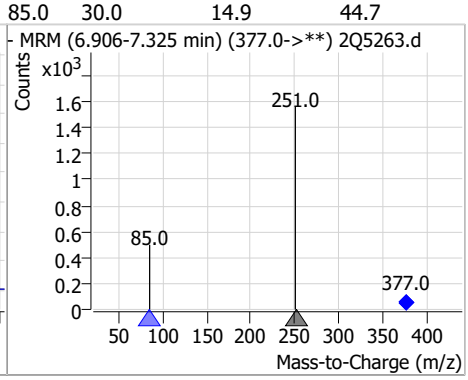




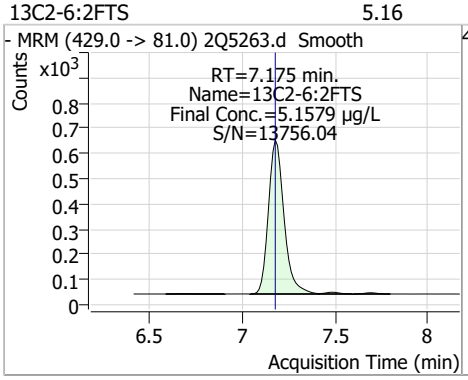
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	0.73	7.03	0.00	39123	377.0 -> 85.0	30.0	14.9	44.7

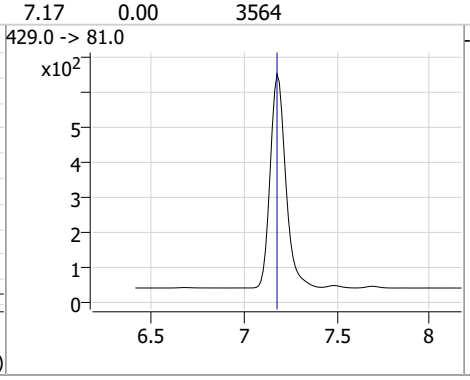


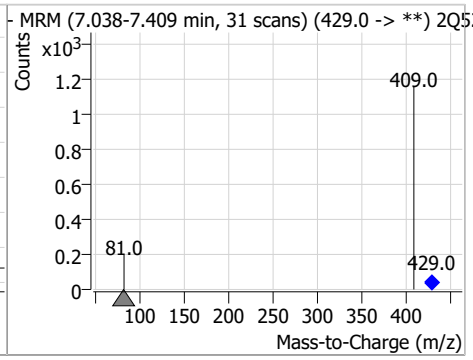




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.16	7.17	0.00	3564				

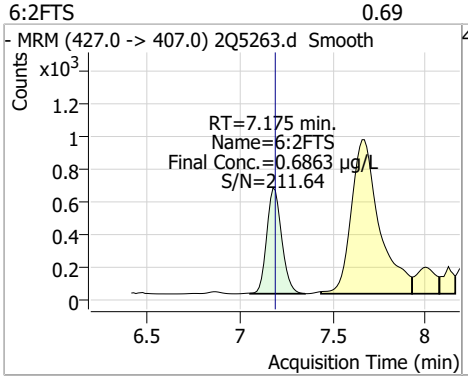


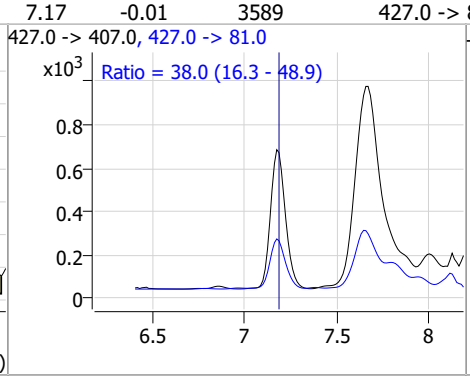


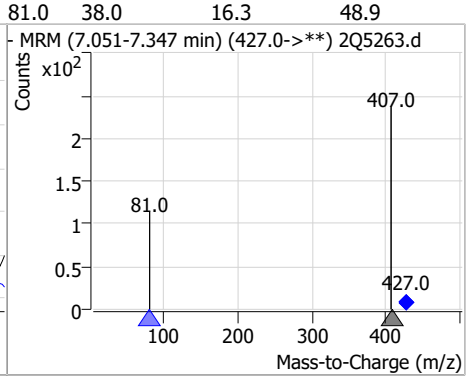


Perfluorinated Compounds by LC/MS/MS

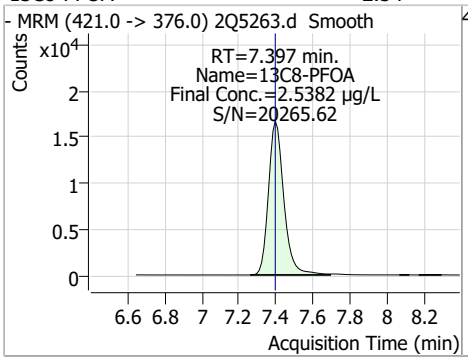
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.69	7.17	-0.01	3589	427.0 -> 81.0	38.0	16.3	48.9

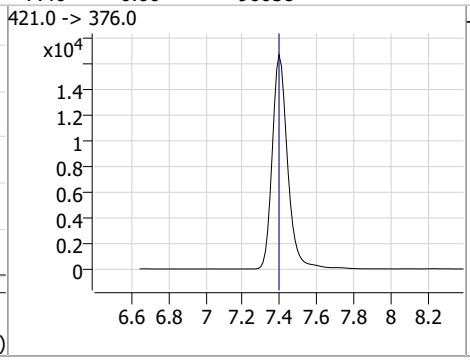


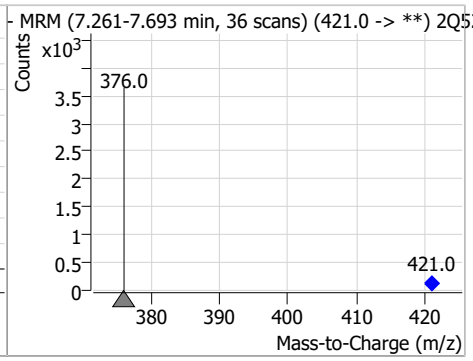




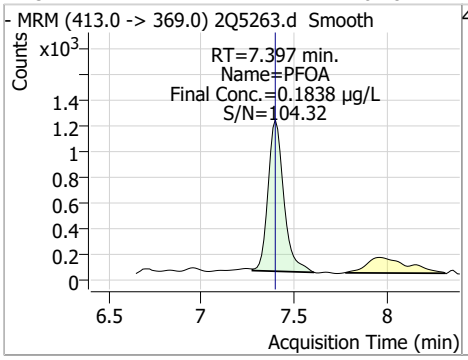
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.54	7.40	0.00	96058				

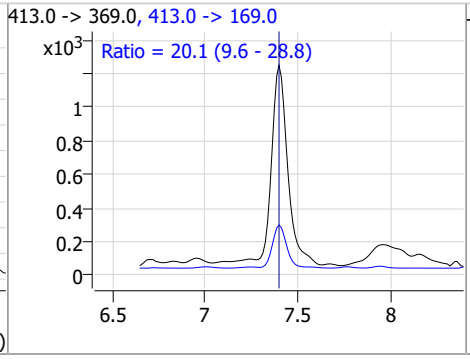


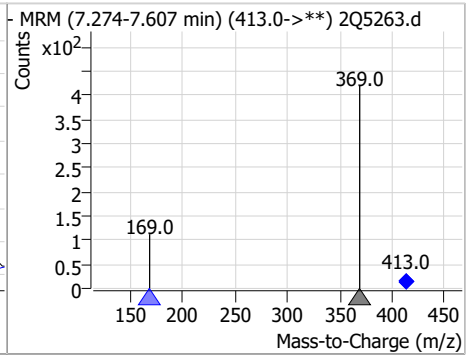




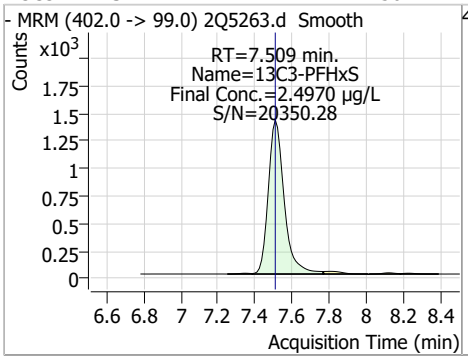
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.18	7.40	0.00	6916	413.0 -> 169.0	20.1	9.6	28.8

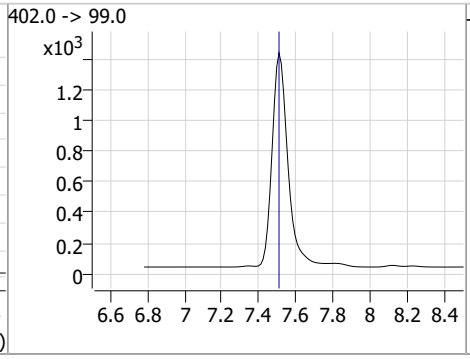


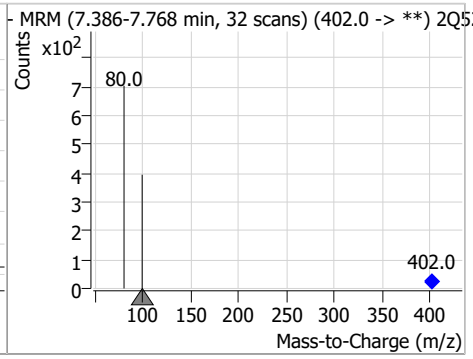




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.50	7.51	0.00	8316				

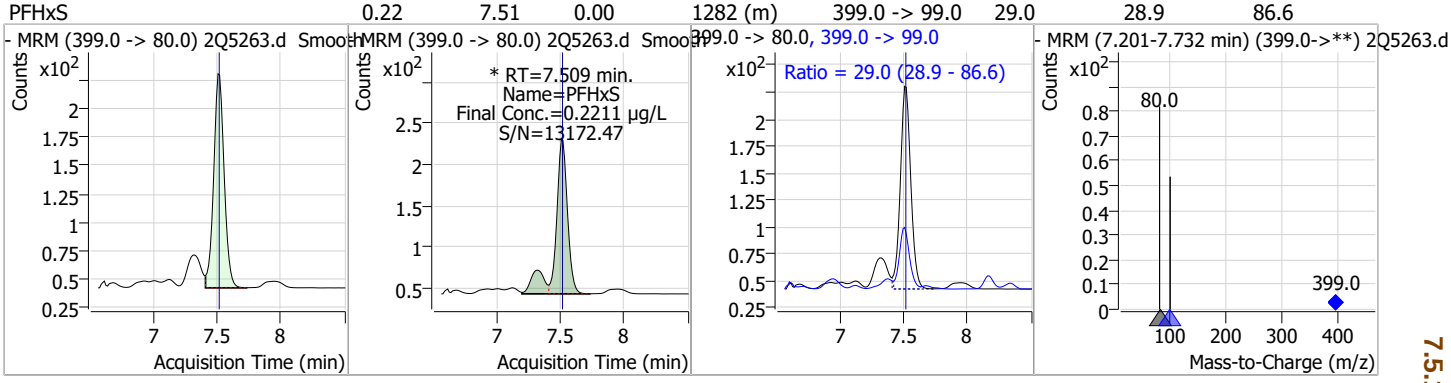




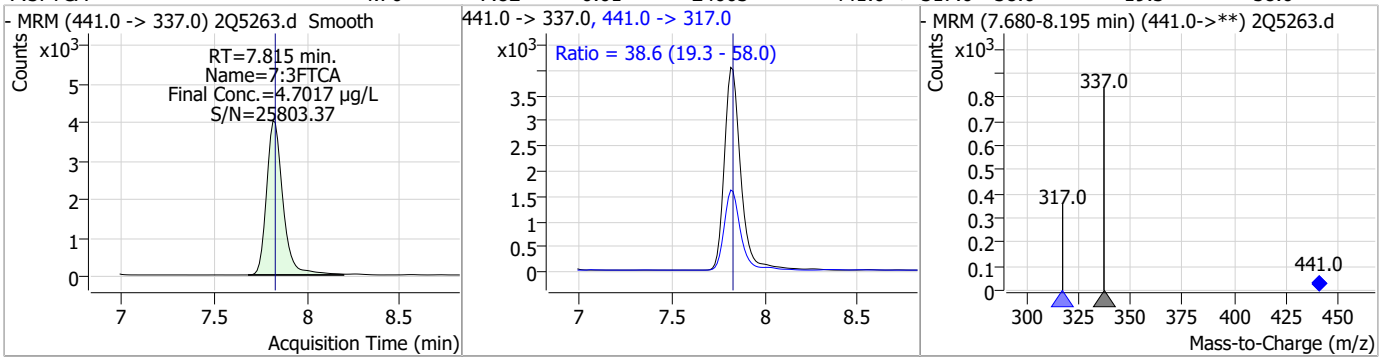


Perfluorinated Compounds by LC/MS/MS

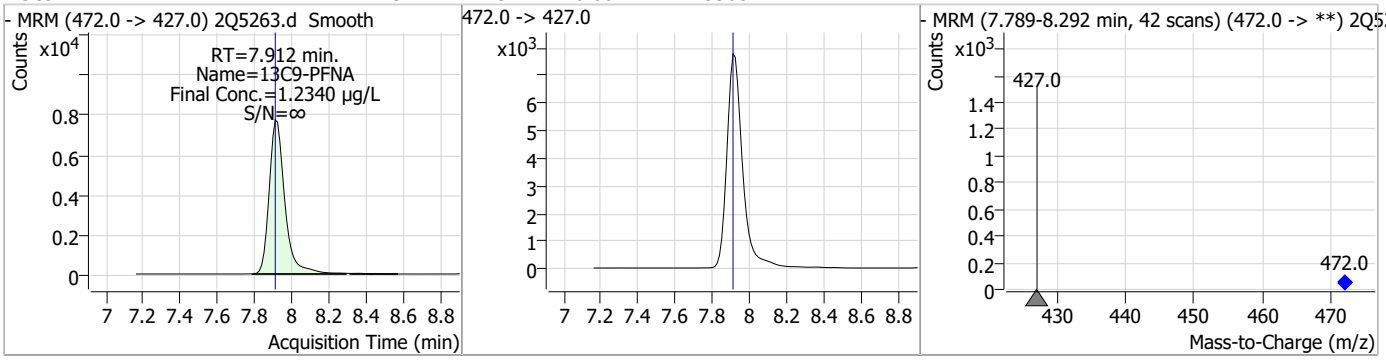
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.22	7.51	0.00	1282 (m)	399.0 -> 99.0	29.0	28.9	86.6



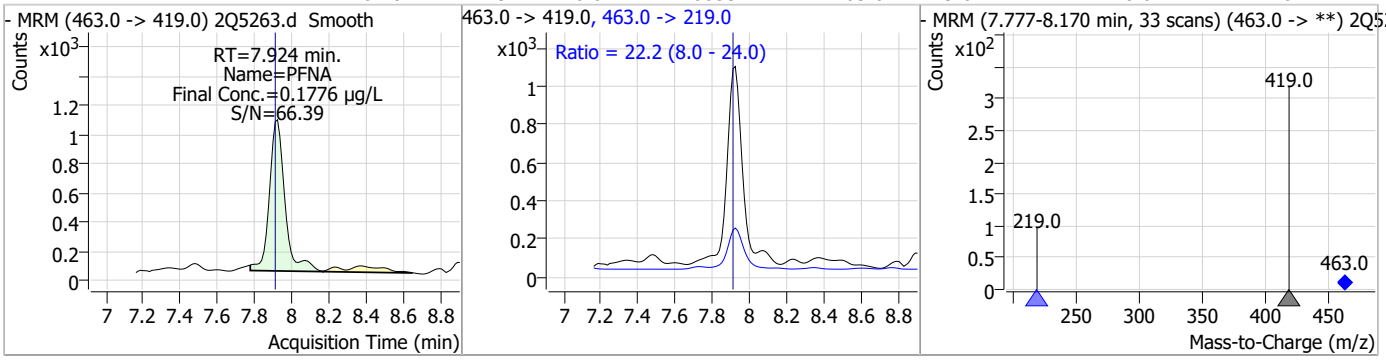
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	4.70	7.82	-0.01	24603	441.0 -> 317.0	38.6	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.23	7.91	0.00	45368				

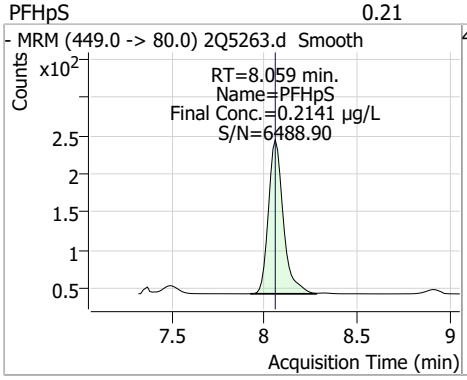


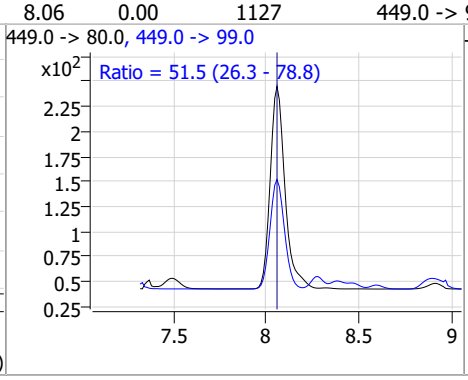
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.18	7.92	0.01	6053	463.0 -> 219.0	22.2	8.0	24.0

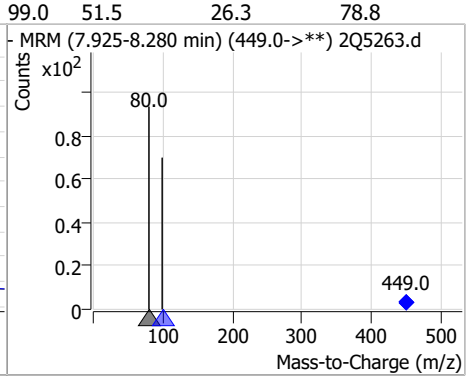


Perfluorinated Compounds by LC/MS/MS

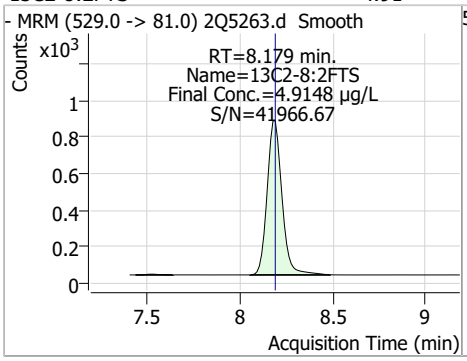
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.21	8.06	0.00	1127	449.0 -> 99.0	51.5	26.3	78.8

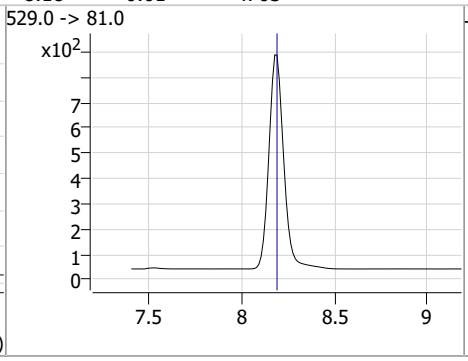


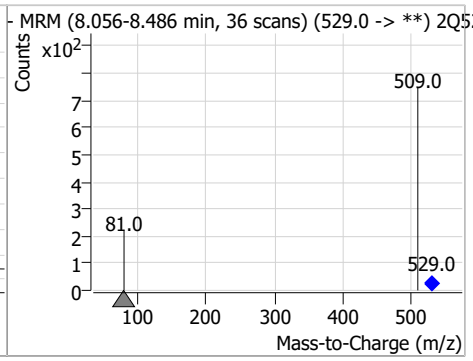




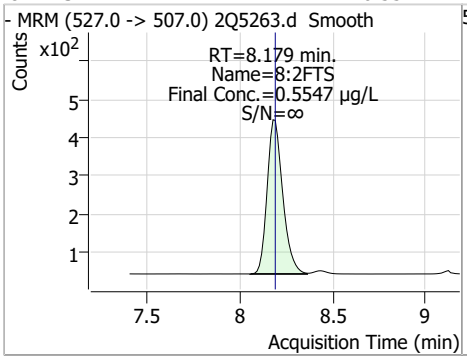
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.91	8.18	-0.01	4703				

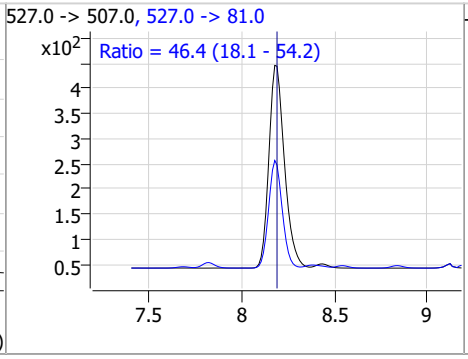


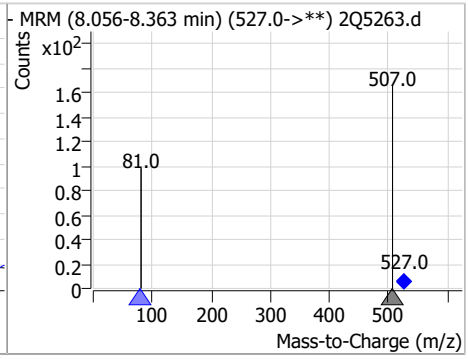




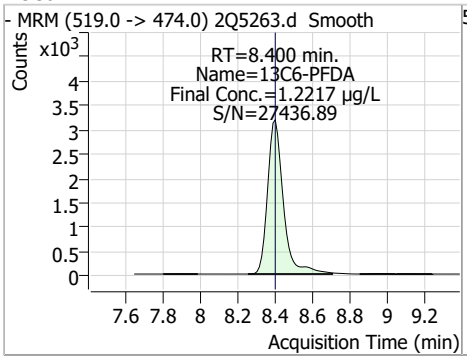
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	0.55	8.18	-0.01	2359	527.0 -> 81.0	46.4	18.1	54.2

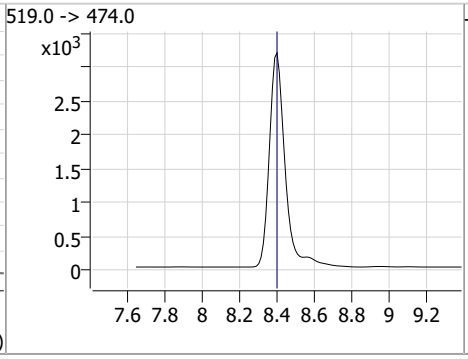


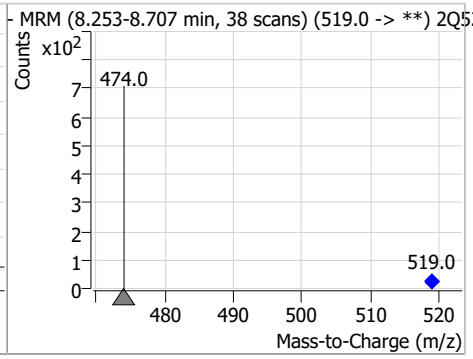




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.22	8.40	0.00	18680				

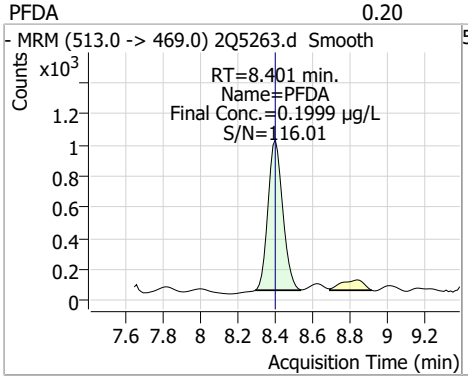


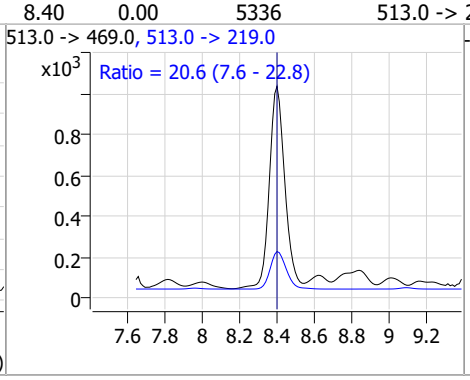


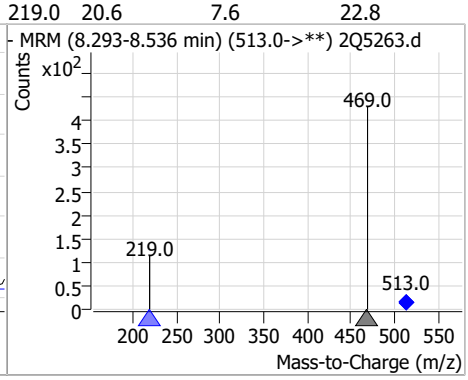


Perfluorinated Compounds by LC/MS/MS

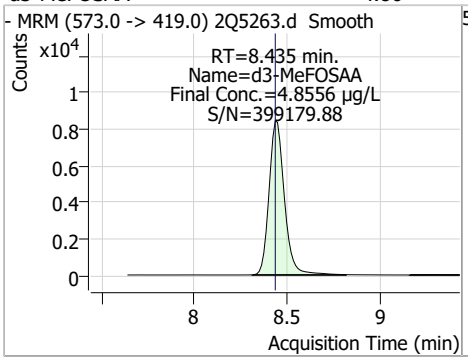
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.20	8.40	0.00	5336	513.0 -> 219.0	20.6	7.6	22.8

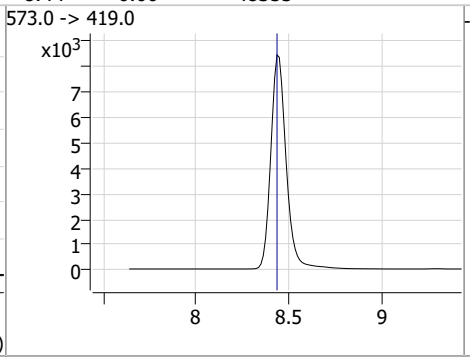


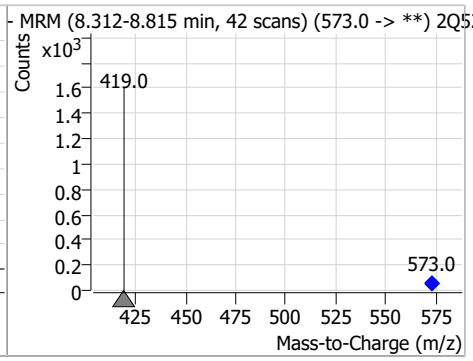




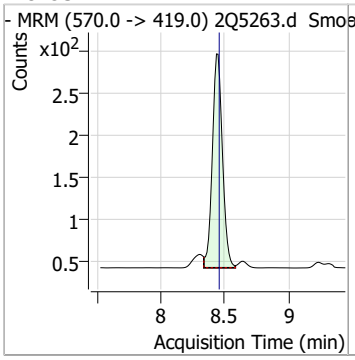
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.86	8.44	0.00	48353				

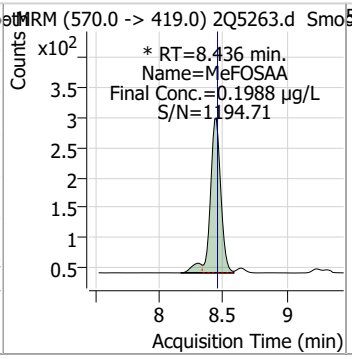


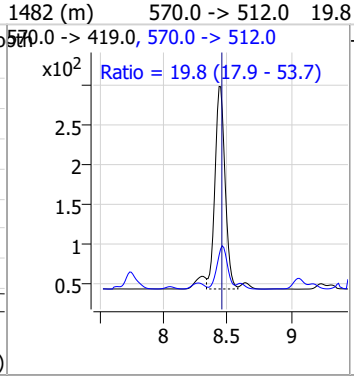


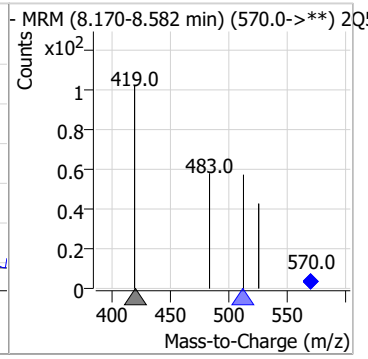


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	0.20	8.44	-0.01	1482 (m)	570.0 -> 512.0	19.8	17.9	53.7

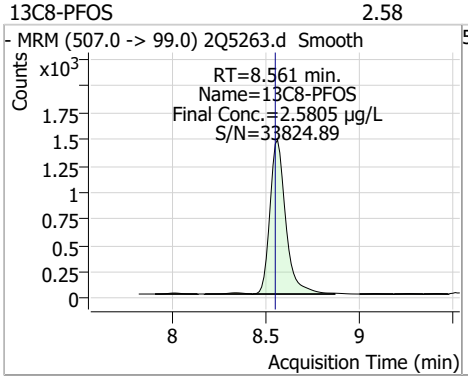


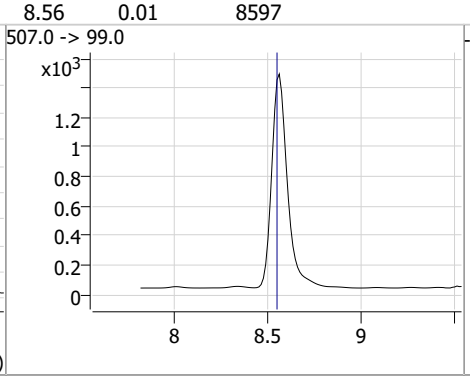


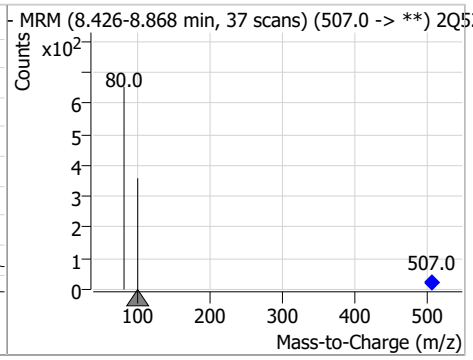




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.58	8.56	0.01	8597				

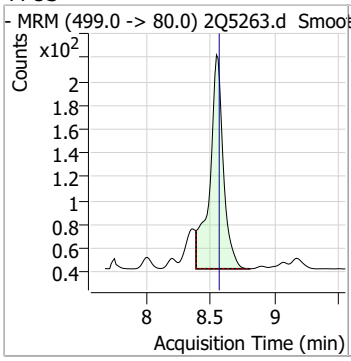


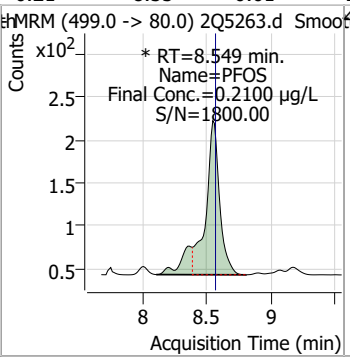


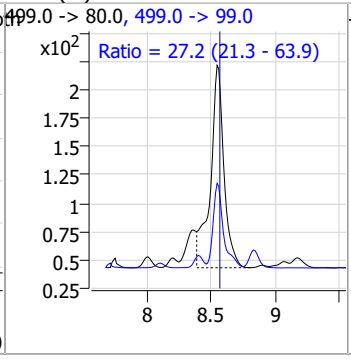


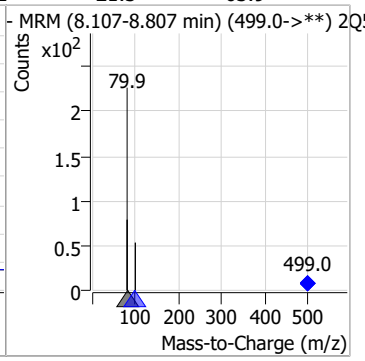
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.21	8.55	-0.01	1544 (m)	499.0 -> 99.0	27.2	21.3	63.9

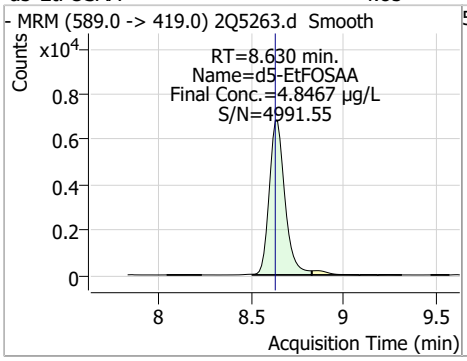


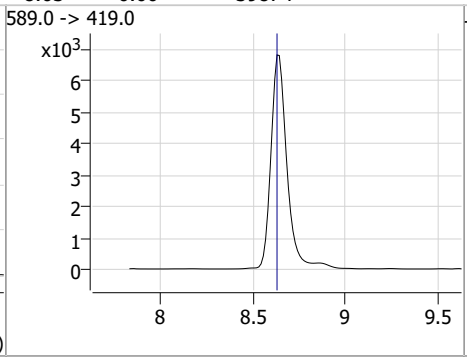


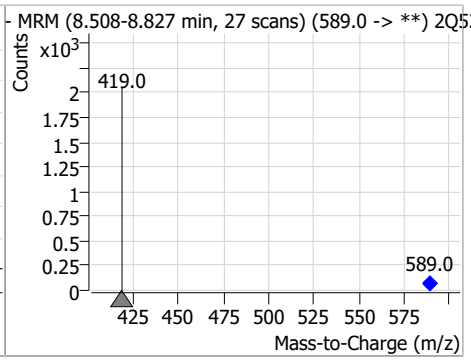




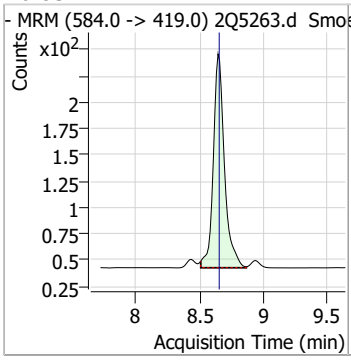
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.85	8.63	0.00	39874				

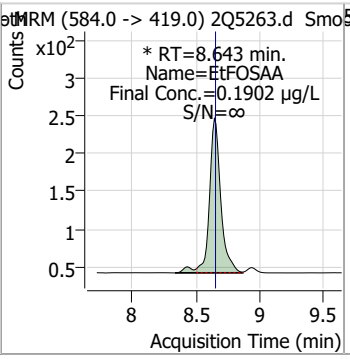


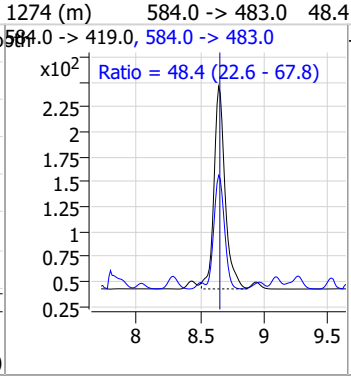


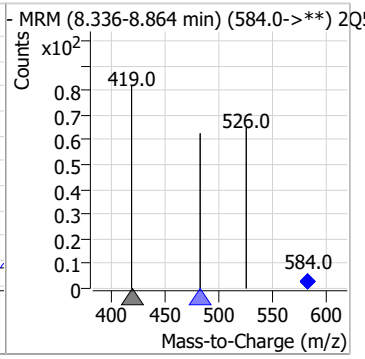


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0.19	8.64	0.00	1274 (m)	584.0 -> 483.0	48.4	22.6	67.8

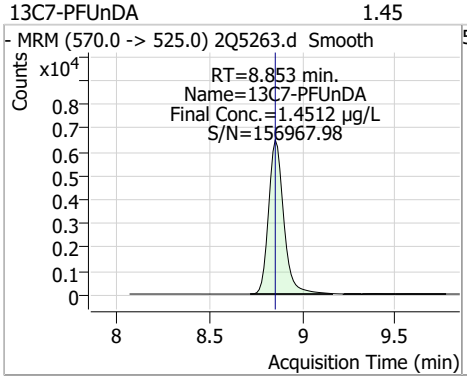


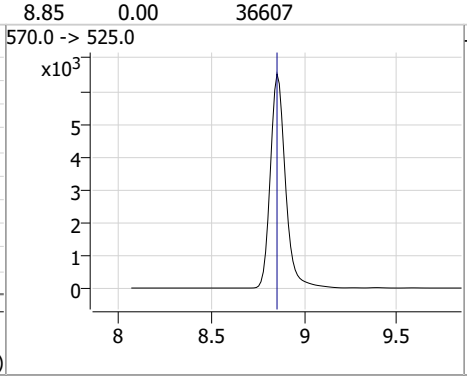


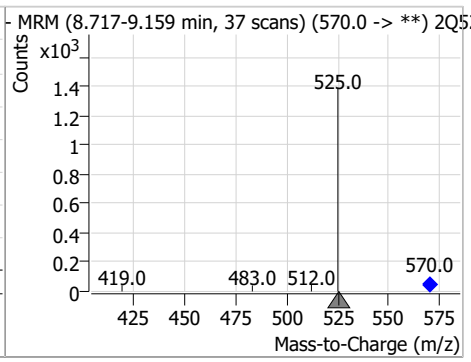




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.45	8.85	0.00	36607				

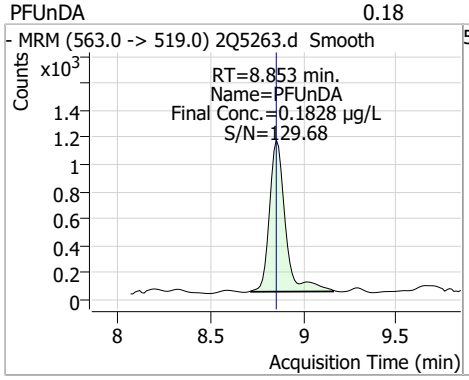


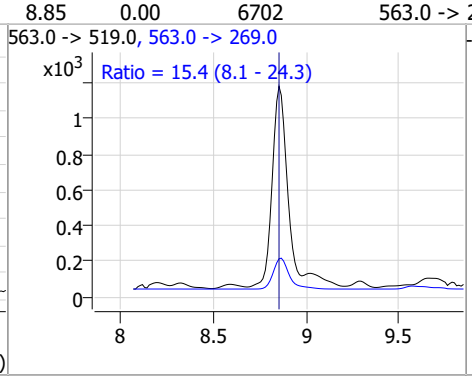


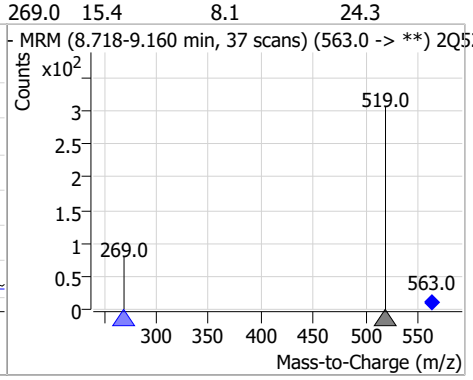


Perfluorinated Compounds by LC/MS/MS

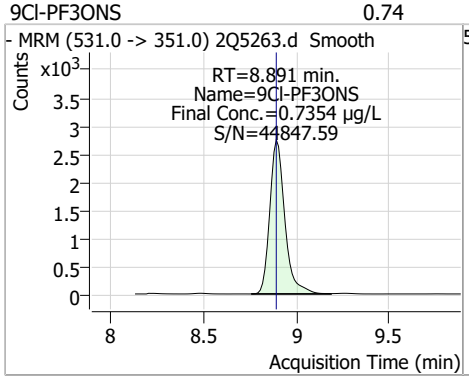
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	0.18	8.85	0.00	6702	563.0 -> 269.0	15.4	8.1	24.3

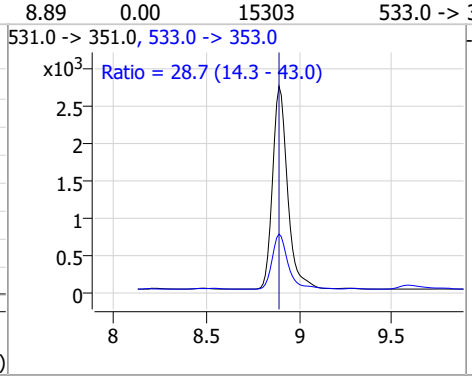


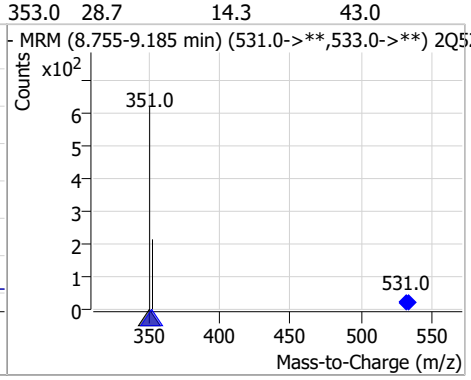




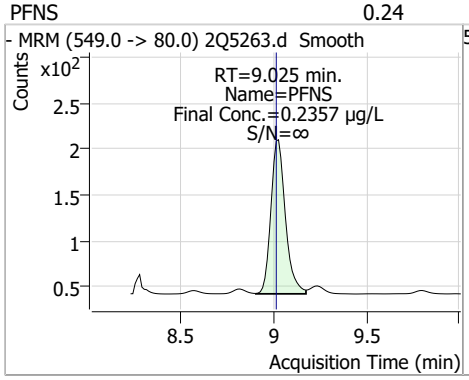
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	0.74	8.89	0.00	15303	533.0 -> 353.0	28.7	14.3	43.0

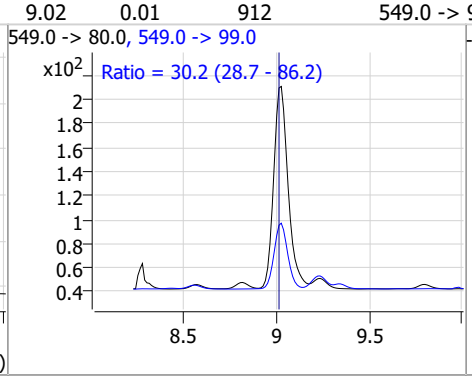


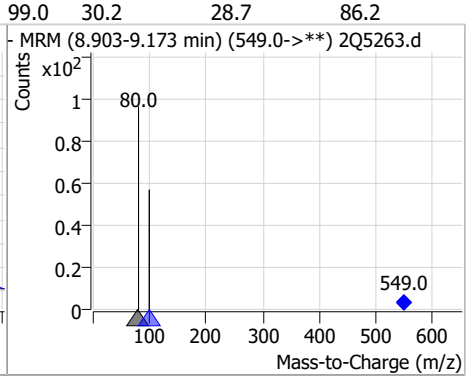




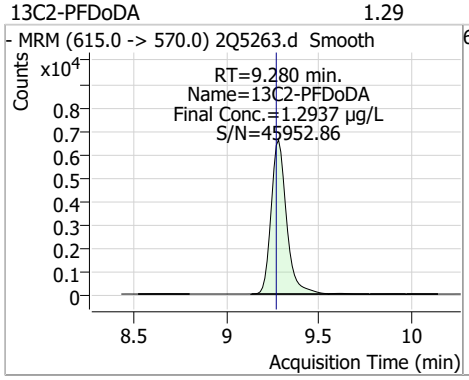
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	0.24	9.02	0.01	912	549.0 -> 99.0	30.2	28.7	86.2

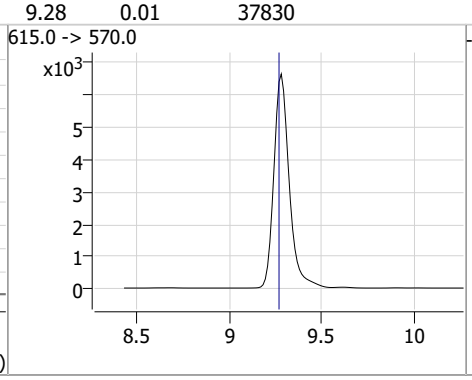


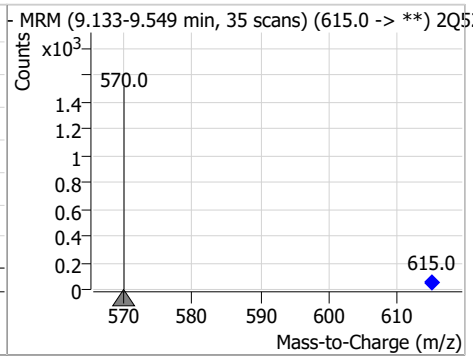




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.29	9.28	0.01	37830				

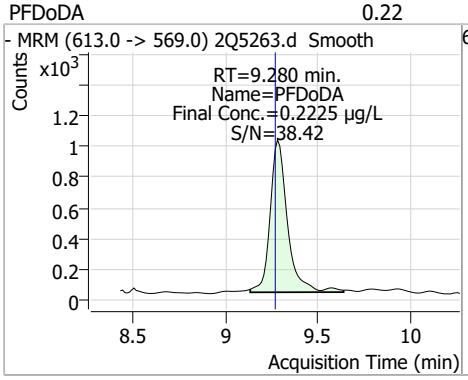


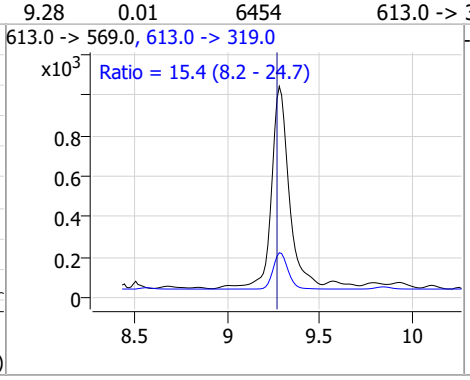


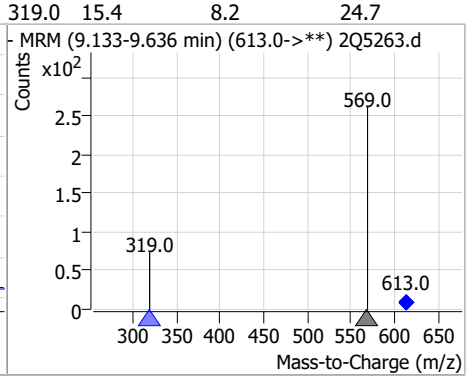


Perfluorinated Compounds by LC/MS/MS

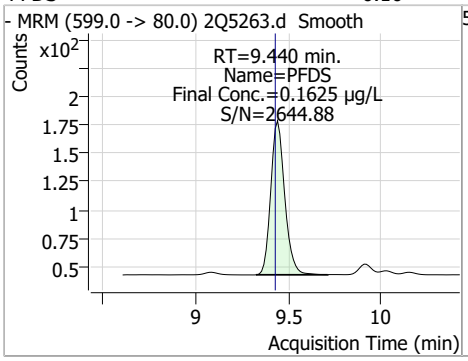
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	0.22	9.28	0.01	6454	613.0 -> 319.0	15.4	8.2	24.7

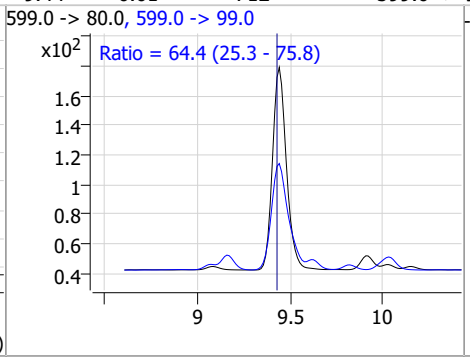


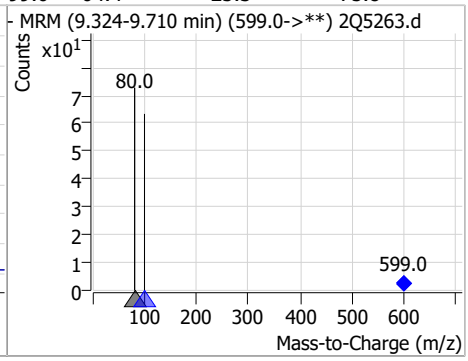




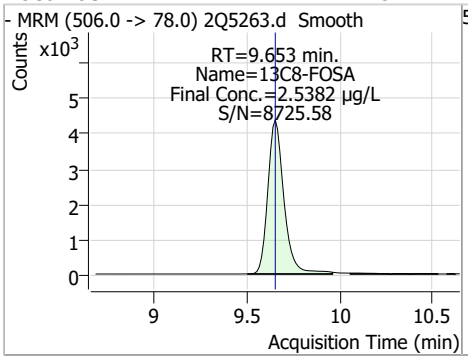
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	0.16	9.44	0.01	712	599.0 -> 99.0	64.4	25.3	75.8

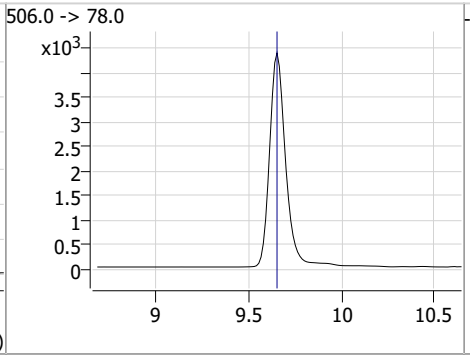


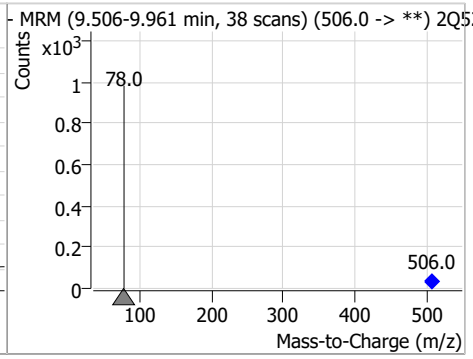




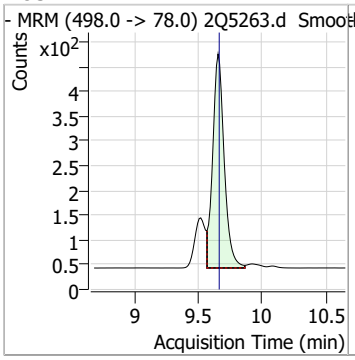
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.54	9.65	0.00	26296				

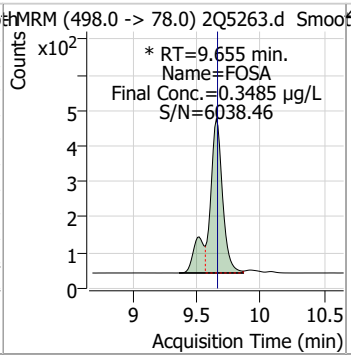


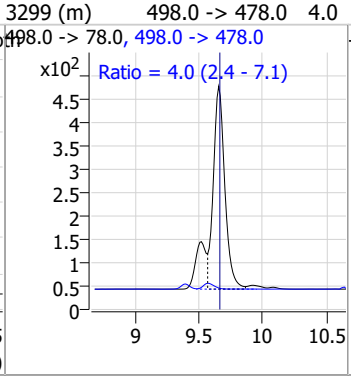


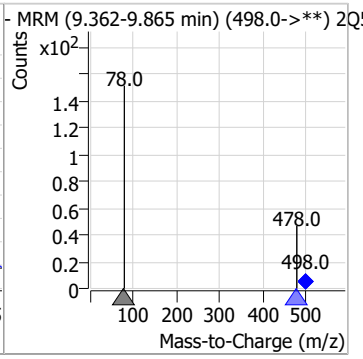


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	0.35	9.65	0.00	3299 (m)	498.0 -> 478.0	4.0	2.4	7.1



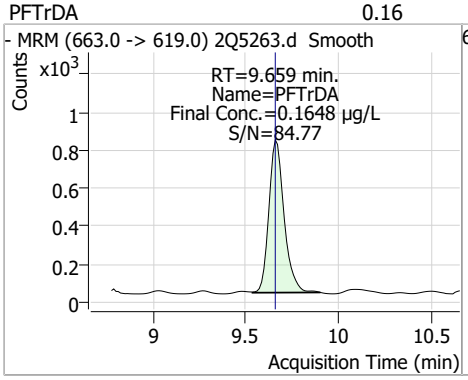


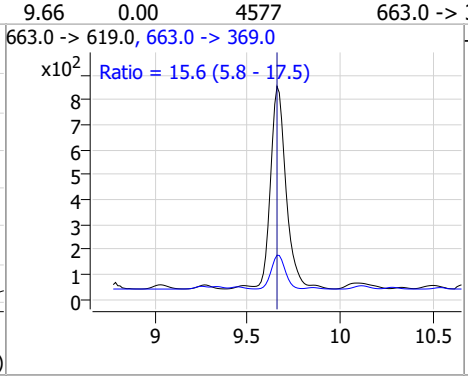


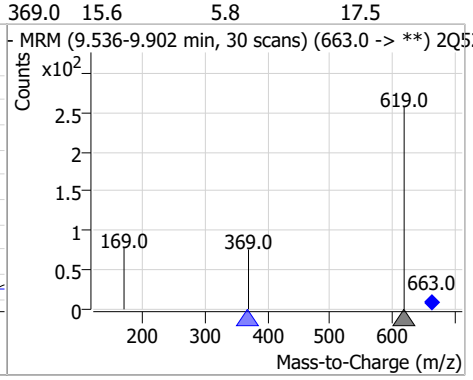


Perfluorinated Compounds by LC/MS/MS

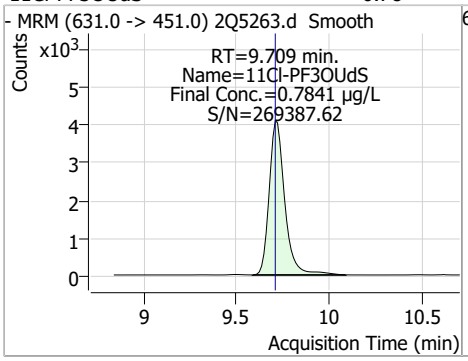
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	0.16	9.66	0.00	4577	663.0 -> 369.0	15.6	5.8	17.5

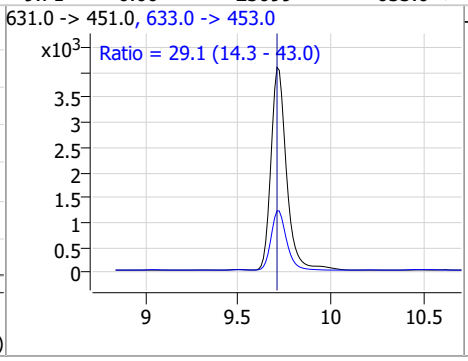


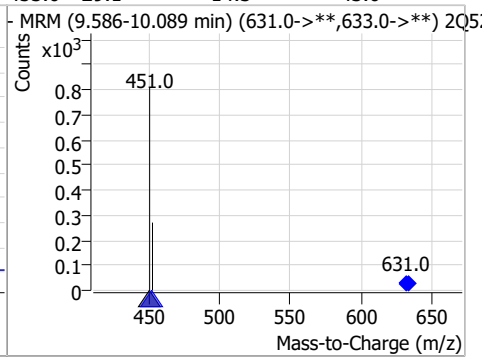




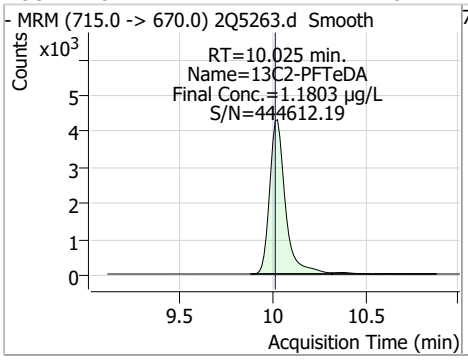
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	0.78	9.71	0.00	23699	633.0 -> 453.0	29.1	14.3	43.0

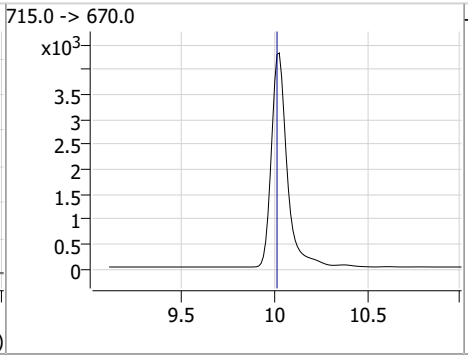


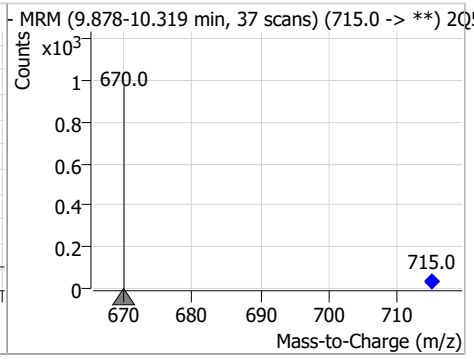




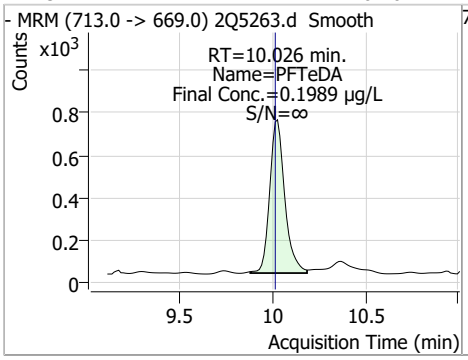
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.18	10.03	0.01	25312				

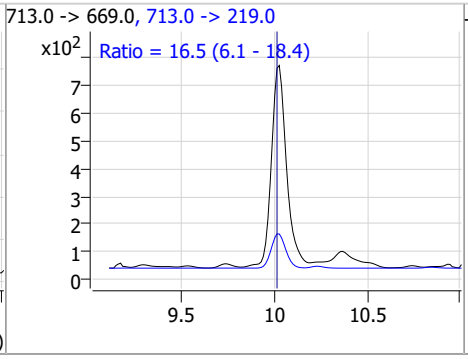


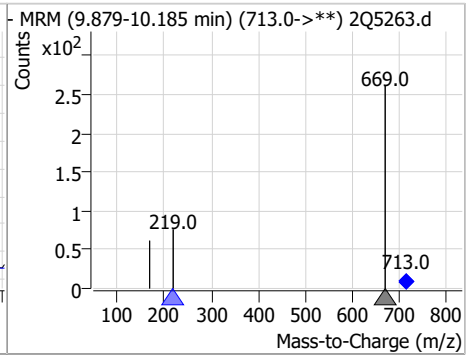




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	0.20	10.03	0.01	4074	713.0 -> 219.0	16.5	6.1	18.4

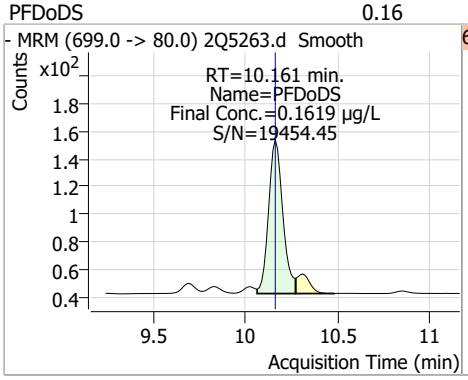


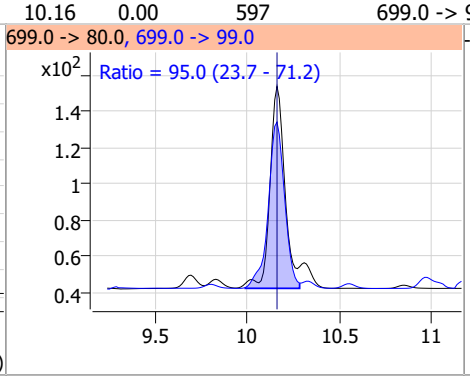


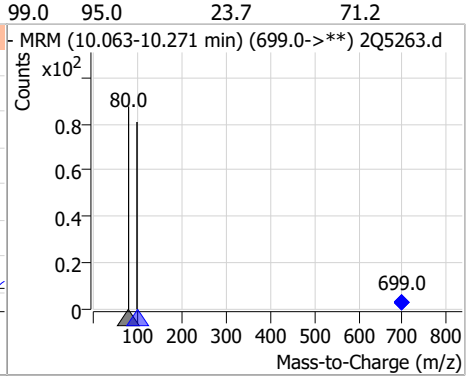


Perfluorinated Compounds by LC/MS/MS

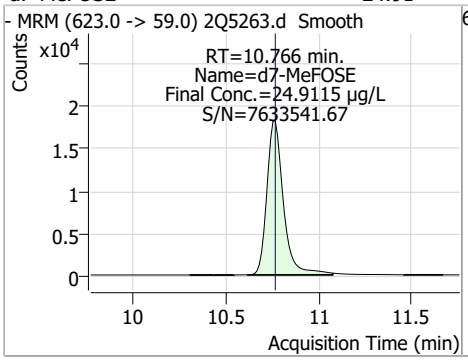
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	0.16	10.16	0.00	597	699.0 -> 99.0	95.0	23.7	71.2

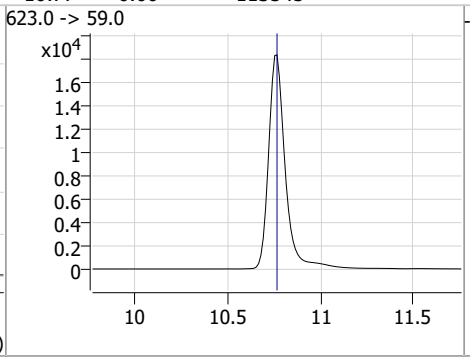


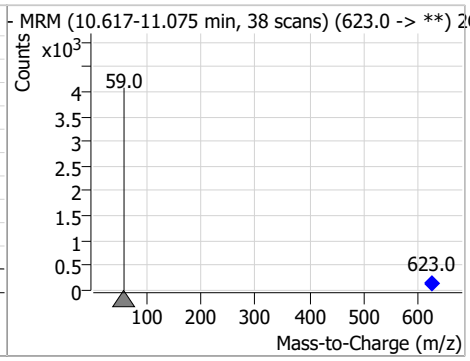




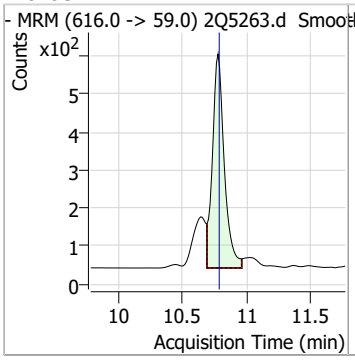
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.91	10.77	0.00	113545				

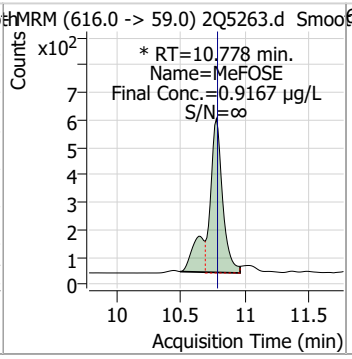


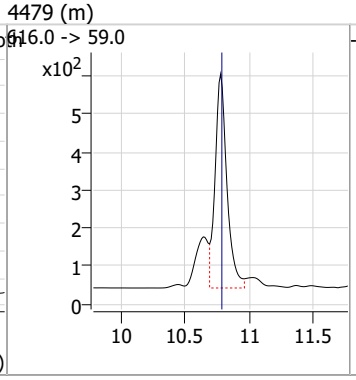


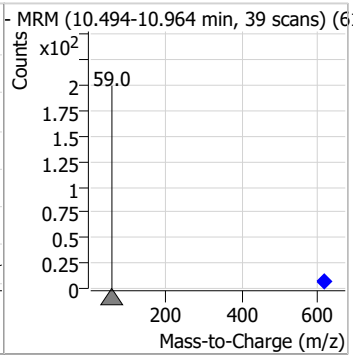


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	0.92	10.78	0.00	4479 (m)				

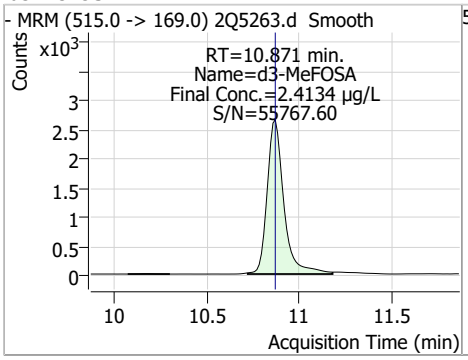


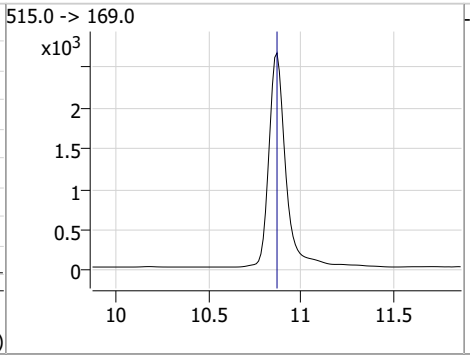


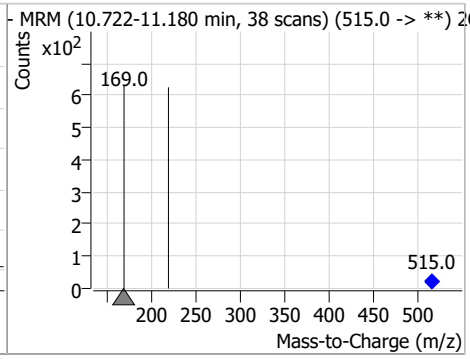




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.41	10.87	0.00	16541				

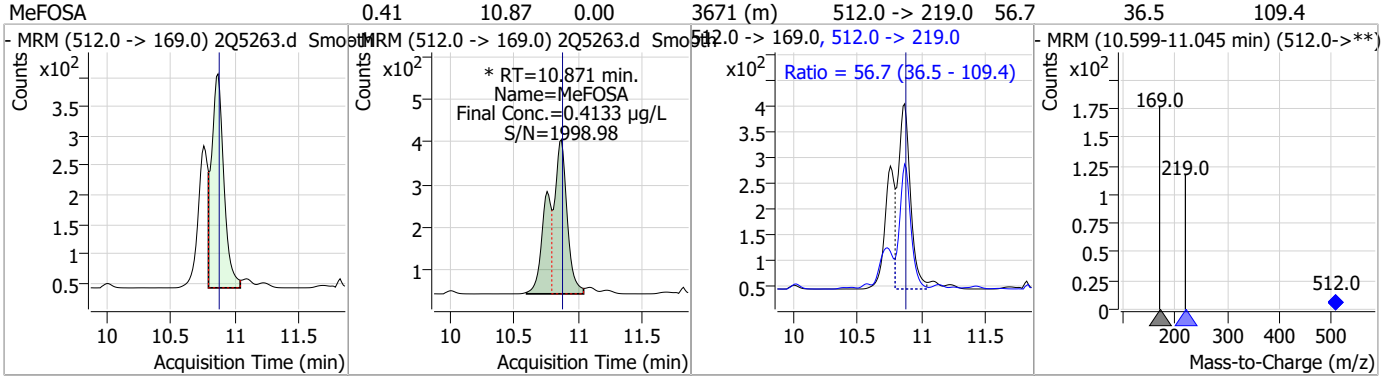




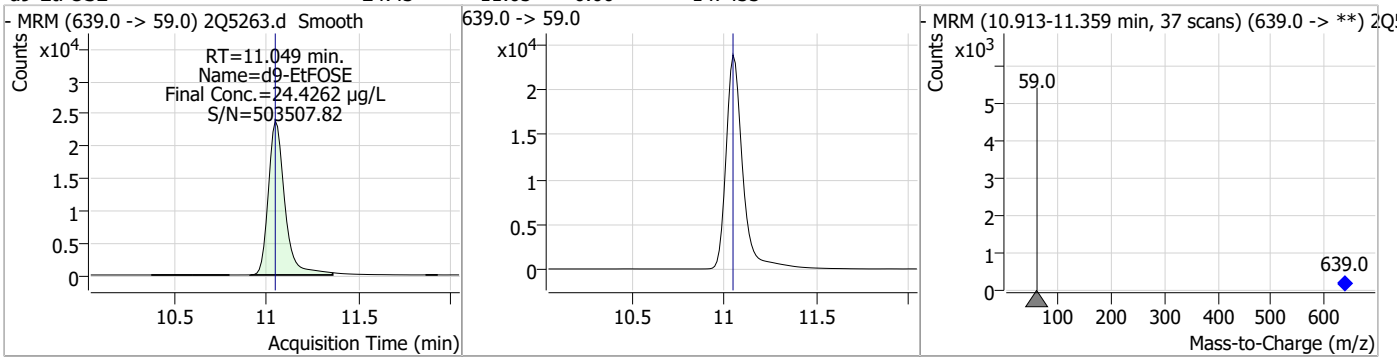


Perfluorinated Compounds by LC/MS/MS

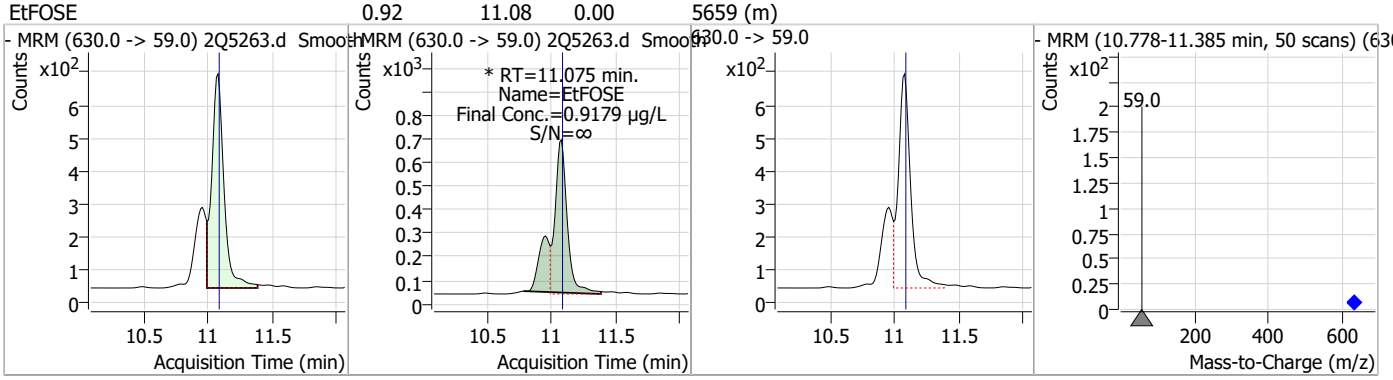
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	0.41	10.87	0.00	3671 (m)	512.0 -> 219.0	56.7	36.5	109.4



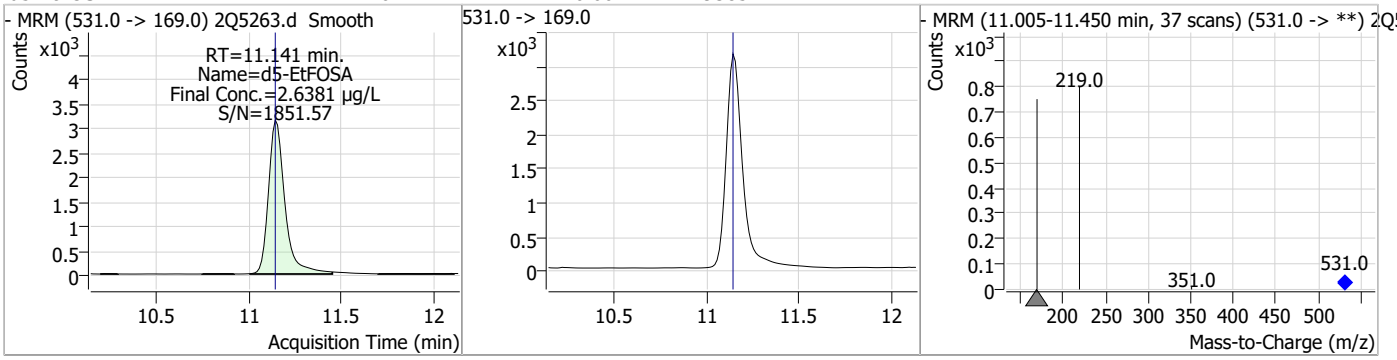
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.43	11.05	0.00	147433				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	0.92	11.08	0.00	5659 (m)				

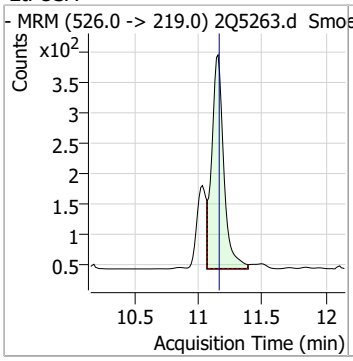


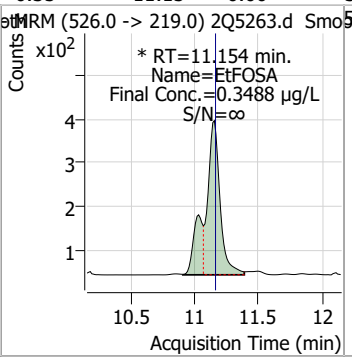
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.64	11.14	0.00	19385				

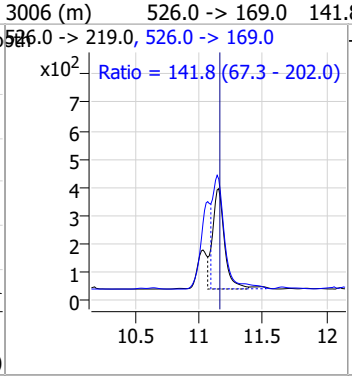


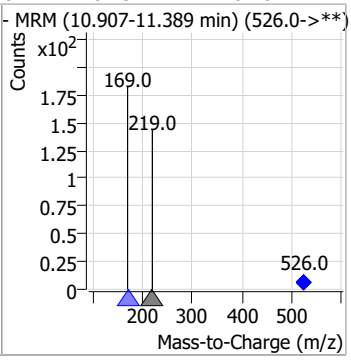
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	0.35	11.15	0.00	3006 (m)	526.0 -> 169.0	141.8	67.3	202.0









7.5.1

7

Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5263.D
Injection Time: 11/30/23 17:20
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5264.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 5:35:56 PM
Sample Name : ic96-2
Vial : P1-A3
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	171214	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	106115	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	55313	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	43931	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	80863	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	36861	1.25	µg/L	0.000
M6-PFDA	8.400	519.0 -> 474.0	15633	1.25	µg/L	0.000
M7-PFUnDA	8.853	570.0 -> 525.0	25241	1.25	µg/L	0.000
M2-PFDoDA	9.280	615.0 -> 570.0	30993	1.25	µg/L	0.012
M2-PFTeDA	10.013	715.0 -> 670.0	23153	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	21327	2.50	µg/L	0.000
M3-PFBS	5.883	302.0 -> 99.0	6686	2.50	µg/L	0.000
		302.0 -> 80.0	14826			
M3-PFHxS	7.509	402.0 -> 99.0	6904	2.50	µg/L	0.000
M8-PFOS	8.561	507.0 -> 99.0	5928	2.50	µg/L	0.012
M2-4:2FTS	5.644	329.0 -> 81.0	1440	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	3217	5.00	µg/L	0.000
M2-8:2FTS	8.191	529.0 -> 81.0	3829	5.00	µg/L	0.000
M3-MeFOSAA	8.435	573.0 -> 419.0	41402	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	26931	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	31567	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	92874	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	125444	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	15898	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14110	2.50	µg/L	0.000
13C4-PFOS	8.561	503.0 -> 80.0	11670	2.50	µg/L	0.012
13C3-PFBA	3.342	216.0 -> 172.0	76163	5.00	µg/L	0.000
18O2-PFHxS	7.509	403.0 -> 84.0	7138	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	77120	2.50	µg/L	0.000
13C2-PFDA	8.401	515.0 -> 470.0	31903	1.25	µg/L	0.000
13C5-PFNA	7.912	468.0 -> 423.0	38208	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	55383	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1440	5.53	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.5%		
13C2-6:2FTS	7.175	429.0 -> 81.0	3217	5.57	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.4%		
13C2-8:2FTS	8.191	529.0 -> 81.0	3829	4.79	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.7%		
13C2-PFDoDA	9.280	615.0 -> 570.0	30993	1.22	µg/L	0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.4%		
13C2-PFTeDA	10.013	715.0 -> 670.0	23153	1.24	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.2%		
13C3-PFBS	5.883	302.0 -> 99.0	6686	2.52	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.8%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	6904	2.48 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.2%		
13C4-PFBA	3.339	217.0 -> 172.0	171214	9.99 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.9%		
13C4-PFHpA	6.795	367.0 -> 322.0	43931	2.44 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.6%		
13C5-PFHxA	5.955	318.0 -> 273.0	55313	2.40 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.2%		
13C5-PFPeA	4.810	268.0 -> 223.0	106115	5.11 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.2%		
13C6-PFDA	8.400	519.0 -> 474.0	15633	1.17 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.9%		
13C7-PFUnDA	8.853	570.0 -> 525.0	25241	1.15 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.9%		
13C8-FOSA	9.653	506.0 -> 78.0	21327	2.70 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 107.9%		
13C8-PFOA	7.397	421.0 -> 376.0	80863	2.53 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.3%		
13C8-PFOS	8.561	507.0 -> 99.0	5928	2.33 µg/L		0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.3%		
13C9-PFNA	7.912	472.0 -> 427.0	36861	1.23 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.6%		
d3-MeFOSAA	8.435	573.0 -> 419.0	41402	5.45 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.0%		
13C3-HFPO-DA	6.295	287.0 -> 169.0	26931	10.25 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.5%		
d3-MeFOSA	10.871	515.0 -> 169.0	14110	2.70 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.0%		
d5-EtFOSAA	8.630	589.0 -> 419.0	31567	5.03 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.6%		
d7-MeFOSE	10.766	623.0 -> 59.0	92874	26.71 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 106.9%		
d9-EtFOSE	11.049	639.0 -> 59.0	125444	27.25 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 109.0%		
d5-EtFOSA	11.141	531.0 -> 169.0	15898	2.84 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 113.5%		
Target Compounds						QValue
4:2FTS	5.644	327.0 -> 307.0	3741	1.56 µg/L		99
		327.0 -> 81.0	1910			
6:2FTS	7.175	427.0 -> 407.0	6689	1.42 µg/L		98
		427.0 -> 81.0	2091			
8:2FTS	8.179	527.0 -> 507.0	5805	1.68 µg/L		98
		527.0 -> 81.0	2019			
EtFOSAA	8.643	584.0 -> 419.0	1961	0.37 µg/L	#m	54
		584.0 -> 483.0	1475			
FOSA	9.643	498.0 -> 78.0	5867	0.76 µg/L	m	99
		498.0 -> 478.0	257			
MeFOSAA	8.436	570.0 -> 419.0	2717	0.42 µg/L	m	88
		570.0 -> 512.0	781			
PFBA	3.346	213.0 -> 169.0	6462	1.50 µg/L		100
PFBS	5.885	299.0 -> 80.0	2864	0.41 µg/L		96
		299.0 -> 99.0	1132			
PFDA	8.401	513.0 -> 469.0	9758	0.40 µg/L		96
		513.0 -> 219.0	1660			
PFDoDA	9.268	613.0 -> 569.0	8180	0.34 µg/L		99
		613.0 -> 319.0	1312			

Perfluorinated Compounds by LC/MS/MS

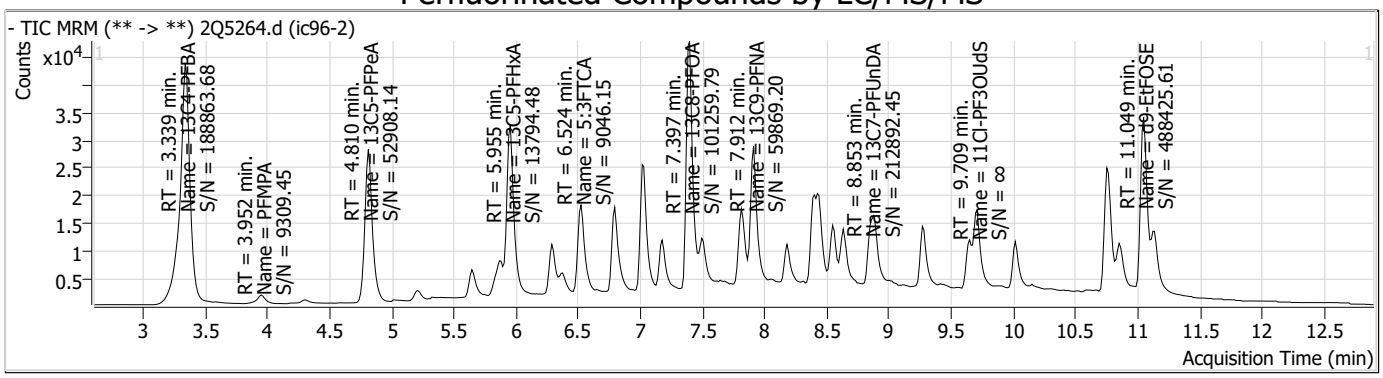
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.440	599.0 -> 80.0	1527	0.51	µg/L		77
		599.0 -> 99.0	527				
PFHpA	6.796	363.0 -> 319.0	10470	0.42	µg/L		96
		363.0 -> 169.0	1903				
PFHpS	8.059	449.0 -> 80.0	1520	0.35	µg/L		99
		449.0 -> 99.0	812				
PFHxA	5.957	313.0 -> 269.0	9251	0.42	µg/L		99
		313.0 -> 119.0	234				
PFHxS	7.509	399.0 -> 80.0	1894	0.39	µg/L	m	99
		399.0 -> 99.0	1078				
PFNA	7.912	463.0 -> 419.0	10835	0.39	µg/L		97
		463.0 -> 219.0	1871				
PFNS	9.025	549.0 -> 80.0	1421	0.53	µg/L		70
		549.0 -> 99.0	505				
PFOA	7.397	413.0 -> 369.0	10805	0.34	µg/L		84
		413.0 -> 169.0	2853				
PFOS	8.549	499.0 -> 80.0	2564	0.51	µg/L	m	80
		499.0 -> 99.0	1412				
PFPeA	4.812	263.0 -> 219.0	14546	0.76	µg/L		100
PFPeS	6.845	349.0 -> 80.0	1342	0.34	µg/L		70
		349.0 -> 99.0	836				
PFTeDA	10.013	713.0 -> 669.0	6905	0.37	µg/L		94
		713.0 -> 219.0	696				
PFTrDA	9.659	663.0 -> 619.0	9612	0.42	µg/L		97
		663.0 -> 369.0	1236				
PFUnDA	8.853	563.0 -> 519.0	9211	0.36	µg/L		97
		563.0 -> 269.0	1604				
11Cl-PF3OUdS	9.709	631.0 -> 451.0	36982	1.53	µg/L		96
		633.0 -> 453.0	9820				
9Cl-PF3ONS	8.891	531.0 -> 351.0	25677	1.54	µg/L		99
		533.0 -> 353.0	7452				
ADONA	7.029	377.0 -> 251.0	68050	1.59	µg/L		98
		377.0 -> 85.0	19571				
HFPO-DA	6.295	285.0 -> 169.0	4549	1.57	µg/L		76
		285.0 -> 185.0					
3:3FTCA	4.301	241.0 -> 177.0	2397	2.02	µg/L		98
		241.0 -> 117.0	199				
5:3FTCA	6.524	341.0 -> 237.0	38064	9.95	µg/L		99
		341.0 -> 217.0	27368				
7:3FTCA	7.815	441.0 -> 337.0	41906	10.27	µg/L		98
		441.0 -> 317.0	15614				
EtFOSA	11.154	526.0 -> 219.0	5014	0.71	µg/L	m	93
		526.0 -> 169.0	6303				
EtFOSE	11.075	630.0 -> 59.0	9995	1.91	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	6176	0.82	µg/L	m	90
		512.0 -> 219.0	3992				
MeFOSE	10.778	616.0 -> 59.0	7959	1.99	µg/L	m	100
PFDoDS	10.161	699.0 -> 80.0	1206	0.47	µg/L		83
		699.0 -> 99.0	709				
NFDHA	5.848	295.0 -> 201.0	1306	0.97	µg/L		92
		201.0 -> 85.0	6588				
		295.0 -> 85.0	350				
PFMBA	5.213	279.0 -> 85.0	7829	0.76	µg/L		100
PFMPA	3.952	229.0 -> 85.0	8218	0.76	µg/L		100
PFEESA	6.377	315.0 -> 135.0	11699	0.78	µg/L		99
		315.0 -> 69.0	1152				

Perfluorinated Compounds by LC/MS/MS

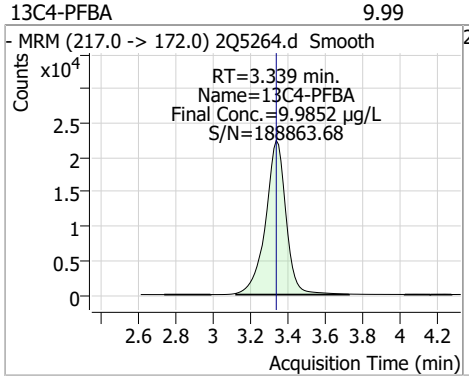
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

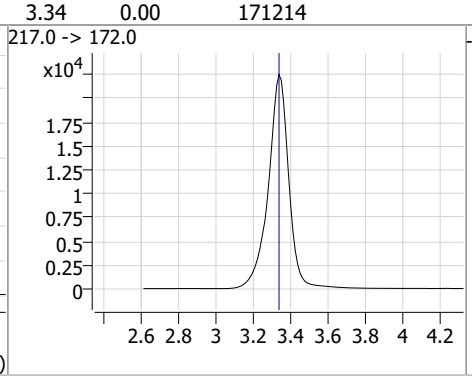
= Qualifier out of range, m = manually integrated, + = Area summed

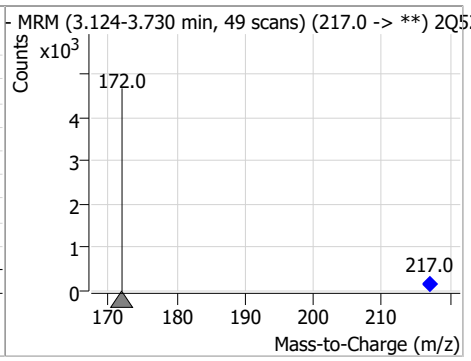
Perfluorinated Compounds by LC/MS/MS



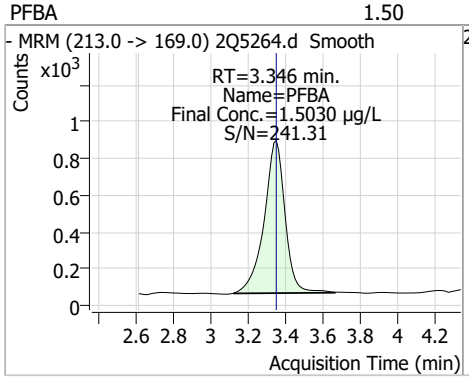
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.99	3.34	0.00	171214				

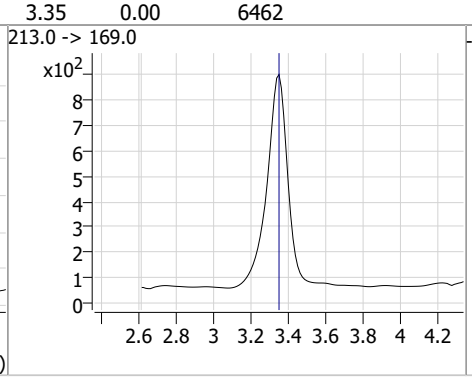


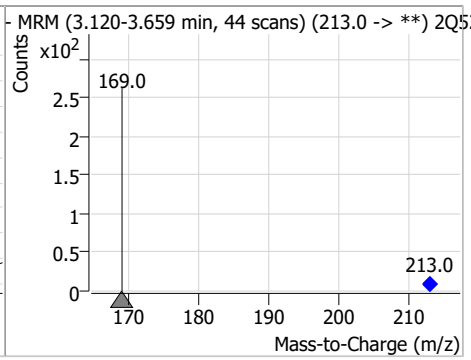




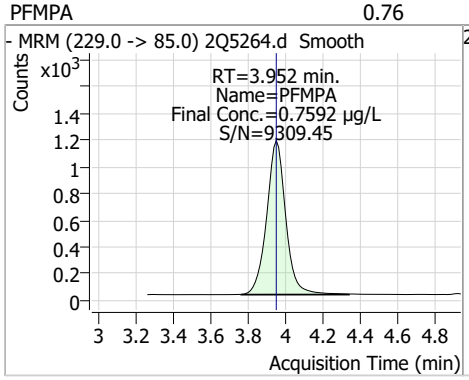
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	1.50	3.35	0.00	6462				

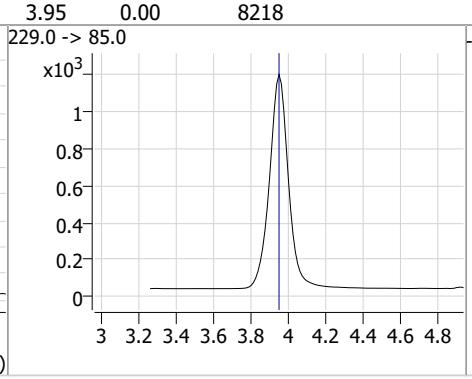


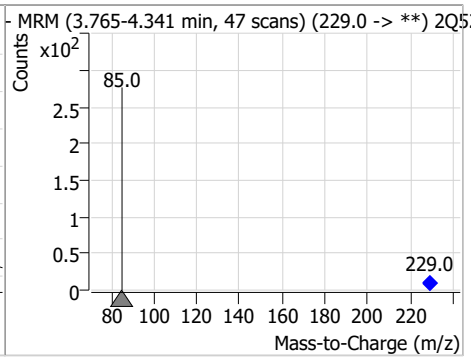




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	0.76	3.95	0.00	8218				

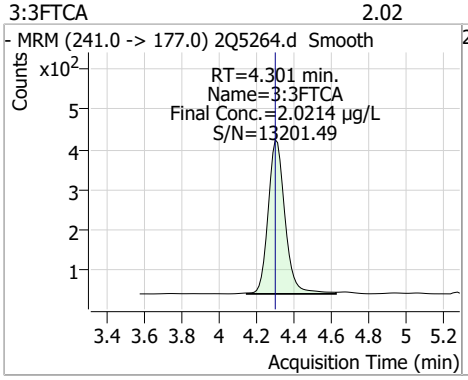


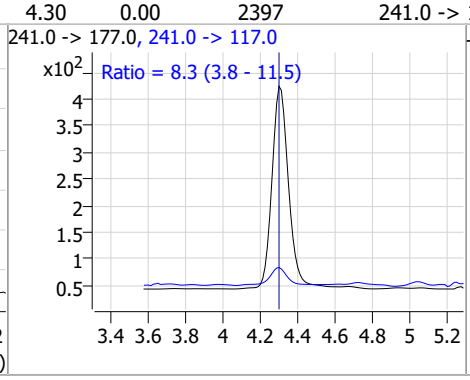


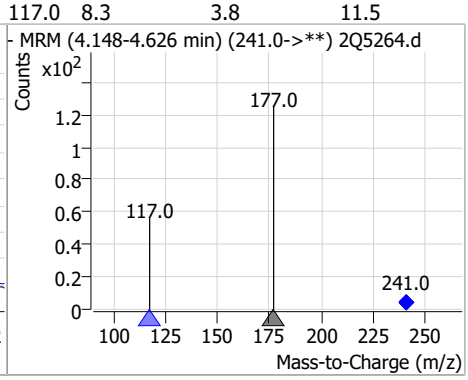


Perfluorinated Compounds by LC/MS/MS

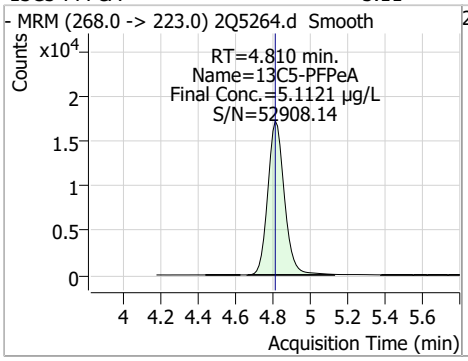
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	2.02	4.30	0.00	2397	241.0 -> 117.0	8.3	3.8	11.5

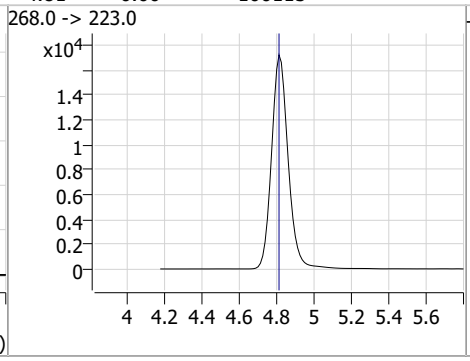


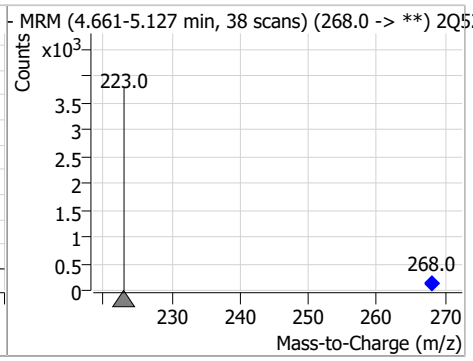




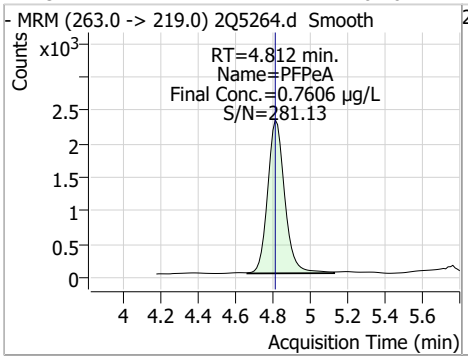
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.11	4.81	0.00	106115				

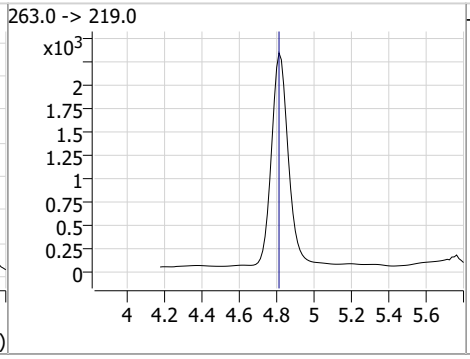


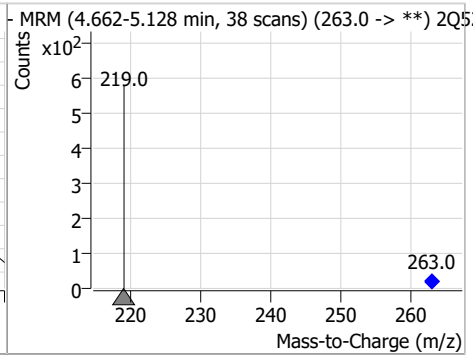




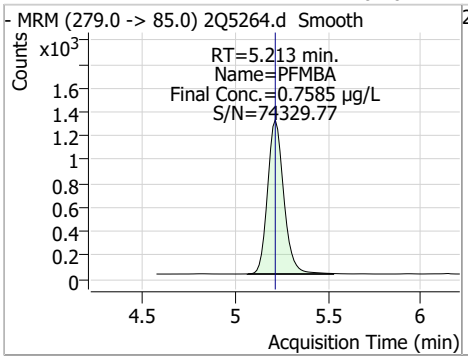
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.76	4.81	0.00	14546				

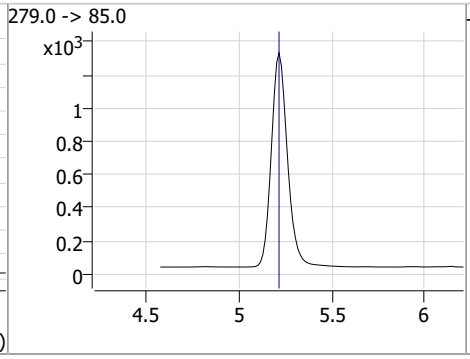


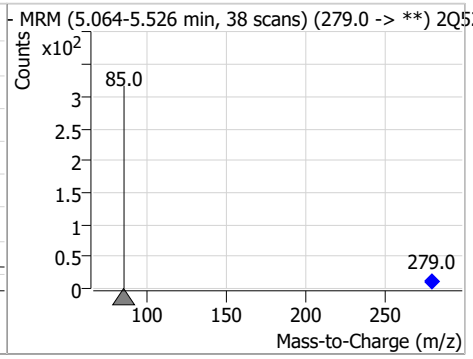




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	0.76	5.21	0.00	7829				

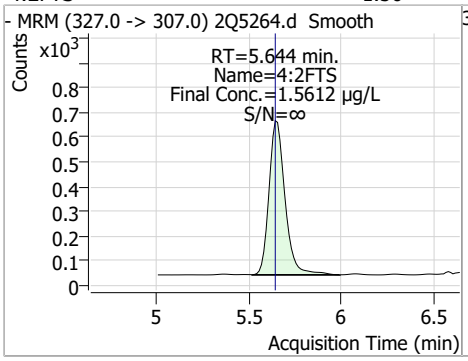


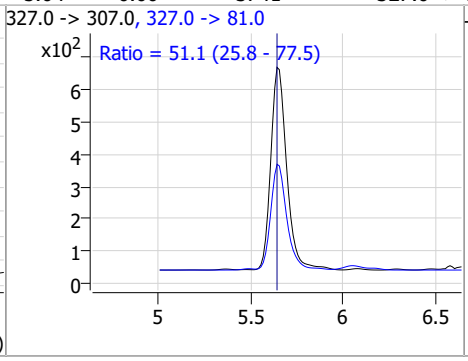


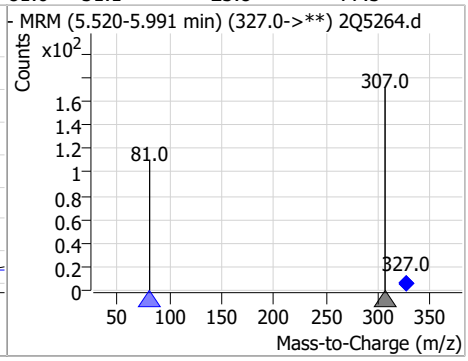


Perfluorinated Compounds by LC/MS/MS

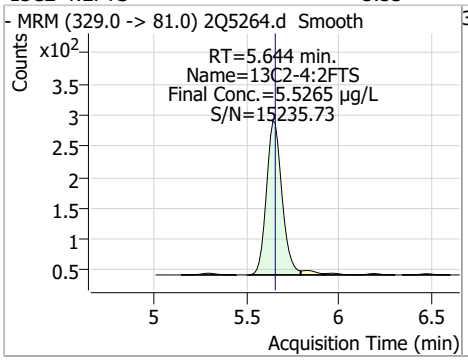
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	1.56	5.64	0.00	3741	327.0 -> 81.0	51.1	25.8	77.5

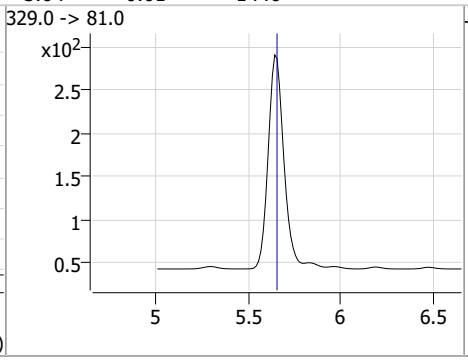


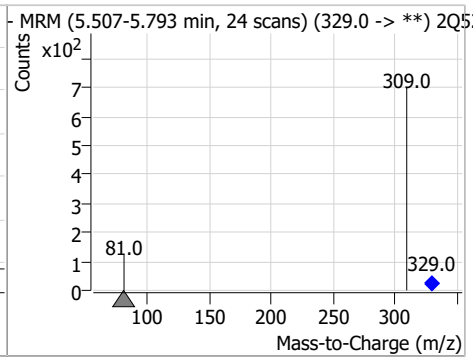




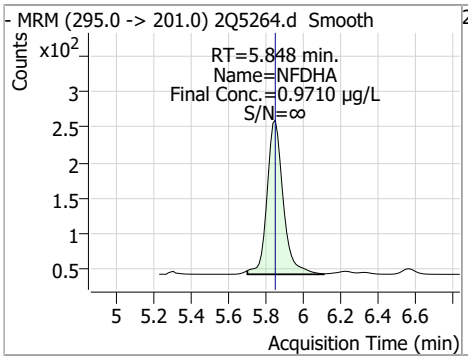
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.53	5.64	-0.01	1440				

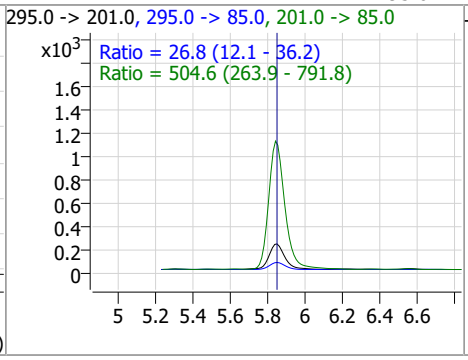


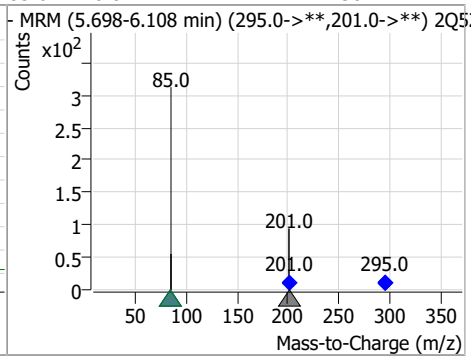




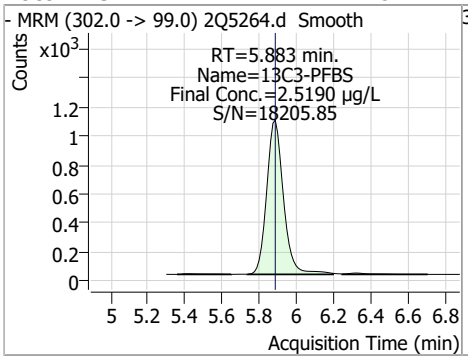
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	0.97	5.85	0.00	1306	201.0 -> 85.0	504.6	263.9	791.8
					295.0 -> 85.0	26.8	12.1	36.2

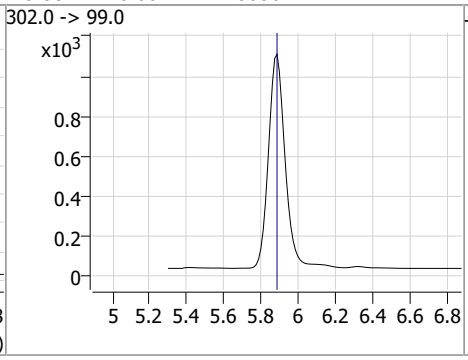


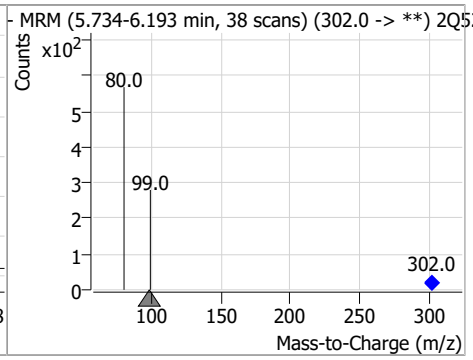




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.52	5.88	0.00	6686				

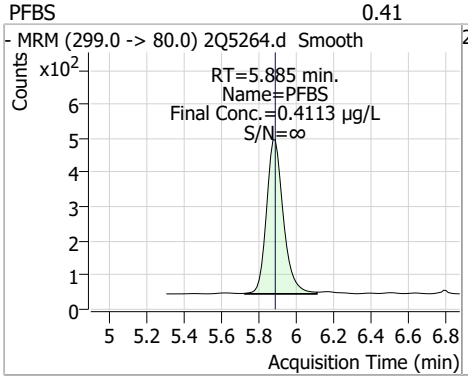


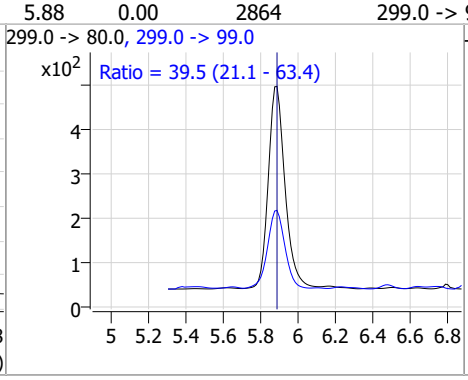


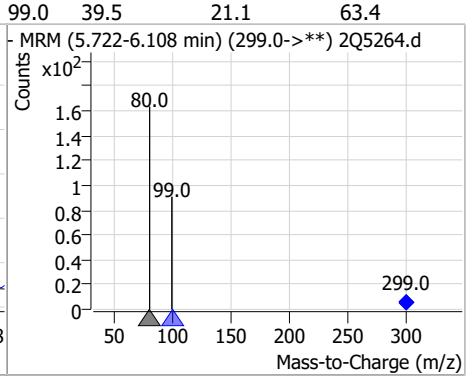


Perfluorinated Compounds by LC/MS/MS

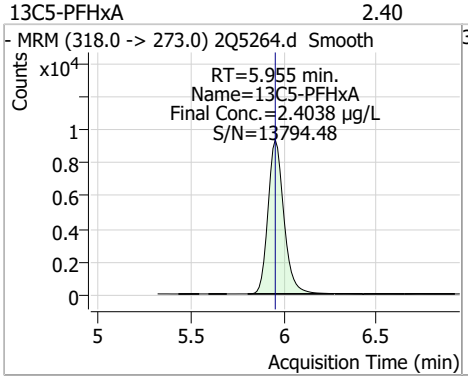
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.41	5.88	0.00	2864	299.0 -> 99.0	39.5	21.1	63.4

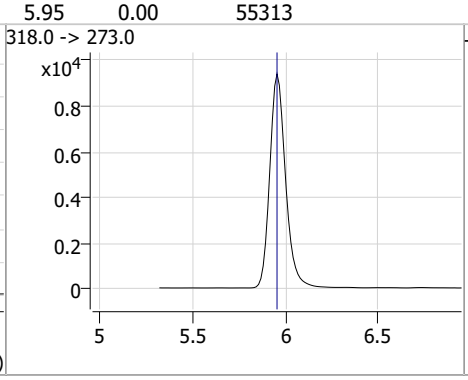


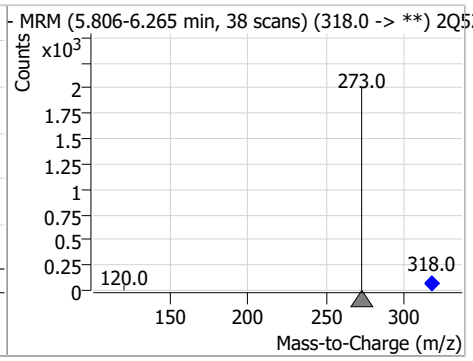




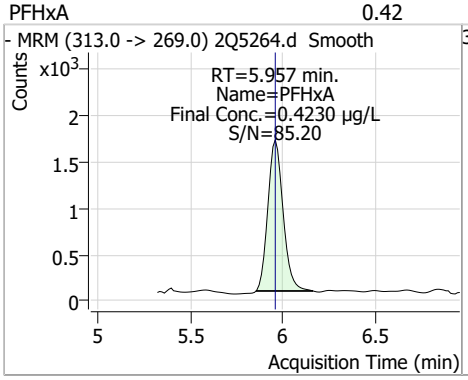
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.40	5.95	0.00	55313				

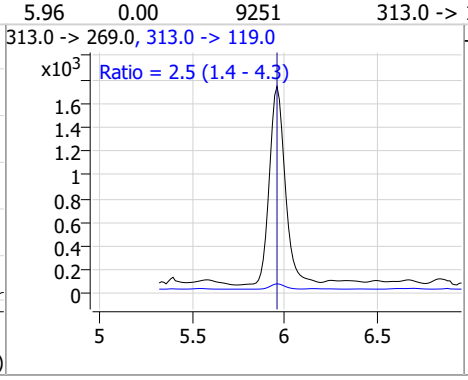


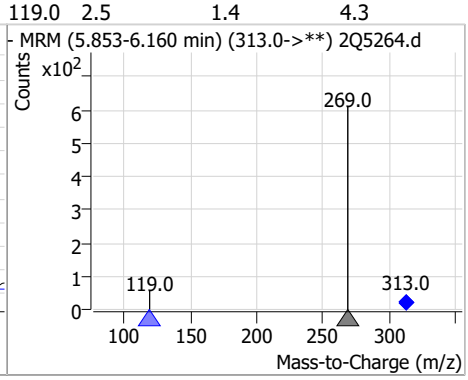




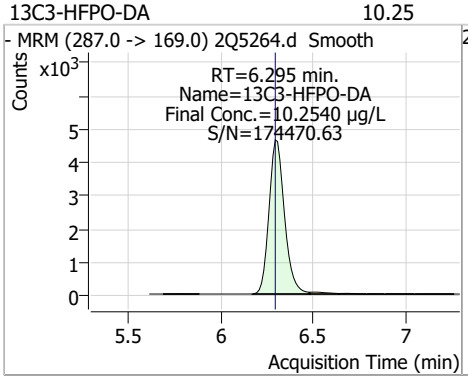
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.42	5.96	0.00	9251	313.0 -> 119.0	2.5	1.4	4.3

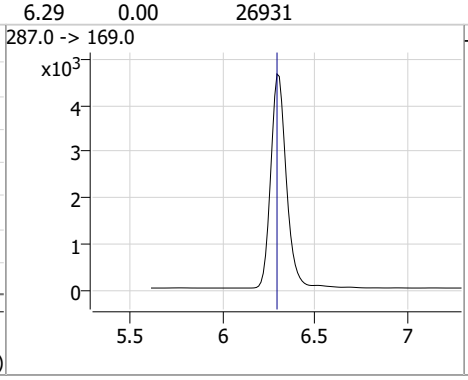


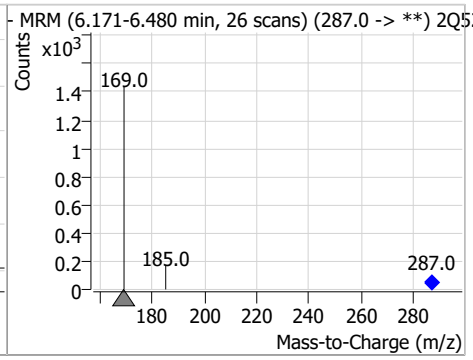




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.25	6.29	0.00	26931				

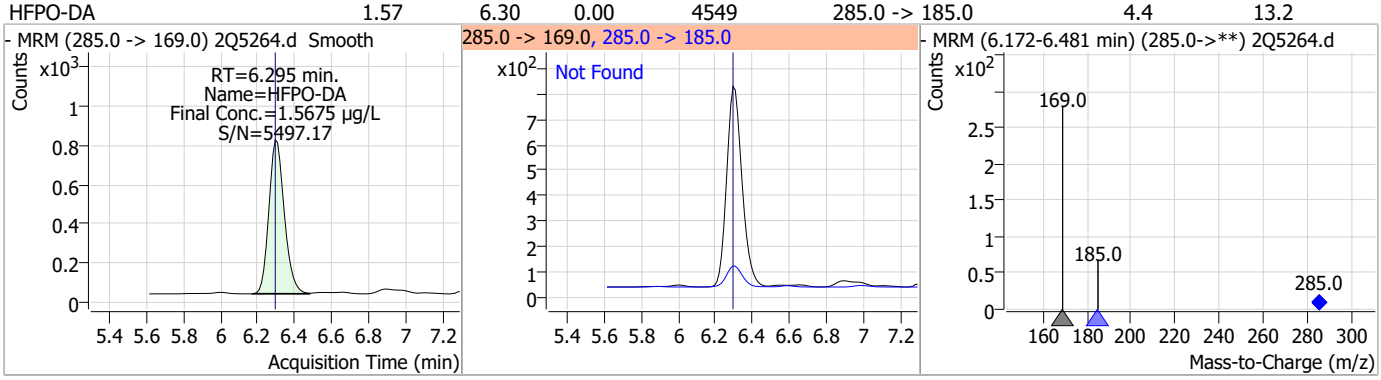




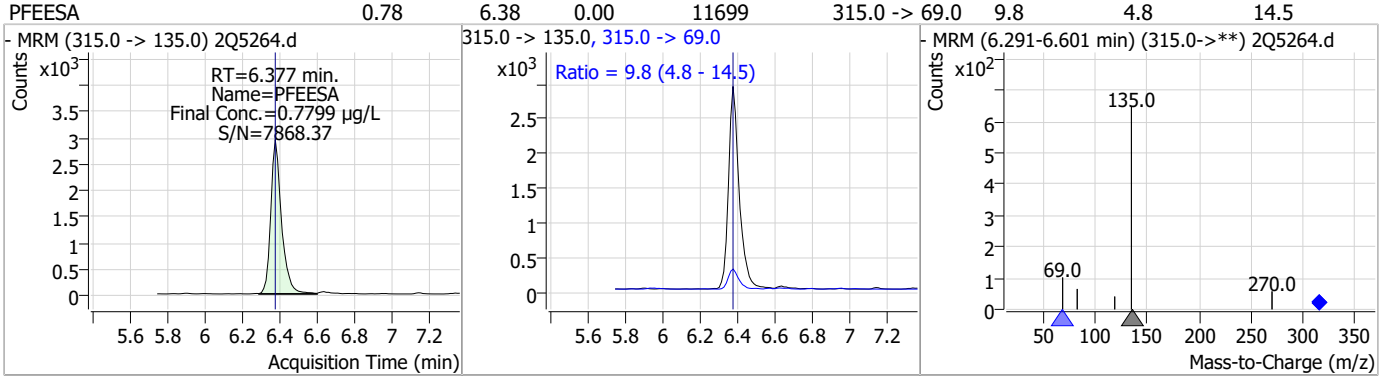


Perfluorinated Compounds by LC/MS/MS

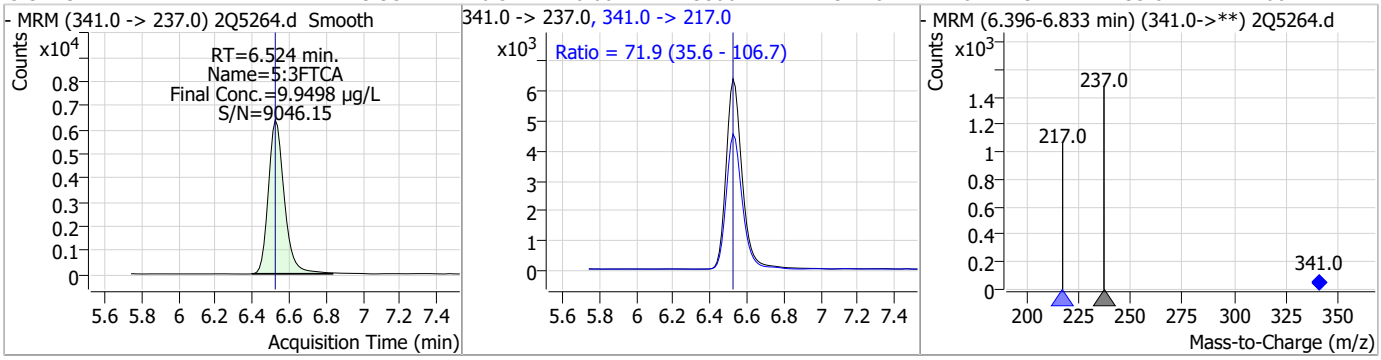
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	1.57	6.30	0.00	4549	285.0 -> 185.0		4.4	13.2



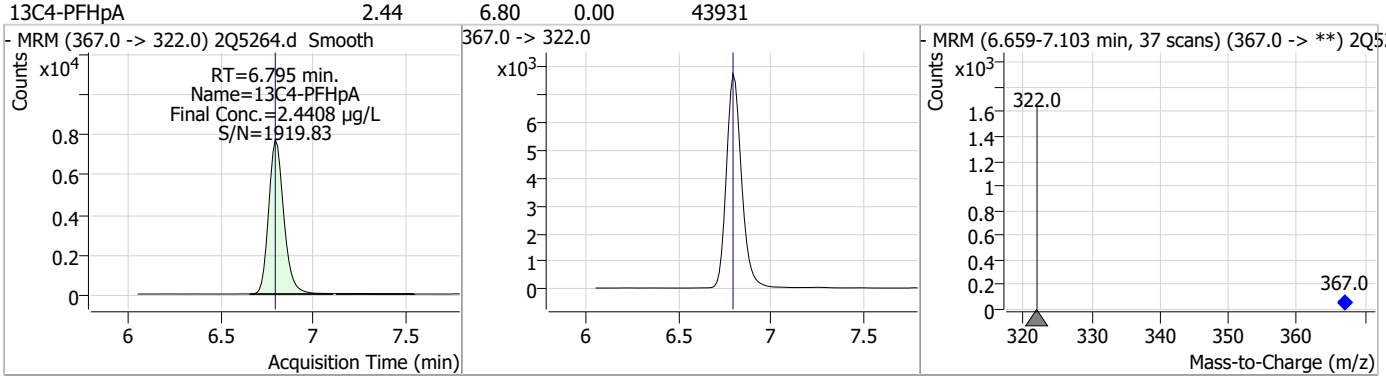
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	0.78	6.38	0.00	11699	315.0 -> 69.0	9.8	4.8	14.5



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	9.95	6.52	0.00	38064	341.0 -> 217.0	71.9	35.6	106.7

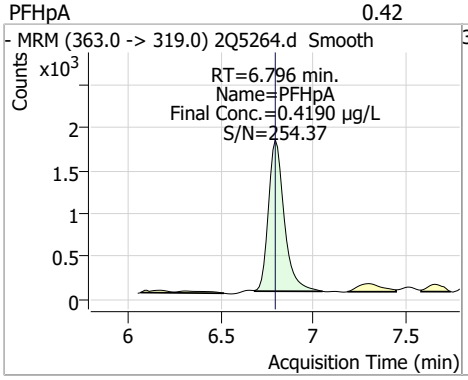


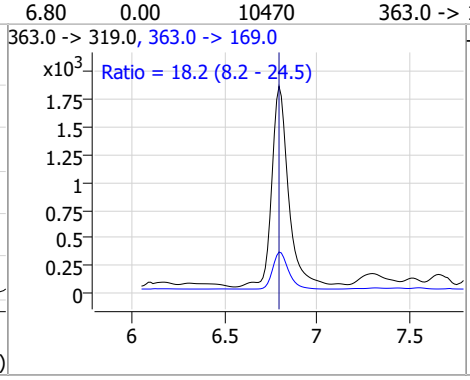
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.44	6.80	0.00	43931				

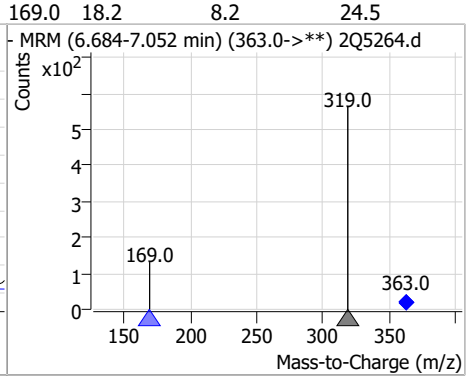


Perfluorinated Compounds by LC/MS/MS

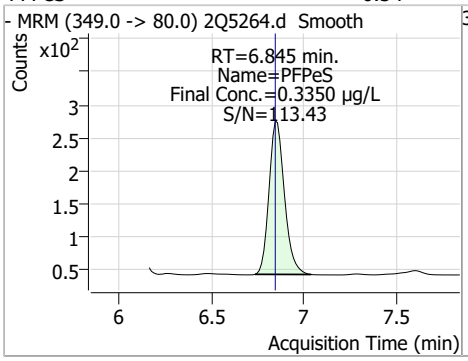
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.42	6.80	0.00	10470	363.0 -> 169.0	18.2	8.2	24.5

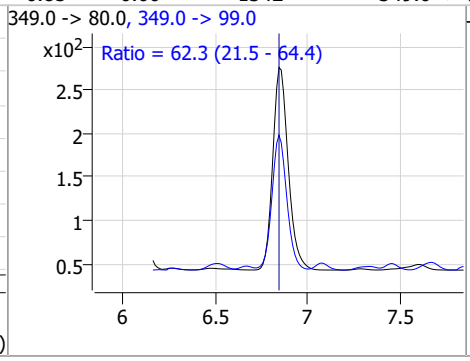


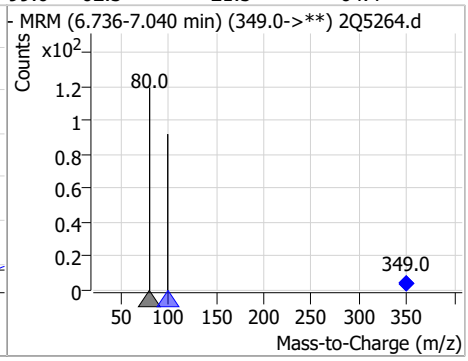




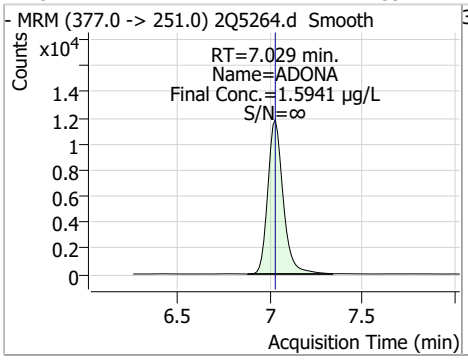
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0.34	6.85	0.00	1342	349.0 -> 99.0	62.3	21.5	64.4

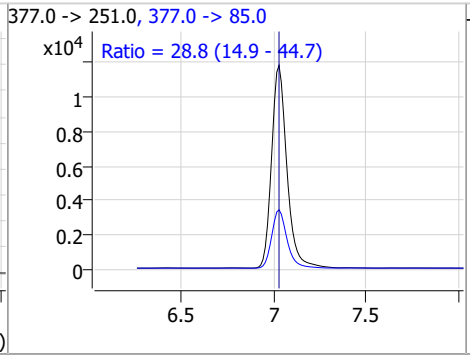


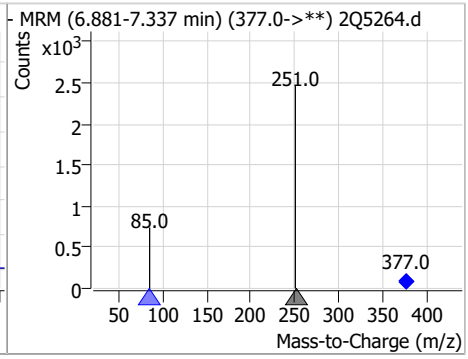




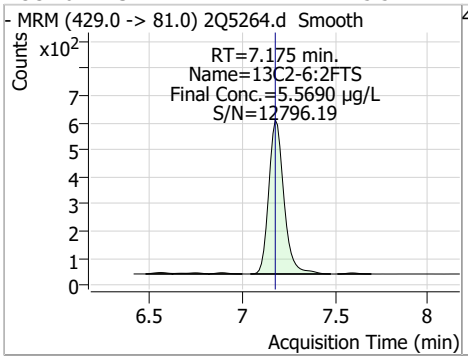
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	1.59	7.03	0.00	68050	377.0 -> 85.0	28.8	14.9	44.7

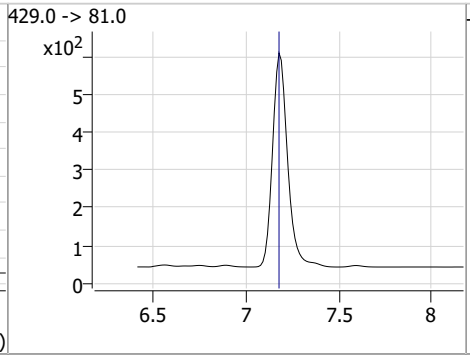


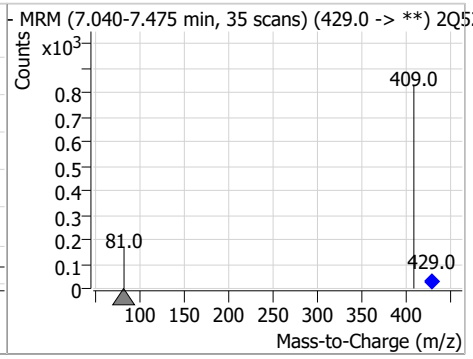




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.57	7.17	0.00	3217				

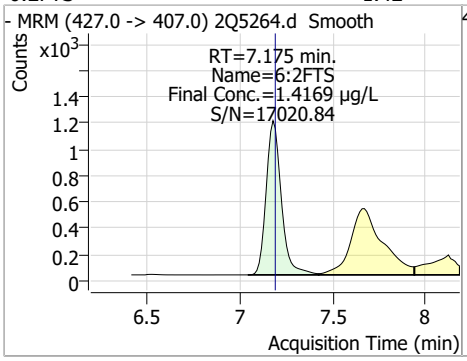


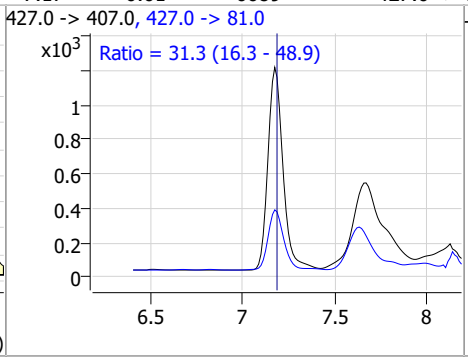


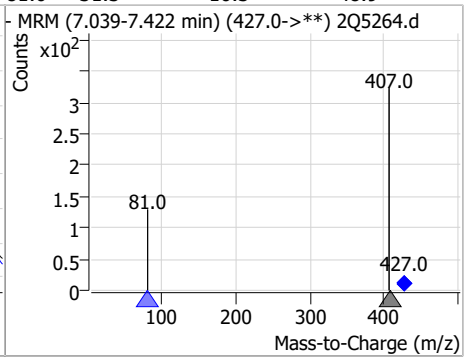


Perfluorinated Compounds by LC/MS/MS

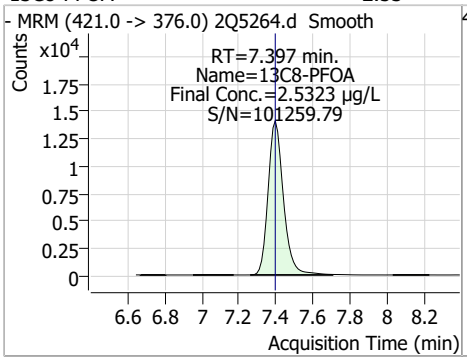
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	1.42	7.17	-0.01	6689	427.0 -> 81.0	31.3	16.3	48.9

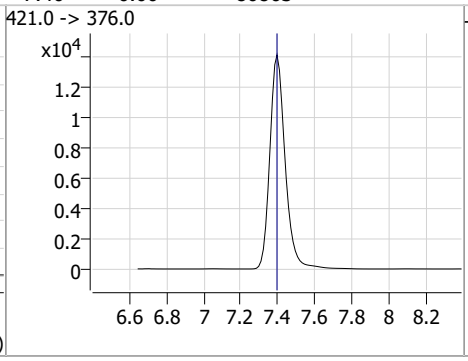


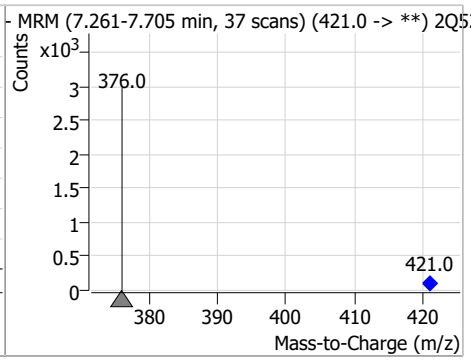




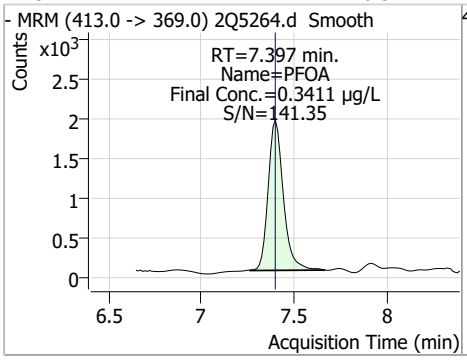
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.53	7.40	0.00	80863				

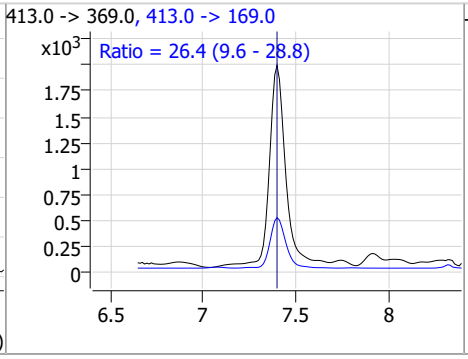


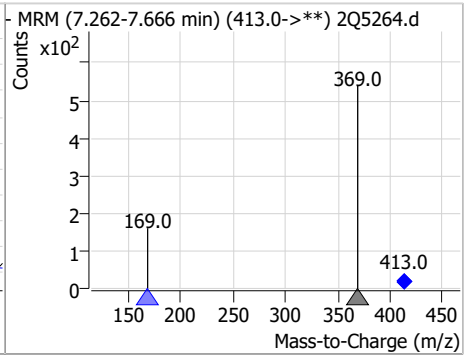




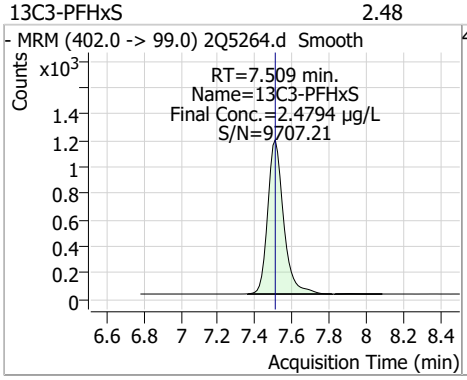
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.34	7.40	0.00	10805	413.0 -> 169.0	26.4	9.6	28.8

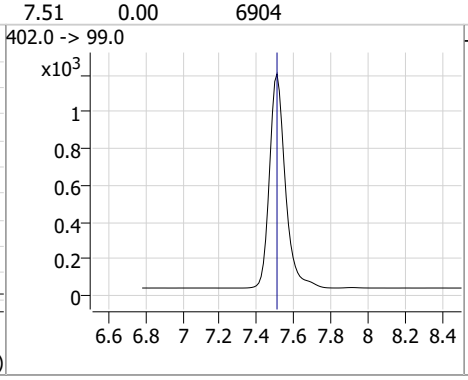


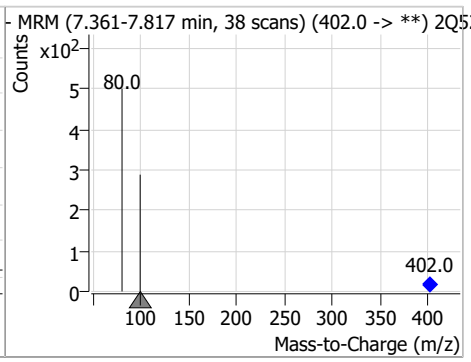




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.48	7.51	0.00	6904				

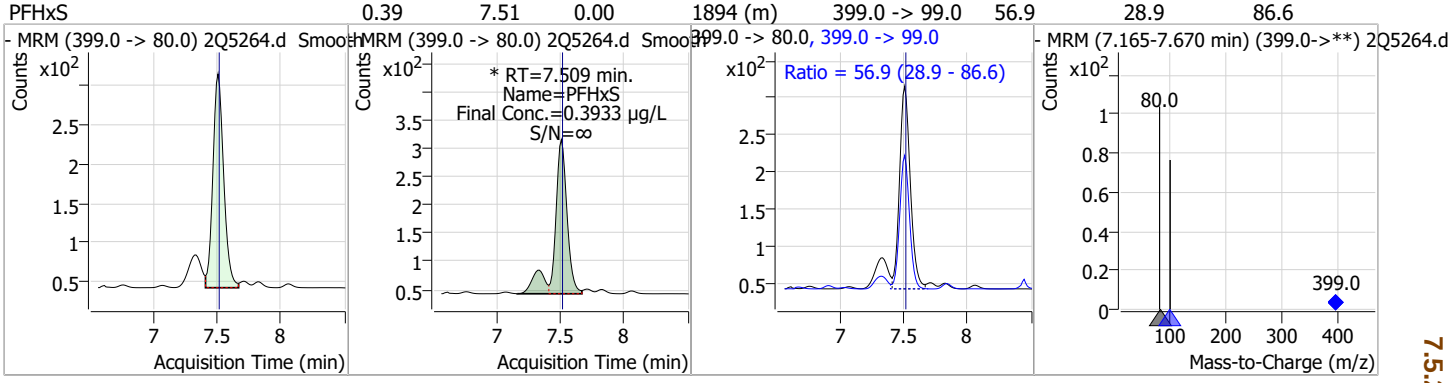




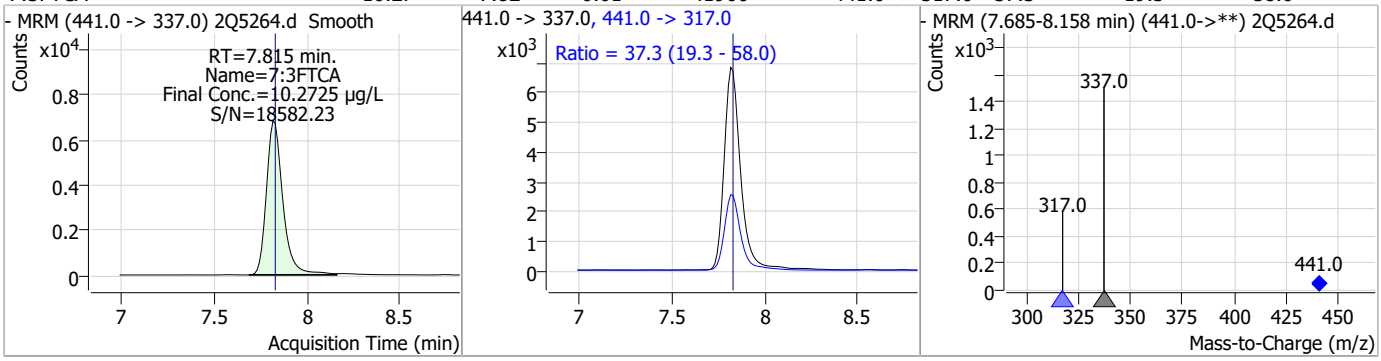


Perfluorinated Compounds by LC/MS/MS

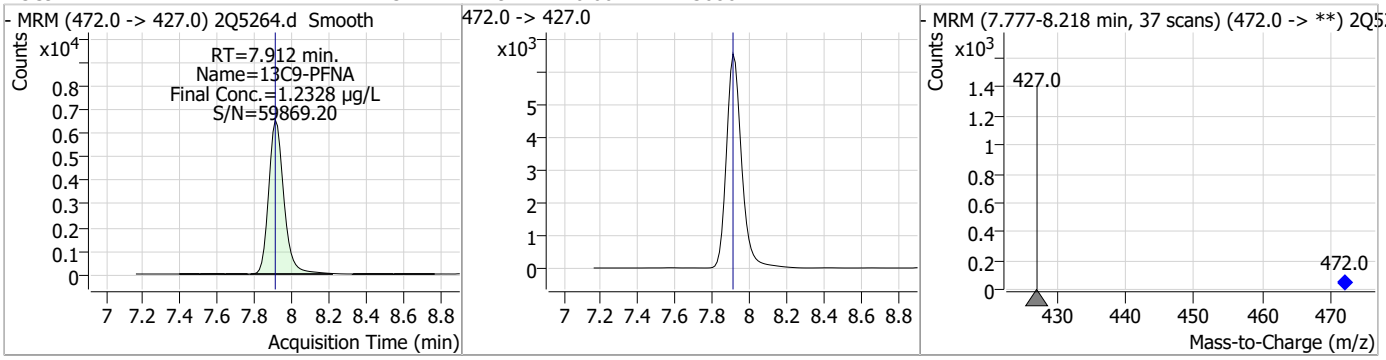
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.39	7.51	0.00	1894 (m)	399.0 -> 99.0	56.9	28.9	86.6



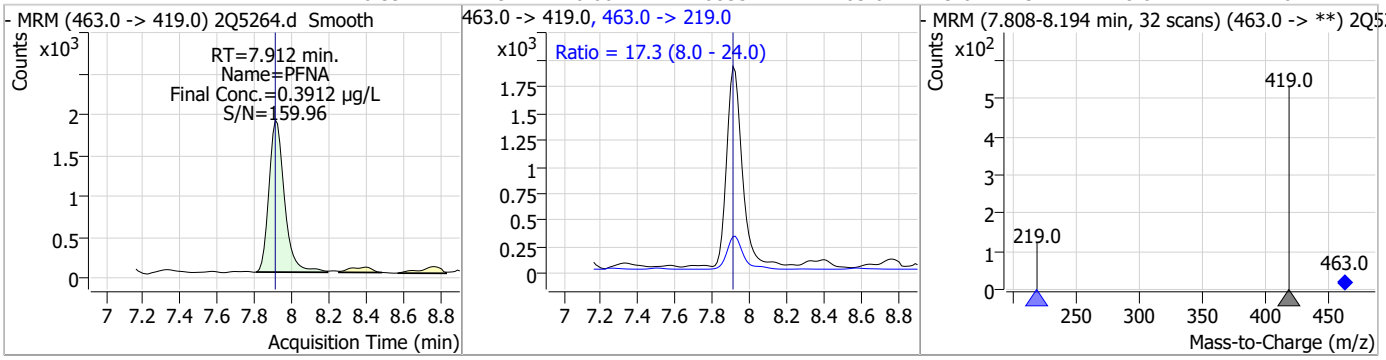
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	10.27	7.82	-0.01	41906	441.0 -> 317.0	37.3	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.23	7.91	0.00	36861				

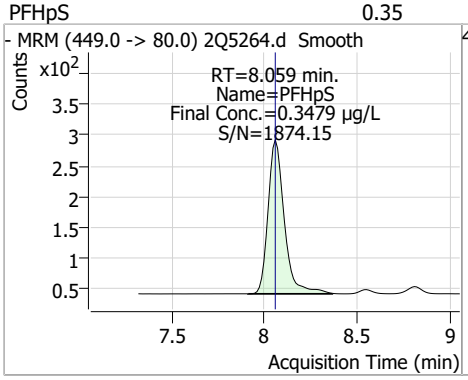


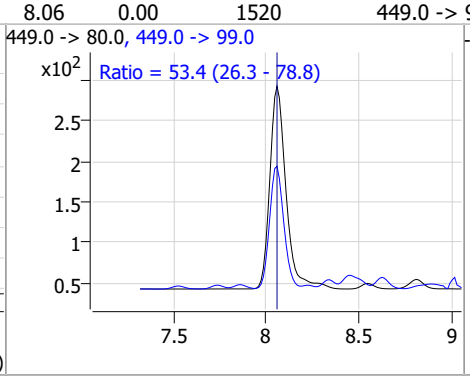
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.39	7.91	0.00	10835	463.0 -> 219.0	17.3	8.0	24.0

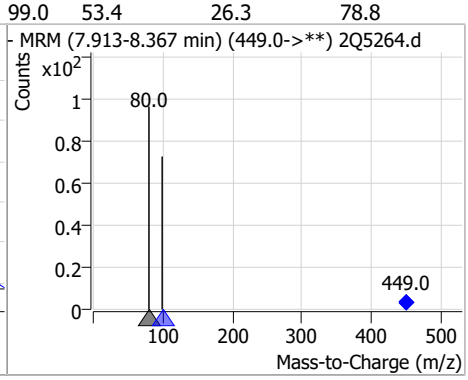


Perfluorinated Compounds by LC/MS/MS

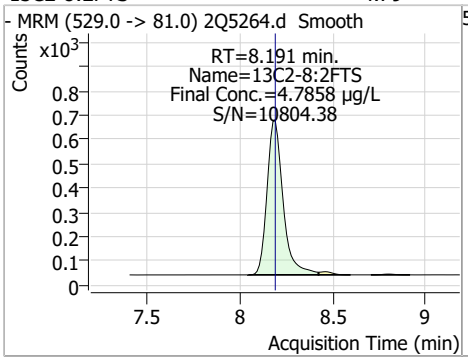
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.35	8.06	0.00	1520	449.0 -> 99.0	53.4	26.3	78.8

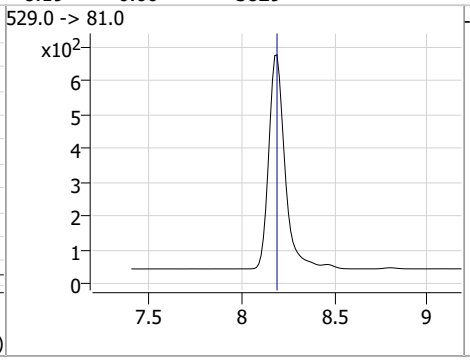


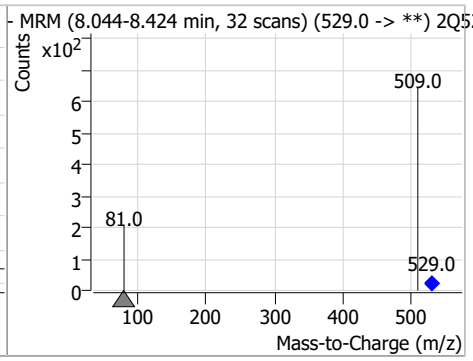




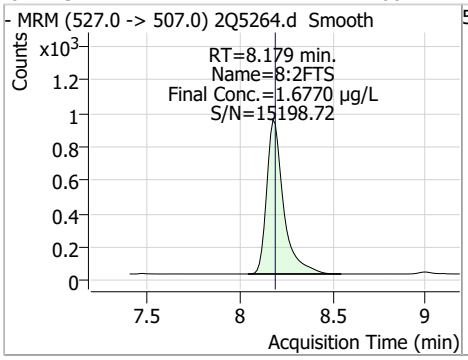
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.79	8.19	0.00	3829				

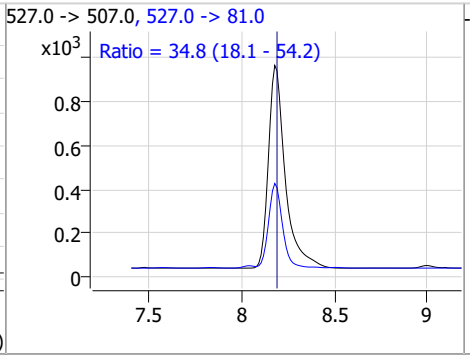


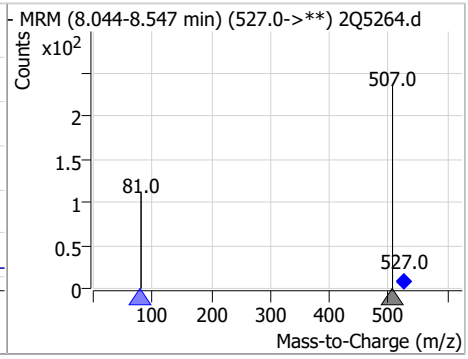




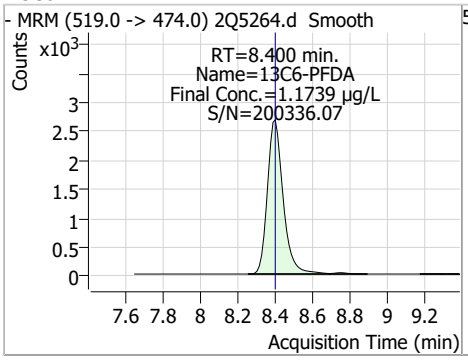
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	1.68	8.18	-0.01	5805	527.0 -> 81.0	34.8	18.1	54.2

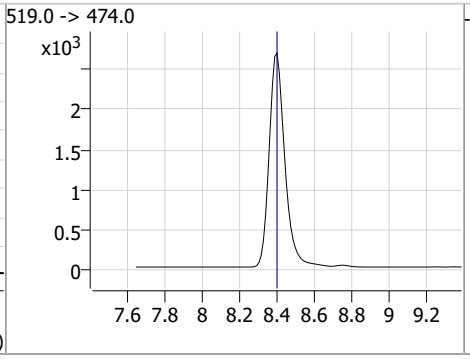


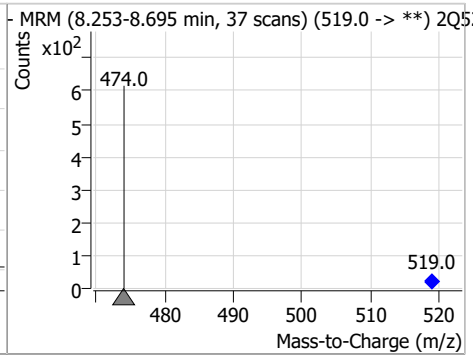




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.17	8.40	0.00	15633				

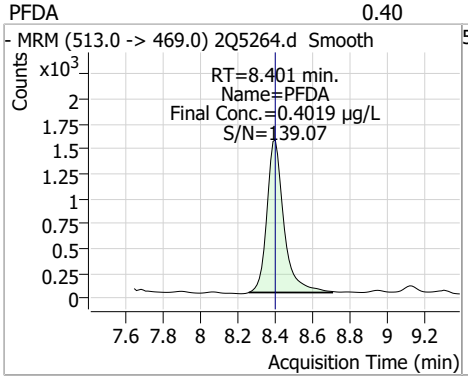


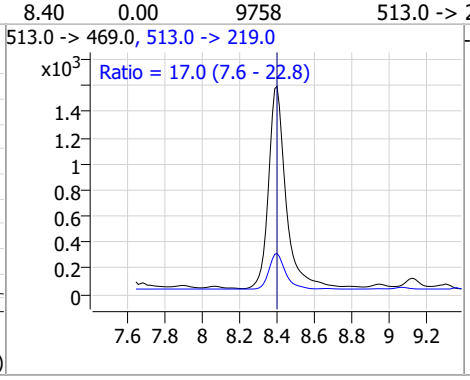


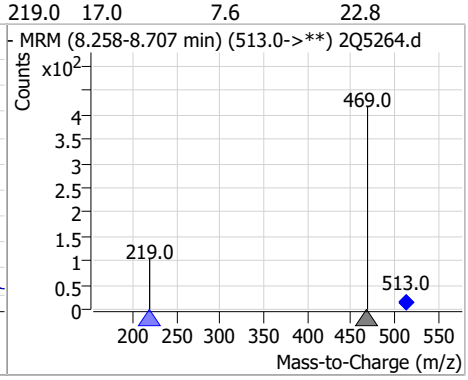


Perfluorinated Compounds by LC/MS/MS

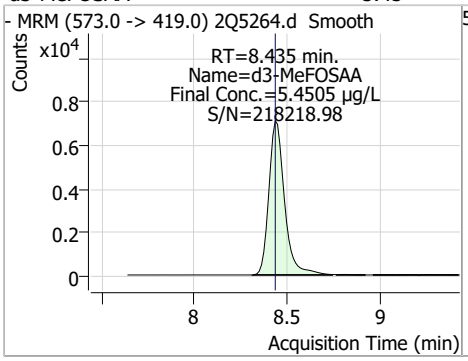
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.40	8.40	0.00	9758	513.0 -> 219.0	17.0	7.6	22.8

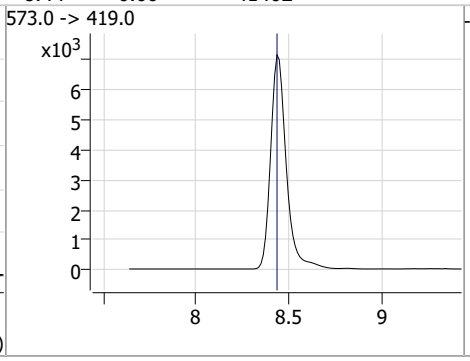


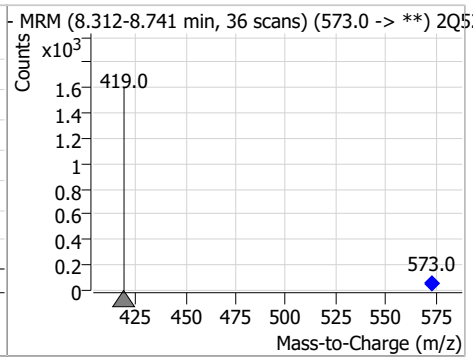




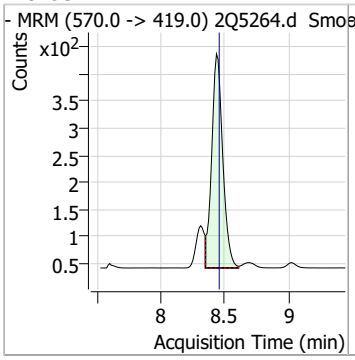
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.45	8.44	0.00	41402				

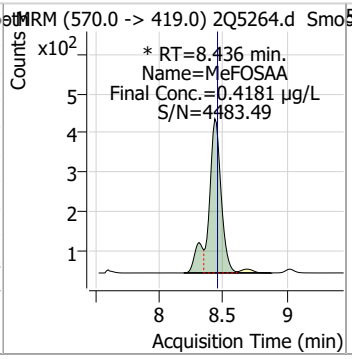


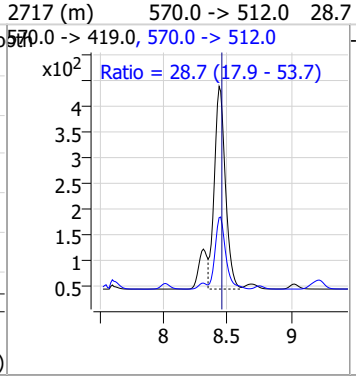


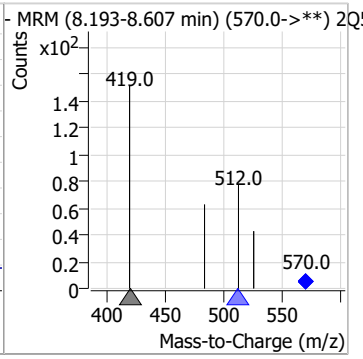


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	0.42	8.44	-0.01	2717 (m)	570.0 -> 512.0	28.7	17.9	53.7

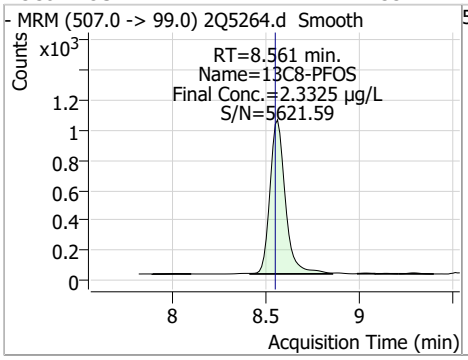


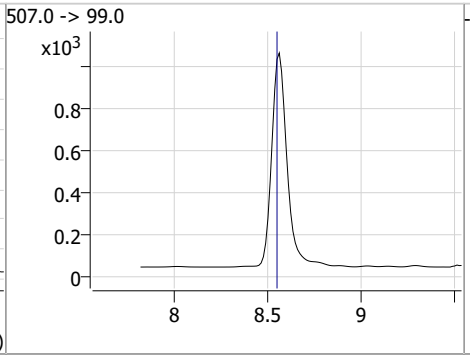


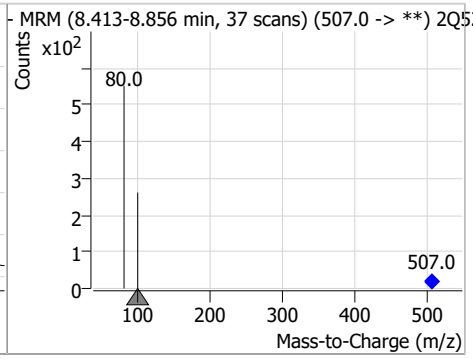




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.33	8.56	0.01	5928				

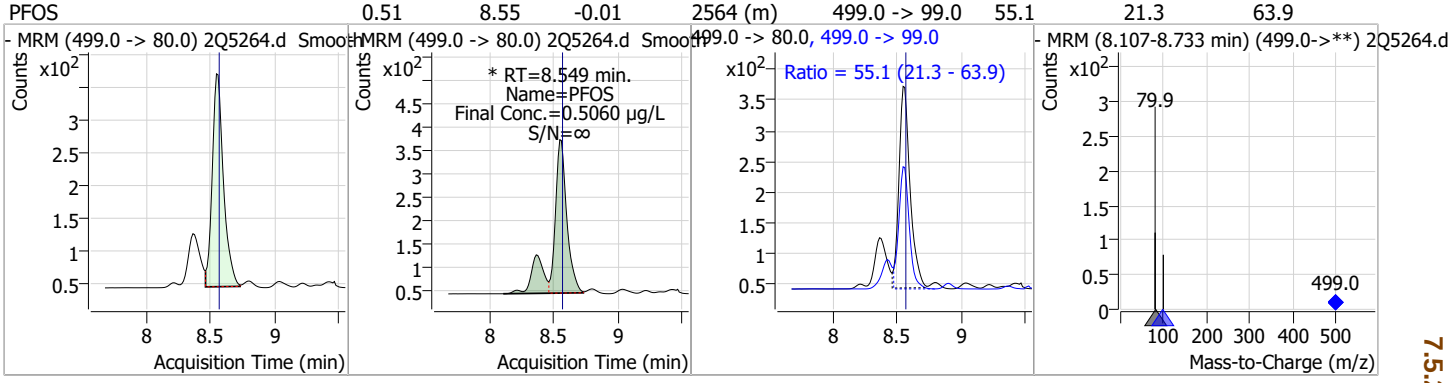




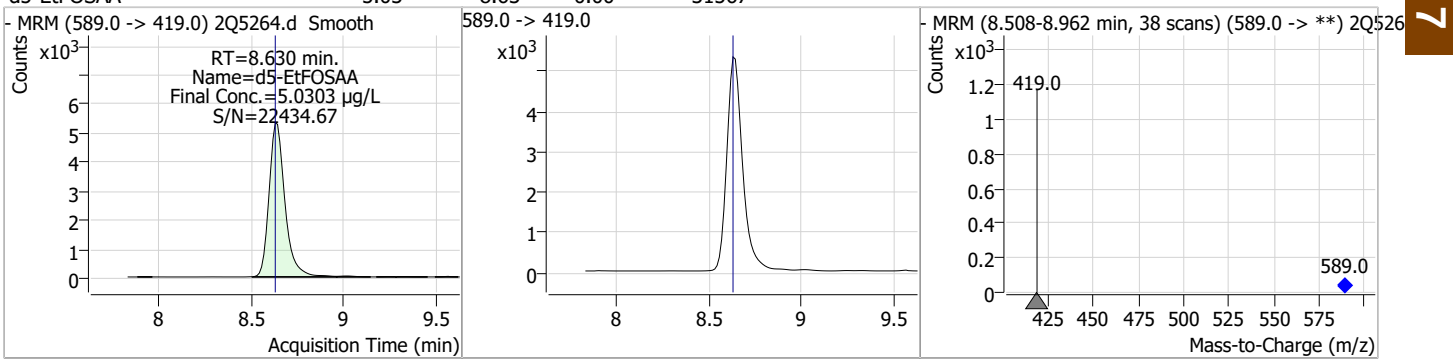


Perfluorinated Compounds by LC/MS/MS

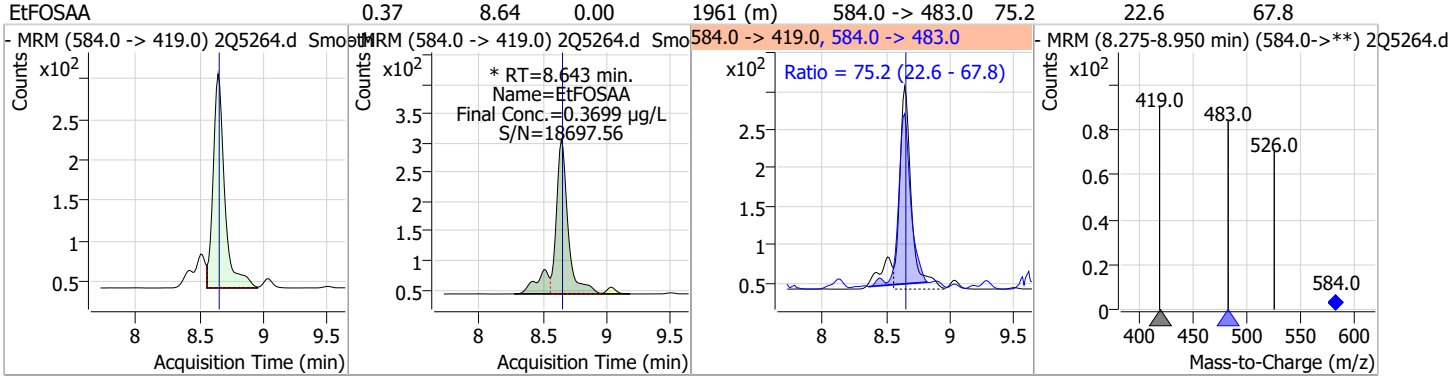
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.51	8.55	-0.01	2564 (m)	499.0 -> 99.0	55.1	21.3	63.9



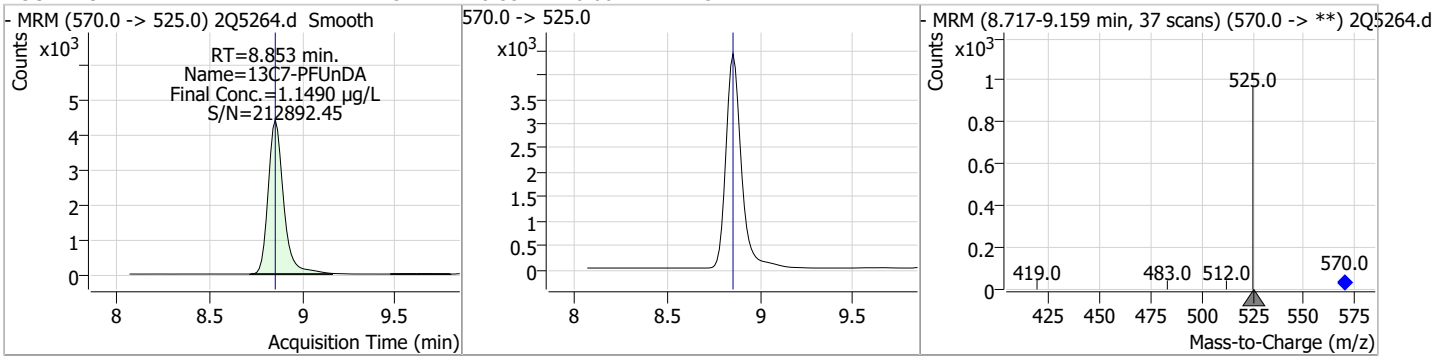
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.03	8.63	0.00	31567				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0.37	8.64	0.00	1961 (m)	584.0 -> 483.0	75.2	22.6	67.8

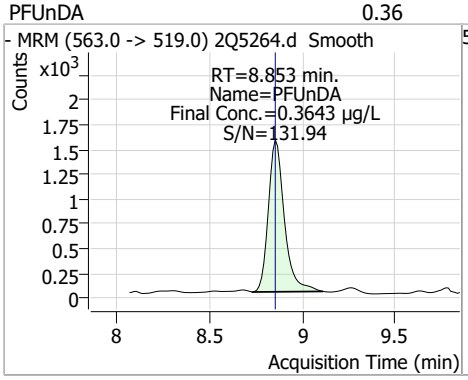


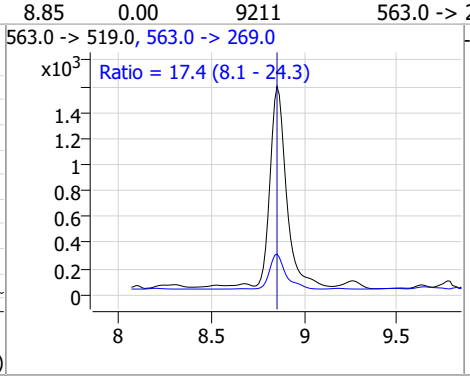
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.15	8.85	0.00	25241				

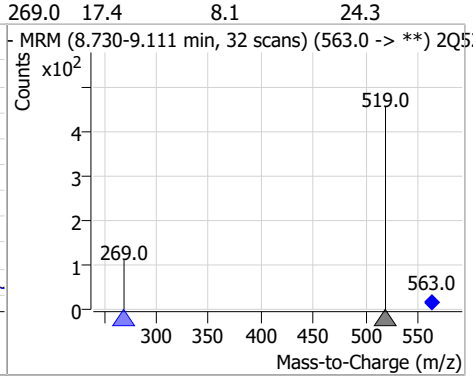


Perfluorinated Compounds by LC/MS/MS

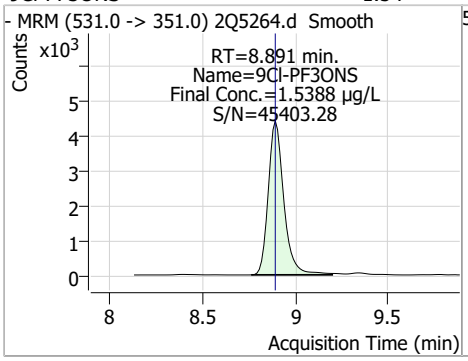
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	0.36	8.85	0.00	9211	563.0 -> 269.0	17.4	8.1	24.3

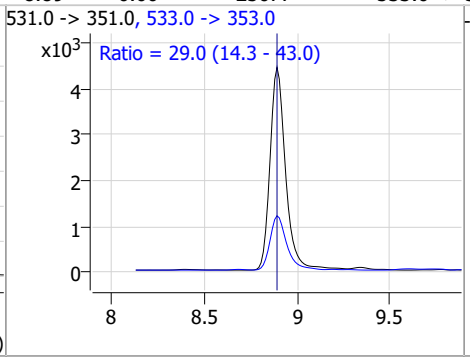


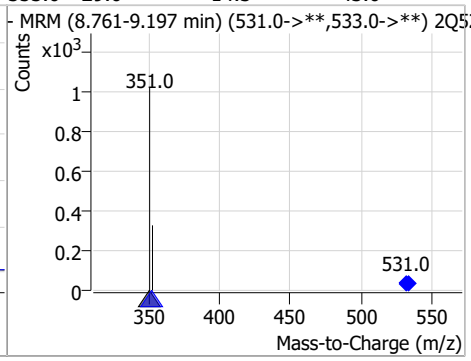




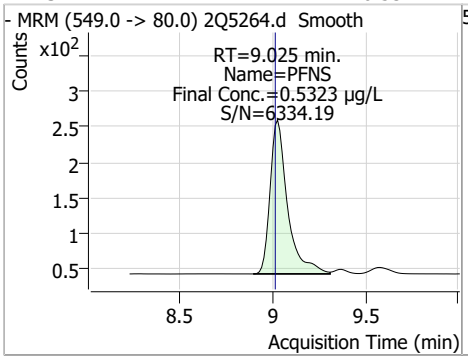
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	1.54	8.89	0.00	25677	533.0 -> 353.0	29.0	14.3	43.0

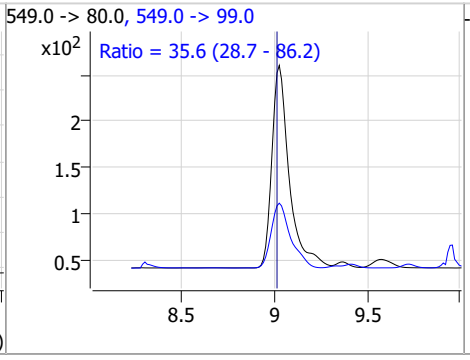


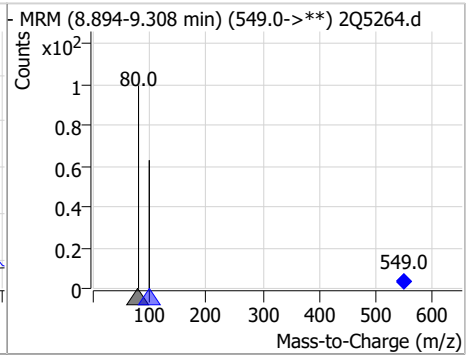




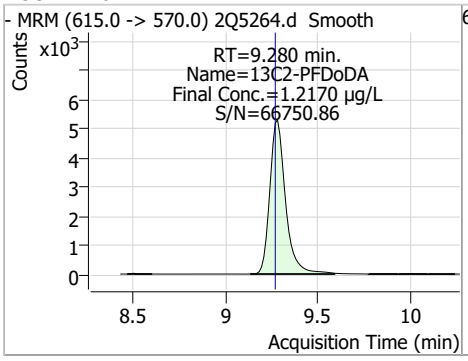
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	0.53	9.02	0.01	1421	549.0 -> 99.0	35.6	28.7	86.2

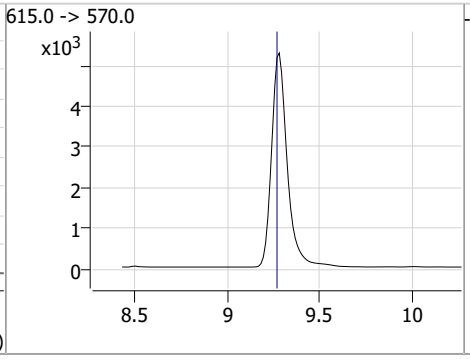


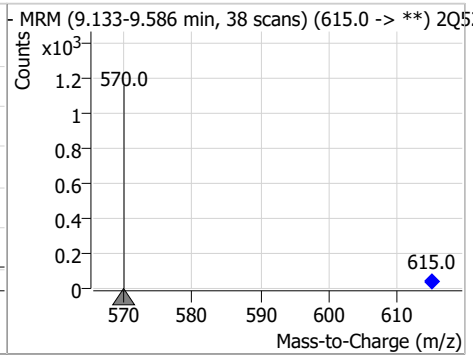




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.22	9.28	0.01	30993				

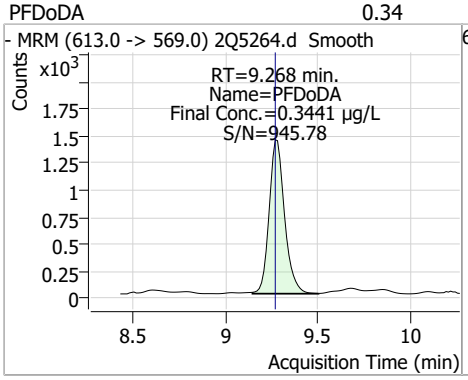


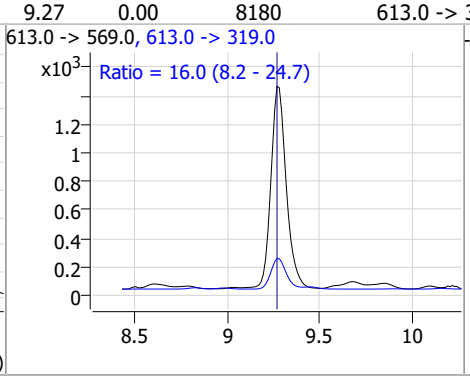


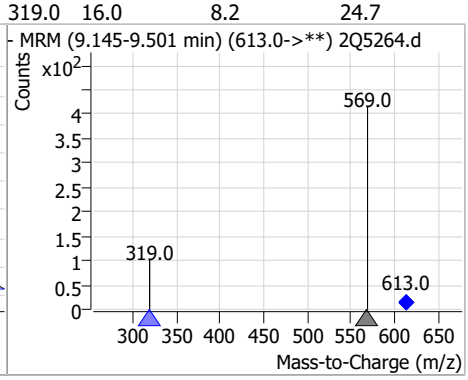


Perfluorinated Compounds by LC/MS/MS

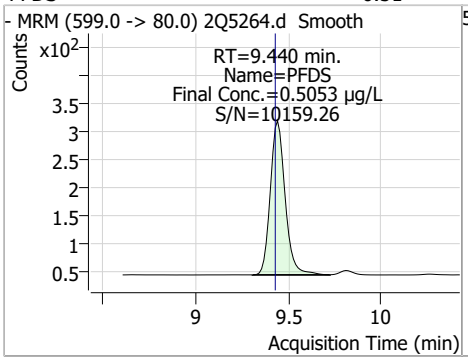
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	0.34	9.27	0.00	8180	613.0 -> 319.0	16.0	8.2	24.7

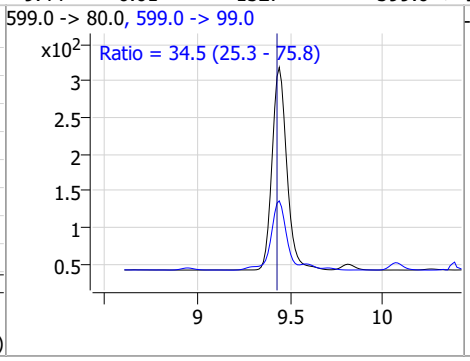


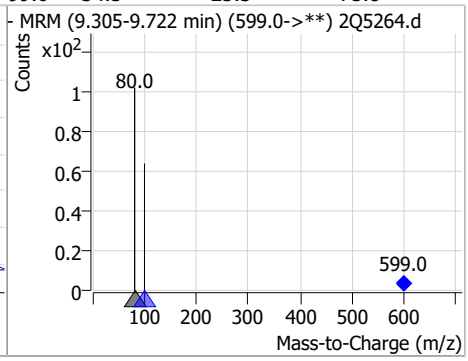




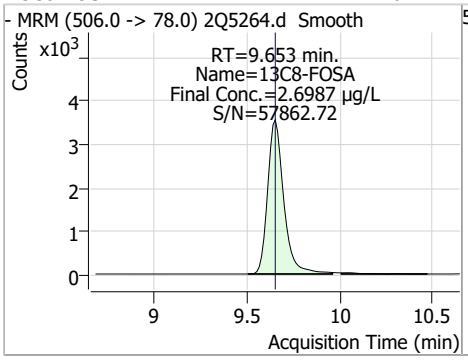
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	0.51	9.44	0.01	1527	599.0 -> 99.0	34.5	25.3	75.8

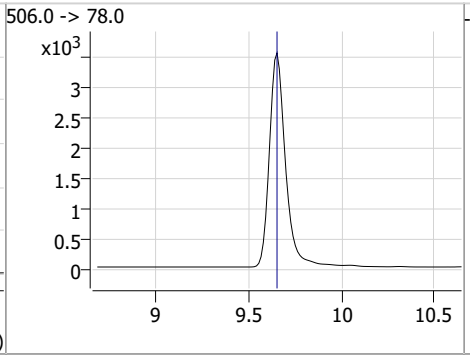


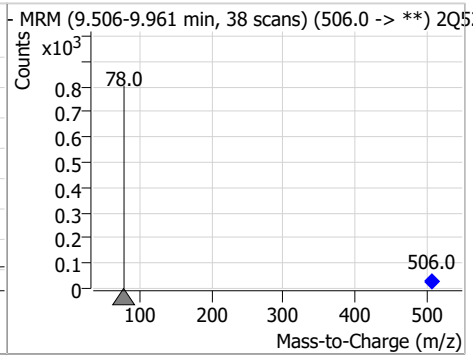




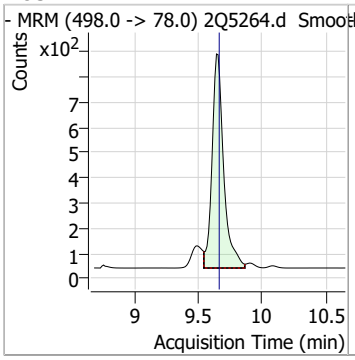
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.70	9.65	0.00	21327				

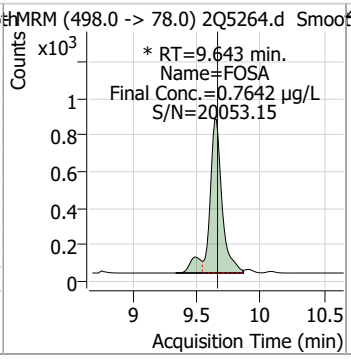


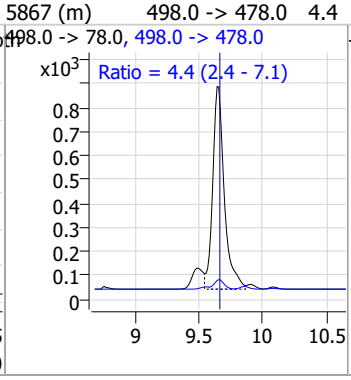


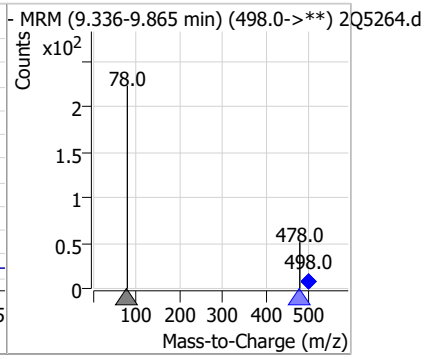


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	0.76	9.64	-0.01	5867 (m)	498.0 -> 478.0	4.4	2.4	7.1



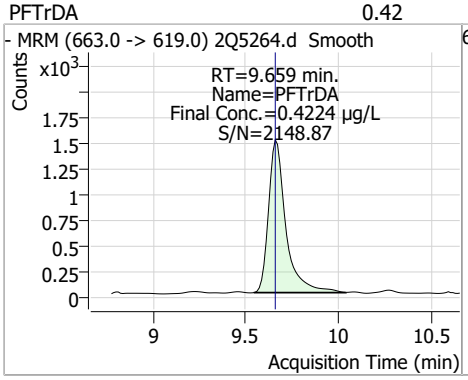


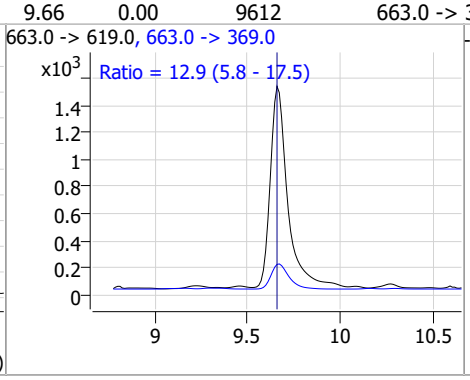


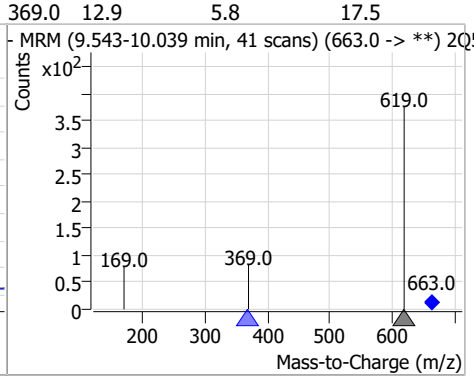


Perfluorinated Compounds by LC/MS/MS

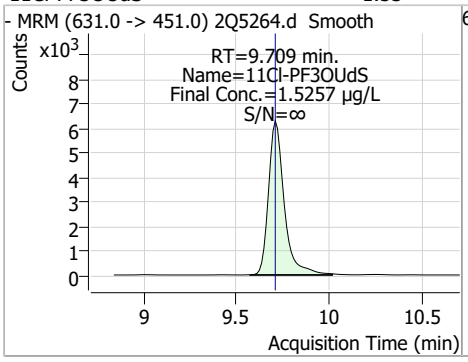
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	0.42	9.66	0.00	9612	663.0 -> 369.0	12.9	5.8	17.5

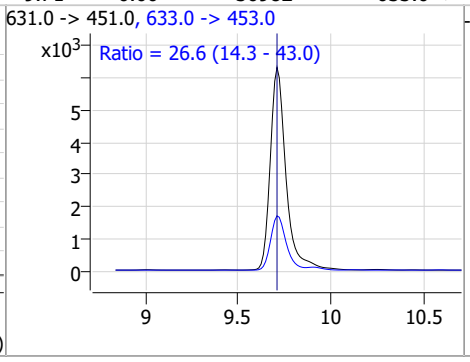


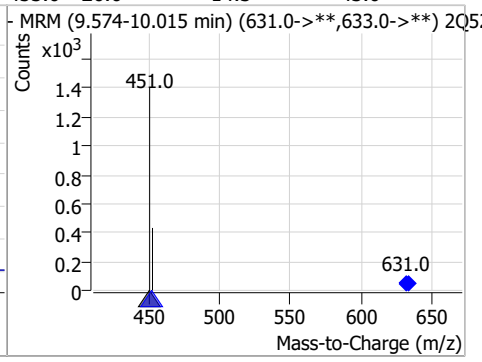




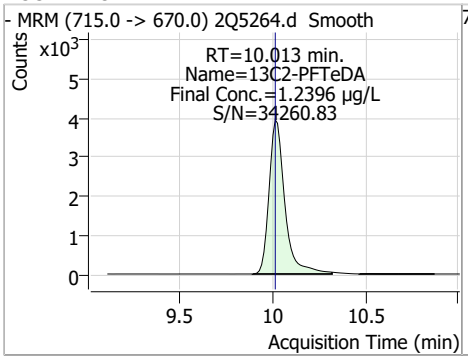
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	1.53	9.71	0.00	36982	633.0 -> 453.0	26.6	14.3	43.0

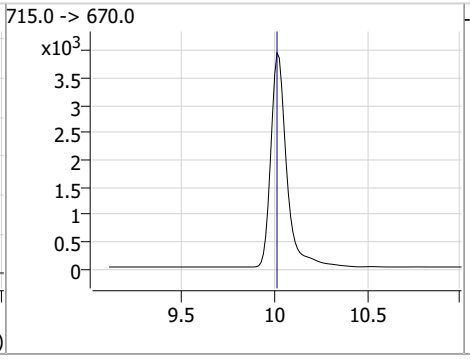


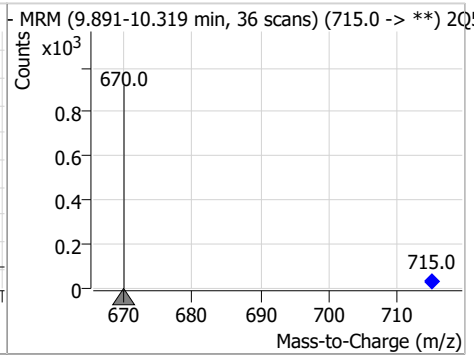




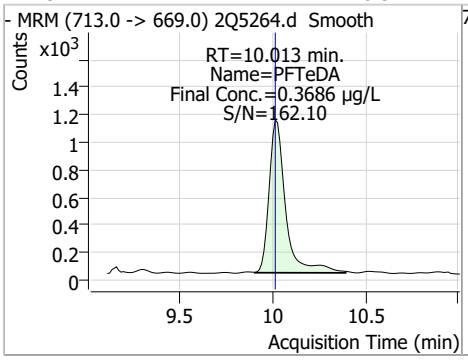
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.24	10.01	0.00	23153				

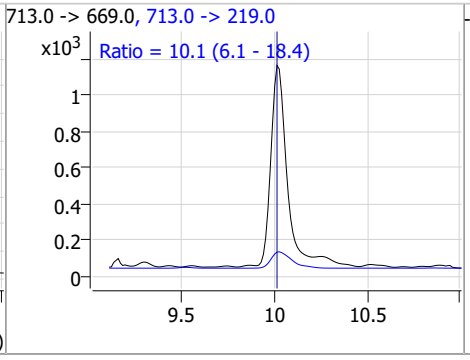


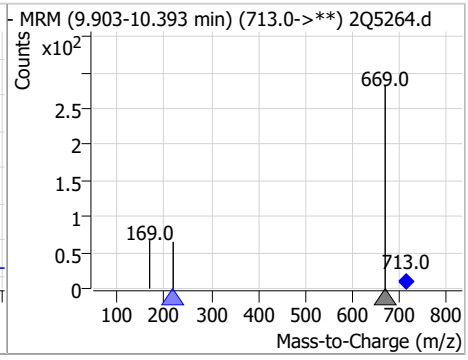




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	0.37	10.01	0.00	6905	713.0 -> 219.0	10.1	6.1	18.4

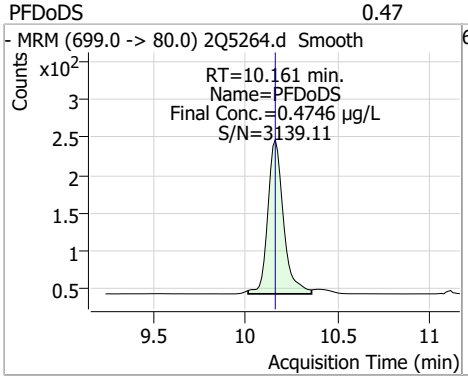


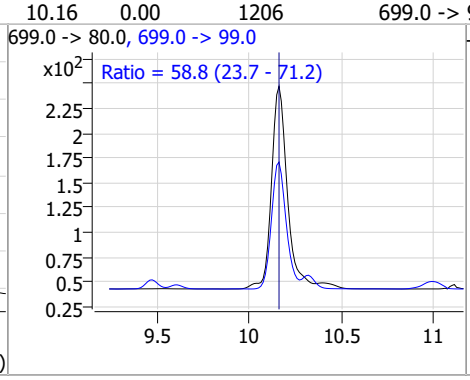


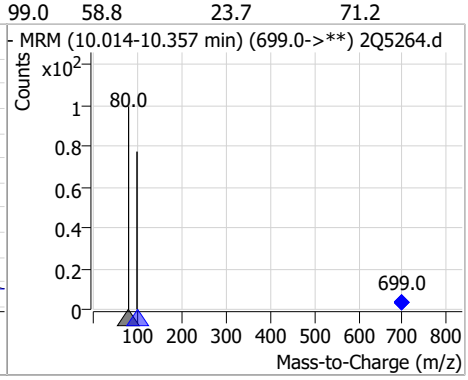


Perfluorinated Compounds by LC/MS/MS

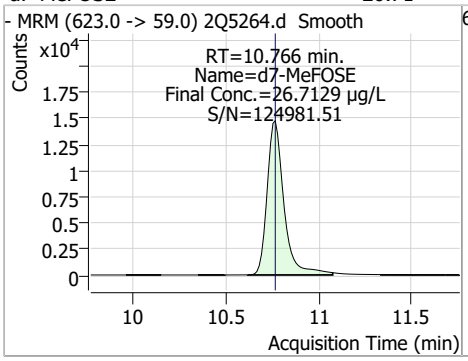
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	0.47	10.16	0.00	1206	699.0 -> 99.0	58.8	23.7	71.2

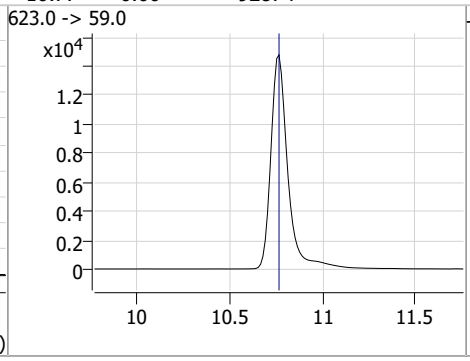


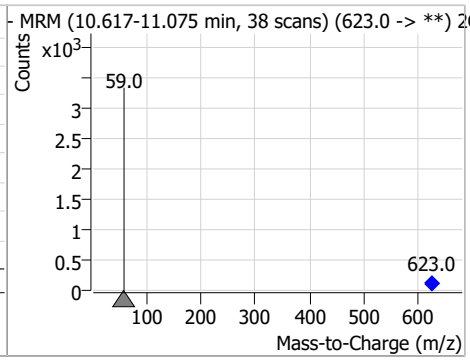




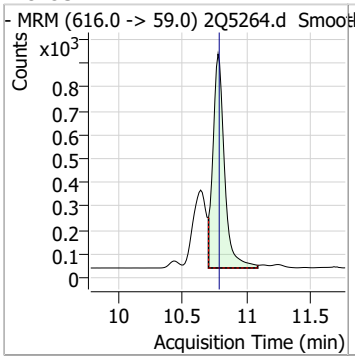
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	26.71	10.77	0.00	92874				

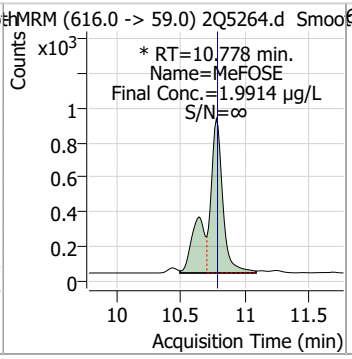


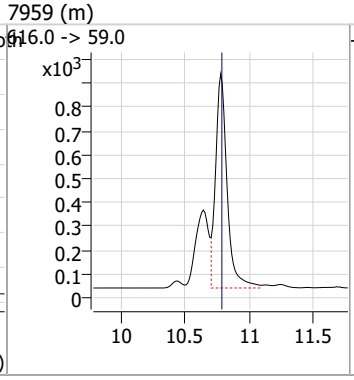


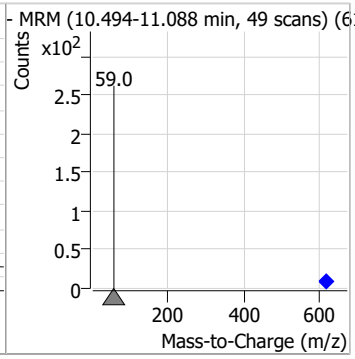


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	1.99	10.78	0.00	7959 (m)				

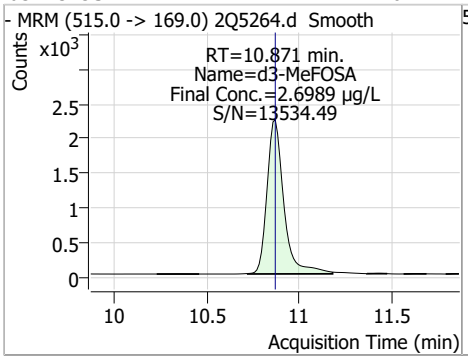


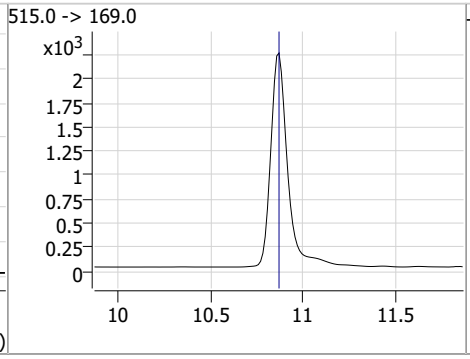


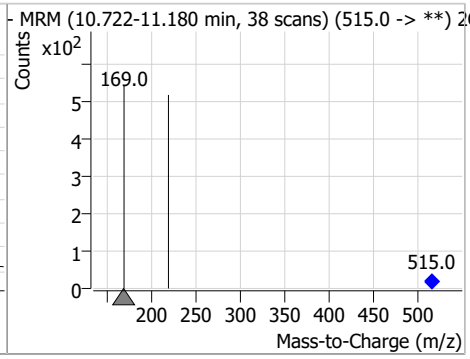




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.70	10.87	0.00	14110				

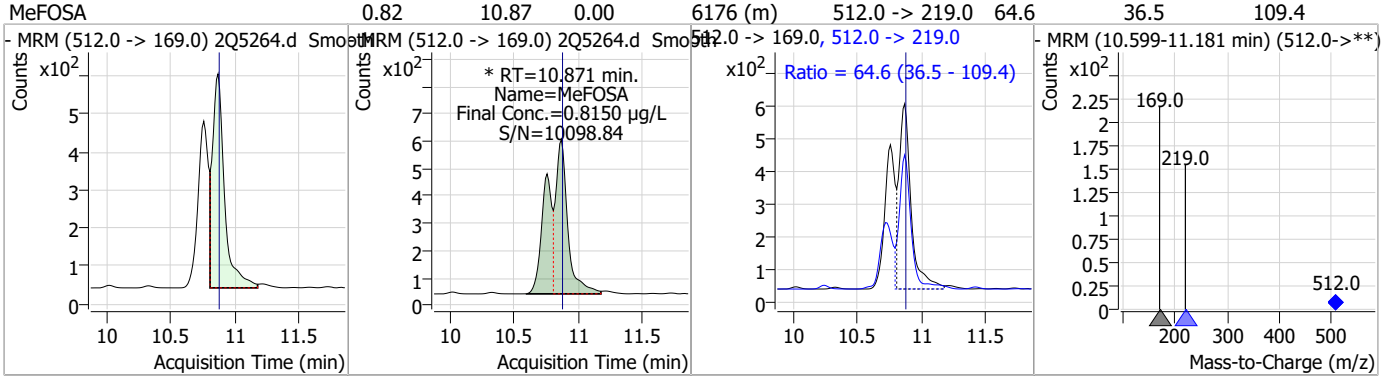




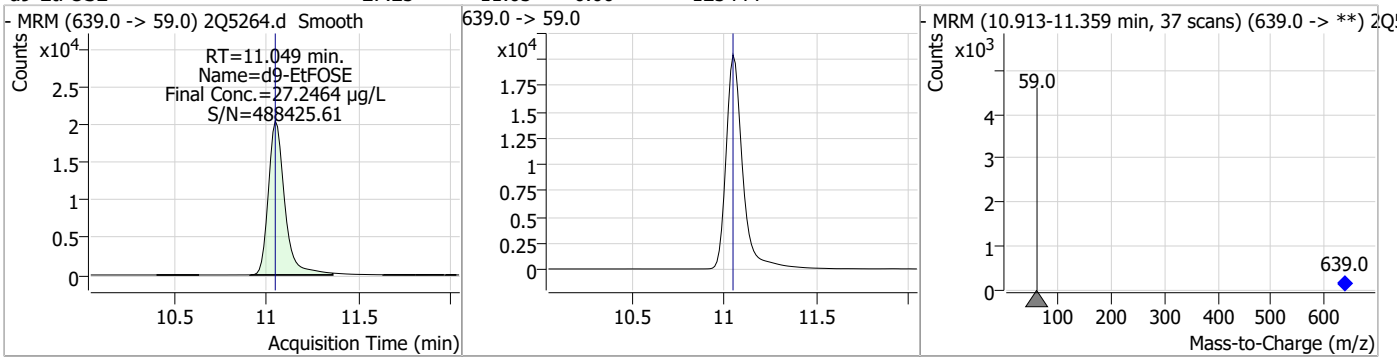


Perfluorinated Compounds by LC/MS/MS

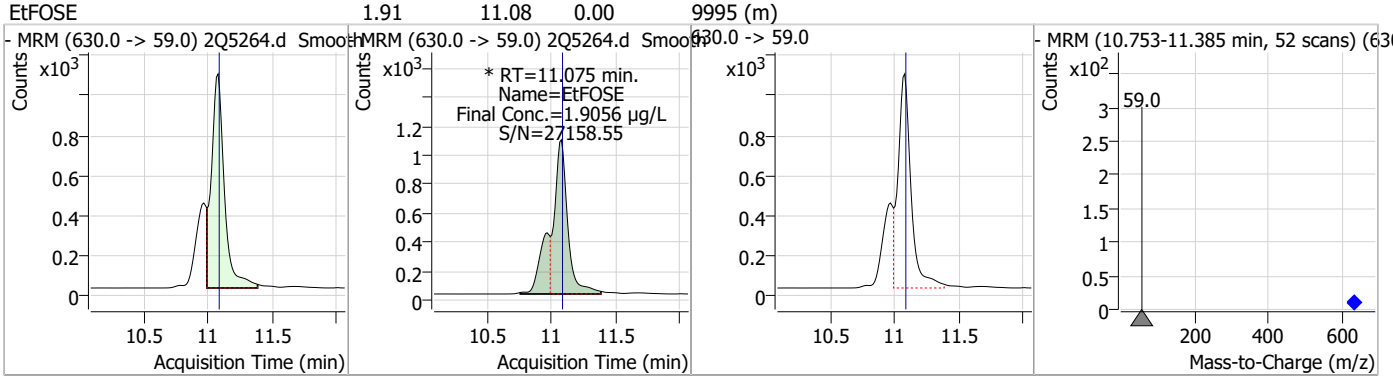
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	0.82	10.87	0.00	6176 (m)	512.0 -> 219.0	64.6	36.5	109.4



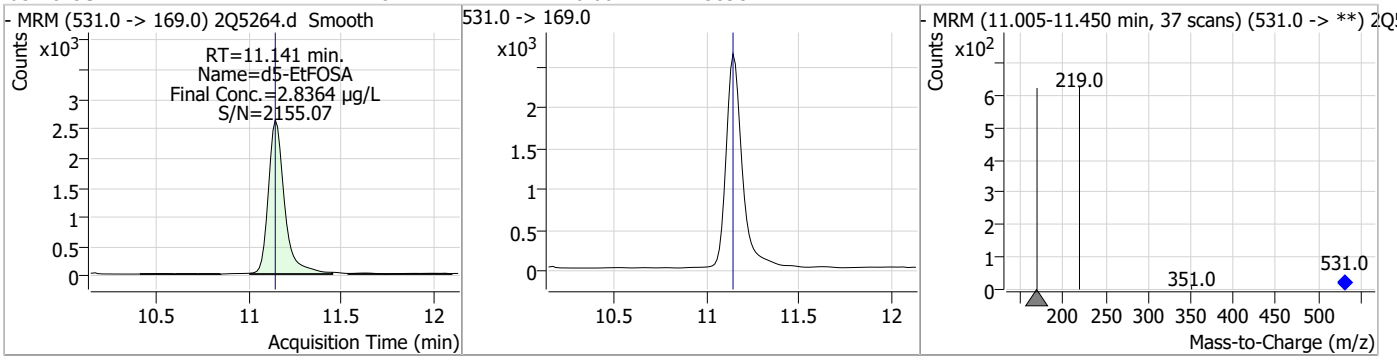
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	27.25	11.05	0.00	125444				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	1.91	11.08	0.00	9995 (m)				

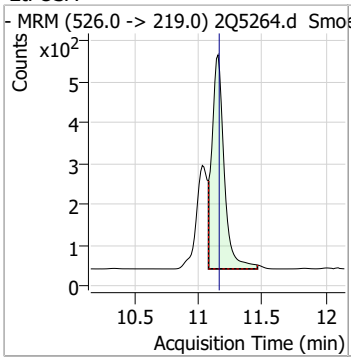


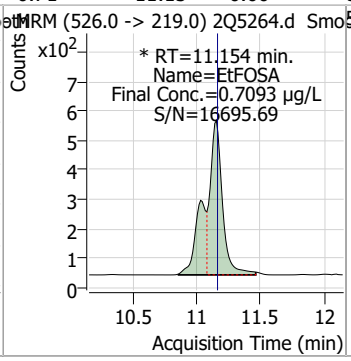
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.84	11.14	0.00	15898				

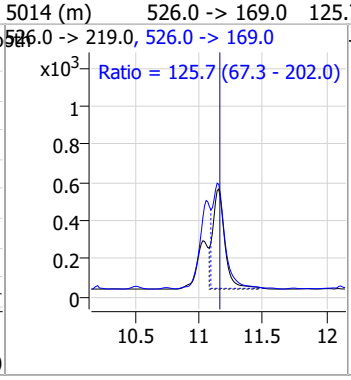


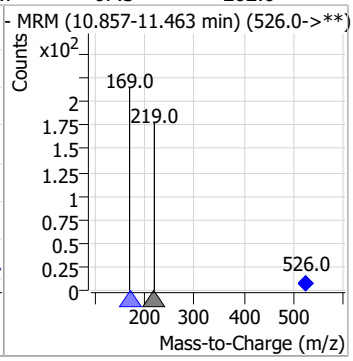
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	0.71	11.15	0.00	5014 (m)	526.0 -> 169.0	125.7	67.3	202.0









Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5264.D
Injection Time: 11/30/23 17:35
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.64	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5265.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 5:51:09 PM
Sample Name : ic96-3
Vial : P1-A4
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	174948	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	105759	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	59531	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	46781	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	79574	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	37241	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	16097	1.25	µg/L	-0.012
M7-PFUnDA	8.853	570.0 -> 525.0	26293	1.25	µg/L	0.000
M2-PFDoDA	9.268	615.0 -> 570.0	29743	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	23033	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	22087	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6356	2.50	µg/L	-0.012
		302.0 -> 80.0	16395			
M3-PFHxS	7.509	402.0 -> 99.0	6793	2.50	µg/L	0.000
M8-PFOS	8.561	507.0 -> 99.0	7222	2.50	µg/L	0.012
M2-4:2FTS	5.644	329.0 -> 81.0	1373	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	2884	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4267	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	42919	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	28207	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	32797	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	93331	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	126495	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	14098	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14236	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	12727	2.50	µg/L	0.000
13C3-PFBA	3.342	216.0 -> 172.0	78212	5.00	µg/L	0.000
18O2-PFHxS	7.509	403.0 -> 84.0	6705	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	76400	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	28613	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	36732	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	55689	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1373	5.61	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.2%		
13C2-6:2FTS	7.175	429.0 -> 81.0	2884	5.31	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.3%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4267	5.68	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.6%		
13C2-PFDoDA	9.268	615.0 -> 570.0	29743	1.30	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 104.2%		
13C2-PFTeDA	10.013	715.0 -> 670.0	23033	1.37	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 110.0%		
13C3-PFBS	5.871	302.0 -> 99.0	6356	2.55	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	6793	2.60 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.9%		
13C4-PFBA	3.339	217.0 -> 172.0	174948	9.94 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.4%		
13C4-PFHpA	6.795	367.0 -> 322.0	46781	2.58 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.4%		
13C5-PFHxA	5.955	318.0 -> 273.0	59531	2.57 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.9%		
13C5-PFPeA	4.810	268.0 -> 223.0	105759	5.07 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.3%		
13C6-PFDA	8.388	519.0 -> 474.0	16097	1.35 µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 107.8%		
13C7-PFUnDA	8.853	570.0 -> 525.0	26293	1.33 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 106.8%		
13C8-FOSA	9.653	506.0 -> 78.0	22087	2.56 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.5%		
13C8-PFOA	7.397	421.0 -> 376.0	79574	2.52 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.6%		
13C8-PFOS	8.561	507.0 -> 99.0	7222	2.61 µg/L		0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.2%		
13C9-PFNA	7.912	472.0 -> 427.0	37241	1.30 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 103.6%		
d3-MeFOSAA	8.435	573.0 -> 419.0	42919	5.18 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 103.6%		
13C3-HFPO-DA	6.295	287.0 -> 169.0	28207	10.68 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 106.8%		
d3-MeFOSA	10.871	515.0 -> 169.0	14236	2.50 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.9%		
d5-EtFOSAA	8.630	589.0 -> 419.0	32797	4.79 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.8%		
d7-MeFOSE	10.766	623.0 -> 59.0	93331	24.61 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 98.5%		
d9-EtFOSE	11.049	639.0 -> 59.0	126495	25.19 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 100.8%		
d5-EtFOSA	11.141	531.0 -> 169.0	14098	2.31 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.3%		
Target Compounds						QValue
4:2FTS	5.644	327.0 -> 307.0	11081	4.85 µg/L		100
		327.0 -> 81.0	5730			
6:2FTS	7.175	427.0 -> 407.0	21746	5.14 µg/L		96
		427.0 -> 81.0	6631			
8:2FTS	8.179	527.0 -> 507.0	18734	4.86 µg/L		99
		527.0 -> 81.0	6704			
EtFOSAA	8.643	584.0 -> 419.0	5792	1.05 µg/L	m	77
		584.0 -> 483.0	3477			
FOSA	9.655	498.0 -> 78.0	18080	2.27 µg/L	m	96
		498.0 -> 478.0	608			
MeFOSAA	8.436	570.0 -> 419.0	7808	1.15 µg/L		83
		570.0 -> 512.0	2029			
PFBA	3.346	213.0 -> 169.0	20260	4.61 µg/L		100
PFBS	5.885	299.0 -> 80.0	8113	1.23 µg/L		92
		299.0 -> 99.0	3019			
PFDA	8.401	513.0 -> 469.0	32087	1.22 µg/L		99
		513.0 -> 219.0	5012			
PFDoDA	9.268	613.0 -> 569.0	28563	1.25 µg/L		99
		613.0 -> 319.0	4551			

Perfluorinated Compounds by LC/MS/MS

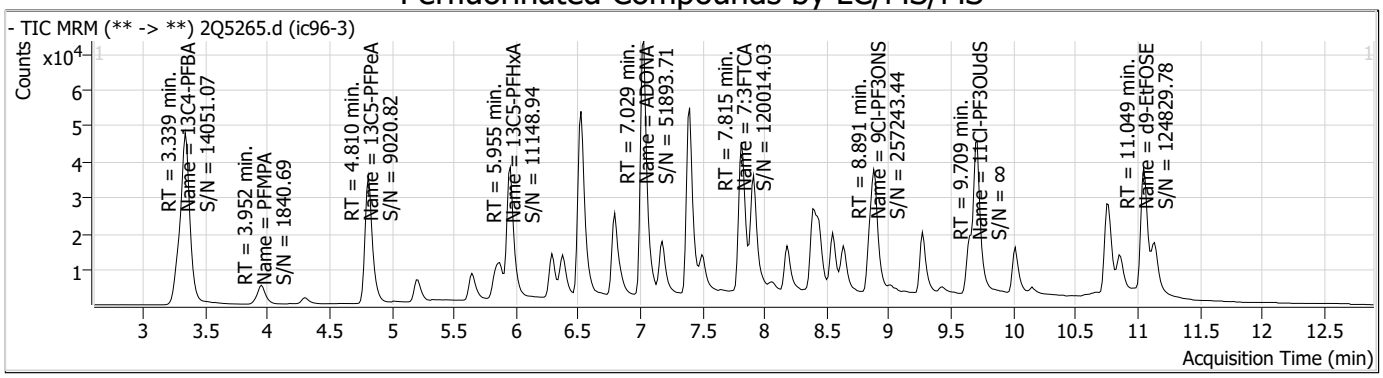
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	3441	1.09	µg/L		90
		599.0 -> 99.0	1976				
PFHpA	6.796	363.0 -> 319.0	33506	1.18	µg/L		94
		363.0 -> 169.0	6319				
PFHpS	8.059	449.0 -> 80.0	4431	1.03	µg/L		86
		449.0 -> 99.0	2754				
PFHxA	5.957	313.0 -> 269.0	26576	1.13	µg/L		99
		313.0 -> 119.0	860				
PFHxS	7.509	399.0 -> 80.0	5390	1.14	µg/L	m	86
		399.0 -> 99.0	2564				
PFNA	7.912	463.0 -> 419.0	33142	1.18	µg/L		98
		463.0 -> 219.0	5529				
PFNS	9.013	549.0 -> 80.0	3458	1.06	µg/L		97
		549.0 -> 99.0	1918				
PFOA	7.397	413.0 -> 369.0	35853	1.15	µg/L		93
		413.0 -> 169.0	7946				
PFOS	8.549	499.0 -> 80.0	6456	1.05	µg/L	m	71
		499.0 -> 99.0	3935				
PFPeA	4.812	263.0 -> 219.0	45605	2.39	µg/L		100
PFPeS	6.845	349.0 -> 80.0	4441	1.17	µg/L		91
		349.0 -> 99.0	2170				
PFTeDA	10.013	713.0 -> 669.0	22195	1.19	µg/L		95
		713.0 -> 219.0	2309				
PFTrDA	9.659	663.0 -> 619.0	25422	1.16	µg/L		99
		663.0 -> 369.0	2879				
PFUnDA	8.853	563.0 -> 519.0	31777	1.21	µg/L		98
		563.0 -> 269.0	4897				
11Cl-PF3OUdS	9.709	631.0 -> 451.0	117870	4.64	µg/L		100
		633.0 -> 453.0	33992				
9Cl-PF3ONS	8.891	531.0 -> 351.0	78875	4.51	µg/L		92
		533.0 -> 353.0	25832				
ADONA	7.029	377.0 -> 251.0	211070	4.72	µg/L		99
		377.0 -> 85.0	61317				
HFPO-DA	6.295	285.0 -> 169.0	14588	4.80	µg/L		98
		285.0 -> 185.0	1372				
3:3FTCA	4.301	241.0 -> 177.0	6871	5.81	µg/L		100
		241.0 -> 117.0	523				
5:3FTCA	6.524	341.0 -> 237.0	125006	30.36	µg/L		99
		341.0 -> 217.0	87619				
7:3FTCA	7.815	441.0 -> 337.0	126406	28.79	µg/L		99
		441.0 -> 317.0	47976				
EtFOSA	11.154	526.0 -> 219.0	15916	2.54	µg/L	m	97
		526.0 -> 169.0	21901				
EtFOSE	11.075	630.0 -> 59.0	31106	5.88	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	16989	2.22	µg/L	m	99
		512.0 -> 219.0	12313				
MeFOSE	10.778	616.0 -> 59.0	21865	5.44	µg/L	m	100
PFDoDS	10.161	699.0 -> 80.0	3209	1.04	µg/L		87
		699.0 -> 99.0	1796				
NFDHA	5.848	295.0 -> 201.0	3373	2.33	µg/L		77
		201.0 -> 85.0	20061				
		295.0 -> 85.0	1140				
PFMBA	5.213	279.0 -> 85.0	26777	2.60	µg/L		100
PFMPA	3.952	229.0 -> 85.0	26263	2.43	µg/L		100
PFEESA	6.377	315.0 -> 135.0	38850	2.41	µg/L		99
		315.0 -> 69.0	3873				

Perfluorinated Compounds by LC/MS/MS

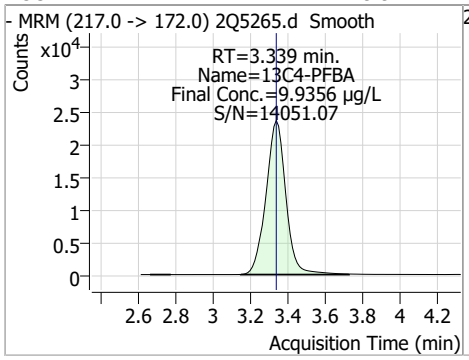
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

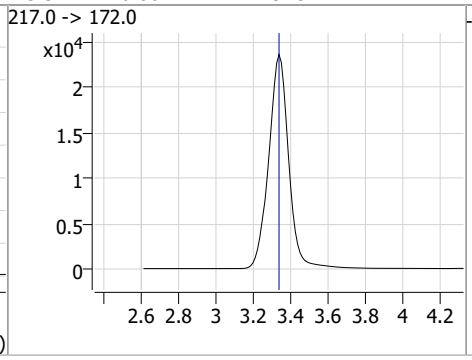
= Qualifier out of range, m = manually integrated, + = Area summed

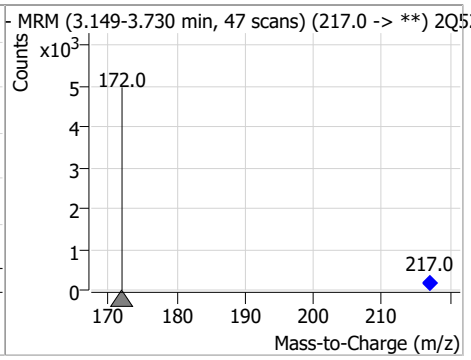
Perfluorinated Compounds by LC/MS/MS



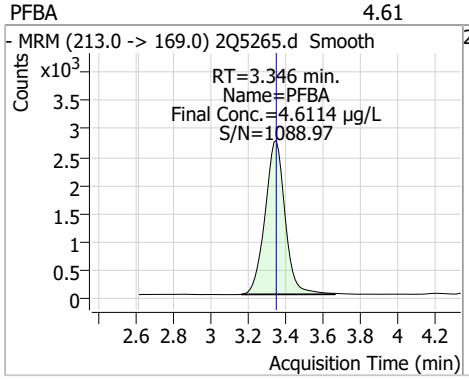
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.94	3.34	0.00	174948				

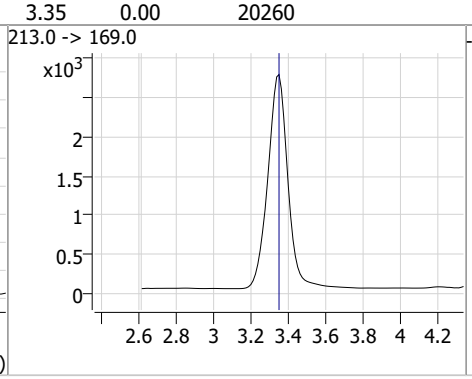


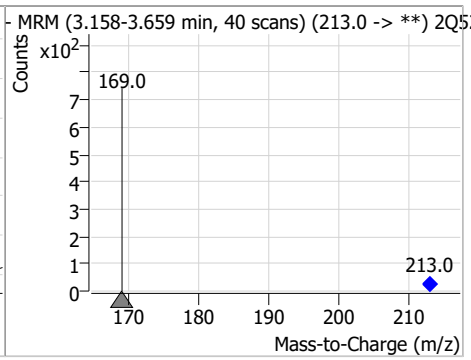




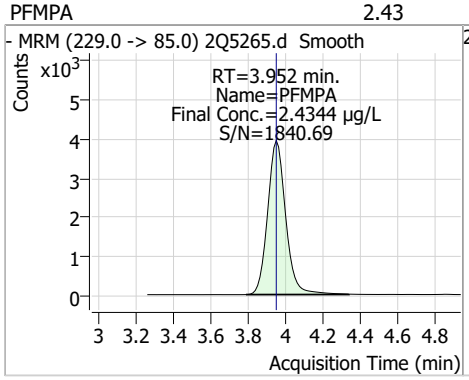
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	4.61	3.35	0.00	20260				

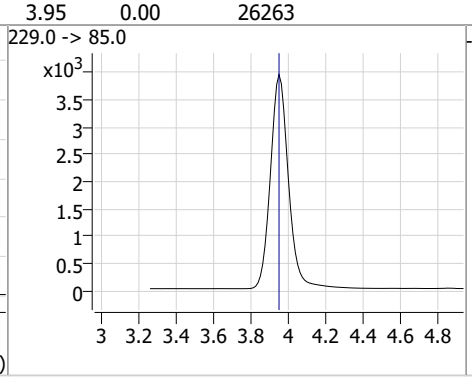


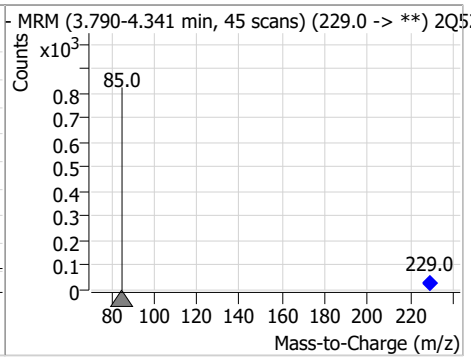




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	2.43	3.95	0.00	26263				

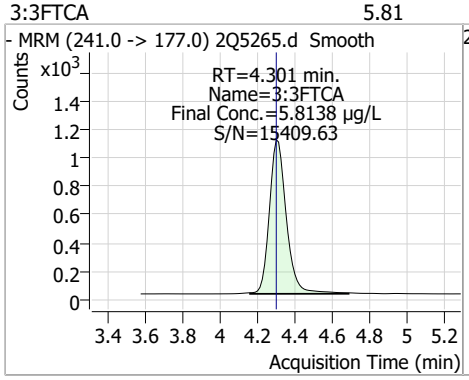


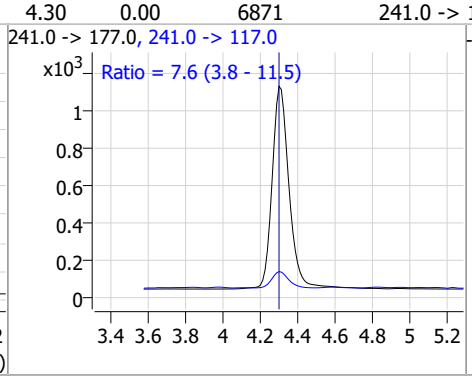


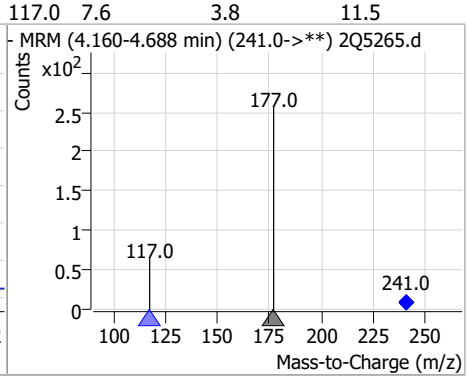


Perfluorinated Compounds by LC/MS/MS

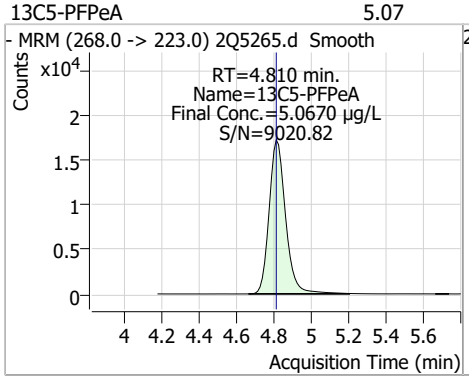
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	5.81	4.30	0.00	6871	241.0 -> 117.0	7.6	3.8	11.5

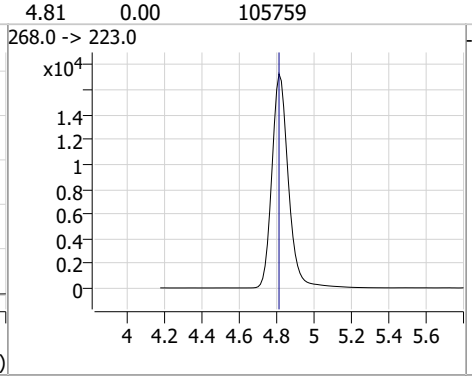


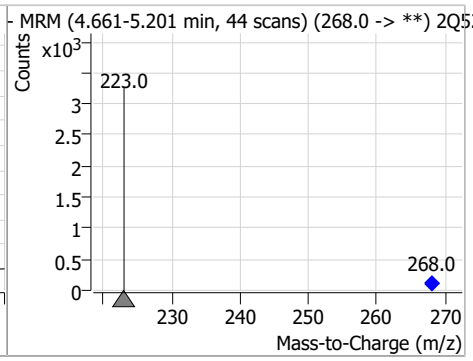




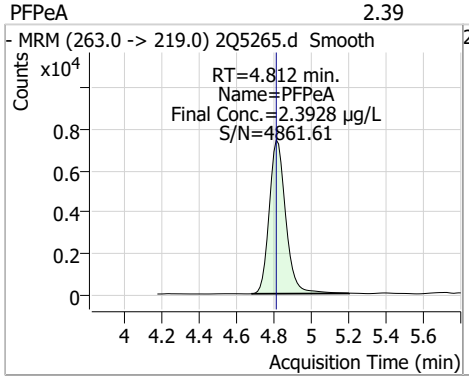
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.07	4.81	0.00	105759				

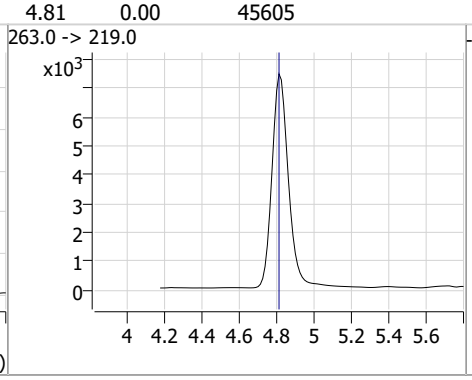


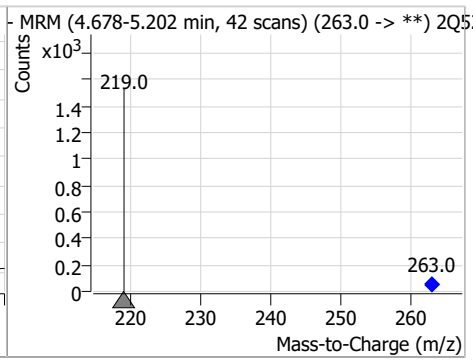




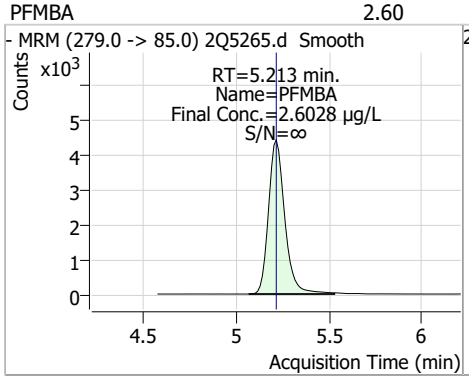
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	2.39	4.81	0.00	45605				

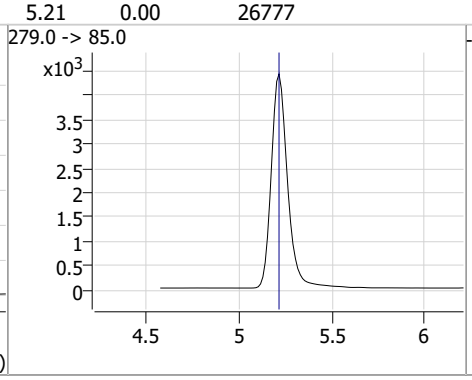


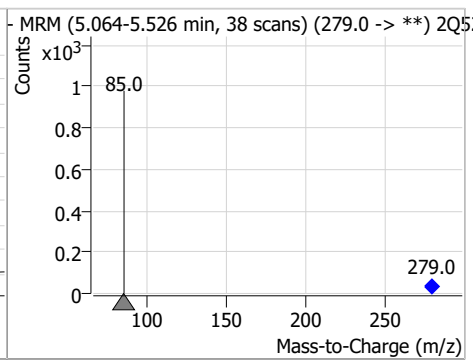




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	2.60	5.21	0.00	26777				

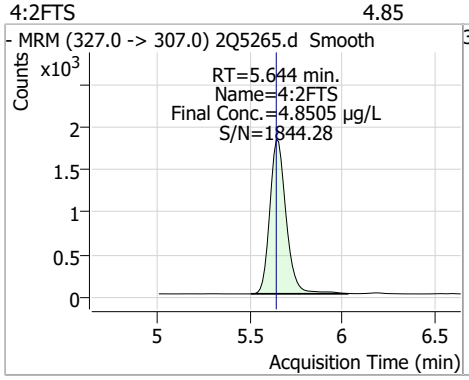


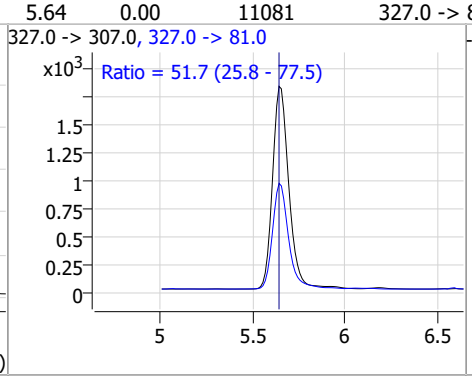


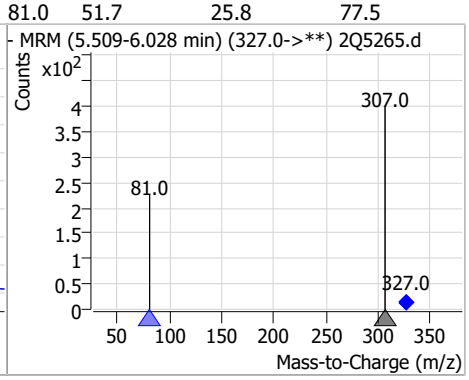


Perfluorinated Compounds by LC/MS/MS

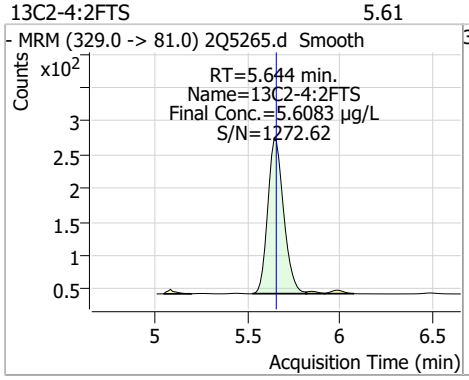
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	4.85	5.64	0.00	11081	327.0 -> 81.0	51.7	25.8	77.5

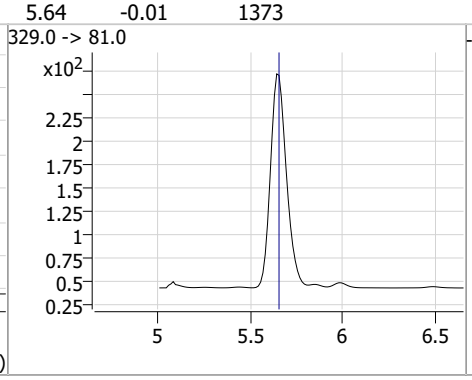


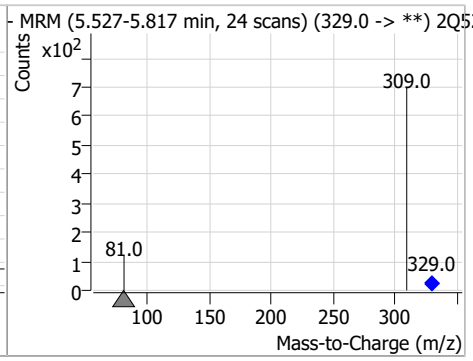




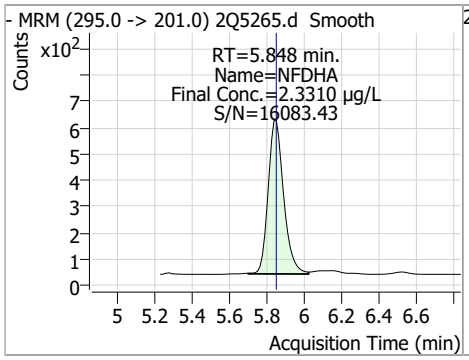
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.61	5.64	-0.01	1373				

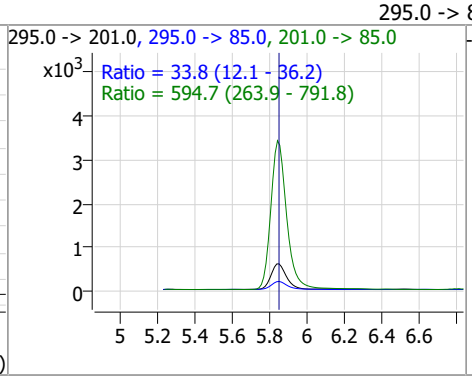


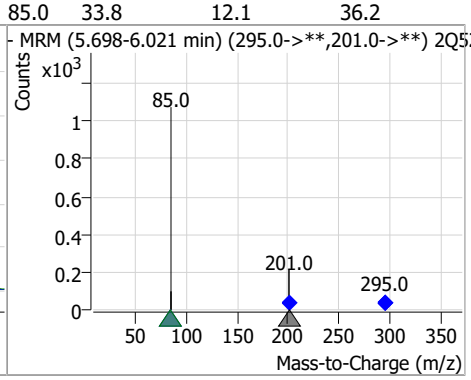




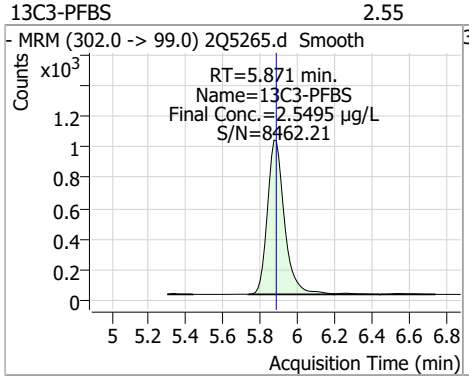
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	2.33	5.85	0.00	3373	201.0 -> 85.0	594.7	263.9	791.8
					295.0 -> 85.0	33.8	12.1	36.2

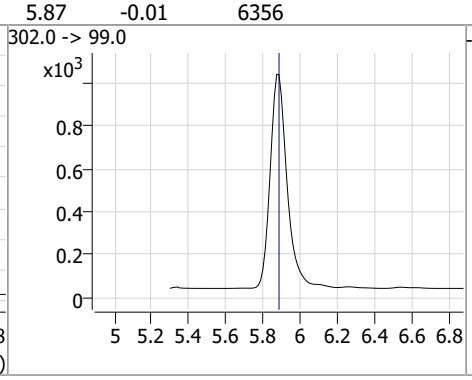


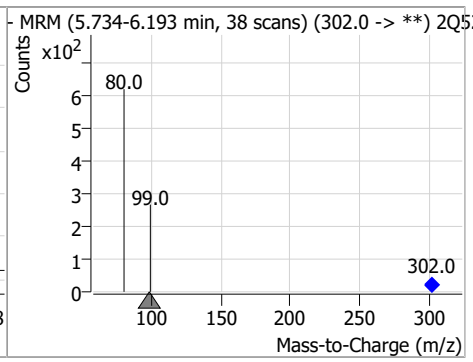




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.55	5.87	-0.01	6356				

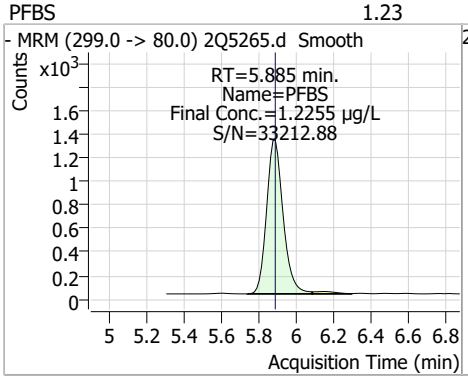


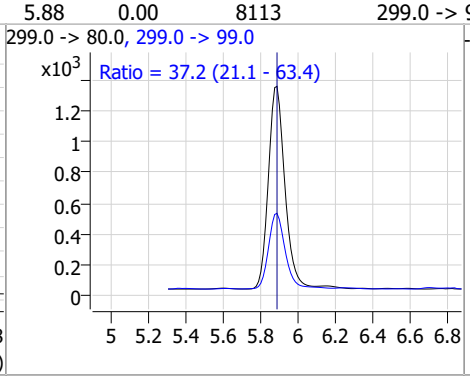


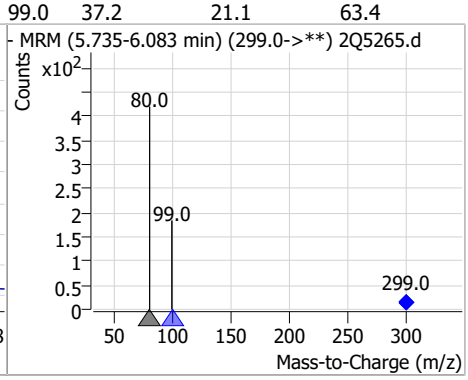


Perfluorinated Compounds by LC/MS/MS

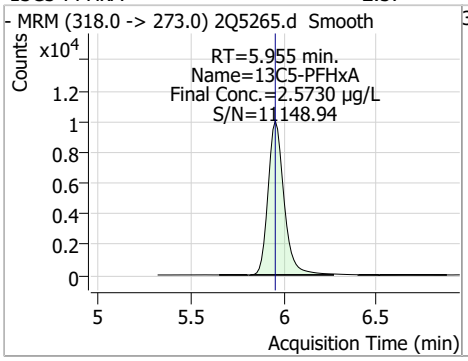
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	1.23	5.88	0.00	8113	299.0 -> 99.0	37.2	21.1	63.4

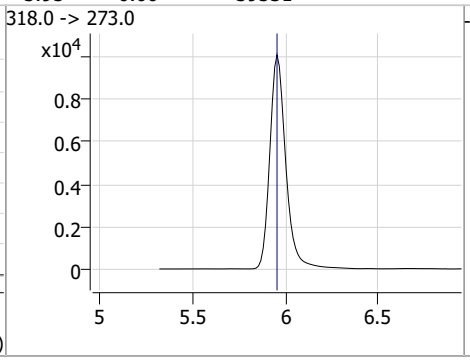


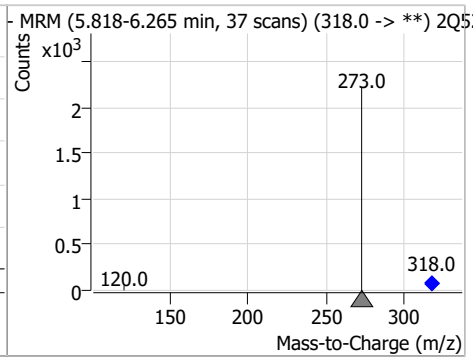




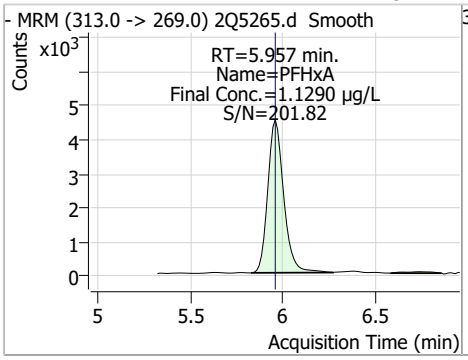
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.57	5.95	0.00	59531				

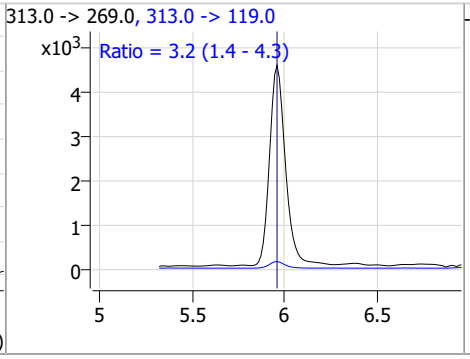


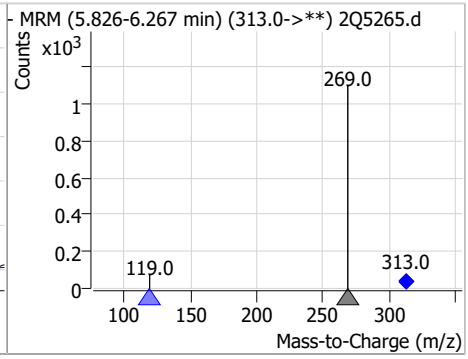




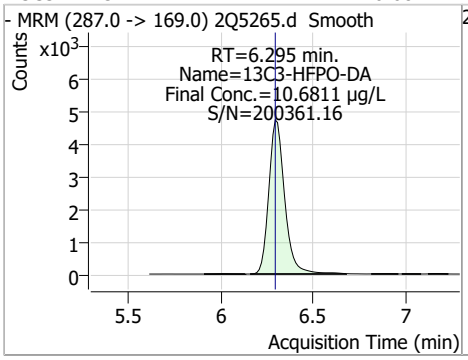
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	1.13	5.96	0.00	26576	313.0 -> 119.0	3.2	1.4	4.3

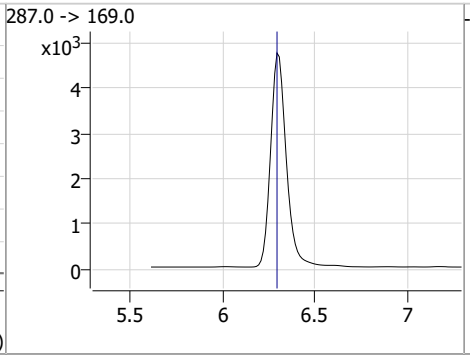


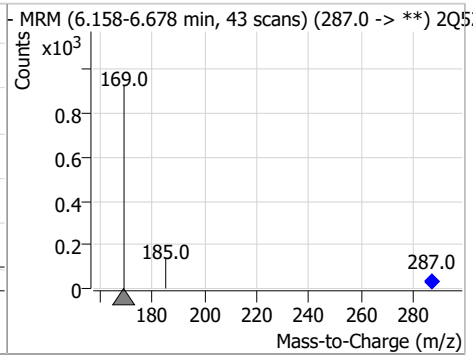




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.68	6.29	0.00	28207				

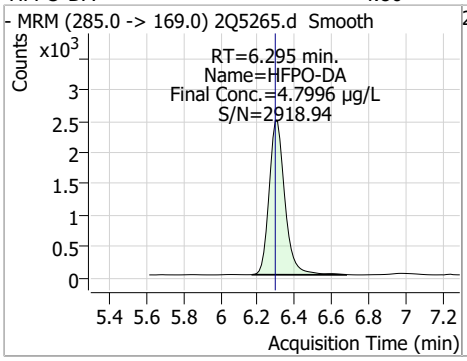


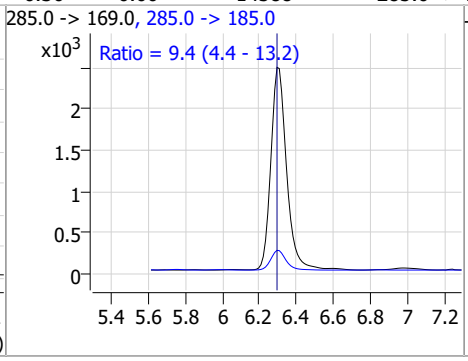


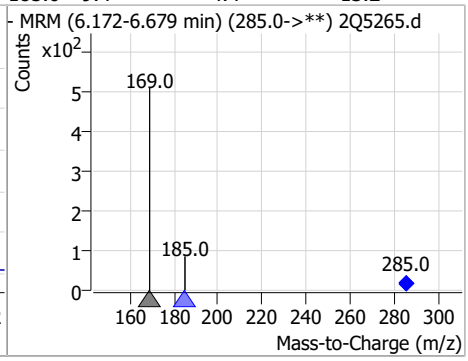


Perfluorinated Compounds by LC/MS/MS

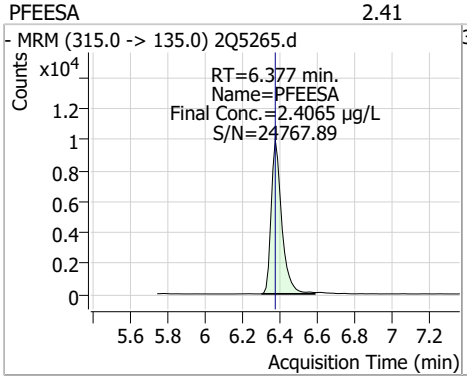
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	4.80	6.30	0.00	14588	285.0 -> 185.0	9.4	4.4	13.2

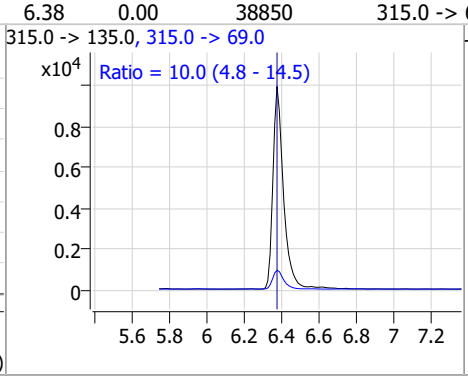


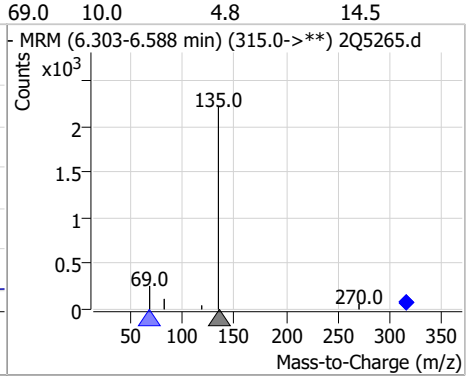




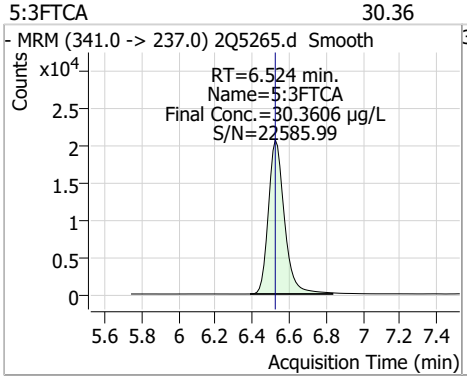
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	2.41	6.38	0.00	38850	315.0 -> 69.0	10.0	4.8	14.5

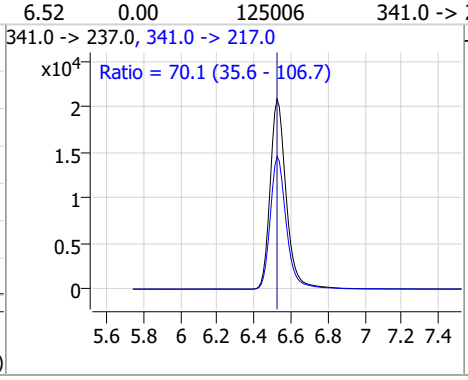


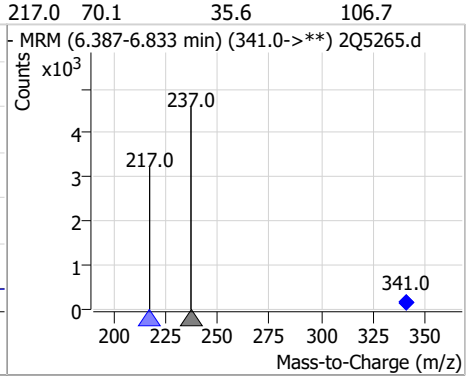




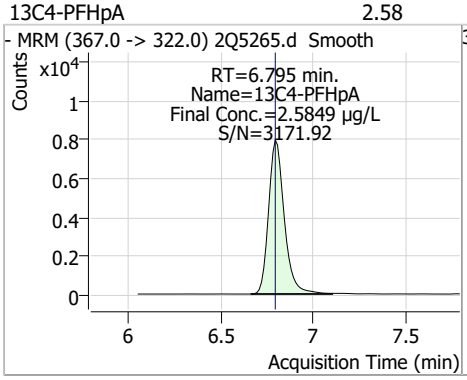
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	30.36	6.52	0.00	125006	341.0 -> 217.0	70.1	35.6	106.7

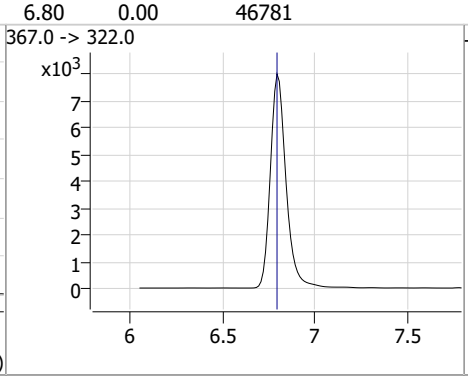


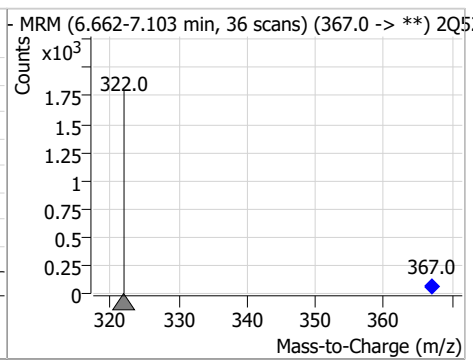




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.58	6.80	0.00	46781				

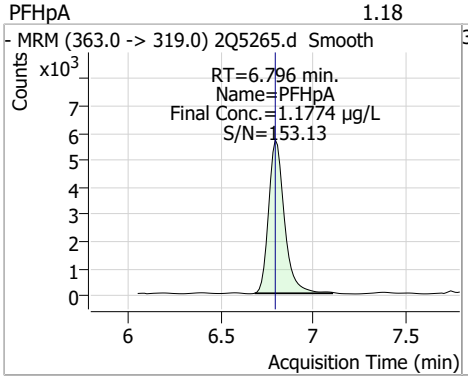


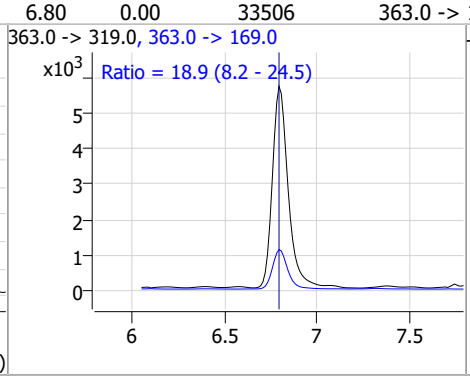


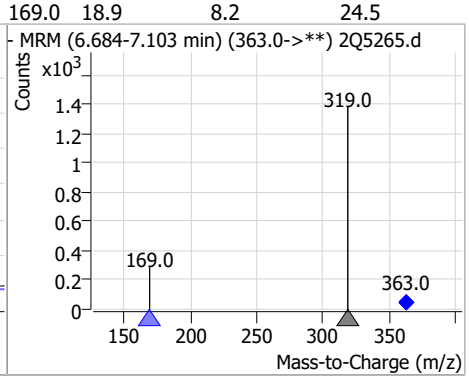


Perfluorinated Compounds by LC/MS/MS

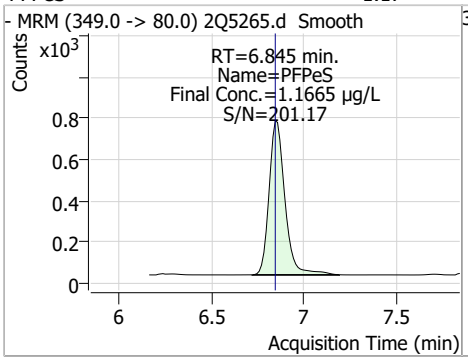
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	1.18	6.80	0.00	33506	363.0 -> 169.0	18.9	8.2	24.5

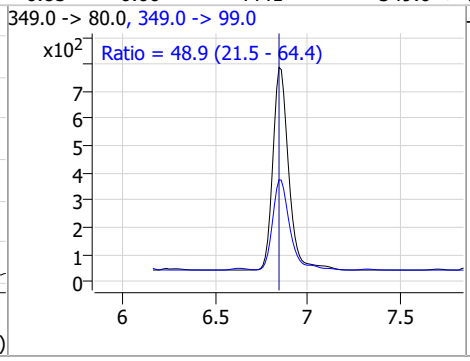


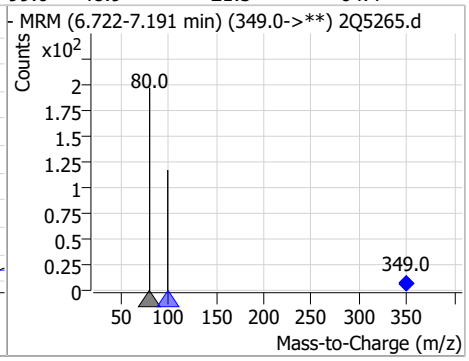




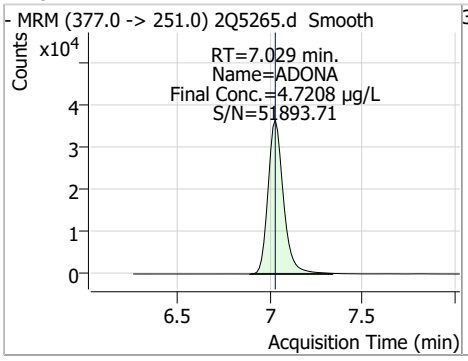
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	1.17	6.85	0.00	4441	349.0 -> 99.0	48.9	21.5	64.4

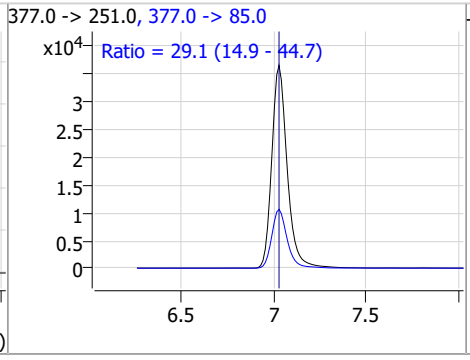


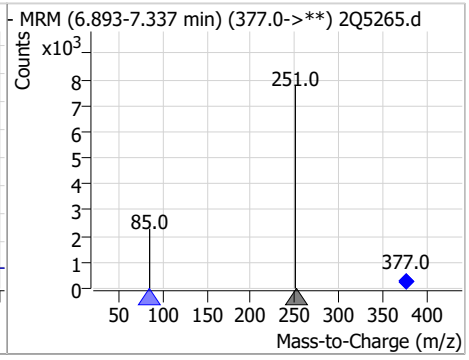




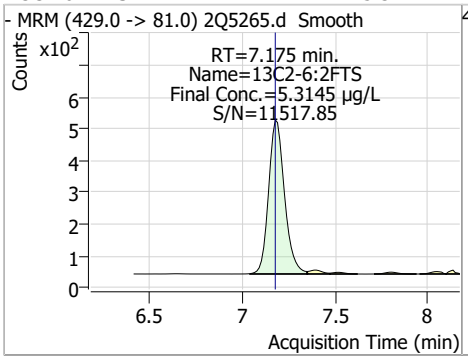
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	4.72	7.03	0.00	211070	377.0 -> 85.0	29.1	14.9	44.7

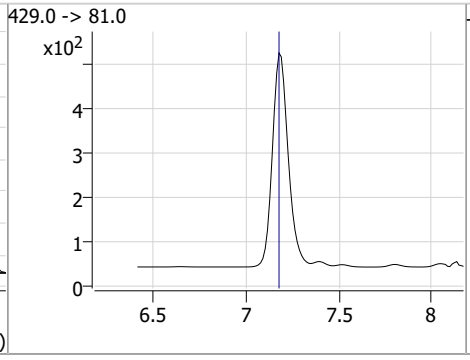


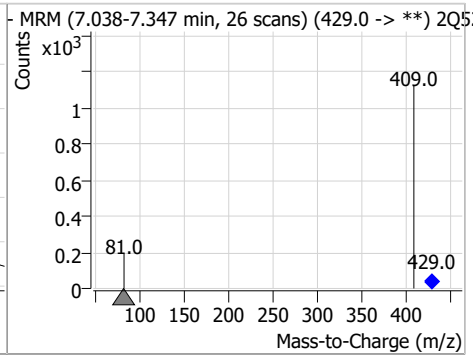




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.31	7.17	0.00	2884				

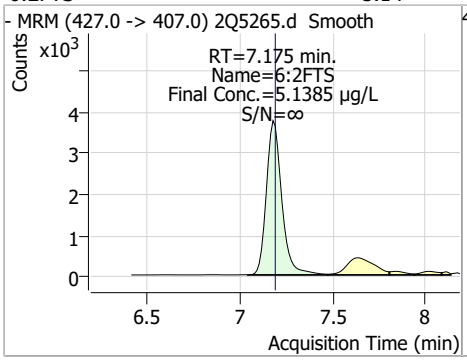


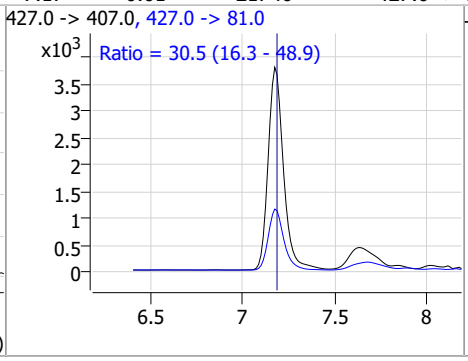


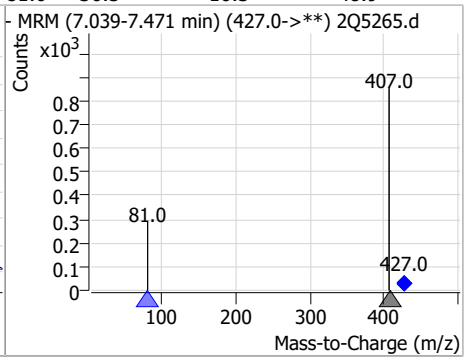


Perfluorinated Compounds by LC/MS/MS

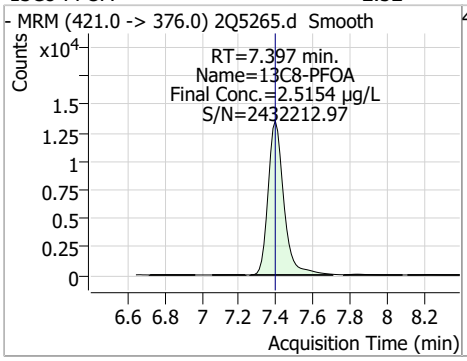
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	5.14	7.17	-0.01	21746	427.0 -> 81.0	30.5	16.3	48.9

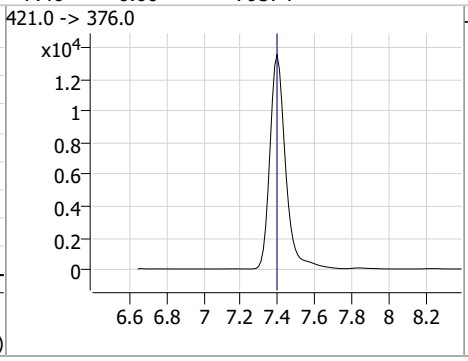


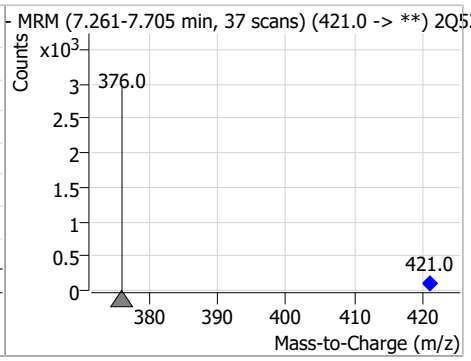




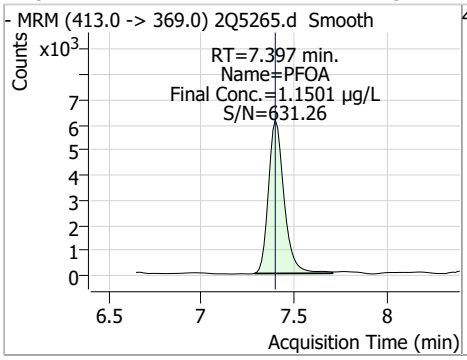
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.52	7.40	0.00	79574				

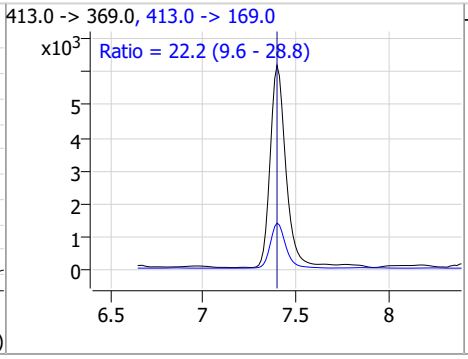


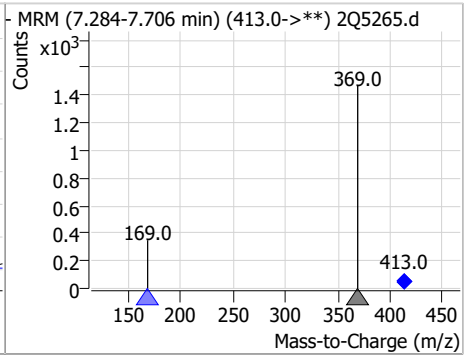




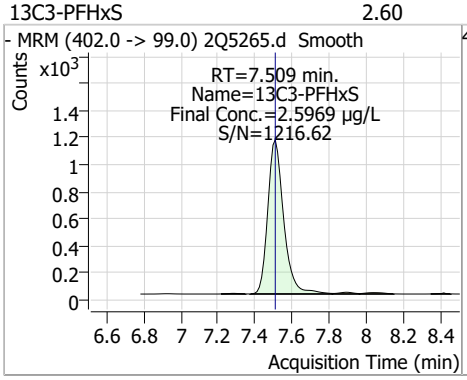
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	1.15	7.40	0.00	35853	413.0 -> 169.0	22.2	9.6	28.8

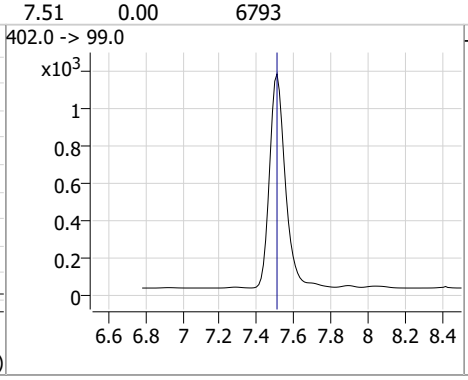


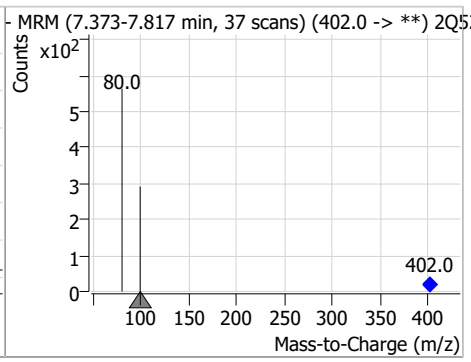




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.60	7.51	0.00	6793				

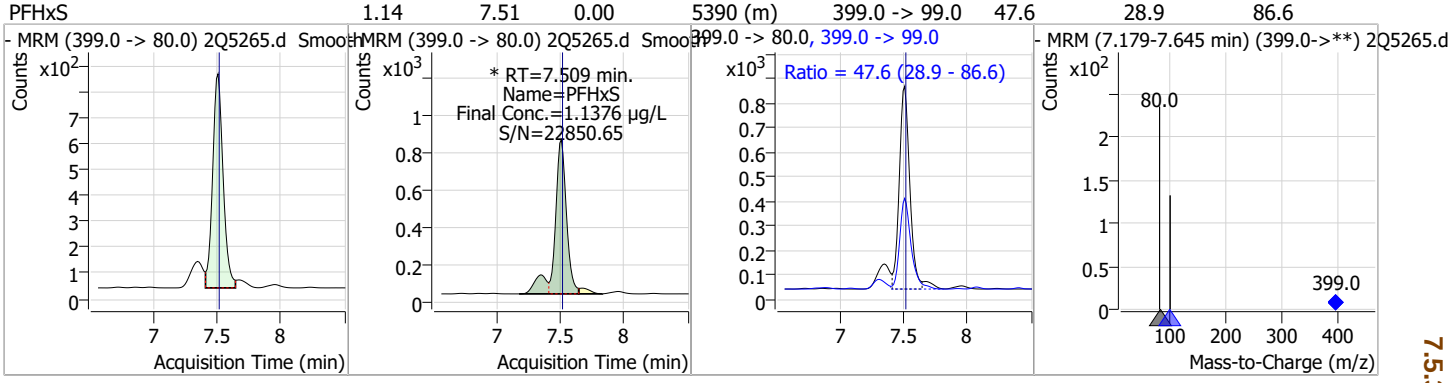




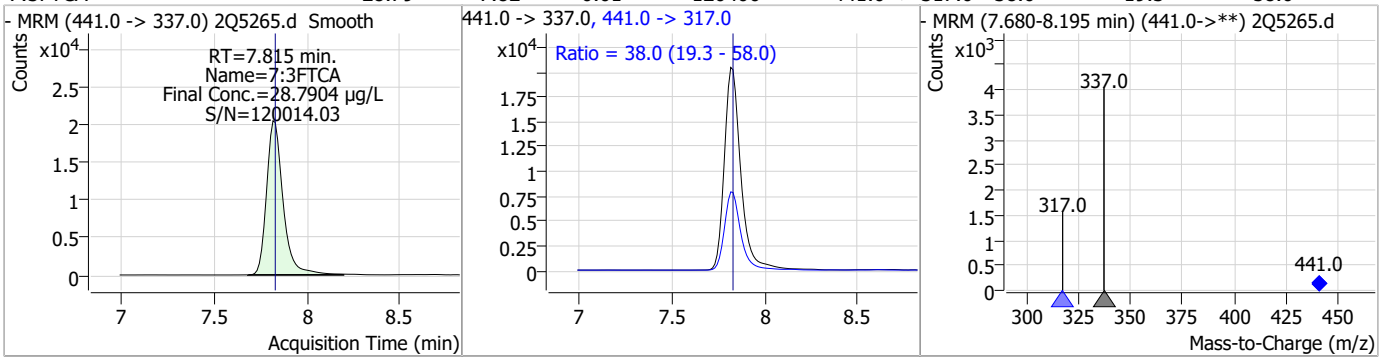


Perfluorinated Compounds by LC/MS/MS

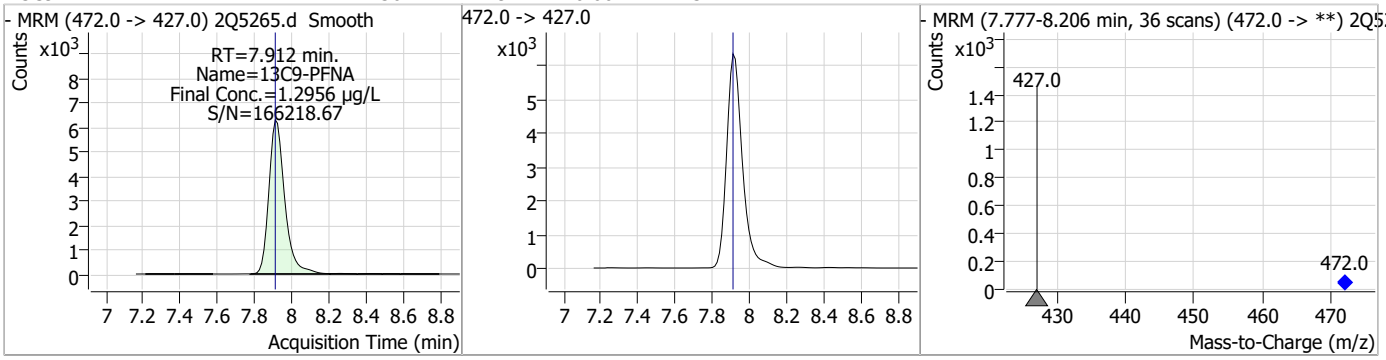
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	1.14	7.51	0.00	5390 (m)	399.0 -> 99.0	47.6	28.9	86.6



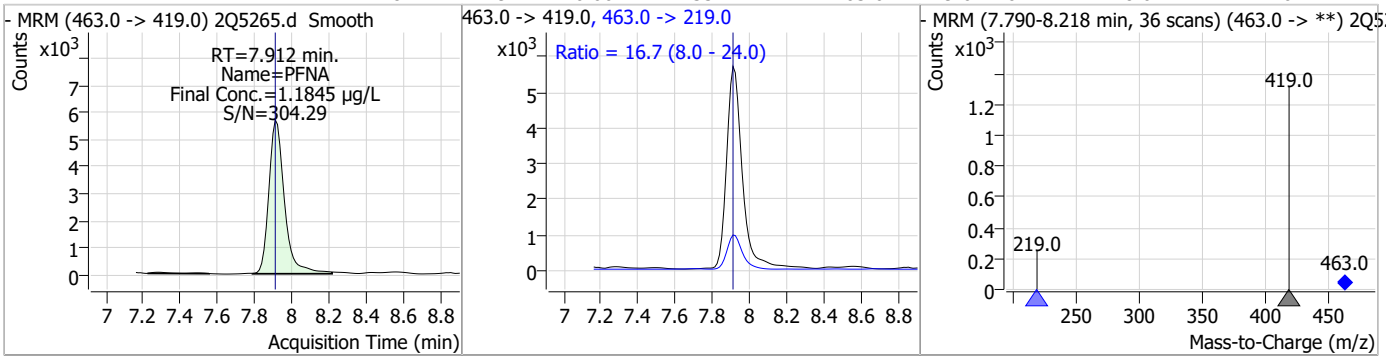
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	28.79	7.82	-0.01	126406	441.0 -> 317.0	38.0	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.30	7.91	0.00	37241				

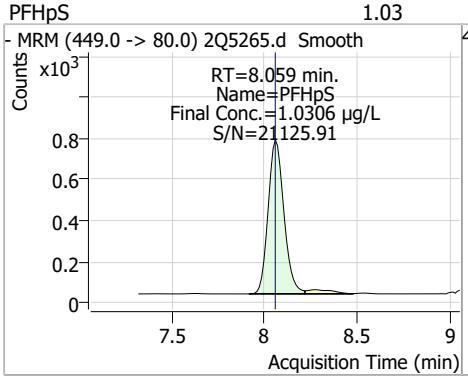


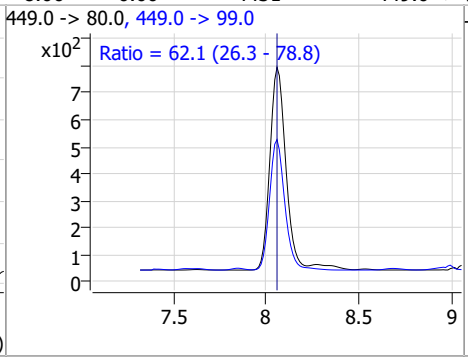
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	1.18	7.91	0.00	33142	463.0 -> 219.0	16.7	8.0	24.0

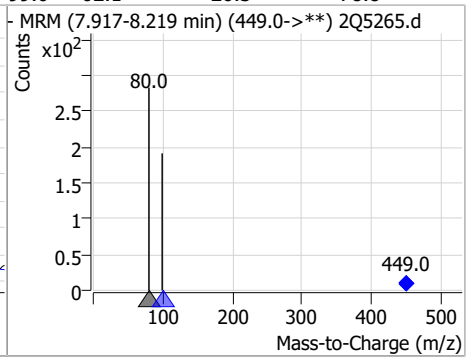


Perfluorinated Compounds by LC/MS/MS

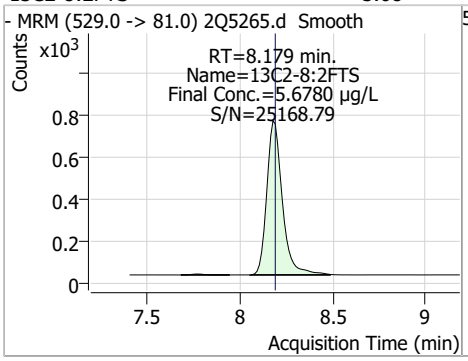
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	1.03	8.06	0.00	4431	449.0 -> 99.0	62.1	26.3	78.8

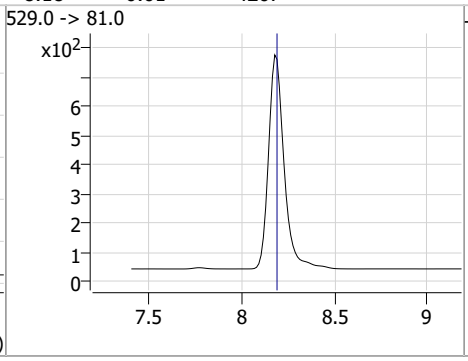


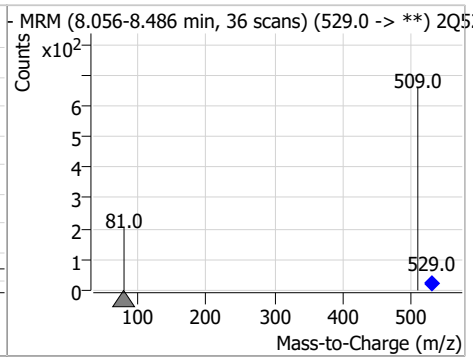




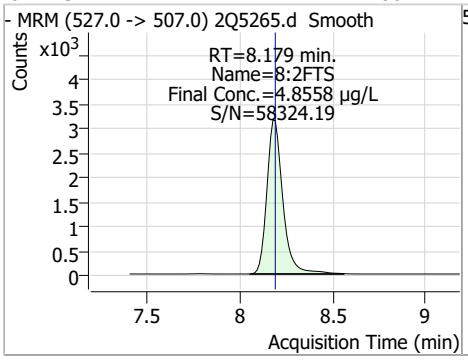
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.68	8.18	-0.01	4267				

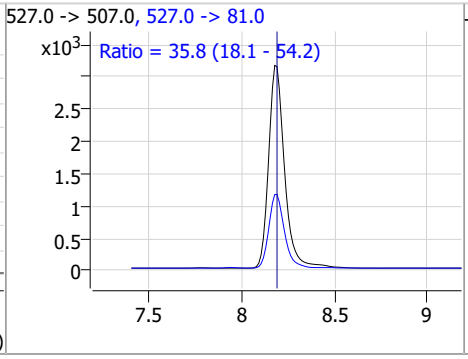


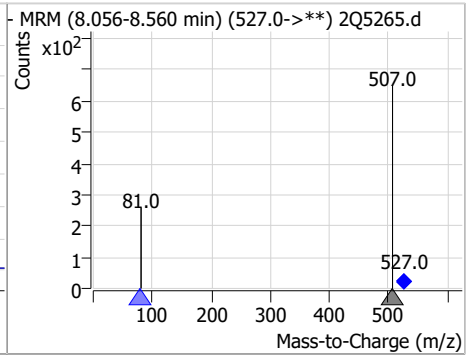




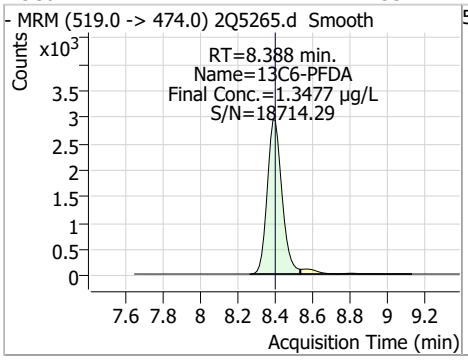
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	4.86	8.18	-0.01	18734	527.0 -> 81.0	35.8	18.1	54.2

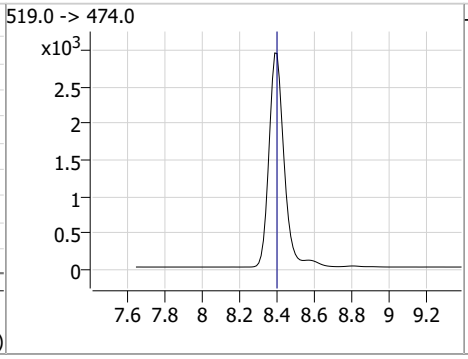


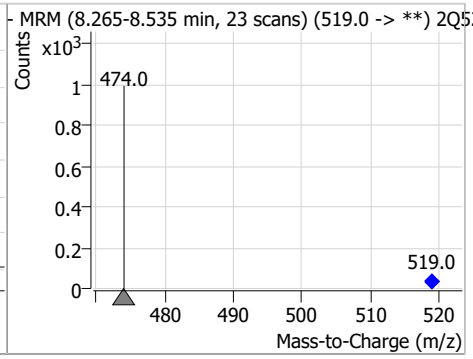




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.35	8.39	-0.01	16097				

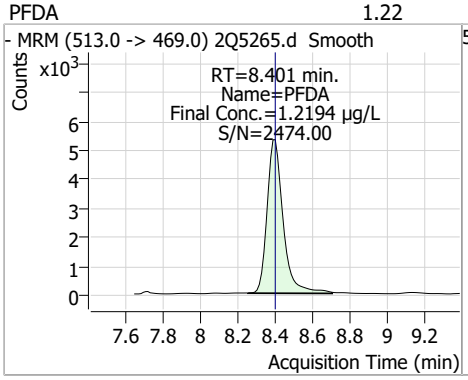


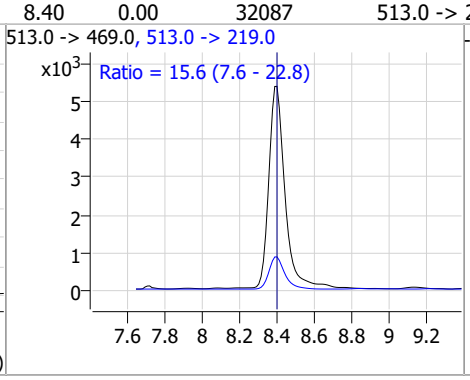


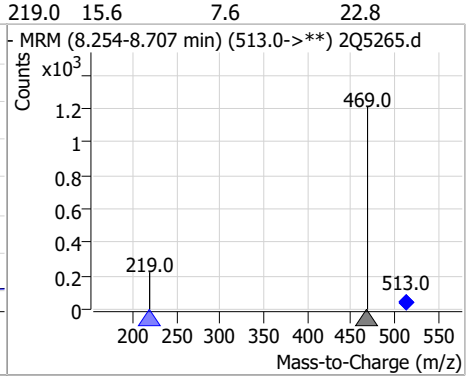


Perfluorinated Compounds by LC/MS/MS

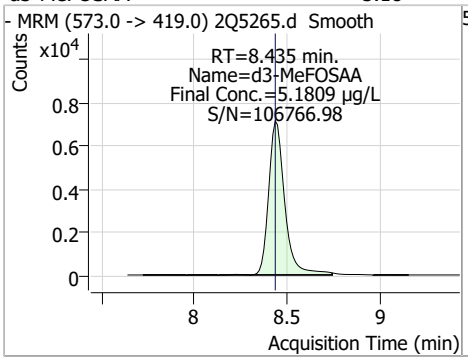
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	1.22	8.40	0.00	32087	513.0 -> 219.0	15.6	7.6	22.8

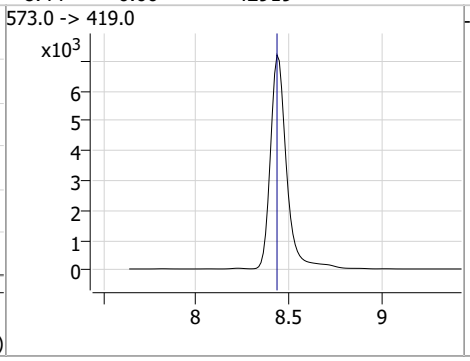


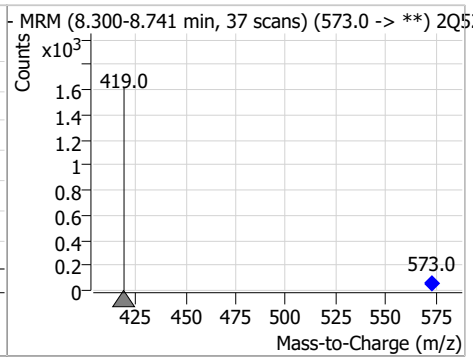




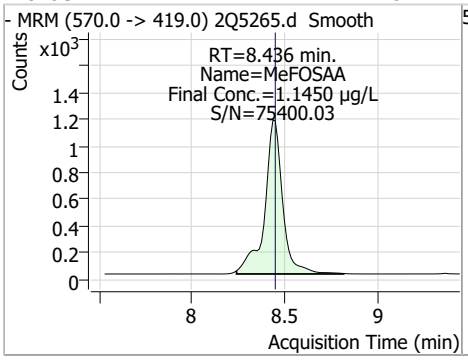
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.18	8.44	0.00	42919				

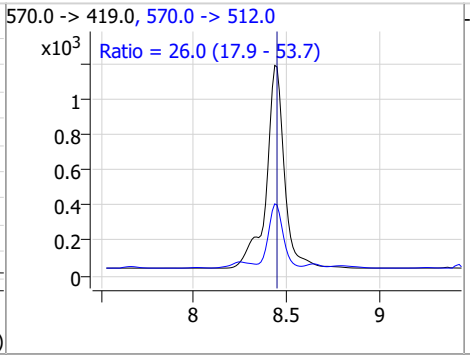


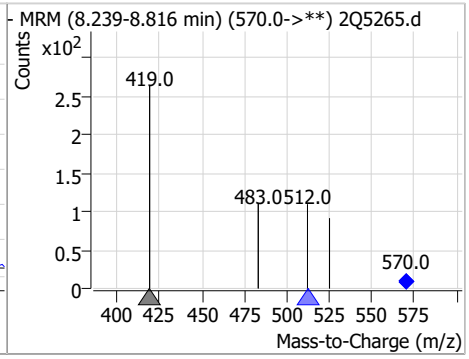




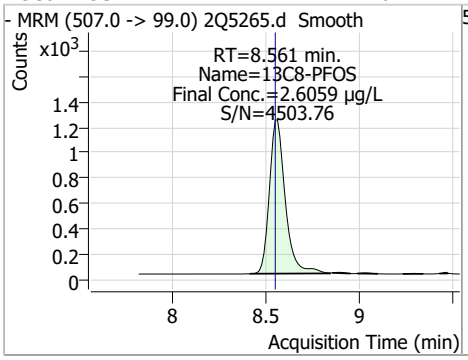
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	1.15	8.44	-0.01	7808	570.0 -> 512.0	26.0	17.9	53.7

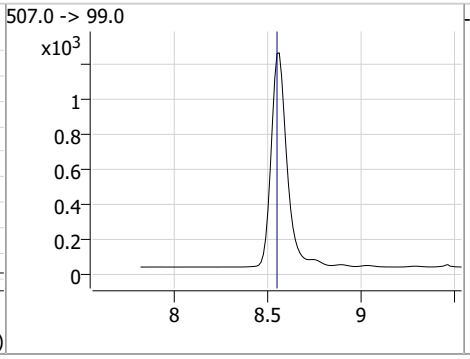


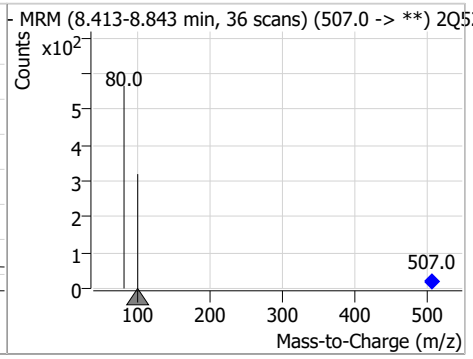




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.61	8.56	0.01	7222				

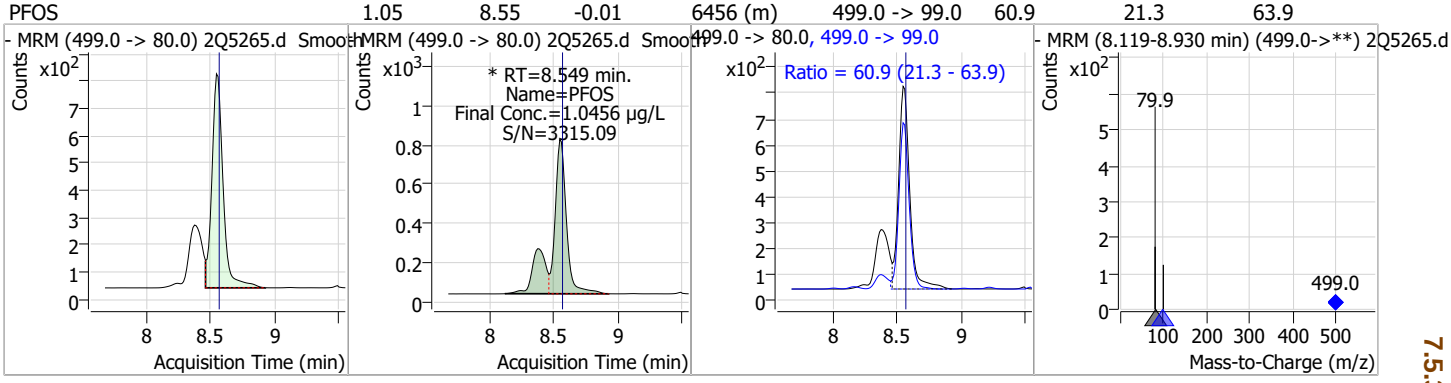




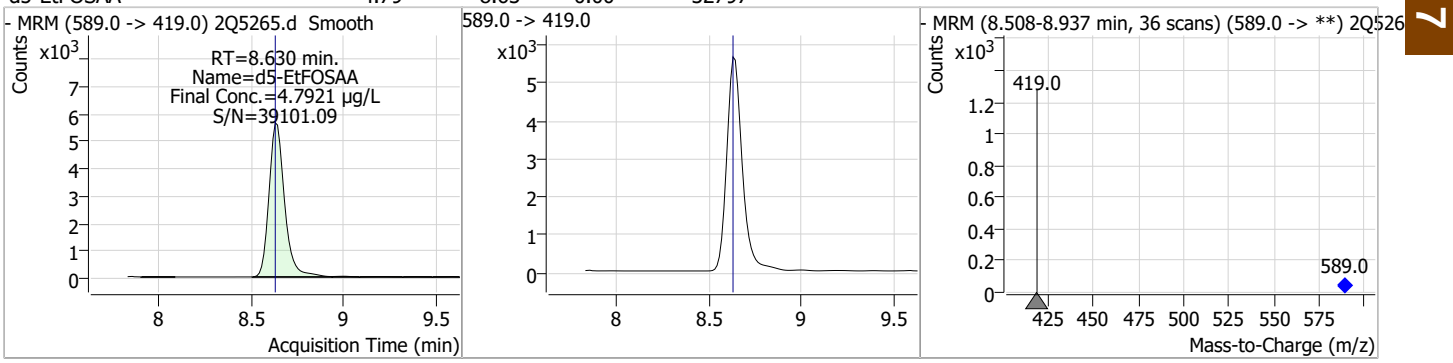


Perfluorinated Compounds by LC/MS/MS

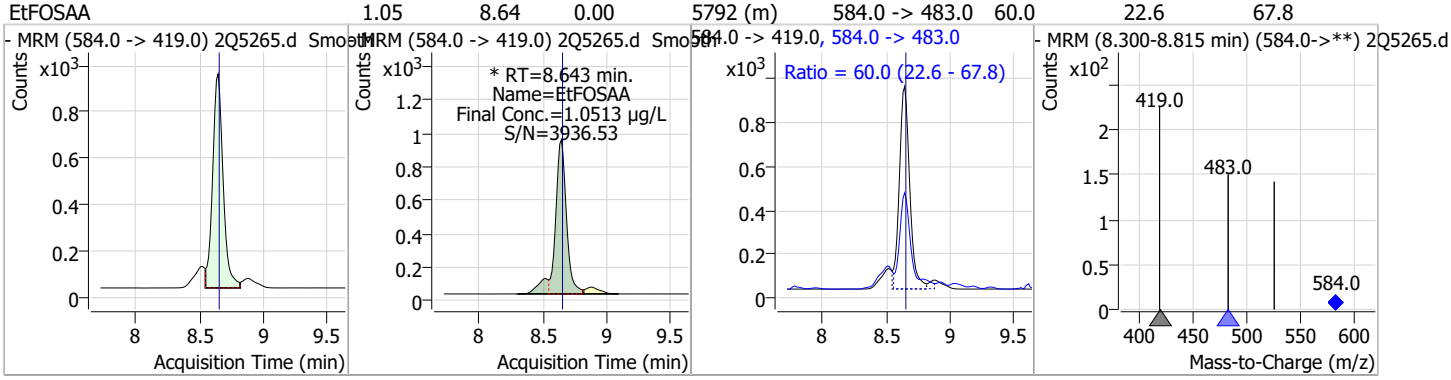
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	1.05	8.55	-0.01	6456 (m)	499.0 -> 99.0	60.9	21.3	63.9



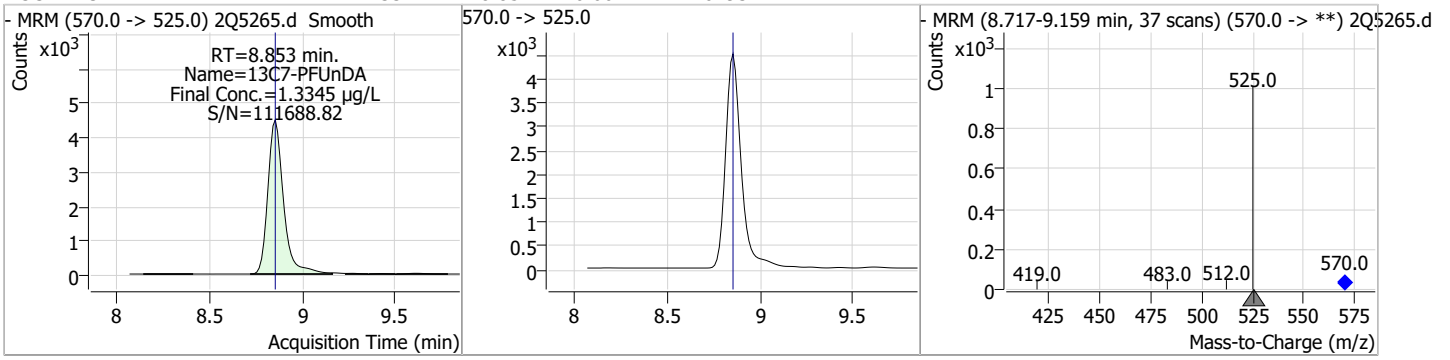
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.79	8.63	0.00	32797				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	1.05	8.64	0.00	5792 (m)	584.0 -> 483.0	60.0	22.6	67.8

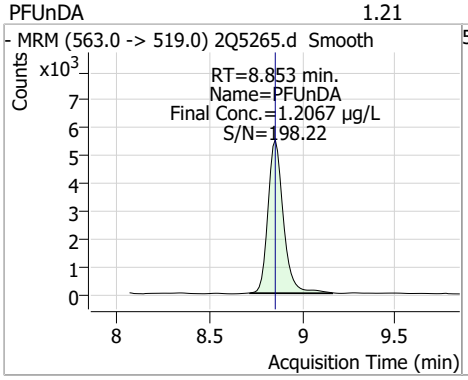


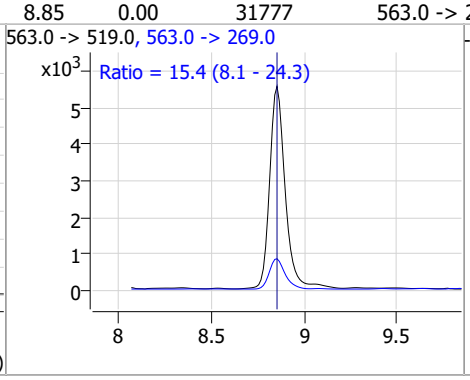
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.33	8.85	0.00	26293				

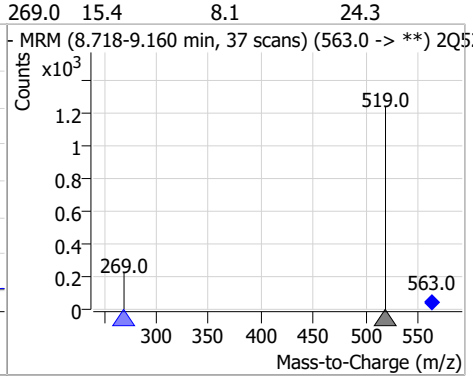


Perfluorinated Compounds by LC/MS/MS

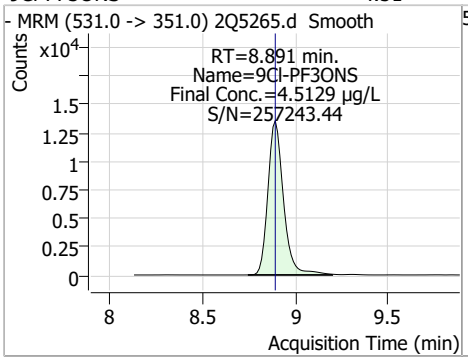
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	1.21	8.85	0.00	31777	563.0 -> 269.0	15.4	8.1	24.3

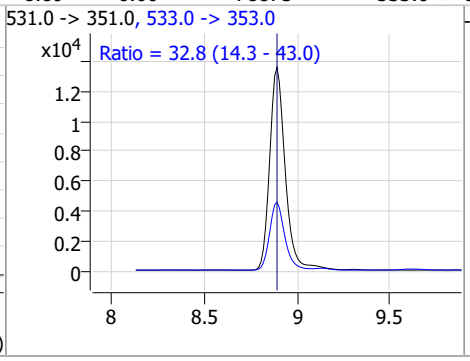


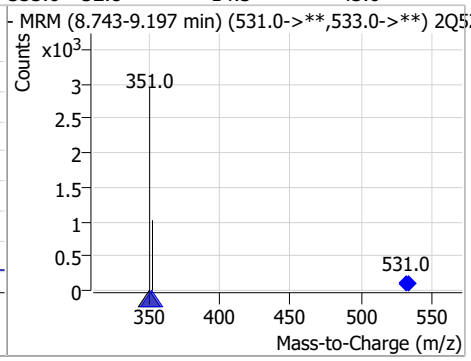




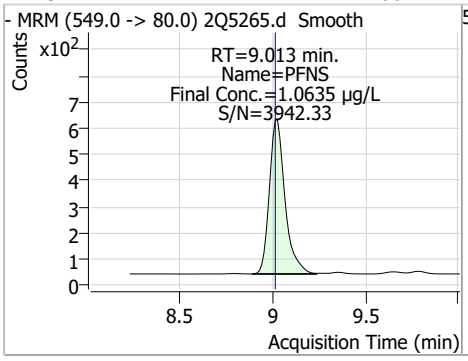
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	4.51	8.89	0.00	78875	533.0 -> 353.0	32.8	14.3	43.0

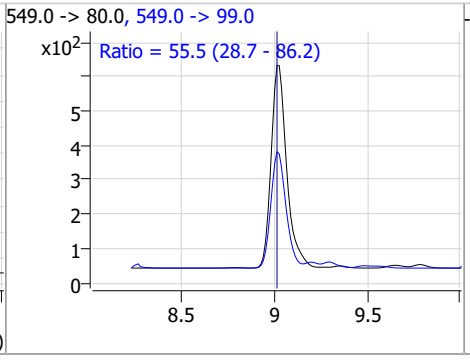


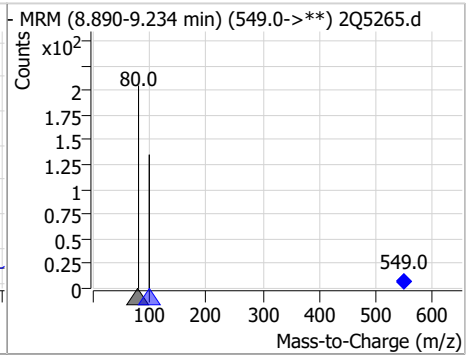




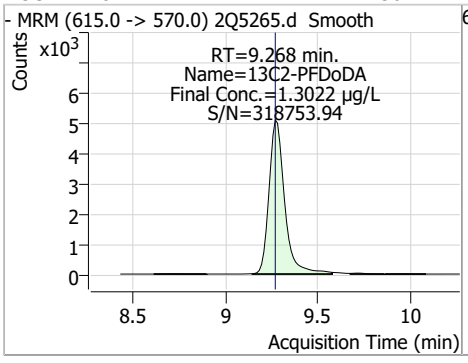
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	1.06	9.01	0.00	3458	549.0 -> 99.0	55.5	28.7	86.2

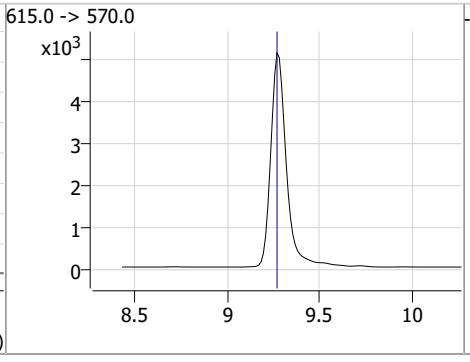


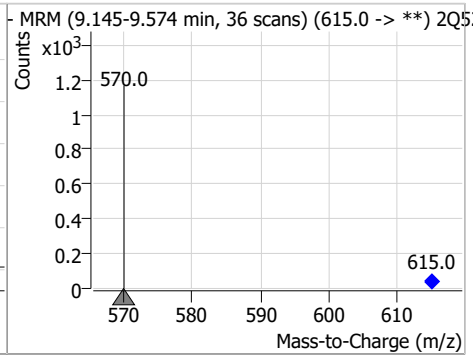




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.30	9.27	0.00	29743				

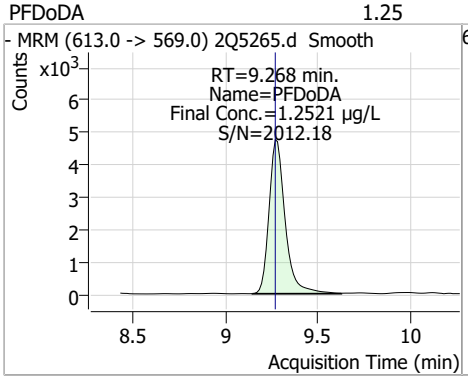


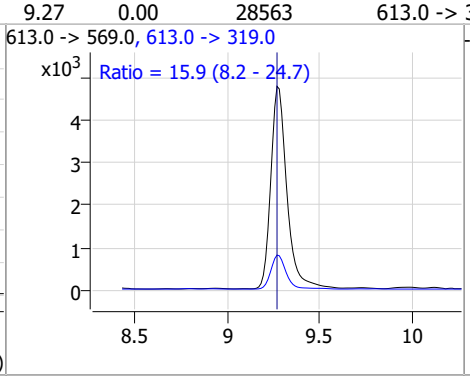


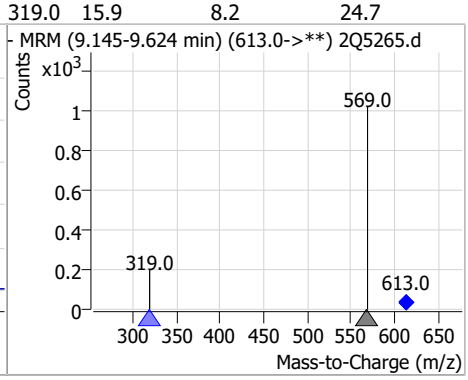


Perfluorinated Compounds by LC/MS/MS

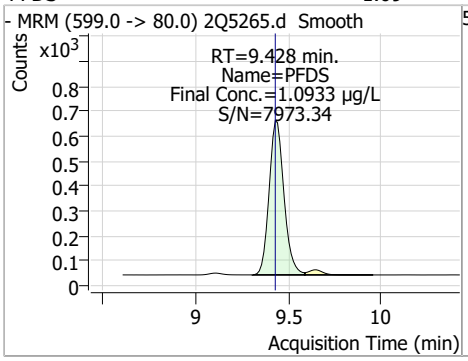
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	1.25	9.27	0.00	28563	613.0 -> 319.0	15.9	8.2	24.7

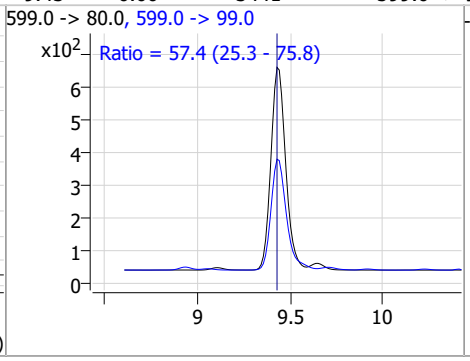


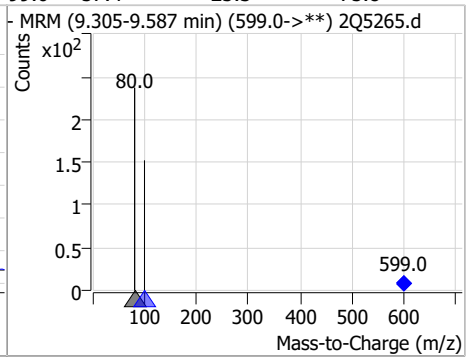




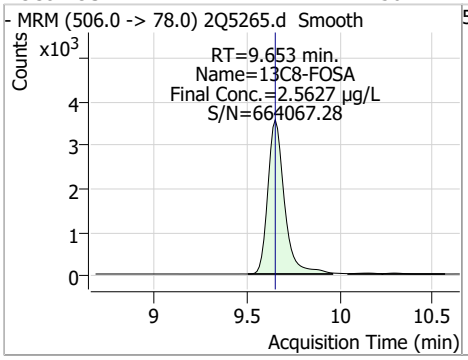
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	1.09	9.43	0.00	3441	599.0 -> 99.0	57.4	25.3	75.8

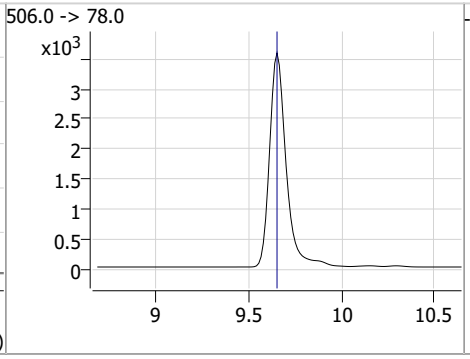


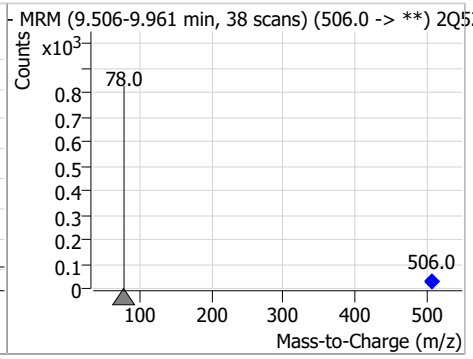




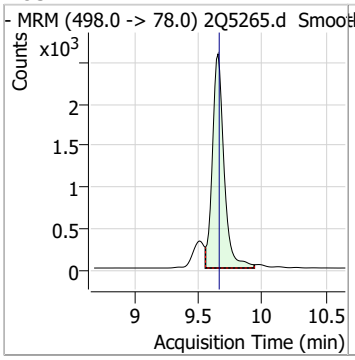
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.56	9.65	0.00	22087				

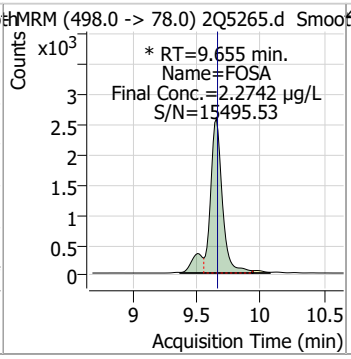


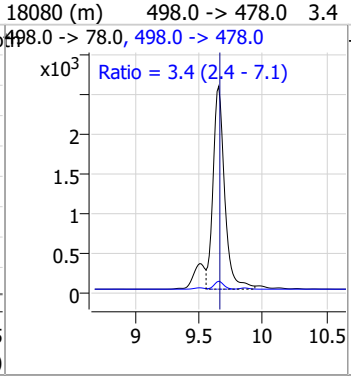


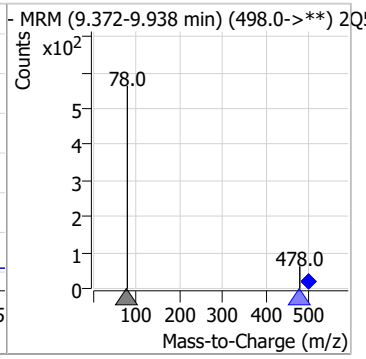


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	2.27	9.65	0.00	18080 (m)	498.0 -> 478.0	3.4	2.4	7.1



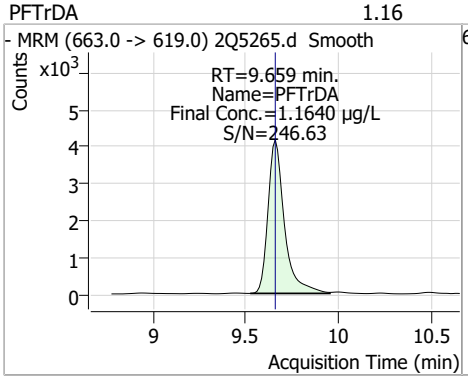


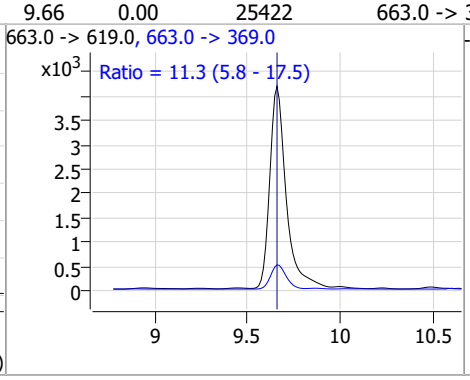


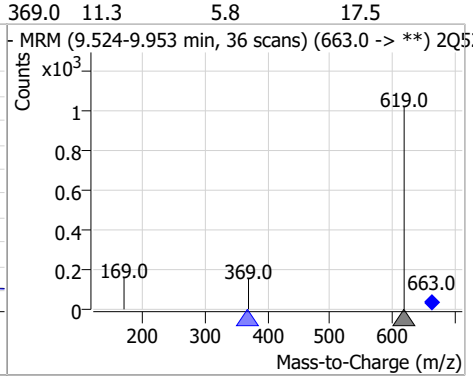


Perfluorinated Compounds by LC/MS/MS

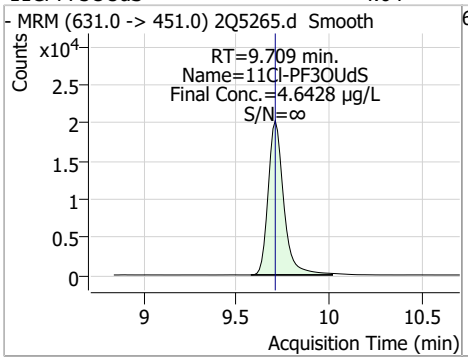
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	1.16	9.66	0.00	25422	663.0 -> 369.0	11.3	5.8	17.5

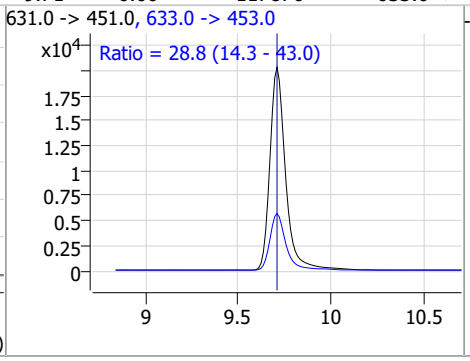


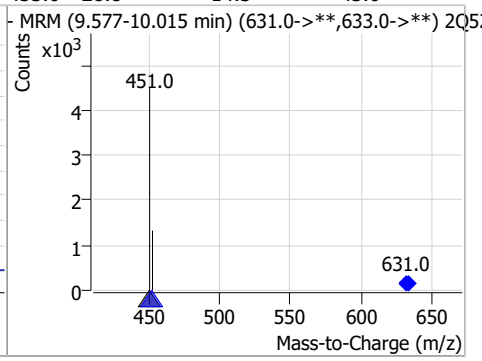




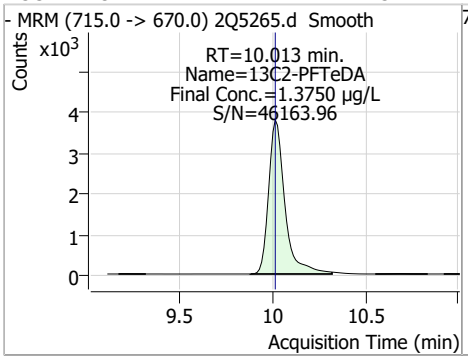
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	4.64	9.71	0.00	117870	633.0 -> 453.0	28.8	14.3	43.0

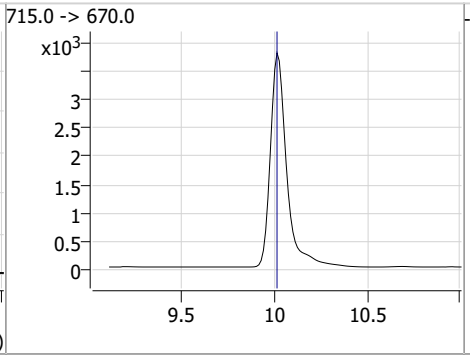


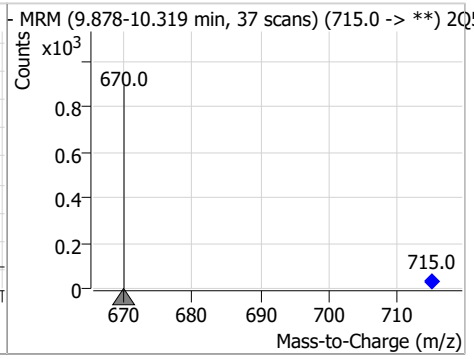




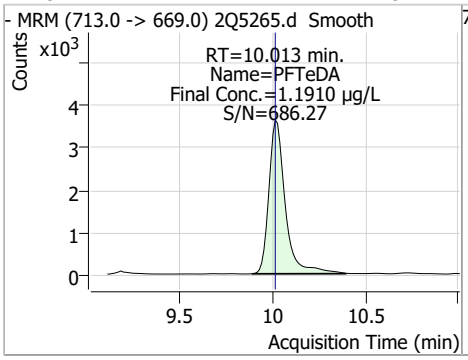
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.37	10.01	0.00	23033				

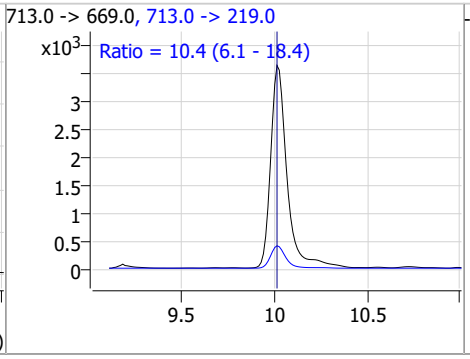


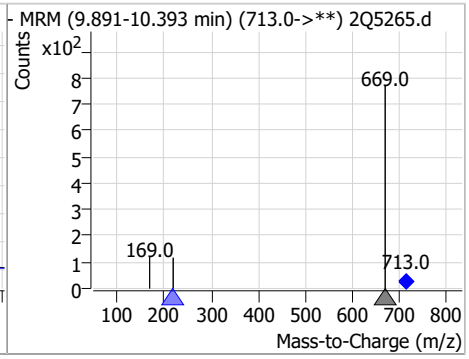




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	1.19	10.01	0.00	22195	713.0 -> 219.0	10.4	6.1	18.4

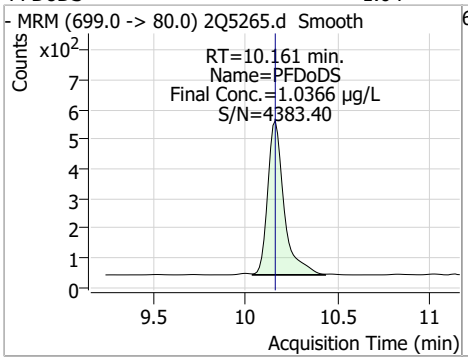


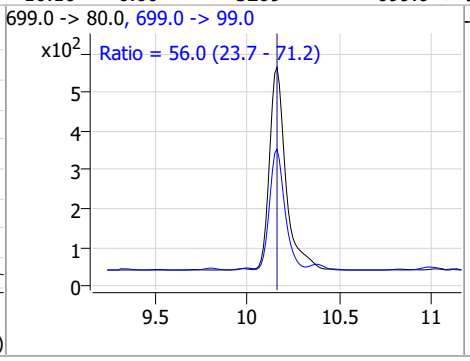


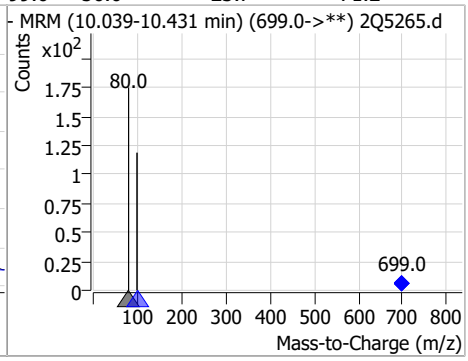


Perfluorinated Compounds by LC/MS/MS

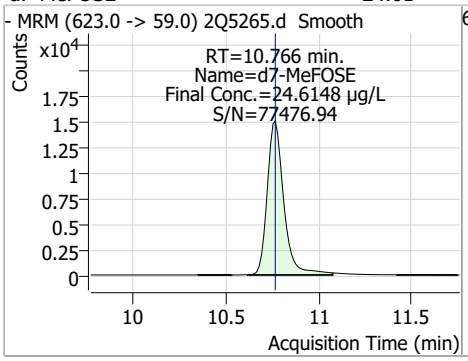
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	1.04	10.16	0.00	3209	699.0 -> 99.0	56.0	23.7	71.2

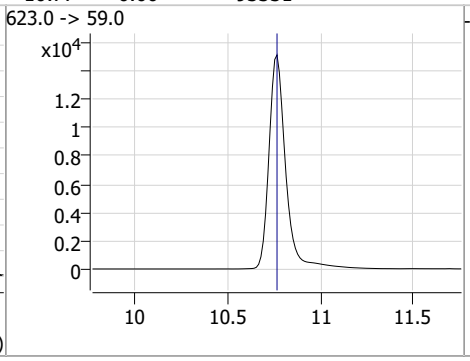


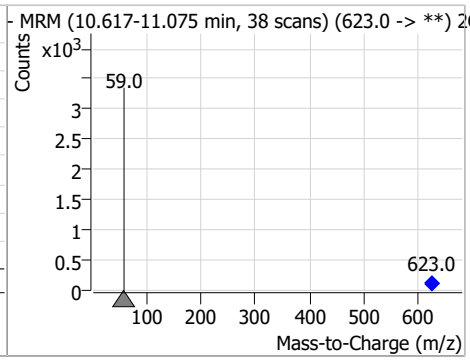




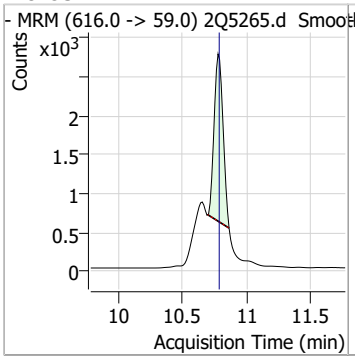
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.61	10.77	0.00	93331				

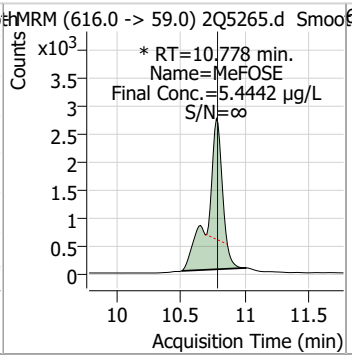


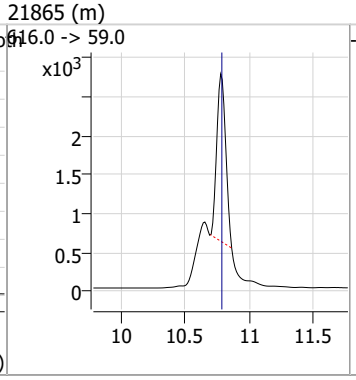


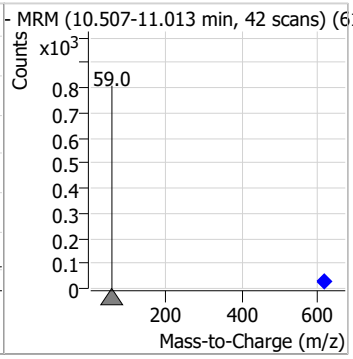


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	5.44	10.78	0.00	21865 (m)				

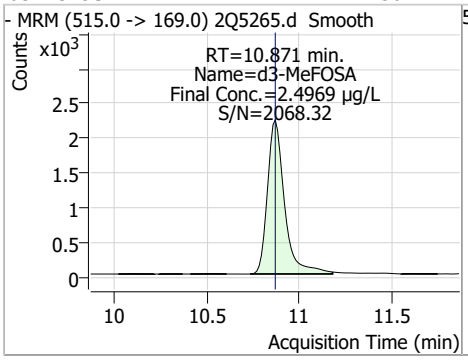


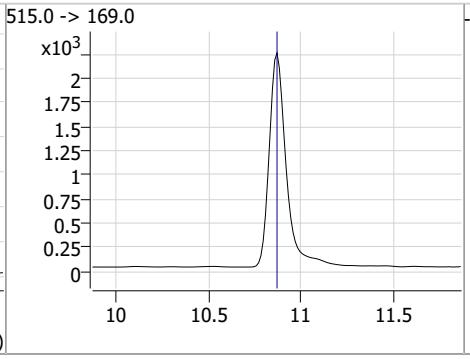


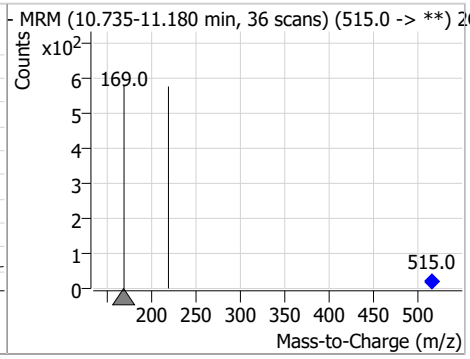




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.50	10.87	0.00	14236				

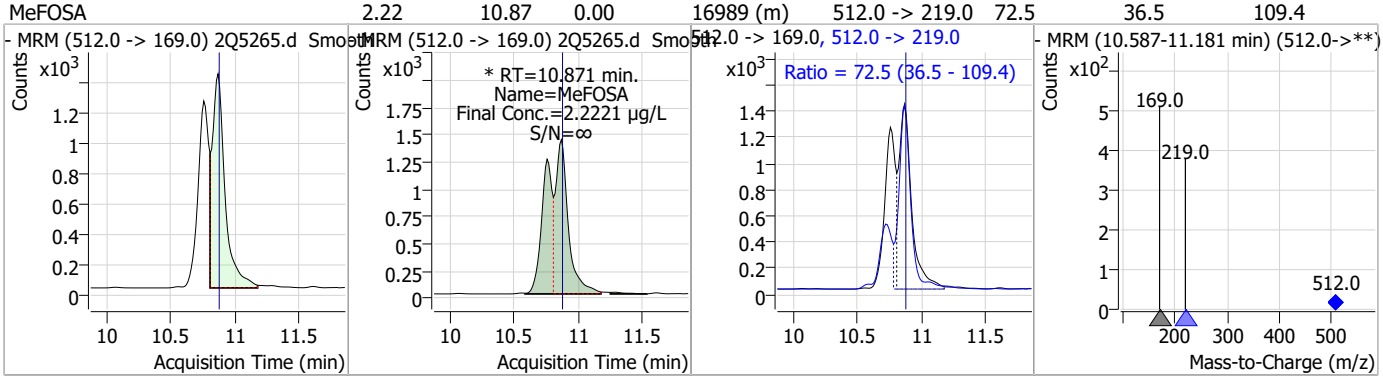




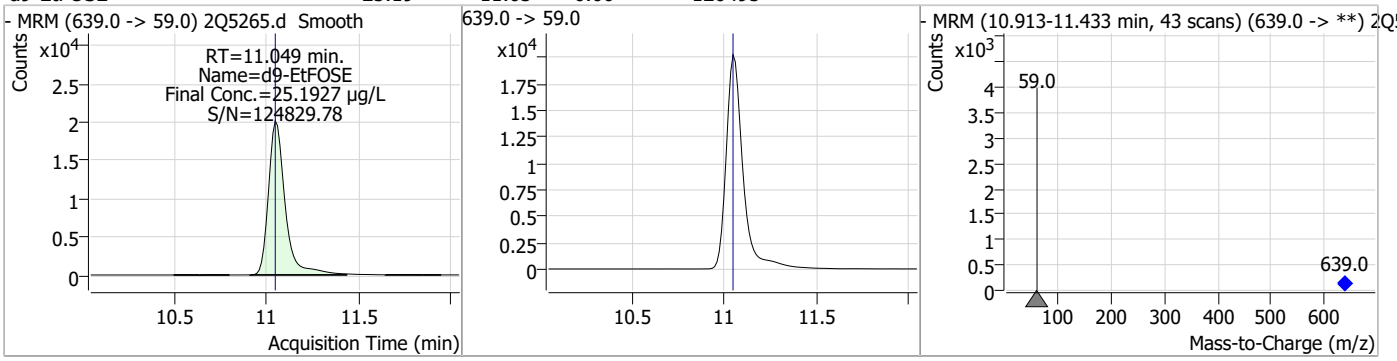


Perfluorinated Compounds by LC/MS/MS

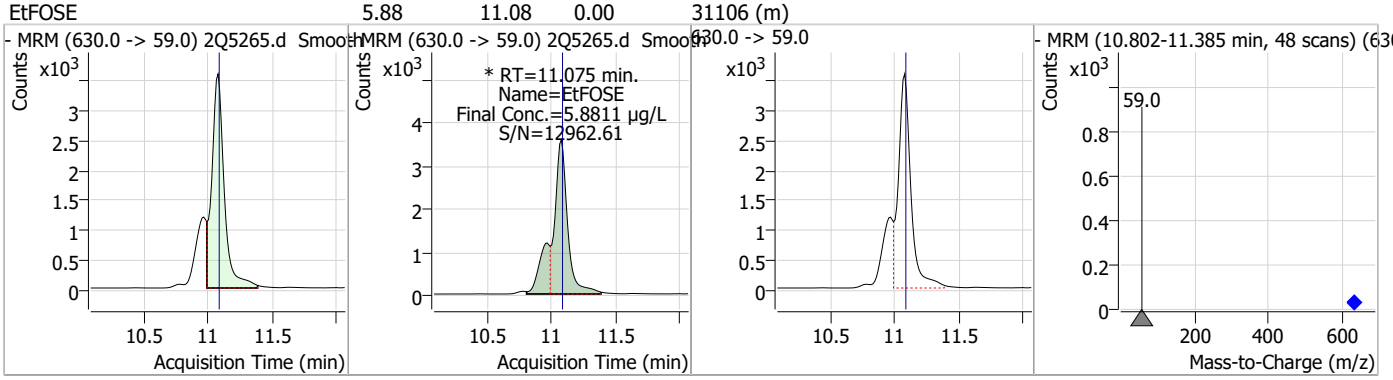
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	2.22	10.87	0.00	16989 (m)	512.0 -> 219.0	72.5	36.5	109.4



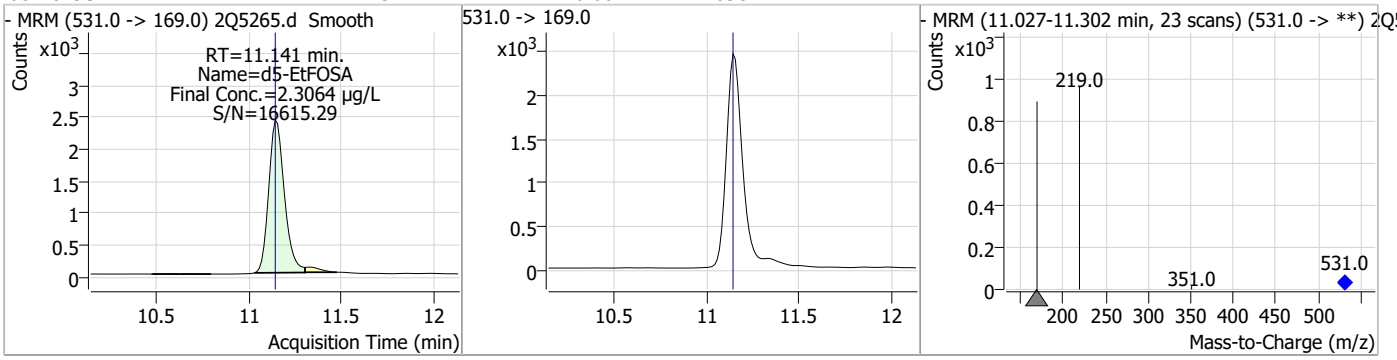
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	25.19	11.05	0.00	126495				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	5.88	11.08	0.00	31106 (m)				

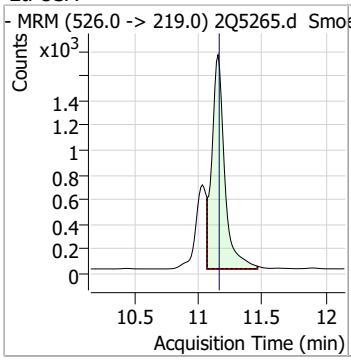


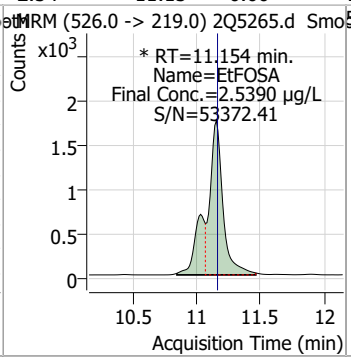
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.31	11.14	0.00	14098				

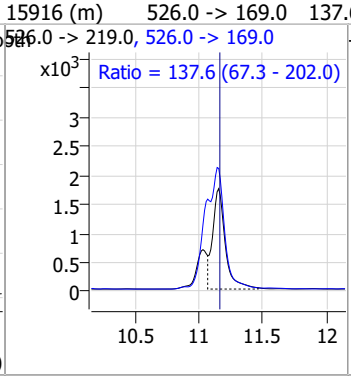


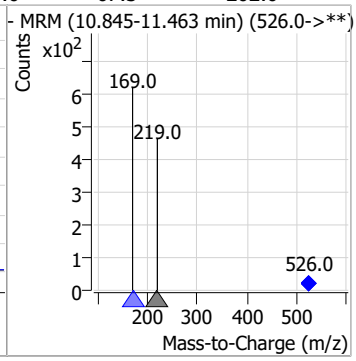
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	2.54	11.15	0.00	15916 (m)	526.0 -> 169.0	137.6	67.3	202.0









Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5265.D
Injection Time: 11/30/23 17:51
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5266.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 6:06:23 PM
Sample Name : icc96-4
Vial : P1-A5
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	193012	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	118474	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	65671	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	50110	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	86409	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	37806	1.25	µg/L	0.000
M6-PFDA	8.400	519.0 -> 474.0	16329	1.25	µg/L	0.000
M7-PFUnDA	8.853	570.0 -> 525.0	31024	1.25	µg/L	0.000
M2-PFDoDA	9.268	615.0 -> 570.0	33996	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	23318	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	23381	2.50	µg/L	0.000
M3-PFBS	5.883	302.0 -> 99.0	7608	2.50	µg/L	0.000
		302.0 -> 80.0	18066			
M3-PFHxS	7.509	402.0 -> 99.0	7876	2.50	µg/L	0.000
M8-PFOS	8.548	507.0 -> 99.0	7824	2.50	µg/L	0.000
M2-4:2FTS	5.656	329.0 -> 81.0	1430	5.00	µg/L	0.000
M2-6:2FTS	7.175	429.0 -> 81.0	3265	5.00	µg/L	0.000
M2-8:2FTS	8.191	529.0 -> 81.0	4610	5.00	µg/L	0.000
M3-MeFOSAA	8.435	573.0 -> 419.0	48850	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	31069	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	39635	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	106370	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	140254	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16795	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14884	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	14883	2.50	µg/L	0.000
13C3-PFBA	3.342	216.0 -> 172.0	85755	5.00	µg/L	0.000
18O2-PFHxS	7.509	403.0 -> 84.0	7685	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	85641	2.50	µg/L	0.000
13C2-PFDA	8.401	515.0 -> 470.0	36082	1.25	µg/L	0.000
13C5-PFNA	7.912	468.0 -> 423.0	40676	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	64714	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.656	329.0 -> 81.0	1430	5.10	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.9%		
13C2-6:2FTS	7.175	429.0 -> 81.0	3265	5.25	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.0%		
13C2-8:2FTS	8.191	529.0 -> 81.0	4610	5.35	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.0%		
13C2-PFDoDA	9.268	615.0 -> 570.0	33996	1.18	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 94.4%		
13C2-PFTeDA	10.013	715.0 -> 670.0	23318	1.10	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 88.3%		
13C3-PFBS	5.883	302.0 -> 99.0	7608	2.66	µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.5%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	7876	2.63	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.1%			
13C4-PFBA	3.339	217.0 -> 172.0	193012	10.00	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 100.0%			
13C4-PFHpA	6.795	367.0 -> 322.0	50110	2.38	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.3%			
13C5-PFHxA	5.955	318.0 -> 273.0	65671	2.44	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.7%			
13C5-PFPeA	4.810	268.0 -> 223.0	118474	4.88	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.7%			
13C6-PFDA	8.400	519.0 -> 474.0	16329	1.08	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.7%			
13C7-PFUnDA	8.853	570.0 -> 525.0	31024	1.25	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.9%			
13C8-FOSA	9.653	506.0 -> 78.0	23381	2.32	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.8%			
13C8-PFOA	7.397	421.0 -> 376.0	86409	2.44	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.5%			
13C8-PFOS	8.548	507.0 -> 99.0	7824	2.41	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.6%			
13C9-PFNA	7.912	472.0 -> 427.0	37806	1.19	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.0%			
d3-MeFOSAA	8.435	573.0 -> 419.0	48850	5.04	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.9%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	31069	10.12	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.2%			
d3-MeFOSA	10.871	515.0 -> 169.0	14884	2.23	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.3%			
d5-EtFOSAA	8.630	589.0 -> 419.0	39635	4.95	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.1%			
d7-MeFOSE	10.766	623.0 -> 59.0	106370	23.99	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 96.0%			
d9-EtFOSE	11.049	639.0 -> 59.0	140254	23.89	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 95.6%			
d5-EtFOSA	11.141	531.0 -> 169.0	16795	2.35	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.0%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	24915	10.47	µg/L		100
		327.0 -> 81.0	12869				
6:2FTS	7.187	427.0 -> 407.0	45701	9.54	µg/L		100
		427.0 -> 81.0	14906				
8:2FTS	8.191	527.0 -> 507.0	40470	9.71	µg/L		100
		527.0 -> 81.0	14611				
EtFOSAA	8.643	584.0 -> 419.0	17030	2.56	µg/L	m	100
		584.0 -> 483.0	7702				
FOSA	9.655	498.0 -> 78.0	43799	5.20	µg/L	m	100
		498.0 -> 478.0	2066				
MeFOSAA	8.448	570.0 -> 419.0	18042	2.31	µg/L	m	100
		570.0 -> 512.0	6455				
PFBA	3.346	213.0 -> 169.0	46446	9.58	µg/L		100
PFBS	5.885	299.0 -> 80.0	17593	2.22	µg/L		100
		299.0 -> 99.0	7434				
PFDA	8.401	513.0 -> 469.0	69018	2.55	µg/L		100
		513.0 -> 219.0	10484				
PFDoDA	9.268	613.0 -> 569.0	63302	2.43	µg/L		100
		613.0 -> 319.0	10407				

Perfluorinated Compounds by LC/MS/MS

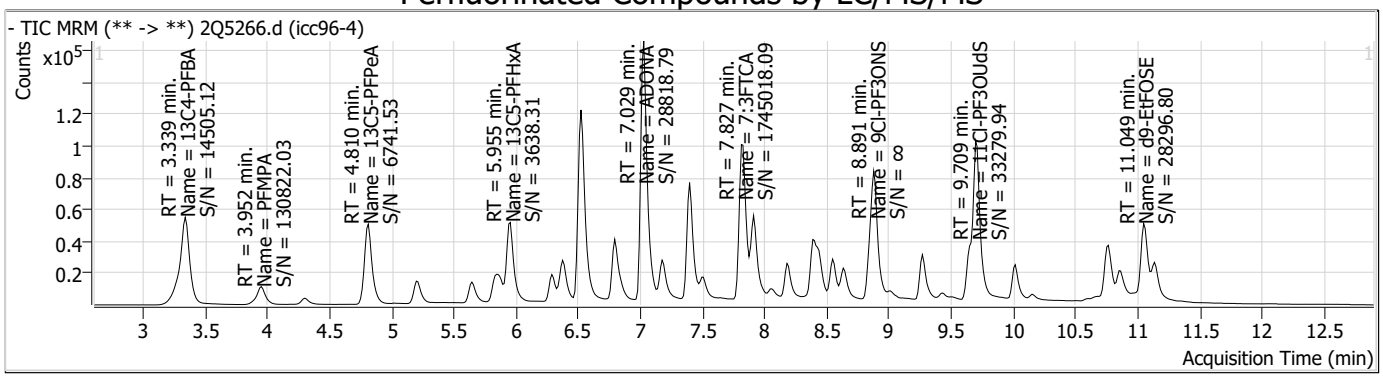
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	9117	2.46	µg/L		100
		599.0 -> 99.0	4609				
PFHpA	6.796	363.0 -> 319.0	78402	2.52	µg/L		100
		363.0 -> 169.0	12821				
PFHpS	8.059	449.0 -> 80.0	12285	2.46	µg/L		100
		449.0 -> 99.0	6455				
PFHxA	5.957	313.0 -> 269.0	63196	2.43	µg/L		100
		313.0 -> 119.0	1806				
PFHxS	7.509	399.0 -> 80.0	12228	2.23	µg/L	m	100
		399.0 -> 99.0	7057				
PFNA	7.912	463.0 -> 419.0	76184	2.68	µg/L		100
		463.0 -> 219.0	12189				
PFNS	9.013	549.0 -> 80.0	7569	2.15	µg/L		100
		549.0 -> 99.0	4350				
PFOA	7.397	413.0 -> 369.0	85797	2.53	µg/L		100
		413.0 -> 169.0	16478				
PFOS	8.561	499.0 -> 80.0	15710	2.35	µg/L	m	100
		499.0 -> 99.0	6694				
PFPeA	4.812	263.0 -> 219.0	103178	4.83	µg/L		100
PFPeS	6.845	349.0 -> 80.0	10438	2.29	µg/L		100
		349.0 -> 99.0	4482				
PFTeDA	10.013	713.0 -> 669.0	47447	2.51	µg/L		100
		713.0 -> 219.0	5818				
PFTrDA	9.659	663.0 -> 619.0	59746	2.39	µg/L		100
		663.0 -> 369.0	6956				
PFUnDA	8.853	563.0 -> 519.0	72141	2.32	µg/L		100
		563.0 -> 269.0	11677				
11Cl-PF3OUdS	9.709	631.0 -> 451.0	275050	9.84	µg/L		100
		633.0 -> 453.0	78871				
9Cl-PF3ONS	8.891	531.0 -> 351.0	197316	10.25	µg/L		100
		533.0 -> 353.0	56597				
ADONA	7.029	377.0 -> 251.0	473812	9.62	µg/L		100
		377.0 -> 85.0	141184				
HFPO-DA	6.295	285.0 -> 169.0	30008	8.96	µg/L		100
		285.0 -> 185.0	2639				
3:3FTCA	4.301	241.0 -> 177.0	15930	12.03	µg/L		100
		241.0 -> 117.0	1218				
5:3FTCA	6.524	341.0 -> 237.0	285424	62.84	µg/L		100
		341.0 -> 217.0	202946				
7:3FTCA	7.827	441.0 -> 337.0	297447	61.41	µg/L		100
		441.0 -> 317.0	115003				
EtFOSA	11.154	526.0 -> 219.0	36445	4.88	µg/L	m	100
		526.0 -> 169.0	49067				
EtFOSE	11.075	630.0 -> 59.0	72016	12.28	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	41251	5.16	µg/L	m	100
		512.0 -> 219.0	30091				
MeFOSE	10.778	616.0 -> 59.0	54957	12.01	µg/L	m	100
PFDoDS	10.161	699.0 -> 80.0	8250	2.46	µg/L		100
		699.0 -> 99.0	3919				
NFDHA	5.848	295.0 -> 201.0	8220	5.15	µg/L		100
		201.0 -> 85.0	43391				
		295.0 -> 85.0	1985				
PFMBA	5.213	279.0 -> 85.0	60858	5.28	µg/L		100
PFMPA	3.952	229.0 -> 85.0	58875	4.87	µg/L		100
PFEESA	6.377	315.0 -> 135.0	89889	5.05	µg/L		100
		315.0 -> 69.0	8670				

Perfluorinated Compounds by LC/MS/MS

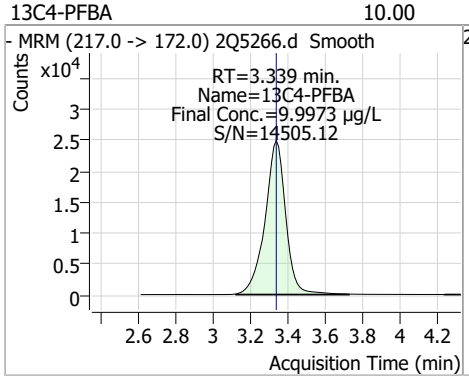
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

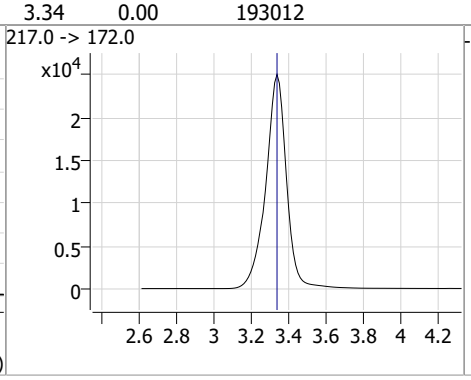
= Qualifier out of range, m = manually integrated, + = Area summed

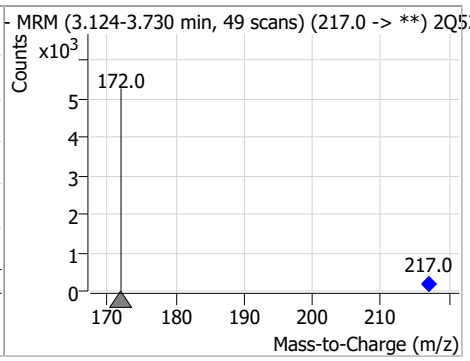
Perfluorinated Compounds by LC/MS/MS



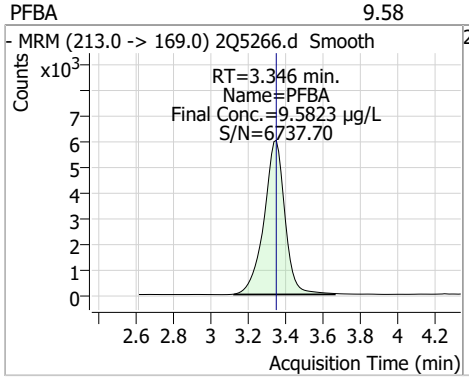
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.00	3.34	0.00	193012				

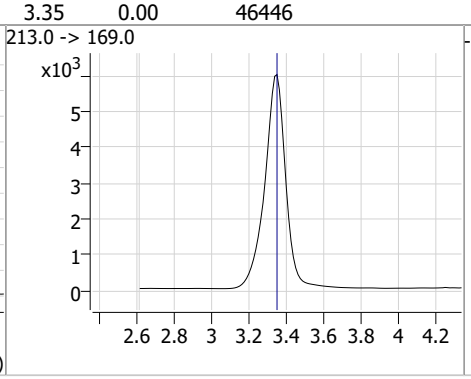


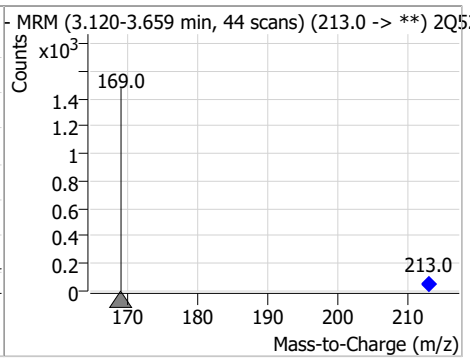




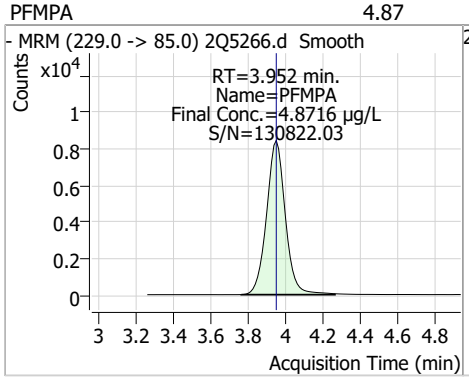
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	9.58	3.35	0.00	46446				

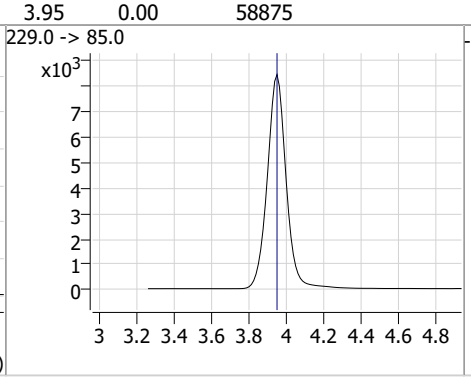


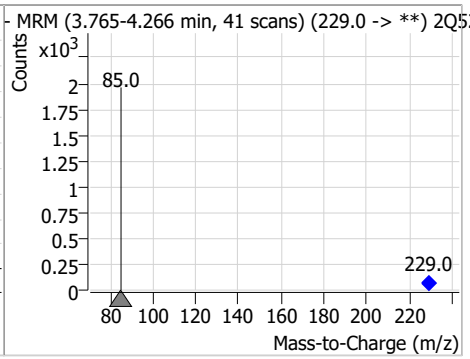




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.87	3.95	0.00	58875				

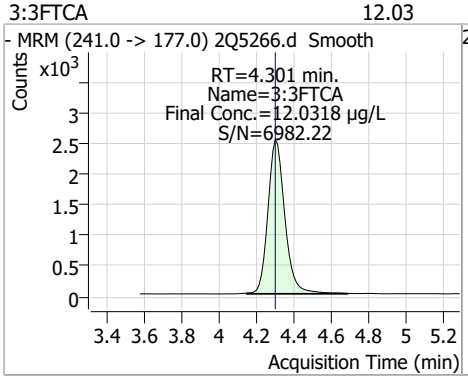


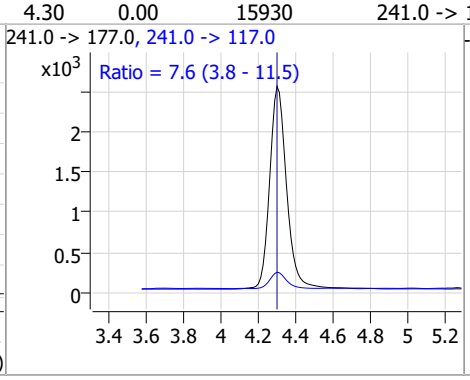


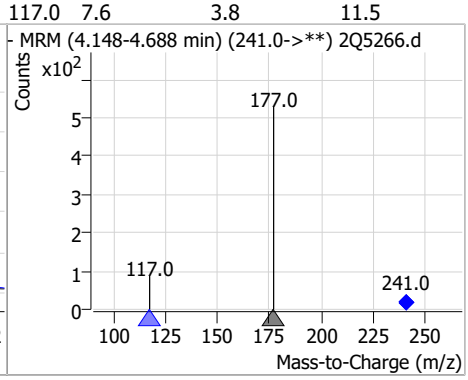


Perfluorinated Compounds by LC/MS/MS

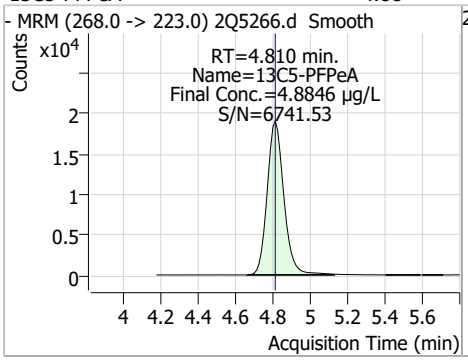
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	12.03	4.30	0.00	15930	241.0 -> 117.0	7.6	3.8	11.5

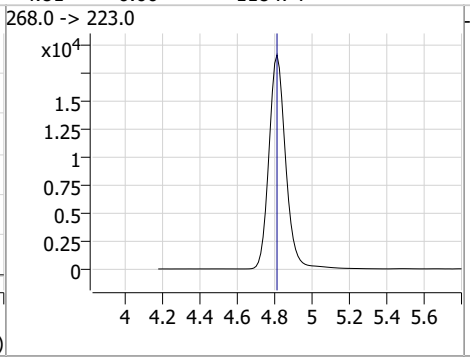


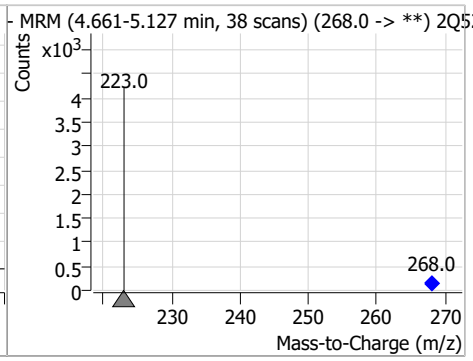




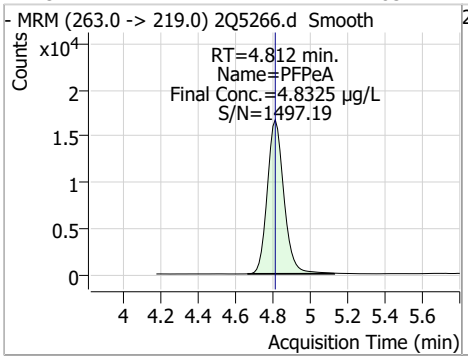
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.88	4.81	0.00	118474				

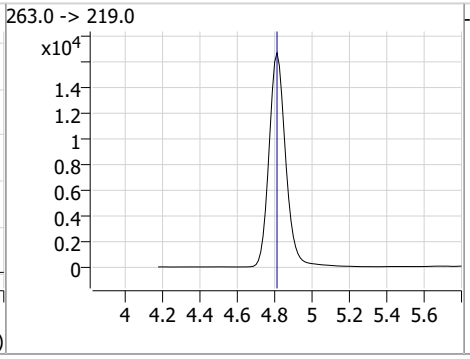


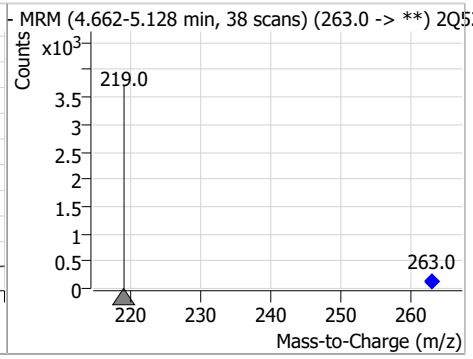




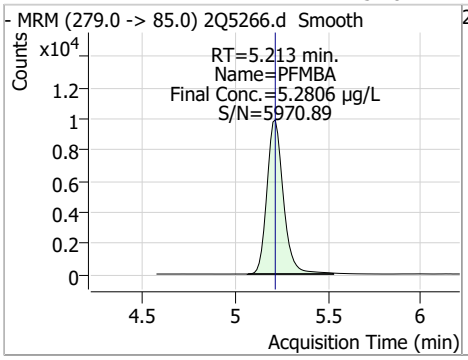
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	4.83	4.81	0.00	103178				

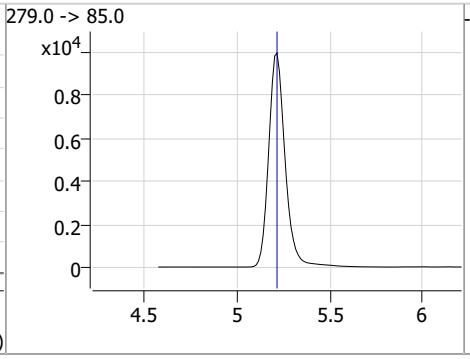


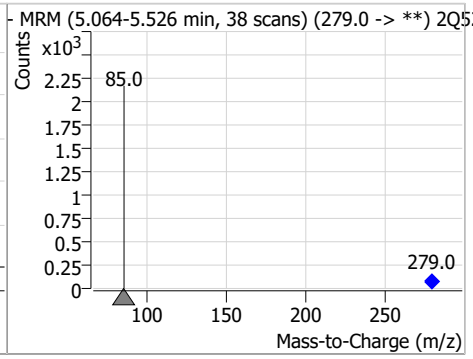




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	5.28	5.21	0.00	60858				

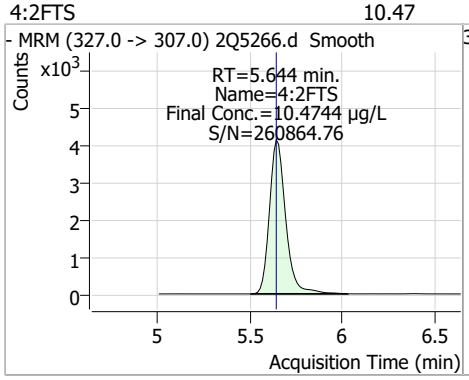


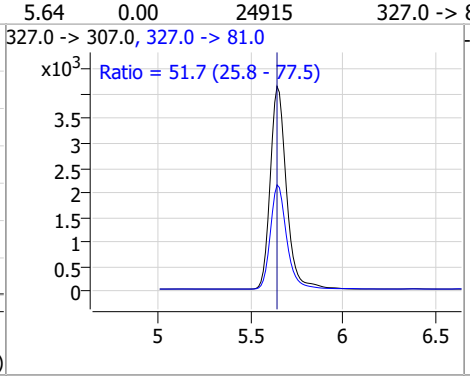


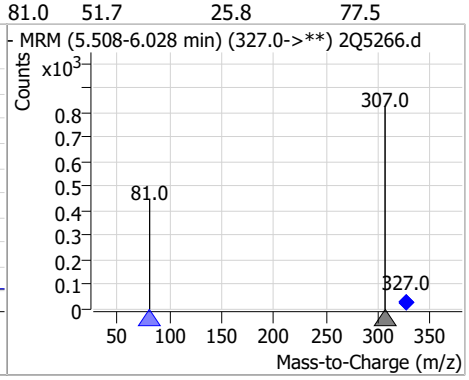


Perfluorinated Compounds by LC/MS/MS

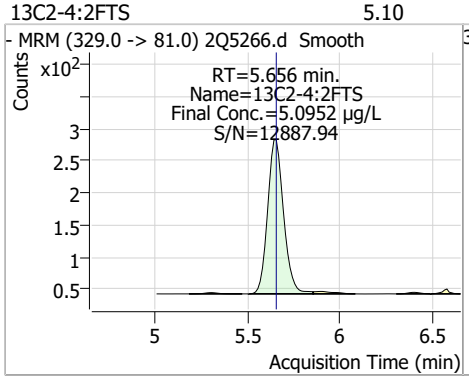
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	10.47	5.64	0.00	24915	327.0 -> 81.0	51.7	25.8	77.5

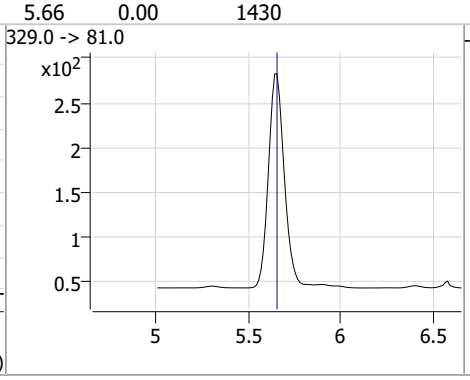


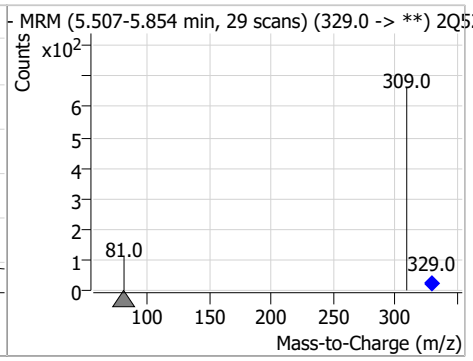




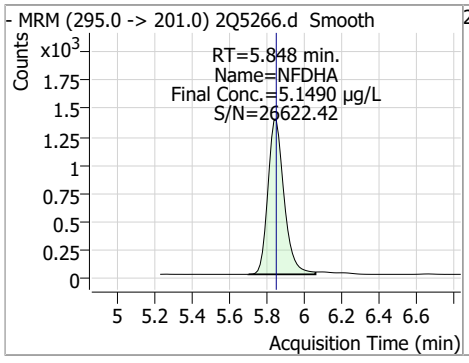
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.10	5.66	0.00	1430				

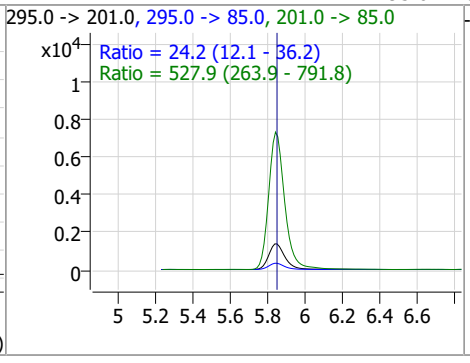


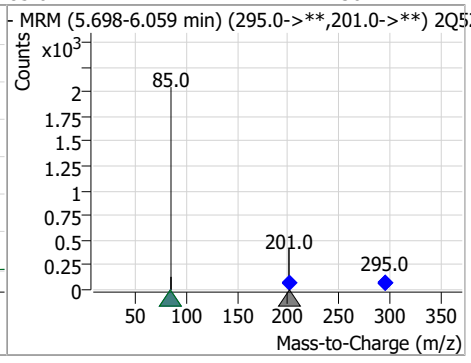




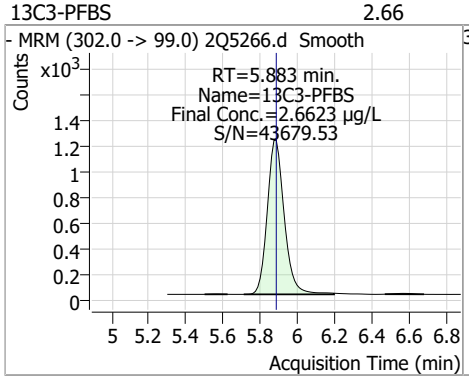
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	5.15	5.85	0.00	8220	201.0 -> 85.0	527.9	263.9	791.8
					295.0 -> 85.0	24.2	12.1	36.2

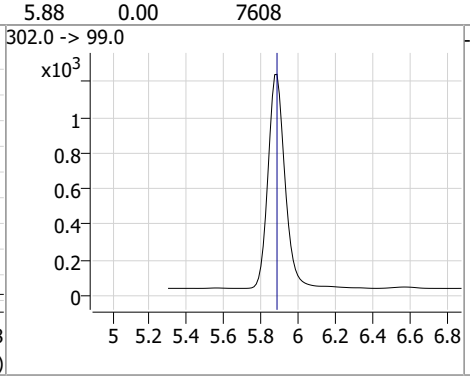


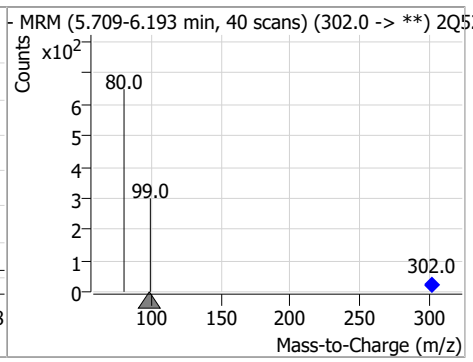




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.66	5.88	0.00	7608				

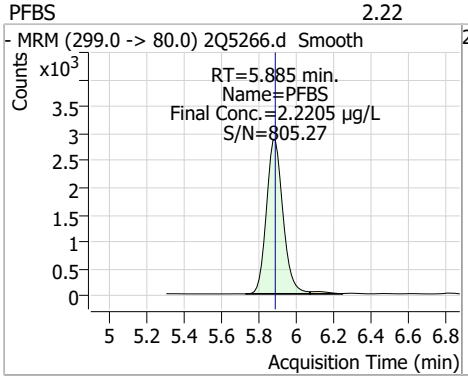


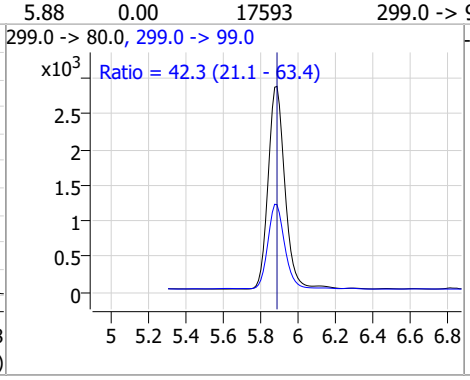


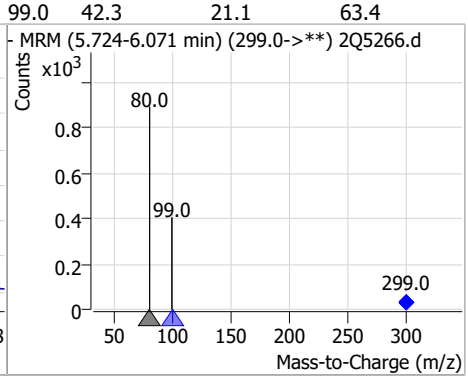


Perfluorinated Compounds by LC/MS/MS

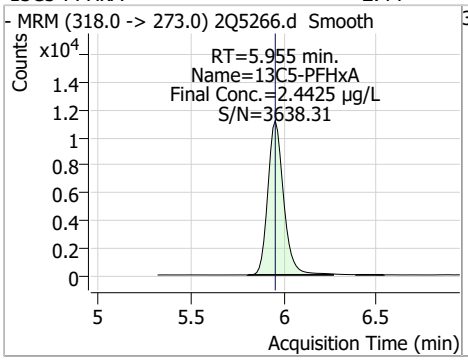
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.22	5.88	0.00	17593	299.0 -> 99.0	42.3	21.1	63.4

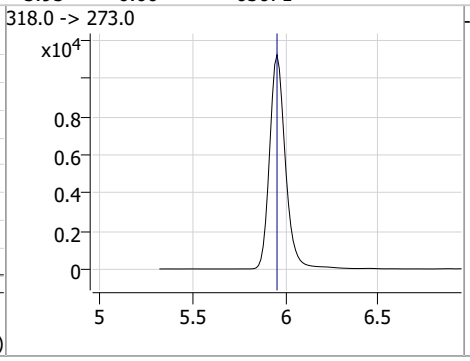


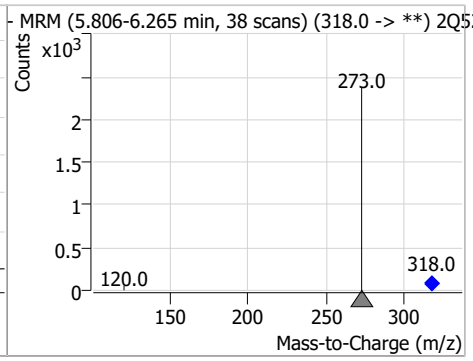




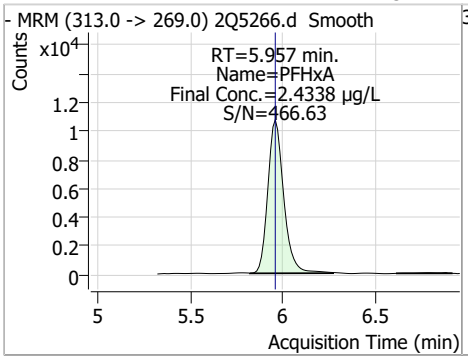
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.44	5.95	0.00	65671				

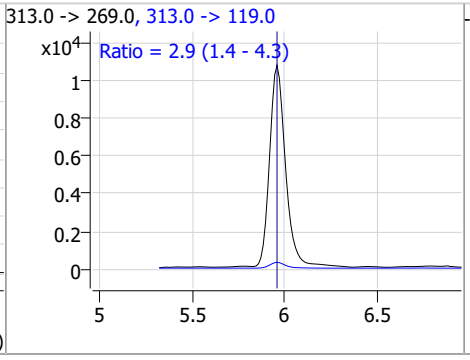


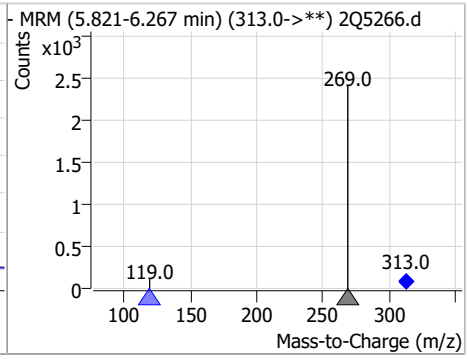




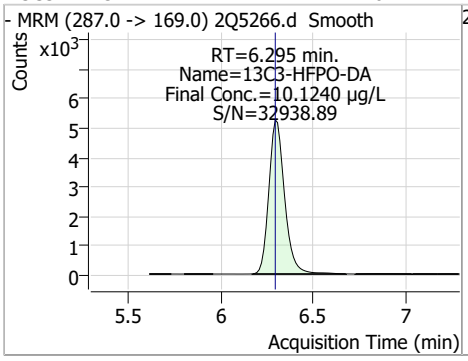
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.43	5.96	0.00	63196	313.0 -> 119.0	2.9	1.4	4.3

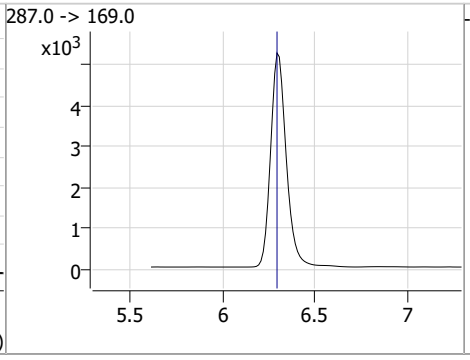


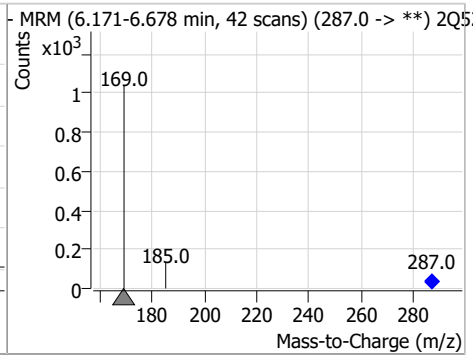




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.12	6.29	0.00	31069				

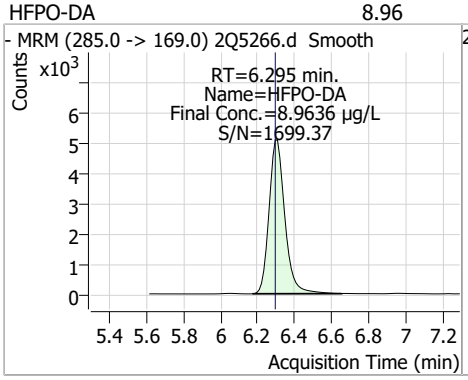


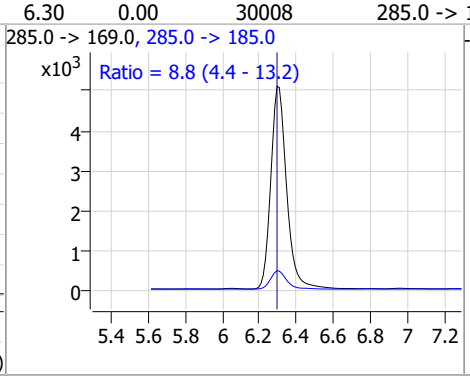


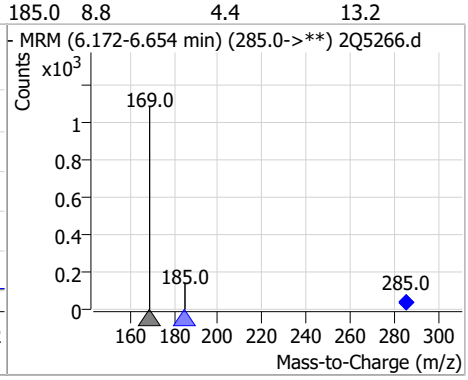


Perfluorinated Compounds by LC/MS/MS

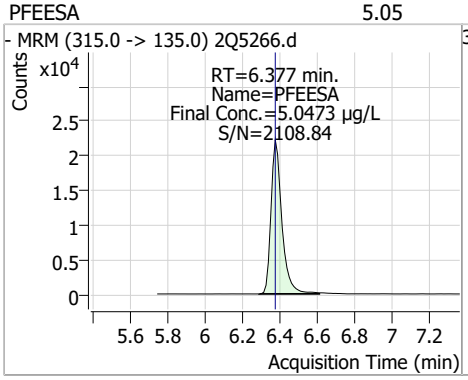
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	8.96	6.30	0.00	30008	285.0 -> 185.0	8.8	4.4	13.2

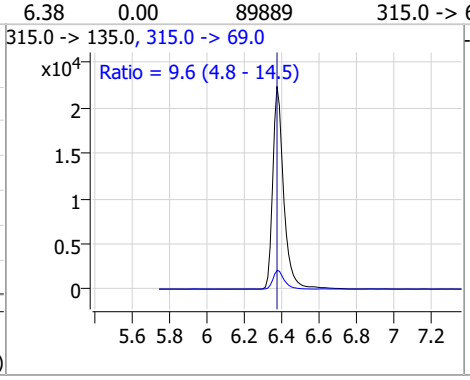


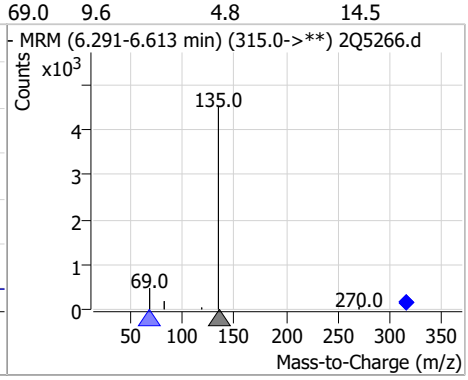




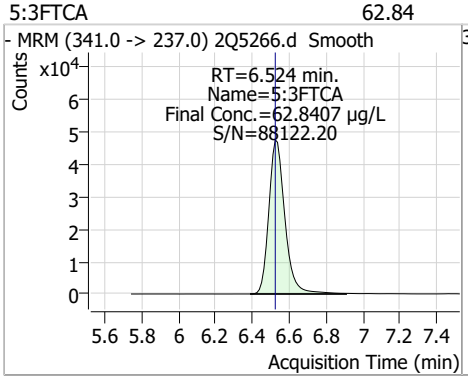
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.05	6.38	0.00	89889	315.0 -> 69.0	9.6	4.8	14.5

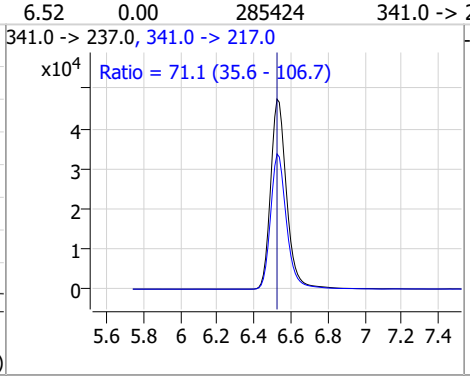


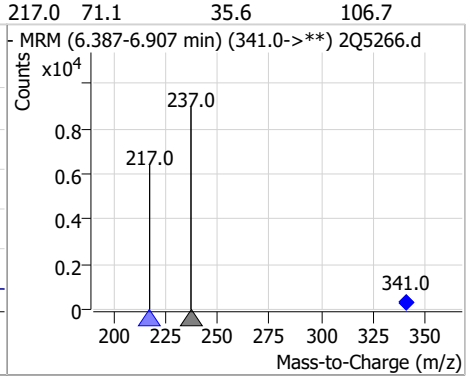




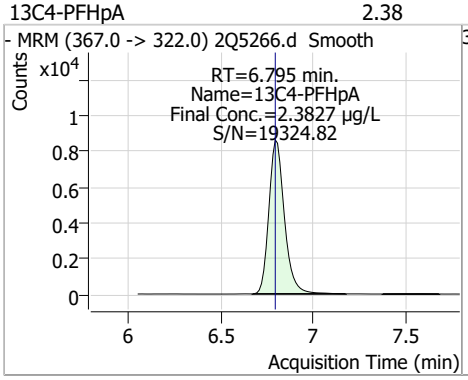
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	62.84	6.52	0.00	285424	341.0 -> 217.0	71.1	35.6	106.7

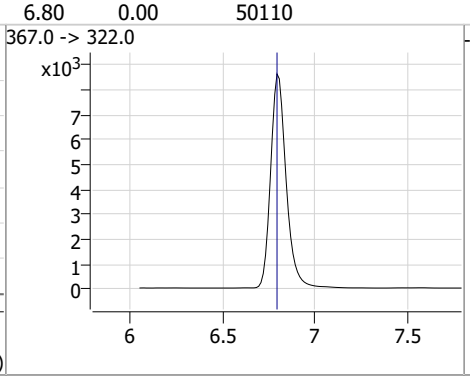


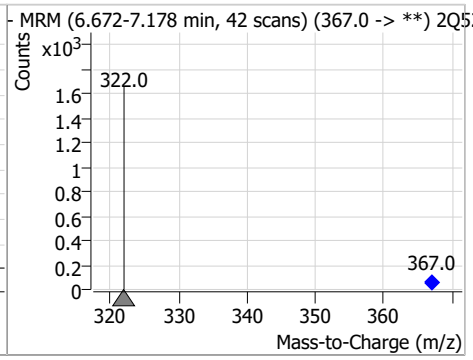




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.38	6.80	0.00	50110				

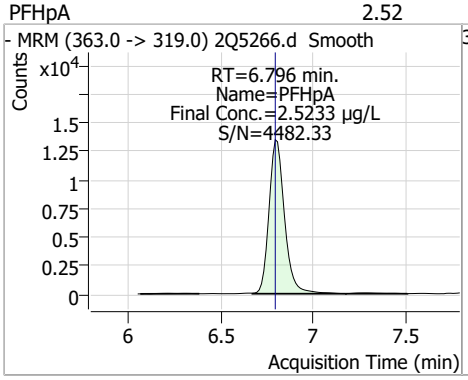


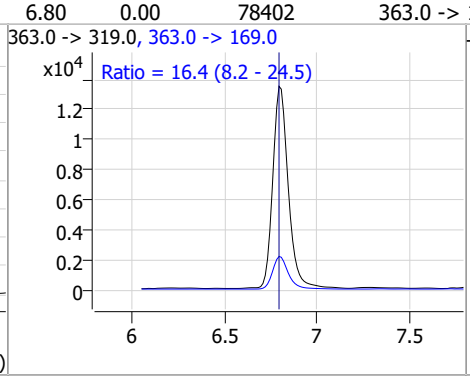


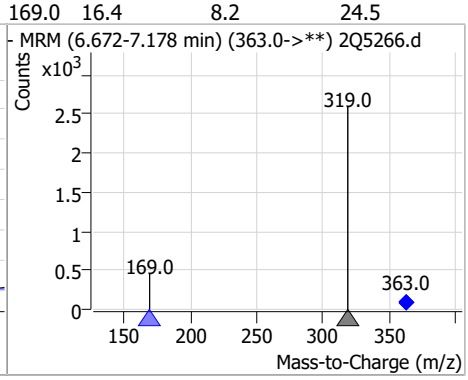


Perfluorinated Compounds by LC/MS/MS

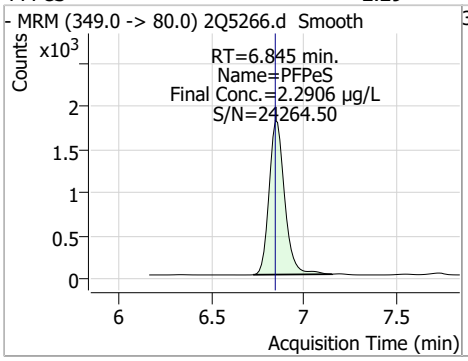
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.52	6.80	0.00	78402	363.0 -> 169.0	16.4	8.2	24.5

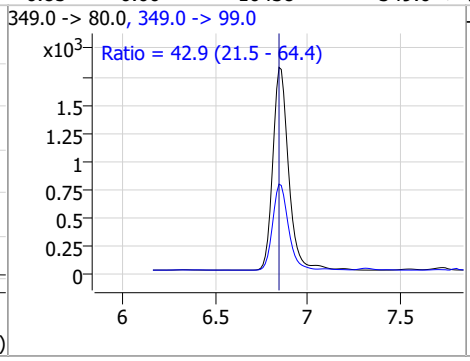


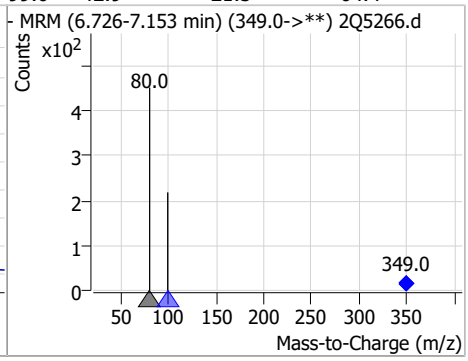




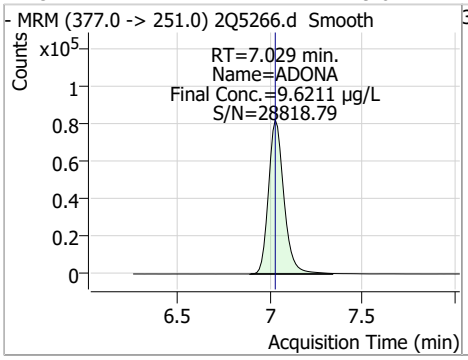
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.29	6.85	0.00	10438	349.0 -> 99.0	42.9	21.5	64.4

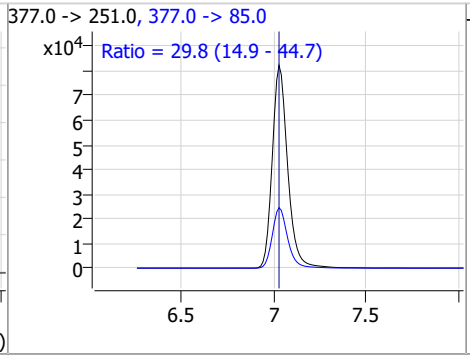


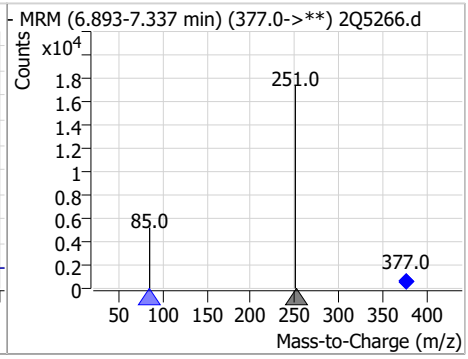




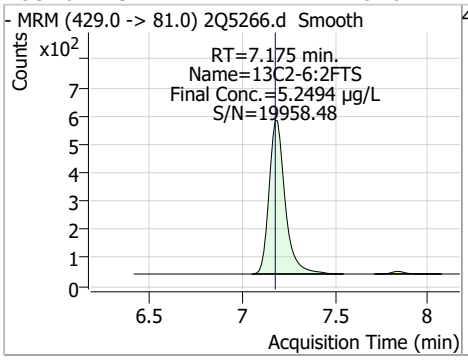
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	9.62	7.03	0.00	473812	377.0 -> 85.0	29.8	14.9	44.7

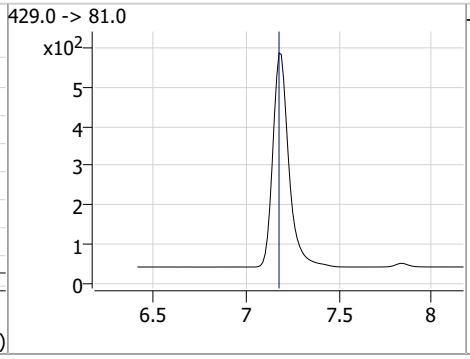


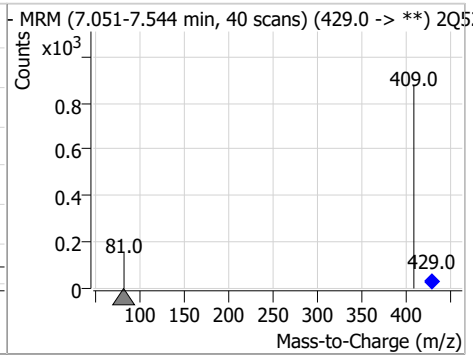




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.25	7.17	0.00	3265				

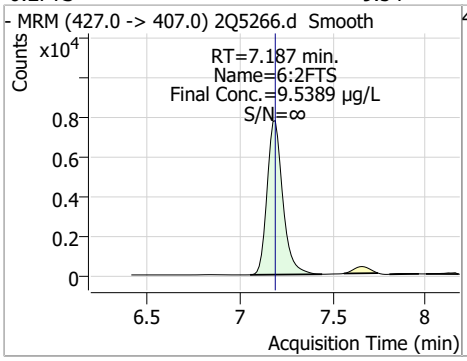


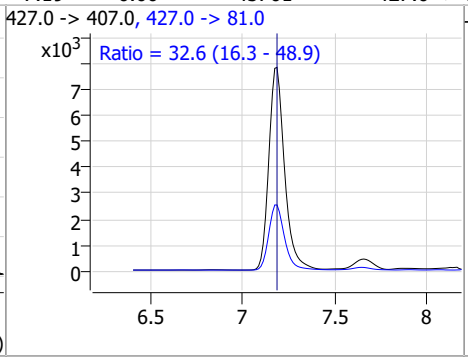


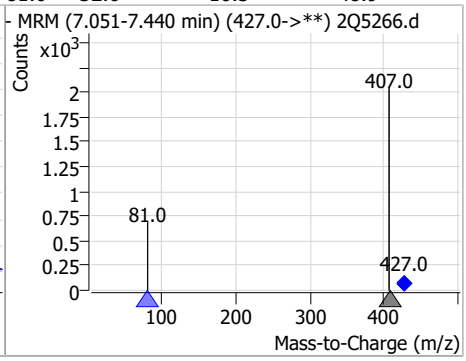


Perfluorinated Compounds by LC/MS/MS

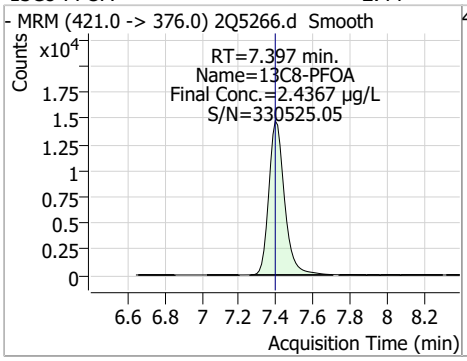
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	9.54	7.19	0.00	45701	427.0 -> 81.0	32.6	16.3	48.9

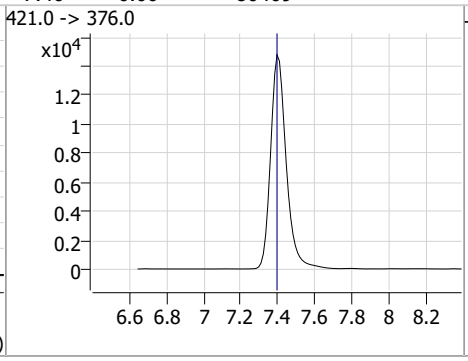


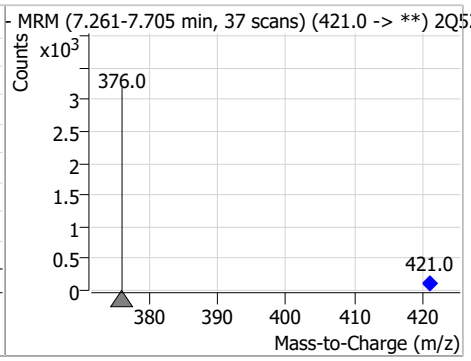




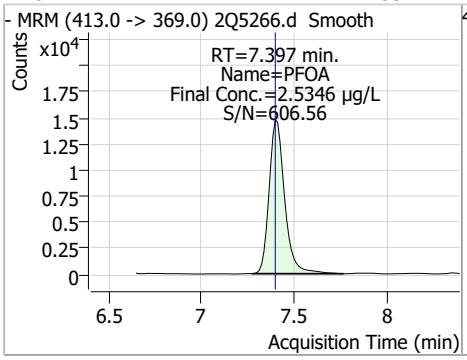
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.44	7.40	0.00	86409				

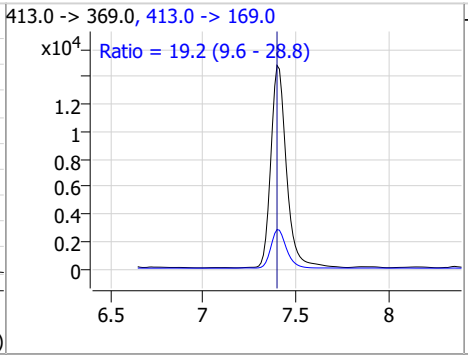


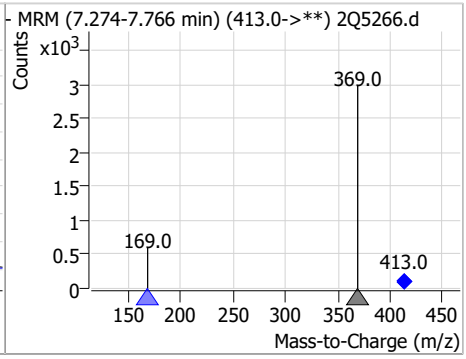




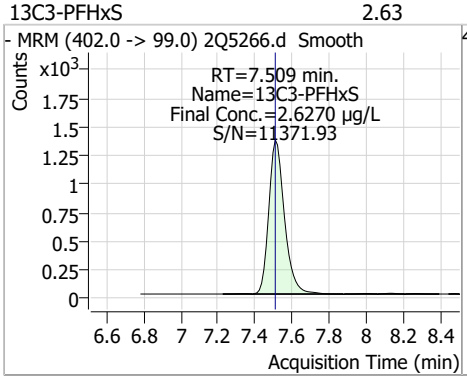
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	2.53	7.40	0.00	85797	413.0 -> 169.0	19.2	9.6	28.8

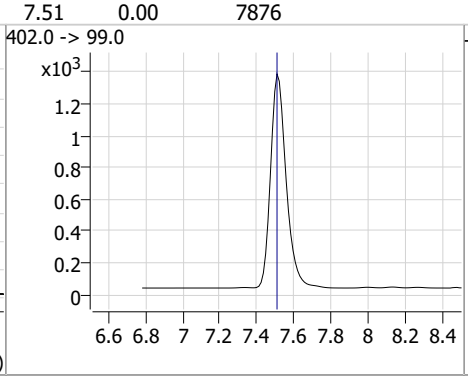


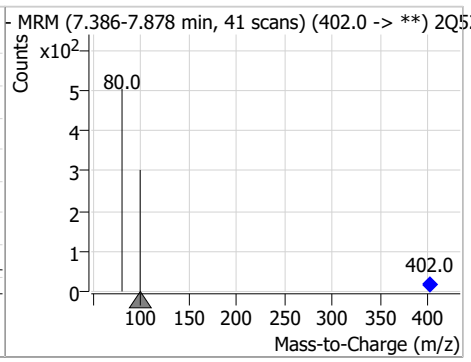




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.63	7.51	0.00	7876				

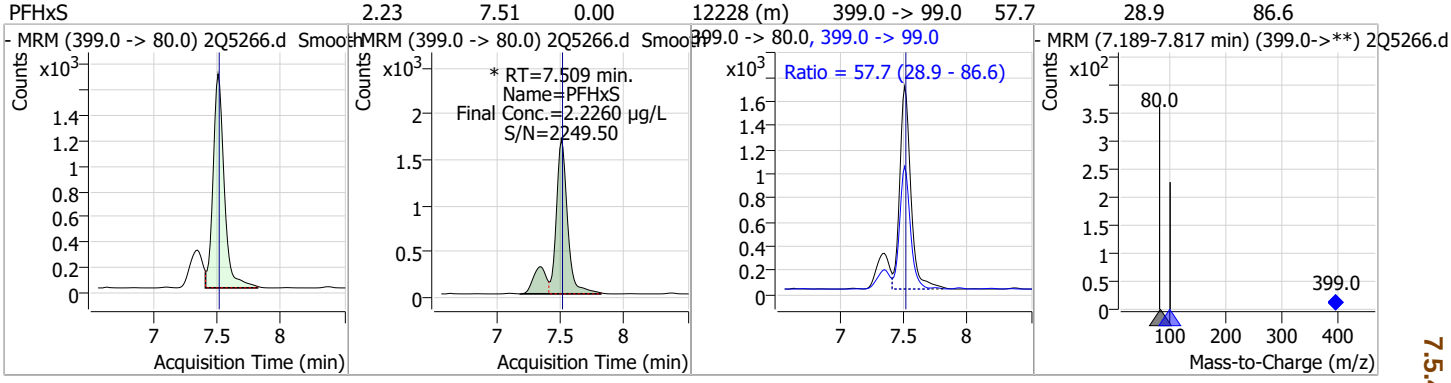




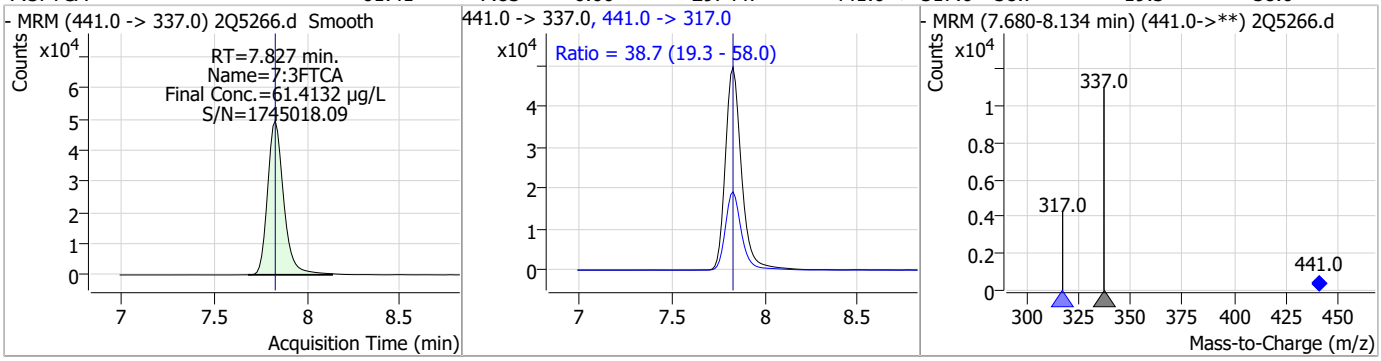


Perfluorinated Compounds by LC/MS/MS

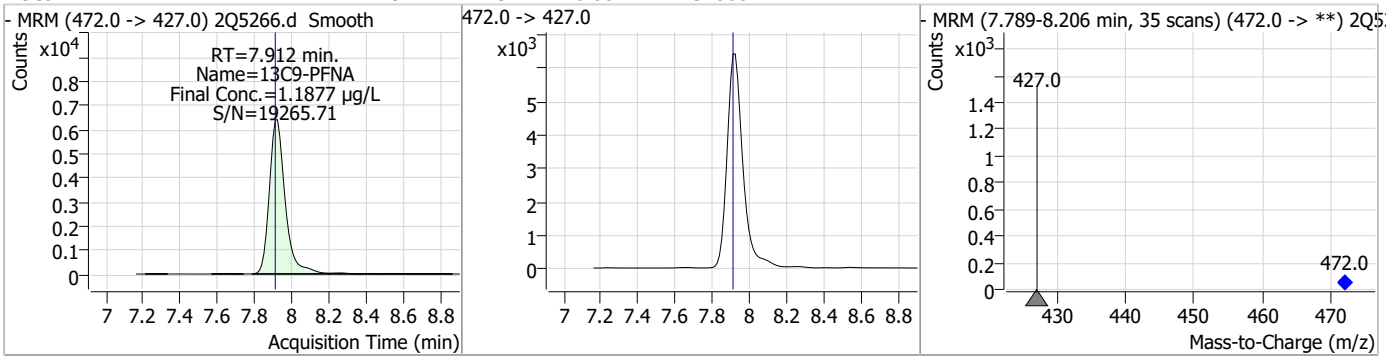
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.23	7.51	0.00	12228 (m)	399.0 -> 99.0	57.7	28.9	86.6



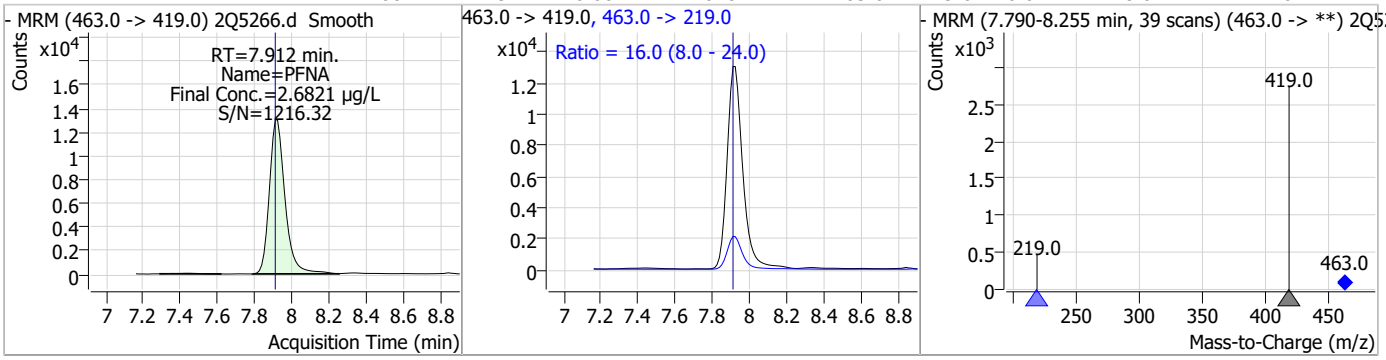
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	61.41	7.83	0.00	297447	441.0 -> 317.0	38.7	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.19	7.91	0.00	37806				

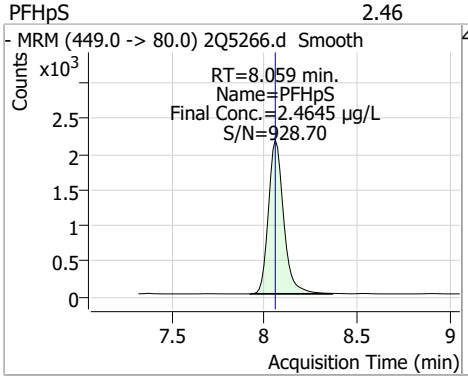


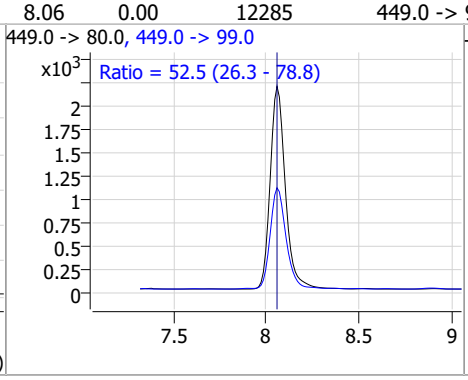
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.68	7.91	0.00	76184	463.0 -> 219.0	16.0	8.0	24.0

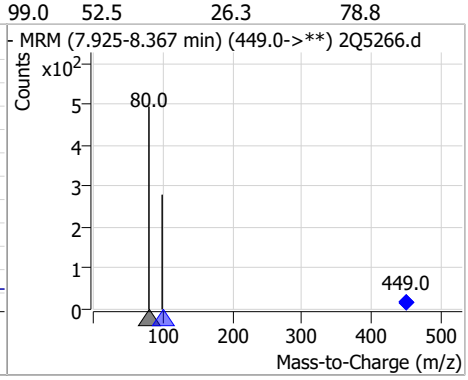


Perfluorinated Compounds by LC/MS/MS

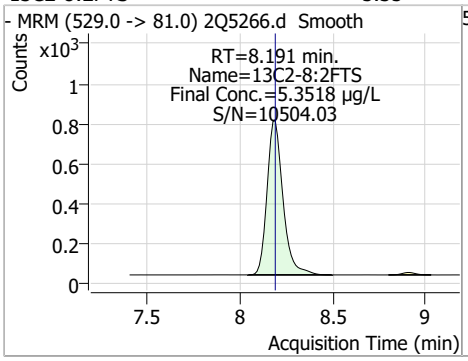
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.46	8.06	0.00	12285	449.0 -> 99.0	52.5	26.3	78.8

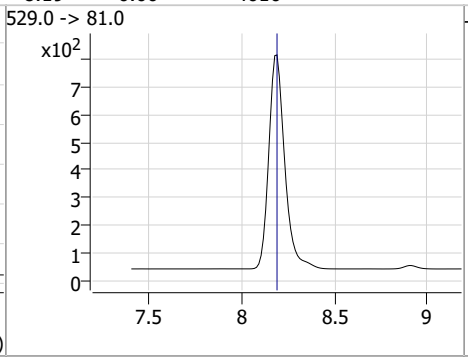


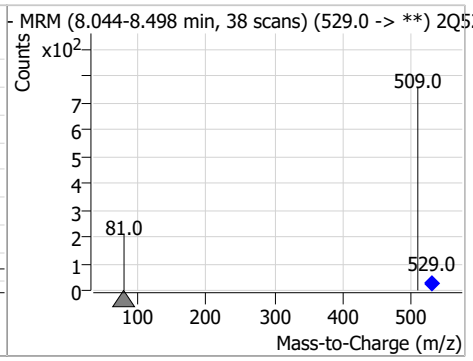




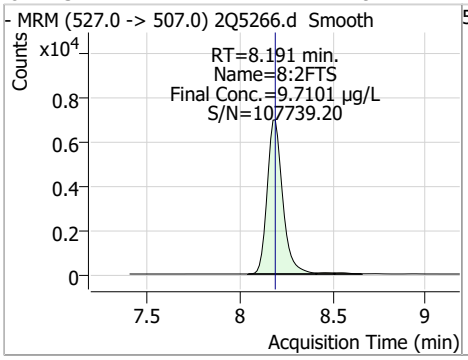
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.35	8.19	0.00	4610				

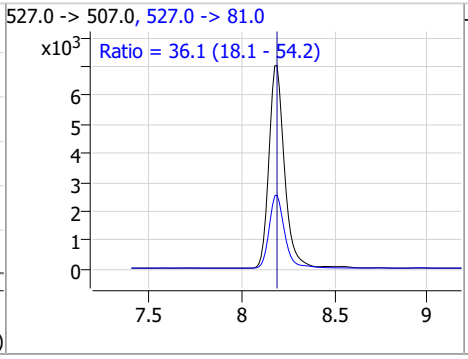


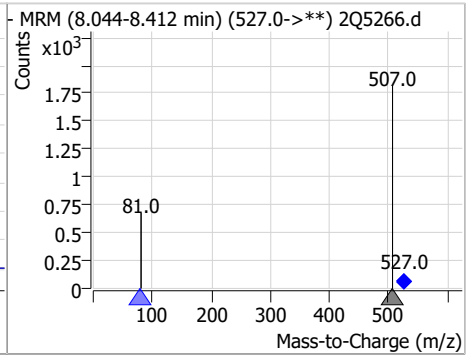




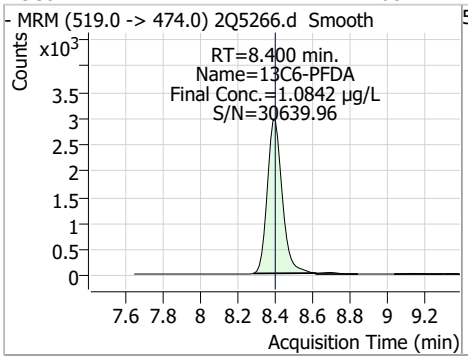
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	9.71	8.19	0.00	40470	527.0 -> 81.0	36.1	18.1	54.2

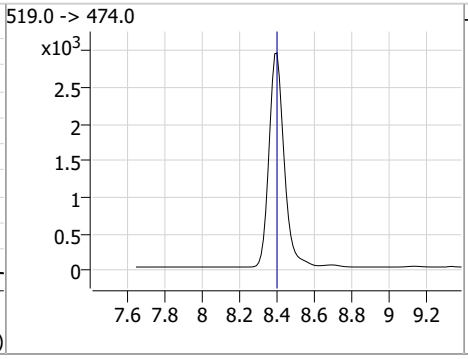


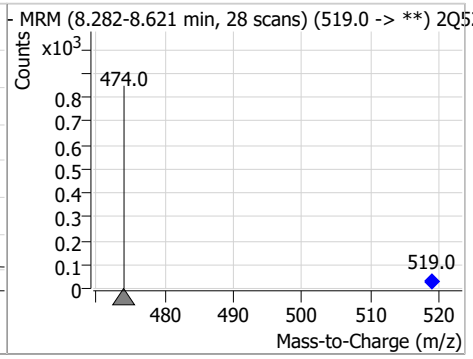




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.08	8.40	0.00	16329				

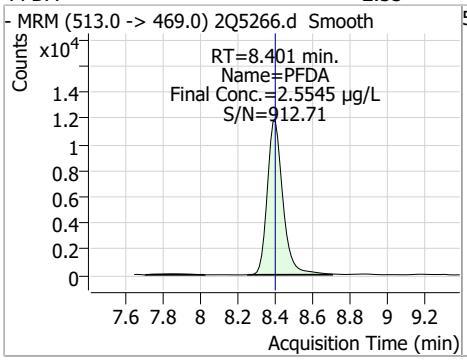


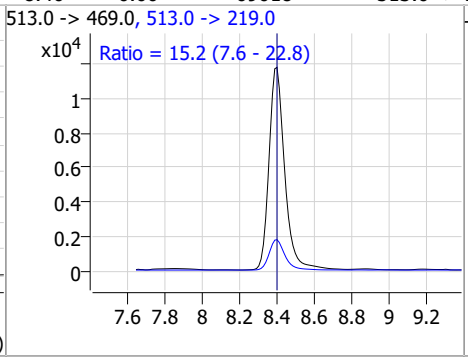


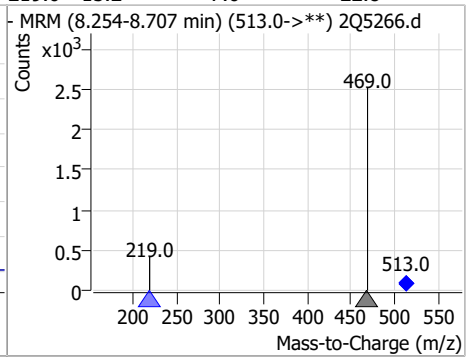


Perfluorinated Compounds by LC/MS/MS

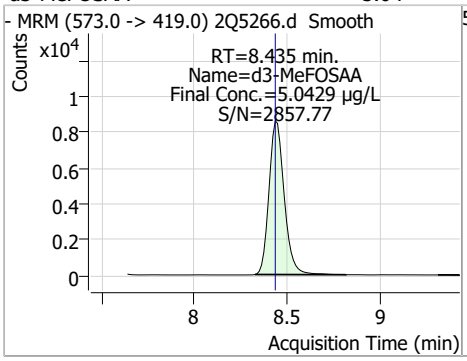
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.55	8.40	0.00	69018	513.0 -> 219.0	15.2	7.6	22.8

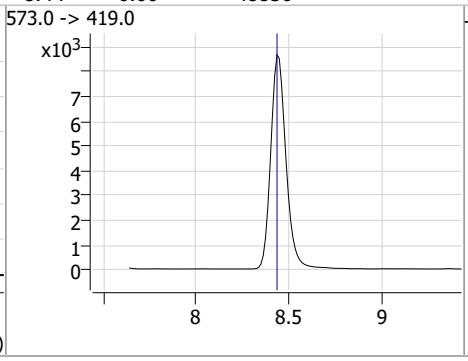


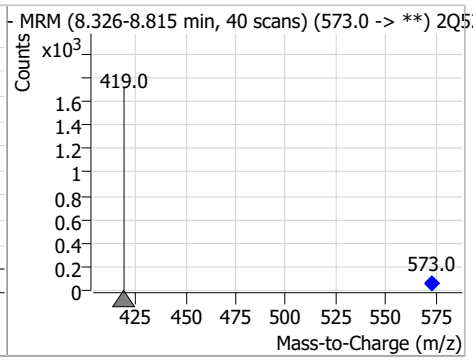




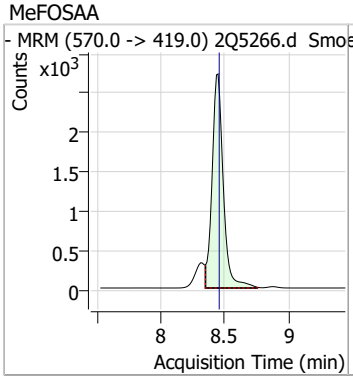
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.04	8.44	0.00	48850				

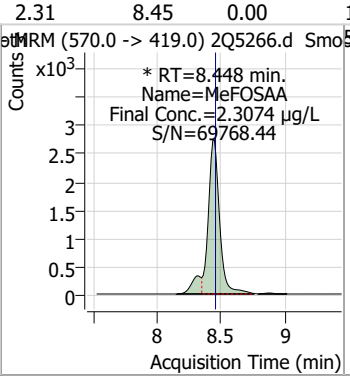


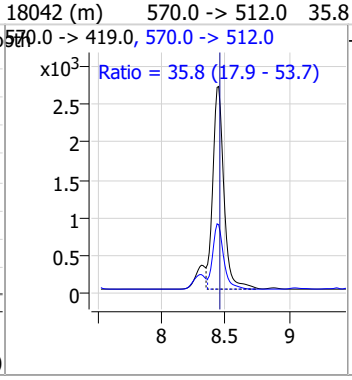


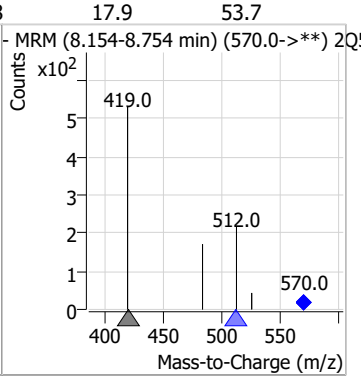


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	2.31	8.45	0.00	18042 (m)	570.0 -> 512.0	35.8	17.9	53.7

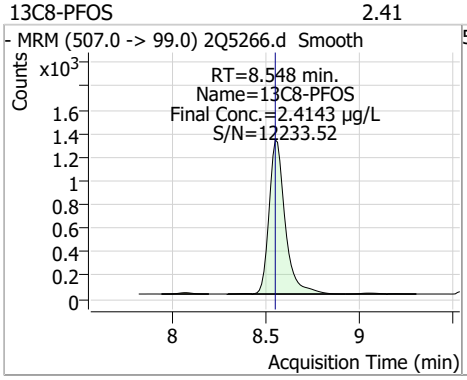


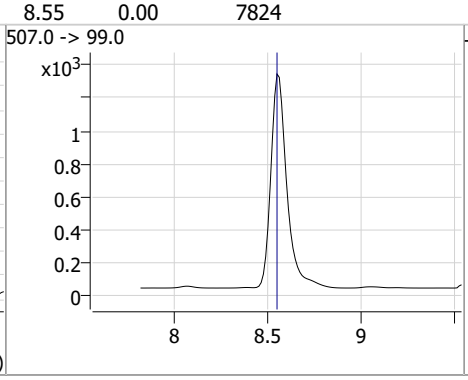


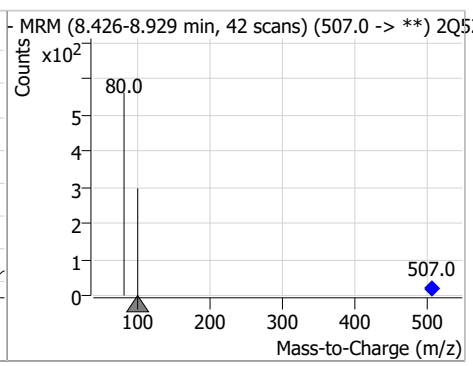




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.41	8.55	0.00	7824				

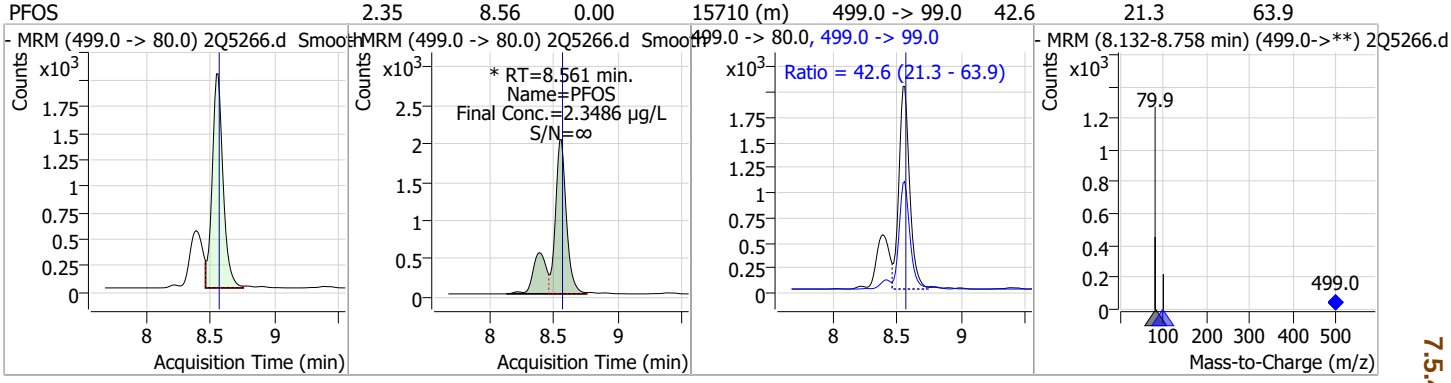




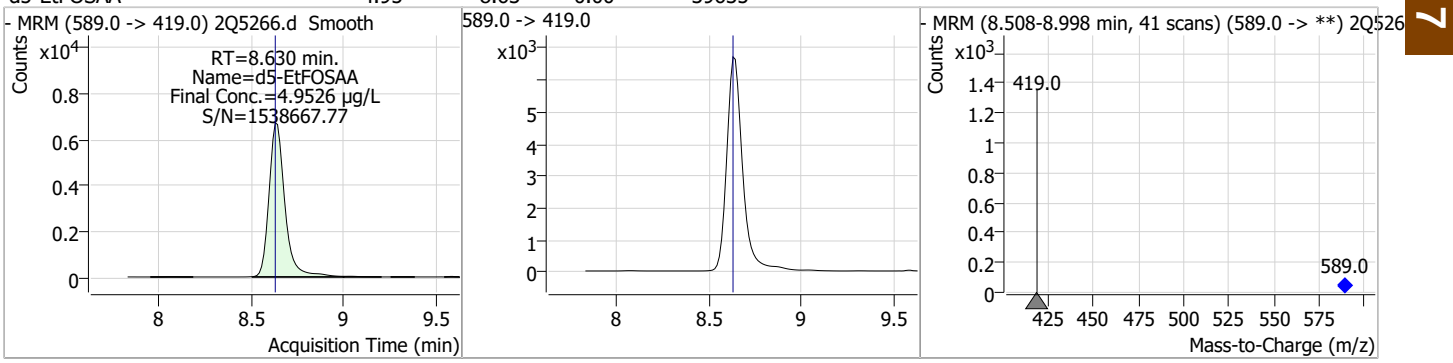


Perfluorinated Compounds by LC/MS/MS

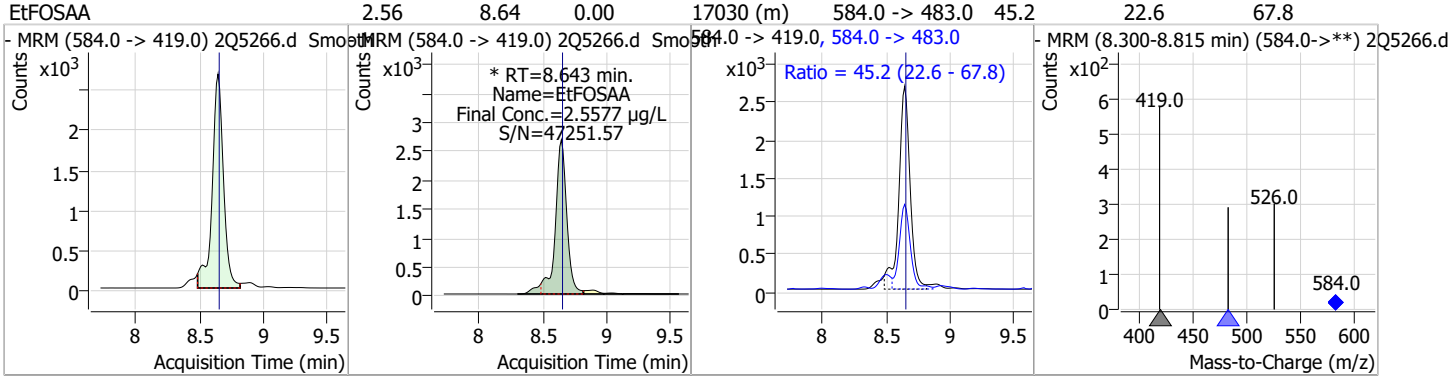
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.35	8.56	0.00	15710 (m)	499.0 -> 99.0	42.6	21.3	63.9



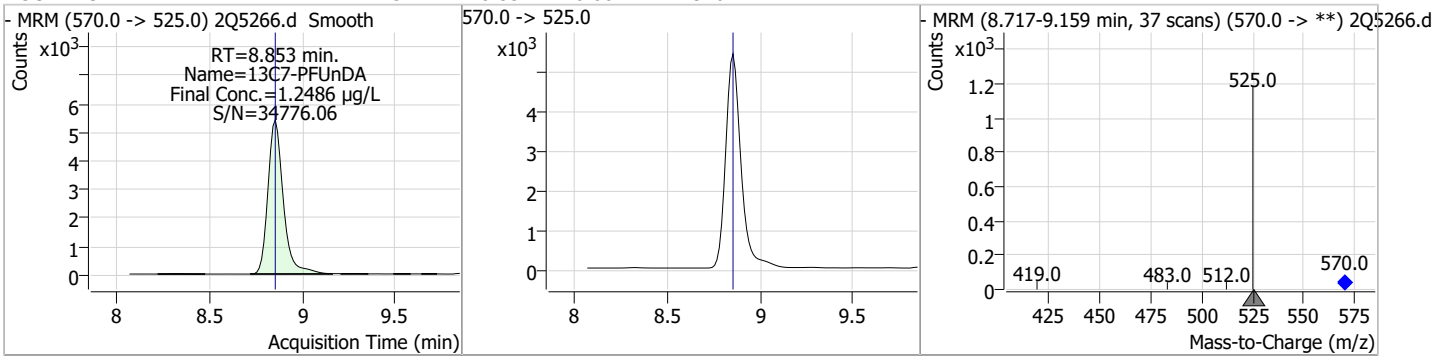
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.95	8.63	0.00	39635				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.56	8.64	0.00	17030 (m)	584.0 -> 483.0	45.2	22.6	67.8

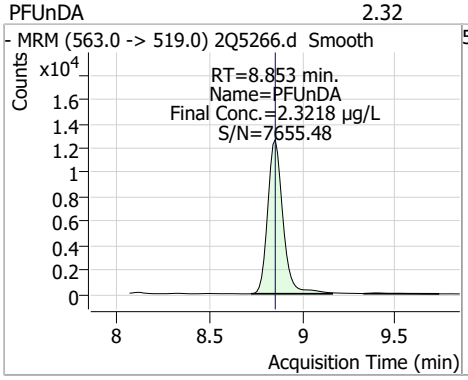


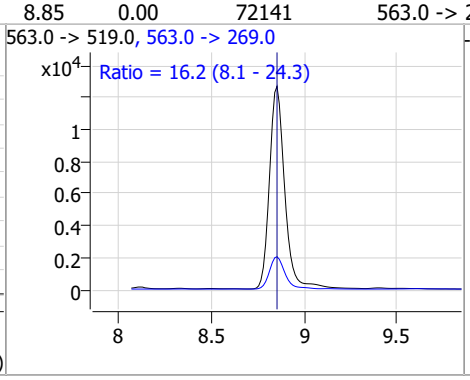
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.25	8.85	0.00	31024				

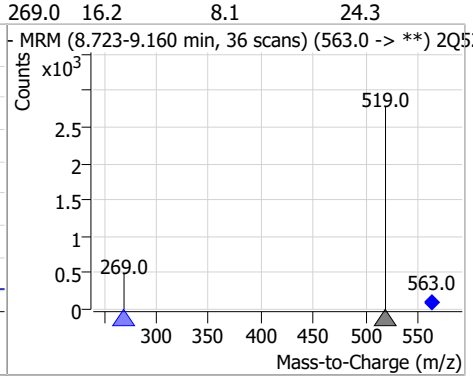


Perfluorinated Compounds by LC/MS/MS

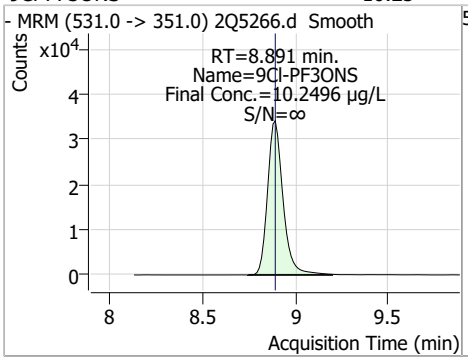
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.32	8.85	0.00	72141	563.0 -> 269.0	16.2	8.1	24.3

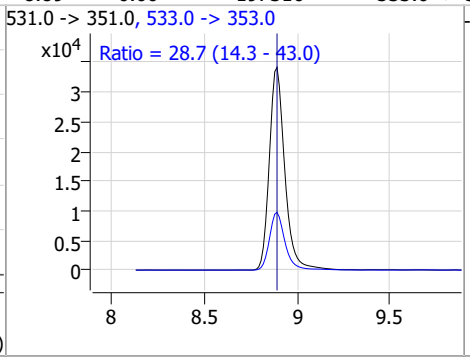


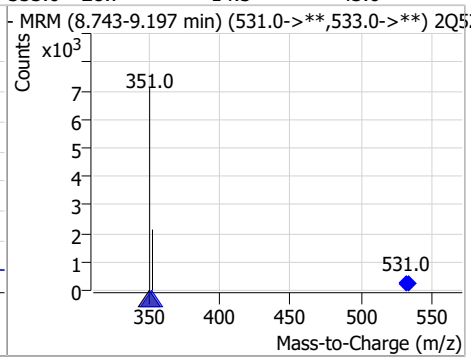




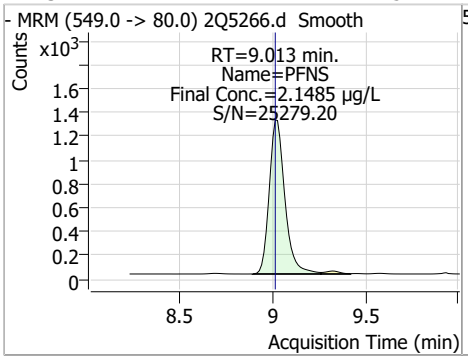
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	10.25	8.89	0.00	197316	533.0 -> 353.0	28.7	14.3	43.0

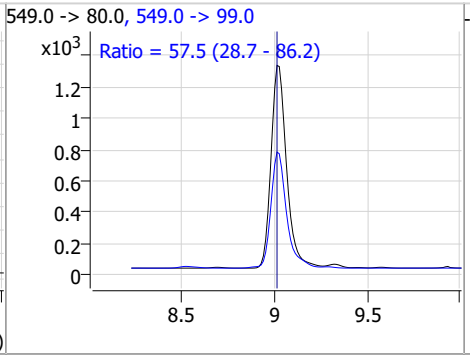


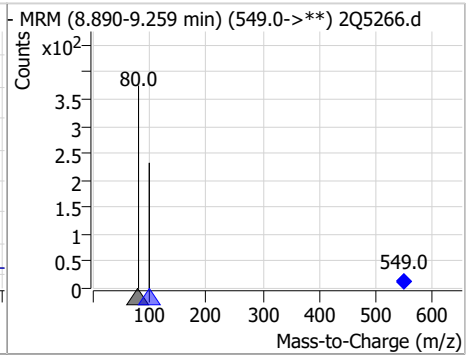




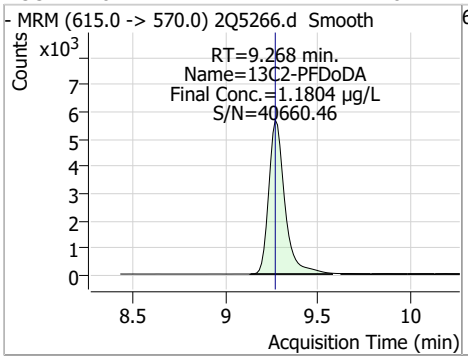
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	2.15	9.01	0.00	7569	549.0 -> 99.0	57.5	28.7	86.2

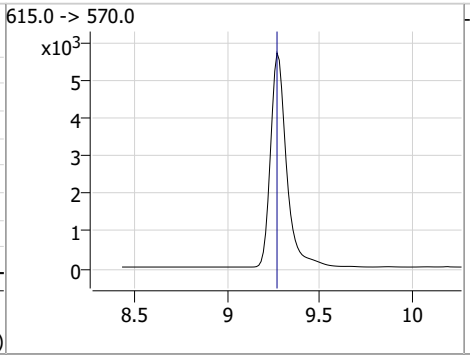


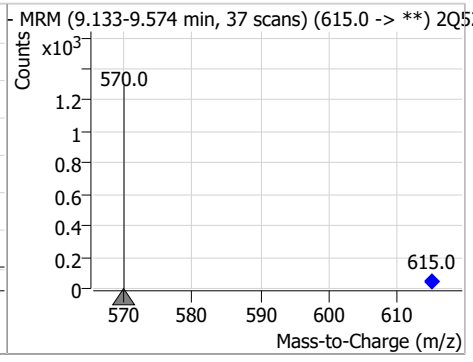




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.18	9.27	0.00	33996				

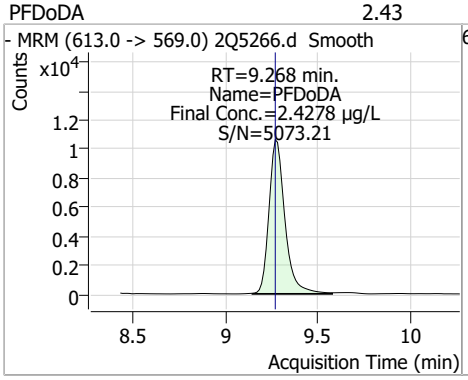


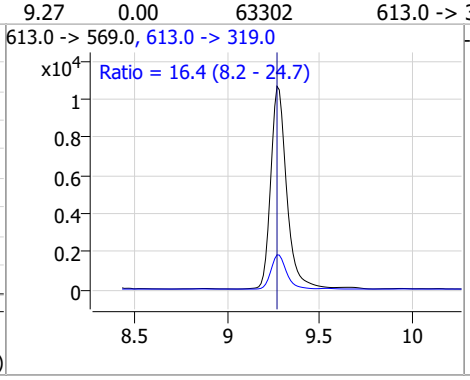


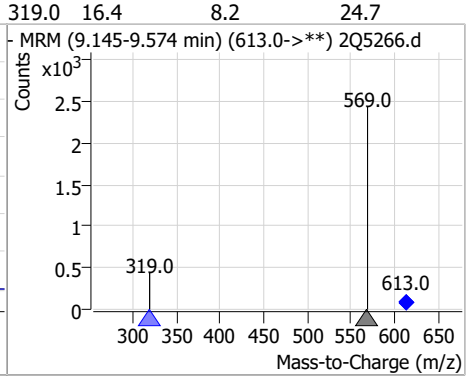


Perfluorinated Compounds by LC/MS/MS

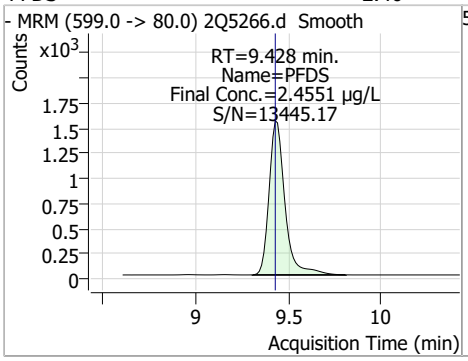
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.43	9.27	0.00	63302	613.0 -> 319.0	16.4	8.2	24.7

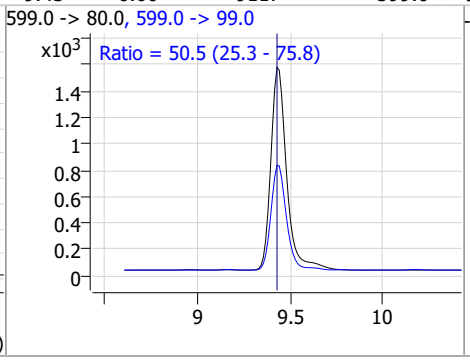


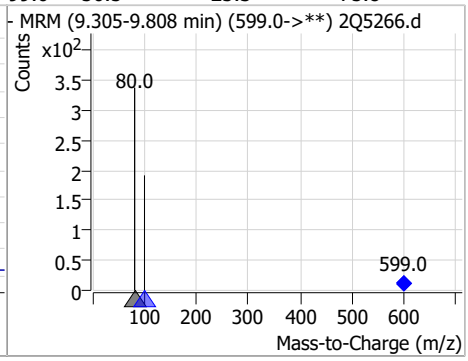




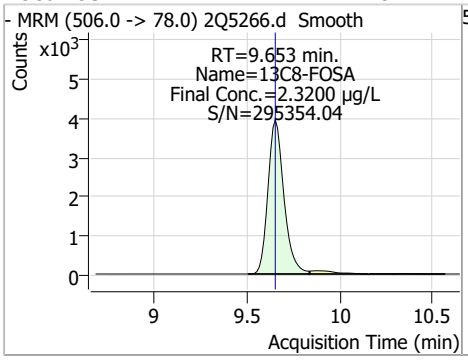
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	2.46	9.43	0.00	9117	599.0 -> 99.0	50.5	25.3	75.8

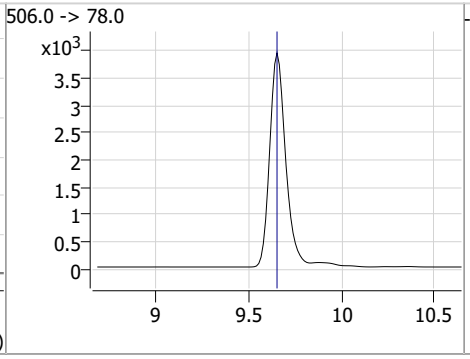


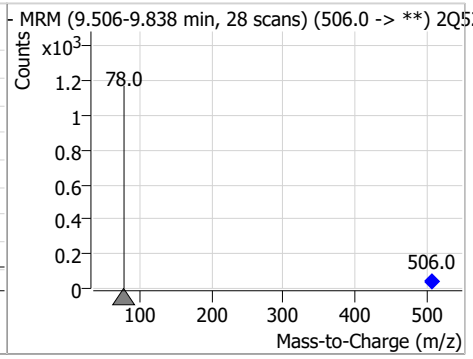




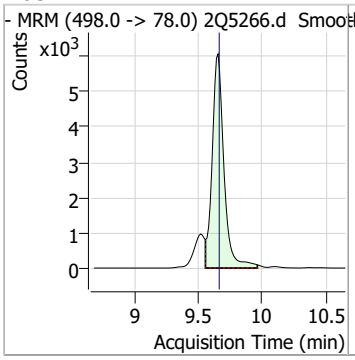
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.32	9.65	0.00	23381				

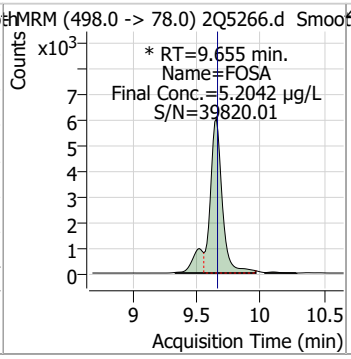


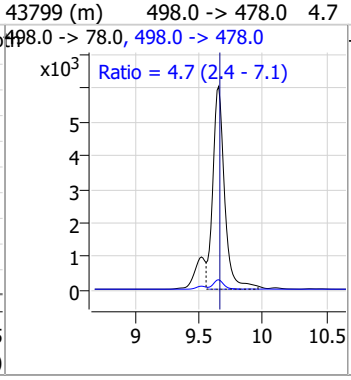


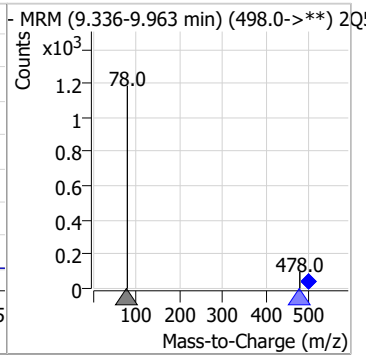


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	5.20	9.65	0.00	43799 (m)	498.0 -> 478.0	4.7	2.4	7.1



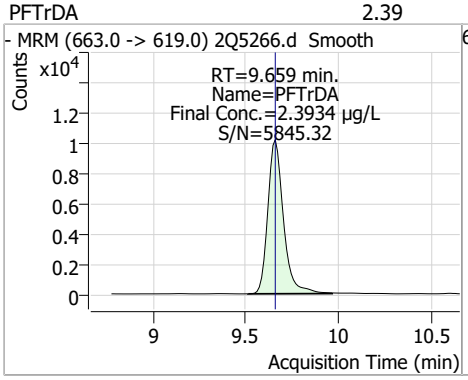


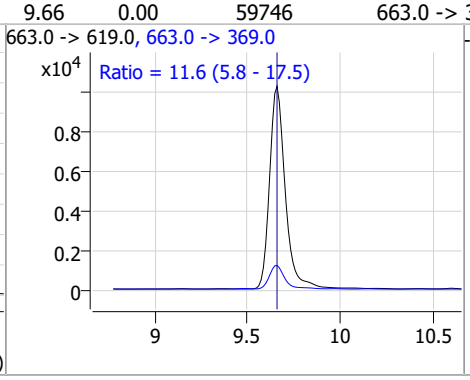


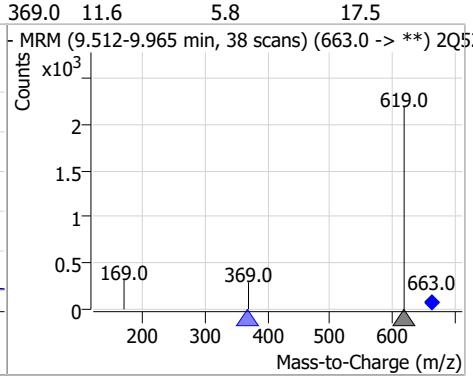


Perfluorinated Compounds by LC/MS/MS

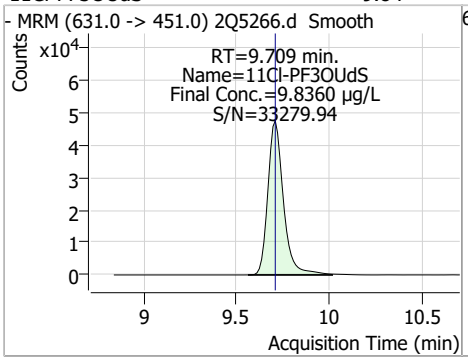
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.39	9.66	0.00	59746	663.0 -> 369.0	11.6	5.8	17.5

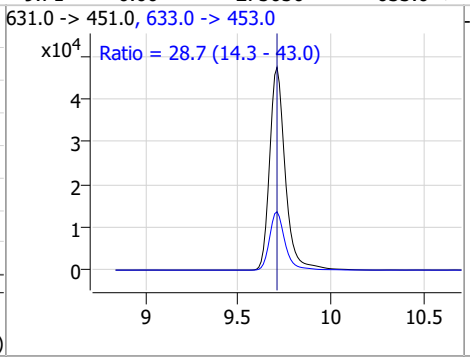


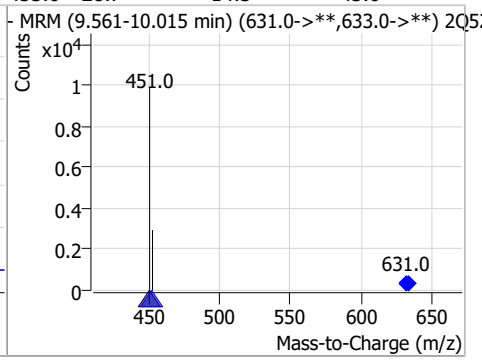




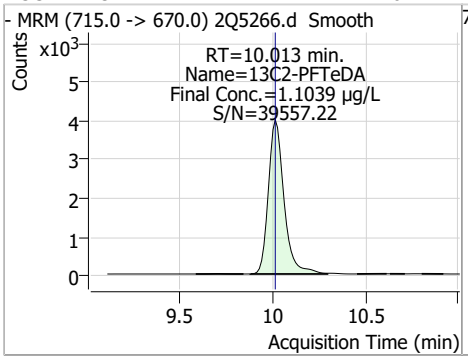
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	9.84	9.71	0.00	275050	633.0 -> 453.0	28.7	14.3	43.0

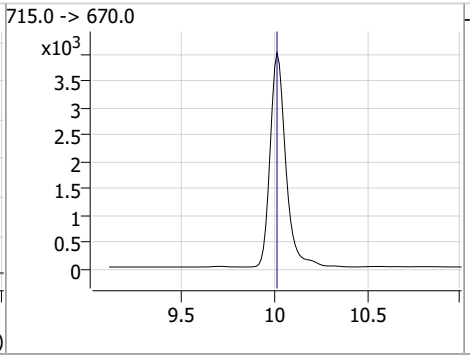


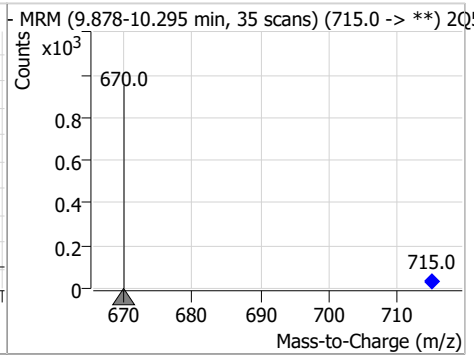




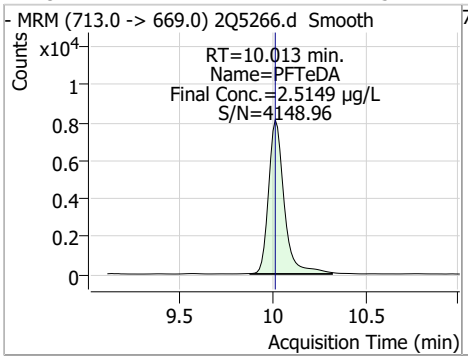
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.10	10.01	0.00	23318				

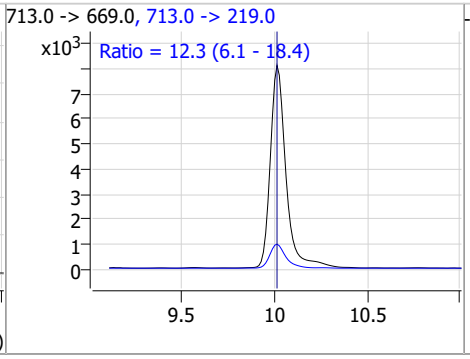


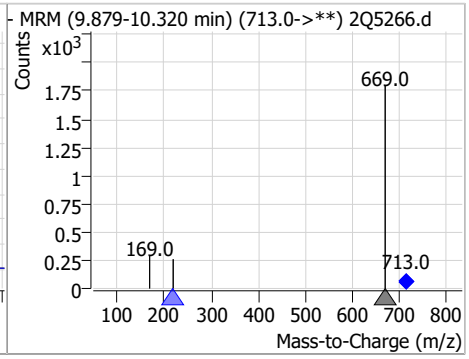




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.51	10.01	0.00	47447	713.0 -> 219.0	12.3	6.1	18.4

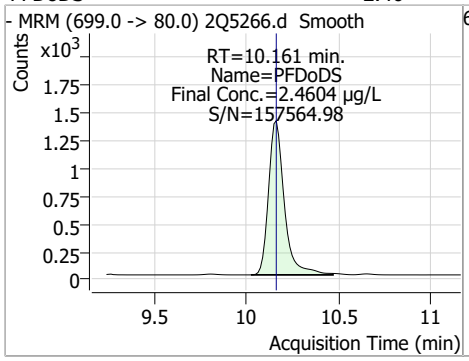


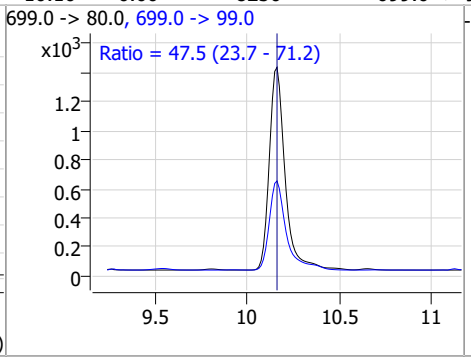


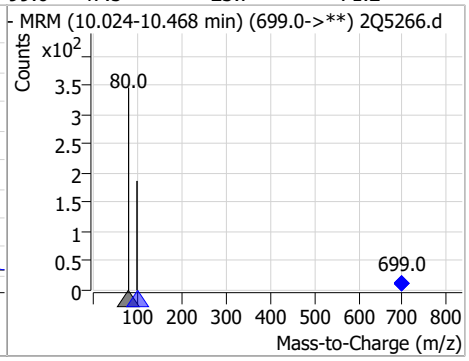


Perfluorinated Compounds by LC/MS/MS

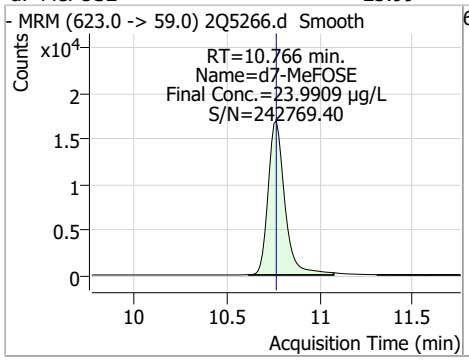
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.46	10.16	0.00	8250	699.0 -> 99.0	47.5	23.7	71.2

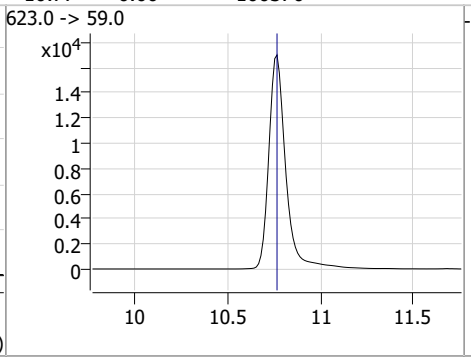


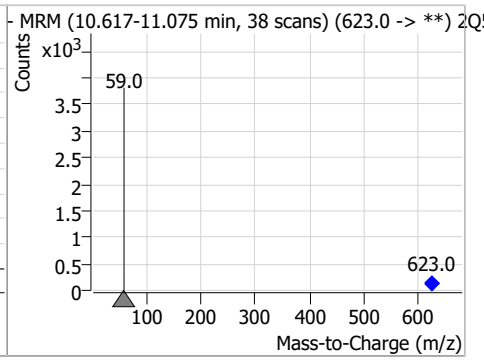




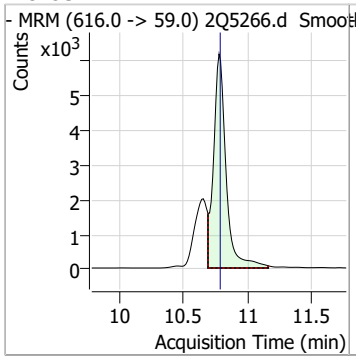
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.99	10.77	0.00	106370				

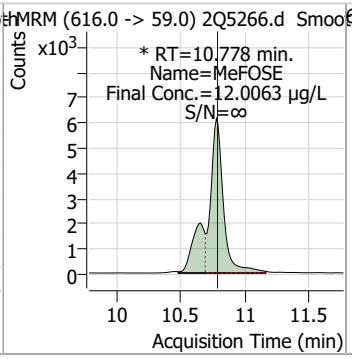


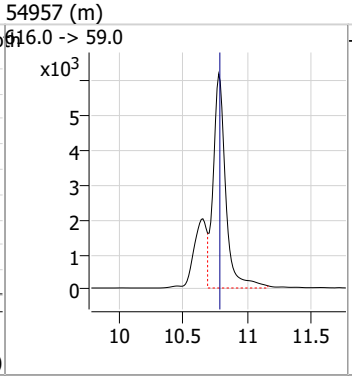


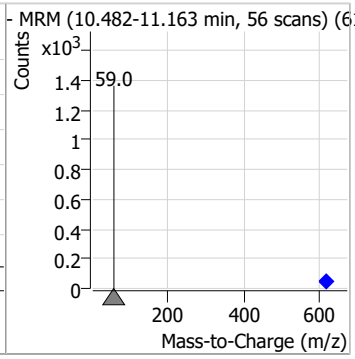


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	12.01	10.78	0.00	54957 (m)				

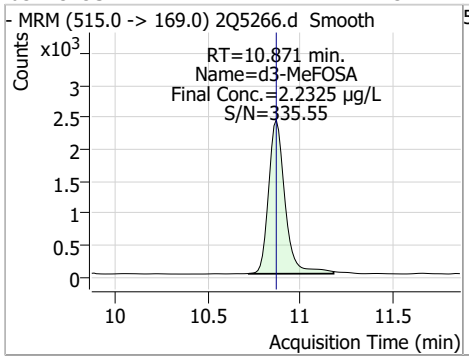


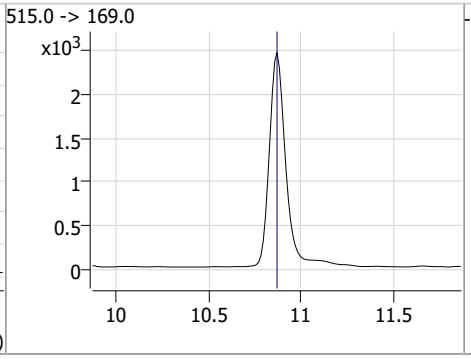


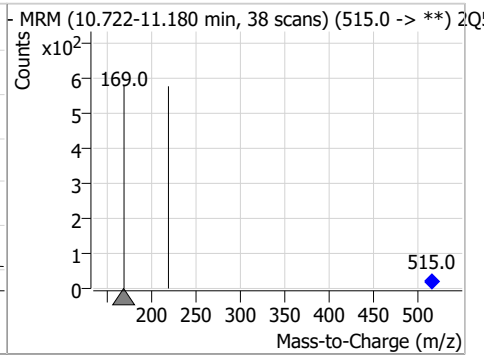




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.23	10.87	0.00	14884				

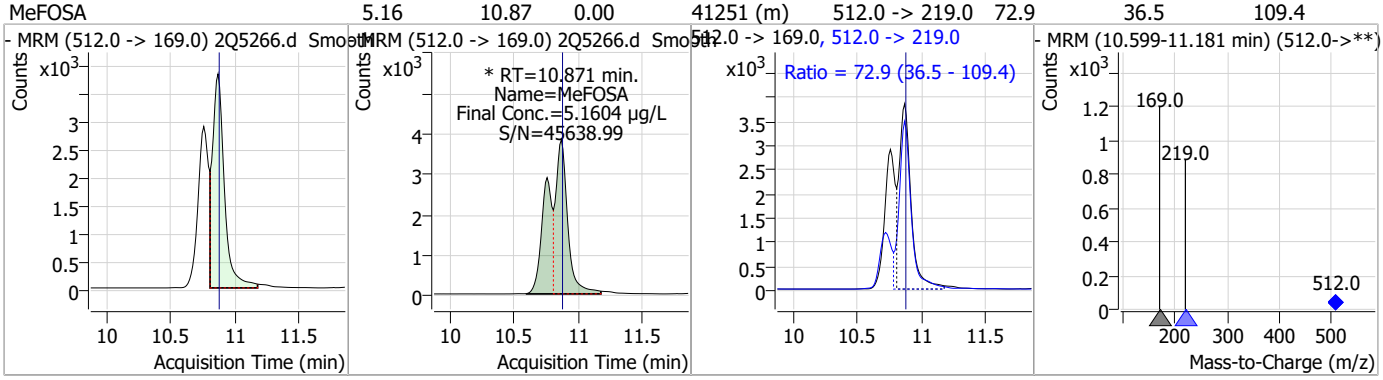




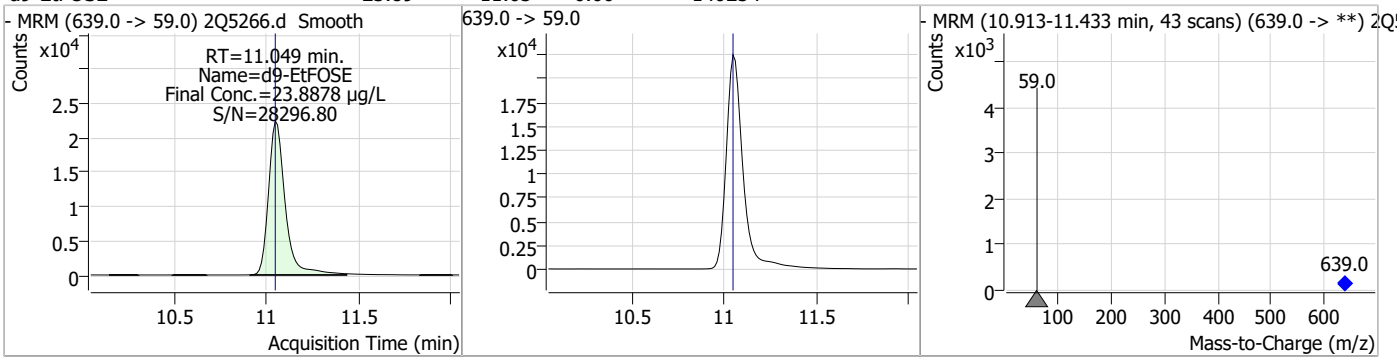


Perfluorinated Compounds by LC/MS/MS

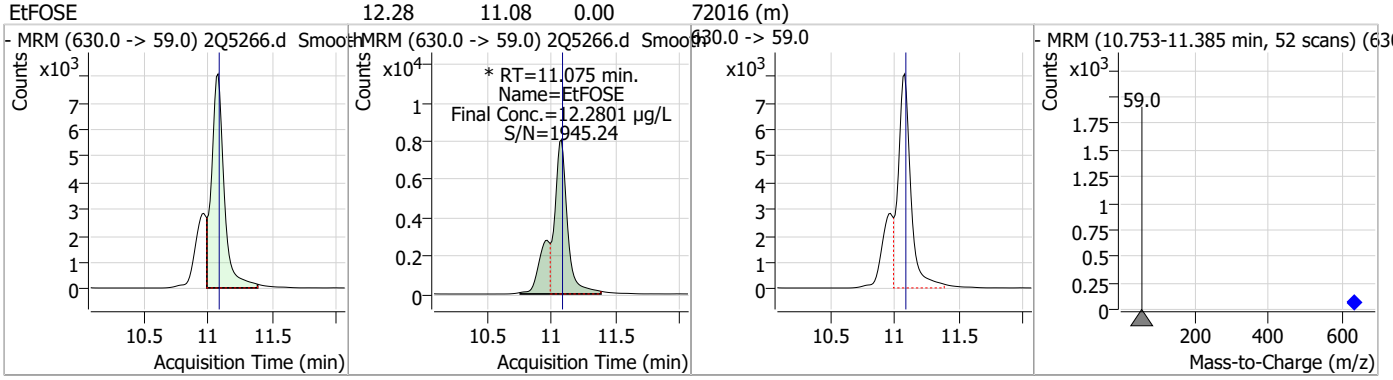
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	5.16	10.87	0.00	41251 (m)	512.0 -> 219.0	72.9	36.5	109.4



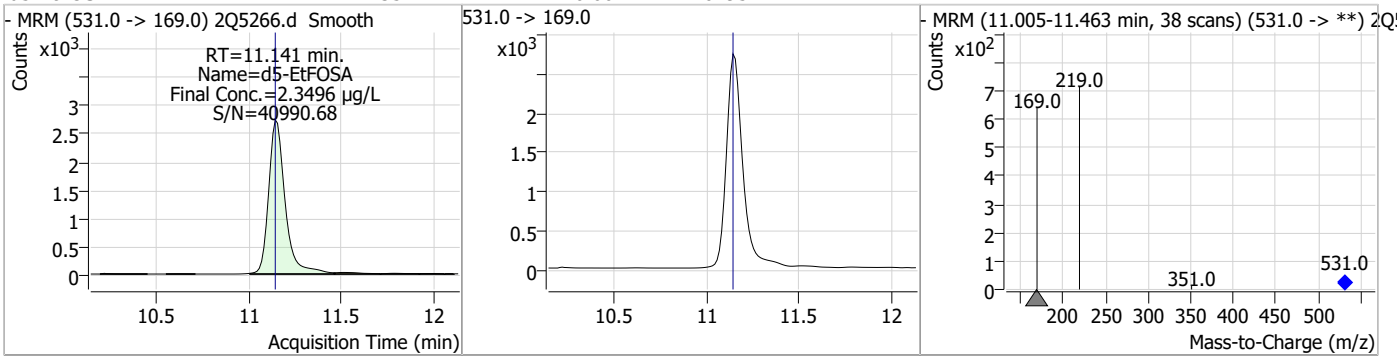
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	23.89	11.05	0.00	140254				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	12.28	11.08	0.00	72016 (m)				

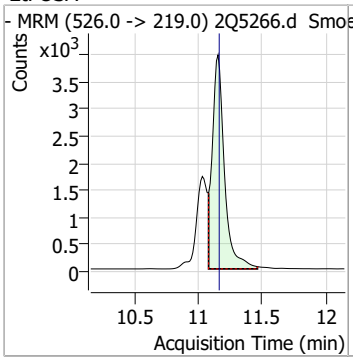


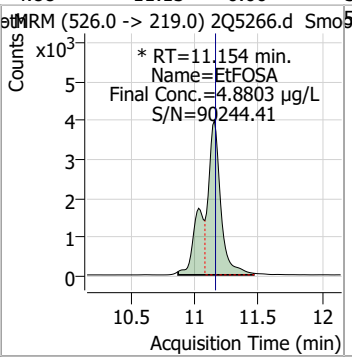
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.35	11.14	0.00	16795				

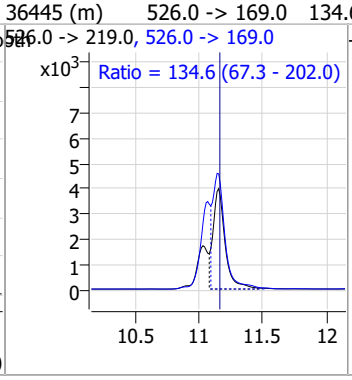


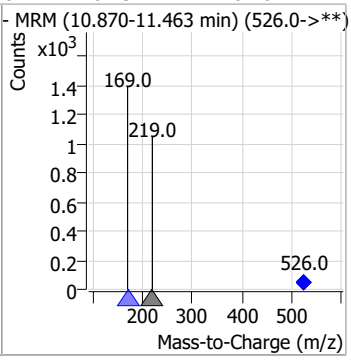
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	4.88	11.15	0.00	36445 (m)	526.0 -> 169.0	134.6	67.3	202.0









7.5.4

7

Manual Integration Approval Summary

Sample Number: T2Q96-ICC96
Lab FileID: 2Q5266.D
Injection Time: 11/30/23 18:06
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.45	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.56	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5267.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 6:21:38 PM
Sample Name : ic96-5
Vial : P1-A6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	190729	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	119876	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	65395	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	50241	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	85535	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	42982	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	17112	1.25	µg/L	-0.012
M7-PFUnDA	8.853	570.0 -> 525.0	29621	1.25	µg/L	0.000
M2-PFDoDA	9.268	615.0 -> 570.0	35194	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	23919	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	24823	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6960	2.50	µg/L	-0.012
		302.0 -> 80.0	17593			
M3-PFHxS	7.509	402.0 -> 99.0	7481	2.50	µg/L	0.000
M8-PFOS	8.548	507.0 -> 99.0	8356	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1543	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	3113	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4409	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	45646	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	31041	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	38297	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	106660	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	140416	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	17221	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	15486	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	13450	2.50	µg/L	0.000
13C3-PFBA	3.342	216.0 -> 172.0	85493	5.00	µg/L	0.000
18O2-PFHxS	7.509	403.0 -> 84.0	7481	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	80437	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	33282	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	41523	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	63677	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1543	5.65	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.0%		
13C2-6:2FTS	7.175	429.0 -> 81.0	3113	5.14	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.8%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4409	5.26	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.2%		
13C2-PFDoDA	9.268	615.0 -> 570.0	35194	1.32	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 106.0%		
13C2-PFTeDA	10.013	715.0 -> 670.0	23919	1.23	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.2%		
13C3-PFBS	5.871	302.0 -> 99.0	6960	2.50	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.1%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	7481	2.56	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.5%			
13C4-PFBA	3.339	217.0 -> 172.0	190729	9.91	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.1%			
13C4-PFHpA	6.795	367.0 -> 322.0	50241	2.43	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C5-PFHxA	5.955	318.0 -> 273.0	65395	2.47	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.9%			
13C5-PFPeA	4.810	268.0 -> 223.0	119876	5.02	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C6-PFDA	8.388	519.0 -> 474.0	17112	1.23	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.5%			
13C7-PFUnDA	8.853	570.0 -> 525.0	29621	1.29	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 103.4%			
13C8-FOSA	9.653	506.0 -> 78.0	24823	2.73	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 109.0%			
13C8-PFOA	7.397	421.0 -> 376.0	85535	2.57	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.7%			
13C8-PFOS	8.548	507.0 -> 99.0	8356	2.85	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 114.1%			
13C9-PFNA	7.912	472.0 -> 427.0	42982	1.32	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 105.8%			
d3-MeFOSAA	8.435	573.0 -> 419.0	45646	5.21	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.3%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	31041	10.28	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 102.8%			
d3-MeFOSA	10.871	515.0 -> 169.0	15486	2.57	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.8%			
d5-EtFOSAA	8.630	589.0 -> 419.0	38297	5.30	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.9%			
d7-MeFOSE	10.766	623.0 -> 59.0	106660	26.62	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 106.5%			
d9-EtFOSE	11.049	639.0 -> 59.0	140416	26.46	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 105.9%			
d5-EtFOSA	11.141	531.0 -> 169.0	17221	2.67	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.6%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	48536	18.91	µg/L		99
		327.0 -> 81.0	25422				
6:2FTS	7.175	427.0 -> 407.0	96791	21.19	µg/L		96
		427.0 -> 81.0	29340				
8:2FTS	8.179	527.0 -> 507.0	83741	21.01	µg/L		100
		527.0 -> 81.0	30375				
EtFOSAA	8.643	584.0 -> 419.0	34991	5.44	µg/L	m	98
		584.0 -> 483.0	15442				
FOSA	9.655	498.0 -> 78.0	89868	10.06	µg/L	m	99
		498.0 -> 478.0	3967				
MeFOSAA	8.436	570.0 -> 419.0	38771	5.24	µg/L	m	86
		570.0 -> 512.0	10673				
PFBA	3.346	213.0 -> 169.0	96540	20.16	µg/L		100
PFBS	5.872	299.0 -> 80.0	36304	5.01	µg/L		98
		299.0 -> 99.0	14953				
PFDA	8.389	513.0 -> 469.0	146154	5.14	µg/L		99
		513.0 -> 219.0	21435				
PFDoDA	9.268	613.0 -> 569.0	125156	4.64	µg/L		100
		613.0 -> 319.0	20784				

Perfluorinated Compounds by LC/MS/MS

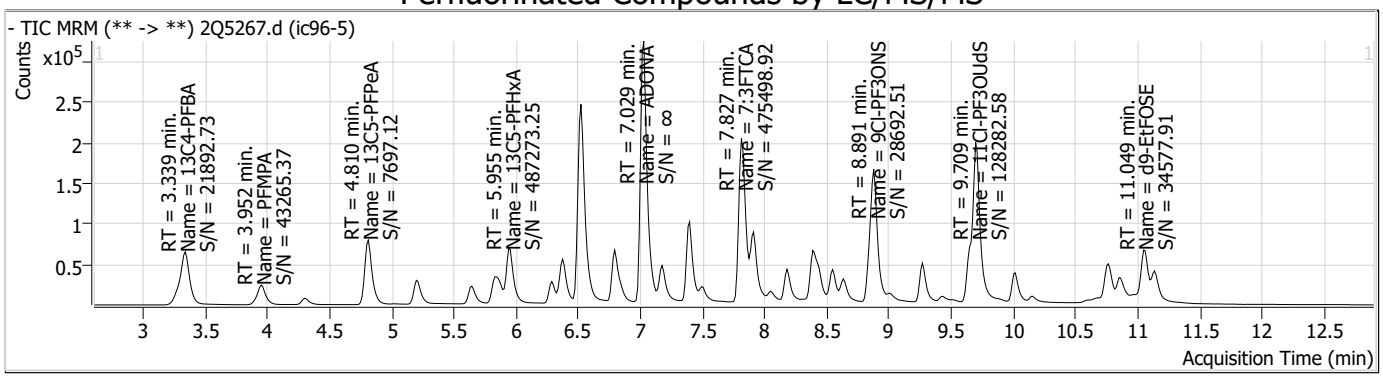
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	15446	4.36	µg/L		87
		599.0 -> 99.0	9151				
PFHpA	6.796	363.0 -> 319.0	157885	5.03	µg/L		95
		363.0 -> 169.0	29313				
PFHpS	8.059	449.0 -> 80.0	23688	5.00	µg/L		99
		449.0 -> 99.0	12575				
PFHxA	5.957	313.0 -> 269.0	129766	5.02	µg/L		100
		313.0 -> 119.0	3933				
PFHxS	7.509	399.0 -> 80.0	25568	4.90	µg/L	m	91
		399.0 -> 99.0	12965				
PFNA	7.912	463.0 -> 419.0	155915	4.83	µg/L		99
		463.0 -> 219.0	25733				
PFNS	9.013	549.0 -> 80.0	15667	4.16	µg/L		98
		549.0 -> 99.0	9183				
PFOA	7.397	413.0 -> 369.0	173279	5.17	µg/L		97
		413.0 -> 169.0	35475				
PFOS	8.549	499.0 -> 80.0	31728	4.44	µg/L	m	98
		499.0 -> 99.0	13943				
PFPeA	4.812	263.0 -> 219.0	217502	10.07	µg/L		100
PFPeS	6.845	349.0 -> 80.0	20941	5.02	µg/L		88
		349.0 -> 99.0	10565				
PFTeDA	10.013	713.0 -> 669.0	96355	4.98	µg/L		98
		713.0 -> 219.0	11227				
PFTrDA	9.659	663.0 -> 619.0	136140	5.27	µg/L		97
		663.0 -> 369.0	14229				
PFUnDA	8.853	563.0 -> 519.0	161790	5.45	µg/L		99
		563.0 -> 269.0	25695				
11Cl-PF3OUdS	9.709	631.0 -> 451.0	539760	19.32	µg/L		98
		633.0 -> 453.0	161575				
9Cl-PF3ONS	8.891	531.0 -> 351.0	401496	20.87	µg/L		96
		533.0 -> 353.0	124672				
ADONA	7.029	377.0 -> 251.0	963356	19.58	µg/L		100
		377.0 -> 85.0	286629				
HFPO-DA	6.295	285.0 -> 169.0	63745	19.06	µg/L		99
		285.0 -> 185.0	5351				
3:3FTCA	4.301	241.0 -> 177.0	31537	23.54	µg/L		99
		241.0 -> 117.0	2502				
5:3FTCA	6.524	341.0 -> 237.0	590439	130.54	µg/L		100
		341.0 -> 217.0	417840				
7:3FTCA	7.827	441.0 -> 337.0	610079	126.49	µg/L		96
		441.0 -> 317.0	249884				
EtFOSA	11.154	526.0 -> 219.0	77798	10.16	µg/L	m	95
		526.0 -> 169.0	100038				
EtFOSE	11.075	630.0 -> 59.0	148913	25.36	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	86438	10.39	µg/L	m	95
		512.0 -> 219.0	59269				
MeFOSE	10.778	616.0 -> 59.0	113351	24.70	µg/L	m	100
PFDoDS	10.149	699.0 -> 80.0	17198	4.80	µg/L		94
		699.0 -> 99.0	8811				
NFDHA	5.835	295.0 -> 201.0	15368	9.67	µg/L		73
		201.0 -> 85.0	93368				
		295.0 -> 85.0	3743				
PFMBA	5.213	279.0 -> 85.0	123408	10.58	µg/L		100
PFMPA	3.952	229.0 -> 85.0	120412	9.85	µg/L		100
PFEESA	6.377	315.0 -> 135.0	186584	10.52	µg/L		100
		315.0 -> 69.0	18226				

Perfluorinated Compounds by LC/MS/MS

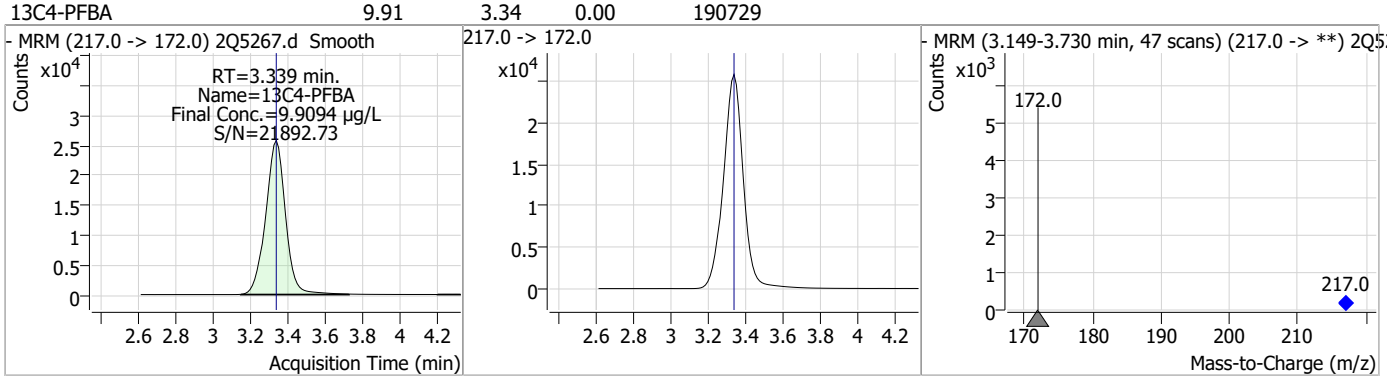
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

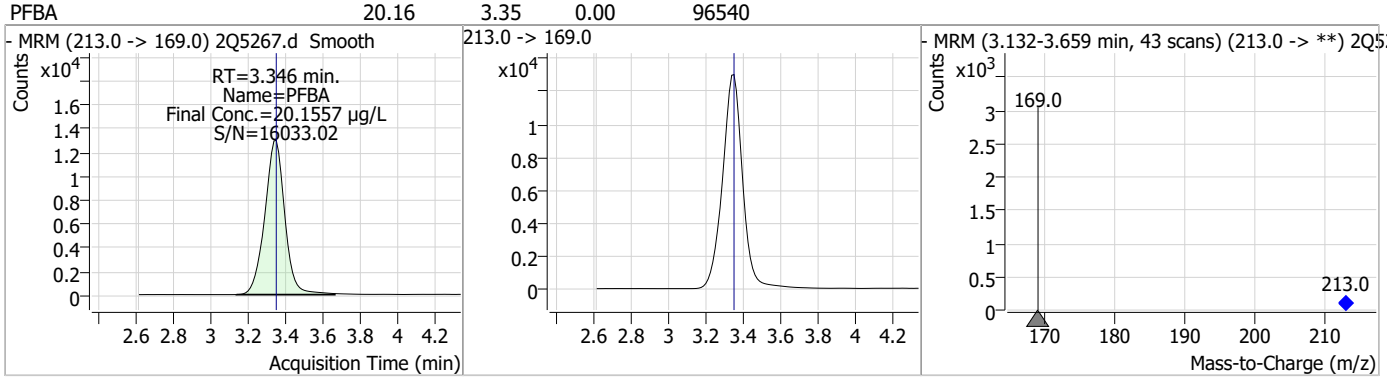
Perfluorinated Compounds by LC/MS/MS



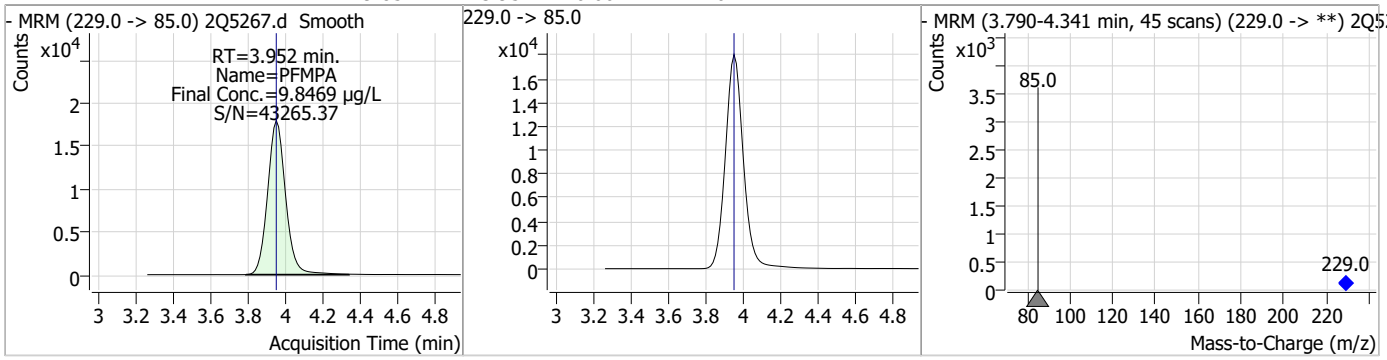
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.91	3.34	0.00	190729				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.16	3.35	0.00	96540				

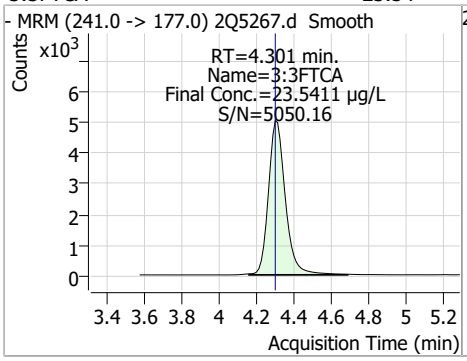


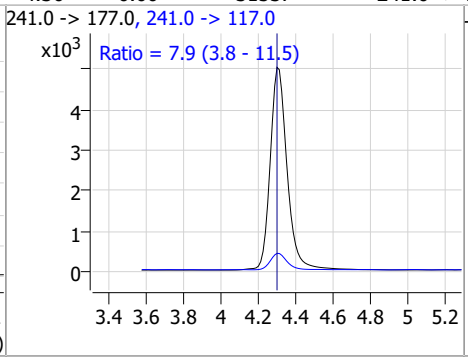
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	9.85	3.95	0.00	120412				

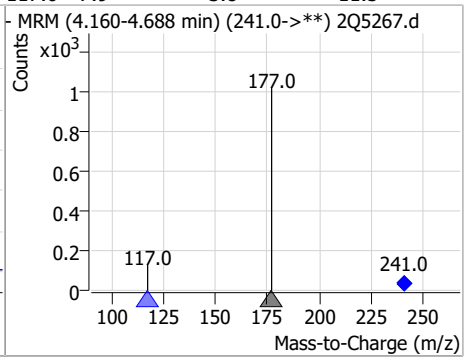


Perfluorinated Compounds by LC/MS/MS

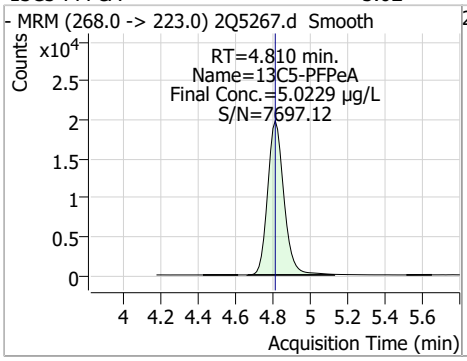
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.54	4.30	0.00	31537	241.0 -> 117.0	7.9	3.8	11.5

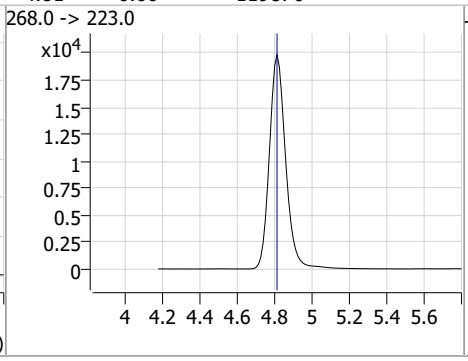


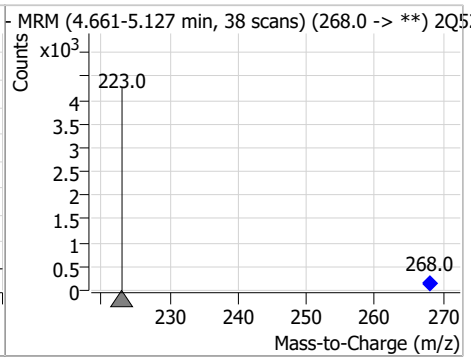




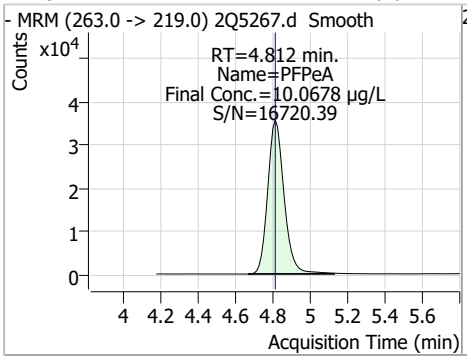
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.02	4.81	0.00	119876				

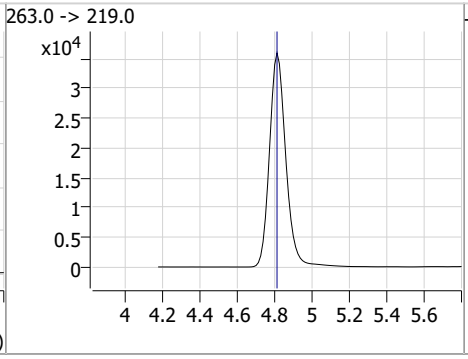


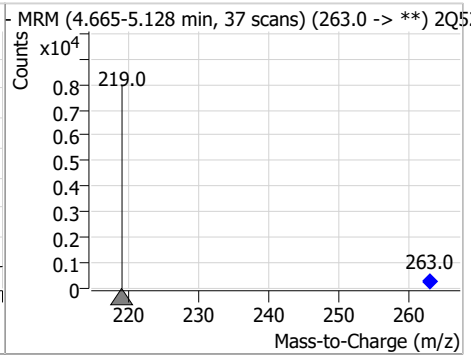




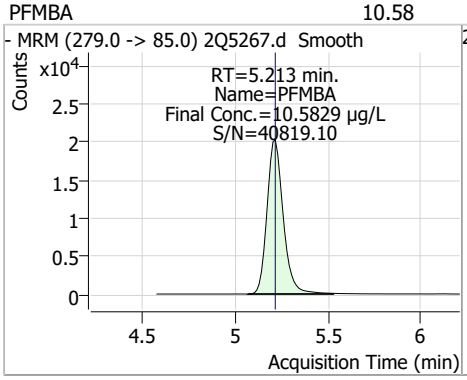
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.07	4.81	0.00	217502				

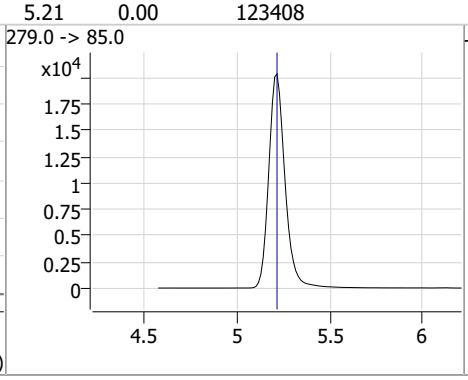


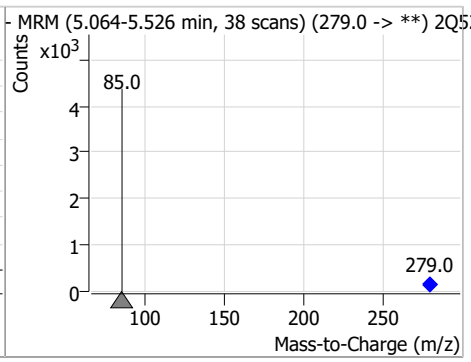




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.58	5.21	0.00	123408				

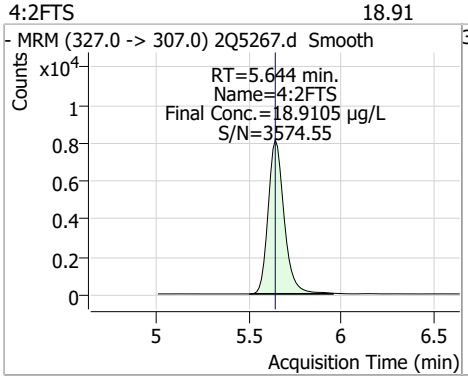


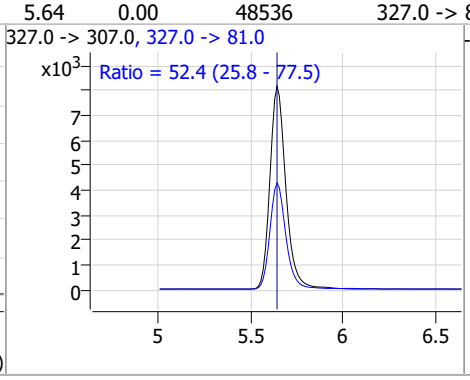


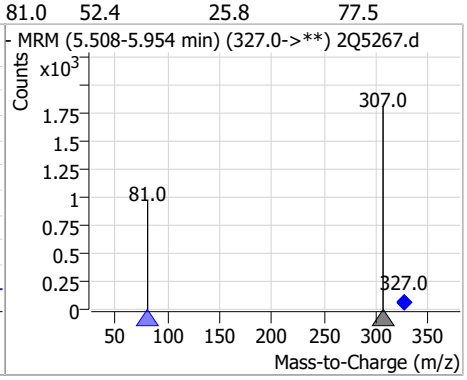


Perfluorinated Compounds by LC/MS/MS

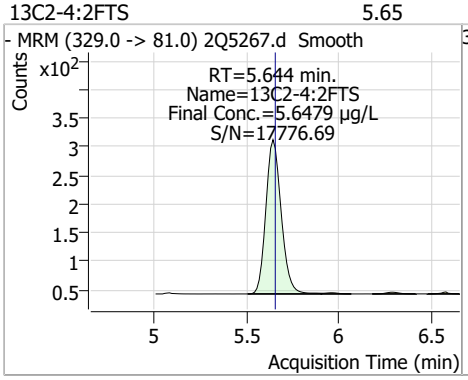
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	18.91	5.64	0.00	48536	327.0 -> 81.0	52.4	25.8	77.5

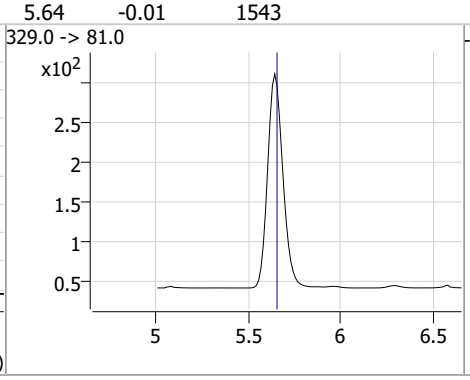


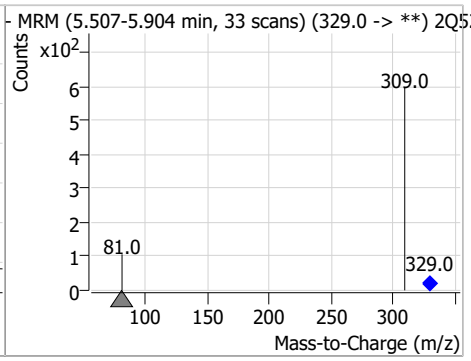




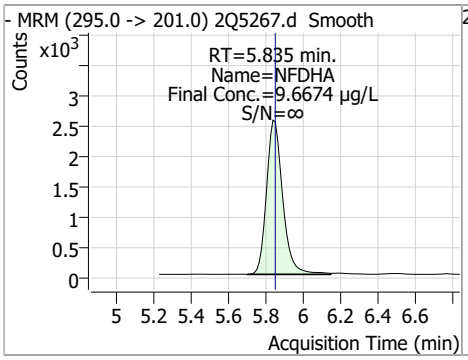
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.65	5.64	-0.01	1543				

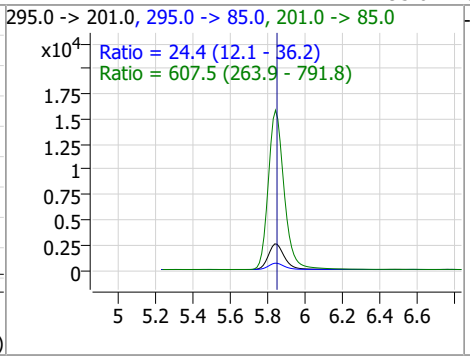


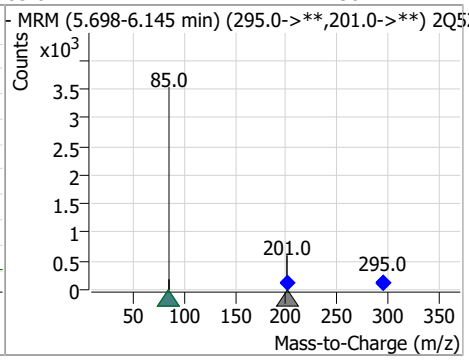




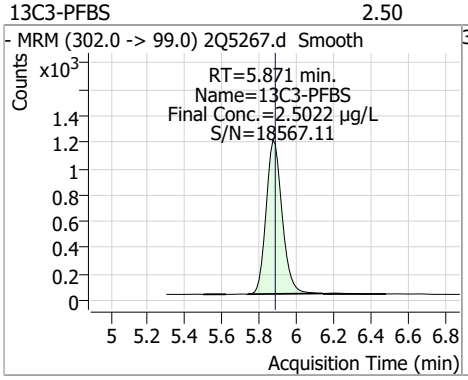
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	9.67	5.84	-0.01	15368	201.0 -> 85.0	607.5	263.9	791.8
					295.0 -> 85.0	24.4	12.1	36.2

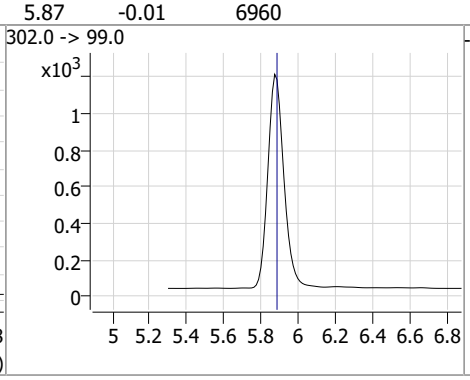


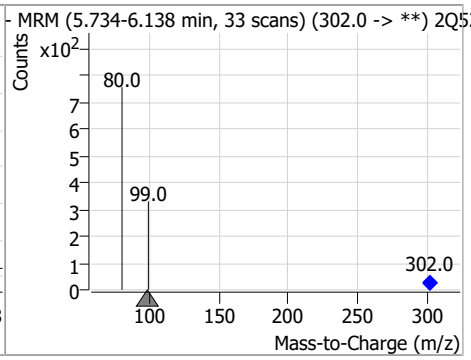




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.50	5.87	-0.01	6960				

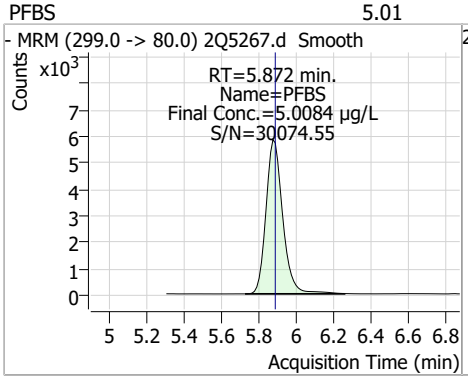


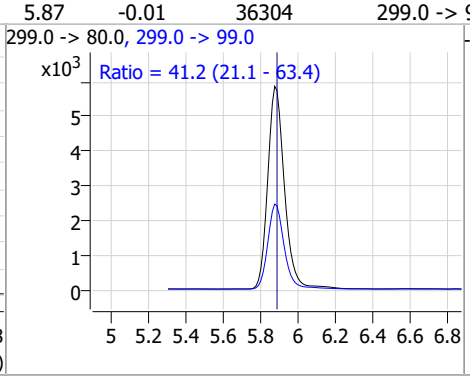


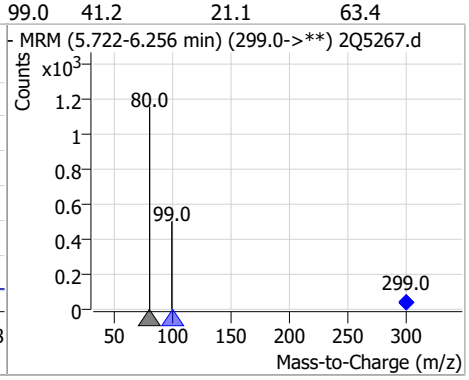


Perfluorinated Compounds by LC/MS/MS

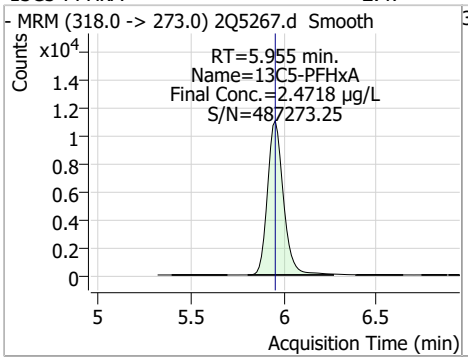
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	5.01	5.87	-0.01	36304	299.0 -> 99.0	41.2	21.1	63.4

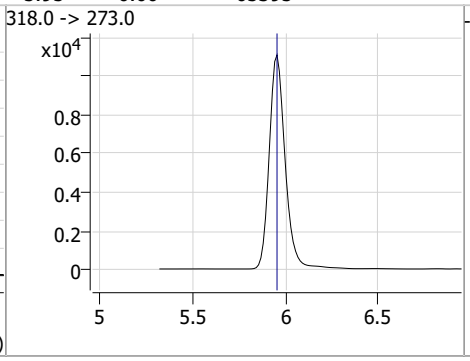


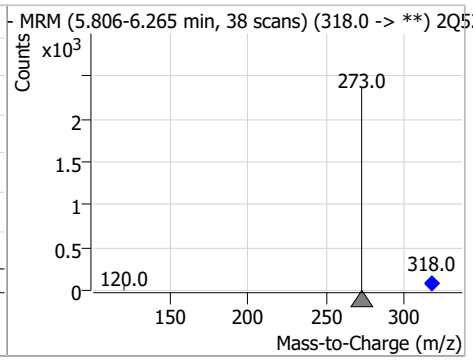




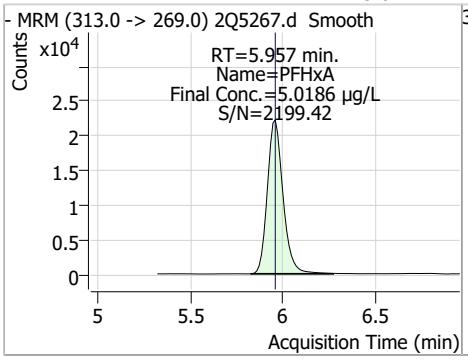
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.47	5.95	0.00	65395				

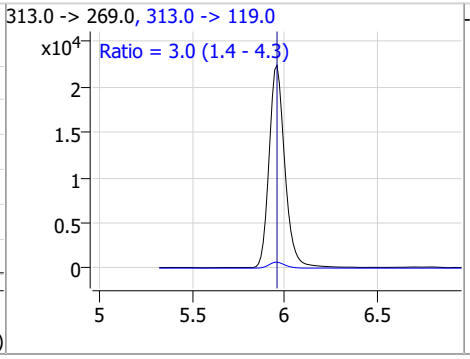


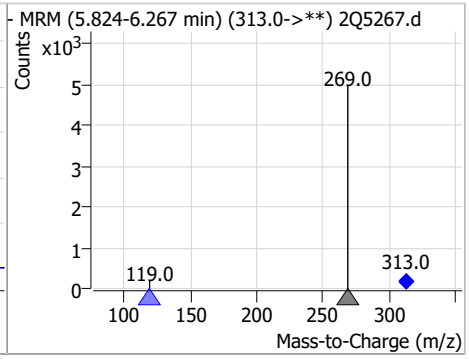




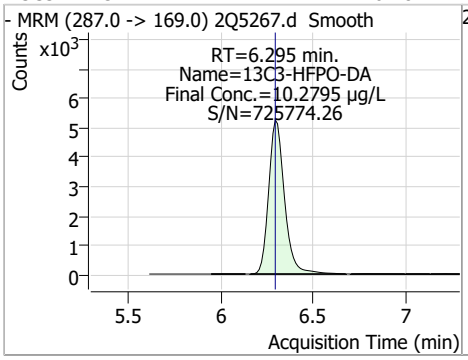
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	5.02	5.96	0.00	129766	313.0 -> 119.0	3.0	1.4	4.3

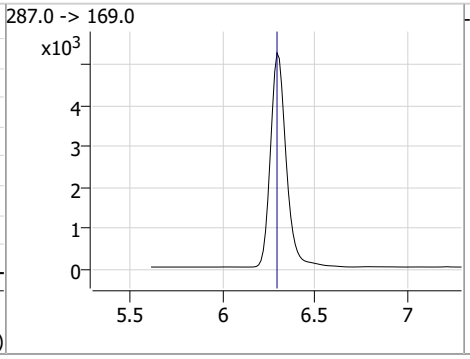


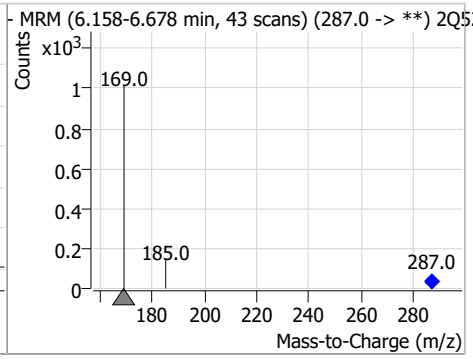




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.28	6.29	0.00	31041				

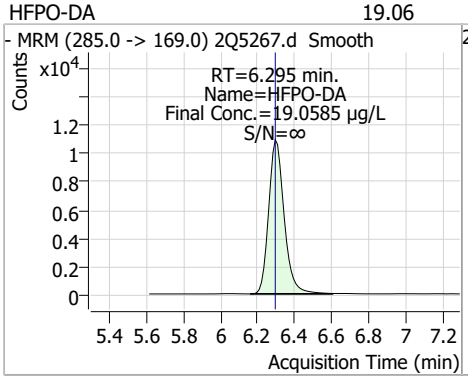


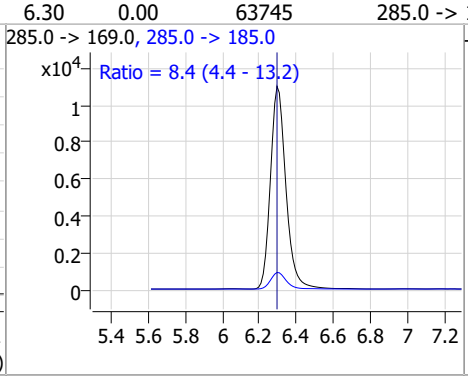


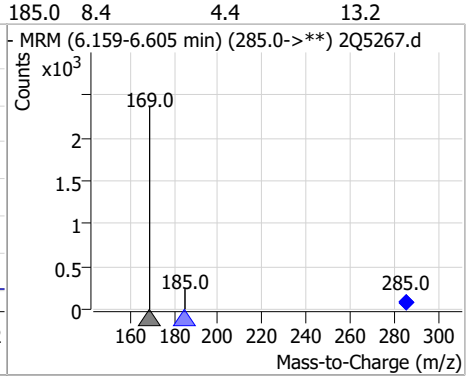


Perfluorinated Compounds by LC/MS/MS

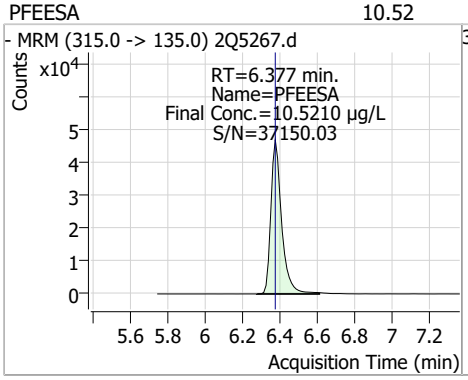
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	19.06	6.30	0.00	63745	285.0 -> 185.0	8.4	4.4	13.2

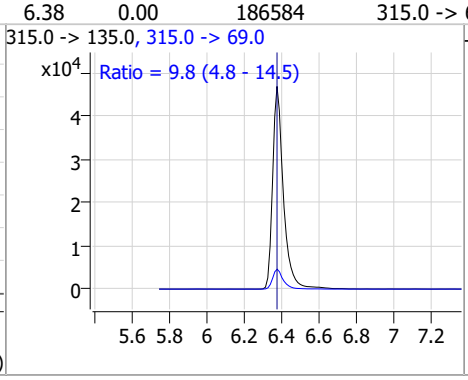


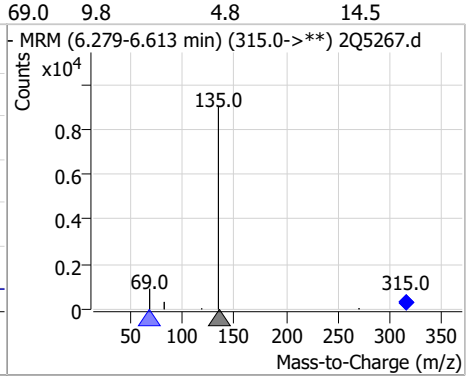




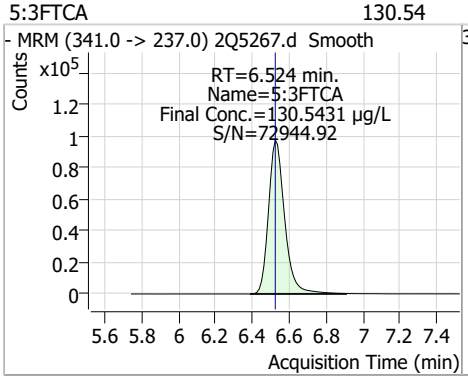
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.52	6.38	0.00	186584	315.0 -> 69.0	9.8	4.8	14.5

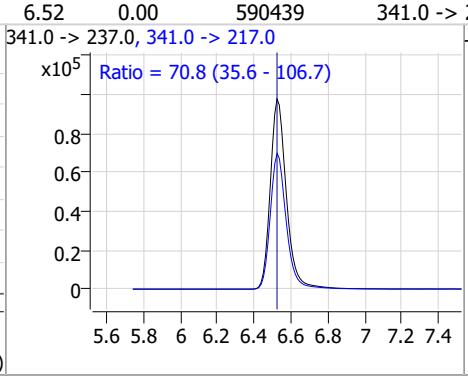


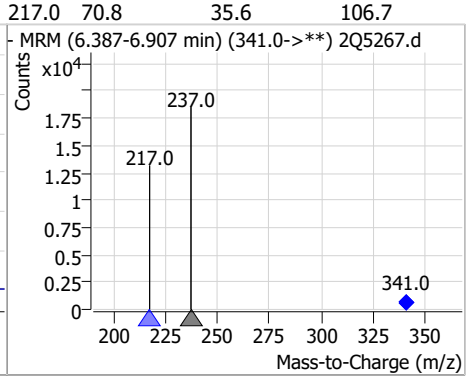




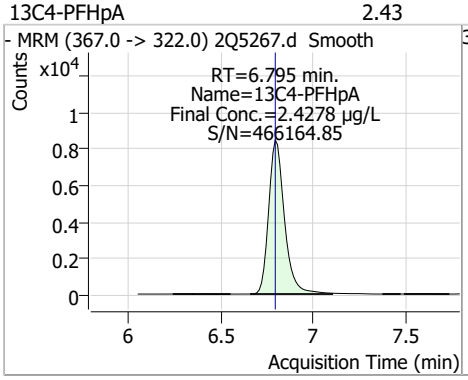
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	130.54	6.52	0.00	590439	341.0 -> 217.0	70.8	35.6	106.7

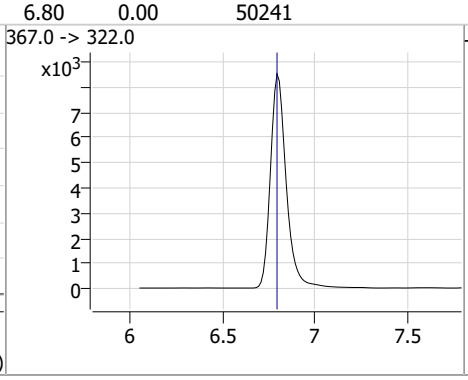


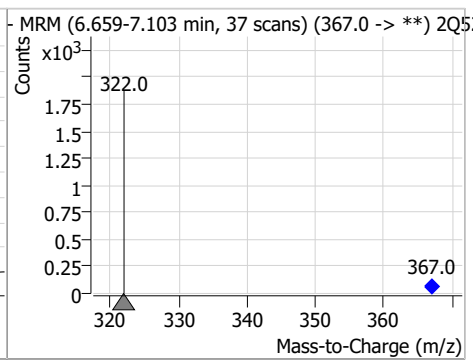




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.43	6.80	0.00	50241				

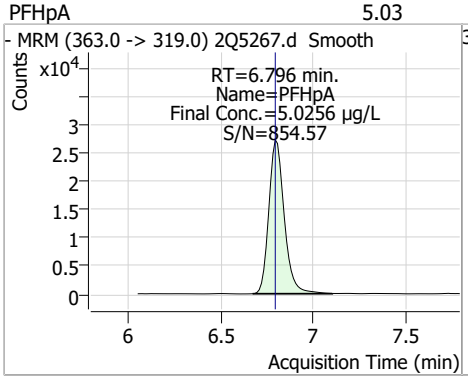


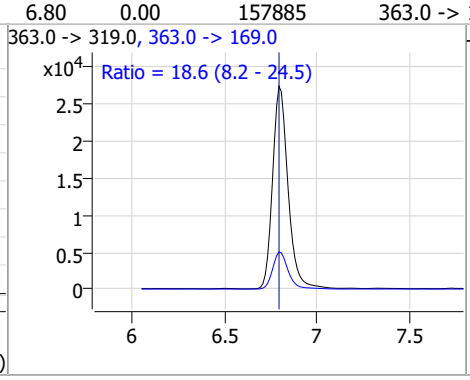


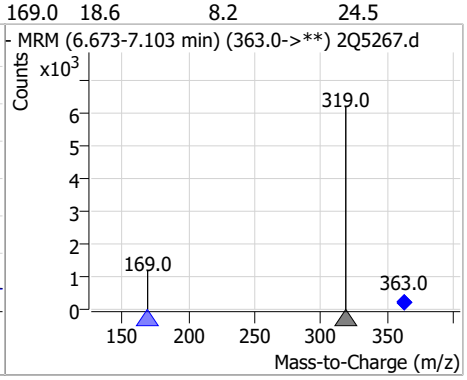


Perfluorinated Compounds by LC/MS/MS

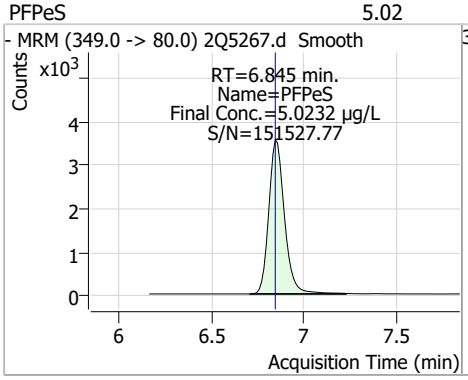
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	5.03	6.80	0.00	157885	363.0 -> 169.0	18.6	8.2	24.5

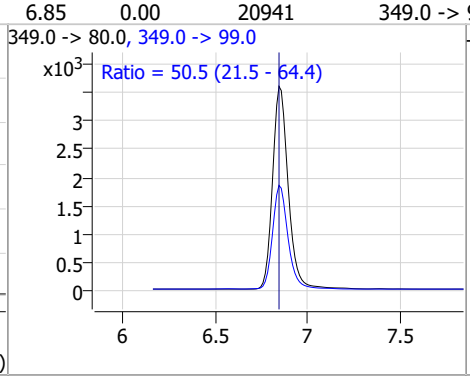


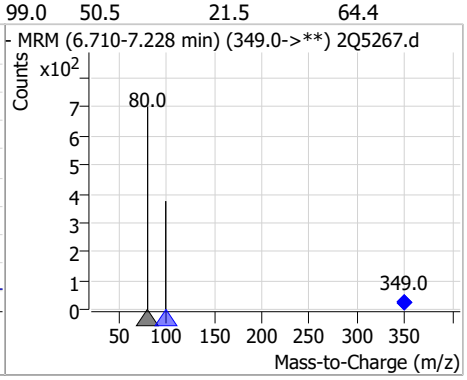




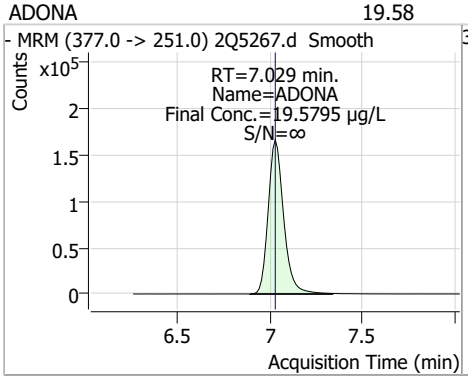
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	5.02	6.85	0.00	20941	349.0 -> 99.0	50.5	21.5	64.4

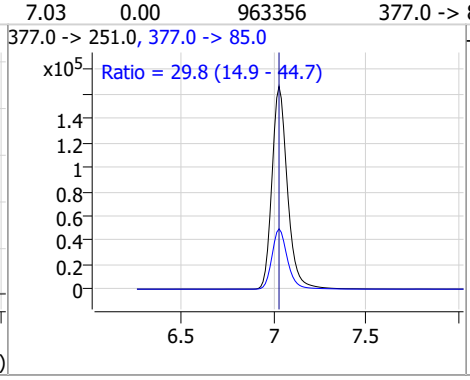


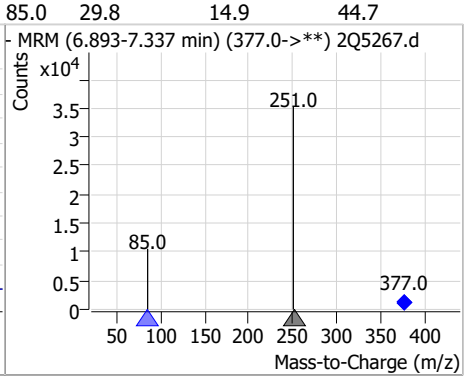




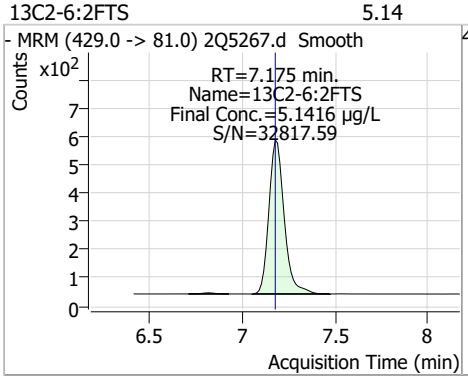
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	19.58	7.03	0.00	963356	377.0 -> 85.0	29.8	14.9	44.7

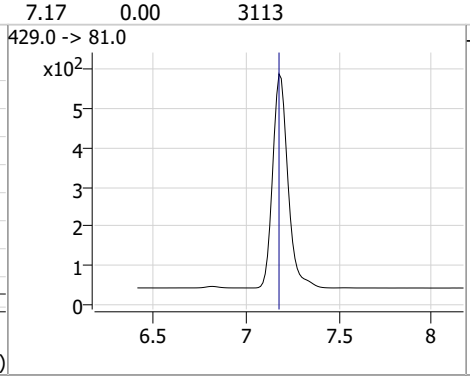


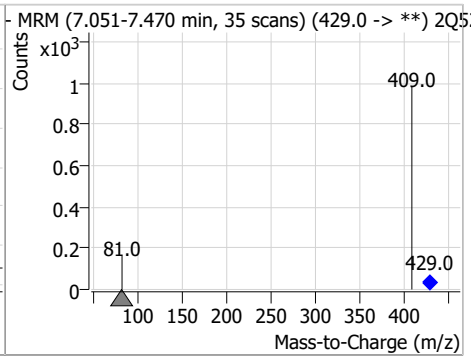




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	5.14	7.17	0.00	3113				

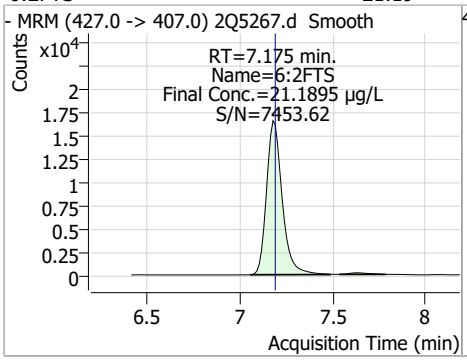


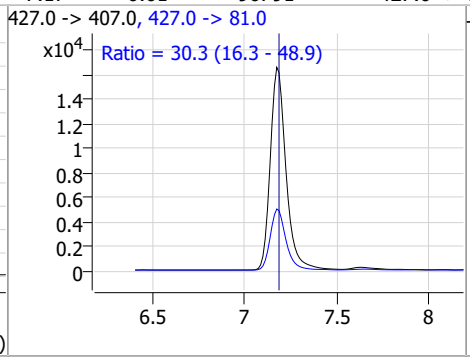


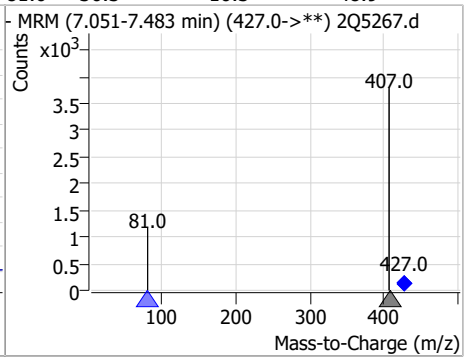


Perfluorinated Compounds by LC/MS/MS

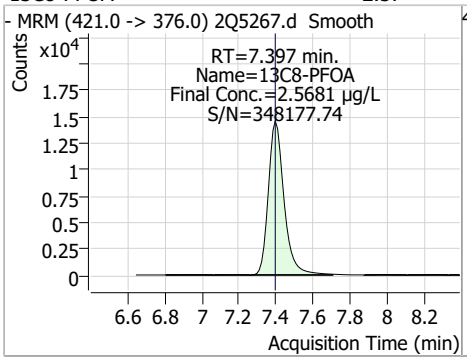
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	21.19	7.17	-0.01	96791	427.0 -> 81.0	30.3	16.3	48.9

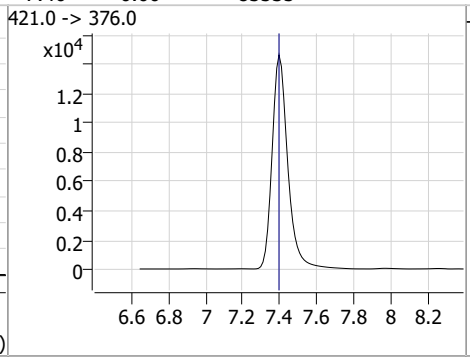


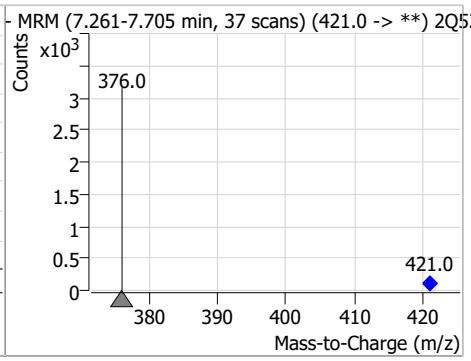




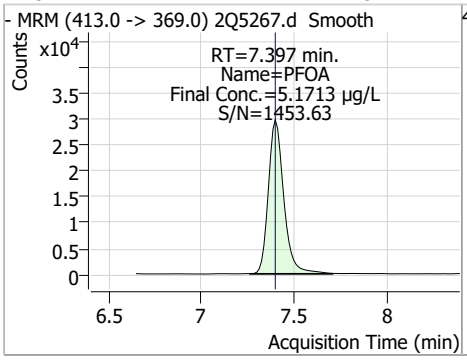
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.57	7.40	0.00	85535				

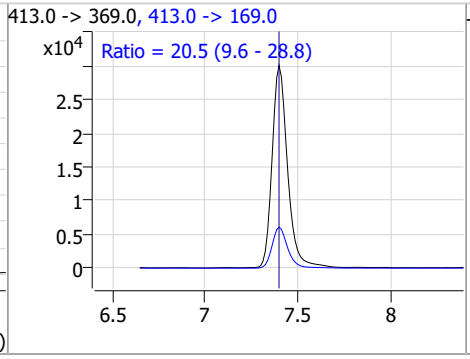


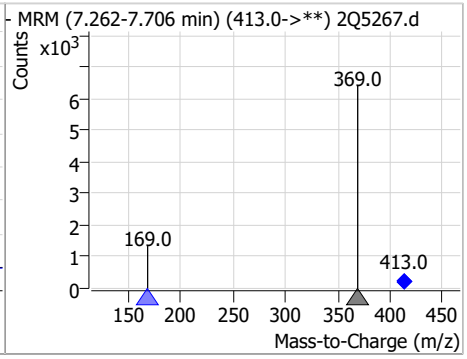




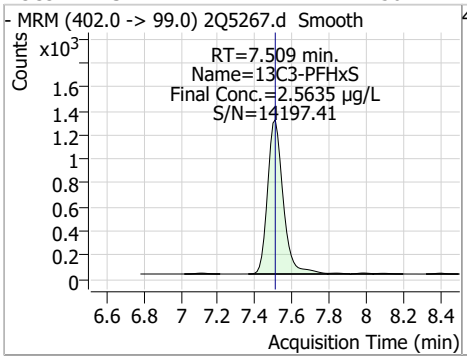
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	5.17	7.40	0.00	173279	413.0 -> 169.0	20.5	9.6	28.8

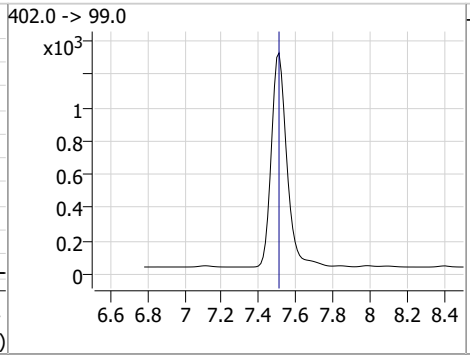


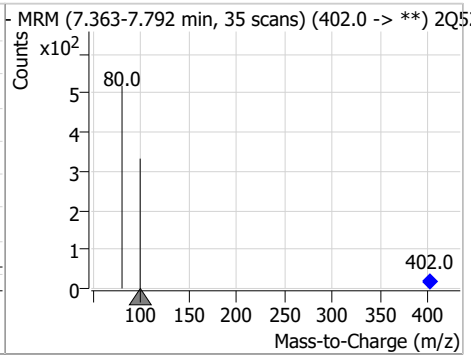




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.56	7.51	0.00	7481				

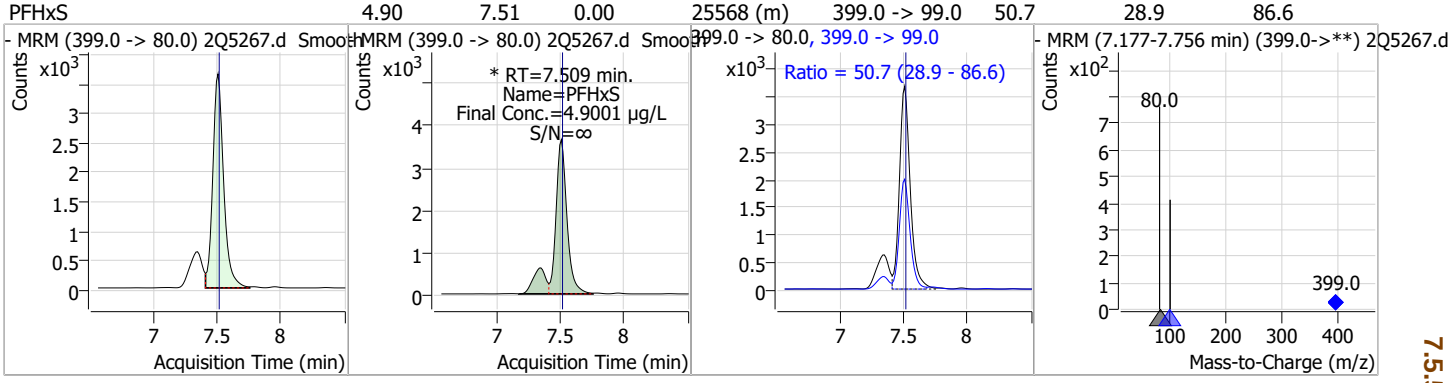




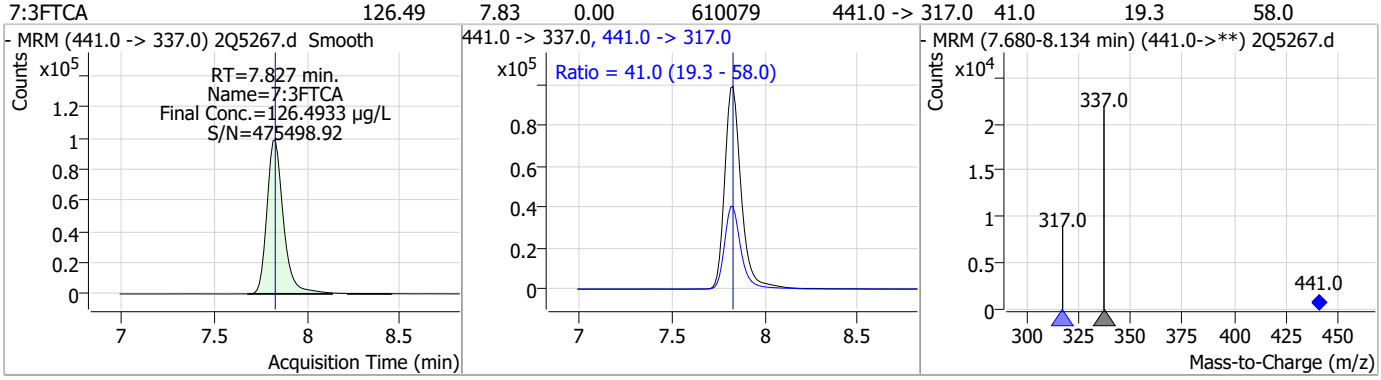


Perfluorinated Compounds by LC/MS/MS

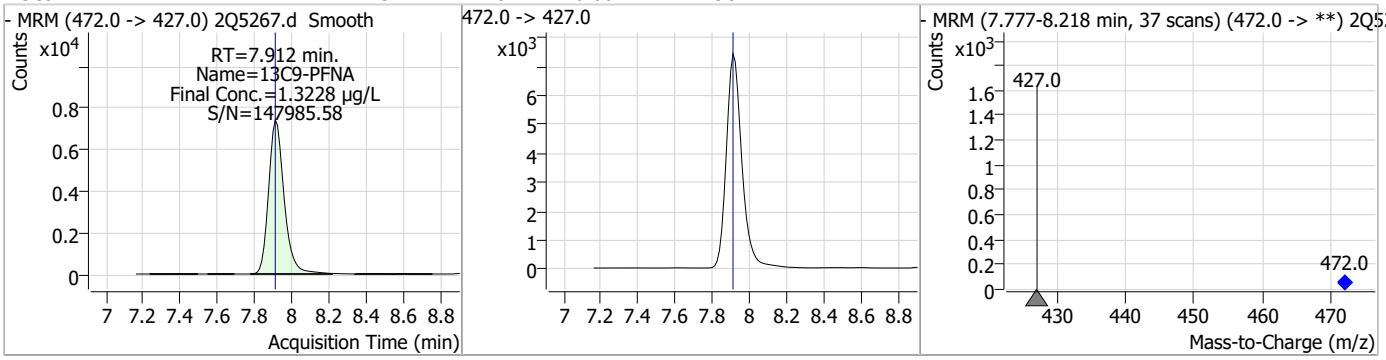
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	4.90	7.51	0.00	25568 (m)	399.0 -> 99.0	50.7	28.9	86.6



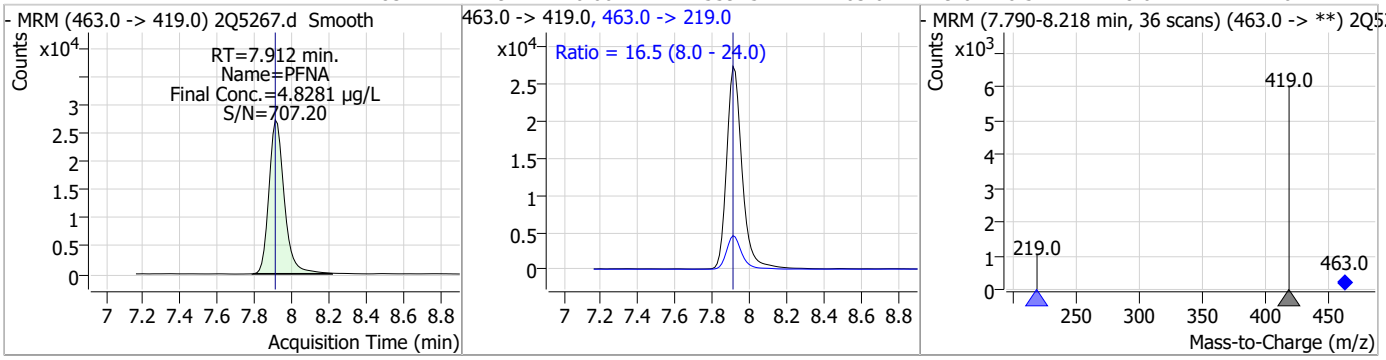
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	126.49	7.83	0.00	610079	441.0 -> 317.0	41.0	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.32	7.91	0.00	42982				

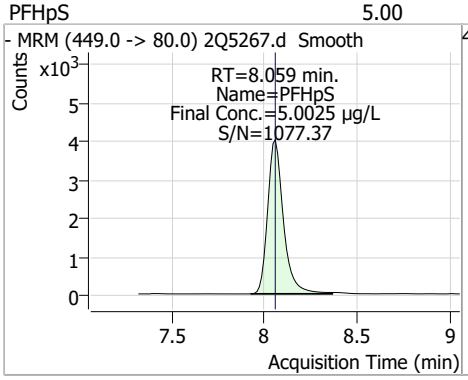


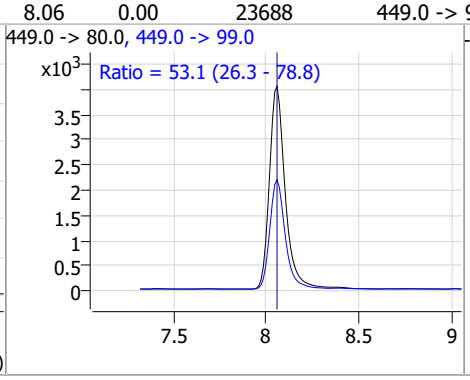
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	4.83	7.91	0.00	155915	463.0 -> 219.0	16.5	8.0	24.0

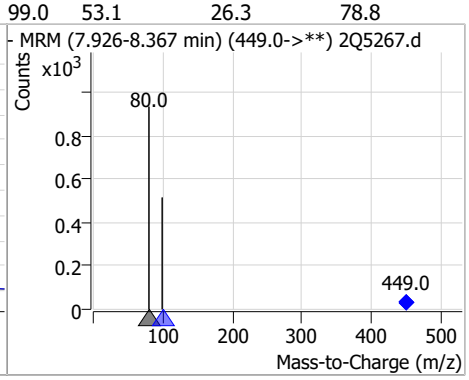


Perfluorinated Compounds by LC/MS/MS

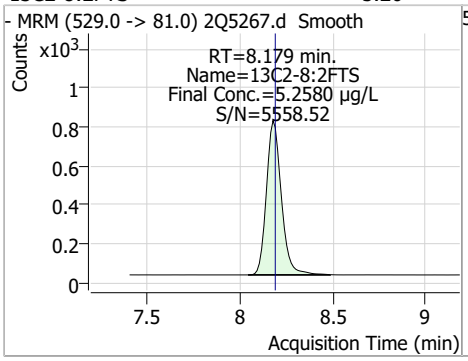
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	5.00	8.06	0.00	23688	449.0 -> 99.0	53.1	26.3	78.8

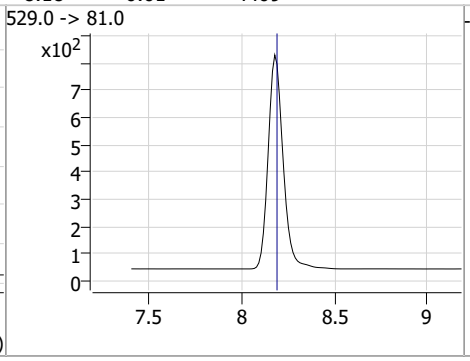


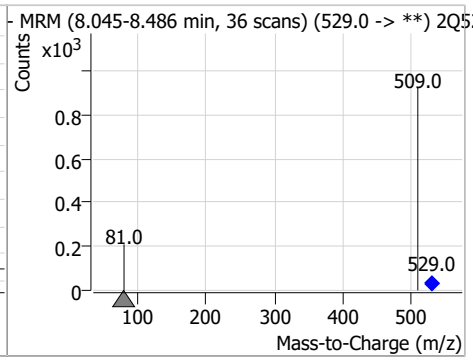




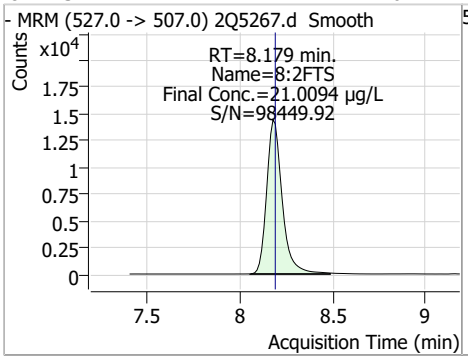
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.26	8.18	-0.01	4409				

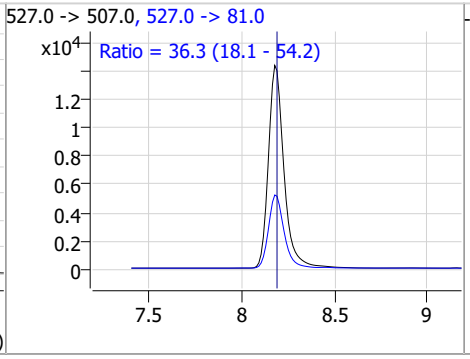


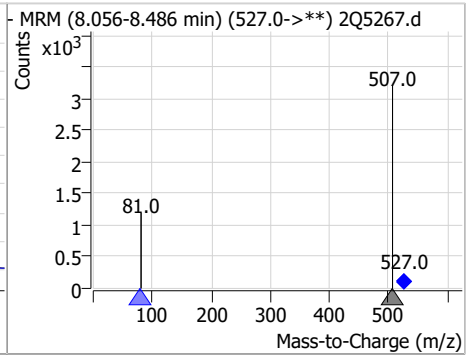




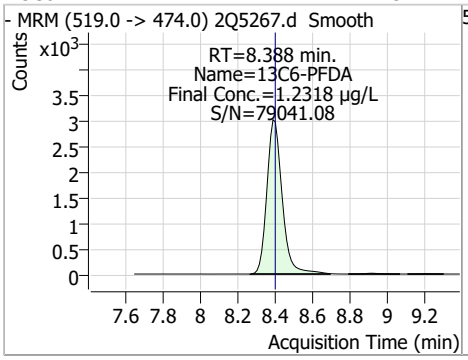
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	21.01	8.18	-0.01	83741	527.0 -> 81.0	36.3	18.1	54.2

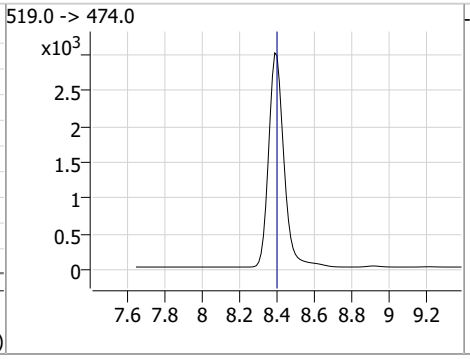


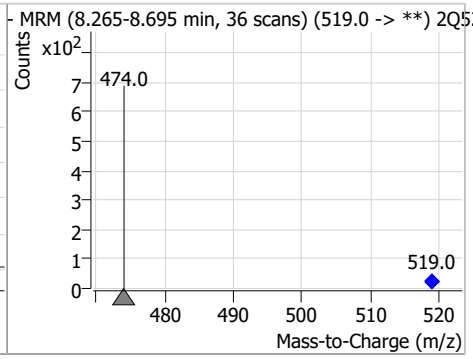




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.23	8.39	-0.01	17112				

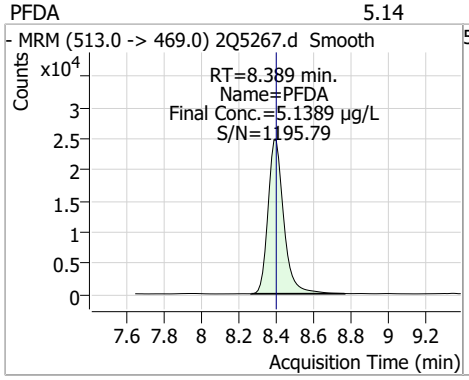


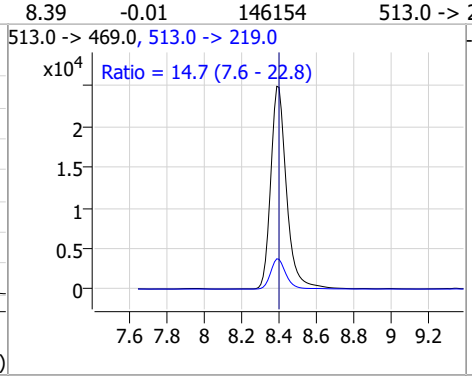


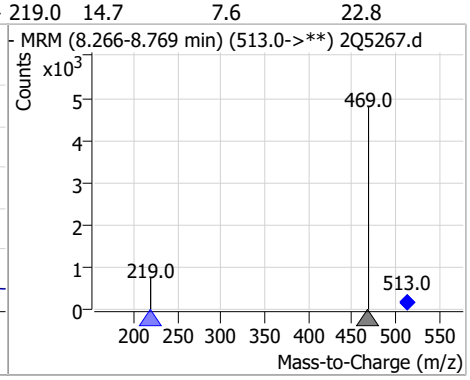


Perfluorinated Compounds by LC/MS/MS

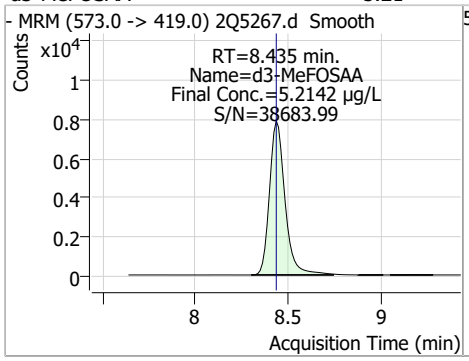
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	5.14	8.39	-0.01	146154	513.0 -> 219.0	14.7	7.6	22.8

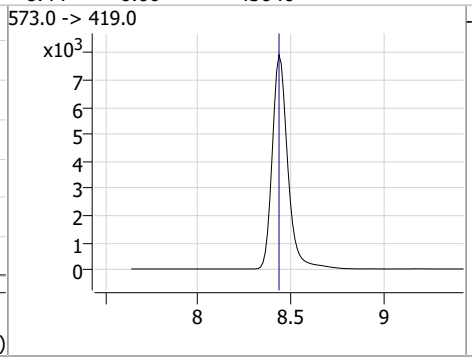


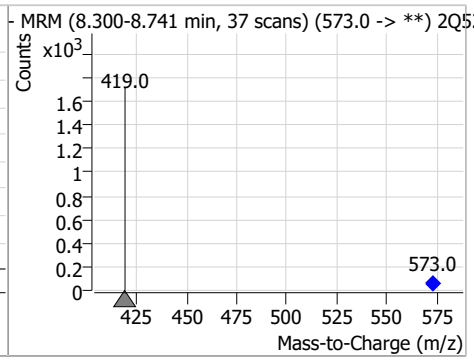




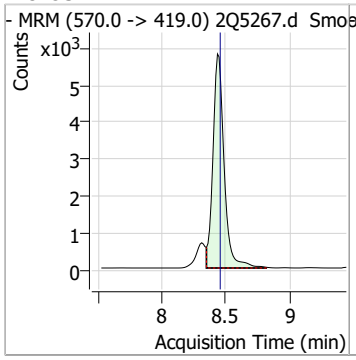
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.21	8.44	0.00	45646				

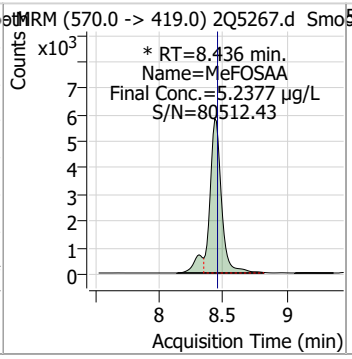


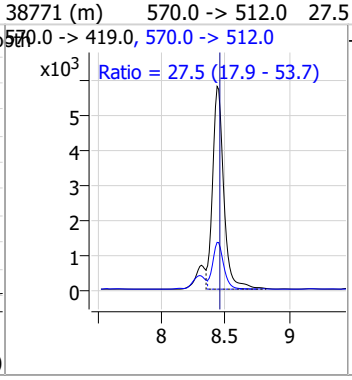


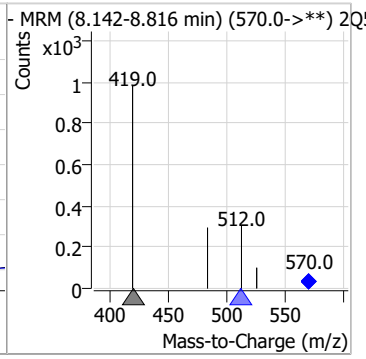


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.24	8.44	-0.01	38771 (m)	570.0 -> 512.0	27.5	17.9	53.7

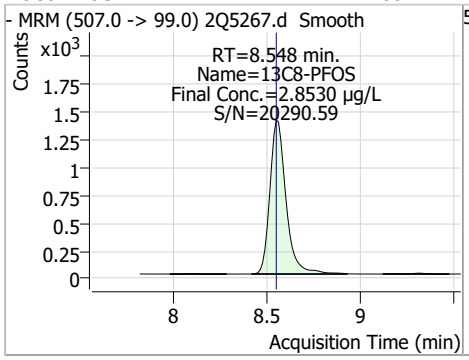


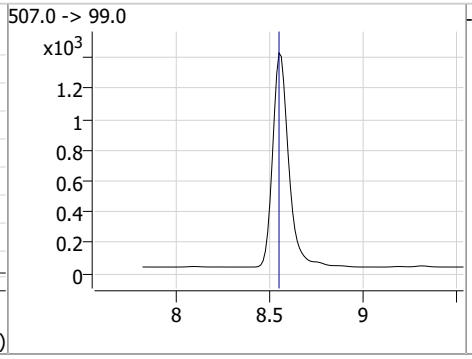


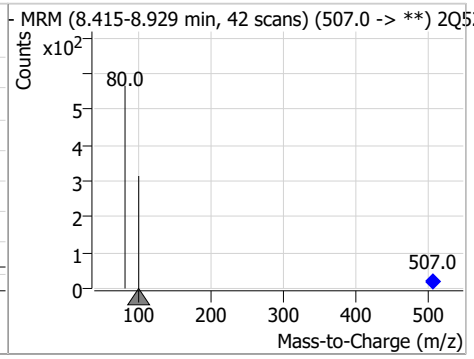




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.85	8.55	0.00	8356				

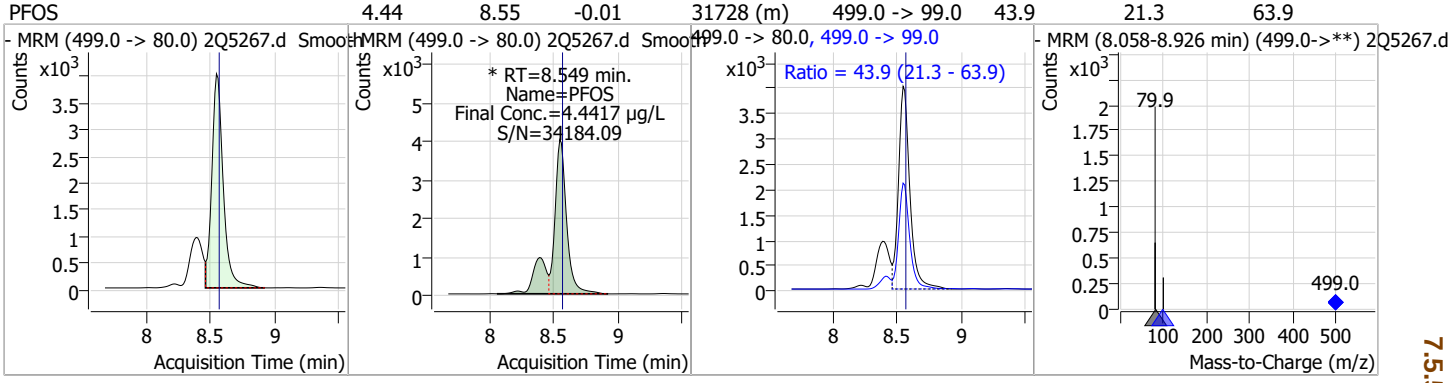




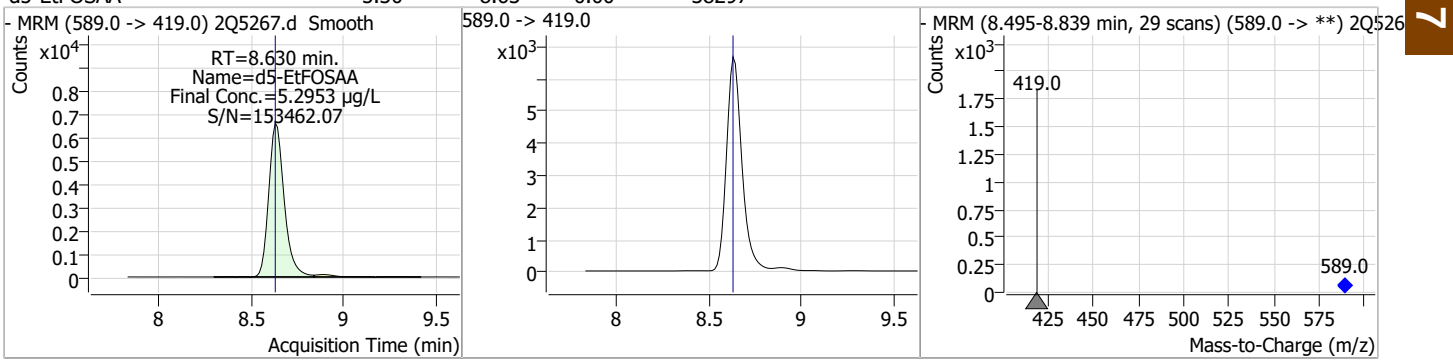


Perfluorinated Compounds by LC/MS/MS

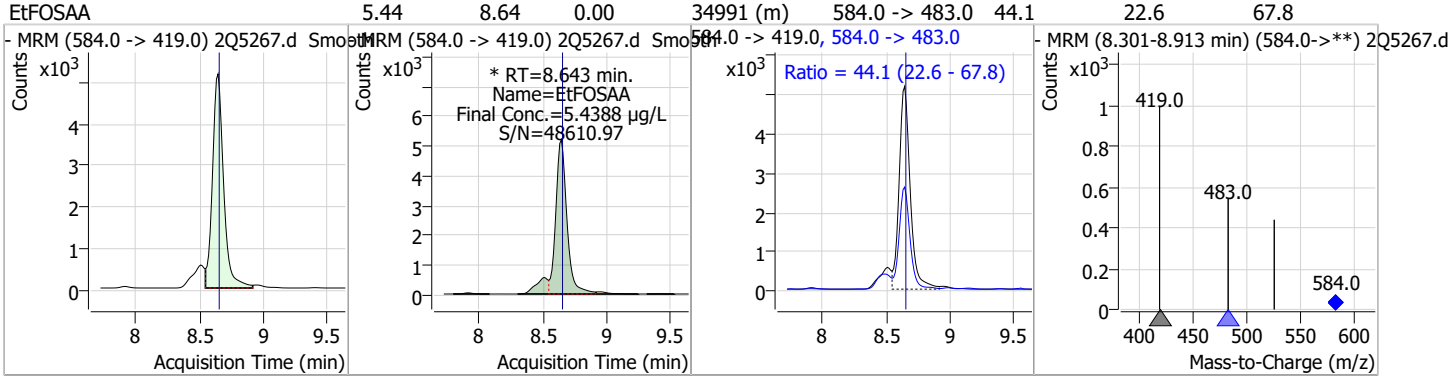
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	4.44	8.55	-0.01	31728 (m)	499.0 -> 99.0	43.9	21.3	63.9



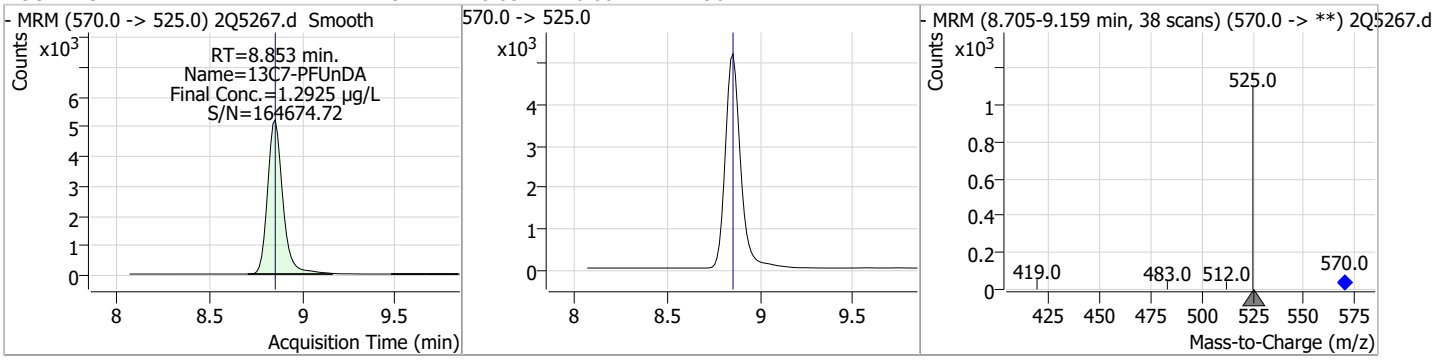
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.30	8.63	0.00	38297				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	5.44	8.64	0.00	34991 (m)	584.0 -> 483.0	44.1	22.6	67.8

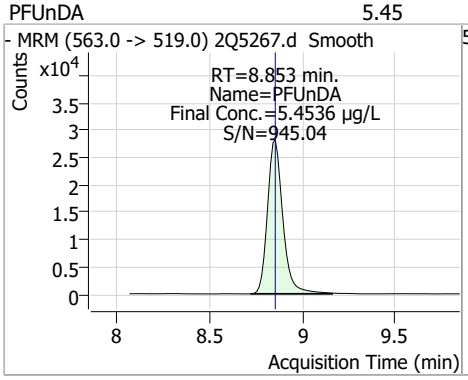


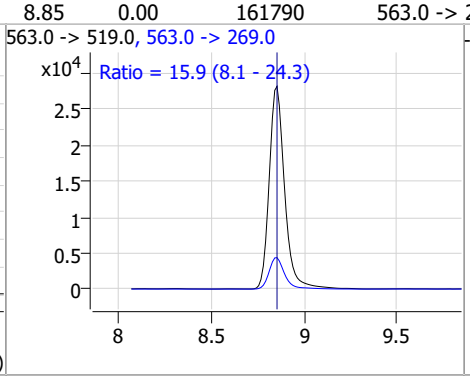
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.29	8.85	0.00	29621				

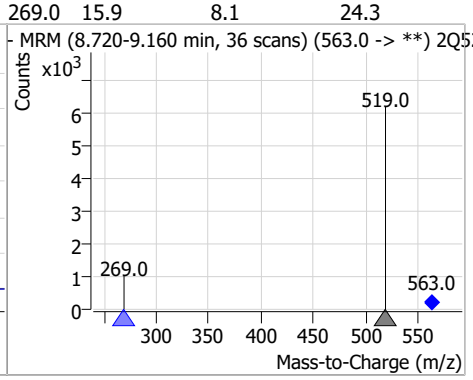


Perfluorinated Compounds by LC/MS/MS

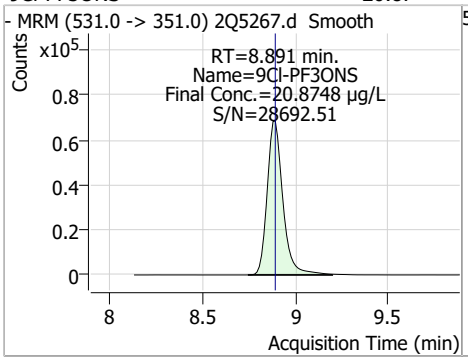
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.45	8.85	0.00	161790	563.0 -> 269.0	15.9	8.1	24.3

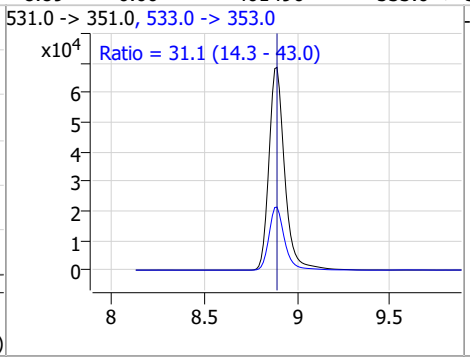


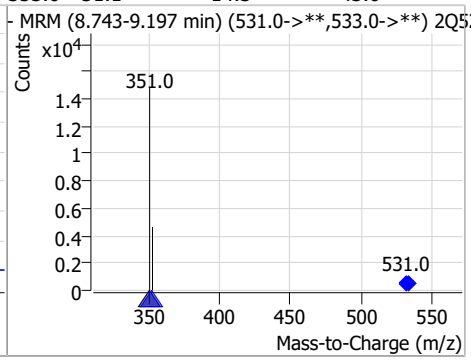




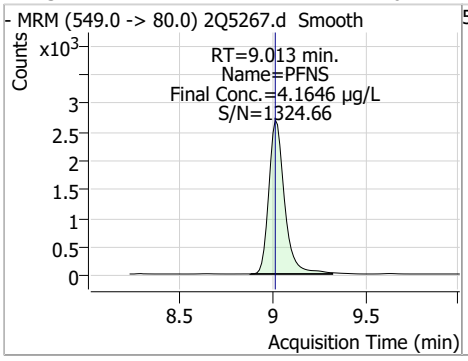
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	20.87	8.89	0.00	401496	533.0 -> 353.0	31.1	14.3	43.0

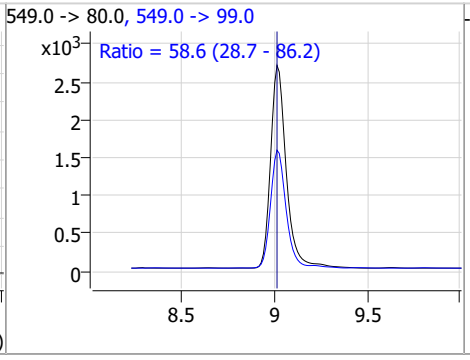


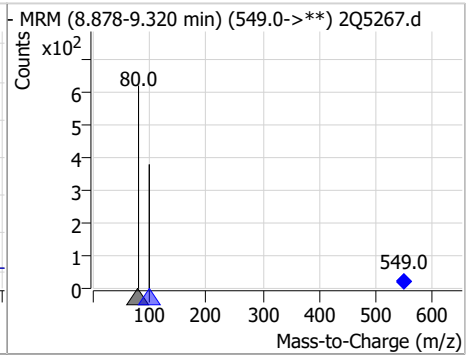




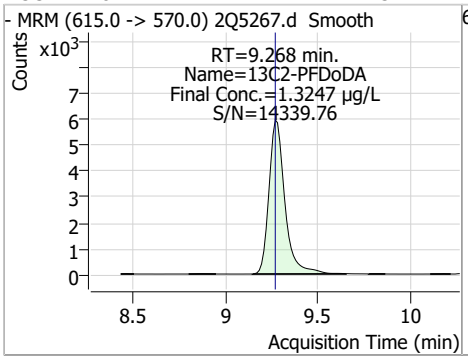
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	4.16	9.01	0.00	15667	549.0 -> 99.0	58.6	28.7	86.2

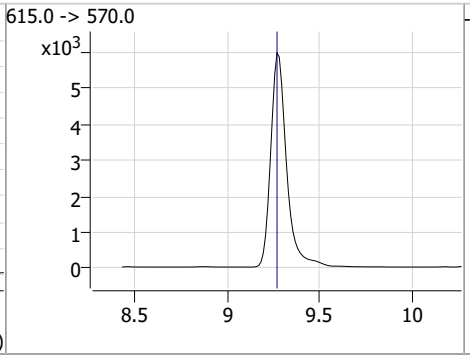


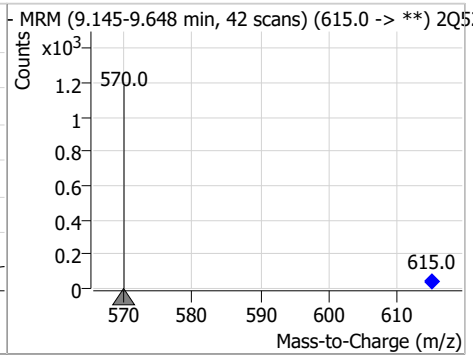




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.32	9.27	0.00	35194				

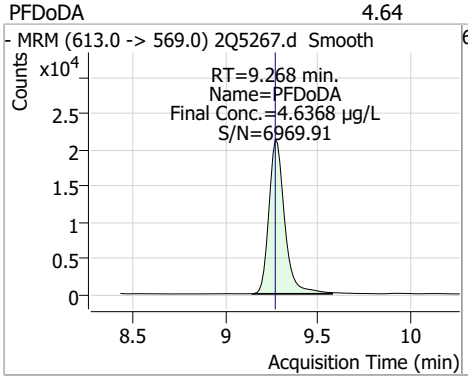


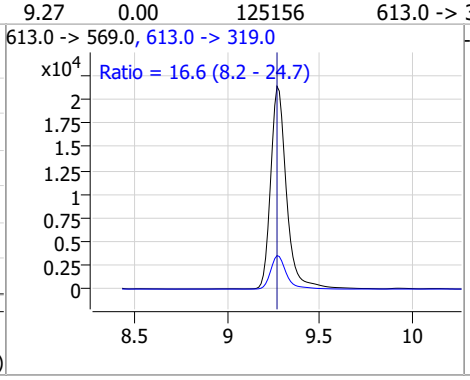


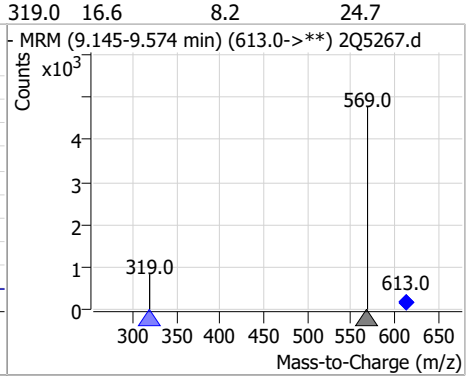


Perfluorinated Compounds by LC/MS/MS

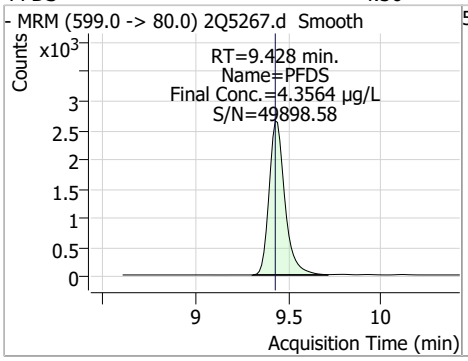
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	4.64	9.27	0.00	125156	613.0 -> 319.0	16.6	8.2	24.7

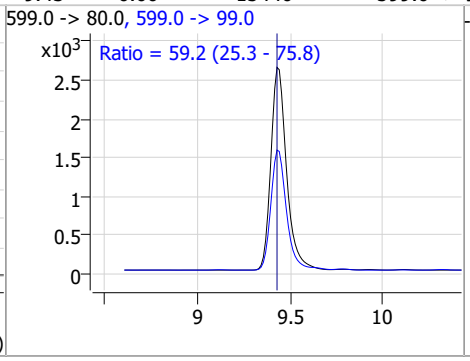


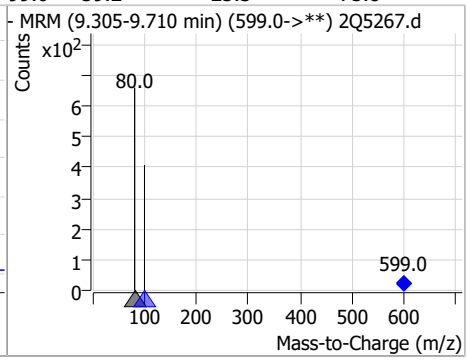




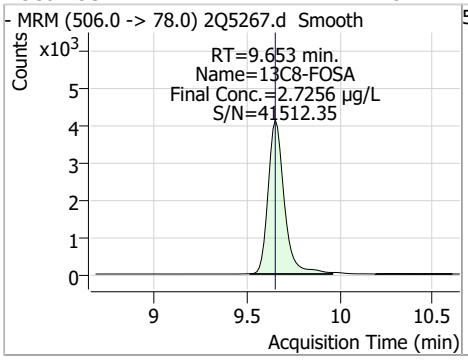
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	4.36	9.43	0.00	15446	599.0 -> 99.0	59.2	25.3	75.8

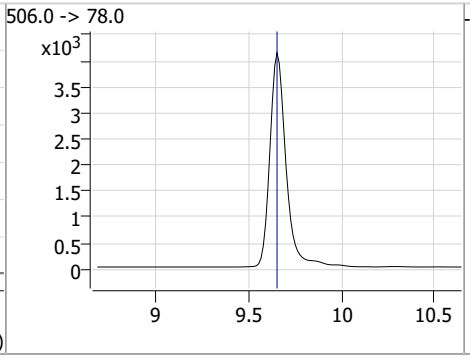


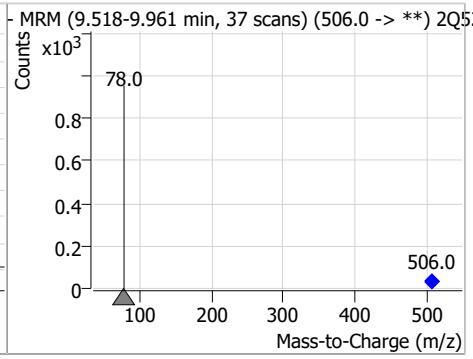




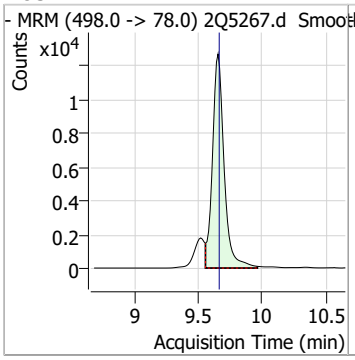
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.73	9.65	0.00	24823				

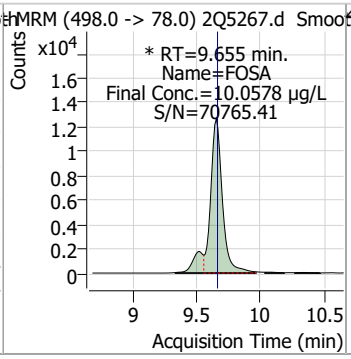


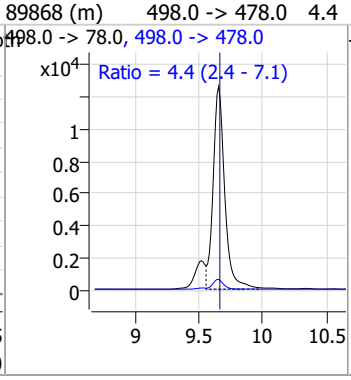


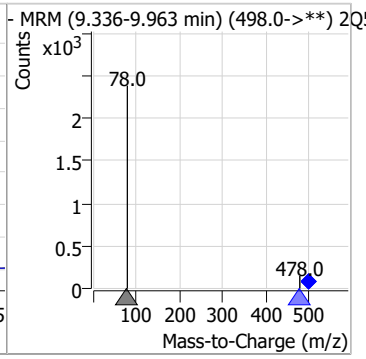


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	10.06	9.65	0.00	89868 (m)	498.0 -> 478.0	4.4	2.4	7.1



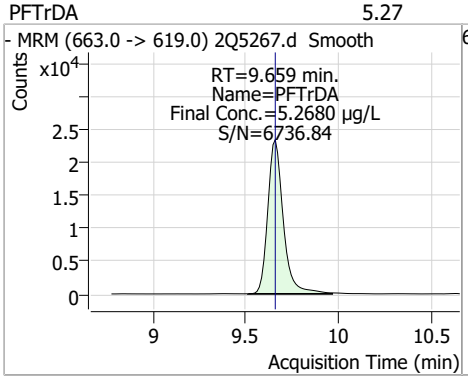


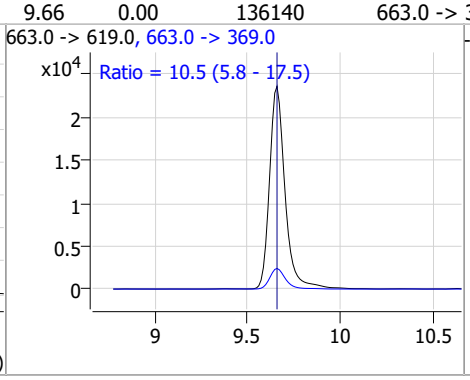


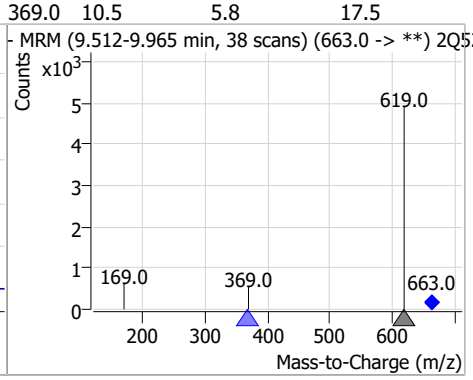


Perfluorinated Compounds by LC/MS/MS

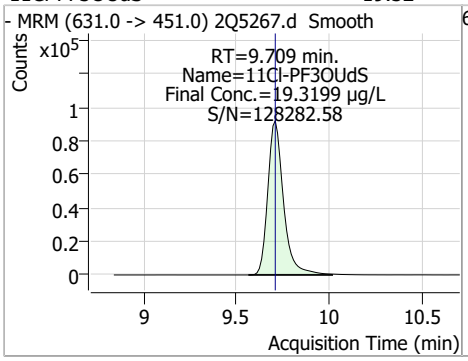
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	5.27	9.66	0.00	136140	663.0 -> 369.0	10.5	5.8	17.5

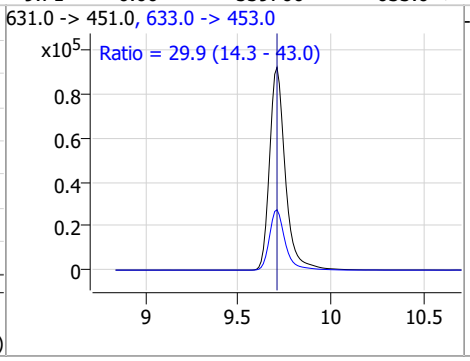


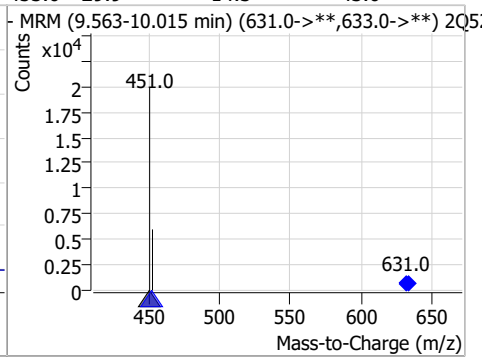




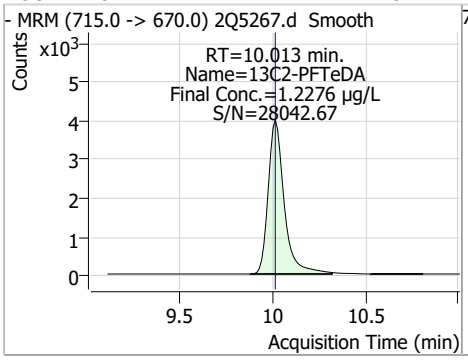
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	19.32	9.71	0.00	539760	633.0 -> 453.0	29.9	14.3	43.0

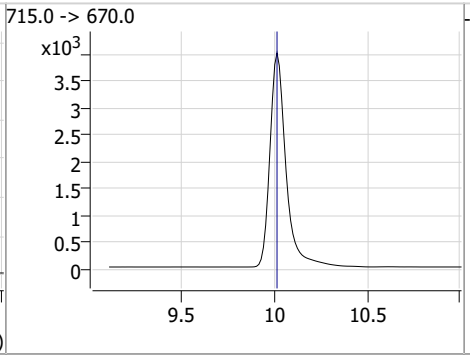


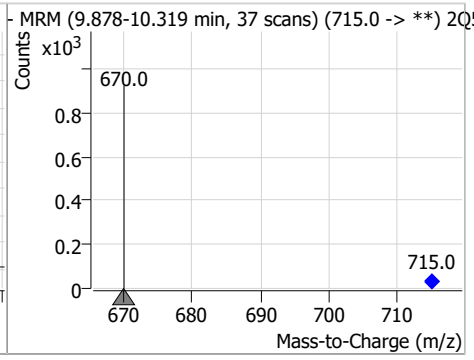




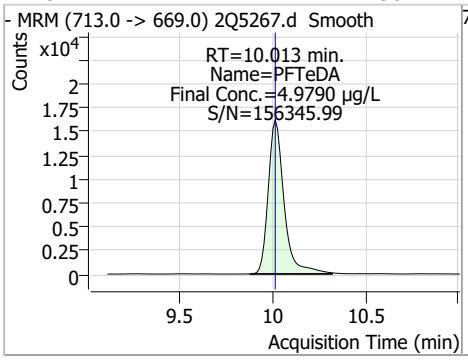
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.23	10.01	0.00	23919				

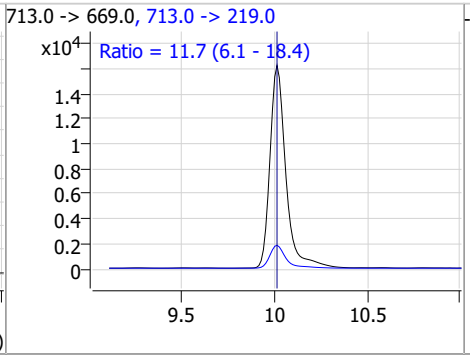


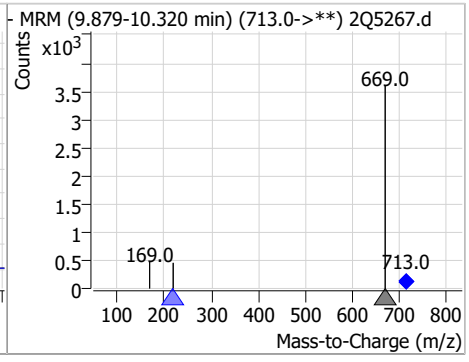




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	4.98	10.01	0.00	96355	713.0 -> 219.0	11.7	6.1	18.4

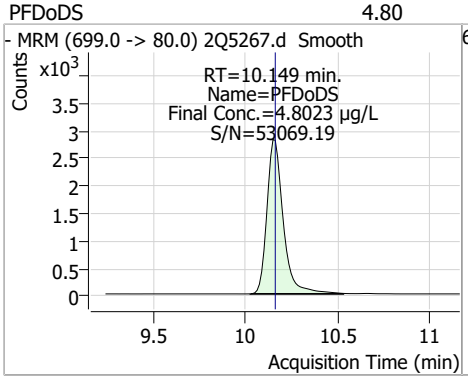


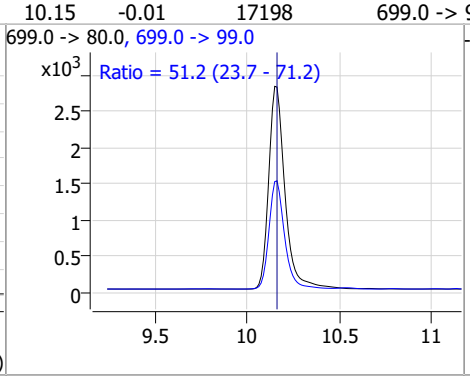


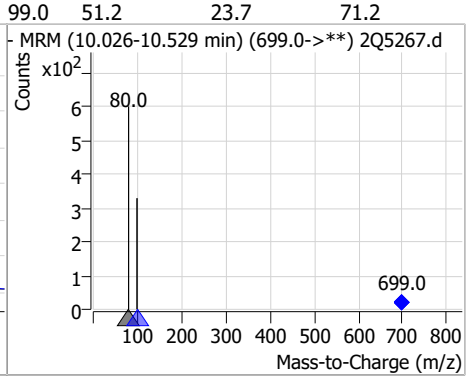


Perfluorinated Compounds by LC/MS/MS

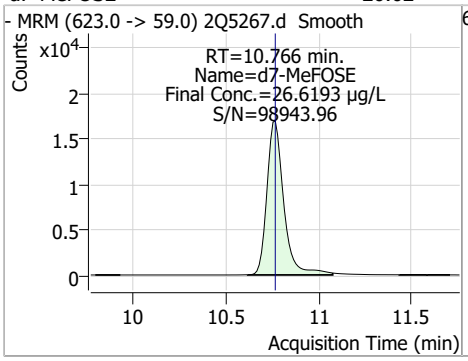
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	4.80	10.15	-0.01	17198	699.0 -> 99.0	51.2	23.7	71.2

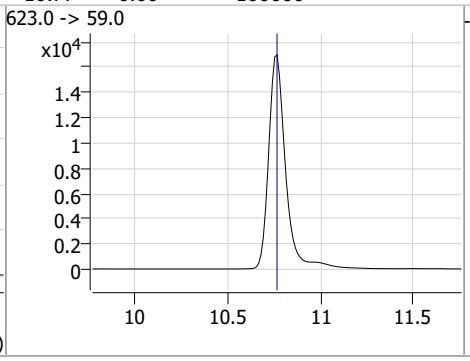


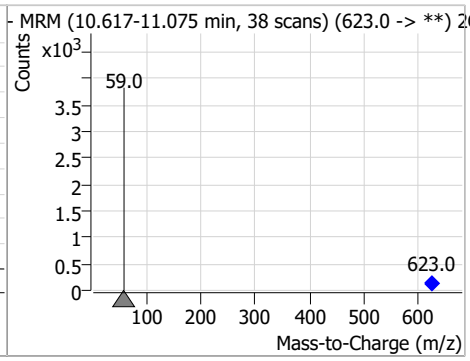




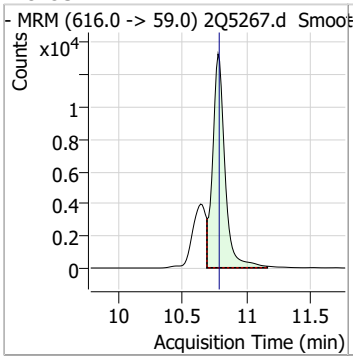
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	26.62	10.77	0.00	106660				

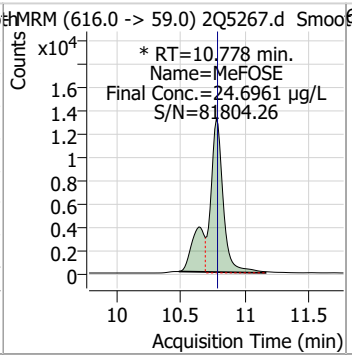


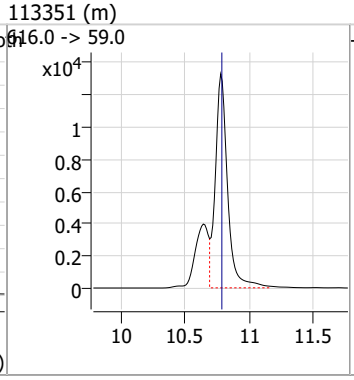


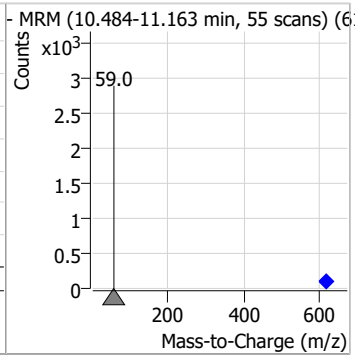


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	24.70	10.78	0.00	113351 (m)				

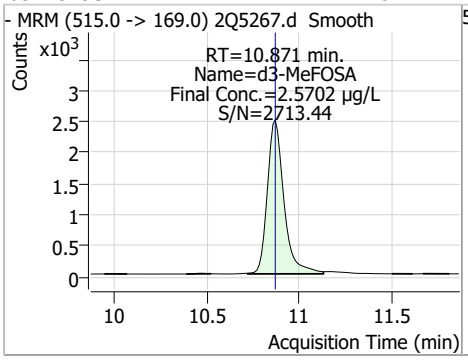


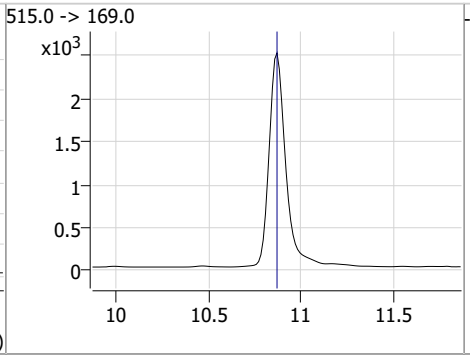


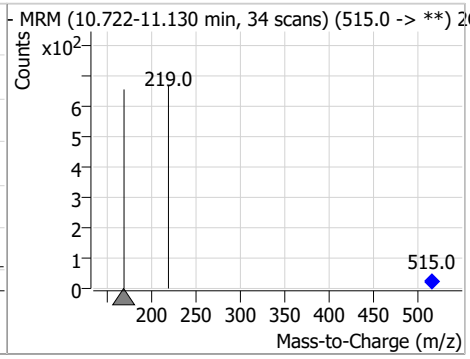




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.57	10.87	0.00	15486				

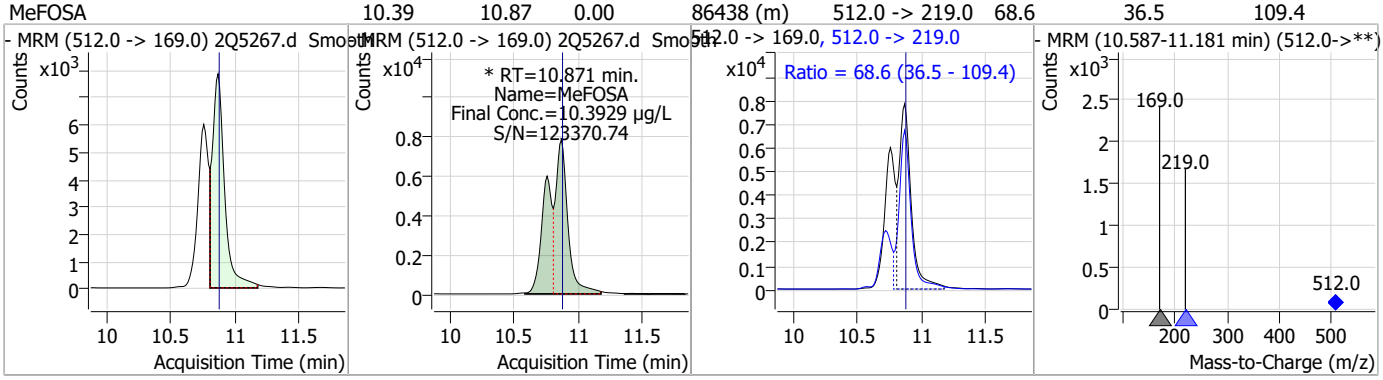




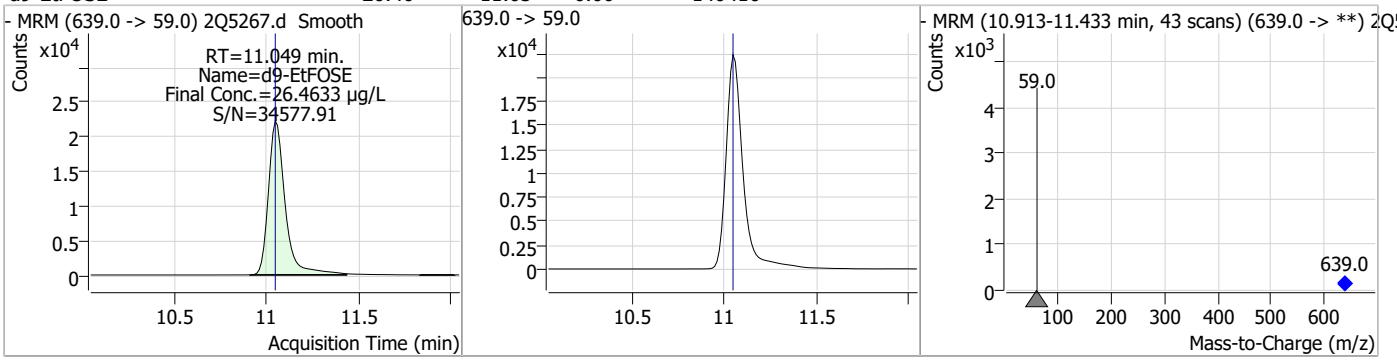


Perfluorinated Compounds by LC/MS/MS

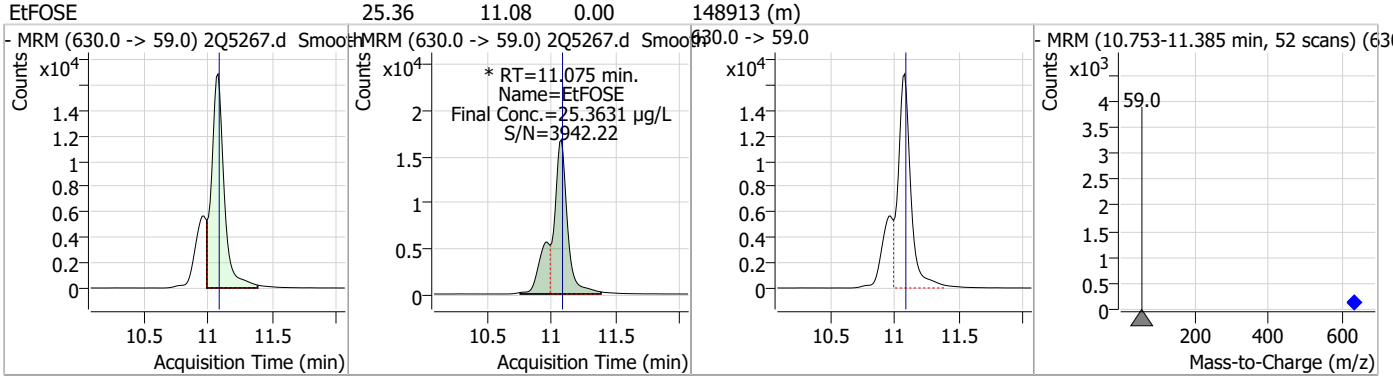
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	10.39	10.87	0.00	86438 (m)	512.0 -> 219.0	68.6	36.5	109.4



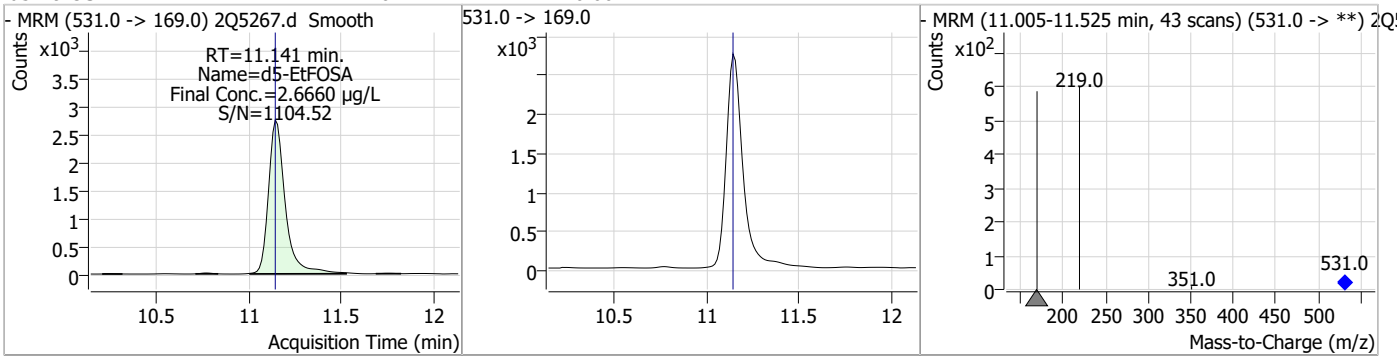
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	26.46	11.05	0.00	140416				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	25.36	11.08	0.00	148913 (m)				

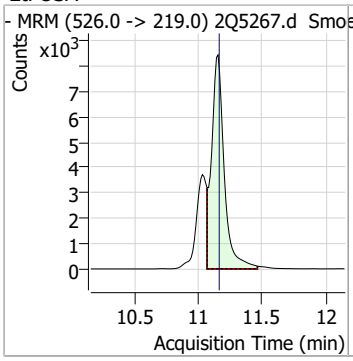


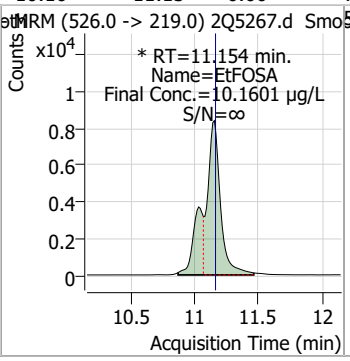
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.67	11.14	0.00	17221				

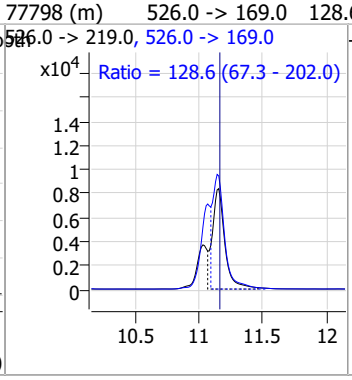


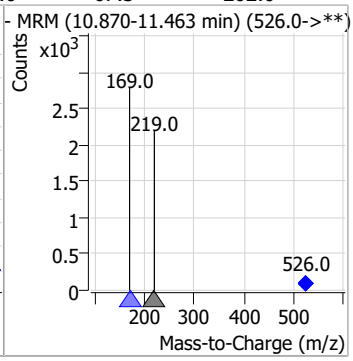
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	10.16	11.15	0.00	77798 (m)	526.0 -> 169.0	128.6	67.3	202.0









7.5.5

7

Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5267.D
Injection Time: 11/30/23 18:21
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5268.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 6:36:51 PM
Sample Name : ic96-6
Vial : P1-A7
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	163691	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	104597	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	57860	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	45475	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	75986	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	34588	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	16243	1.25	µg/L	-0.012
M7-PFUnDA	8.840	570.0 -> 525.0	25105	1.25	µg/L	-0.012
M2-PFDoDA	9.268	615.0 -> 570.0	28776	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	21112	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	21241	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6165	2.50	µg/L	-0.012
		302.0 -> 80.0	15435			
M3-PFHxS	7.509	402.0 -> 99.0	6238	2.50	µg/L	0.000
M8-PFOS	8.548	507.0 -> 99.0	6518	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1181	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	2498	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4119	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	40610	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	25470	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	35962	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	93706	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	125854	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	15086	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	13932	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	13579	2.50	µg/L	0.000
13C3-PFBA	3.342	216.0 -> 172.0	73479	5.00	µg/L	0.000
18O2-PFHxS	7.496	403.0 -> 84.0	6615	2.50	µg/L	-0.012
13C4-PFOA	7.397	417.0 -> 372.0	72649	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	29098	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	35086	1.25	µg/L	0.000
13C2-PFHxA	5.943	315.0 -> 270.0	55975	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1181	4.89	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.8%		
13C2-6:2FTS	7.175	429.0 -> 81.0	2498	4.67	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 93.3%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4119	5.55	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.1%		
13C2-PFDoDA	9.268	615.0 -> 570.0	28776	1.24	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.1%		
13C2-PFTeDA	10.013	715.0 -> 670.0	21112	1.24	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.1%		
13C3-PFBS	5.871	302.0 -> 99.0	6165	2.51	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	6238	2.42	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.7%			
13C4-PFBA	3.339	217.0 -> 172.0	163691	9.90	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.0%			
13C4-PFHpA	6.795	367.0 -> 322.0	45475	2.50	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.0%			
13C5-PFHxA	5.955	318.0 -> 273.0	57860	2.49	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.5%			
13C5-PFPeA	4.810	268.0 -> 223.0	104597	4.99	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.7%			
13C6-PFDA	8.388	519.0 -> 474.0	16243	1.34	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 107.0%			
13C7-PFUnDA	8.840	570.0 -> 525.0	25105	1.25	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.2%			
13C8-FOSA	9.653	506.0 -> 78.0	21241	2.31	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.4%			
13C8-PFOA	7.397	421.0 -> 376.0	75986	2.53	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.0%			
13C8-PFOS	8.548	507.0 -> 99.0	6518	2.20	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 88.2%			
13C9-PFNA	7.912	472.0 -> 427.0	34588	1.26	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.8%			
d3-MeFOSAA	8.435	573.0 -> 419.0	40610	4.59	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 91.9%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	25470	9.60	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 96.0%			
d3-MeFOSA	10.871	515.0 -> 169.0	13932	2.29	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.6%			
d5-EtFOSAA	8.630	589.0 -> 419.0	35962	4.93	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.5%			
d7-MeFOSE	10.766	623.0 -> 59.0	93706	23.16	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 92.7%			
d9-EtFOSE	11.049	639.0 -> 59.0	125854	23.49	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 94.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	15086	2.31	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.5%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	106121	54.00	µg/L		99
		327.0 -> 81.0	54078				
6:2FTS	7.175	427.0 -> 407.0	216390	59.03	µg/L		94
		427.0 -> 81.0	62856				
8:2FTS	8.179	527.0 -> 507.0	193090	51.85	µg/L		94
		527.0 -> 81.0	62559				
EtFOSAA	8.643	584.0 -> 419.0	73797	12.22	µg/L	m	87
		584.0 -> 483.0	39686				
FOSA	9.655	498.0 -> 78.0	205727	26.91	µg/L	m	100
		498.0 -> 478.0	9838				
MeFOSAA	8.436	570.0 -> 419.0	92232	13.55	µg/L	m	93
		570.0 -> 512.0	29467				
PFBA	3.333	213.0 -> 169.0	216282	52.61	µg/L		100
PFBS	5.872	299.0 -> 80.0	87110	13.57	µg/L		95
		299.0 -> 99.0	34059				
PFDA	8.389	513.0 -> 469.0	322885	11.97	µg/L		98
		513.0 -> 219.0	51430				
PFDoDA	9.268	613.0 -> 569.0	295806	13.40	µg/L		99
		613.0 -> 319.0	46945				

Perfluorinated Compounds by LC/MS/MS

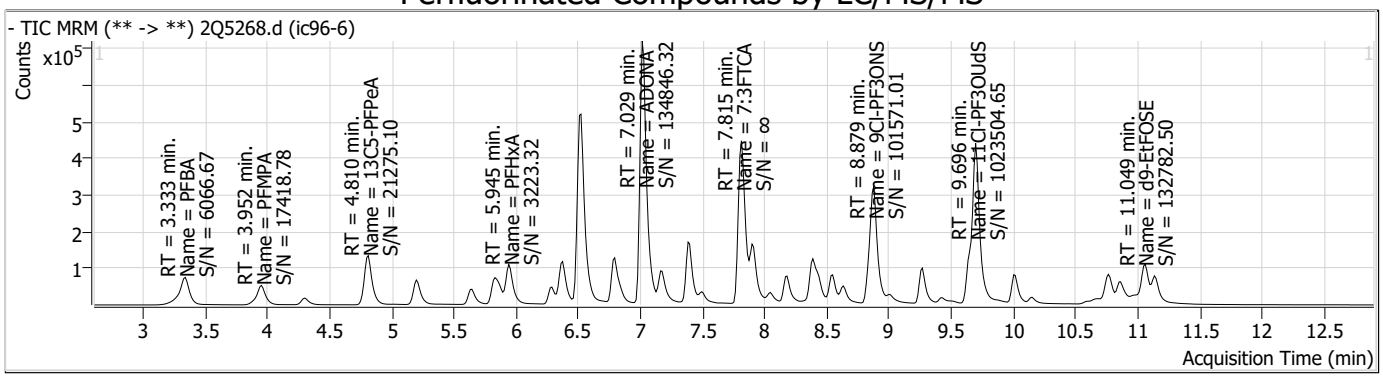
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	36686	12.21	µg/L		97
		599.0 -> 99.0	19221				
PFHpA	6.796	363.0 -> 319.0	356952	12.48	µg/L		96
		363.0 -> 169.0	64360				
PFHpS	8.047	449.0 -> 80.0	54743	13.87	µg/L		99
		449.0 -> 99.0	28423				
PFHxA	5.945	313.0 -> 269.0	297031	12.98	µg/L		99
		313.0 -> 119.0	7820				
PFHxS	7.497	399.0 -> 80.0	59082	13.58	µg/L	m	90
		399.0 -> 99.0	29748				
PFNA	7.912	463.0 -> 419.0	347369	13.37	µg/L		95
		463.0 -> 219.0	62542				
PFNS	9.013	549.0 -> 80.0	37563	12.80	µg/L		98
		549.0 -> 99.0	21054				
PFOA	7.397	413.0 -> 369.0	408589	13.73	µg/L		98
		413.0 -> 169.0	81715				
PFOS	8.549	499.0 -> 80.0	73584	13.21	µg/L	m	86
		499.0 -> 99.0	37893				
PFPeA	4.812	263.0 -> 219.0	493164	26.16	µg/L		100
PFPeS	6.845	349.0 -> 80.0	48083	13.02	µg/L		94
		349.0 -> 99.0	22415				
PFTeDA	10.013	713.0 -> 669.0	234499	13.73	µg/L		95
		713.0 -> 219.0	24416				
PFTrDA	9.659	663.0 -> 619.0	276441	13.08	µg/L		98
		663.0 -> 369.0	29593				
PFUnDA	8.841	563.0 -> 519.0	313995	12.49	µg/L		97
		563.0 -> 269.0	55456				
11Cl-PF3OUdS	9.696	631.0 -> 451.0	1223164	53.36	µg/L		98
		633.0 -> 453.0	362421				
9Cl-PF3ONS	8.879	531.0 -> 351.0	839932	53.22	µg/L		96
		533.0 -> 353.0	257668				
ADONA	7.029	377.0 -> 251.0	2142815	53.08	µg/L		100
		377.0 -> 85.0	641135				
HFPO-DA	6.295	285.0 -> 169.0	147344	53.69	µg/L		99
		285.0 -> 185.0	12447				
3:3FTCA	4.301	241.0 -> 177.0	75123	64.27	µg/L		100
		241.0 -> 117.0	5589				
5:3FTCA	6.524	341.0 -> 237.0	1296361	323.94	µg/L		100
		341.0 -> 217.0	922132				
7:3FTCA	7.815	441.0 -> 337.0	1387462	325.14	µg/L		100
		441.0 -> 317.0	539871				
EtFOSA	11.154	526.0 -> 219.0	177845	26.51	µg/L	m	96
		526.0 -> 169.0	231280				
EtFOSE	11.075	630.0 -> 59.0	348253	66.18	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	192769	25.76	µg/L	m	100
		512.0 -> 219.0	140624				
MeFOSE	10.778	616.0 -> 59.0	273125	67.73	µg/L	m	100
PFDoDS	10.149	699.0 -> 80.0	39438	14.12	µg/L		97
		699.0 -> 99.0	19606				
NFDHA	5.835	295.0 -> 201.0	35552	25.28	µg/L		81
		201.0 -> 85.0	207868				
		295.0 -> 85.0	9231				
PFMBA	5.201	279.0 -> 85.0	283038	27.82	µg/L		100
PFMPA	3.952	229.0 -> 85.0	276024	25.87	µg/L		100
PFEESA	6.377	315.0 -> 135.0	417588	26.61	µg/L		99
		315.0 -> 69.0	38292				

Perfluorinated Compounds by LC/MS/MS

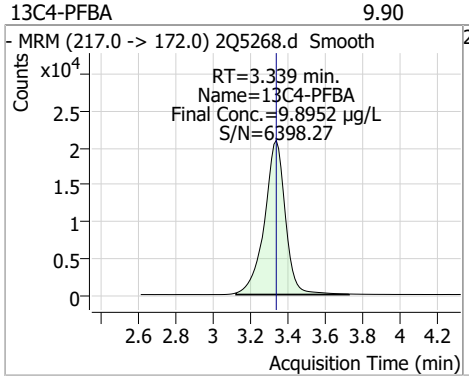
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

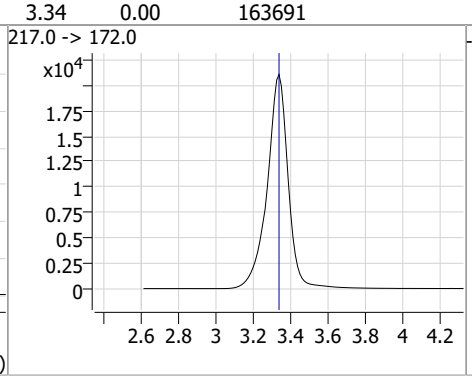
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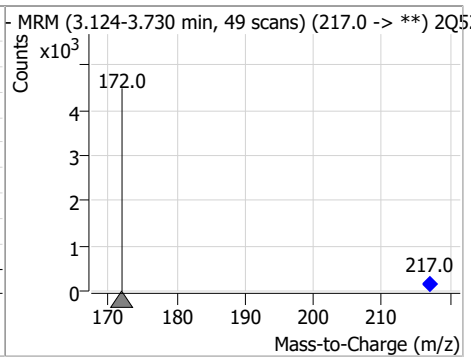
Perfluorinated Compounds by LC/MS/MS



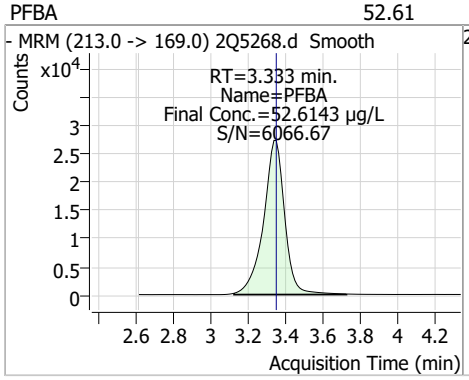
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.90	3.34	0.00	163691				

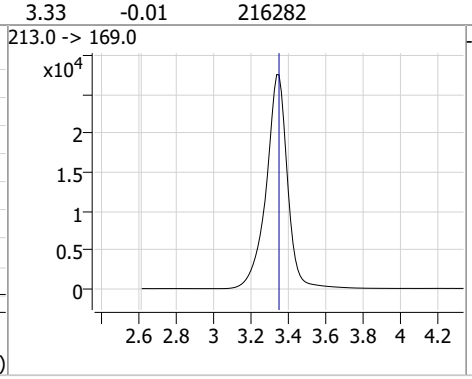


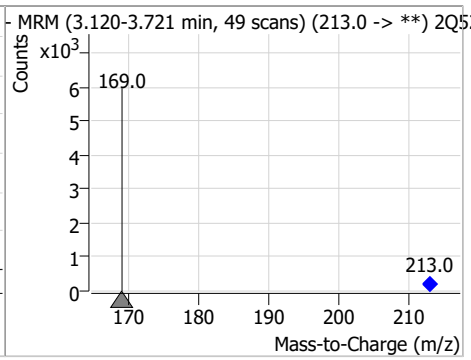




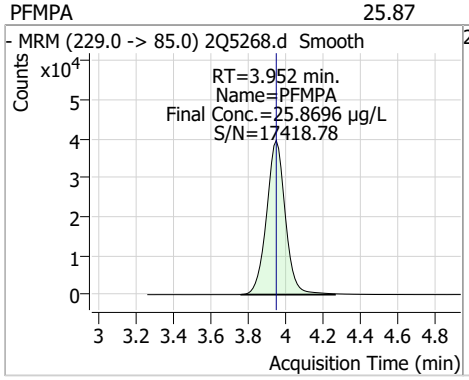
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	52.61	3.33	-0.01	216282				

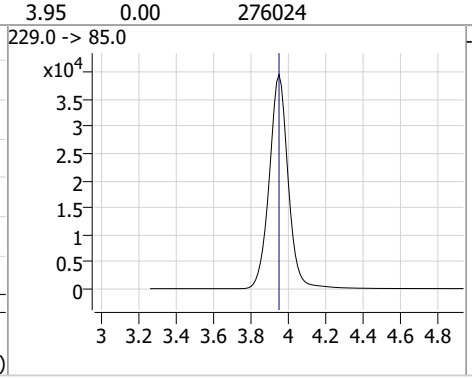


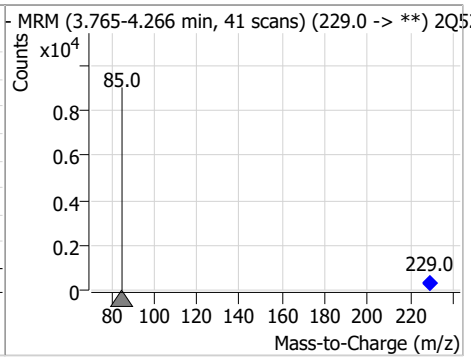




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	25.87	3.95	0.00	276024				

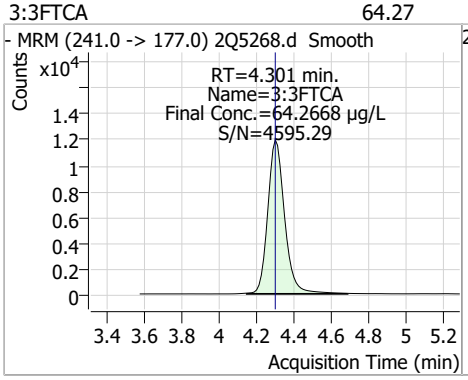


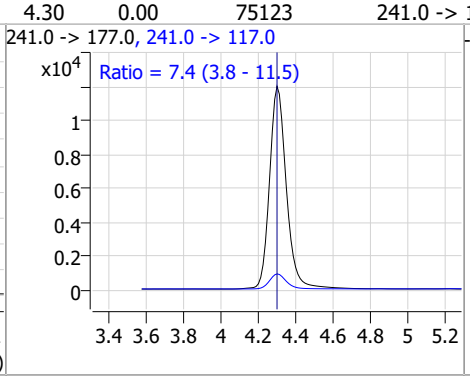


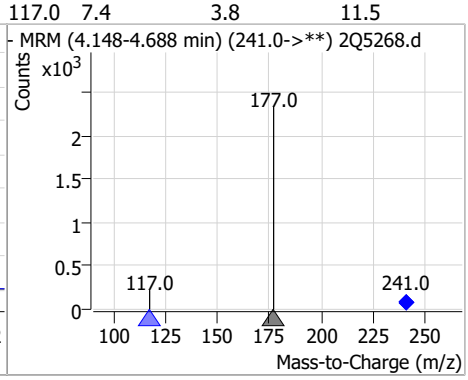


Perfluorinated Compounds by LC/MS/MS

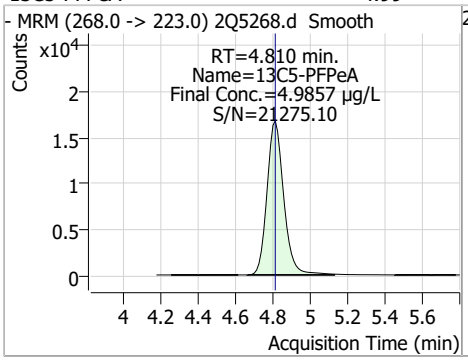
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	64.27	4.30	0.00	75123	241.0 -> 117.0	7.4	3.8	11.5

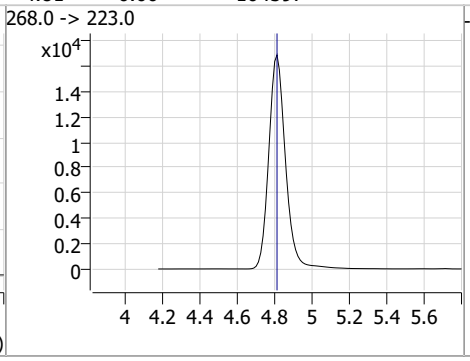


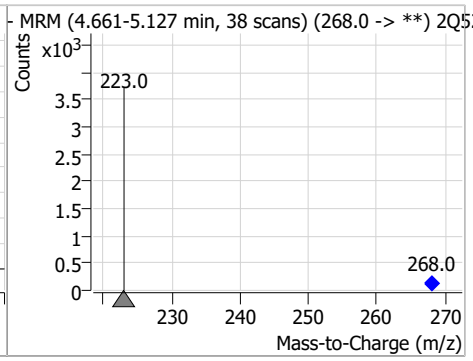




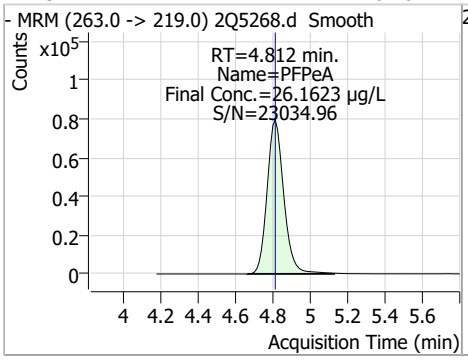
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.99	4.81	0.00	104597				

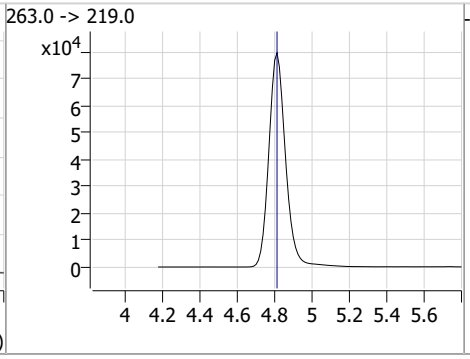


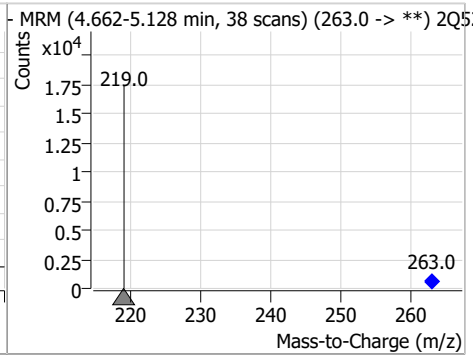




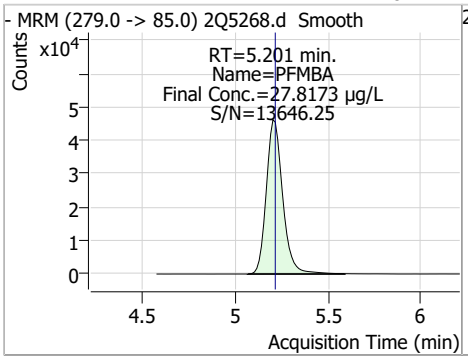
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	26.16	4.81	0.00	493164				

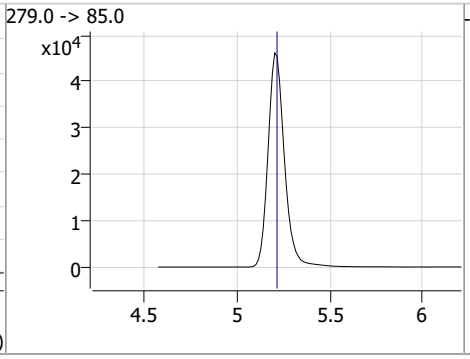


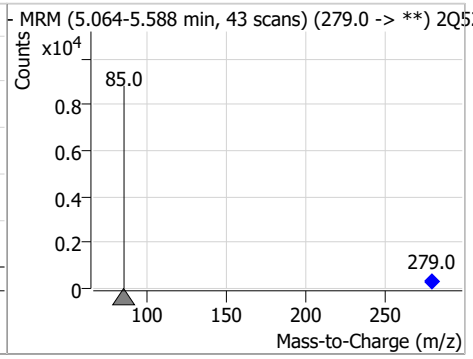




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	27.82	5.20	-0.01	283038				

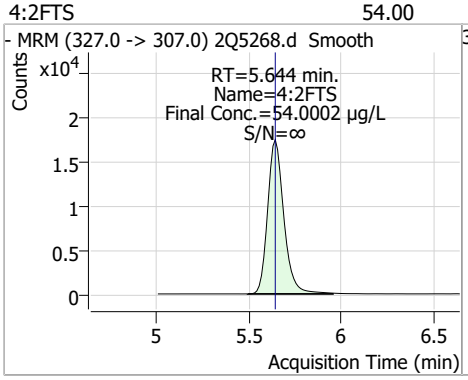


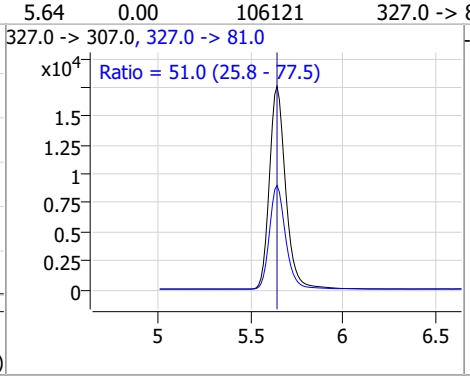


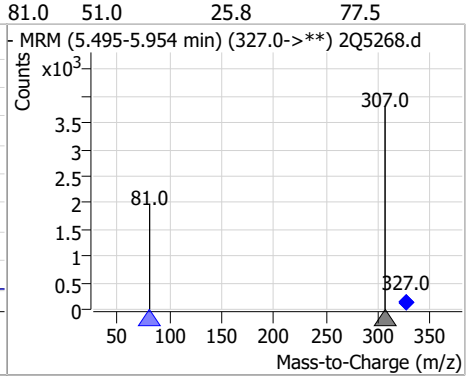


Perfluorinated Compounds by LC/MS/MS

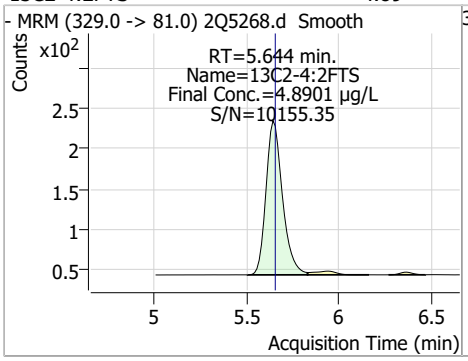
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	54.00	5.64	0.00	106121	327.0 -> 81.0	51.0	25.8	77.5

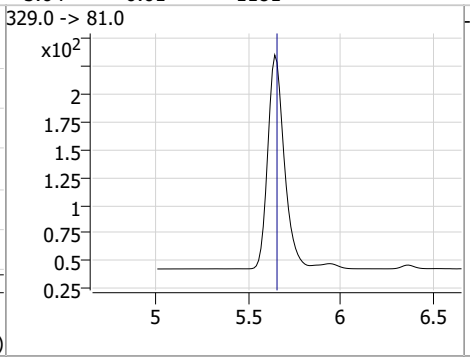


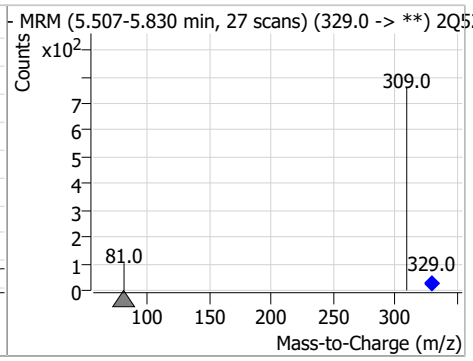




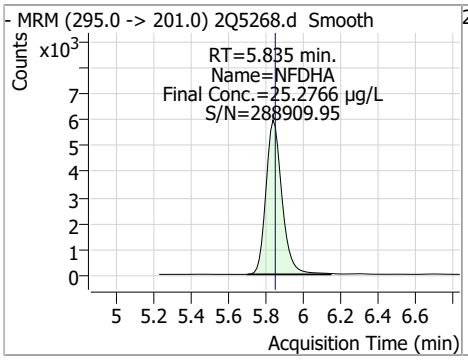
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.89	5.64	-0.01	1181				

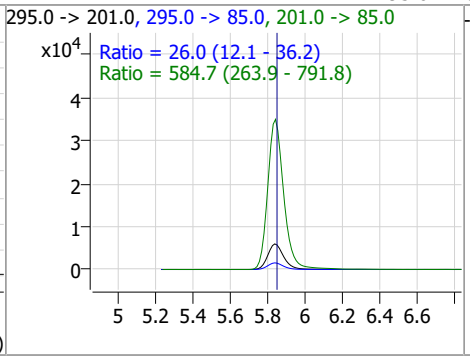


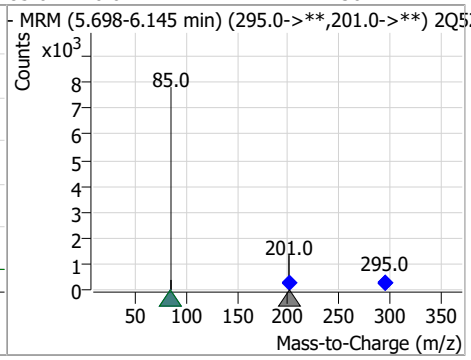




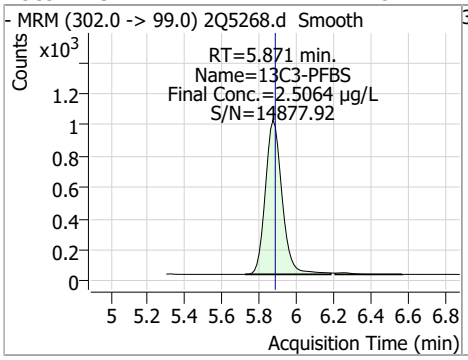
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	25.28	5.84	-0.01	35552	201.0 -> 85.0	584.7	263.9	791.8
					295.0 -> 85.0	26.0	12.1	36.2

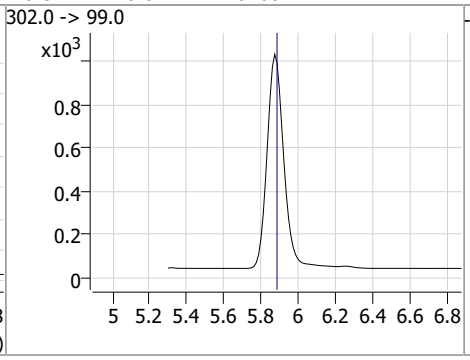


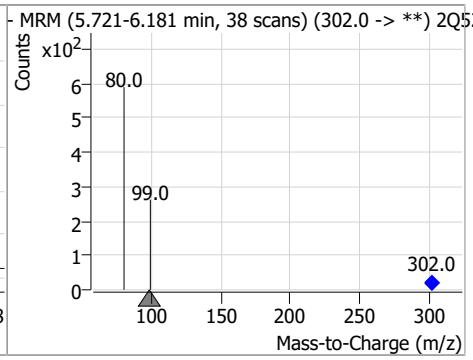




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.51	5.87	-0.01	6165				

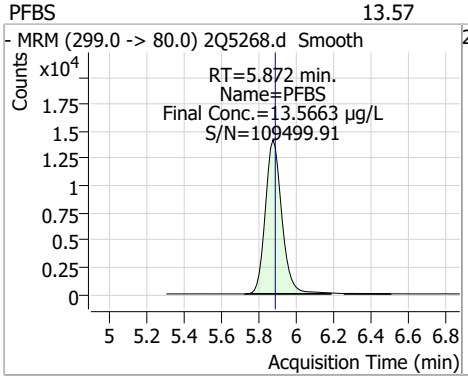


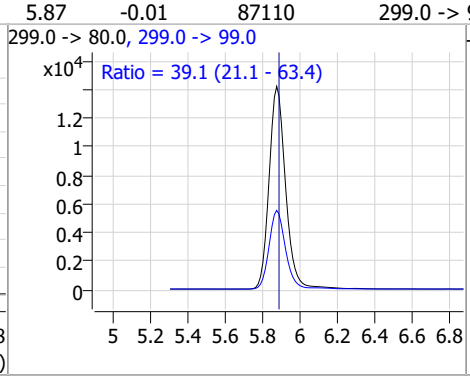


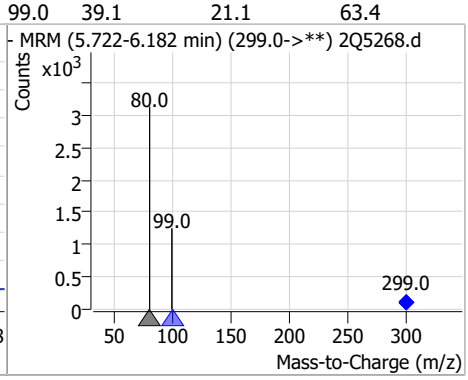


Perfluorinated Compounds by LC/MS/MS

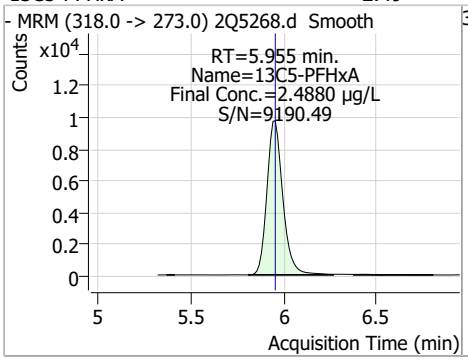
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	13.57	5.87	-0.01	87110	299.0 -> 99.0	39.1	21.1	63.4

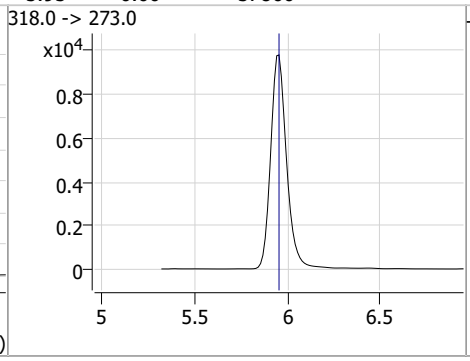


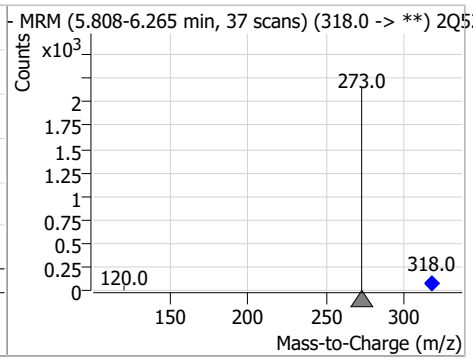




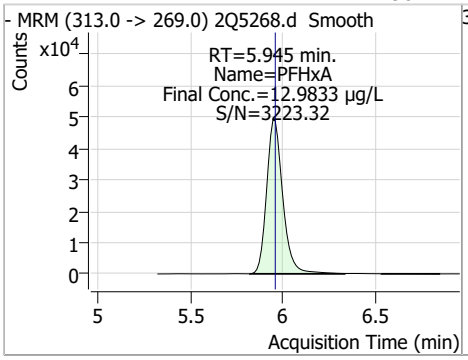
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.49	5.95	0.00	57860				

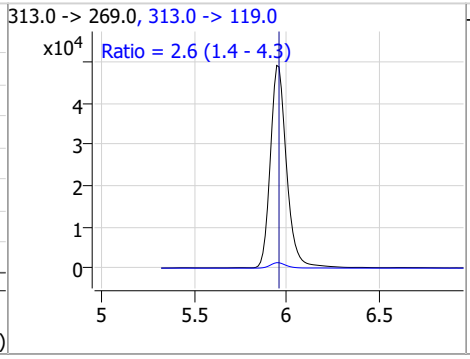


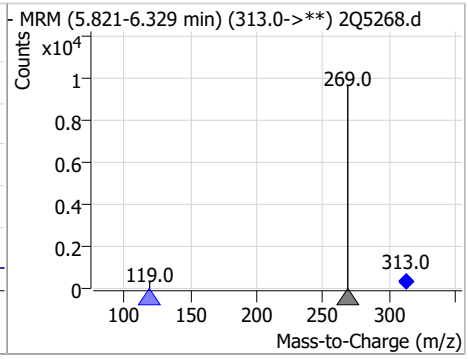




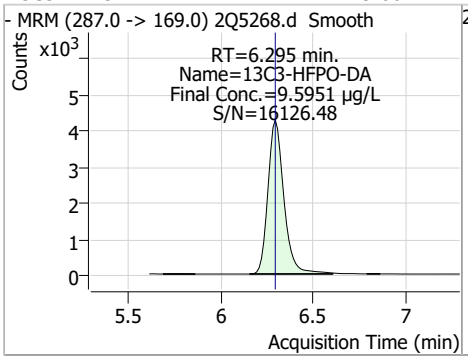
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	12.98	5.94	-0.01	297031	313.0 -> 119.0	2.6	1.4	4.3

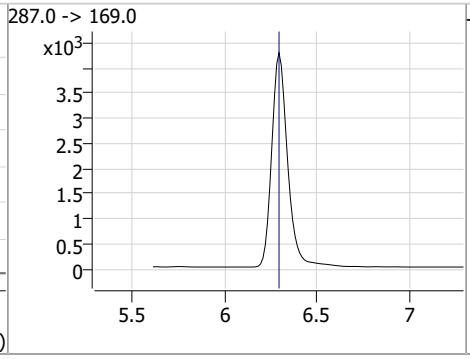


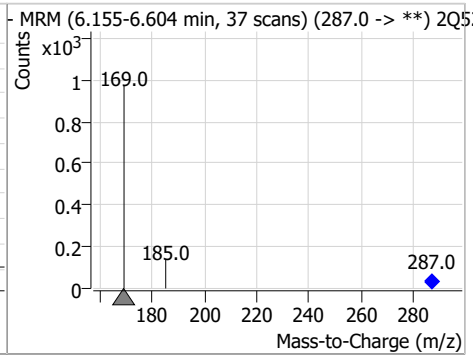




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.60	6.29	0.00	25470				

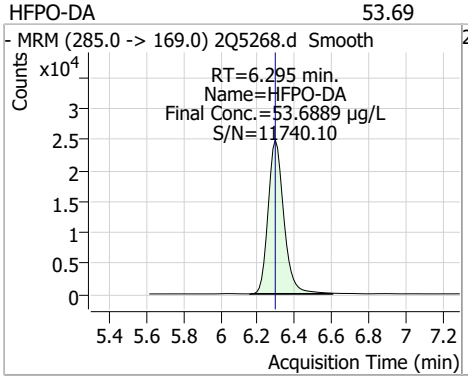


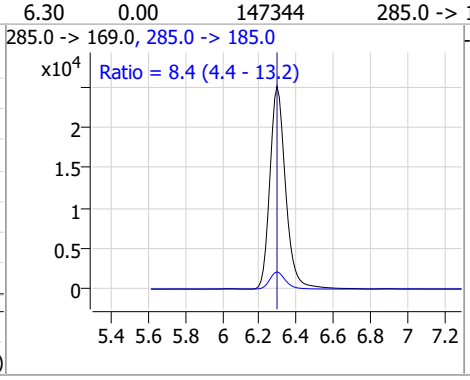


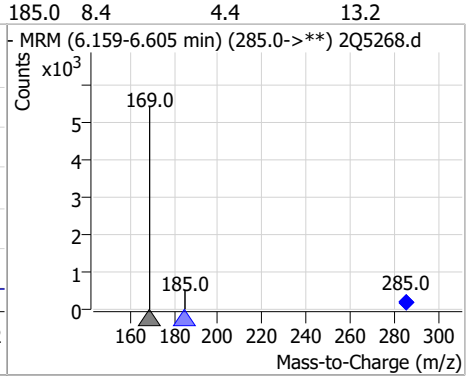


Perfluorinated Compounds by LC/MS/MS

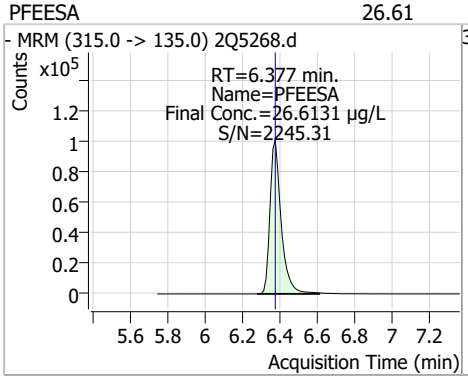
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	53.69	6.30	0.00	147344	285.0 -> 185.0	8.4	4.4	13.2

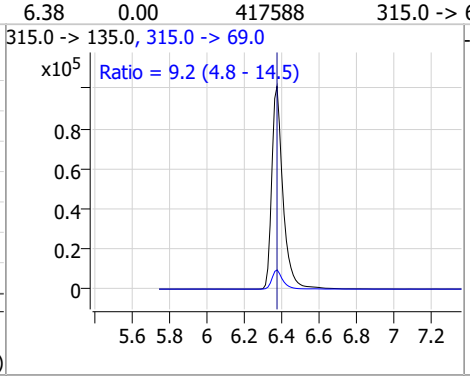


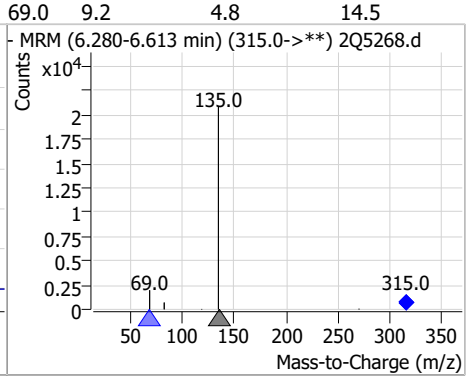




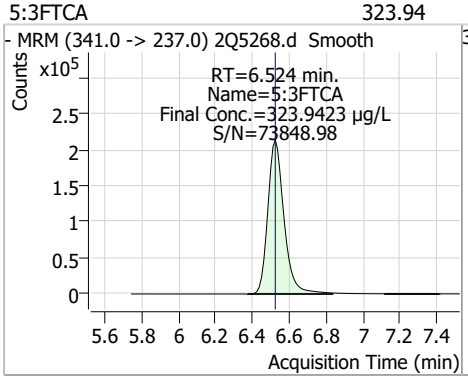
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	26.61	6.38	0.00	417588	315.0 -> 69.0	9.2	4.8	14.5

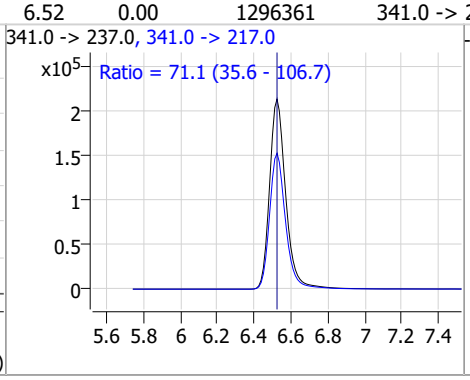


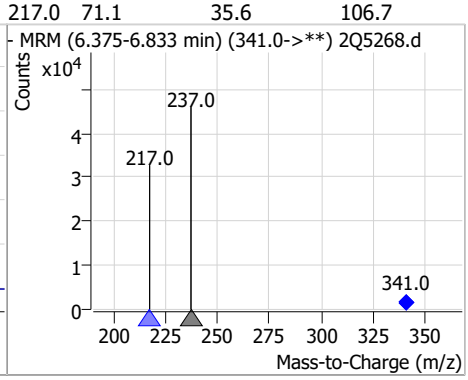




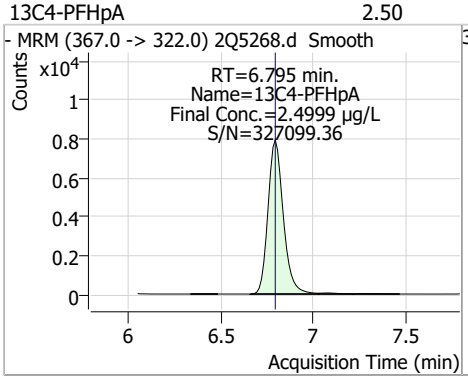
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	323.94	6.52	0.00	1296361	341.0 -> 217.0	71.1	35.6	106.7

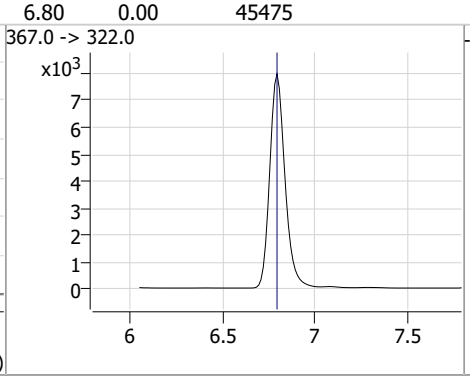


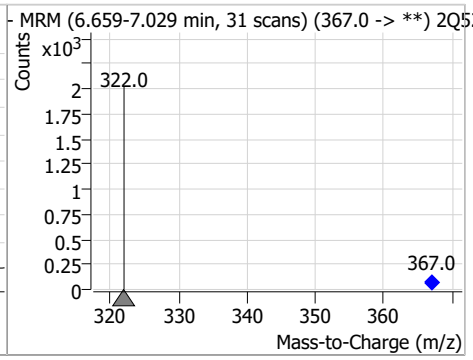




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.50	6.80	0.00	45475				

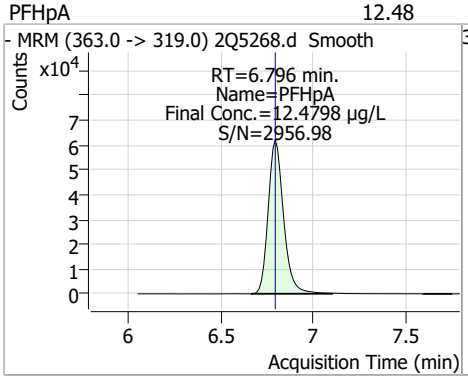


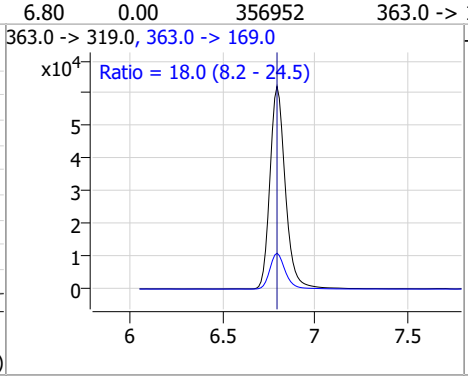


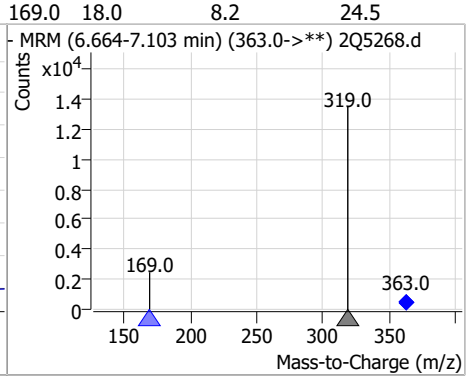


Perfluorinated Compounds by LC/MS/MS

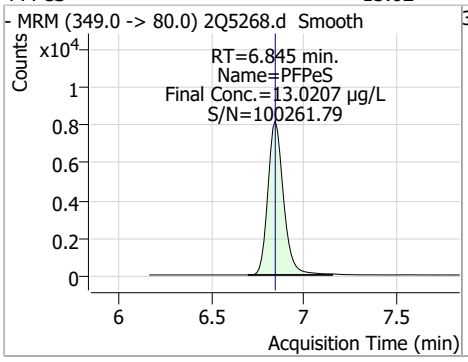
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	12.48	6.80	0.00	356952	363.0 -> 169.0	18.0	8.2	24.5

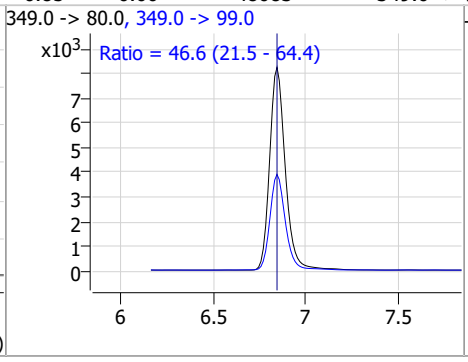


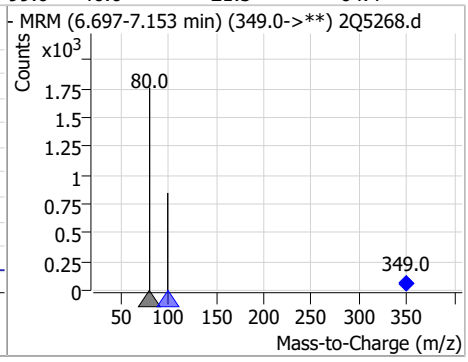




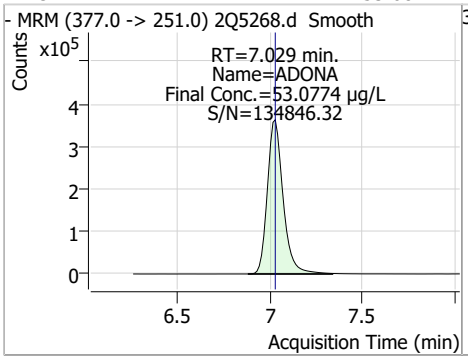
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	13.02	6.85	0.00	48083	349.0 -> 99.0	46.6	21.5	64.4

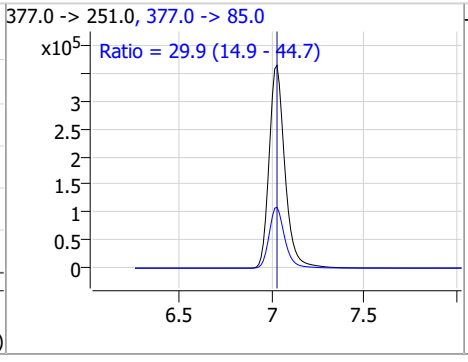


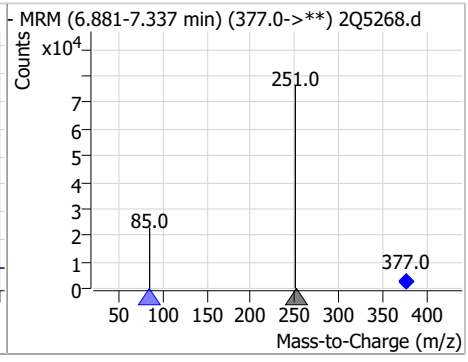




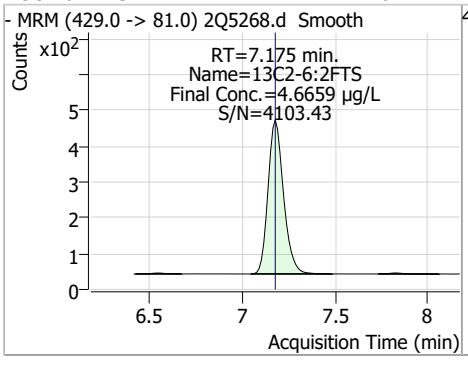
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	53.08	7.03	0.00	2142815	377.0 -> 85.0	29.9	14.9	44.7

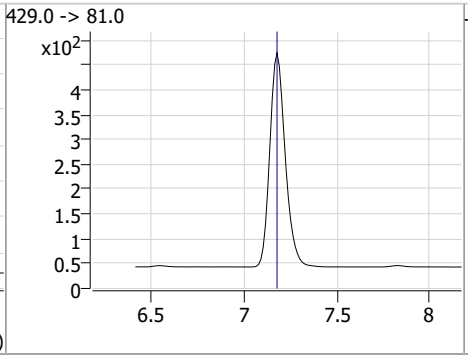


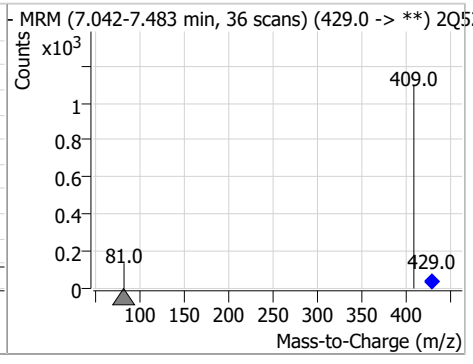




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.67	7.17	0.00	2498				

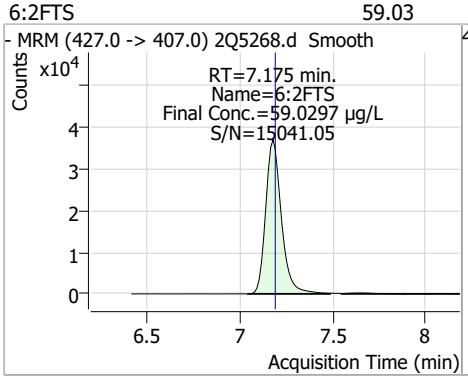


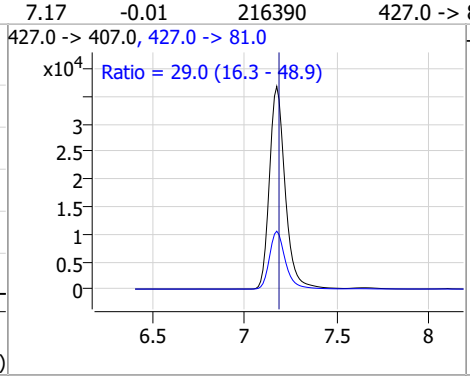


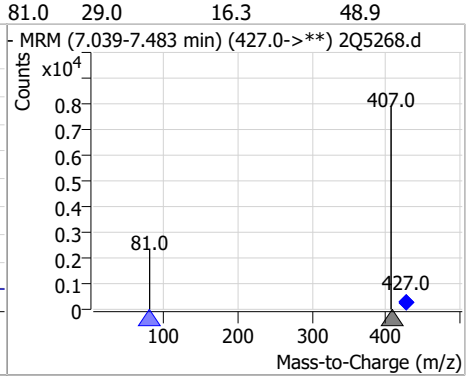


Perfluorinated Compounds by LC/MS/MS

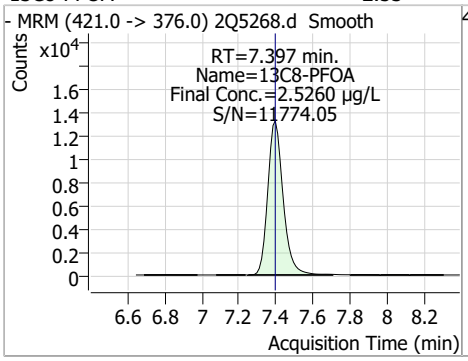
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	59.03	7.17	-0.01	216390	427.0 -> 81.0	29.0	16.3	48.9

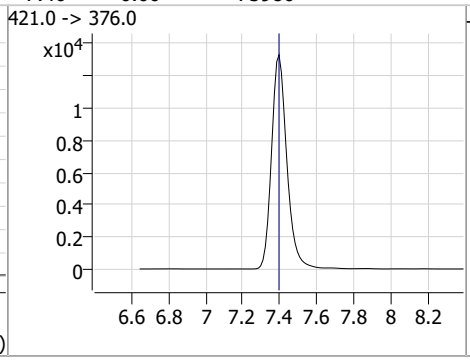


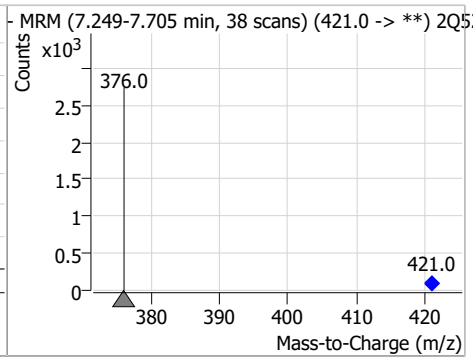




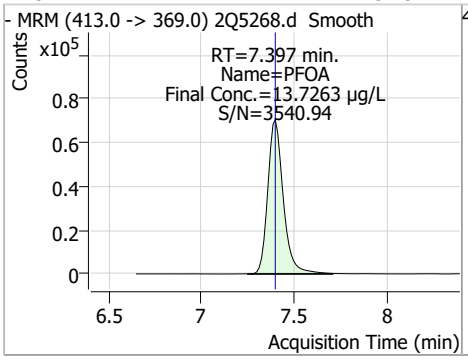
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.53	7.40	0.00	75986				

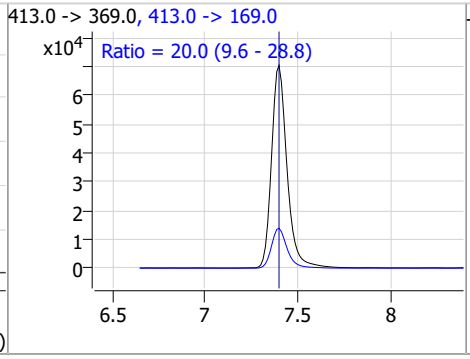


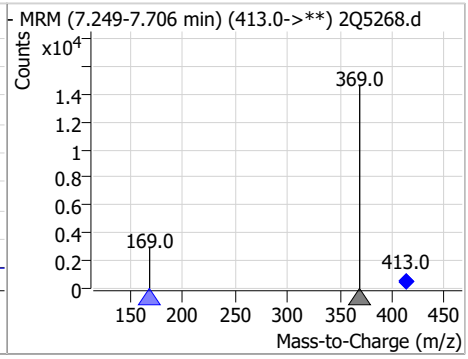




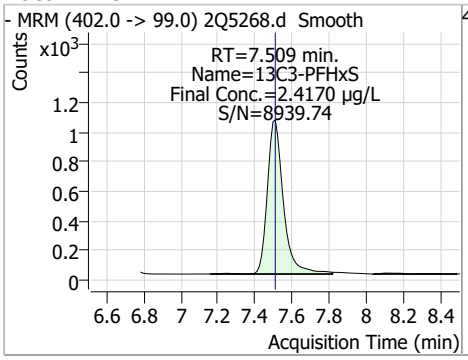
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	13.73	7.40	0.00	408589	413.0 -> 169.0	20.0	9.6	28.8

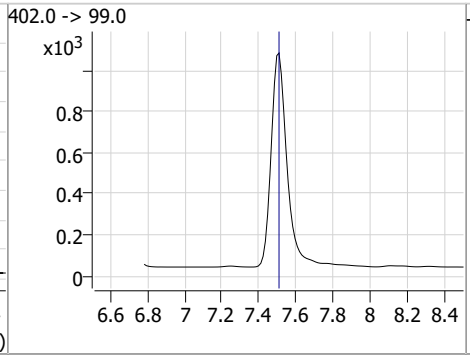


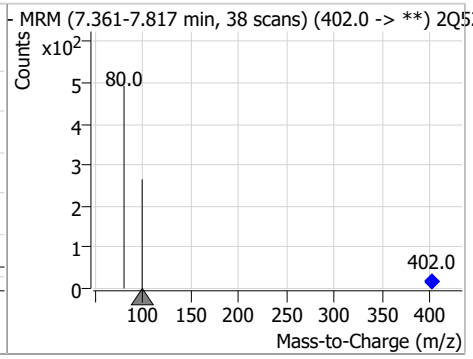




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.42	7.51	0.00	6238				

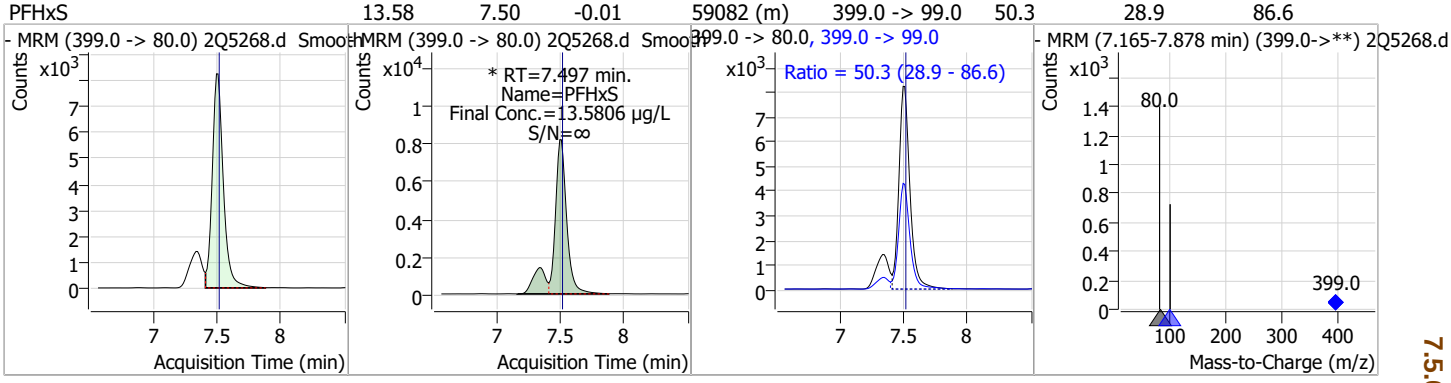




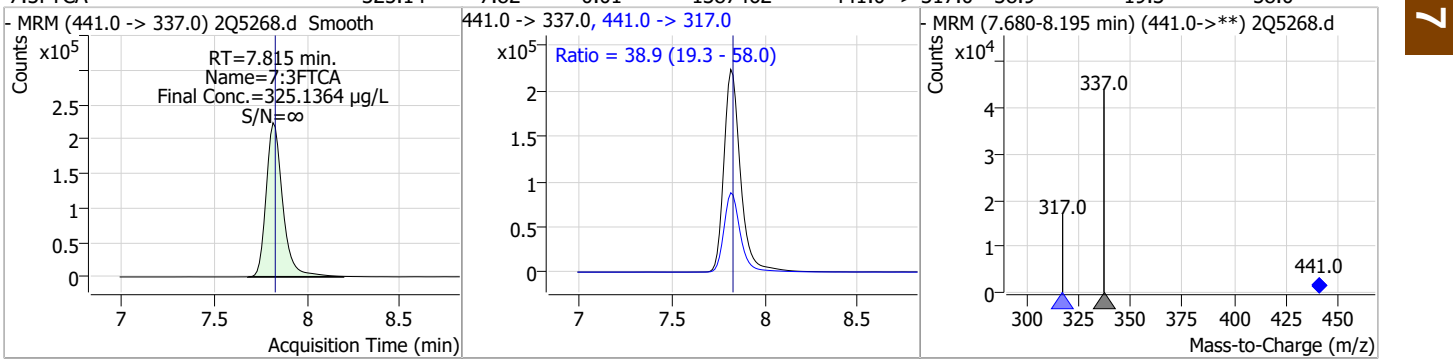


Perfluorinated Compounds by LC/MS/MS

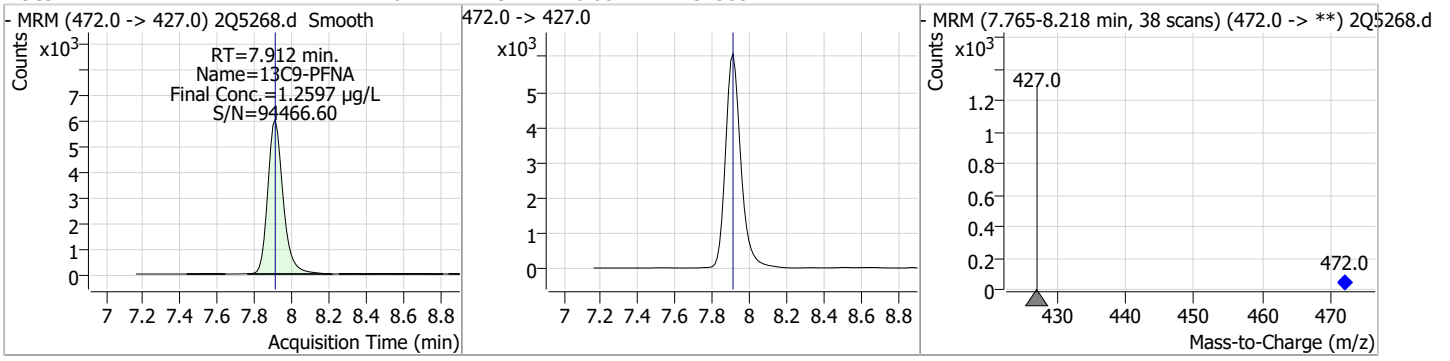
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	13.58	7.50	-0.01	59082 (m)	399.0 -> 99.0	50.3	28.9	86.6



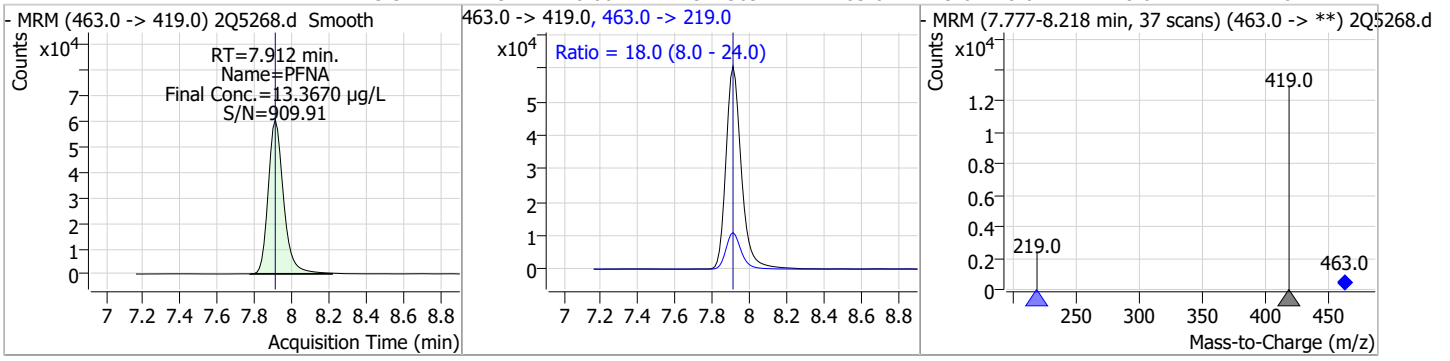
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	325.14	7.82	-0.01	1387462	441.0 -> 317.0	38.9	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.26	7.91	0.00	34588				

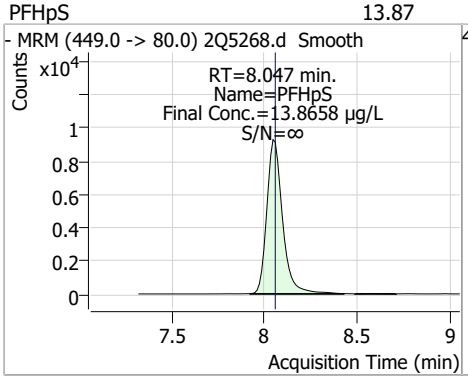


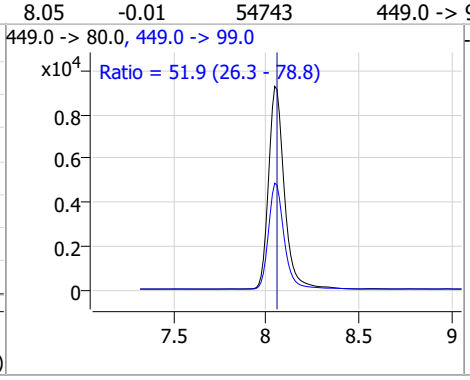
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	13.37	7.91	0.00	347369	463.0 -> 219.0	18.0	8.0	24.0

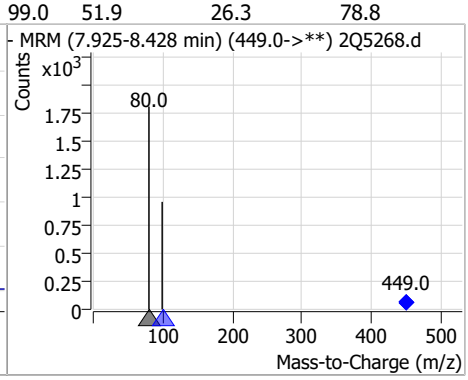


Perfluorinated Compounds by LC/MS/MS

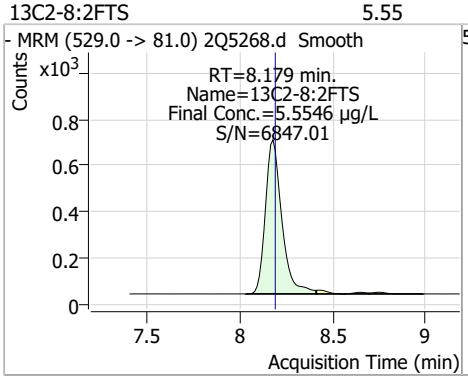
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	13.87	8.05	-0.01	54743	449.0 -> 99.0	51.9	26.3	78.8

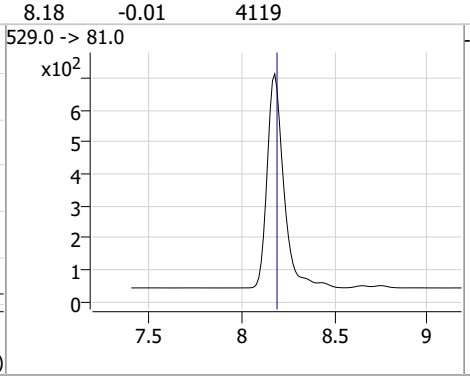


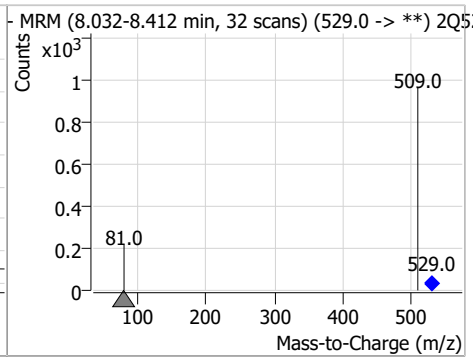




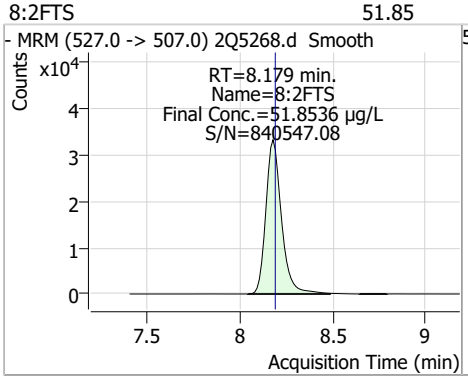
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.55	8.18	-0.01	4119				

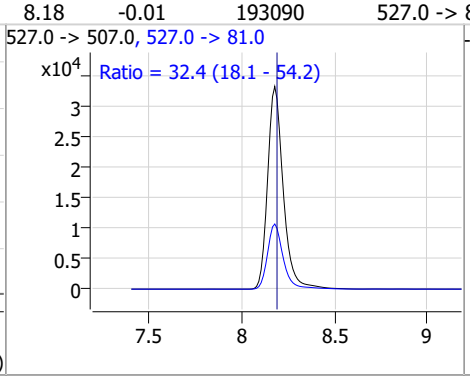


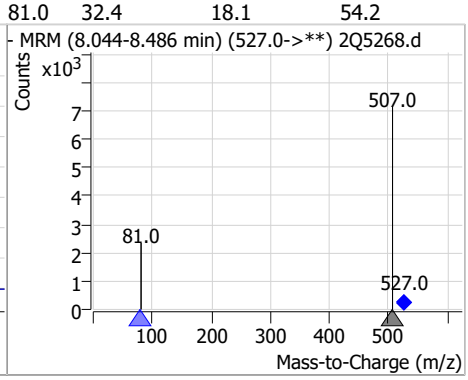




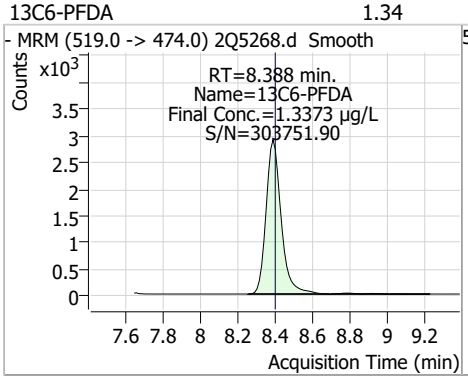
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	51.85	8.18	-0.01	193090	527.0 -> 81.0	32.4	18.1	54.2

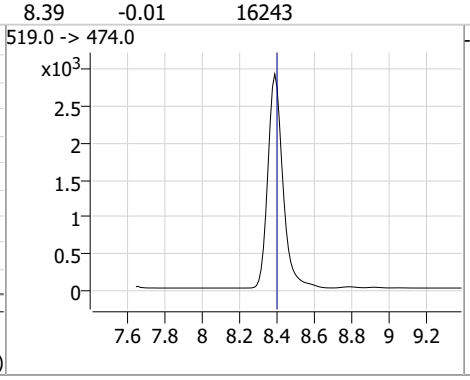


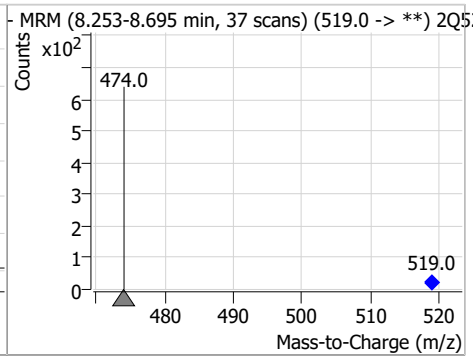




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.34	8.39	-0.01	16243				

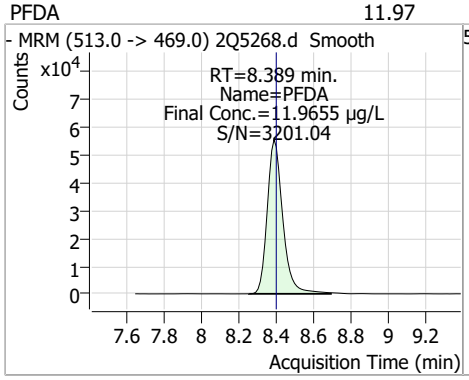


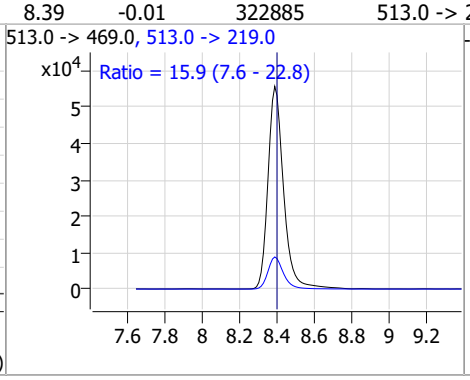


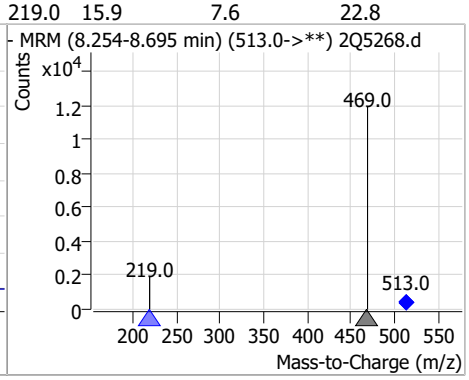


Perfluorinated Compounds by LC/MS/MS

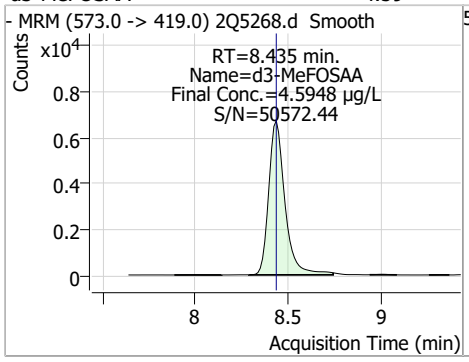
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	11.97	8.39	-0.01	322885	513.0 -> 219.0	15.9	7.6	22.8

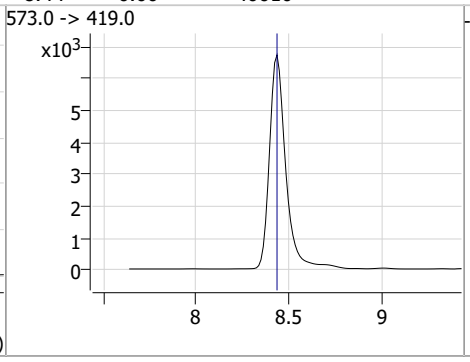


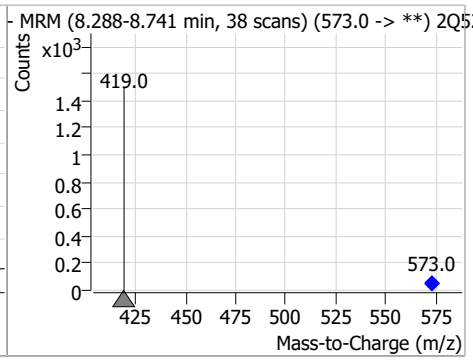




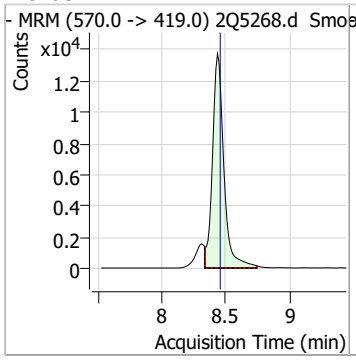
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.59	8.44	0.00	40610				

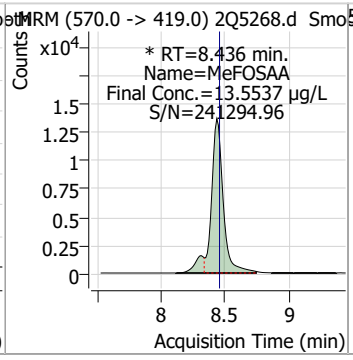


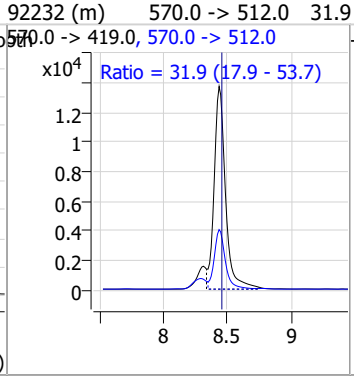


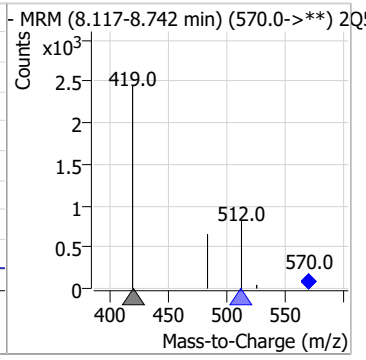


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	13.55	8.44	-0.01	92232 (m)	570.0 -> 512.0	31.9	17.9	53.7

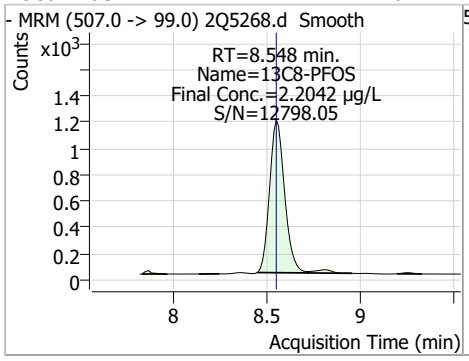


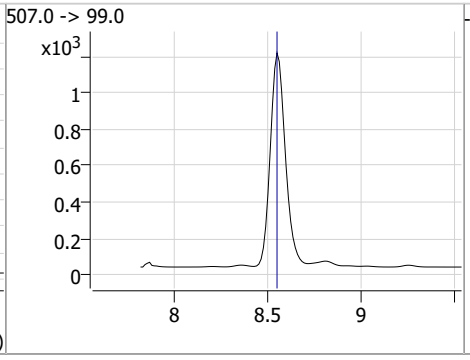


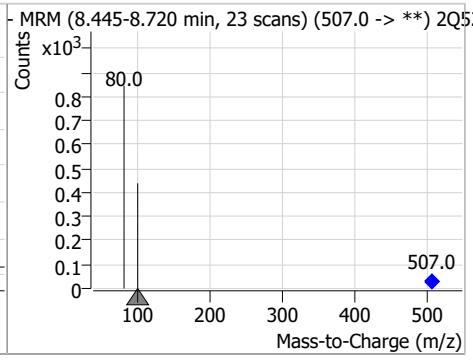




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.20	8.55	0.00	6518				

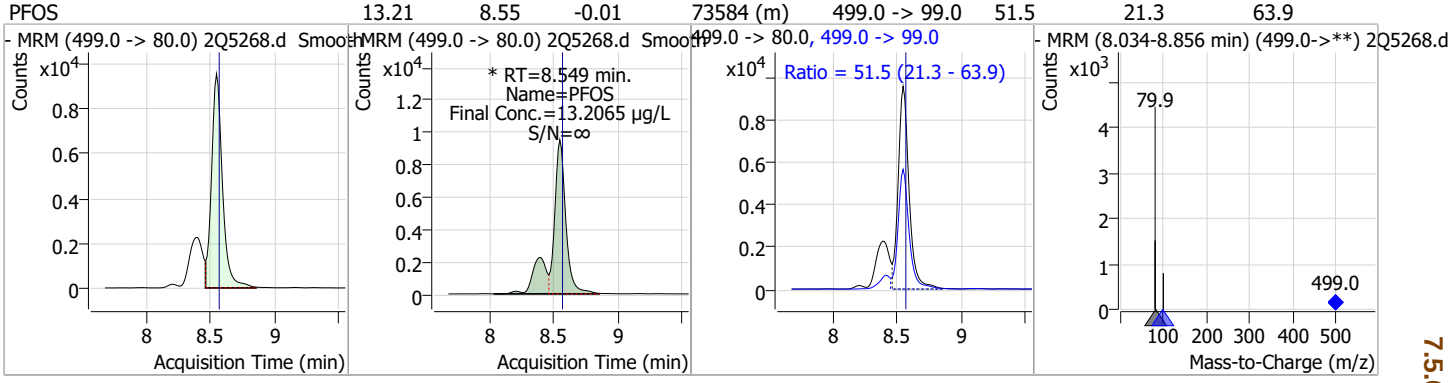




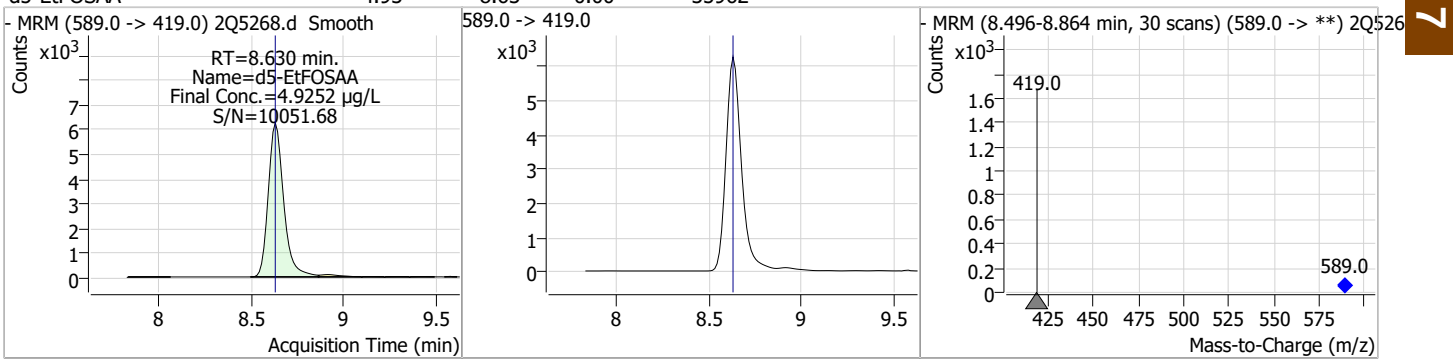


Perfluorinated Compounds by LC/MS/MS

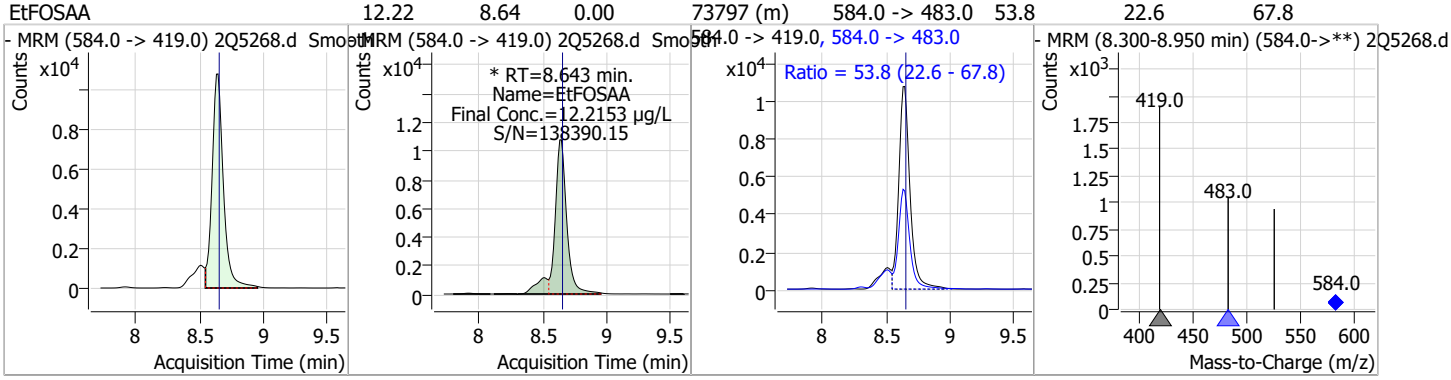
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	13.21	8.55	-0.01	73584 (m)	499.0 -> 99.0	51.5	21.3	63.9



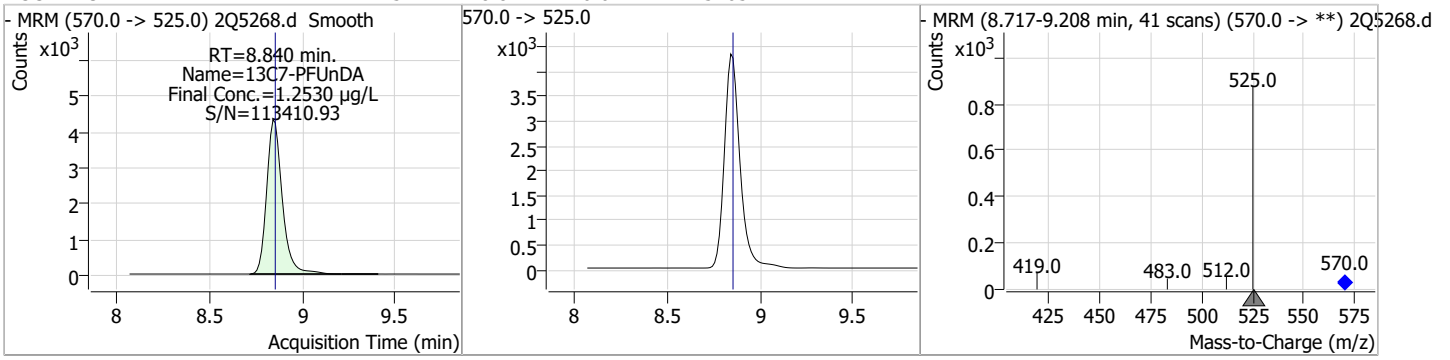
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.93	8.63	0.00	35962				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	12.22	8.64	0.00	73797 (m)	584.0 -> 483.0	53.8	22.6	67.8

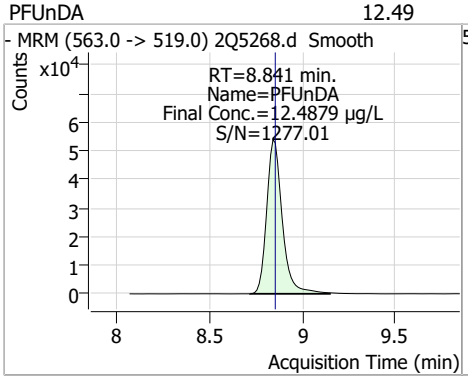


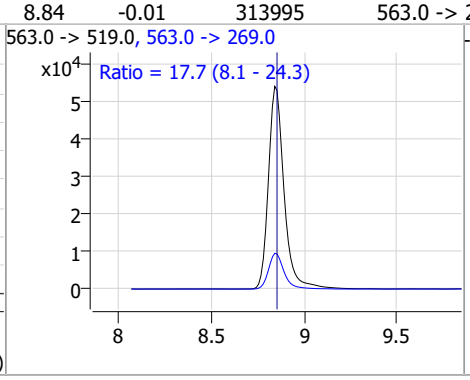
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.25	8.84	-0.01	25105				

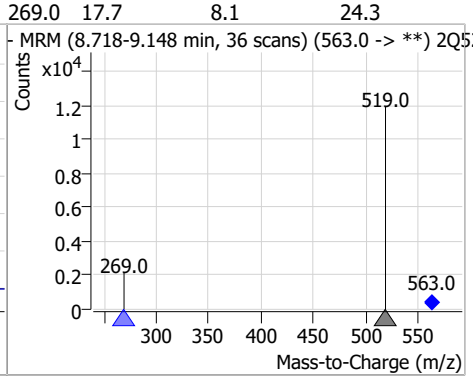


Perfluorinated Compounds by LC/MS/MS

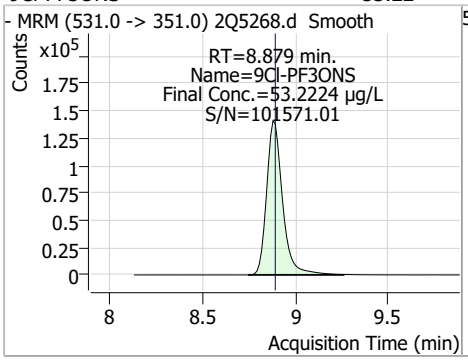
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	12.49	8.84	-0.01	313995	563.0 -> 269.0	17.7	8.1	24.3

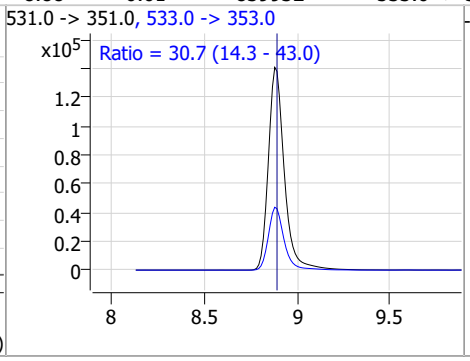


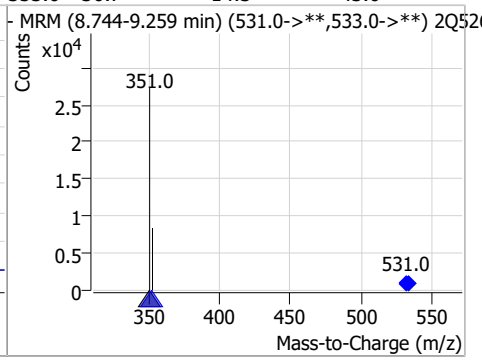




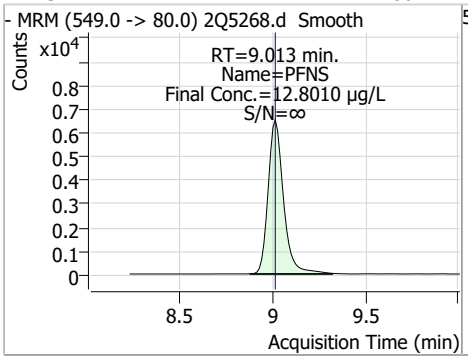
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	53.22	8.88	-0.01	839932	533.0 -> 353.0	30.7	14.3	43.0

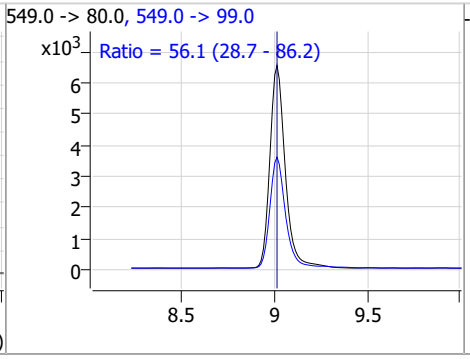


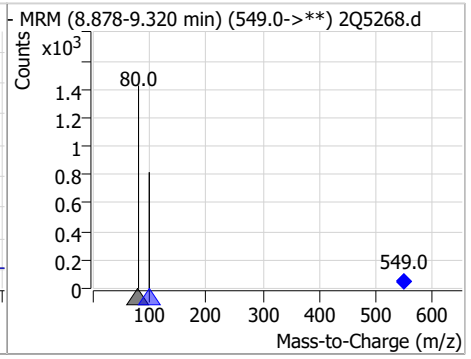




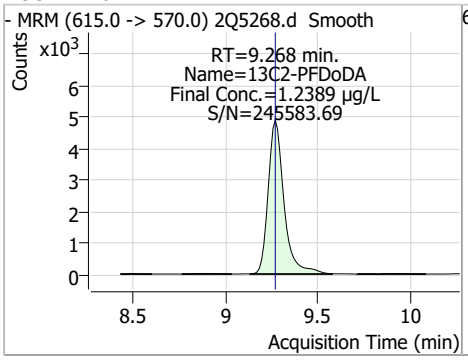
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	12.80	9.01	0.00	37563	549.0 -> 99.0	56.1	28.7	86.2

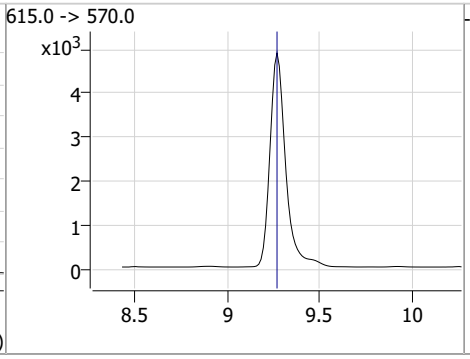


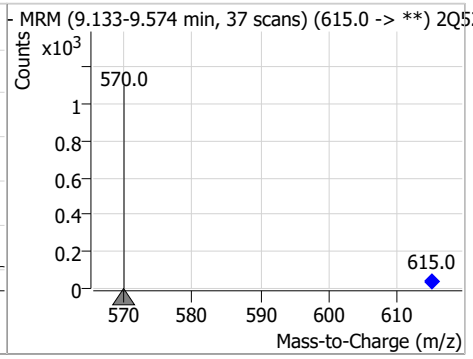




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.24	9.27	0.00	28776				

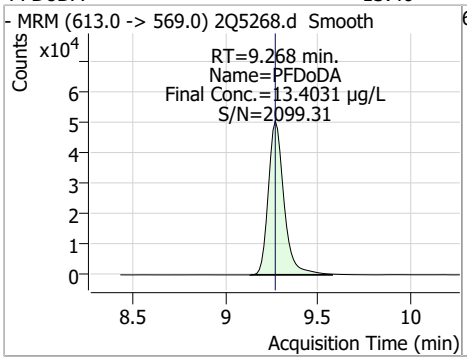


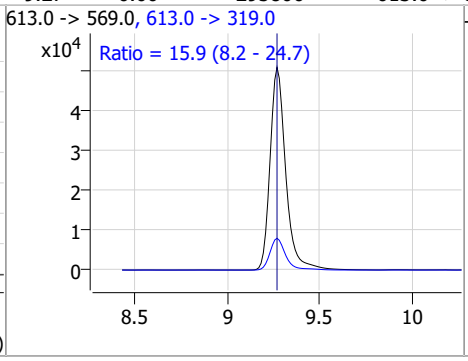


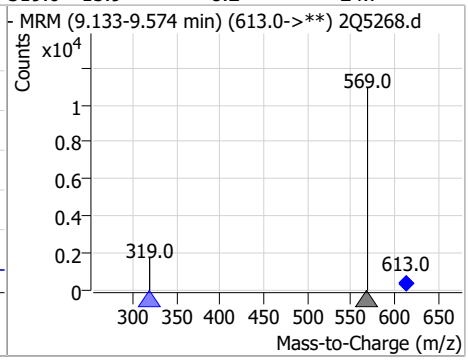


Perfluorinated Compounds by LC/MS/MS

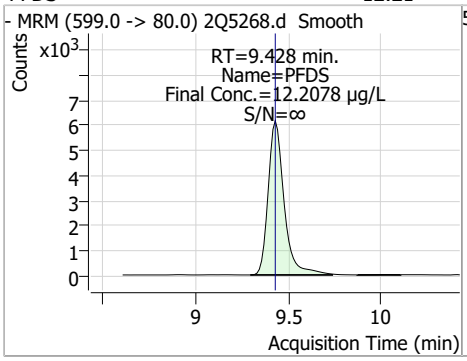
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	13.40	9.27	0.00	295806	613.0 -> 319.0	15.9	8.2	24.7

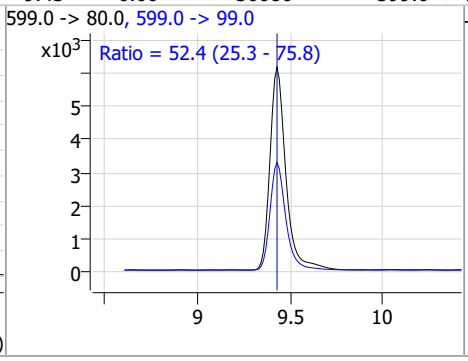


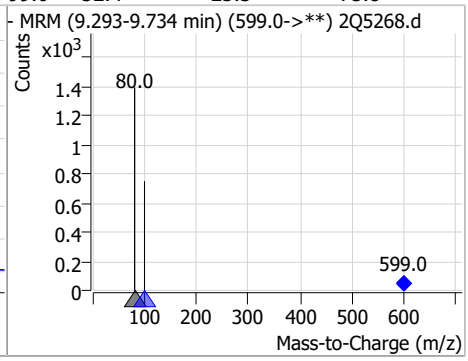




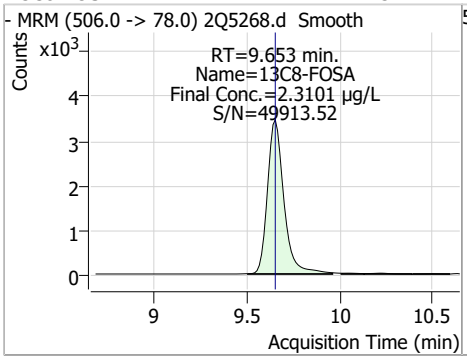
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	12.21	9.43	0.00	36686	599.0 -> 99.0	52.4	25.3	75.8

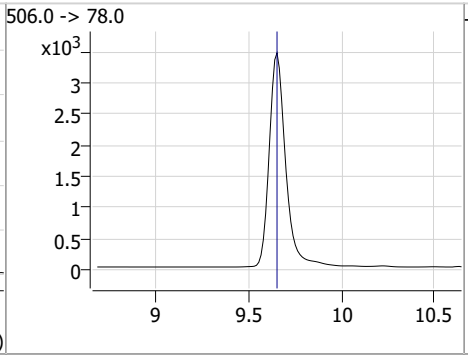


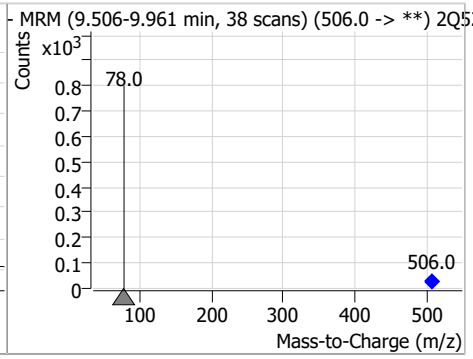




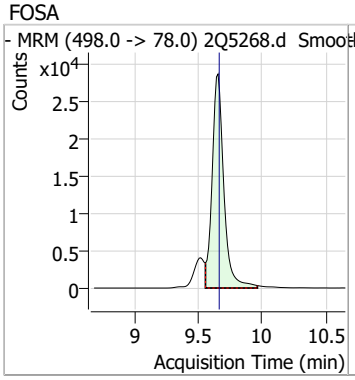
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.31	9.65	0.00	21241				

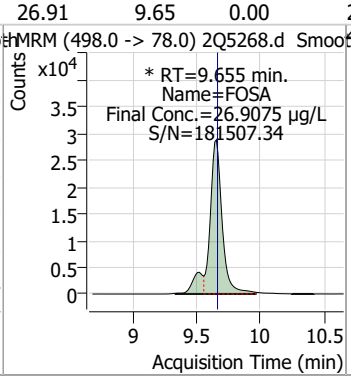


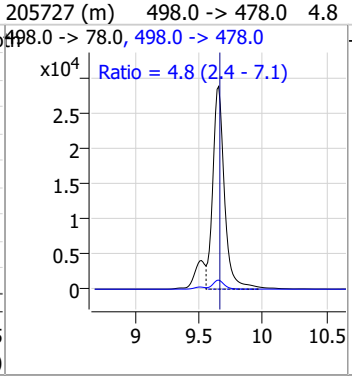


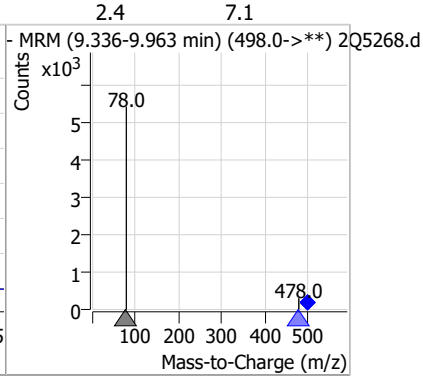


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	26.91	9.65	0.00	205727 (m)	498.0 -> 478.0	4.8	2.4	7.1



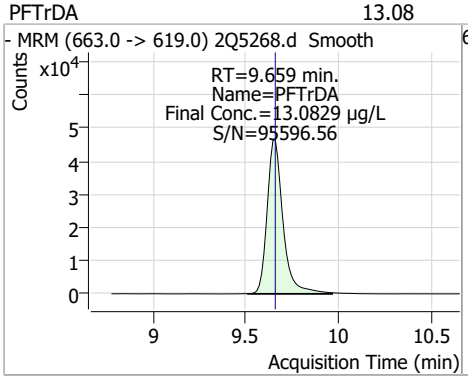


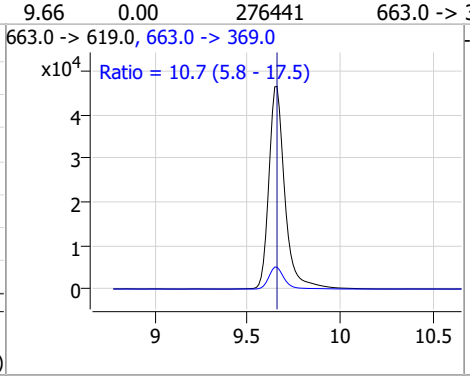


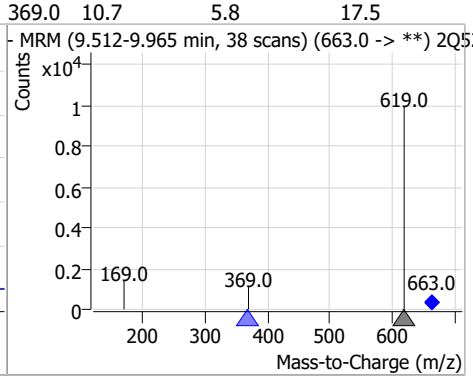


Perfluorinated Compounds by LC/MS/MS

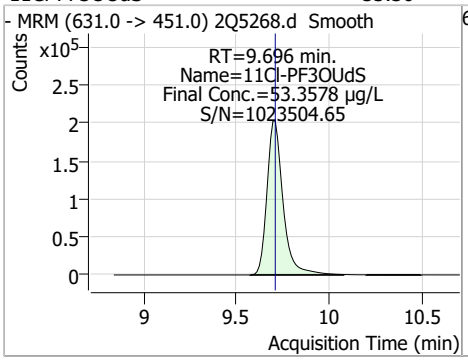
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	13.08	9.66	0.00	276441	663.0 -> 369.0	10.7	5.8	17.5

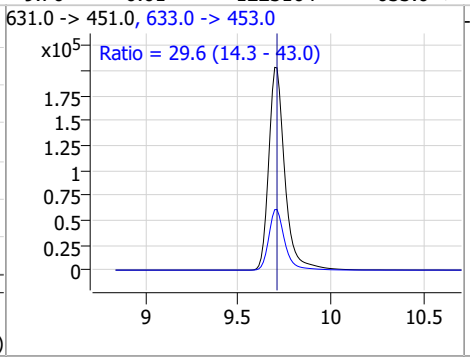


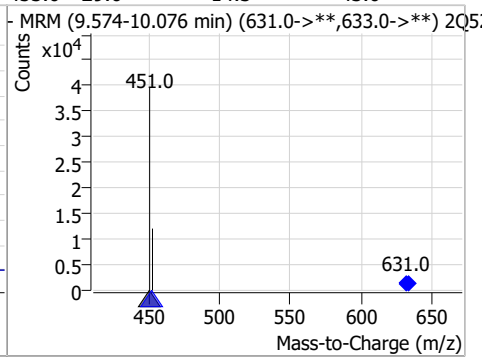




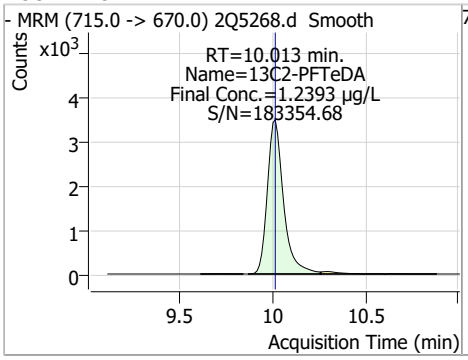
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	53.36	9.70	-0.01	1223164	633.0 -> 453.0	29.6	14.3	43.0

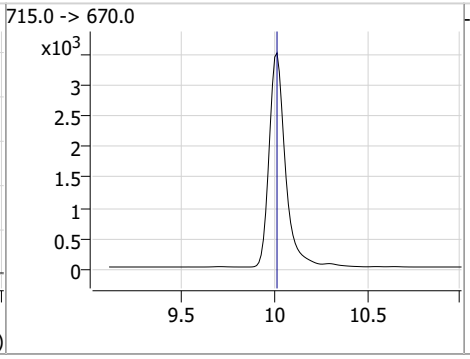


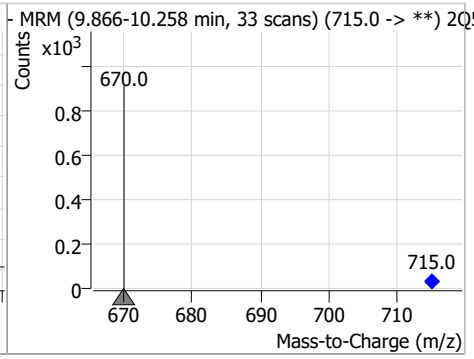




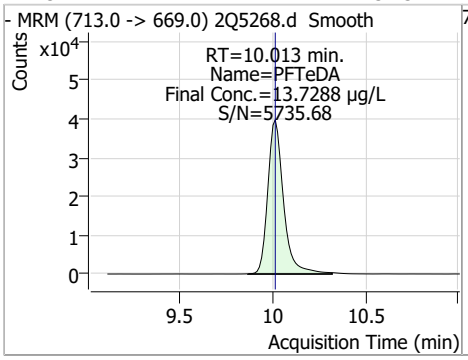
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.24	10.01	0.00	21112				

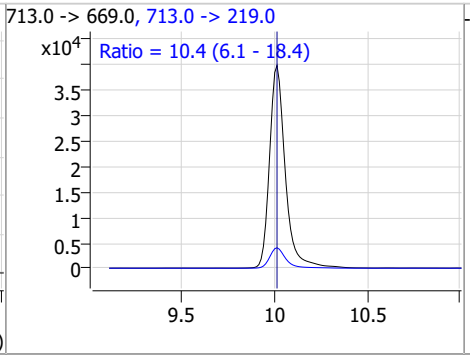


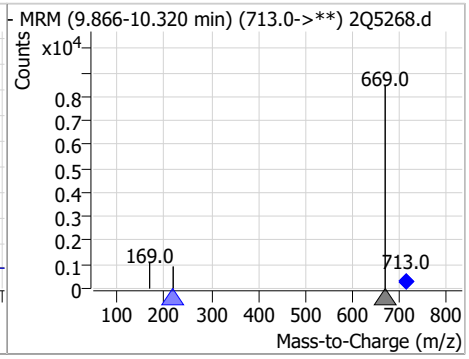




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	13.73	10.01	0.00	234499	713.0 -> 219.0	10.4	6.1	18.4

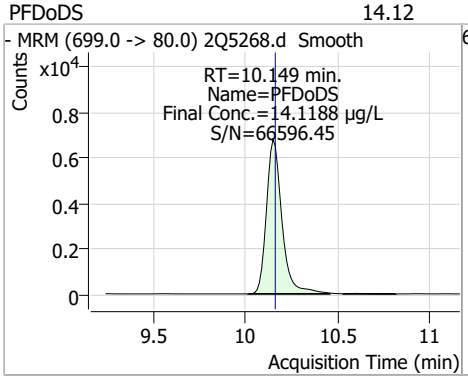


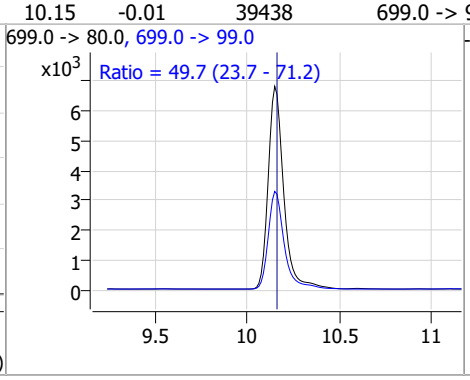


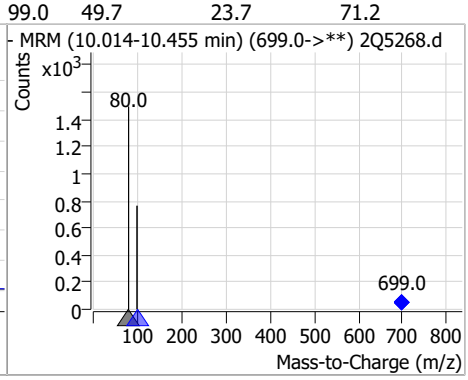


Perfluorinated Compounds by LC/MS/MS

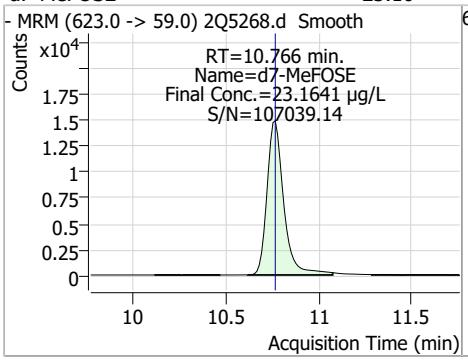
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	14.12	10.15	-0.01	39438	699.0 -> 99.0	49.7	23.7	71.2

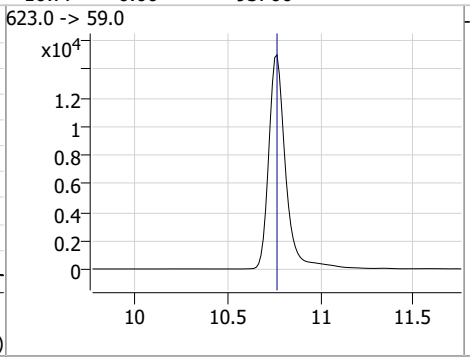


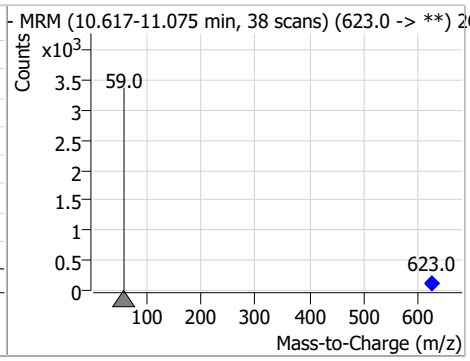




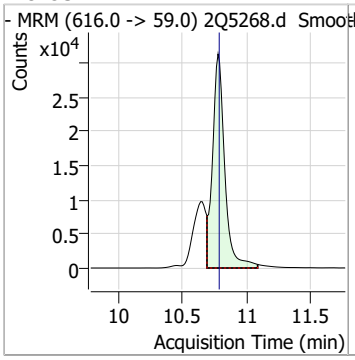
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.16	10.77	0.00	93706				

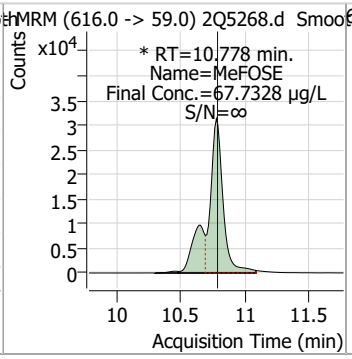


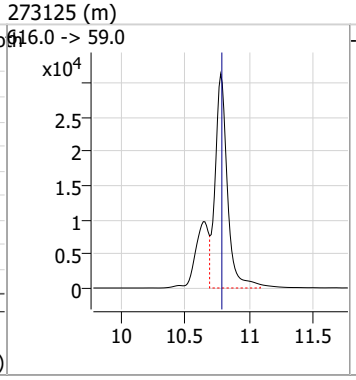


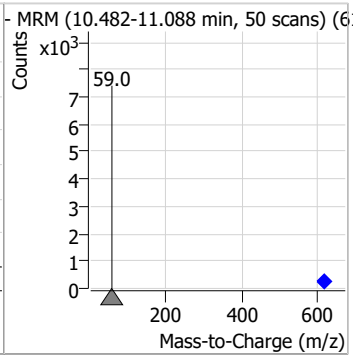


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	67.73	10.78	0.00	273125 (m)				

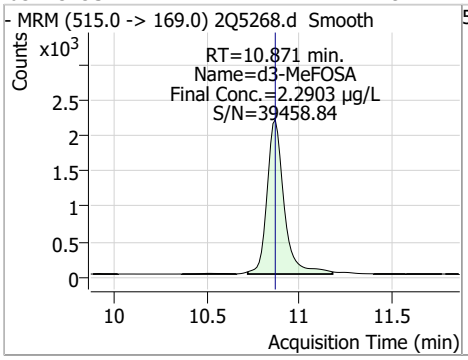


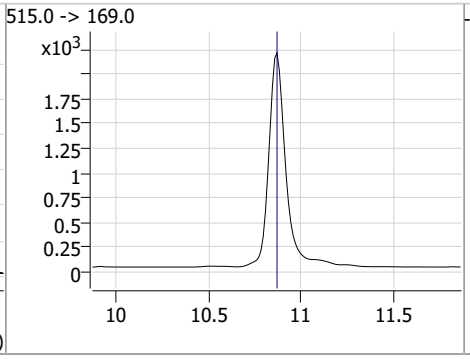


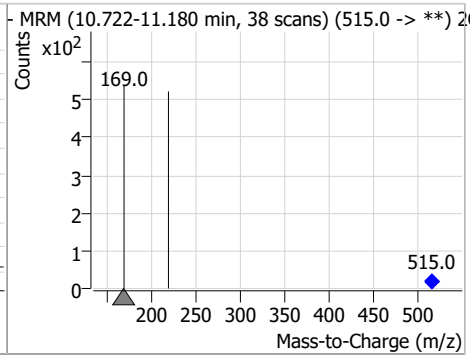




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.29	10.87	0.00	13932				

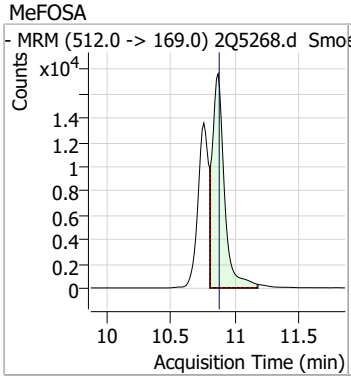


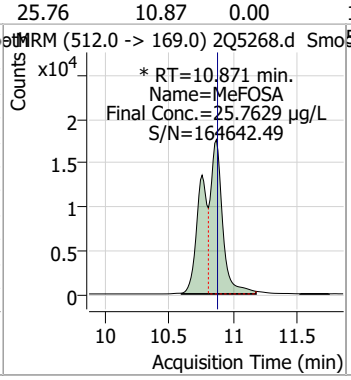


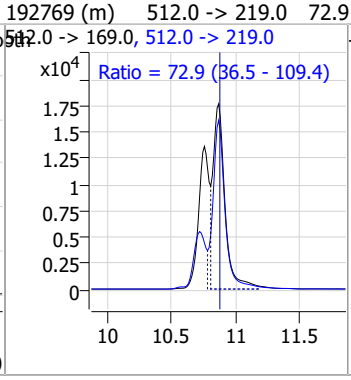


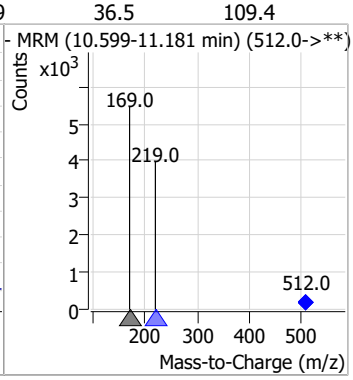
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	25.76	10.87	0.00	192769 (m)	512.0 -> 219.0	72.9	36.5	109.4

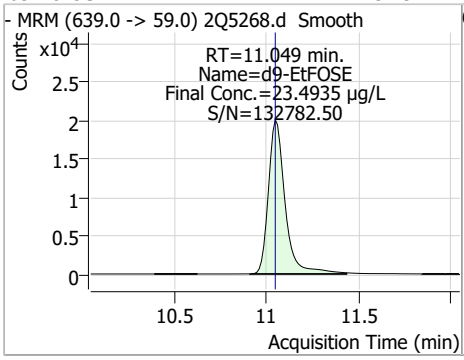


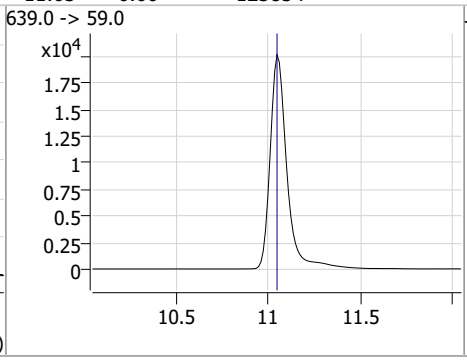


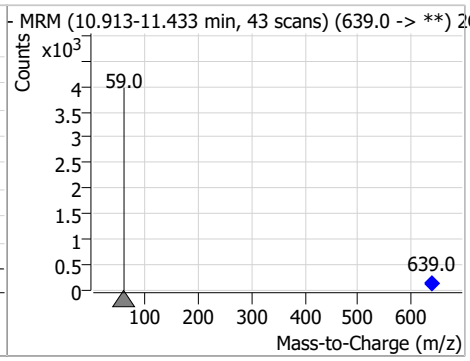




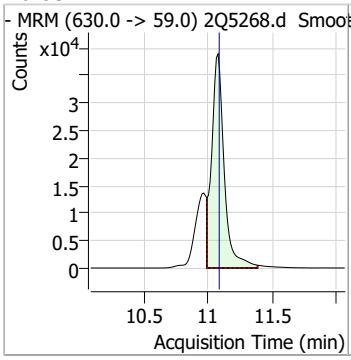
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	23.49	11.05	0.00	125854				

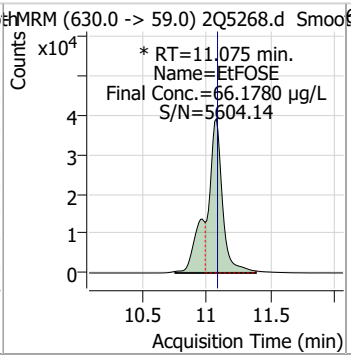


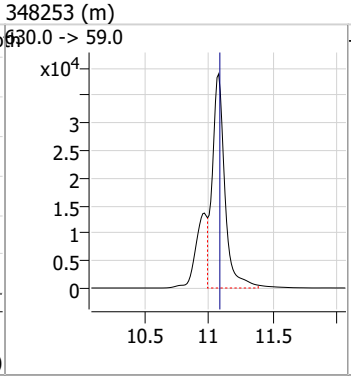


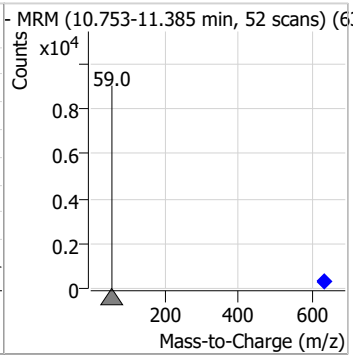


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	66.18	11.08	0.00	348253 (m)				

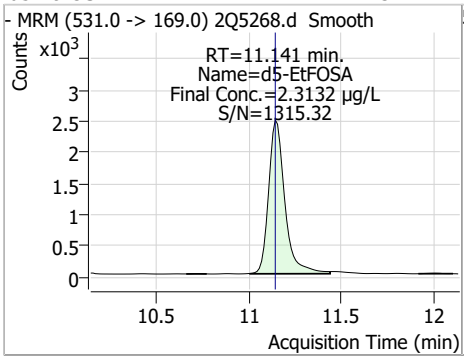


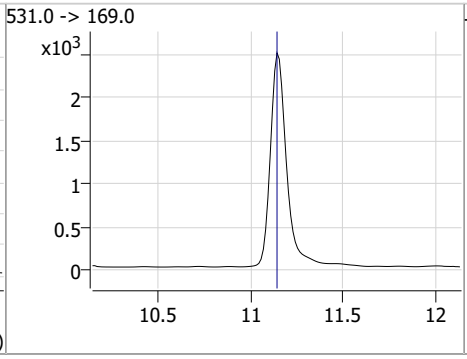


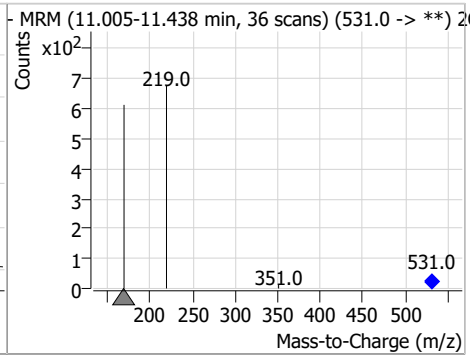




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.31	11.14	0.00	15086				

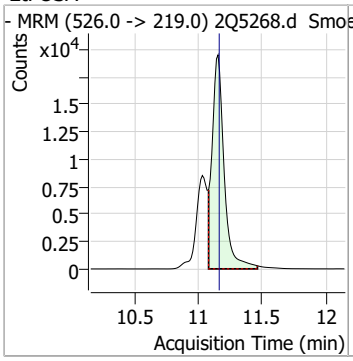


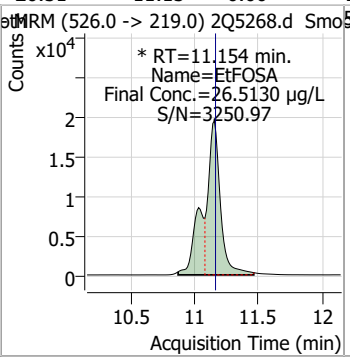


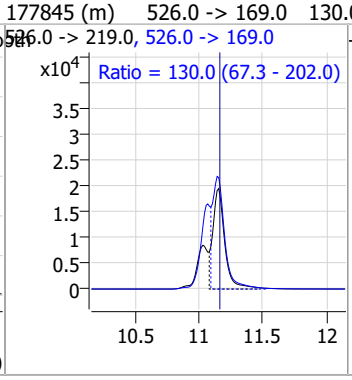


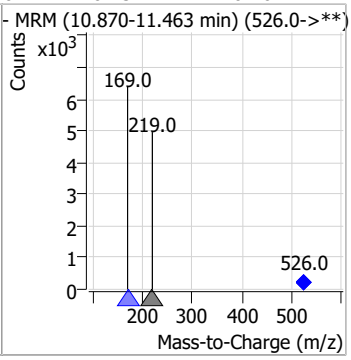
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	26.51	11.15	0.00	177845 (m)	526.0 -> 169.0	130.0	67.3	202.0









7.5.6

7

Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5268.D
Injection Time: 11/30/23 18:36
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.50	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

2Q5269.D

Manual Integrations APPROVED (compounds with "m" flag)

Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5269.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 6:52:04 PM
Sample Name : ic96-7
Vial : P1-A8
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	166406	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	106082	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	59555	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	47618	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	76997	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	37456	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	16001	1.25	µg/L	-0.012
M7-PFUnDA	8.840	570.0 -> 525.0	23863	1.25	µg/L	-0.012
M2-PFDoDA	9.268	615.0 -> 570.0	28836	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	22283	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	22370	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6651	2.50	µg/L	-0.012
		302.0 -> 80.0	15375			
M3-PFHxS	7.509	402.0 -> 99.0	6753	2.50	µg/L	0.000
M8-PFOS	8.548	507.0 -> 99.0	7132	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1070	5.00	µg/L	-0.012
M2-6:2FTS	7.187	429.0 -> 81.0	2425	5.00	µg/L	0.012
M2-8:2FTS	8.179	529.0 -> 81.0	3627	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	42642	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	24294	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	35270	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	97267	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	128068	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	15695	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14873	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	12310	2.50	µg/L	0.000
13C3-PFBA	3.330	216.0 -> 172.0	74155	5.00	µg/L	-0.012
18O2-PFHxS	7.509	403.0 -> 84.0	6790	2.50	µg/L	0.000
13C4-PFOA	7.397	417.0 -> 372.0	76971	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	32044	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	37869	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	57033	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1070	4.32	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 86.3%		
13C2-6:2FTS	7.187	429.0 -> 81.0	2425	4.41	µg/L	0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 88.3%		
13C2-8:2FTS	8.179	529.0 -> 81.0	3627	4.77	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.3%		
13C2-PFDoDA	9.268	615.0 -> 570.0	28836	1.13	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 90.2%		
13C2-PFTeDA	10.013	715.0 -> 670.0	22283	1.19	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.0%		
13C3-PFBS	5.871	302.0 -> 99.0	6651	2.63	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.509	402.0 -> 99.0	6753	2.55	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.0%			
13C4-PFBA	3.339	217.0 -> 172.0	166406	9.97	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.7%			
13C4-PFHpA	6.795	367.0 -> 322.0	47618	2.57	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.8%			
13C5-PFHxA	5.955	318.0 -> 273.0	59555	2.51	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C5-PFPeA	4.810	268.0 -> 223.0	106082	4.96	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.3%			
13C6-PFDA	8.388	519.0 -> 474.0	16001	1.20	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.7%			
13C7-PFUnDA	8.840	570.0 -> 525.0	23863	1.08	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.5%			
13C8-FOSA	9.653	506.0 -> 78.0	22370	2.68	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 107.3%			
13C8-PFOA	7.397	421.0 -> 376.0	76997	2.42	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.6%			
13C8-PFOS	8.548	507.0 -> 99.0	7132	2.66	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.4%			
13C9-PFNA	7.912	472.0 -> 427.0	37456	1.26	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 101.1%			
d3-MeFOSAA	8.435	573.0 -> 419.0	42642	5.32	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.4%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	24294	8.98	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 89.8%			
d3-MeFOSA	10.871	515.0 -> 169.0	14873	2.70	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 107.9%			
d5-EtFOSAA	8.630	589.0 -> 419.0	35270	5.33	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.6%			
d7-MeFOSE	10.766	623.0 -> 59.0	97267	26.52	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 106.1%			
d9-EtFOSE	11.049	639.0 -> 59.0	128068	26.37	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 105.5%			
d5-EtFOSA	11.141	531.0 -> 169.0	15695	2.65	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.2%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	195041	109.55	µg/L		97
		327.0 -> 81.0	96754				
6:2FTS	7.175	427.0 -> 407.0	407574	114.52	µg/L		93
		427.0 -> 81.0	116226				
8:2FTS	8.179	527.0 -> 507.0	343770	104.84	µg/L		97
		527.0 -> 81.0	118225				
EtFOSAA	8.643	584.0 -> 419.0	161831	27.31	µg/L	m	87
		584.0 -> 483.0	86440				
FOSA	9.655	498.0 -> 78.0	409037	50.80	µg/L	m	100
		498.0 -> 478.0	19253				
MeFOSAA	8.436	570.0 -> 419.0	186325	24.99	µg/L	m	88
		570.0 -> 512.0	53680				
PFBA	3.333	213.0 -> 169.0	442079	105.79	µg/L		100
PFBS	5.872	299.0 -> 80.0	171004	24.69	µg/L		97
		299.0 -> 99.0	68831				
PFDA	8.389	513.0 -> 469.0	669037	25.32	µg/L		99
		513.0 -> 219.0	99656				
PFDoDA	9.268	613.0 -> 569.0	570984	25.82	µg/L		98
		613.0 -> 319.0	99108				

Perfluorinated Compounds by LC/MS/MS

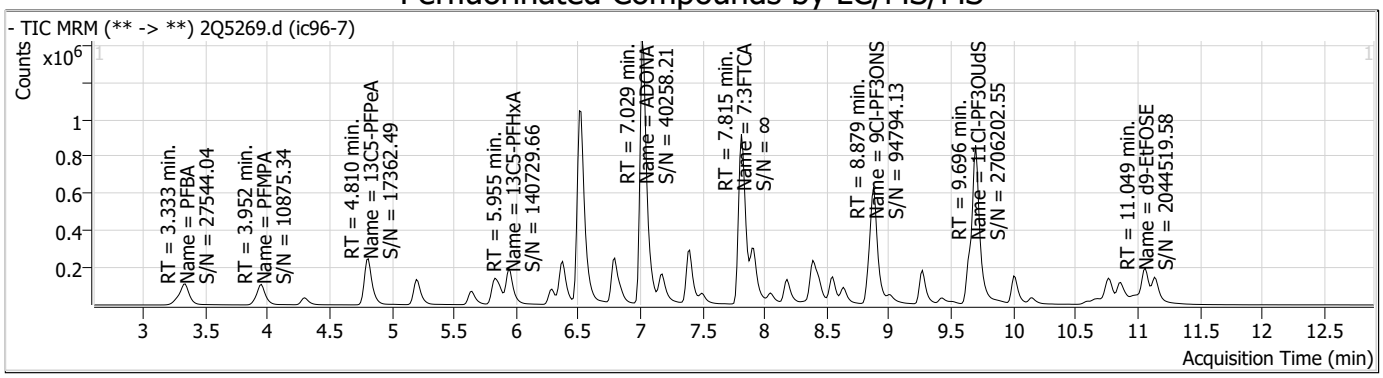
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	76624	26.82	µg/L		99
		599.0 -> 99.0	39010				
PFHpA	6.796	363.0 -> 319.0	752358	25.04	µg/L		96
		363.0 -> 169.0	135825				
PFHpS	8.059	449.0 -> 80.0	111001	25.97	µg/L		98
		449.0 -> 99.0	56727				
PFHxA	5.957	313.0 -> 269.0	604490	25.67	µg/L		100
		313.0 -> 119.0	17724				
PFHxS	7.509	399.0 -> 80.0	119577	25.39	µg/L	m	89
		399.0 -> 99.0	59289				
PFNA	7.912	463.0 -> 419.0	704032	25.02	µg/L		95
		463.0 -> 219.0	127531				
PFNS	9.013	549.0 -> 80.0	79023	24.61	µg/L		97
		549.0 -> 99.0	43686				
PFOA	7.397	413.0 -> 369.0	806313	26.73	µg/L		97
		413.0 -> 169.0	167503				
PFOS	8.549	499.0 -> 80.0	151191	24.80	µg/L	m	94
		499.0 -> 99.0	70125				
PFPeA	4.812	263.0 -> 219.0	997832	52.19	µg/L		100
PFPeS	6.845	349.0 -> 80.0	100621	25.26	µg/L		96
		349.0 -> 99.0	45653				
PFTeDA	10.013	713.0 -> 669.0	467778	25.95	µg/L		97
		713.0 -> 219.0	51526				
PFTrDA	9.647	663.0 -> 619.0	574981	27.15	µg/L		99
		663.0 -> 369.0	68556				
PFUnDA	8.841	563.0 -> 519.0	654794	27.40	µg/L		99
		563.0 -> 269.0	110219				
11Cl-PF3OUdS	9.696	631.0 -> 451.0	2399363	109.73	µg/L		96
		633.0 -> 453.0	734530				
9Cl-PF3ONS	8.879	531.0 -> 351.0	1667078	110.75	µg/L		96
		533.0 -> 353.0	511294				
ADONA	7.029	377.0 -> 251.0	4296311	111.57	µg/L		100
		377.0 -> 85.0	1277341				
HFPO-DA	6.295	285.0 -> 169.0	288004	110.02	µg/L		98
		285.0 -> 185.0	23553				
3:3FTCA	4.301	241.0 -> 177.0	153296	129.31	µg/L		100
		241.0 -> 117.0	11865				
5:3FTCA	6.524	341.0 -> 237.0	2628685	638.18	µg/L		100
		341.0 -> 217.0	1868947				
7:3FTCA	7.815	441.0 -> 337.0	2836441	645.77	µg/L		99
		441.0 -> 317.0	1116872				
EtFOSA	11.154	526.0 -> 219.0	364029	52.16	µg/L	m	98
		526.0 -> 169.0	481408				
EtFOSE	11.075	630.0 -> 59.0	707741	132.17	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	409978	51.32	µg/L	m	96
		512.0 -> 219.0	283456				
MeFOSE	10.778	616.0 -> 59.0	562698	134.44	µg/L	m	100
PFDoDS	10.149	699.0 -> 80.0	81330	26.61	µg/L		98
		699.0 -> 99.0	39924				
NFDHA	5.835	295.0 -> 201.0	74008	51.12	µg/L		89
		201.0 -> 85.0	415104				
		295.0 -> 85.0	18056				
PFMBA	5.213	279.0 -> 85.0	572746	55.50	µg/L		100
PFMPA	3.952	229.0 -> 85.0	563356	52.06	µg/L		100
PFEESA	6.377	315.0 -> 135.0	833041	51.58	µg/L		100
		315.0 -> 69.0	79956				

Perfluorinated Compounds by LC/MS/MS

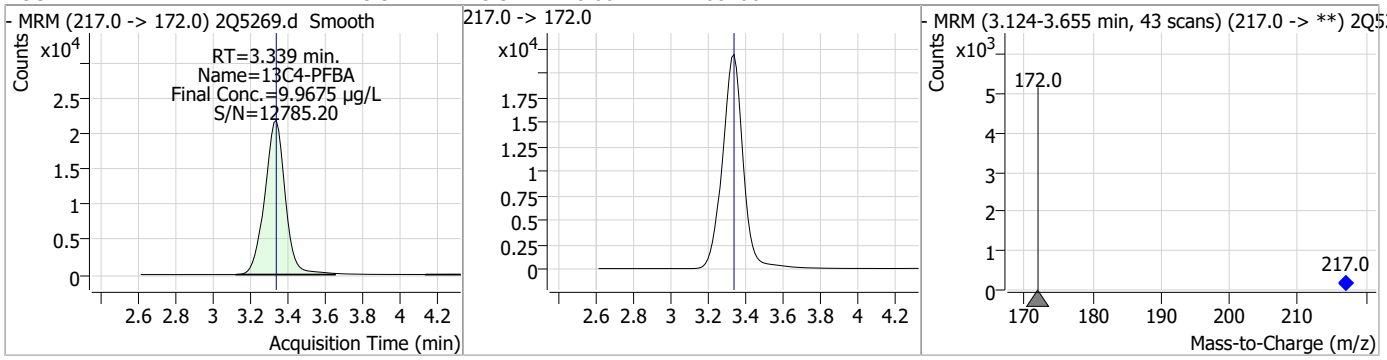
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

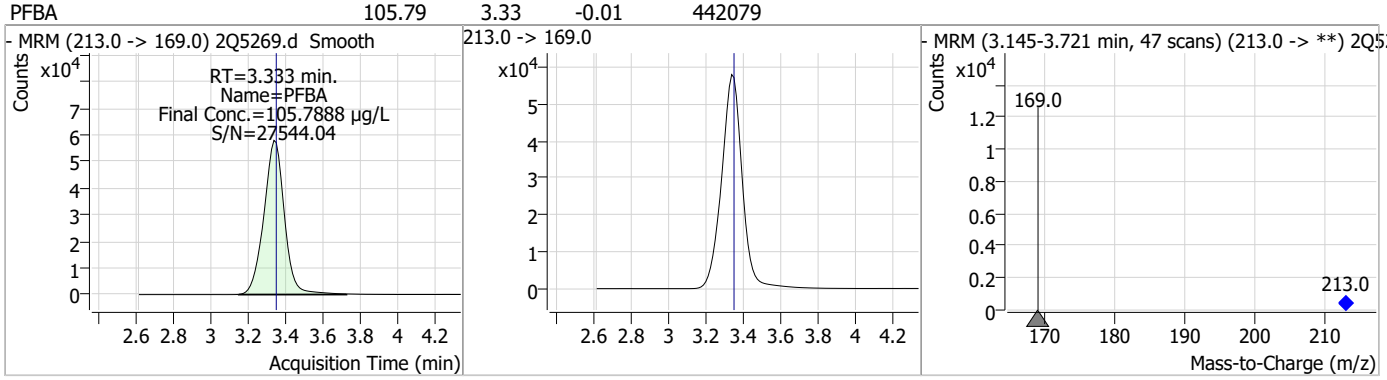
Perfluorinated Compounds by LC/MS/MS



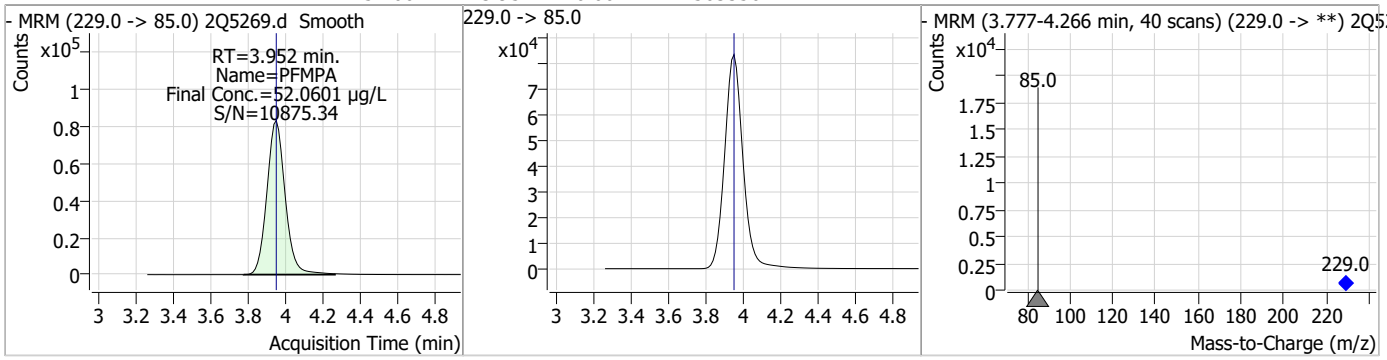
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.97	3.34	0.00	166406				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	105.79	3.33	-0.01	442079				

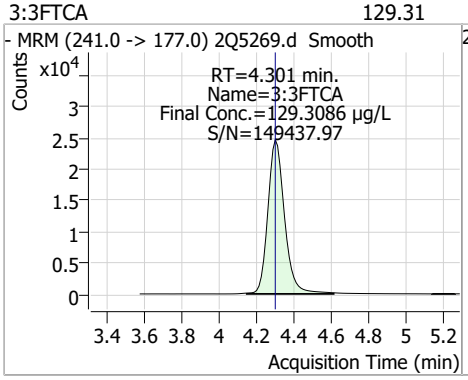


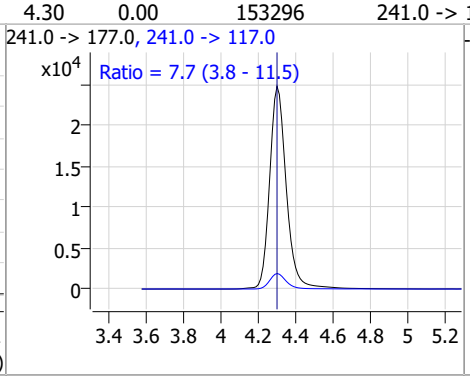
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	52.06	3.95	0.00	563356				

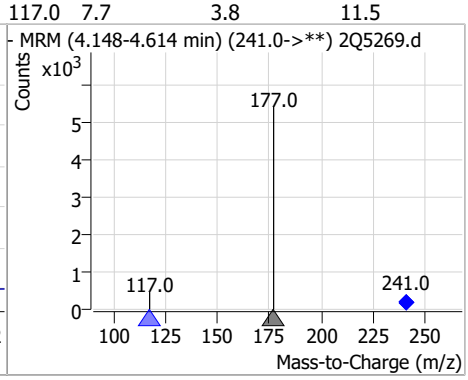


Perfluorinated Compounds by LC/MS/MS

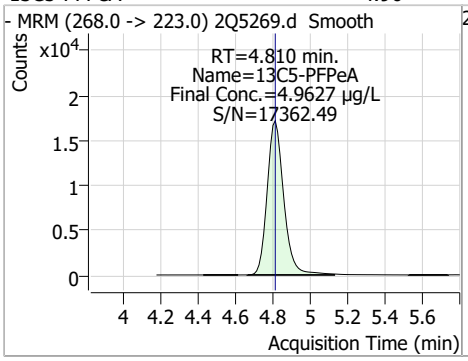
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	129.31	4.30	0.00	153296	241.0 -> 117.0	7.7	3.8	11.5

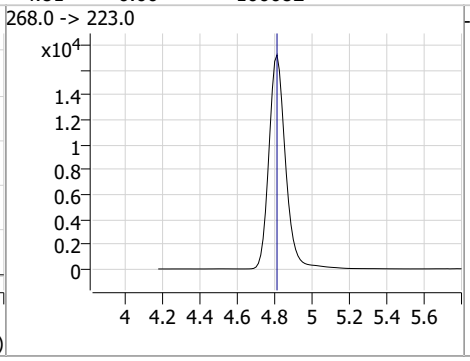


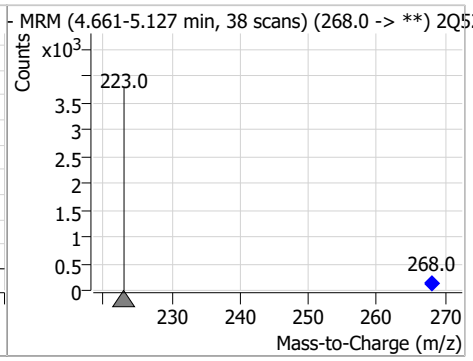




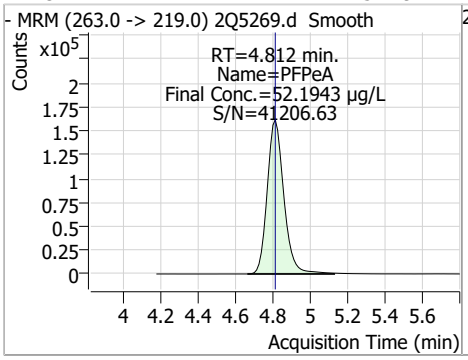
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.96	4.81	0.00	106082				

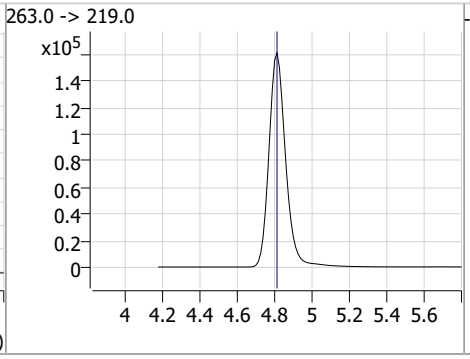


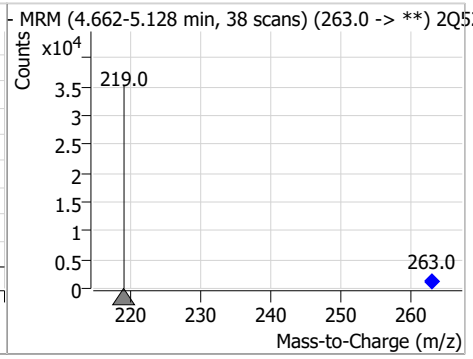




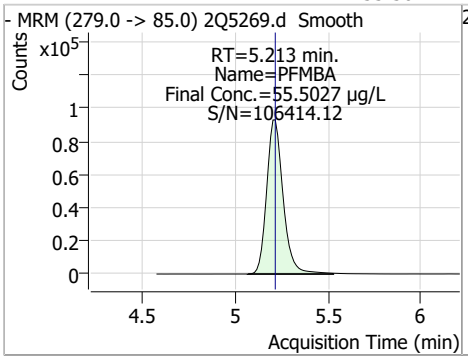
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	52.19	4.81	0.00	997832				

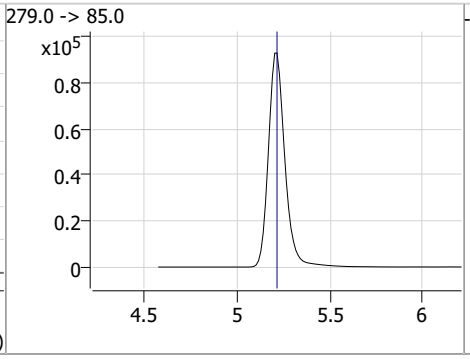


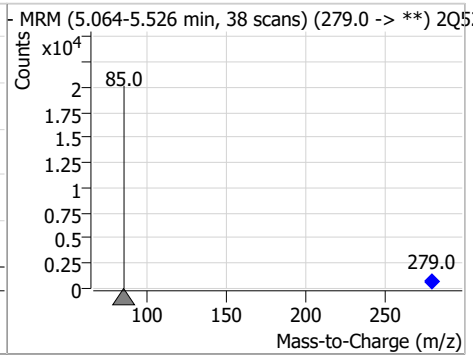




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	55.50	5.21	0.00	572746				

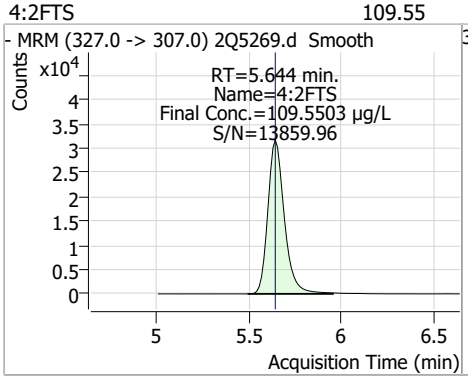


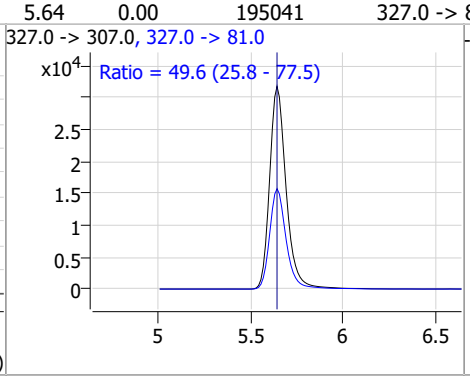


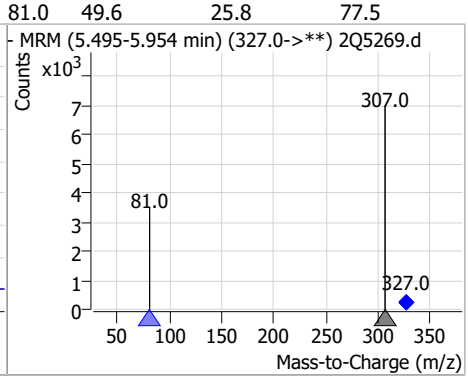


Perfluorinated Compounds by LC/MS/MS

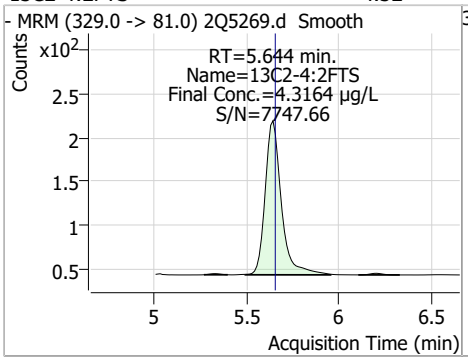
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	109.55	5.64	0.00	195041	327.0 -> 81.0	49.6	25.8	77.5

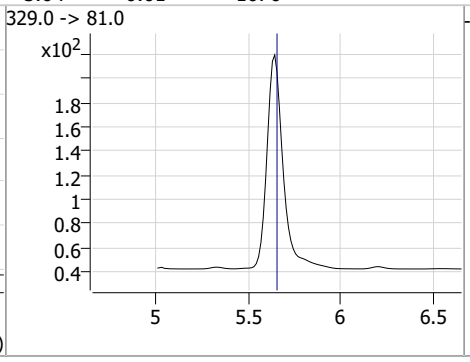


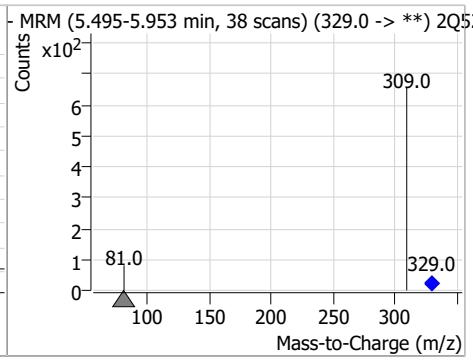




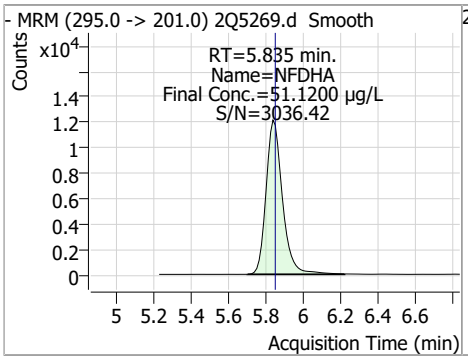
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.32	5.64	-0.01	1070				

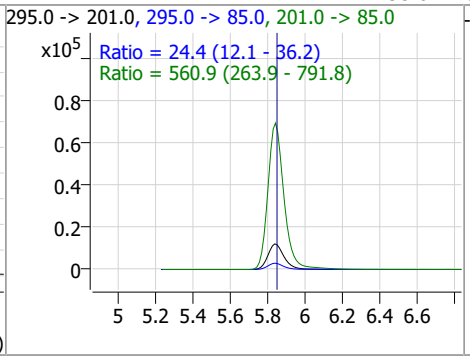


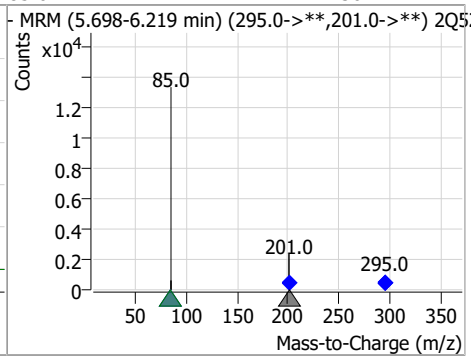




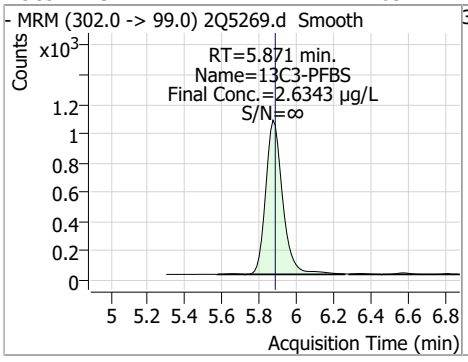
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	51.12	5.84	-0.01	74008	201.0 -> 85.0	560.9	263.9	791.8
					295.0 -> 85.0	24.4	12.1	36.2

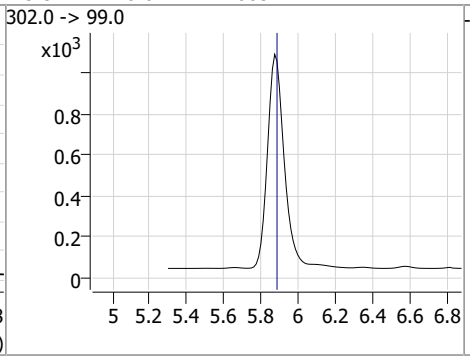


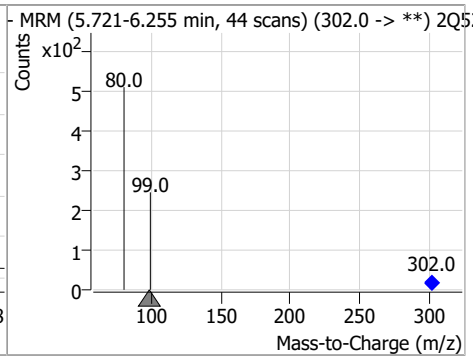




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.63	5.87	-0.01	6651				

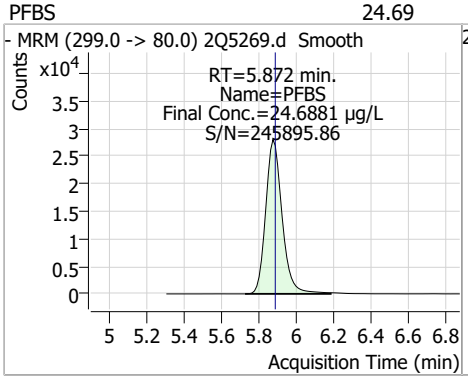


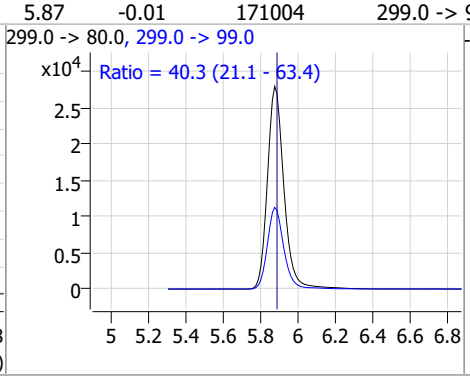


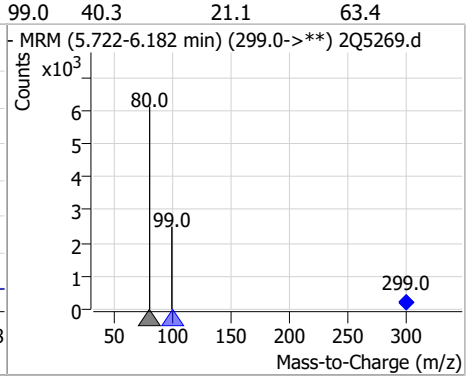


Perfluorinated Compounds by LC/MS/MS

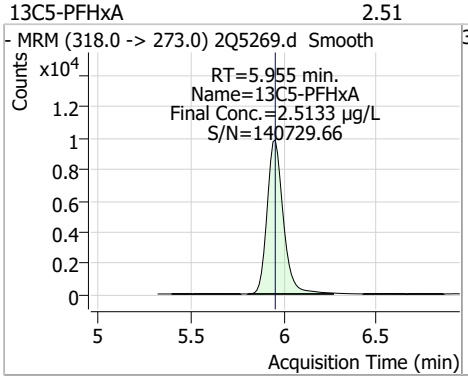
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	24.69	5.87	-0.01	171004	299.0 -> 99.0	40.3	21.1	63.4

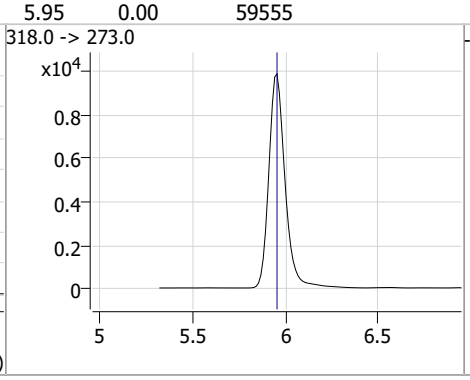


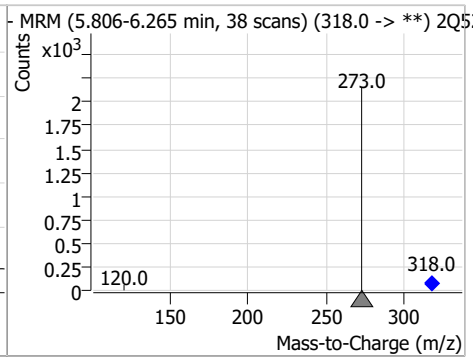




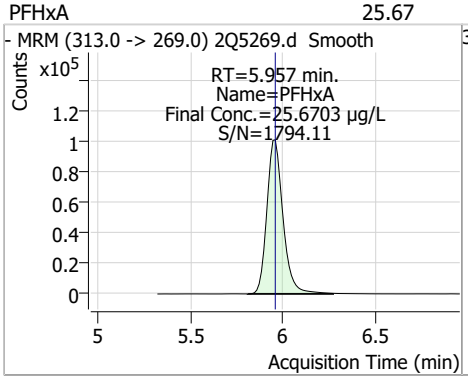
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.51	5.95	0.00	59555				

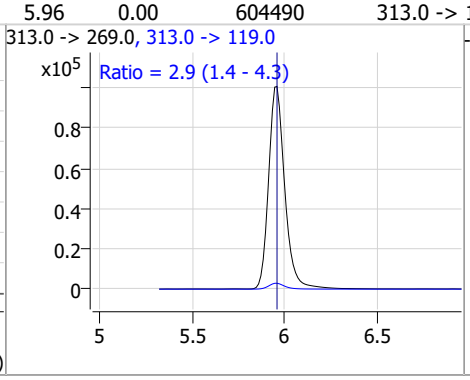


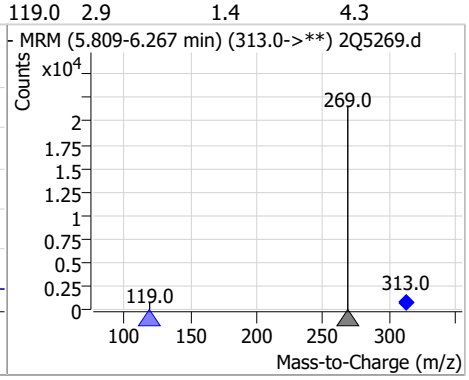




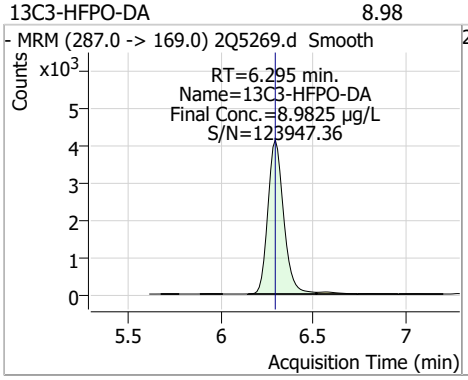
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	25.67	5.96	0.00	604490	313.0 -> 119.0	2.9	1.4	4.3

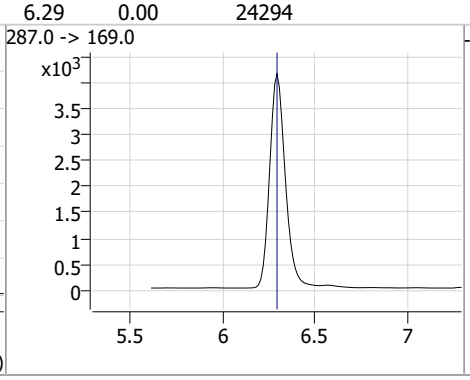


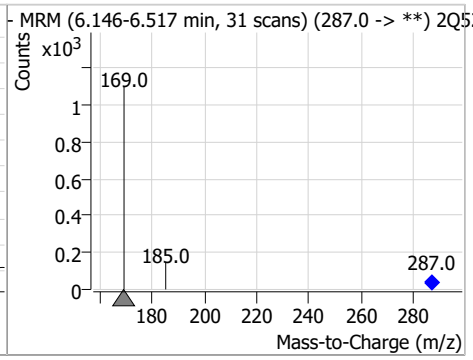




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	8.98	6.29	0.00	24294				

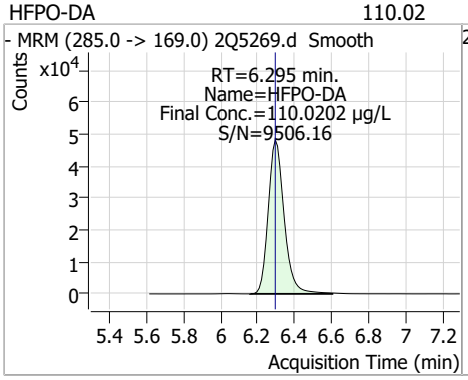


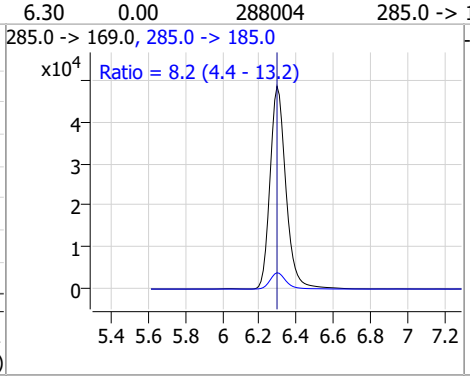


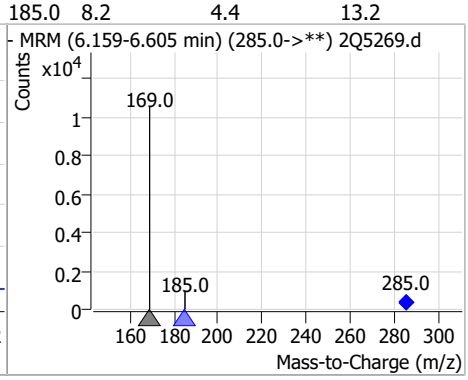


Perfluorinated Compounds by LC/MS/MS

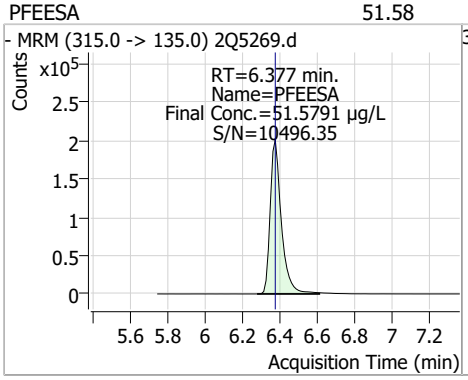
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	110.02	6.30	0.00	288004	285.0 -> 185.0	8.2	4.4	13.2

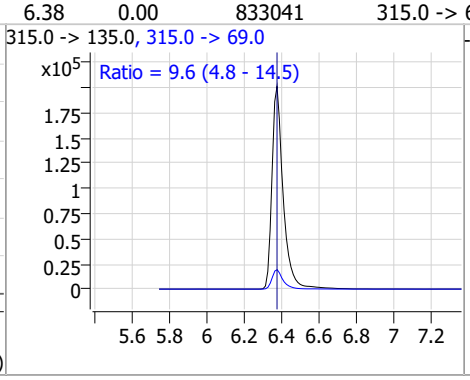


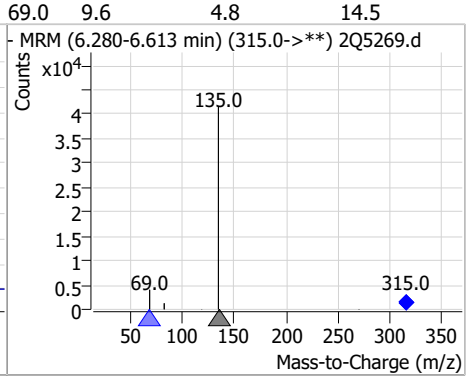




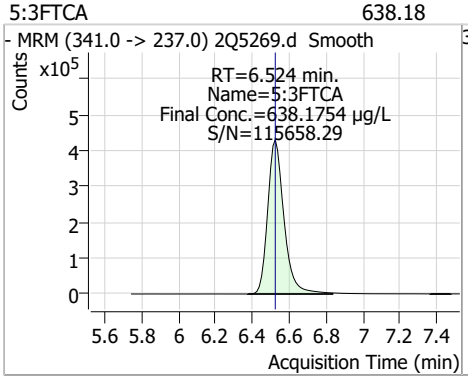
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	51.58	6.38	0.00	833041	315.0 -> 69.0	9.6	4.8	14.5

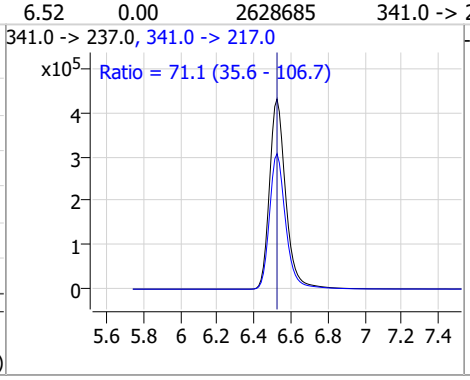


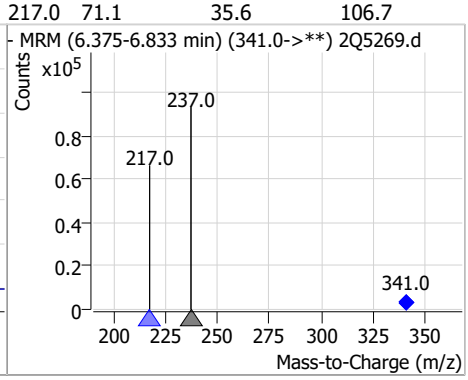




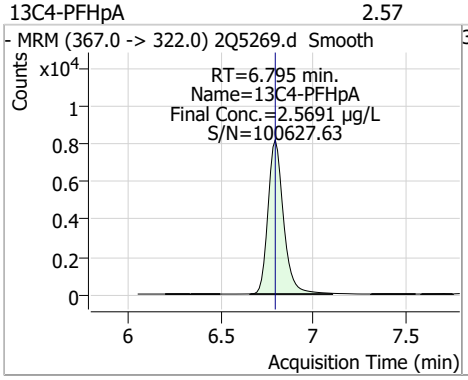
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	638.18	6.52	0.00	2628685	341.0 -> 217.0	71.1	35.6	106.7

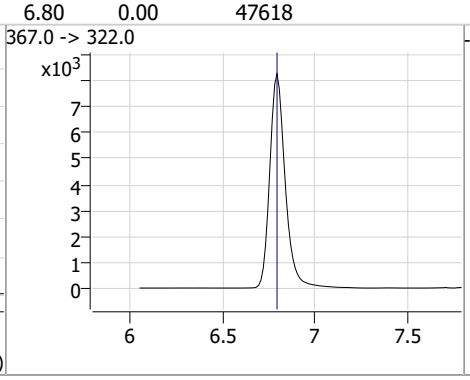


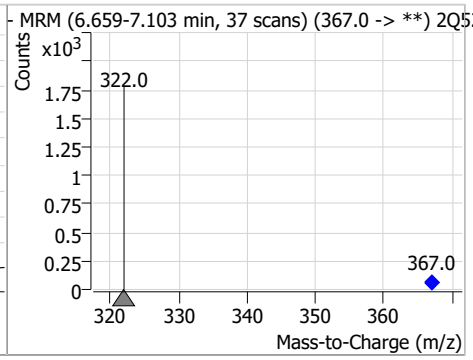




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.57	6.80	0.00	47618				

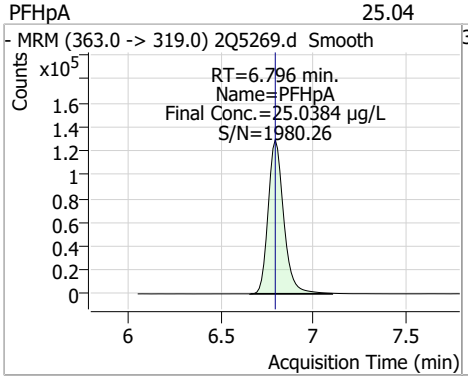


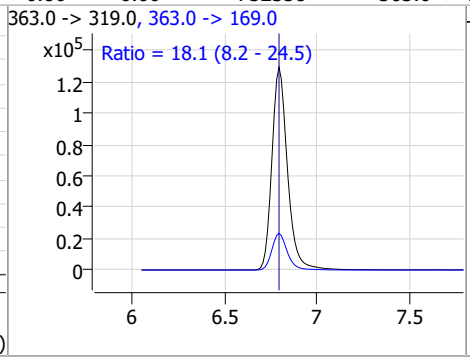


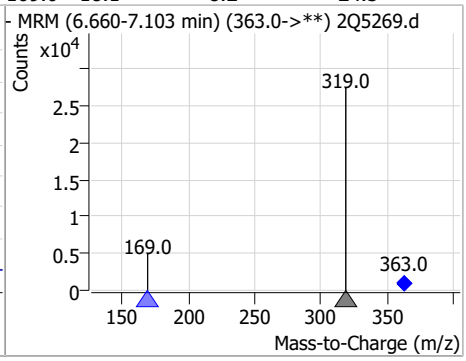


Perfluorinated Compounds by LC/MS/MS

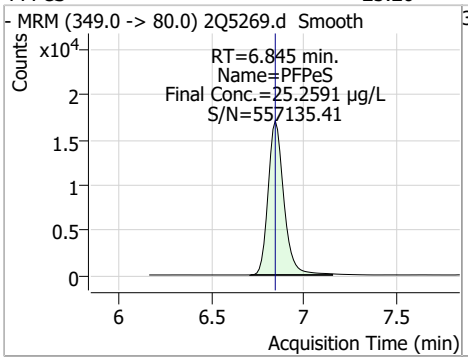
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	25.04	6.80	0.00	752358	363.0 -> 169.0	18.1	8.2	24.5

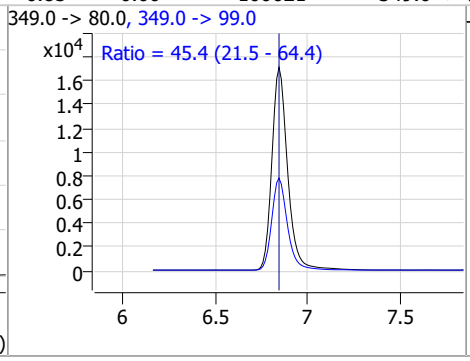


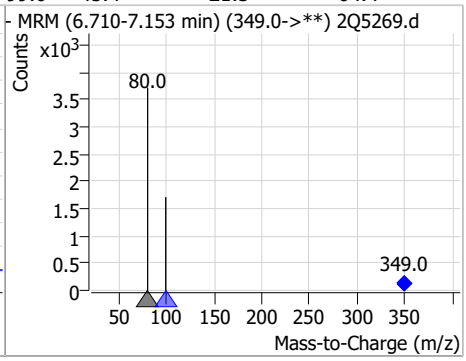




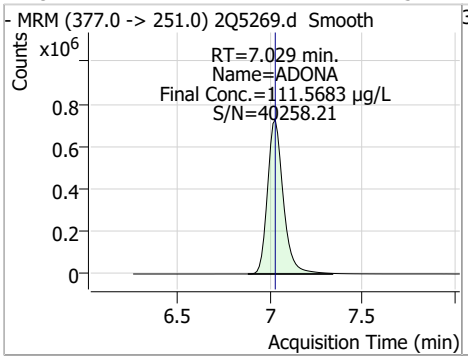
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	25.26	6.85	0.00	100621	349.0 -> 99.0	45.4	21.5	64.4

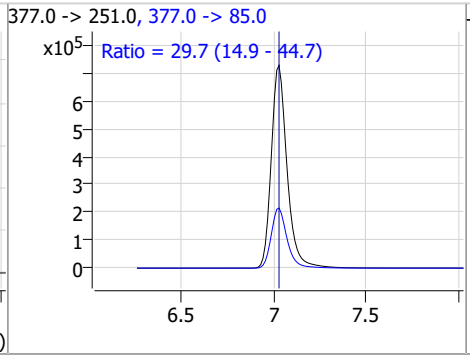


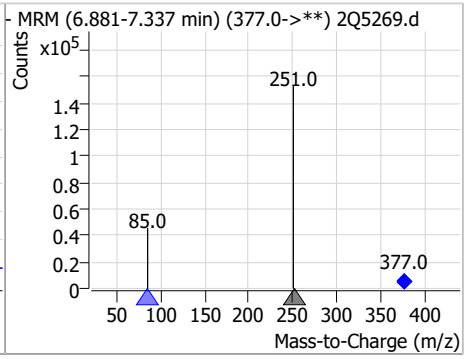




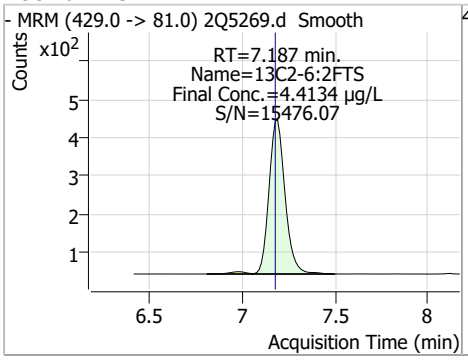
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	111.57	7.03	0.00	4296311	377.0 -> 85.0	29.7	14.9	44.7

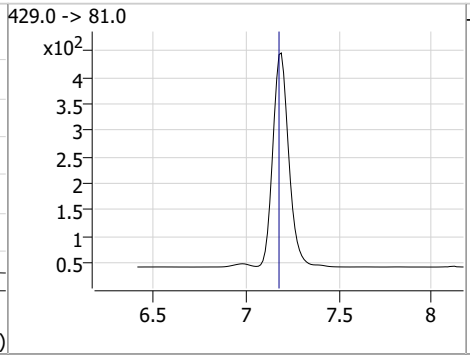


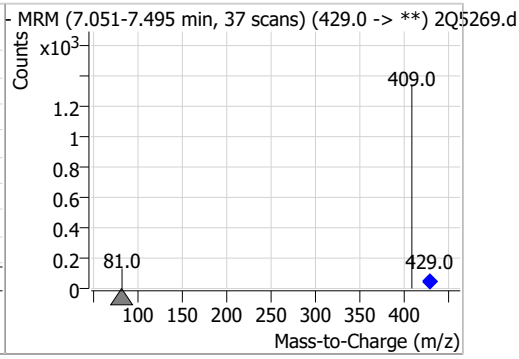




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.41	7.19	0.01	2425				

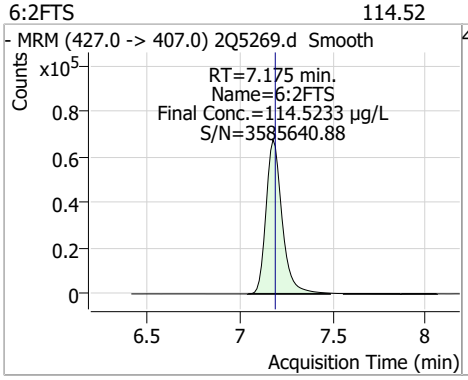


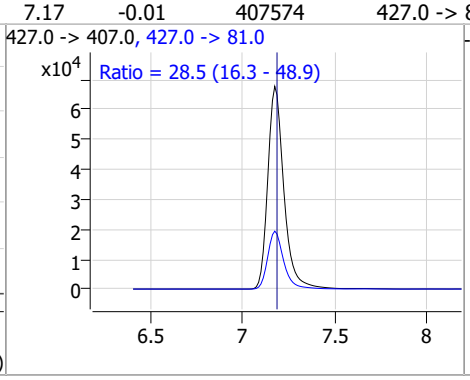


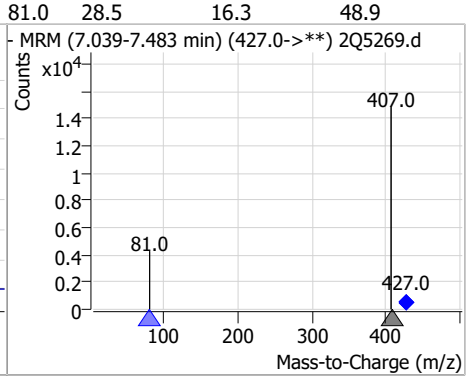


Perfluorinated Compounds by LC/MS/MS

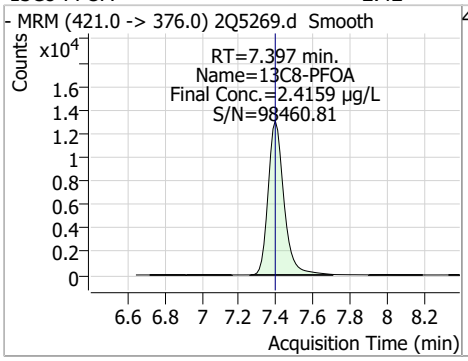
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	114.52	7.17	-0.01	407574	427.0 -> 81.0	28.5	16.3	48.9

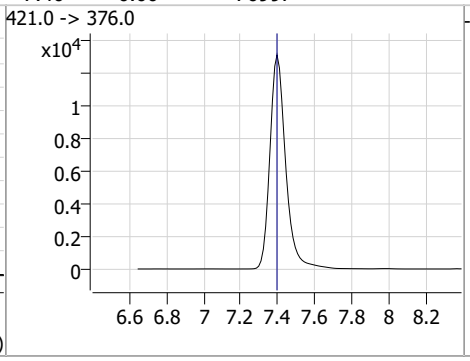


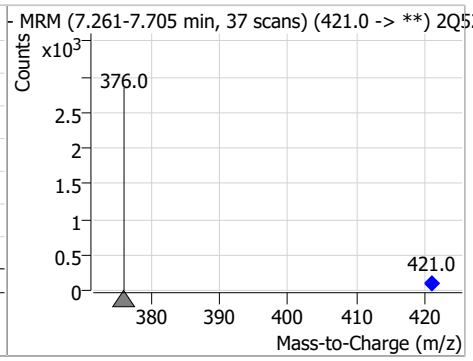




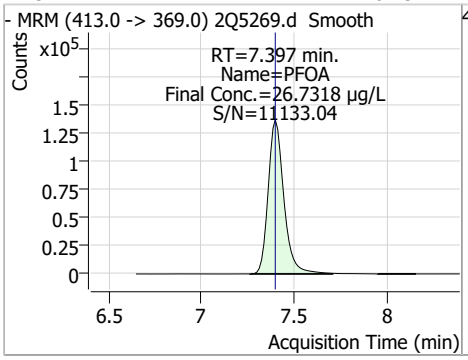
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.42	7.40	0.00	76997				

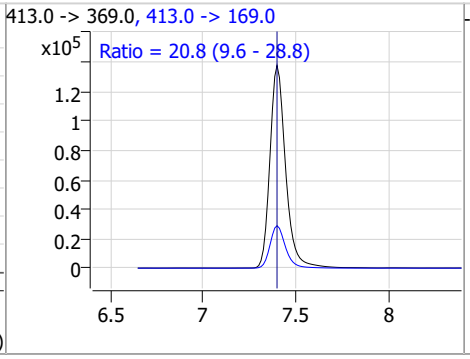


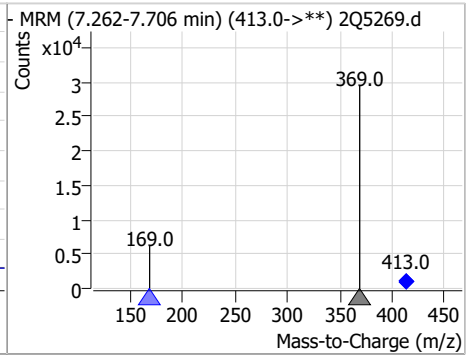




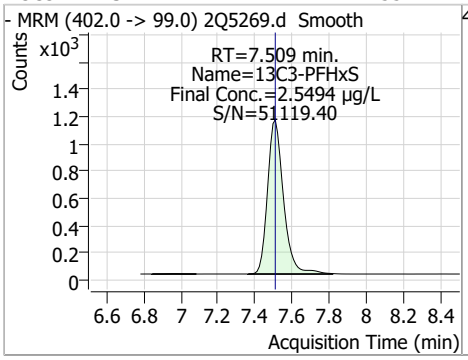
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	26.73	7.40	0.00	806313	413.0 -> 169.0	20.8	9.6	28.8

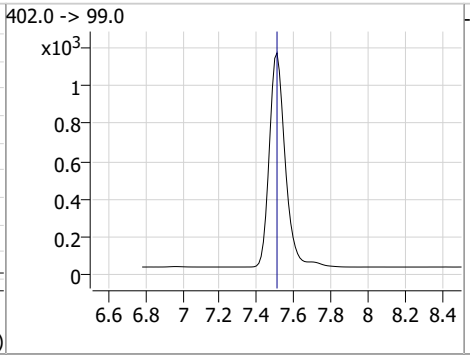


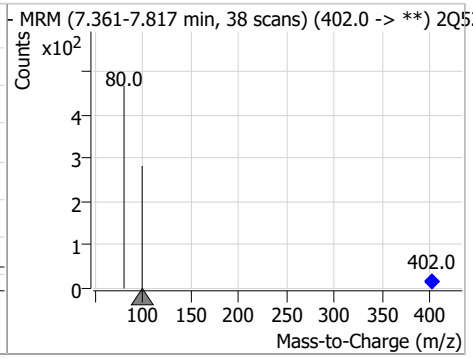




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.55	7.51	0.00	6753				

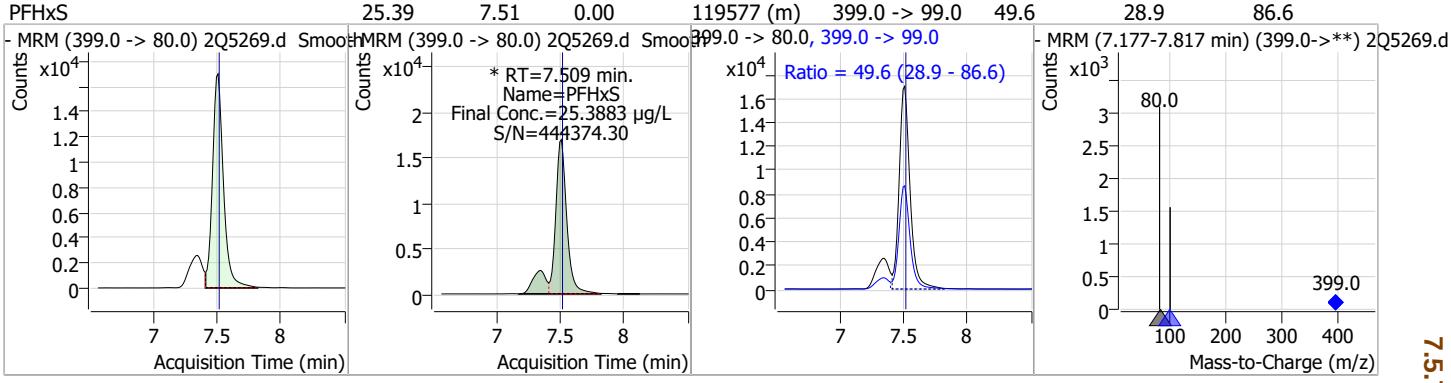




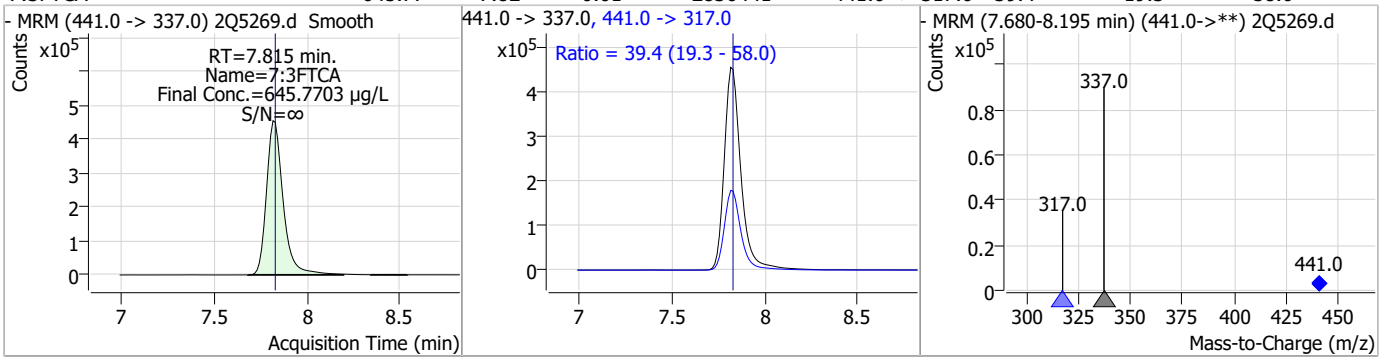


Perfluorinated Compounds by LC/MS/MS

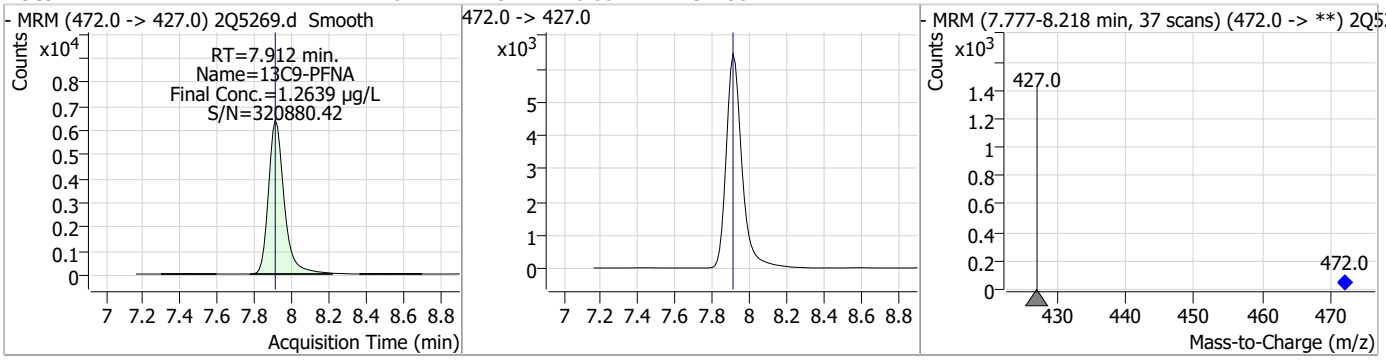
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	25.39	7.51	0.00	119577 (m)	399.0 -> 99.0	49.6	28.9	86.6



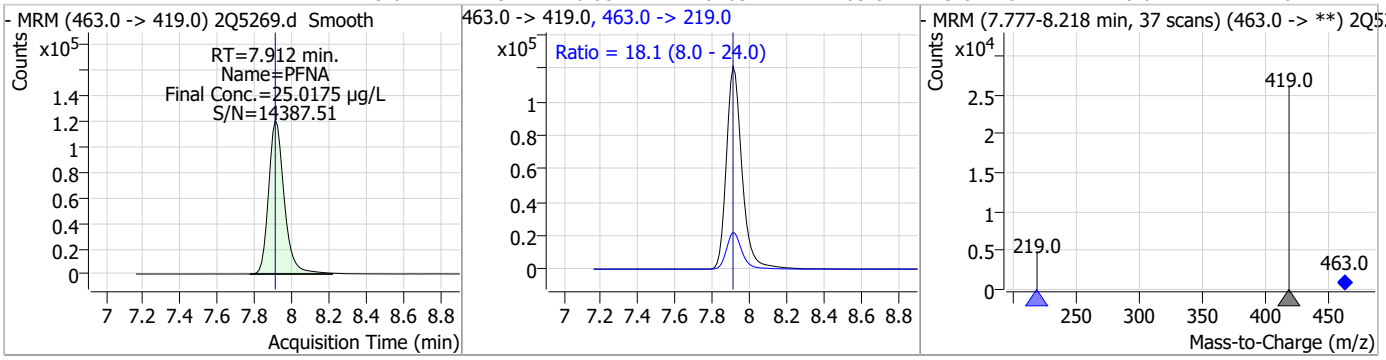
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	645.77	7.82	-0.01	2836441	441.0 -> 317.0	39.4	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.26	7.91	0.00	37456				

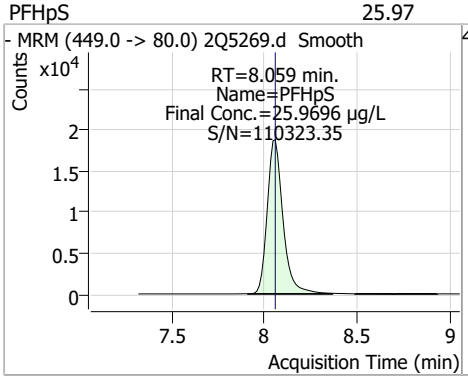


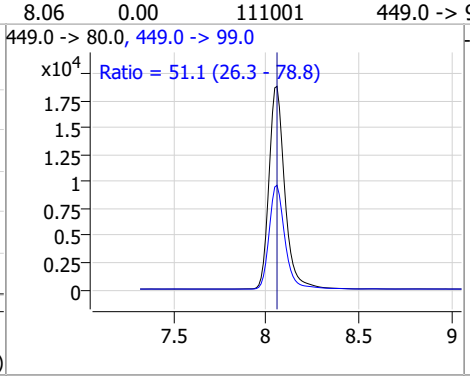
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	25.02	7.91	0.00	704032	463.0 -> 219.0	18.1	8.0	24.0

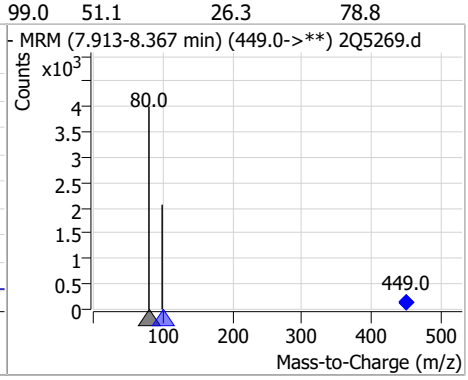


Perfluorinated Compounds by LC/MS/MS

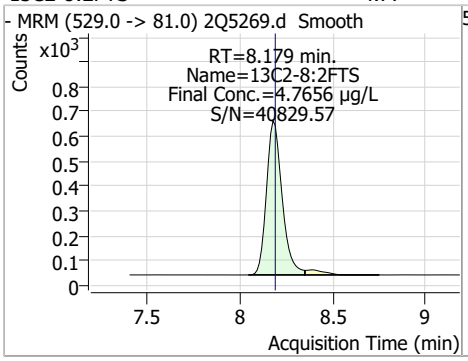
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	25.97	8.06	0.00	111001	449.0 -> 99.0	51.1	26.3	78.8

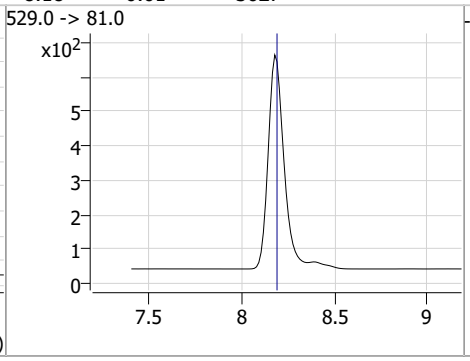


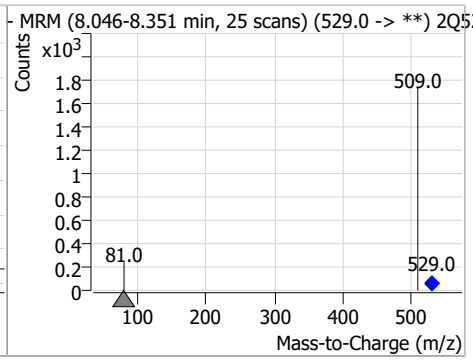




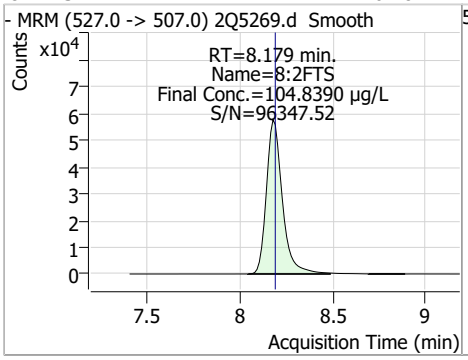
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.77	8.18	-0.01	3627				

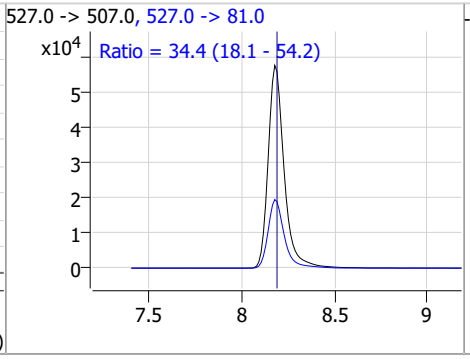


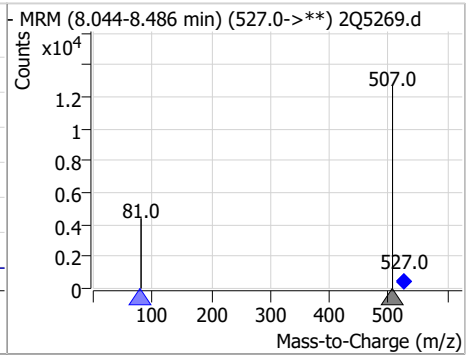




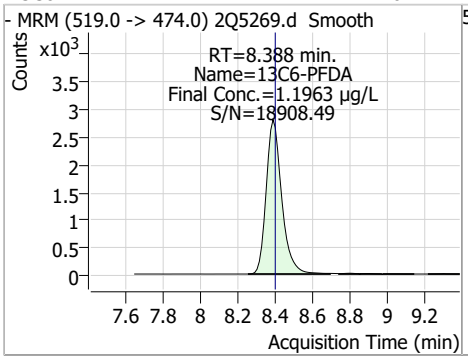
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	104.84	8.18	-0.01	343770	527.0 -> 81.0	34.4	18.1	54.2

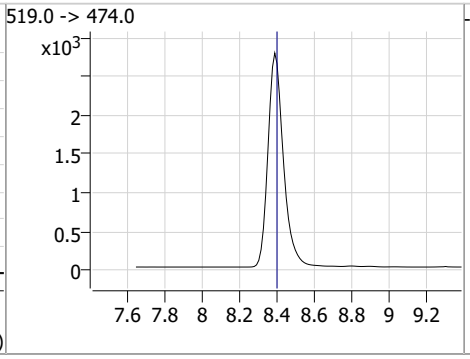


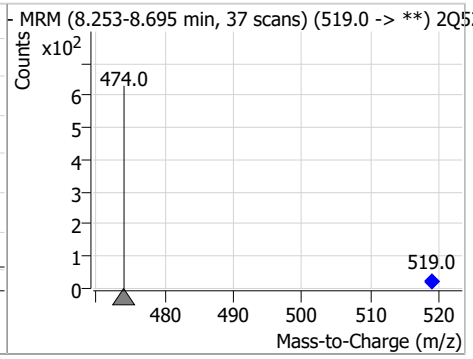




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.39	-0.01	16001				

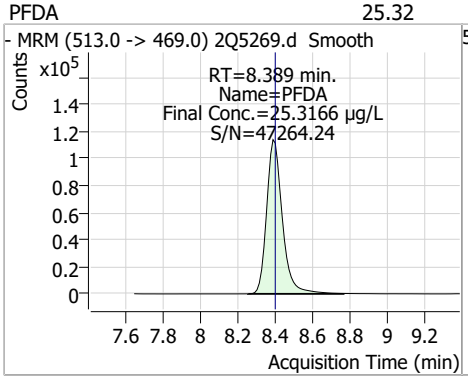


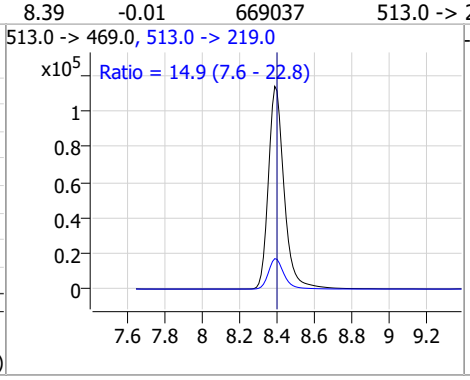


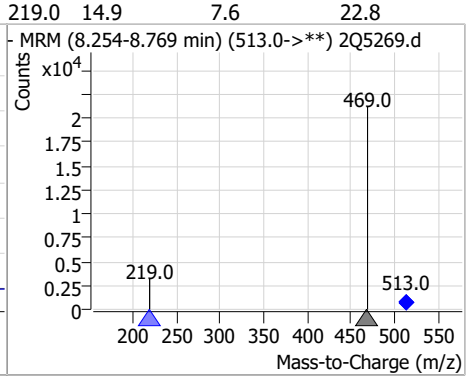


Perfluorinated Compounds by LC/MS/MS

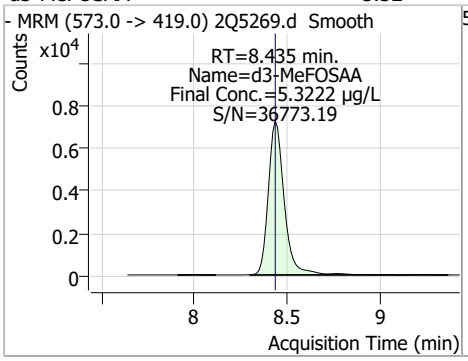
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	25.32	8.39	-0.01	669037	513.0 -> 219.0	14.9	7.6	22.8

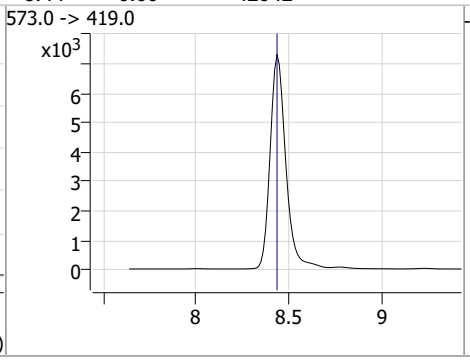


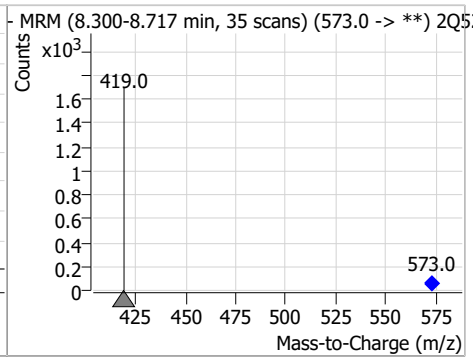




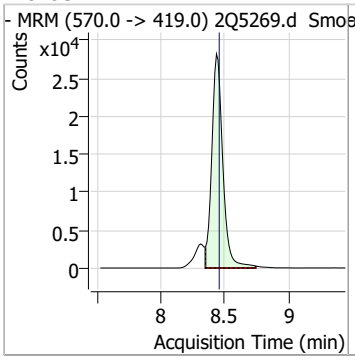
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.32	8.44	0.00	42642				

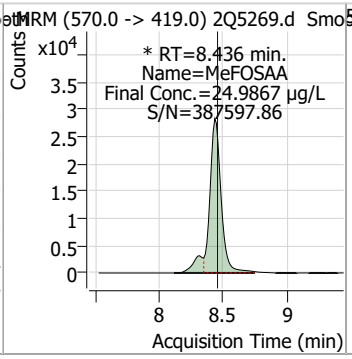


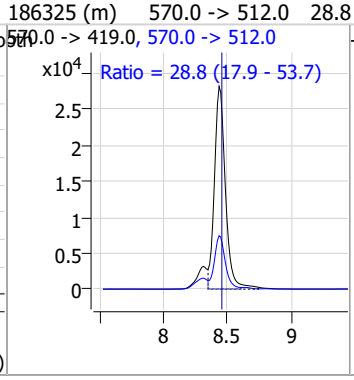


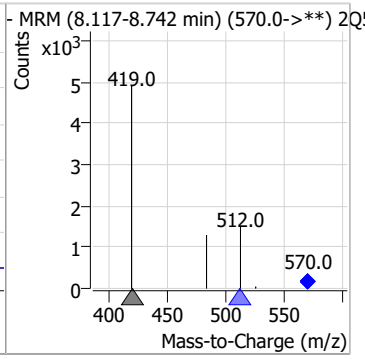


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	24.99	8.44	-0.01	186325 (m)	570.0 -> 512.0	28.8	17.9	53.7

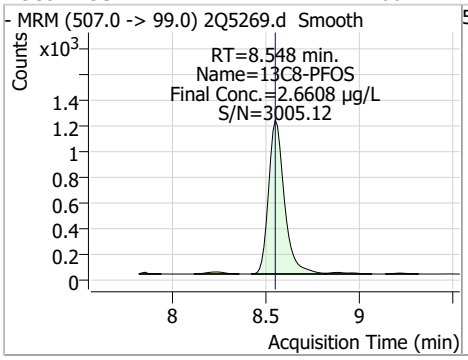


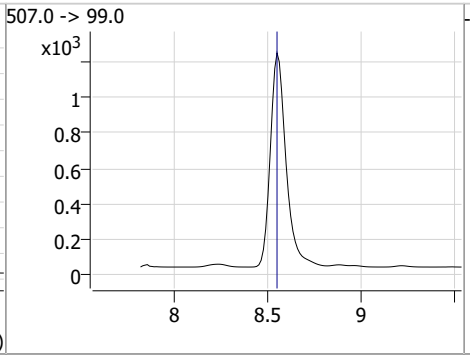


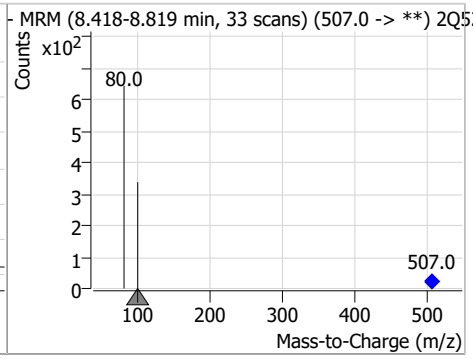




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.66	8.55	0.00	7132				

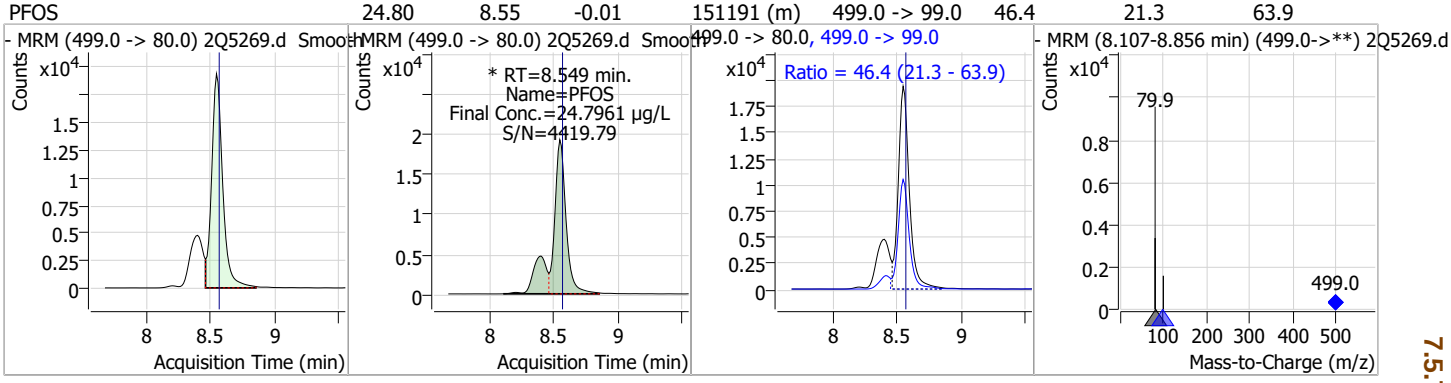




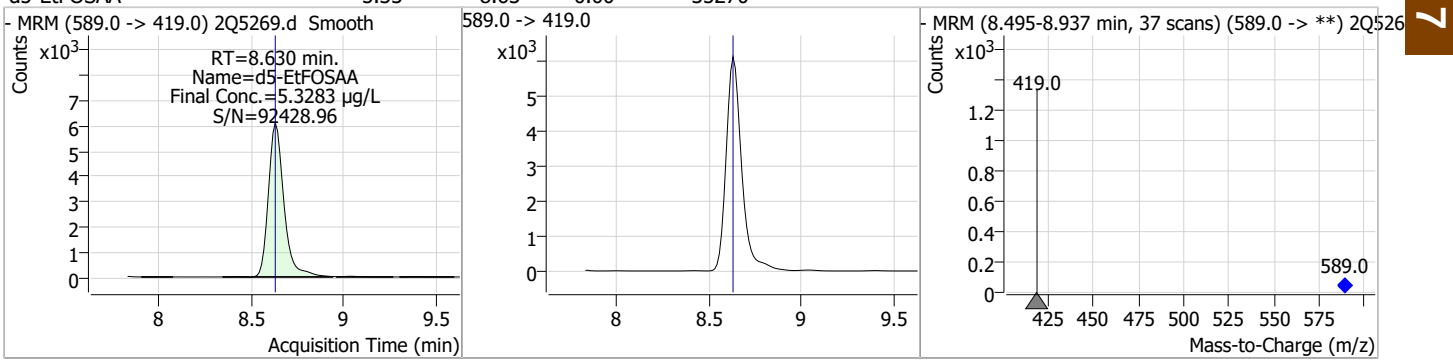


Perfluorinated Compounds by LC/MS/MS

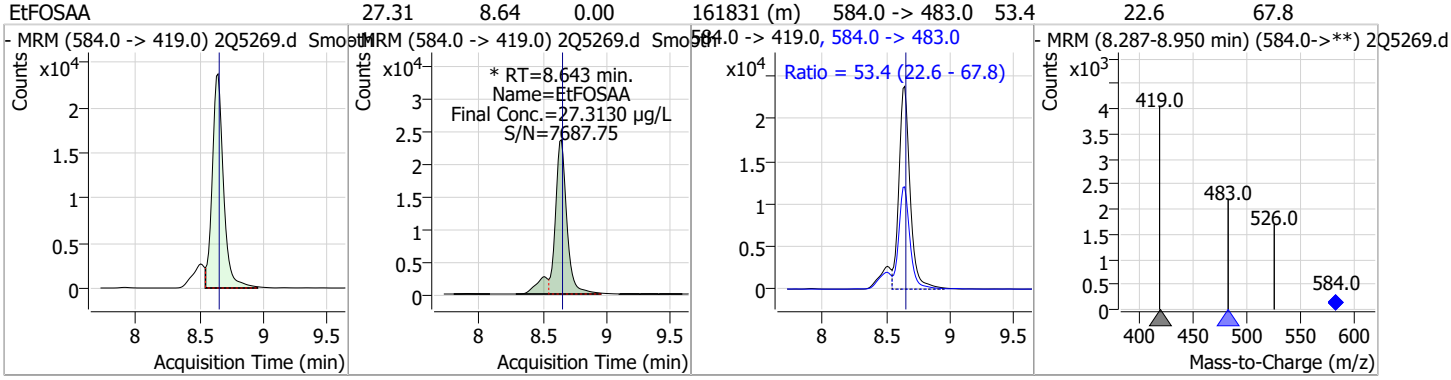
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	24.80	8.55	-0.01	151191 (m)	499.0 -> 99.0	46.4	21.3	63.9



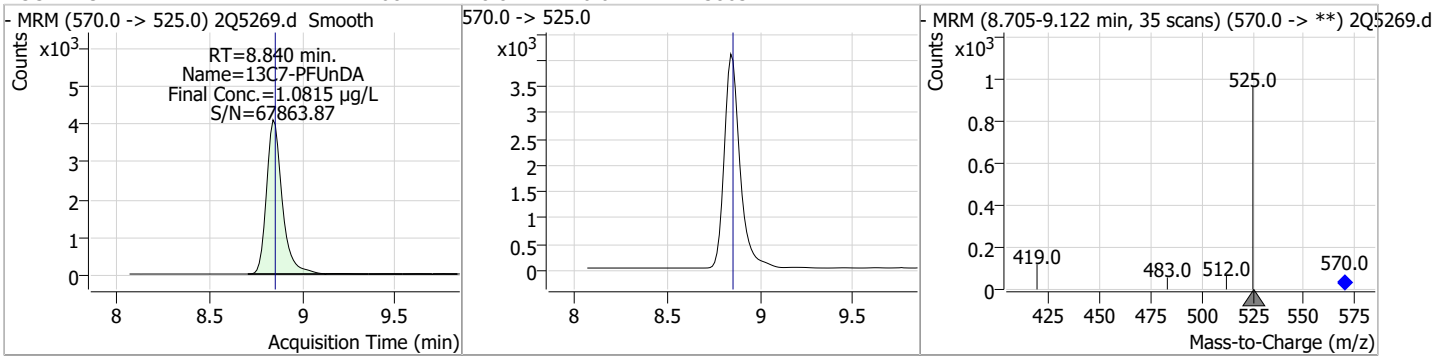
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.33	8.63	0.00	35270				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	27.31	8.64	0.00	161831 (m)	584.0 -> 483.0	53.4	22.6	67.8

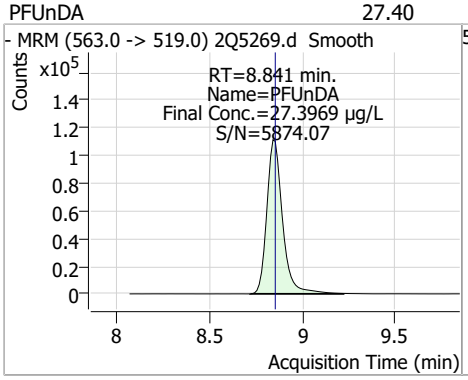


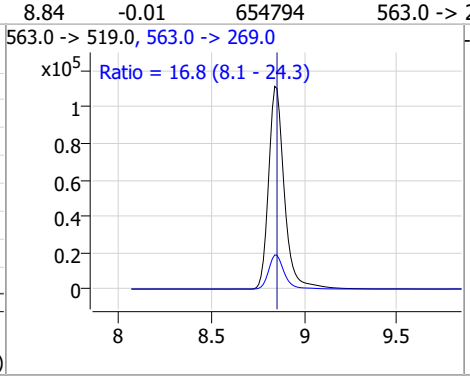
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.08	8.84	-0.01	23863				

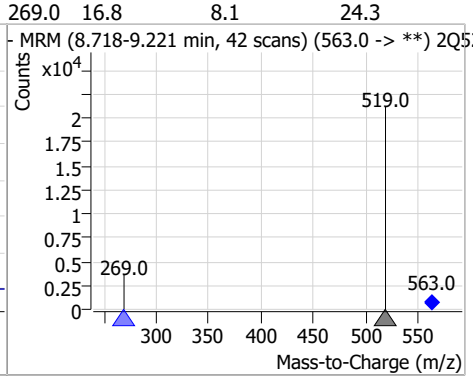


Perfluorinated Compounds by LC/MS/MS

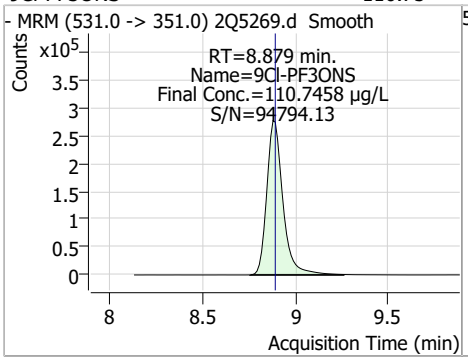
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	27.40	8.84	-0.01	654794	563.0 -> 269.0	16.8	8.1	24.3

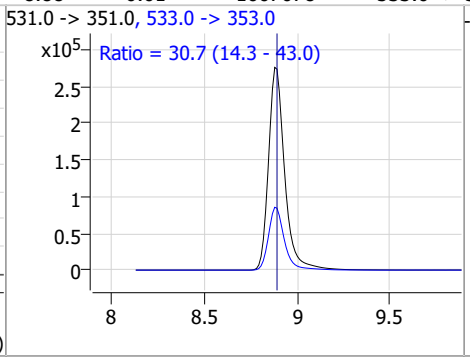


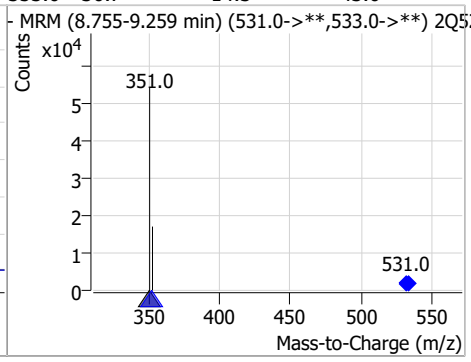




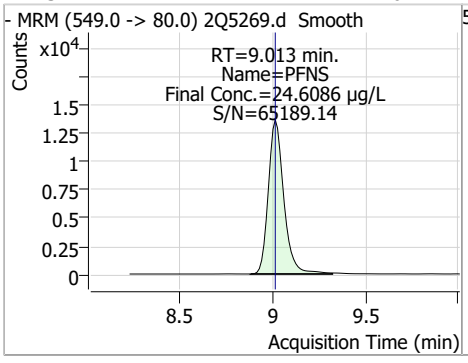
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	110.75	8.88	-0.01	1667078	533.0 -> 353.0	30.7	14.3	43.0

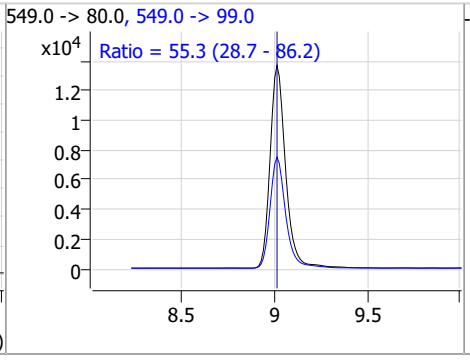


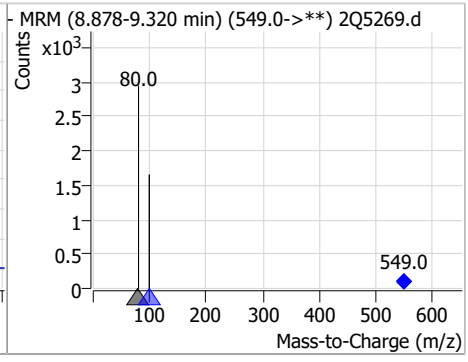




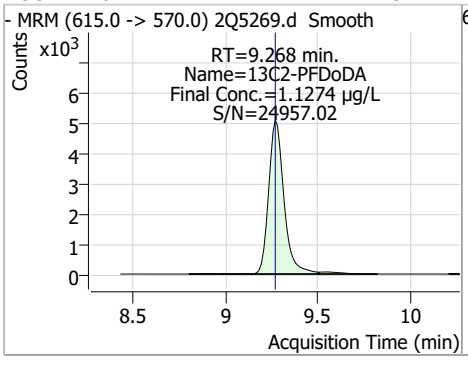
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	24.61	9.01	0.00	79023	549.0 -> 99.0	55.3	28.7	86.2

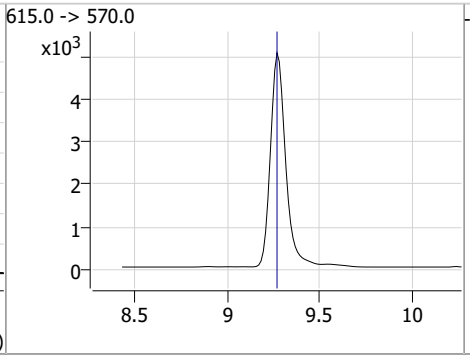


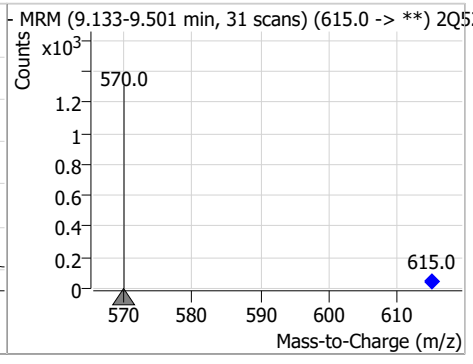




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.13	9.27	0.00	28836				

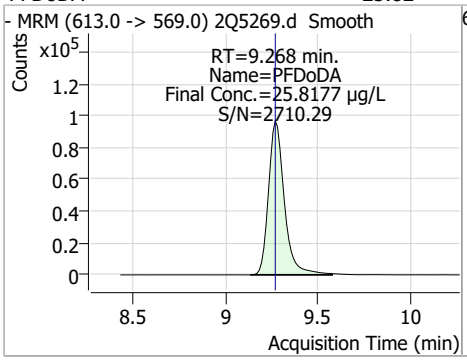


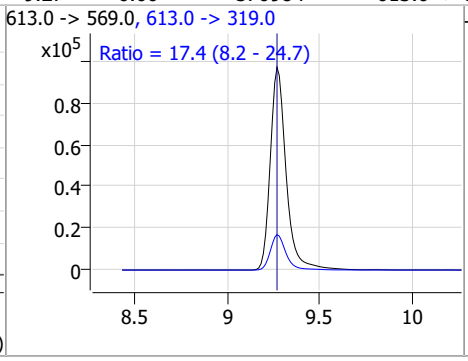


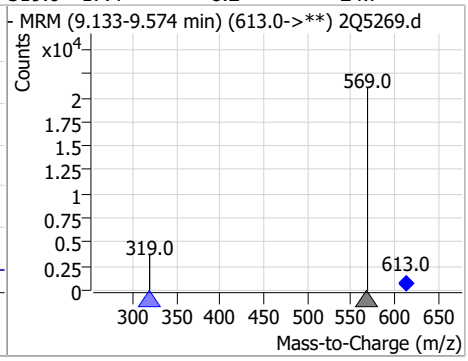


Perfluorinated Compounds by LC/MS/MS

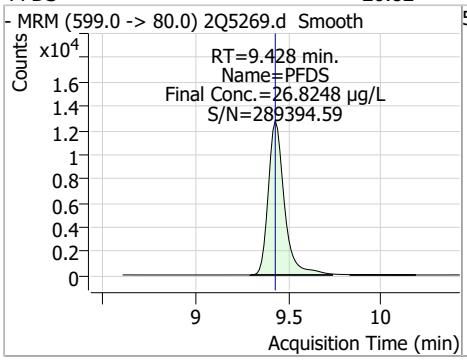
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	25.82	9.27	0.00	570984	613.0 -> 319.0	17.4	8.2	24.7

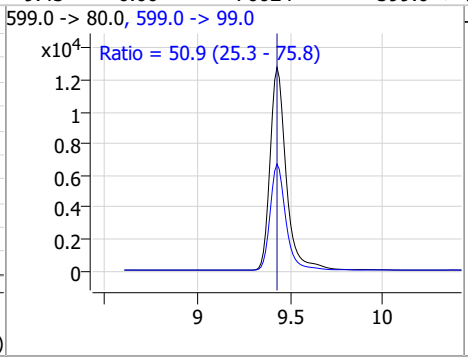


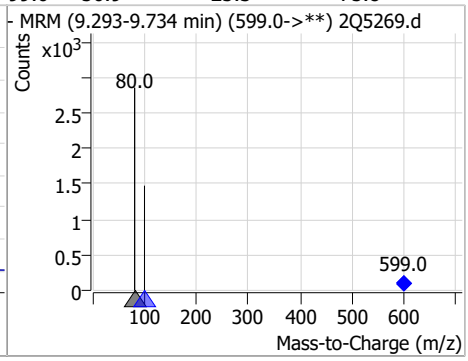




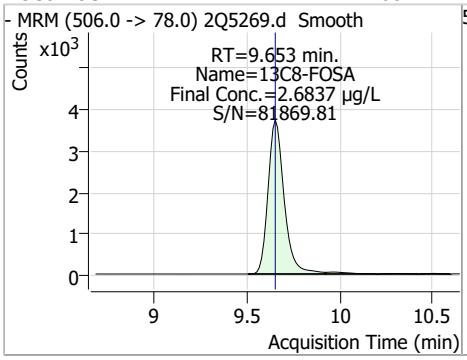
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	26.82	9.43	0.00	76624	599.0 -> 99.0	50.9	25.3	75.8

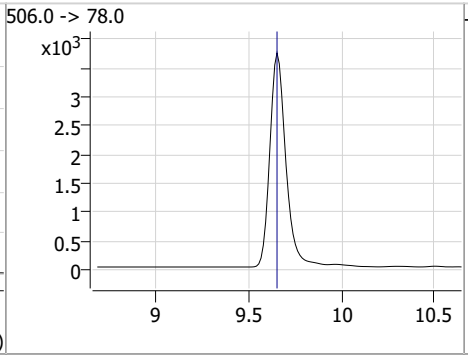


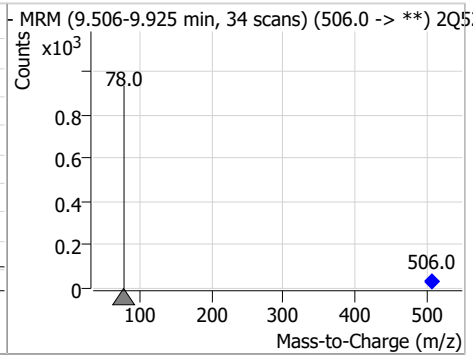




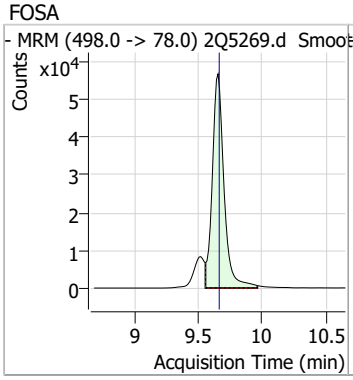
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.68	9.65	0.00	22370				

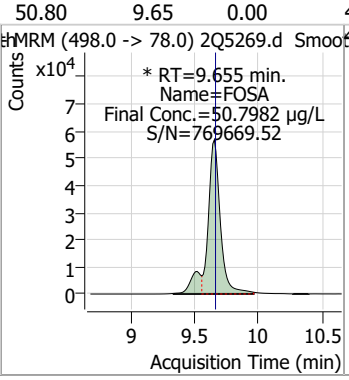


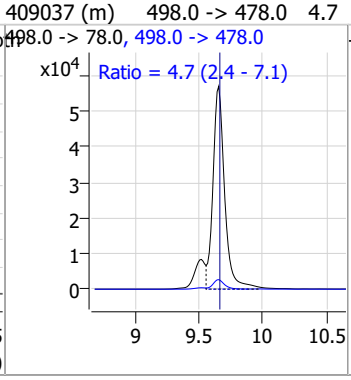


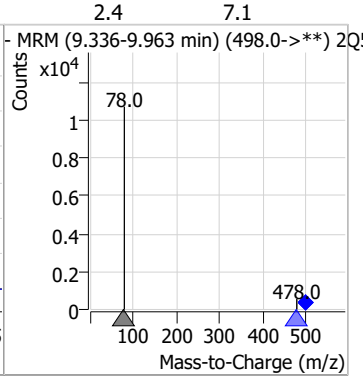


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	50.80	9.65	0.00	409037 (m)	498.0 -> 478.0	4.7	2.4	7.1



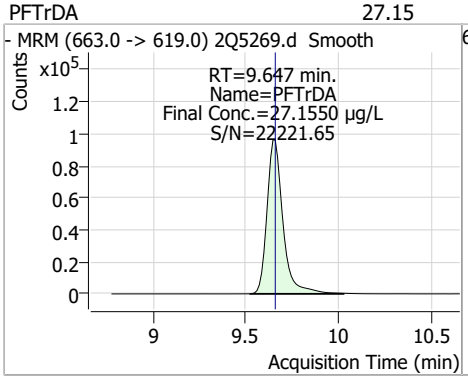


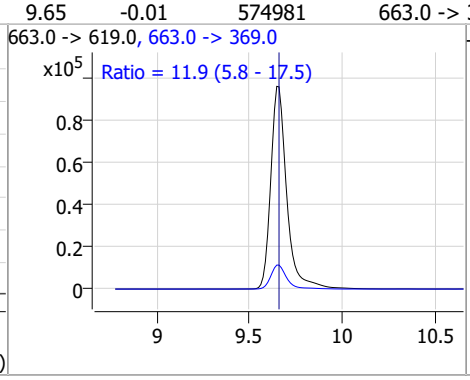


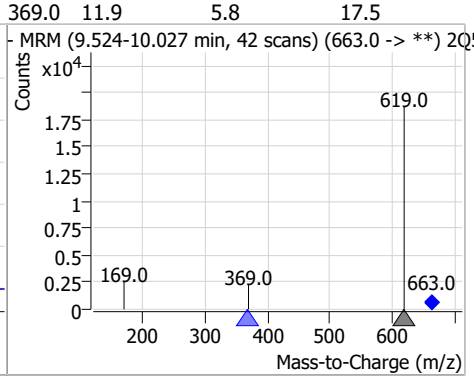


Perfluorinated Compounds by LC/MS/MS

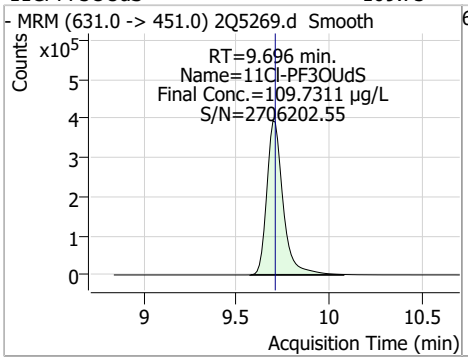
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	27.15	9.65	-0.01	574981	663.0 -> 369.0	11.9	5.8	17.5

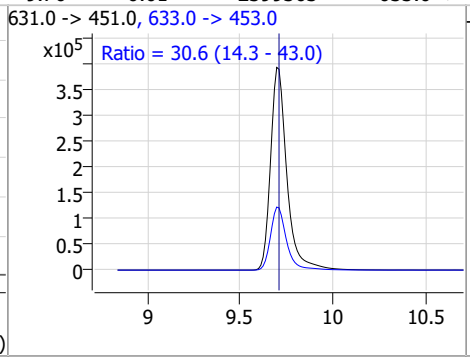


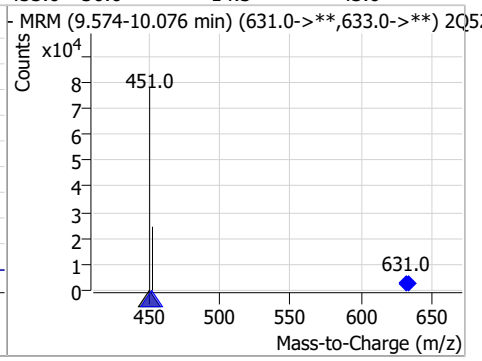




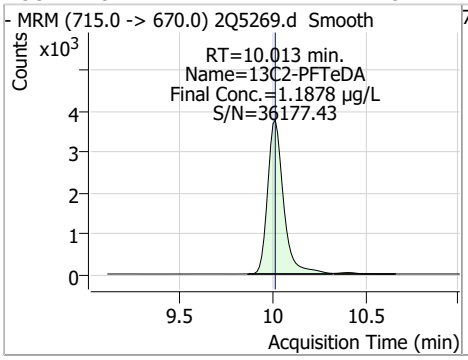
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	109.73	9.70	-0.01	2399363	633.0 -> 453.0	30.6	14.3	43.0

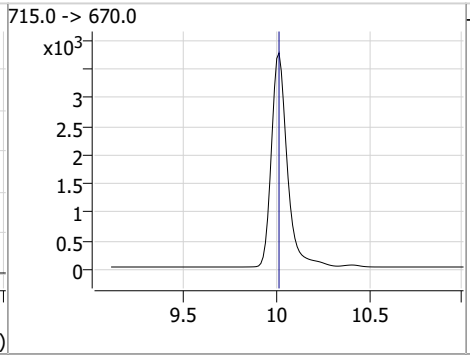


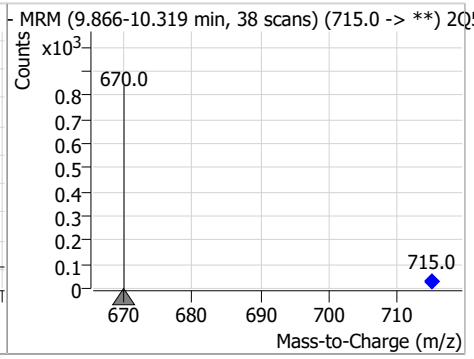




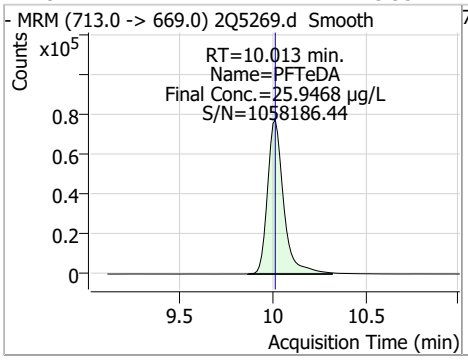
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.19	10.01	0.00	22283				

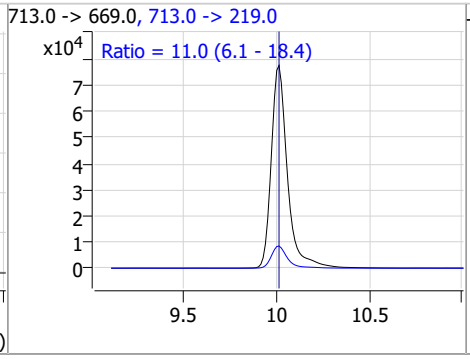


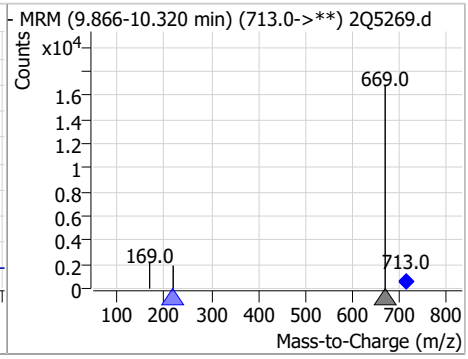




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	25.95	10.01	0.00	467778	713.0 -> 219.0	11.0	6.1	18.4

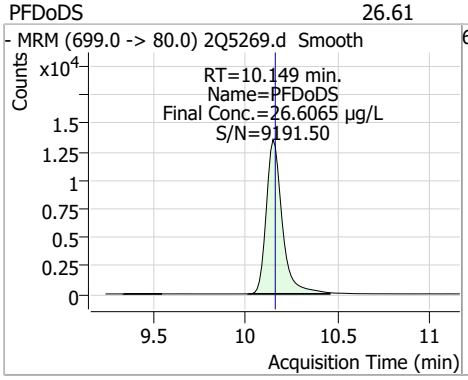


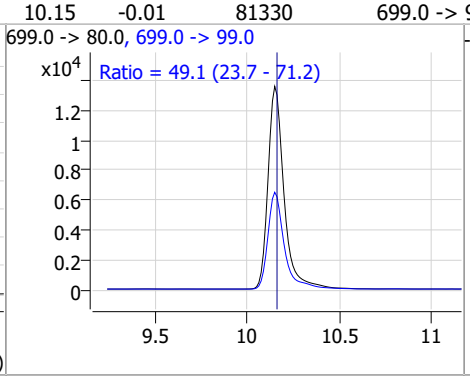


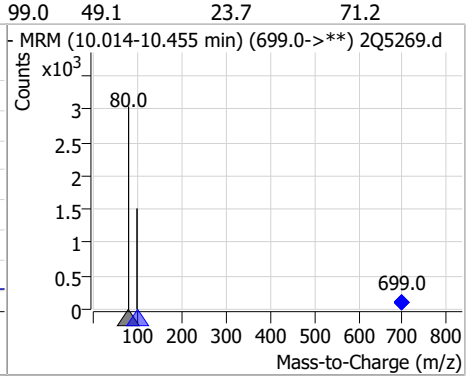


Perfluorinated Compounds by LC/MS/MS

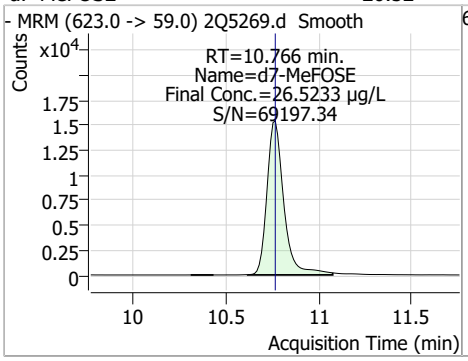
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	26.61	10.15	-0.01	81330	699.0 -> 99.0	49.1	23.7	71.2

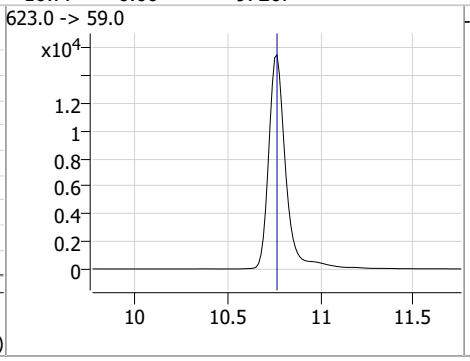


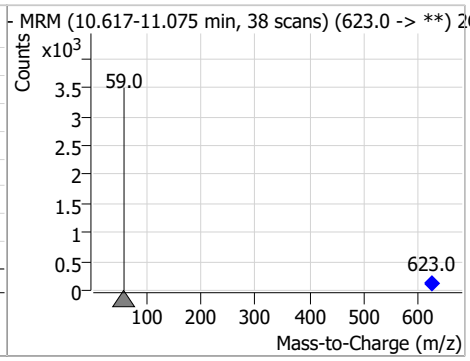




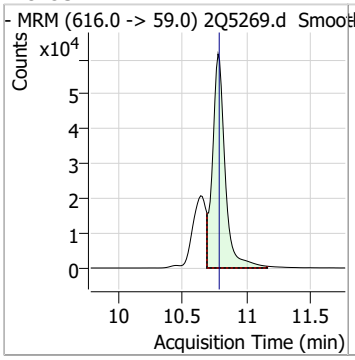
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	26.52	10.77	0.00	97267				

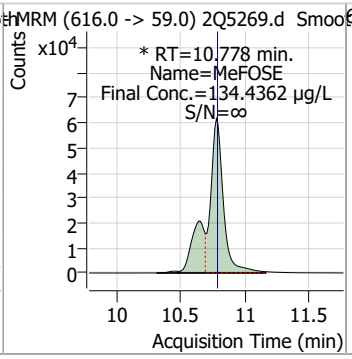


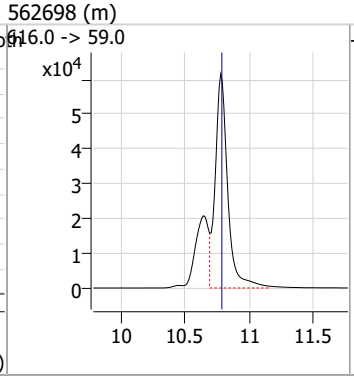


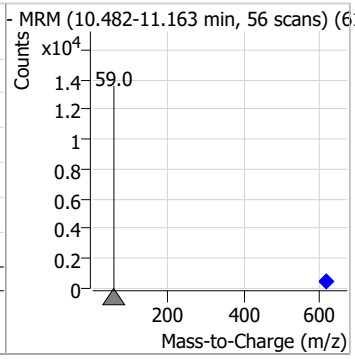


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	134.44	10.78	0.00	562698 (m)				

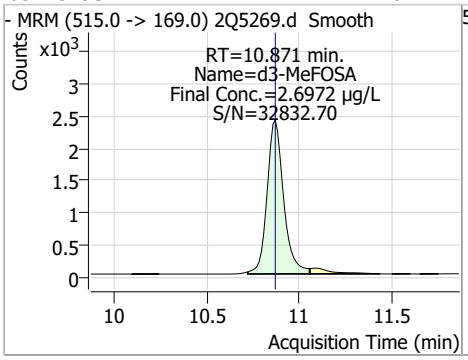


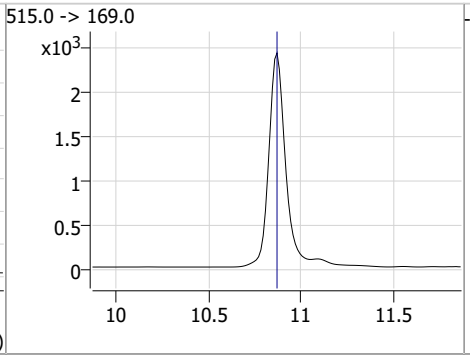


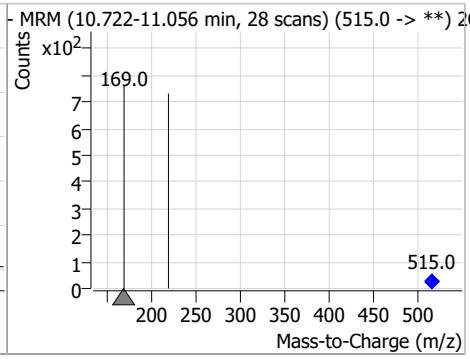




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.70	10.87	0.00	14873				

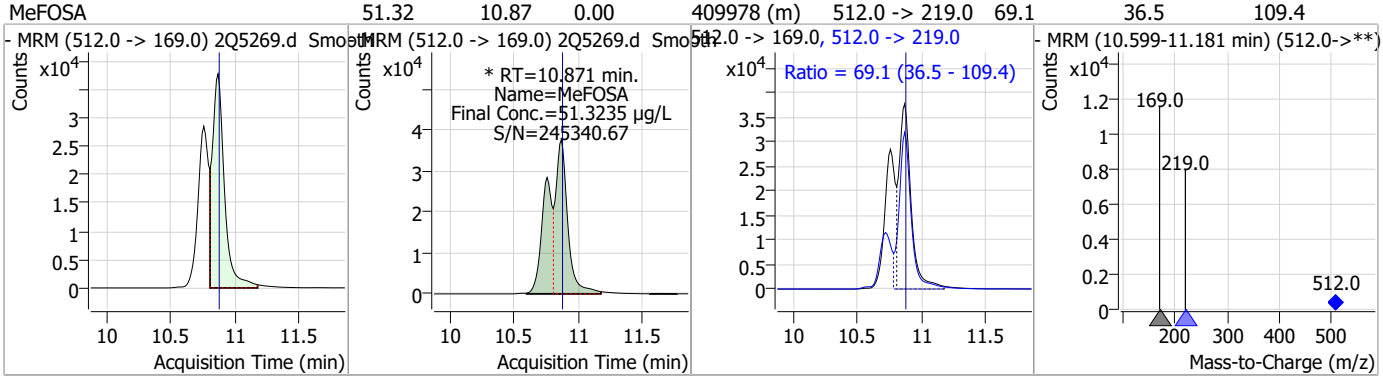




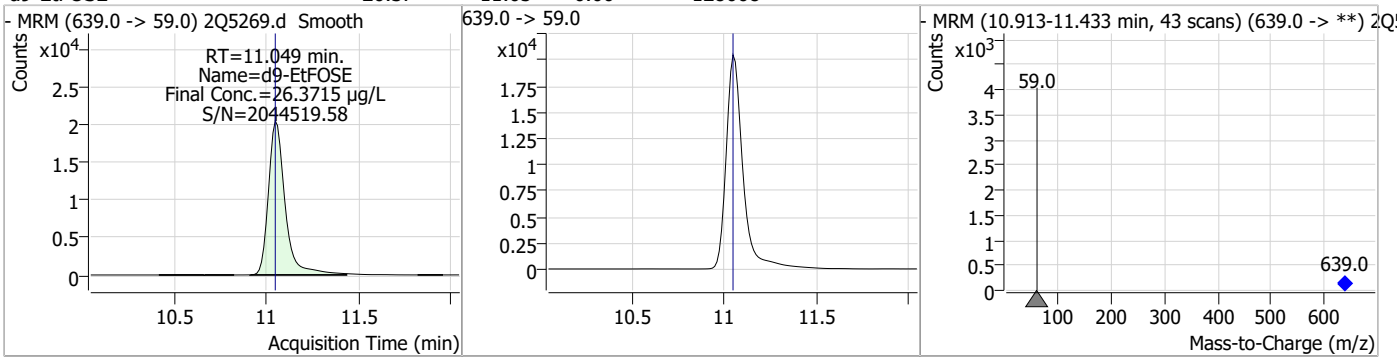


Perfluorinated Compounds by LC/MS/MS

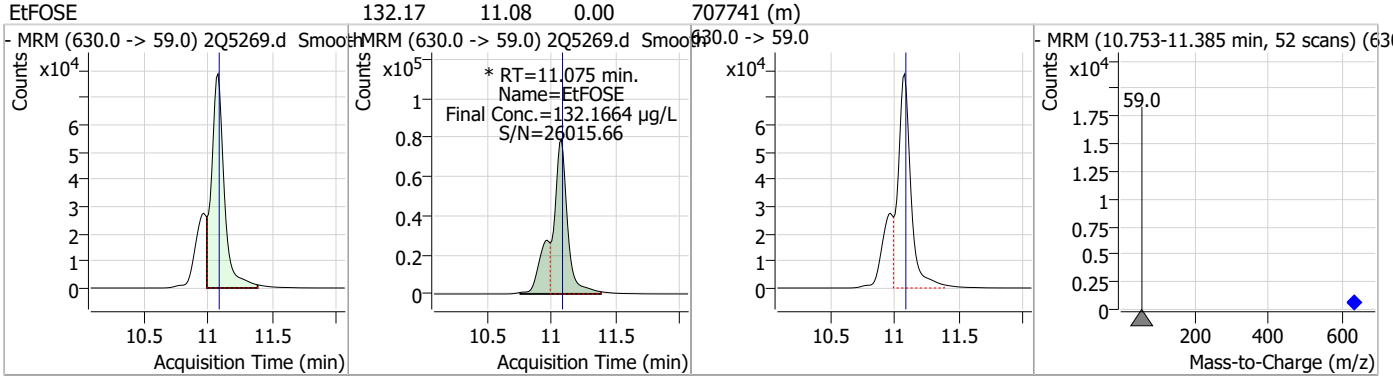
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	51.32	10.87	0.00	409978 (m)	512.0 -> 219.0	69.1	36.5	109.4



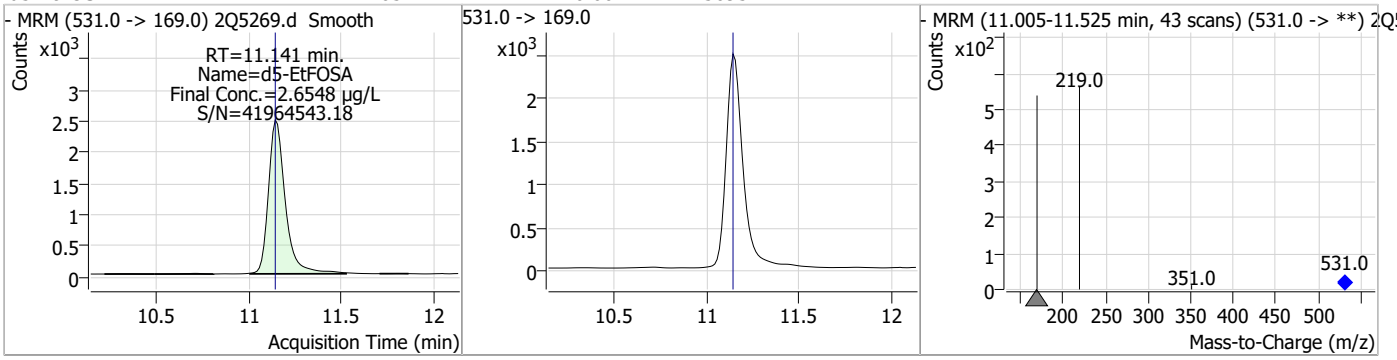
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	26.37	11.05	0.00	128068				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	132.17	11.08	0.00	707741 (m)				

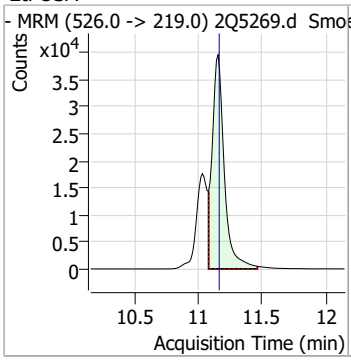


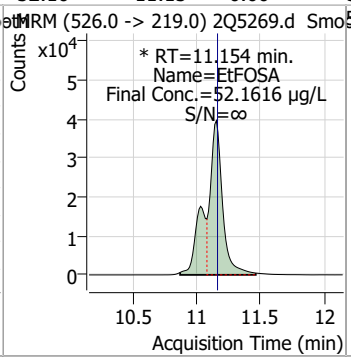
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.65	11.14	0.00	15695				

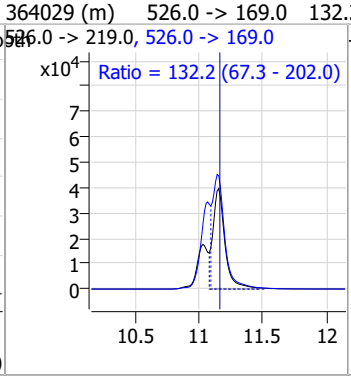


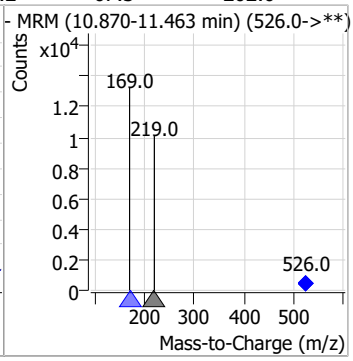
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	52.16	11.15	0.00	364029 (m)	526.0 -> 169.0	132.2	67.3	202.0









7.5.7

7

Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5269.D
Injection Time: 11/30/23 18:52
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5270.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 7:07:19 PM
Sample Name : ic96-8
Vial : P1-A9
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	153693	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	99856	5.00	µg/L	0.000
M5-PFHxA	5.955	318.0 -> 273.0	58806	1.25	µg/L	0.000
M4-PFHpA	6.795	367.0 -> 322.0	45993	2.50	µg/L	0.000
M8-PFOA	7.384	421.0 -> 376.0	75149	2.50	µg/L	-0.012
M9-PFNA	7.912	472.0 -> 427.0	34063	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	15795	1.25	µg/L	-0.012
M7-PFUnDA	8.840	570.0 -> 525.0	22032	1.25	µg/L	-0.012
M2-PFDoDA	9.268	615.0 -> 570.0	28243	1.25	µg/L	0.000
M2-PFTeDA	10.013	715.0 -> 670.0	22776	1.25	µg/L	0.000
M8-FOSA	9.653	506.0 -> 78.0	19889	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6043	2.50	µg/L	-0.012
		302.0 -> 80.0	14421			
M3-PFHxS	7.496	402.0 -> 99.0	6378	2.50	µg/L	-0.012
M8-PFOS	8.548	507.0 -> 99.0	6952	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1064	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	2617	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	2980	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	38383	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	24880	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	35296	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	95005	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	122890	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	14592	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	15833	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	13591	2.50	µg/L	0.000
13C3-PFBA	3.342	216.0 -> 172.0	67755	5.00	µg/L	0.000
18O2-PFHxS	7.496	403.0 -> 84.0	7203	2.50	µg/L	-0.012
13C4-PFOA	7.397	417.0 -> 372.0	73559	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	26893	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	36166	1.25	µg/L	0.000
13C2-PFHxA	5.955	315.0 -> 270.0	56814	2.50	µg/L	0.000
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1064	4.04	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 80.9%		
13C2-6:2FTS	7.175	429.0 -> 81.0	2617	4.49	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 89.8%		
13C2-8:2FTS	8.179	529.0 -> 81.0	2980	3.69	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 73.8%		
13C2-PFDoDA	9.268	615.0 -> 570.0	28243	1.32	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 105.3%		
13C2-PFTeDA	10.013	715.0 -> 670.0	22776	1.45	µg/L	0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 115.7%		
13C3-PFBS	5.871	302.0 -> 99.0	6043	2.26	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.3%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.496	402.0 -> 99.0	6378	2.27	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.8%			
13C4-PFBA	3.339	217.0 -> 172.0	153693	10.08	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 100.8%			
13C4-PFHpA	6.795	367.0 -> 322.0	45993	2.49	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.6%			
13C5-PFHxA	5.955	318.0 -> 273.0	58806	2.49	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.7%			
13C5-PFPeA	4.810	268.0 -> 223.0	99856	4.69	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 93.8%			
13C6-PFDA	8.388	519.0 -> 474.0	15795	1.41	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 112.6%			
13C7-PFUnDA	8.840	570.0 -> 525.0	22032	1.19	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.2%			
13C8-FOSA	9.653	506.0 -> 78.0	19889	2.16	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 86.4%			
13C8-PFOA	7.384	421.0 -> 376.0	75149	2.47	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.7%			
13C8-PFOS	8.548	507.0 -> 99.0	6952	2.35	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.0%			
13C9-PFNA	7.912	472.0 -> 427.0	34063	1.20	µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.3%			
d3-MeFOSAA	8.435	573.0 -> 419.0	38383	4.34	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 86.8%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	24880	9.23	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 92.3%			
d3-MeFOSA	10.871	515.0 -> 169.0	15833	2.60	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.0%			
d5-EtFOSAA	8.630	589.0 -> 419.0	35296	4.83	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 96.6%			
d7-MeFOSE	10.766	623.0 -> 59.0	95005	23.46	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 93.9%			
d9-EtFOSE	11.049	639.0 -> 59.0	122890	22.92	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 91.7%			
d5-EtFOSA	11.141	531.0 -> 169.0	14592	2.24	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.4%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	420054	237.35	µg/L		99
		327.0 -> 81.0	213553				
6:2FTS	7.175	427.0 -> 407.0	853900	222.41	µg/L		95
		427.0 -> 81.0	253503				
8:2FTS	8.179	527.0 -> 507.0	795068	295.09	µg/L		94
		527.0 -> 81.0	256735				
EtFOSAA	8.631	584.0 -> 419.0	408575	68.91	µg/L	m	92
		584.0 -> 483.0	205996				
FOSA	9.655	498.0 -> 78.0	1006603	140.60	µg/L	m	99
		498.0 -> 478.0	45492				
MeFOSAA	8.436	570.0 -> 419.0	470014	61.76	µg/L	m	88
		570.0 -> 512.0	136267				
PFBA	3.333	213.0 -> 169.0	1055698	273.52	µg/L		100
PFBS	5.872	299.0 -> 80.0	424396	67.43	µg/L		95
		299.0 -> 99.0	166611				
PFDA	8.389	513.0 -> 469.0	1600041	62.56	µg/L		98
		513.0 -> 219.0	258716				
PFDoDA	9.268	613.0 -> 569.0	1383878	63.89	µg/L		98
		613.0 -> 319.0	237914				

Perfluorinated Compounds by LC/MS/MS

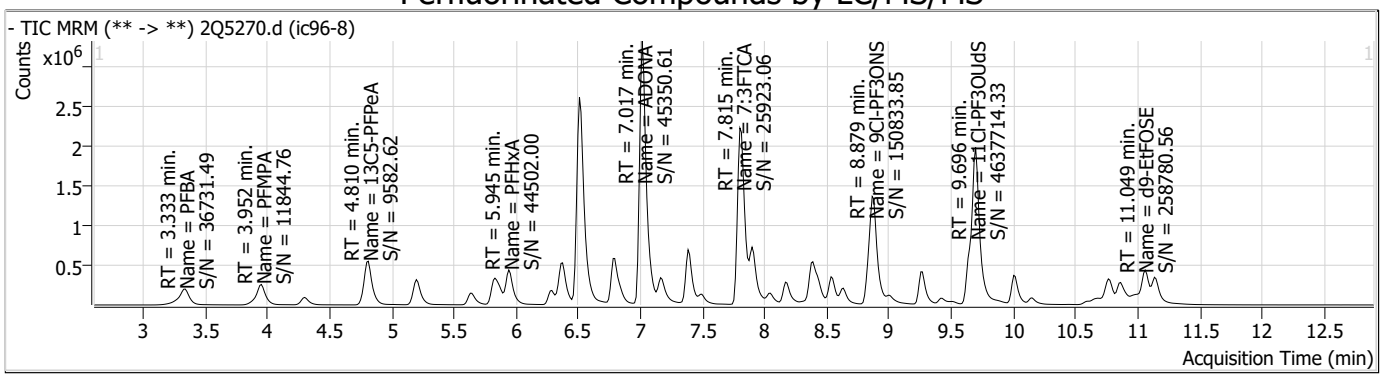
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	188958	71.65	µg/L		99
		599.0 -> 99.0	93884				
PFHpA	6.796	363.0 -> 319.0	1824097	62.49	µg/L		96
		363.0 -> 169.0	330067				
PFHpS	8.047	449.0 -> 80.0	277794	68.81	µg/L		98
		449.0 -> 99.0	142215				
PFHxA	5.945	313.0 -> 269.0	1519886	65.37	µg/L		100
		313.0 -> 119.0	43917				
PFHxS	7.497	399.0 -> 80.0	286030	64.30	µg/L	m	97
		399.0 -> 99.0	158176				
PFNA	7.912	463.0 -> 419.0	1724165	67.37	µg/L		95
		463.0 -> 219.0	308888				
PFNS	9.013	549.0 -> 80.0	183762	58.71	µg/L		98
		549.0 -> 99.0	102301				
PFOA	7.397	413.0 -> 369.0	2010577	68.30	µg/L		96
		413.0 -> 169.0	418556				
PFOS	8.549	499.0 -> 80.0	361141	60.76	µg/L	m	91
		499.0 -> 99.0	173604				
PFPeA	4.812	263.0 -> 219.0	2448729	136.07	µg/L		100
PFPeS	6.845	349.0 -> 80.0	240458	66.43	µg/L		94
		349.0 -> 99.0	112805				
PFTeDA	10.013	713.0 -> 669.0	1143727	62.07	µg/L		98
		713.0 -> 219.0	132361				
PFTrDA	9.647	663.0 -> 619.0	1354688	65.32	µg/L		98
		663.0 -> 369.0	167175				
PFUnDA	8.841	563.0 -> 519.0	1510805	68.47	µg/L		97
		563.0 -> 269.0	265662				
11Cl-PF3OUdS	9.696	631.0 -> 451.0	5730895	255.92	µg/L		98
		633.0 -> 453.0	1693728				
9Cl-PF3ONS	8.879	531.0 -> 351.0	3760653	243.94	µg/L		98
		533.0 -> 353.0	1121938				
ADONA	7.017	377.0 -> 251.0	10080665	255.61	µg/L		99
		377.0 -> 85.0	2941242				
HFPO-DA	6.295	285.0 -> 169.0	669025	249.56	µg/L		98
		285.0 -> 185.0	54853				
3:3FTCA	4.301	241.0 -> 177.0	393898	352.98	µg/L		100
		241.0 -> 117.0	29518				
5:3FTCA	6.524	341.0 -> 237.0	6445984	1584.86	µg/L		99
		341.0 -> 217.0	4625352				
7:3FTCA	7.815	441.0 -> 337.0	6980600	1609.52	µg/L		98
		441.0 -> 317.0	2798951				
EtFOSA	11.154	526.0 -> 219.0	916460	141.25	µg/L	m	96
		526.0 -> 169.0	1189202				
EtFOSE	11.075	630.0 -> 59.0	1726546	336.01	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	989438	116.35	µg/L	m	100
		512.0 -> 219.0	718687				
MeFOSE	10.778	616.0 -> 59.0	1416841	346.56	µg/L	m	100
PFDoDS	10.149	699.0 -> 80.0	192976	64.77	µg/L		92
		699.0 -> 99.0	101825				
NFDHA	5.835	295.0 -> 201.0	172780	120.87	µg/L		85
		201.0 -> 85.0	991116				
		295.0 -> 85.0	42130				
PFMBA	5.201	279.0 -> 85.0	1385203	142.60	µg/L		100
PFMPA	3.952	229.0 -> 85.0	1392246	136.68	µg/L		100
PFEESA	6.377	315.0 -> 135.0	1980795	124.21	µg/L		99
		315.0 -> 69.0	194290				

Perfluorinated Compounds by LC/MS/MS

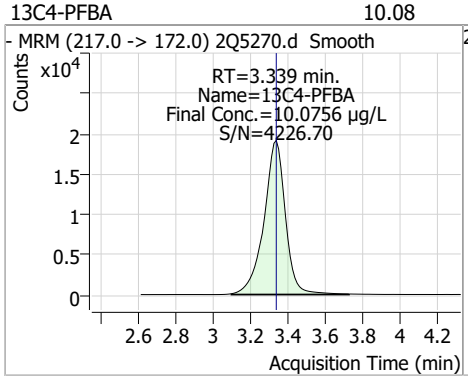
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

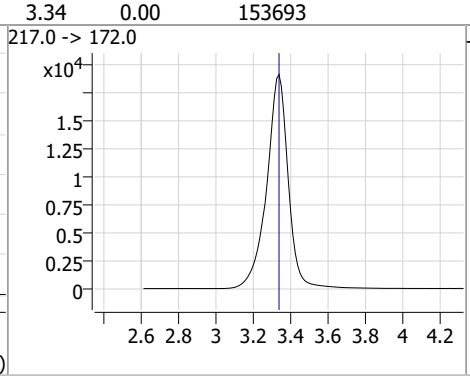
= Qualifier out of range, m = manually integrated, + = Area summed

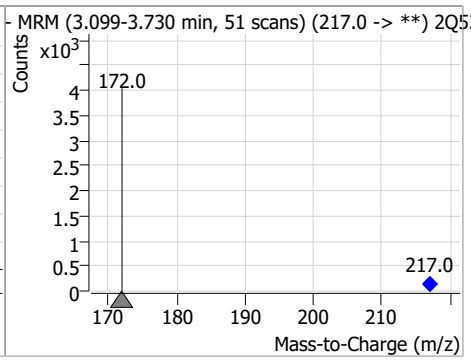
Perfluorinated Compounds by LC/MS/MS



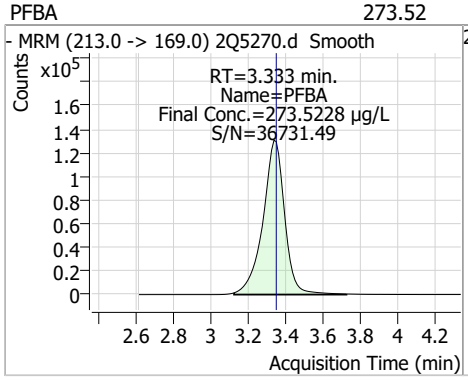
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.08	3.34	0.00	153693				

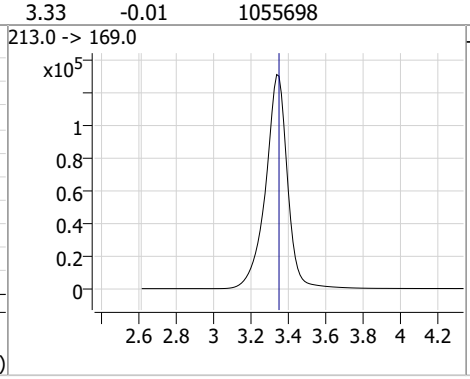


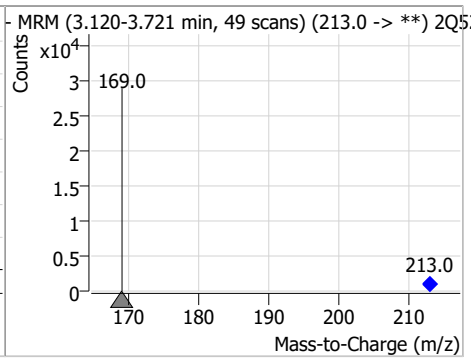




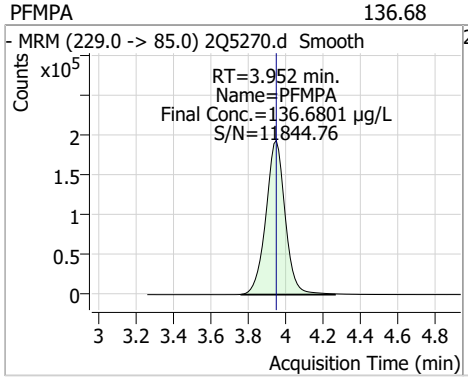
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	273.52	3.33	-0.01	1055698				

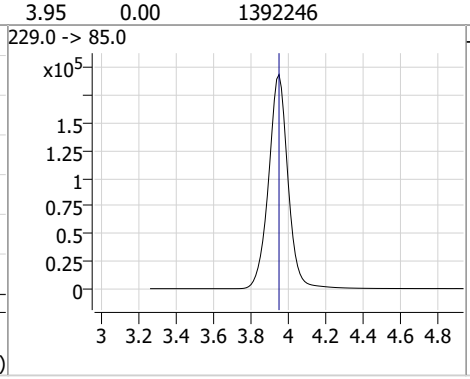


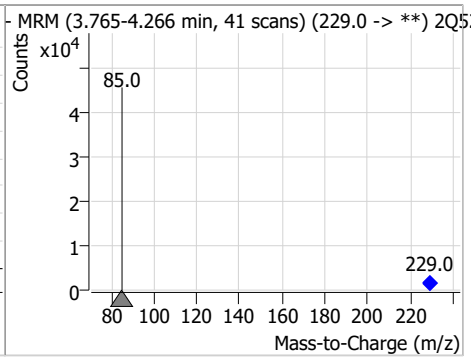




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	136.68	3.95	0.00	1392246				

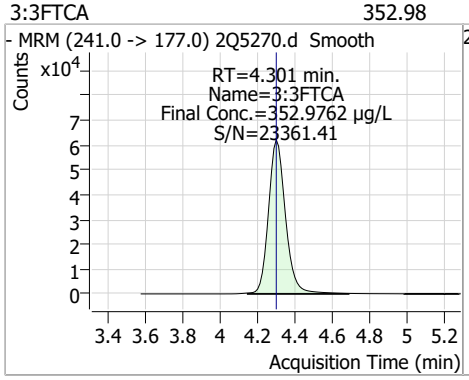


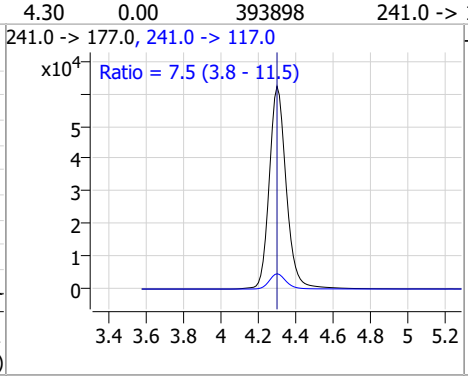


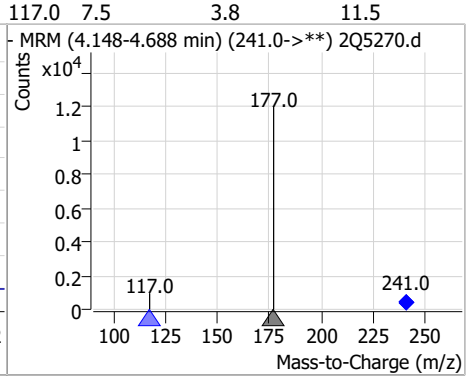


Perfluorinated Compounds by LC/MS/MS

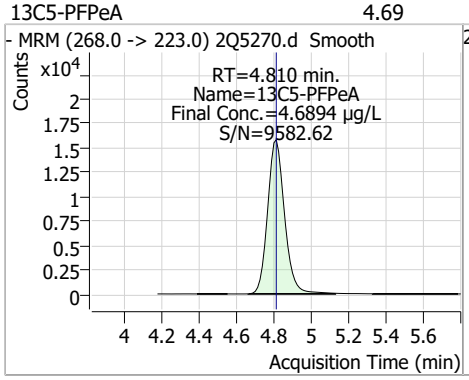
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	352.98	4.30	0.00	393898	241.0 -> 117.0	7.5	3.8	11.5

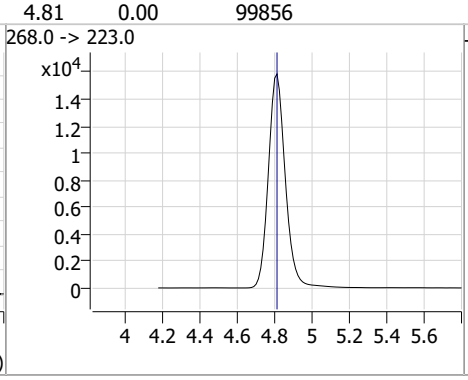


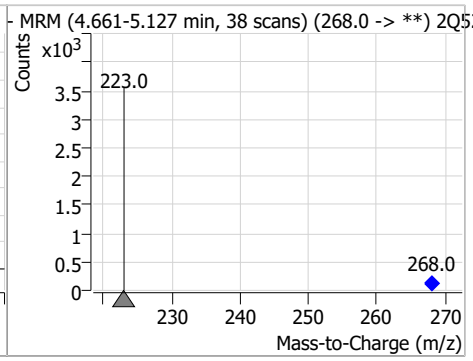




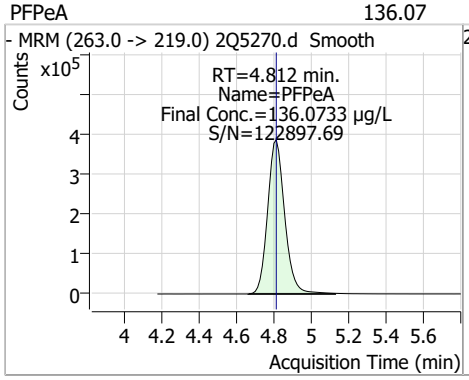
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.69	4.81	0.00	99856				

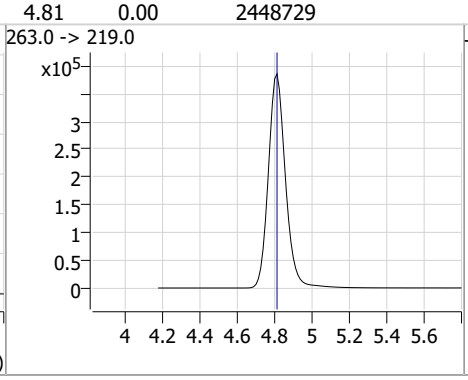


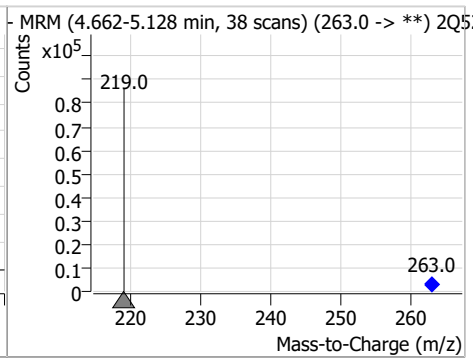




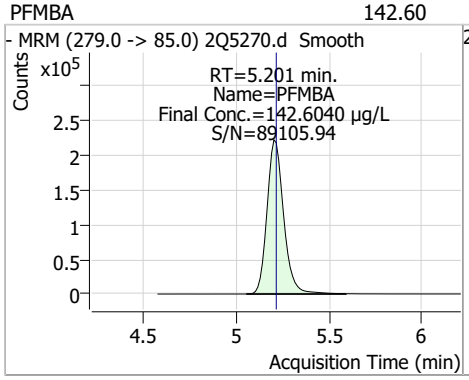
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	136.07	4.81	0.00	2448729				

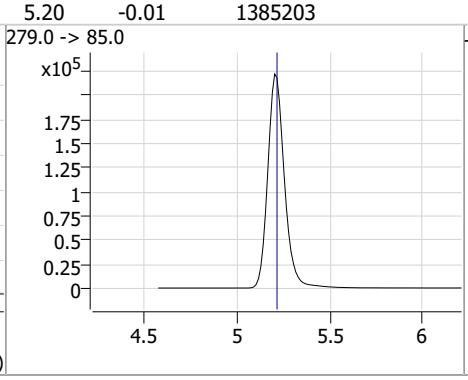


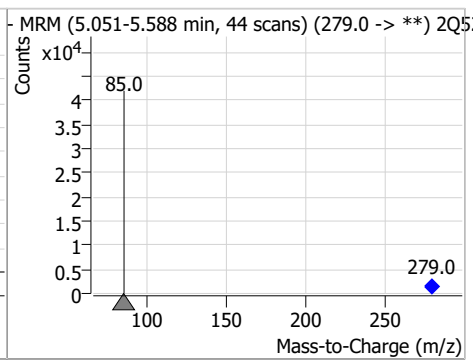




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	142.60	5.20	-0.01	1385203				

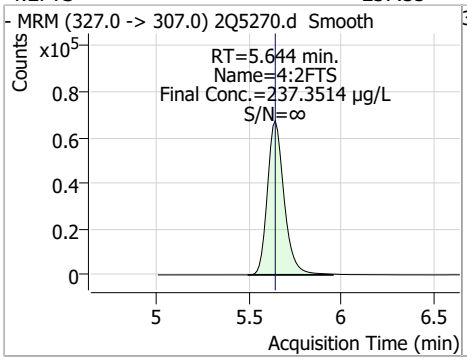


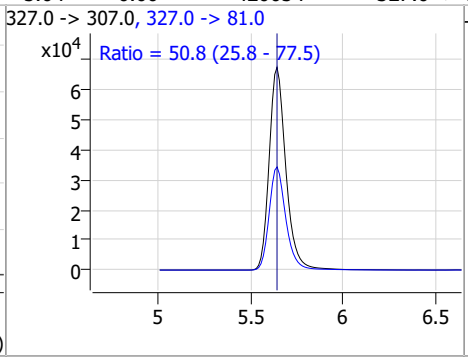


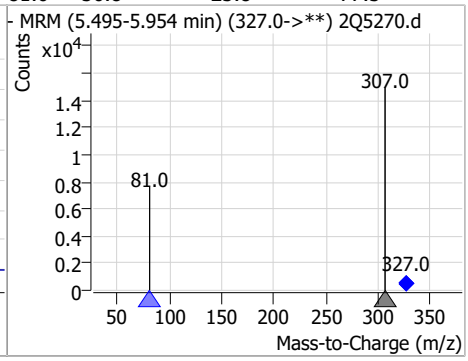


Perfluorinated Compounds by LC/MS/MS

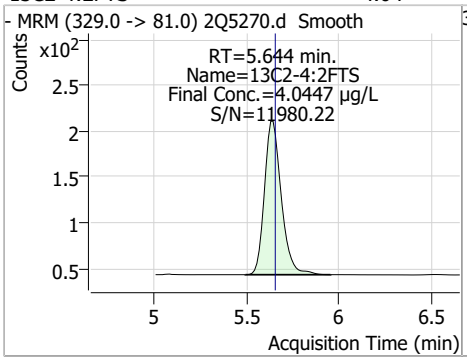
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	237.35	5.64	0.00	420054	327.0 -> 81.0	50.8	25.8	77.5

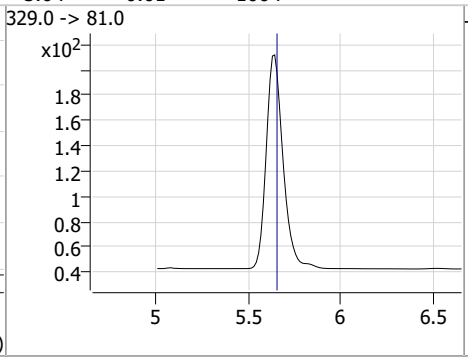


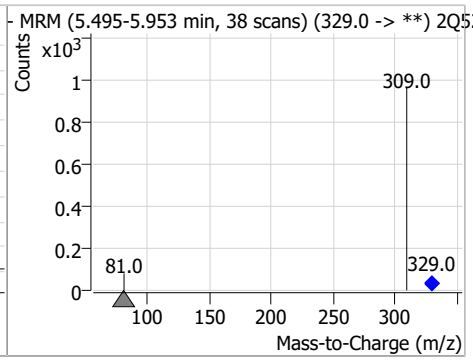




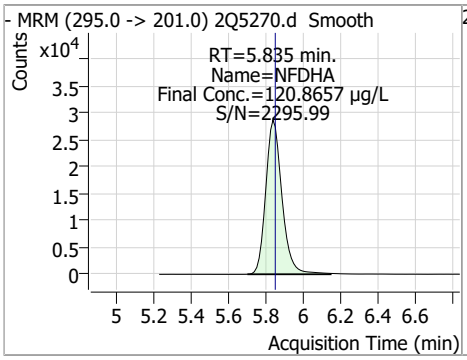
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.04	5.64	-0.01	1064				

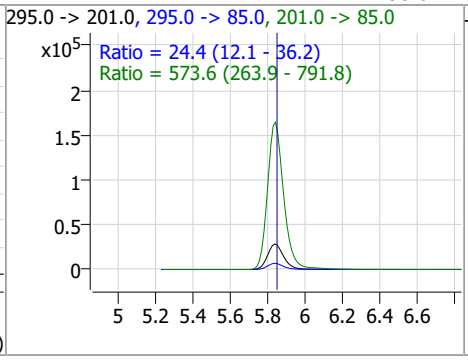


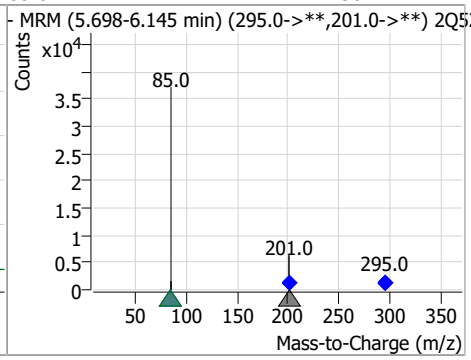




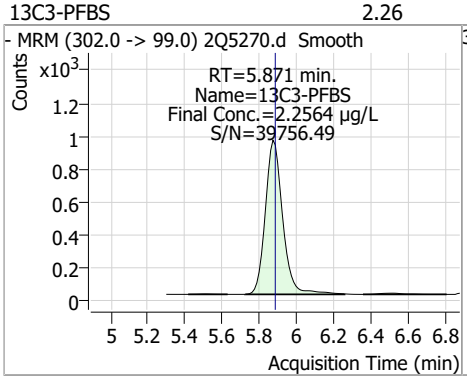
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	120.87	5.84	-0.01	172780	201.0 -> 85.0	573.6	263.9	791.8
					295.0 -> 85.0	24.4	12.1	36.2

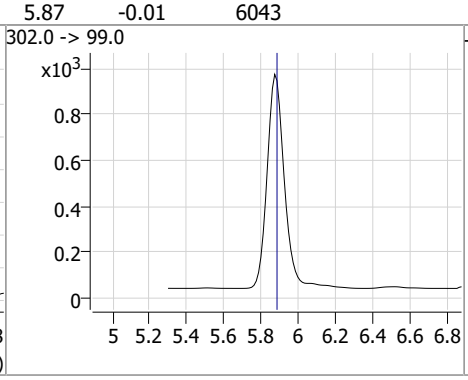


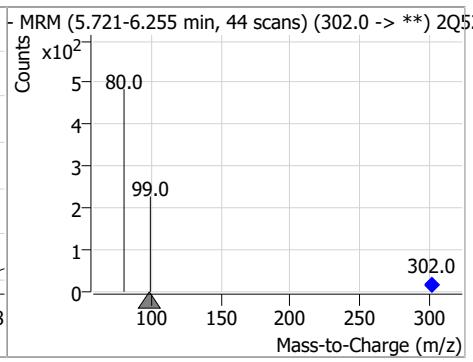




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.26	5.87	-0.01	6043				

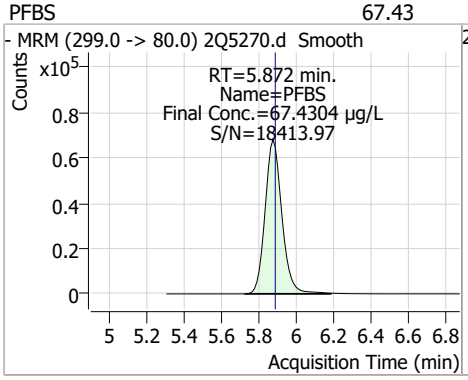


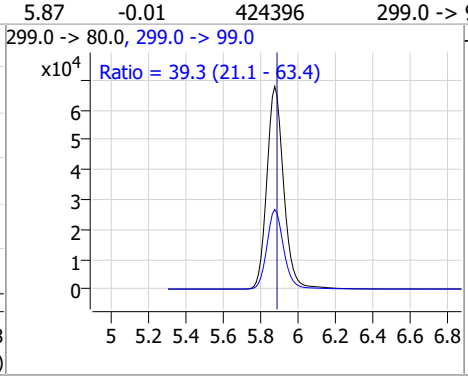


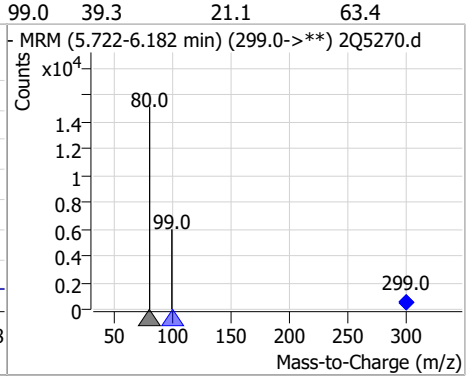


Perfluorinated Compounds by LC/MS/MS

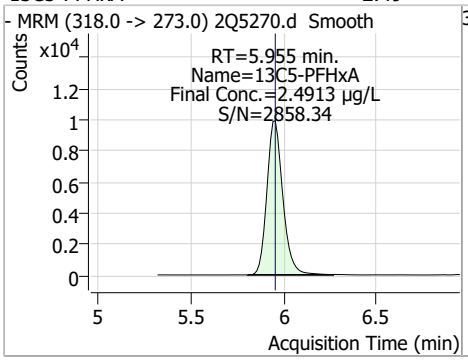
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	67.43	5.87	-0.01	424396	299.0 -> 99.0	39.3	21.1	63.4

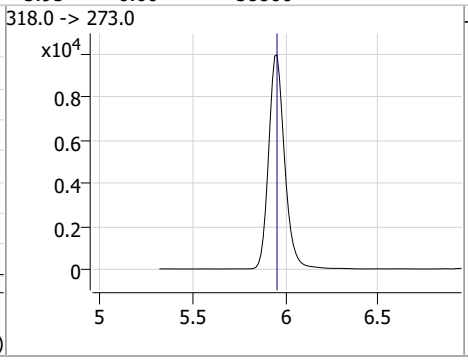


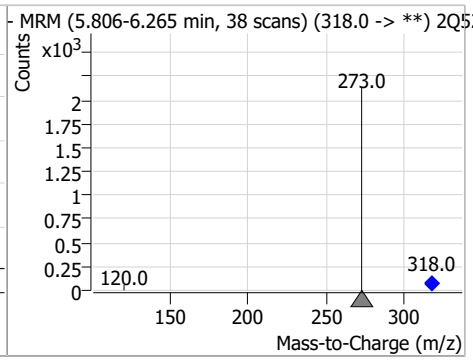




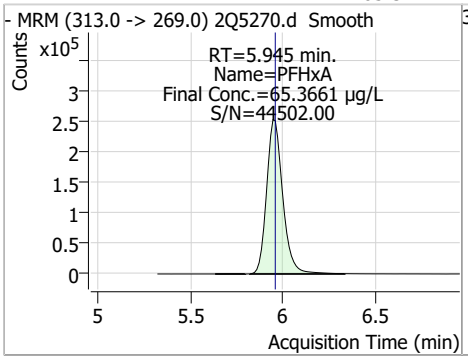
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.49	5.95	0.00	58806				

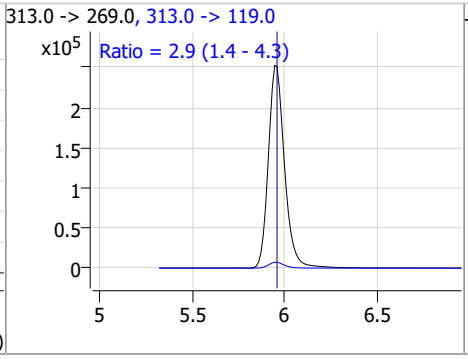


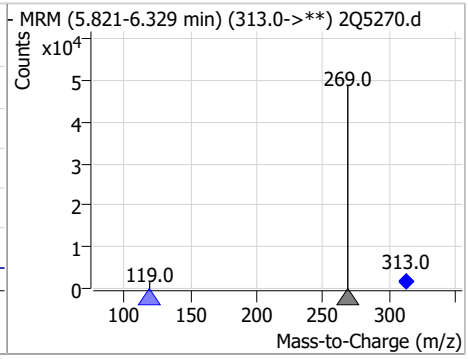




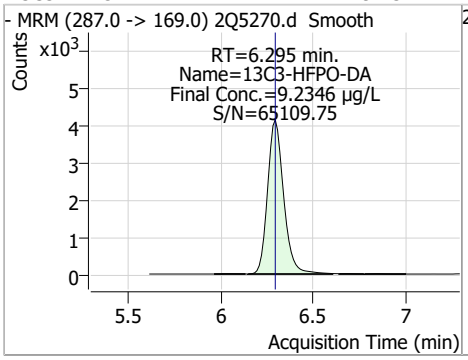
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	65.37	5.94	-0.01	1519886	313.0 -> 119.0	2.9	1.4	4.3

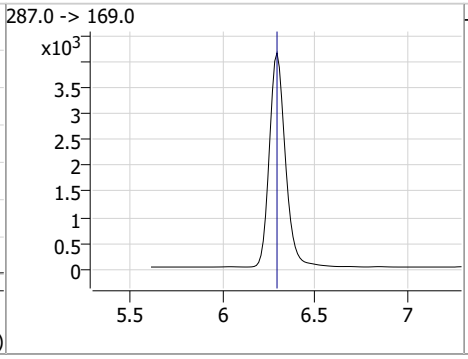


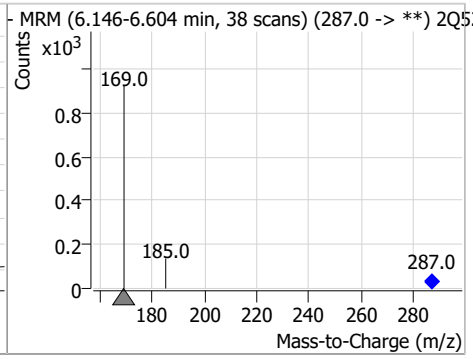




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.23	6.29	0.00	24880				

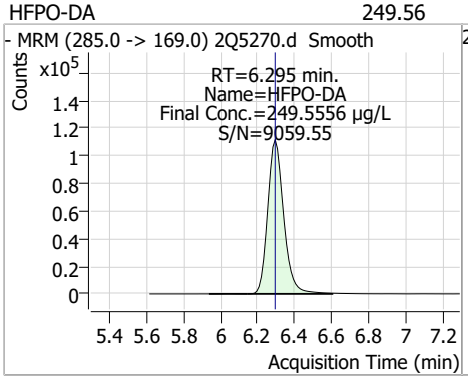


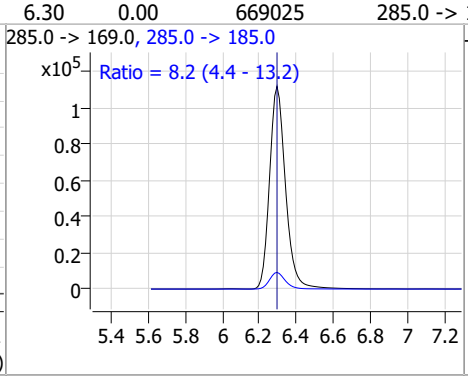


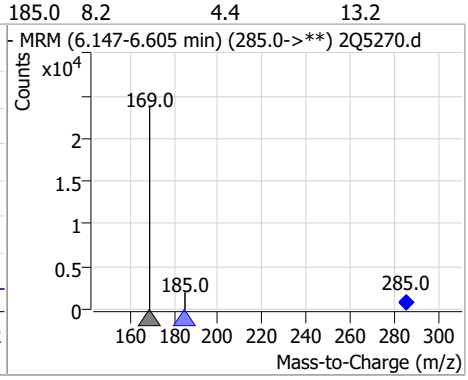


Perfluorinated Compounds by LC/MS/MS

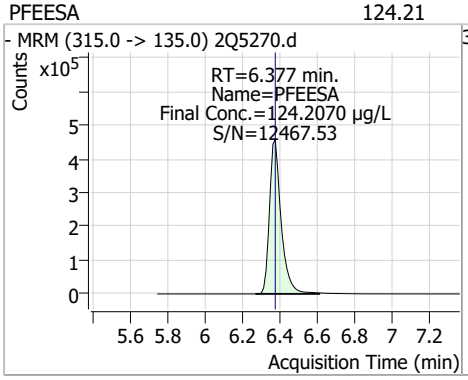
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	249.56	6.30	0.00	669025	285.0 -> 185.0	8.2	4.4	13.2

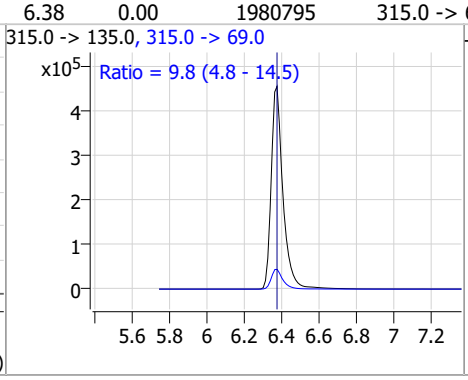


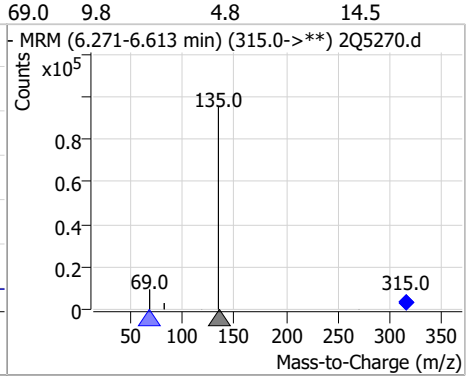




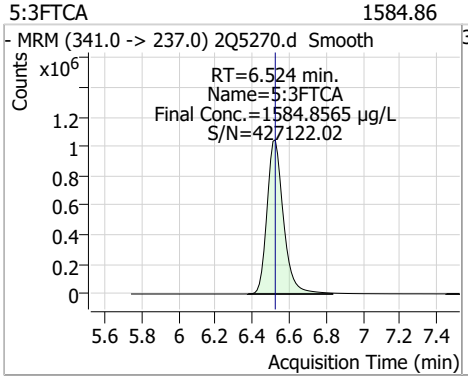
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	124.21	6.38	0.00	1980795	315.0 -> 69.0	9.8	4.8	14.5

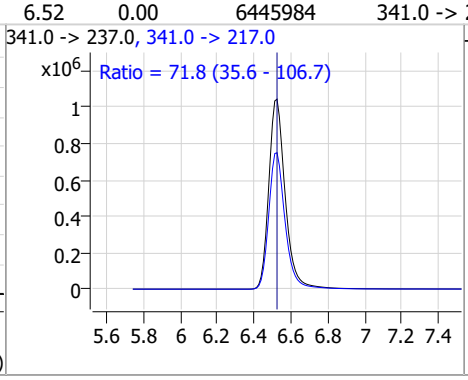


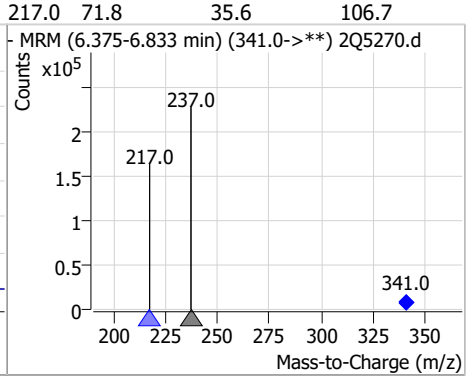




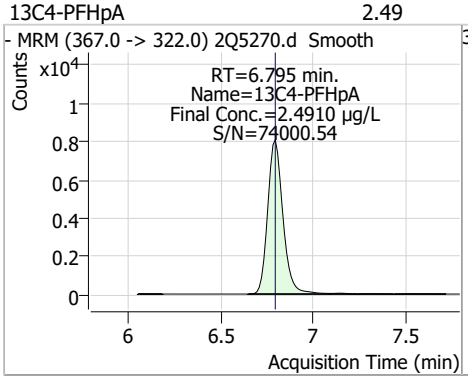
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	1584.86	6.52	0.00	6445984	341.0 -> 217.0	71.8	35.6	106.7

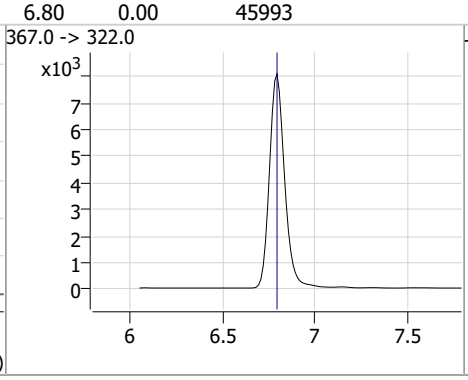


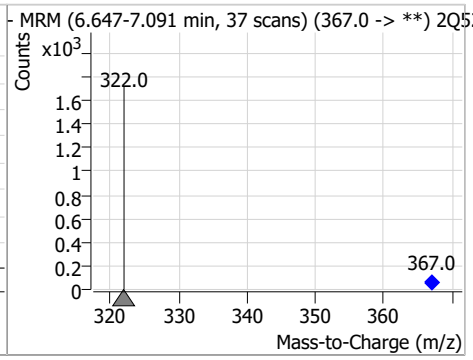




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.49	6.80	0.00	45993				

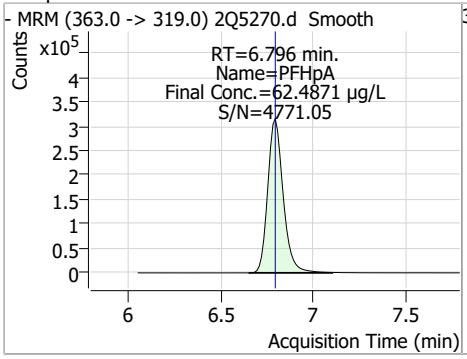


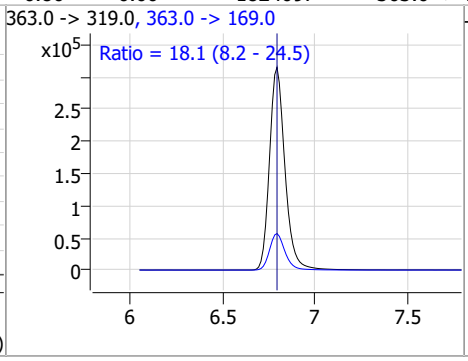


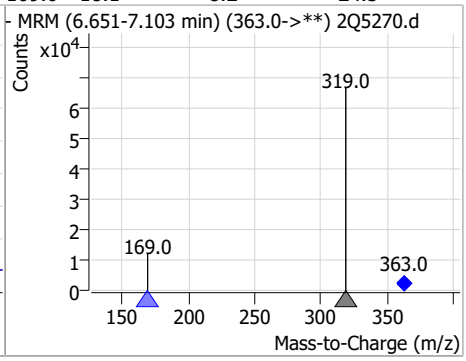


Perfluorinated Compounds by LC/MS/MS

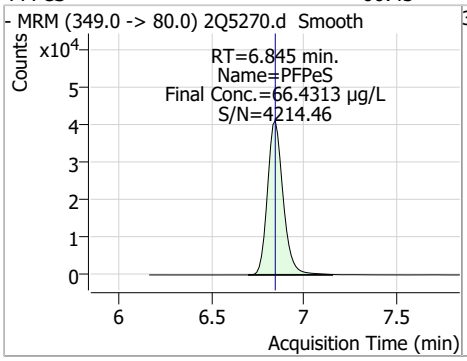
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	62.49	6.80	0.00	1824097	363.0 -> 169.0	18.1	8.2	24.5

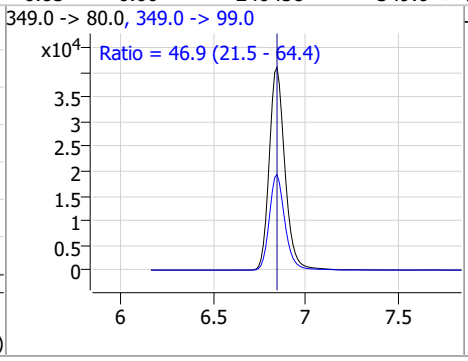


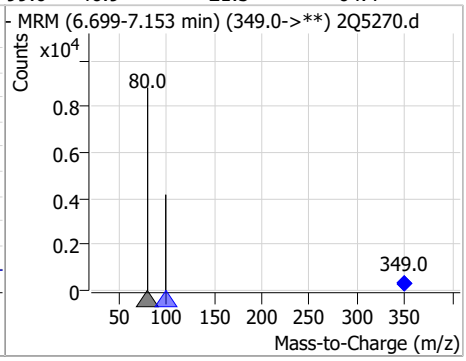




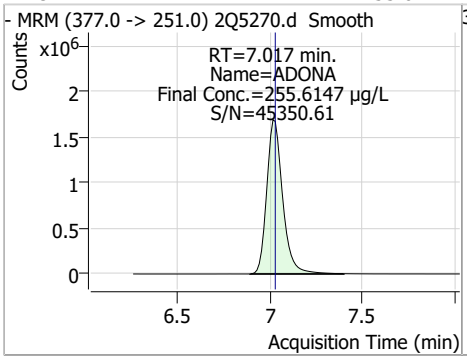
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	66.43	6.85	0.00	240458	349.0 -> 99.0	46.9	21.5	64.4

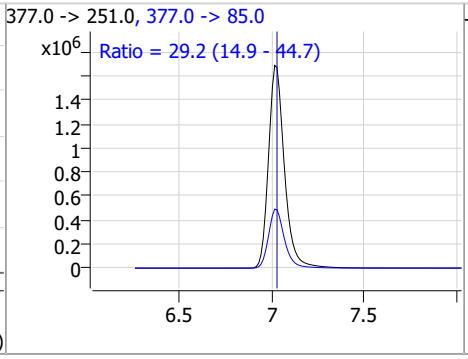


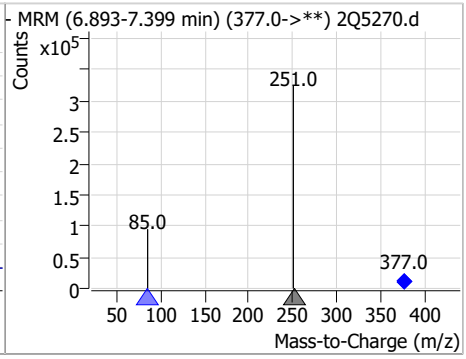




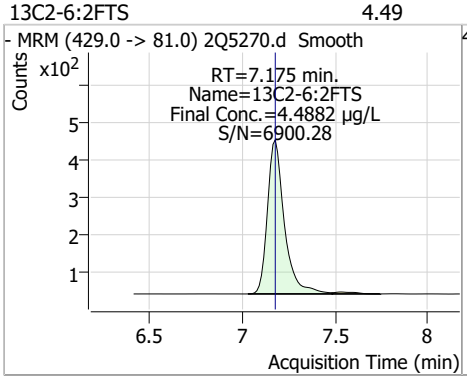
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	255.61	7.02	-0.01	10080665	377.0 -> 85.0	29.2	14.9	44.7

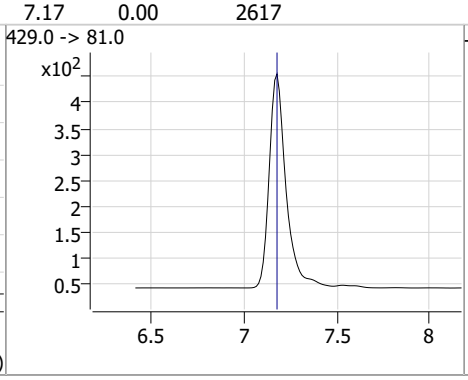


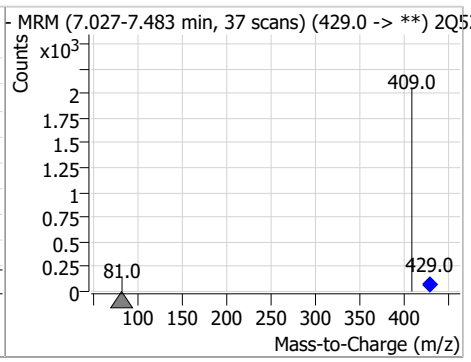




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.49	7.17	0.00	2617				

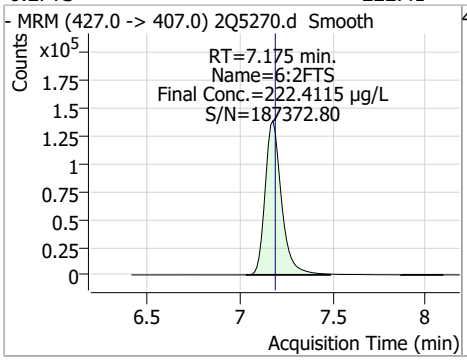


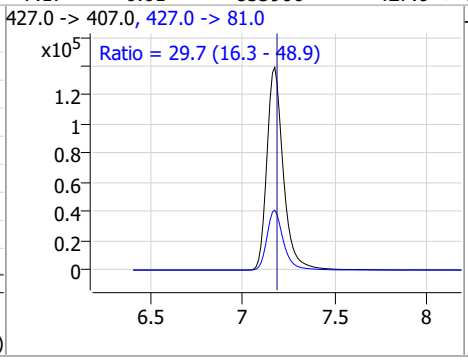


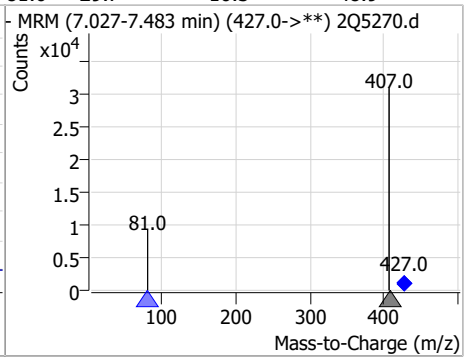


Perfluorinated Compounds by LC/MS/MS

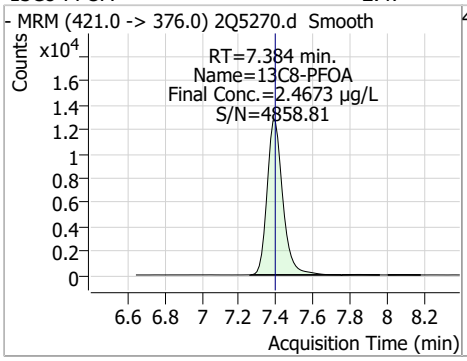
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	222.41	7.17	-0.01	853900	427.0 -> 81.0	29.7	16.3	48.9

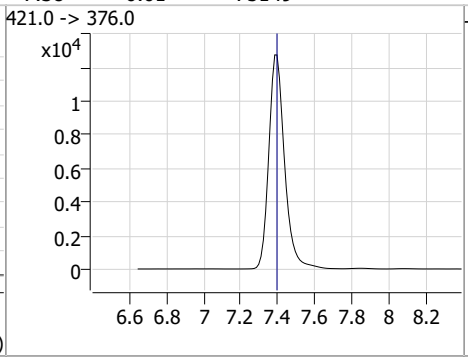


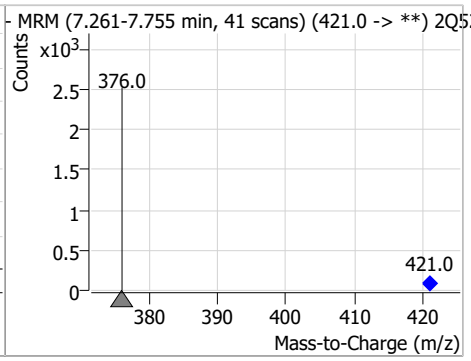




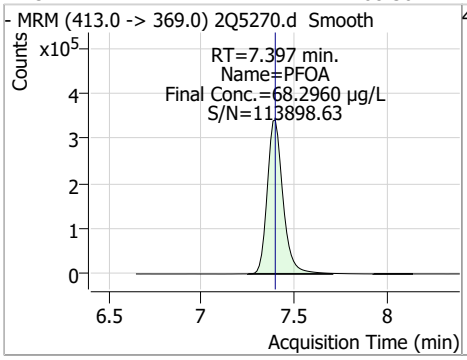
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.47	7.38	-0.01	75149				

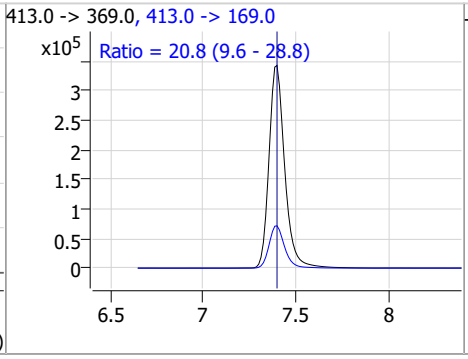


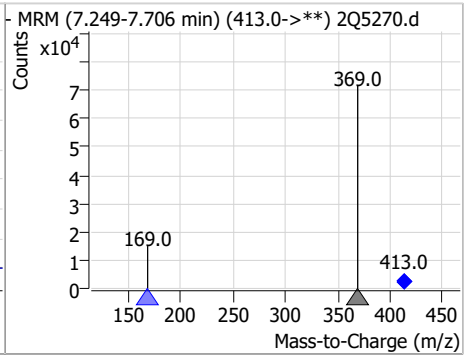




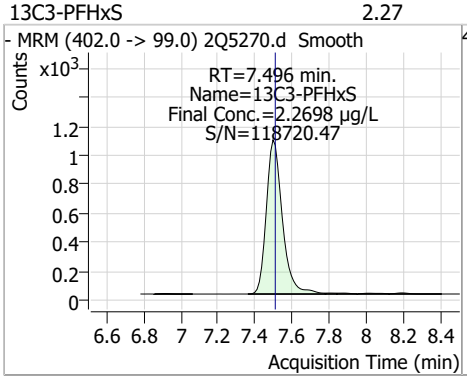
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	68.30	7.40	0.00	2010577	413.0 -> 169.0	20.8	9.6	28.8

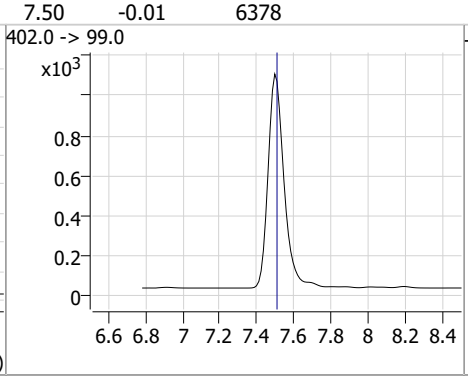


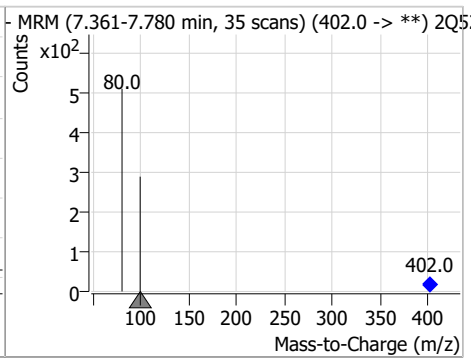




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.27	7.50	-0.01	6378				





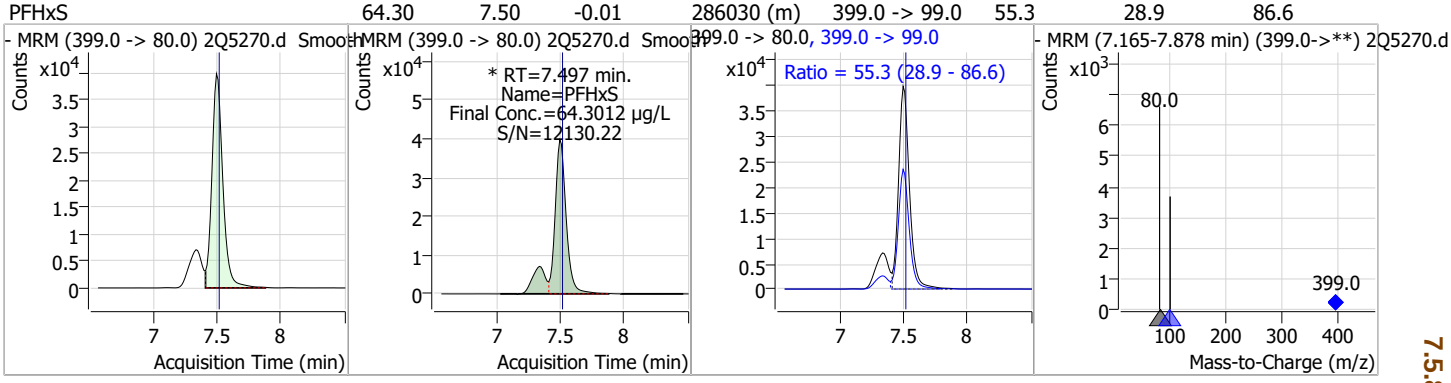


7.5.8

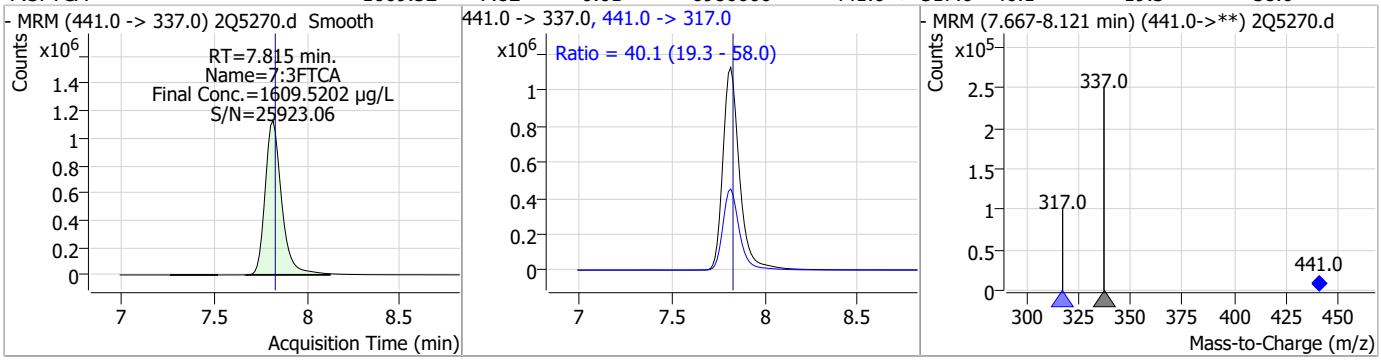
7

Perfluorinated Compounds by LC/MS/MS

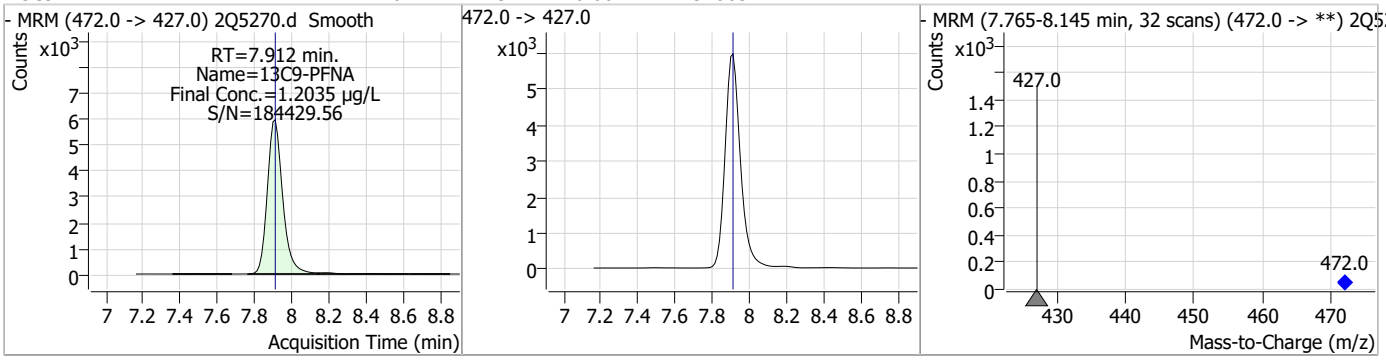
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	64.30	7.50	-0.01	286030 (m)	399.0 -> 99.0	55.3	28.9	86.6



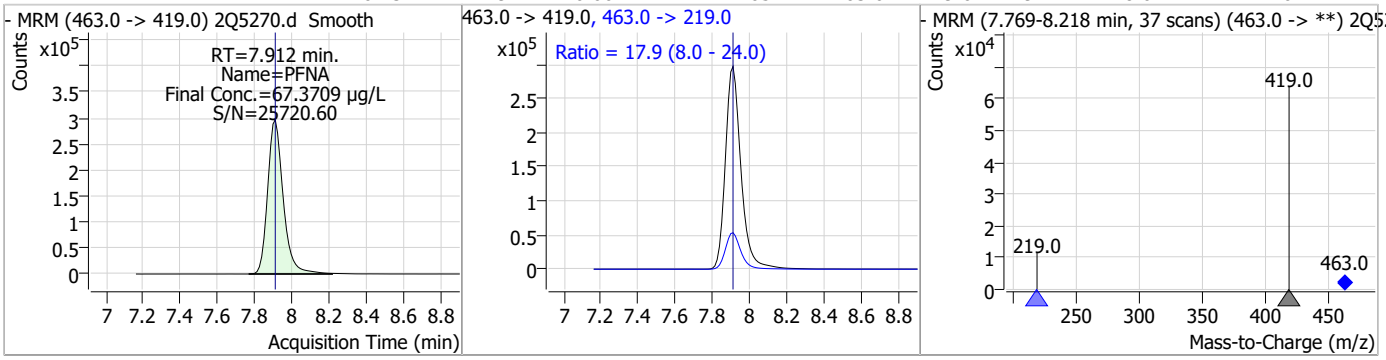
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	1609.52	7.82	-0.01	6980600	441.0 -> 317.0	40.1	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.20	7.91	0.00	34063				

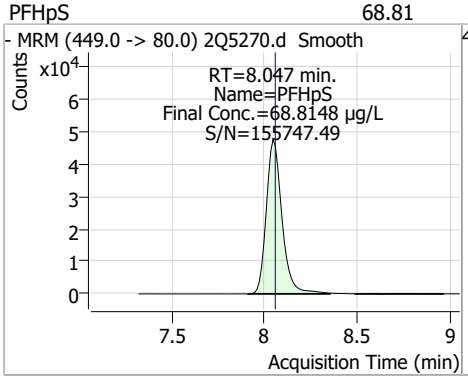


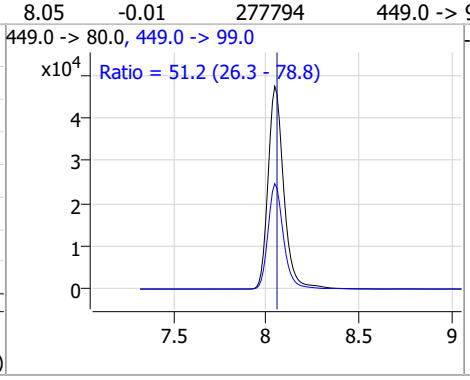
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	67.37	7.91	0.00	1724165	463.0 -> 219.0	17.9	8.0	24.0

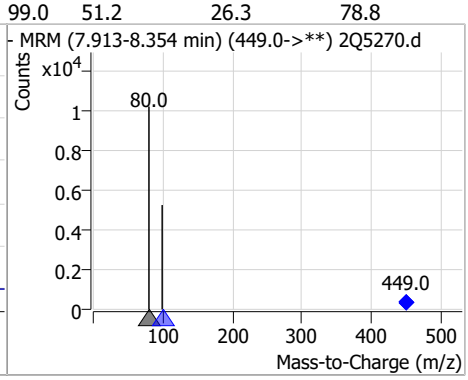


Perfluorinated Compounds by LC/MS/MS

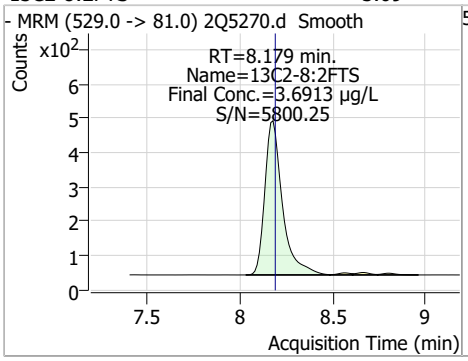
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	68.81	8.05	-0.01	277794	449.0 -> 99.0	51.2	26.3	78.8

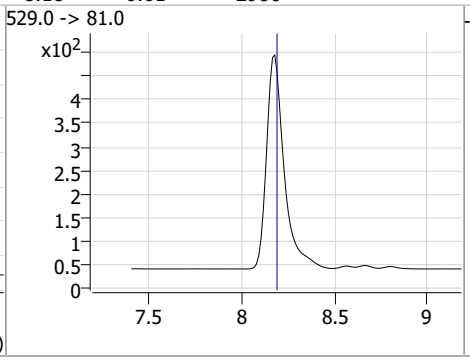


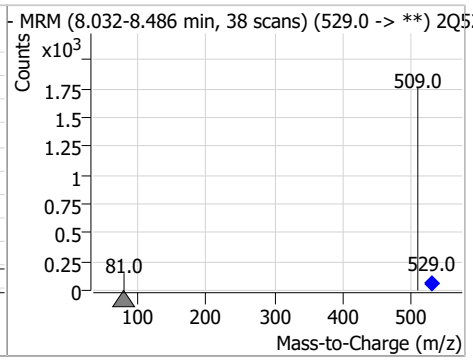




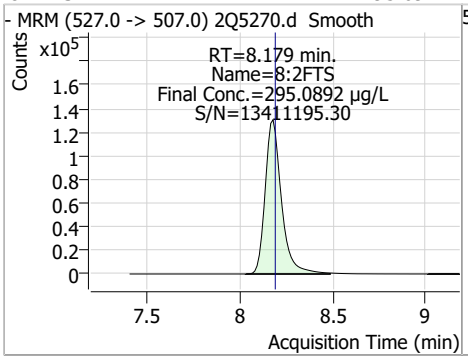
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	3.69	8.18	-0.01	2980				

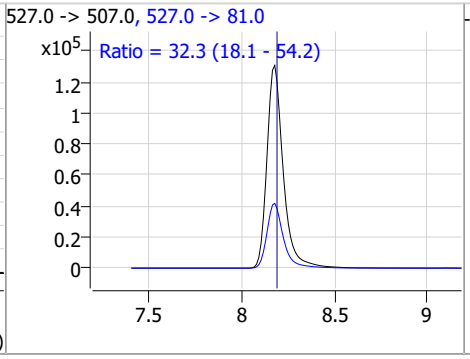


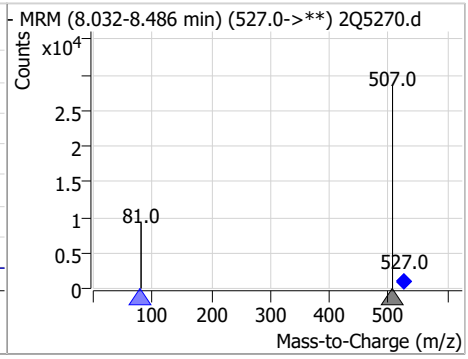




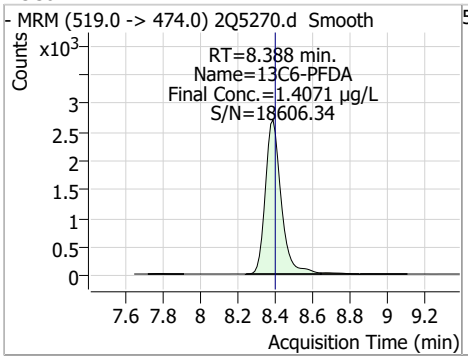
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	295.09	8.18	-0.01	795068	527.0 -> 81.0	32.3	18.1	54.2

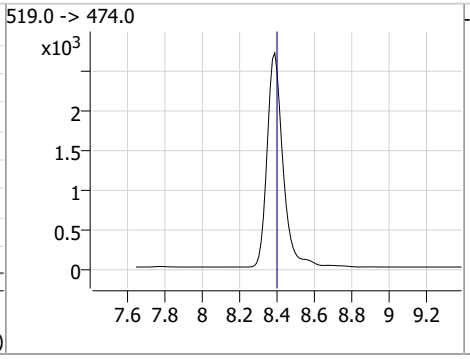


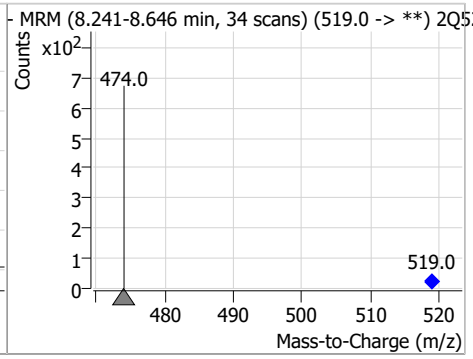




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.41	8.39	-0.01	15795				

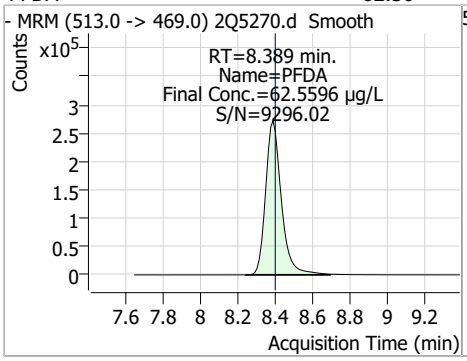


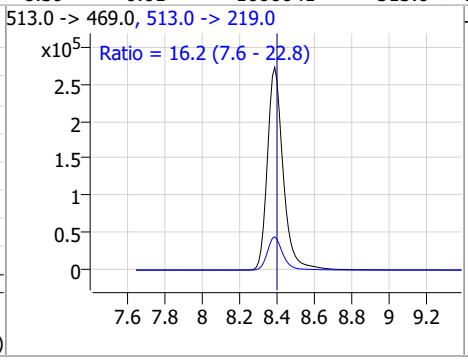


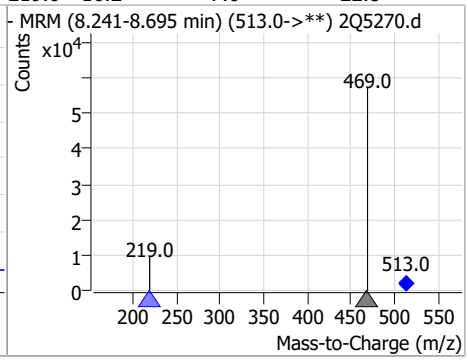


Perfluorinated Compounds by LC/MS/MS

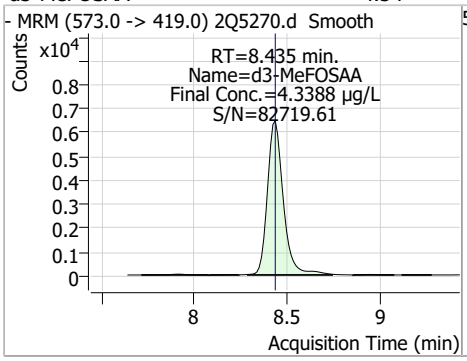
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	62.56	8.39	-0.01	1600041	513.0 -> 219.0	16.2	7.6	22.8

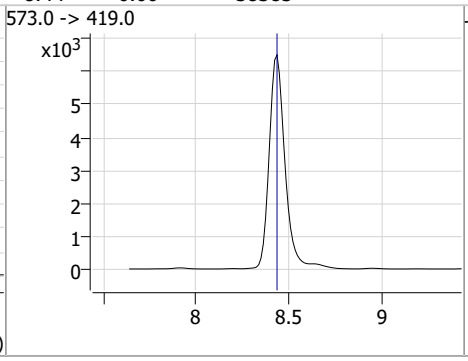


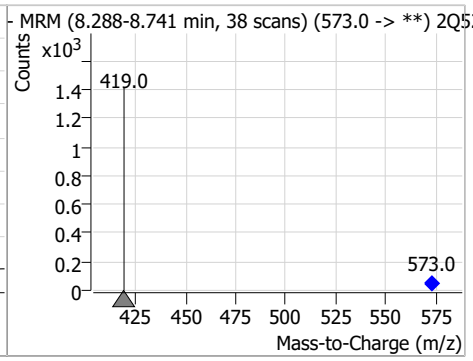




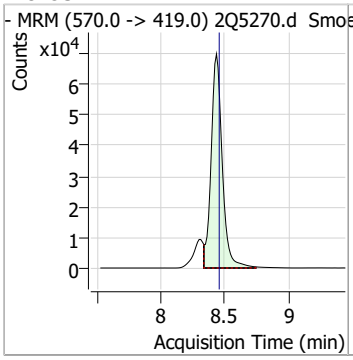
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	4.34	8.44	0.00	38383				

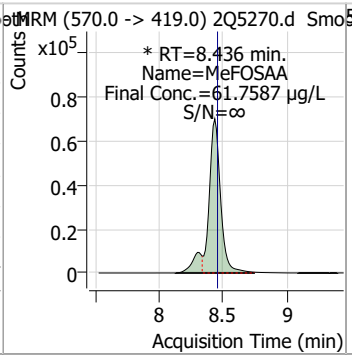


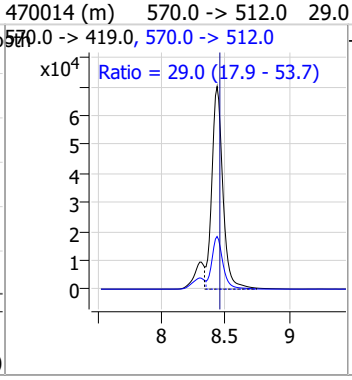


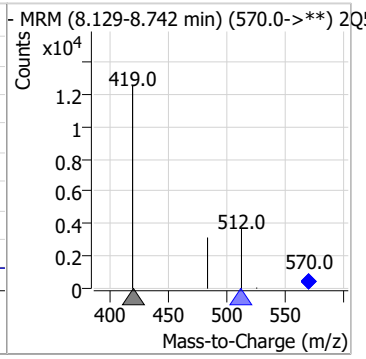


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	61.76	8.44	-0.01	470014 (m)	570.0 -> 512.0	29.0	17.9	53.7

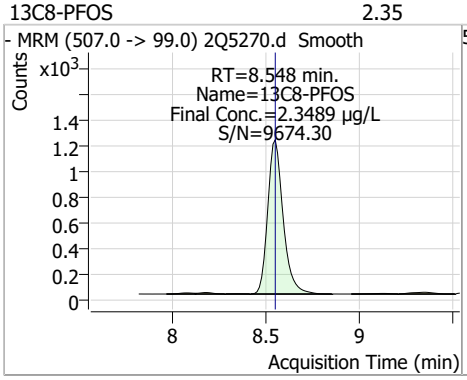


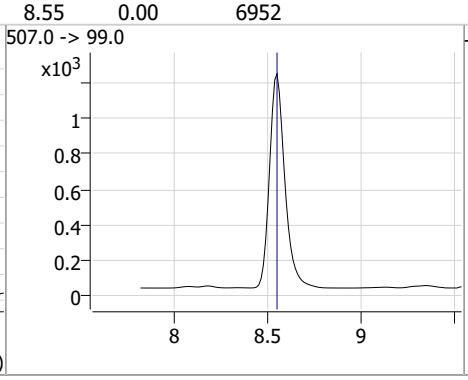


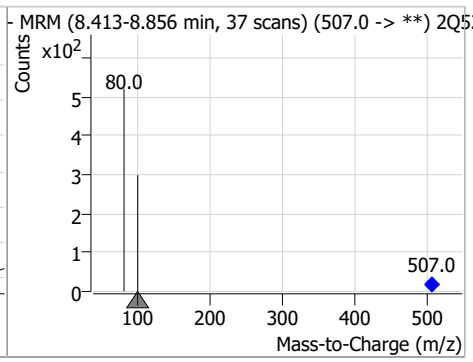




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.35	8.55	0.00	6952				

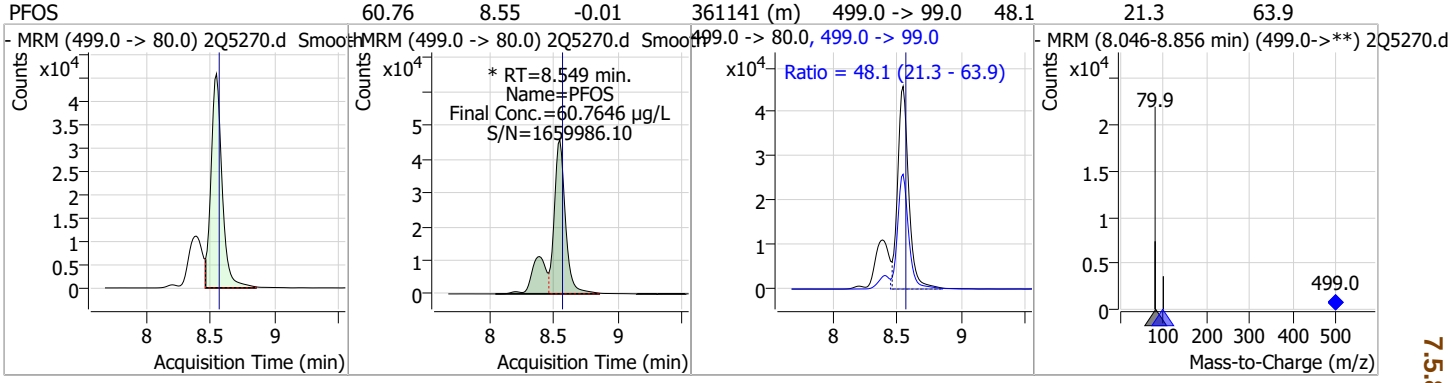




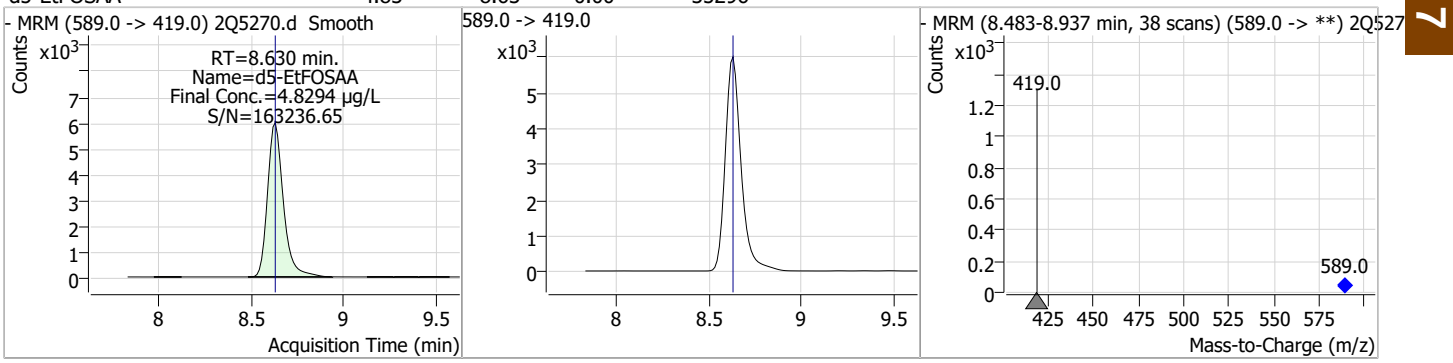


Perfluorinated Compounds by LC/MS/MS

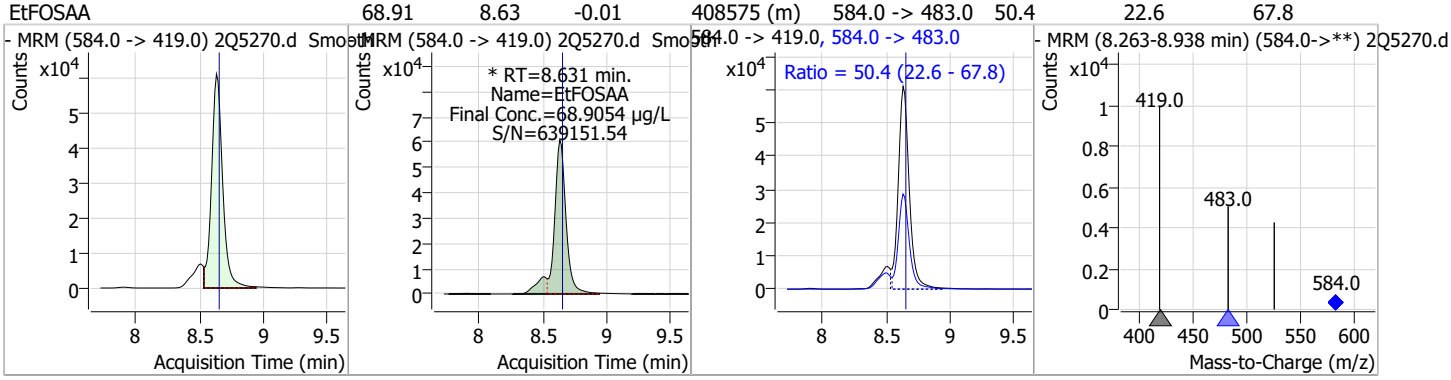
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	60.76	8.55	-0.01	361141 (m)	499.0 -> 99.0	48.1	21.3	63.9



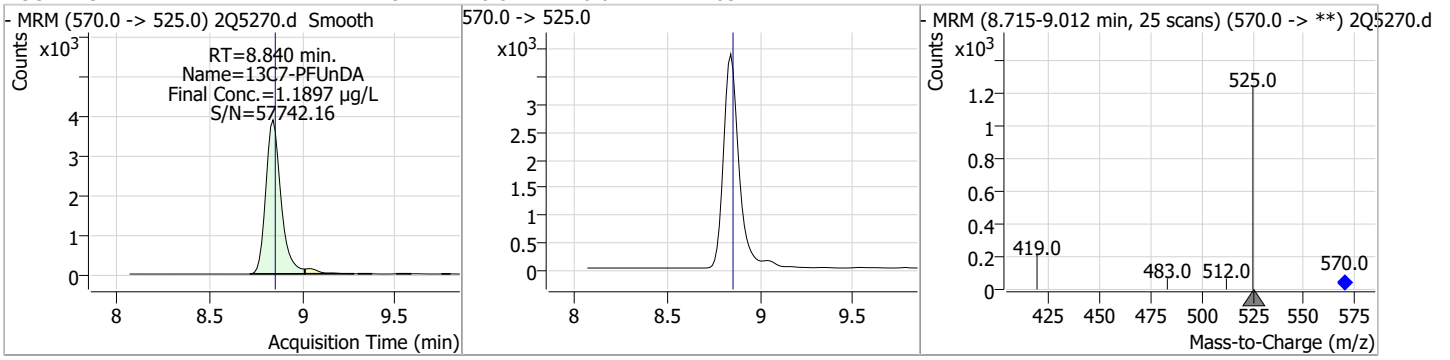
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.83	8.63	0.00	35296				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	68.91	8.63	-0.01	408575 (m)	584.0 -> 483.0	50.4	22.6	67.8

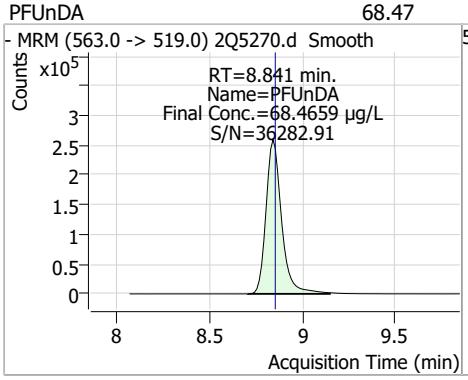


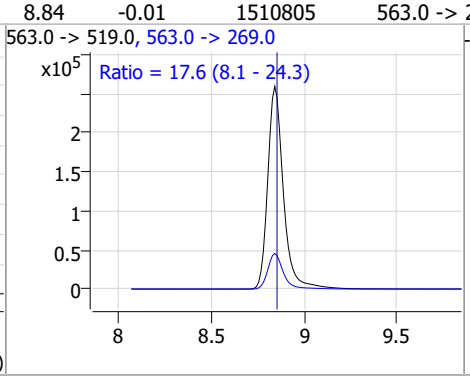
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.19	8.84	-0.01	22032				

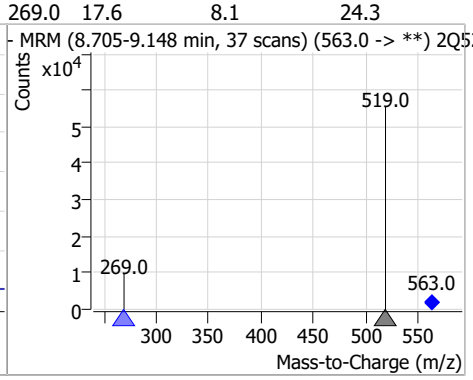


Perfluorinated Compounds by LC/MS/MS

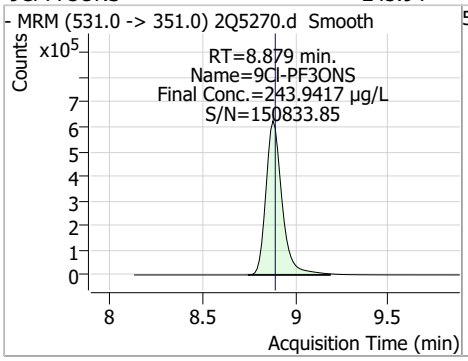
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	68.47	8.84	-0.01	1510805	563.0 -> 269.0	17.6	8.1	24.3

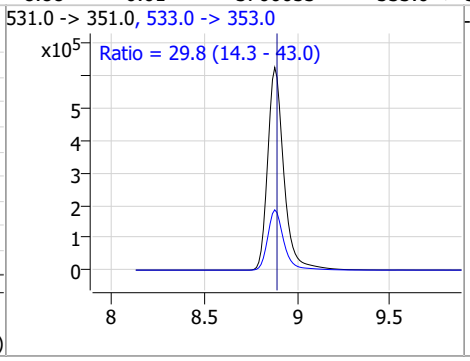


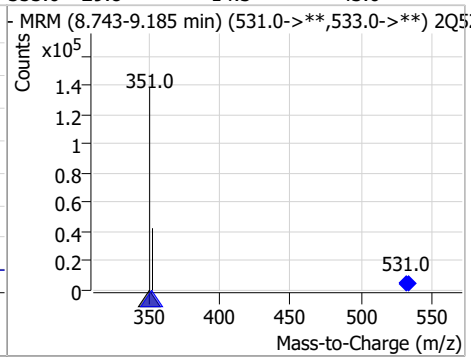




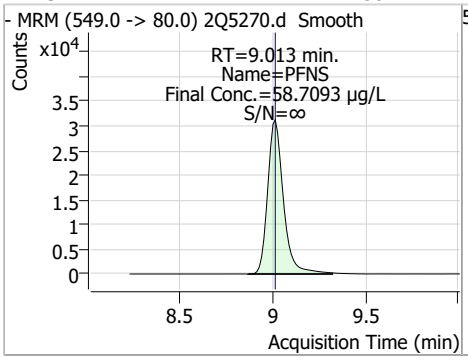
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	243.94	8.88	-0.01	3760653	533.0 -> 353.0	29.8	14.3	43.0

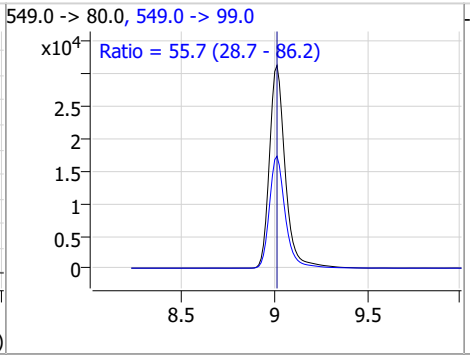


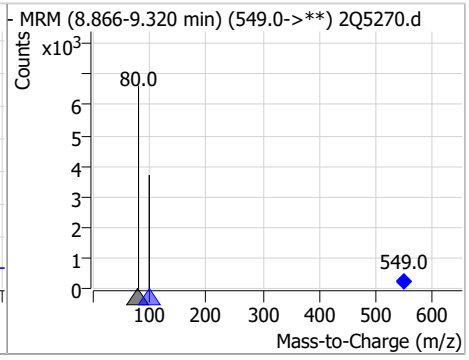




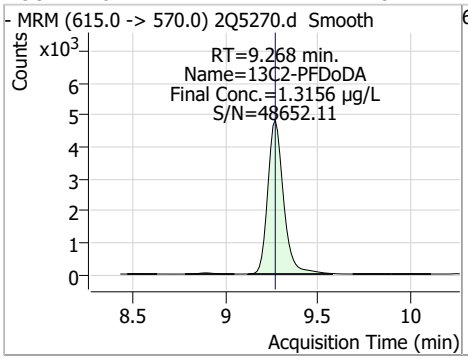
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	58.71	9.01	0.00	183762	549.0 -> 99.0	55.7	28.7	86.2

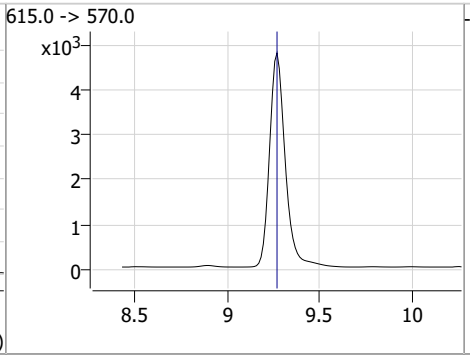


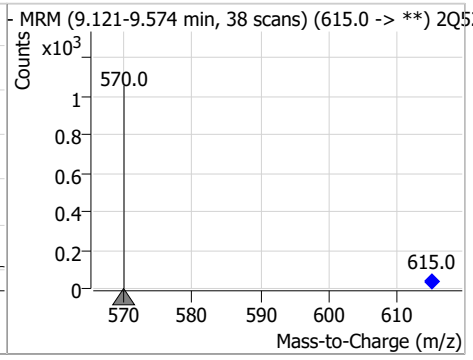




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.32	9.27	0.00	28243				

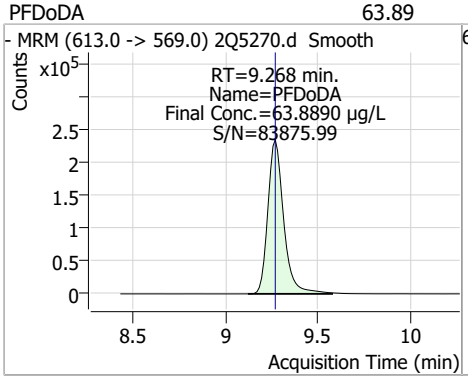


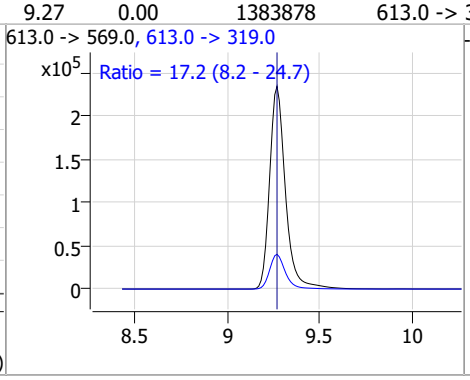


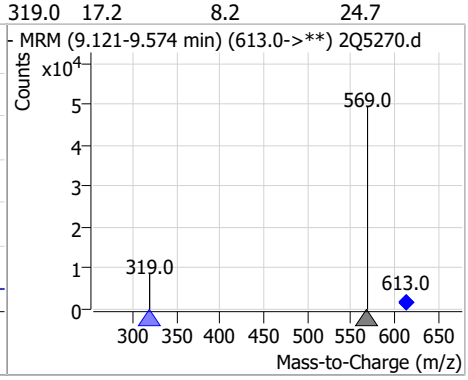


Perfluorinated Compounds by LC/MS/MS

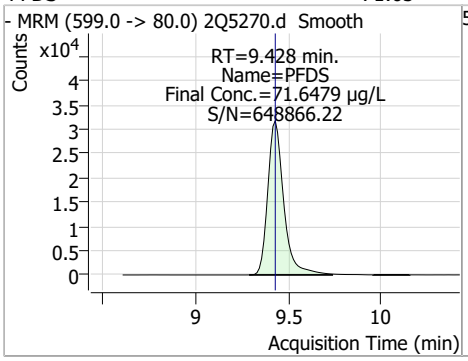
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	63.89	9.27	0.00	1383878	613.0 -> 319.0	17.2	8.2	24.7

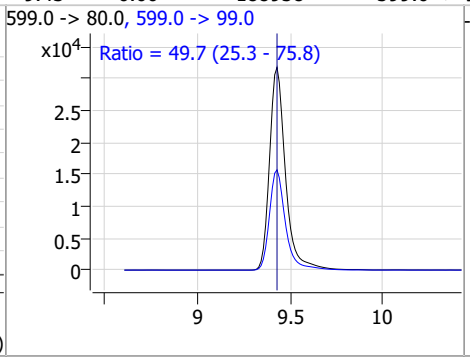


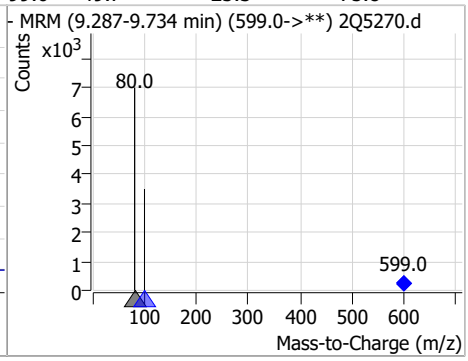




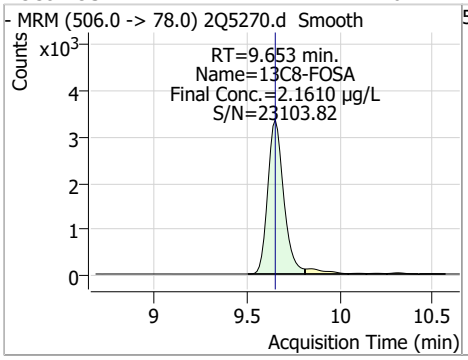
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	71.65	9.43	0.00	188958	599.0 -> 99.0	49.7	25.3	75.8

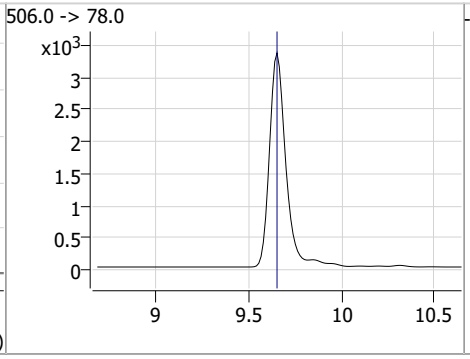


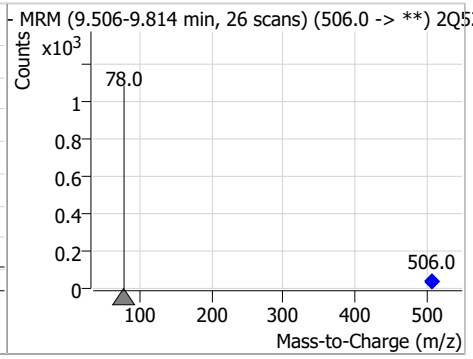




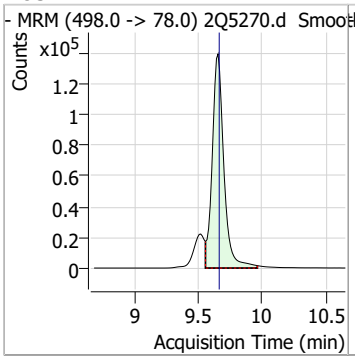
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.16	9.65	0.00	19889				

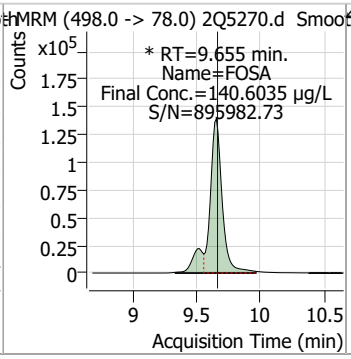


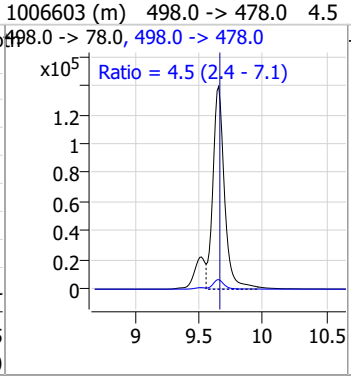


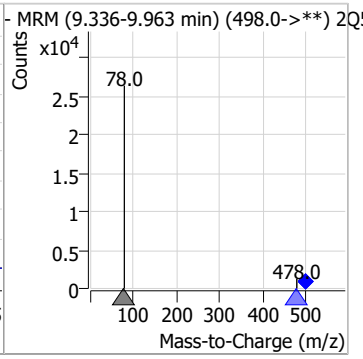


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	140.60	9.65	0.00	1006603 (m)	498.0 -> 478.0	4.5	2.4	7.1



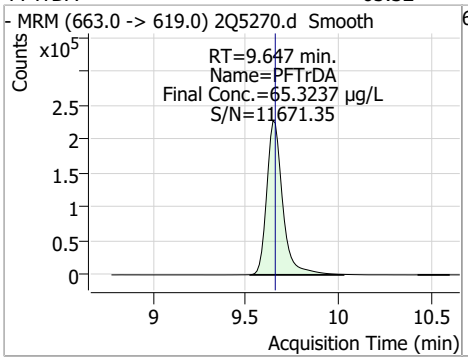


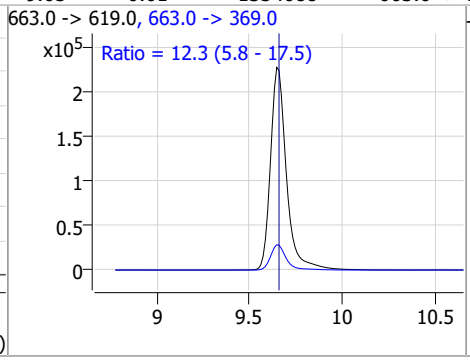


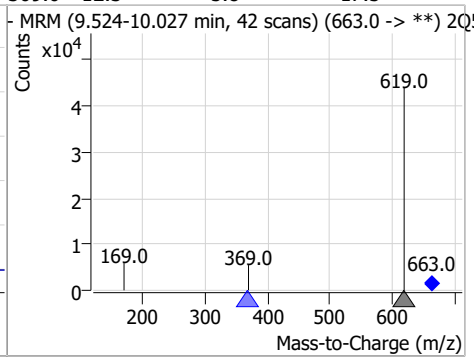


Perfluorinated Compounds by LC/MS/MS

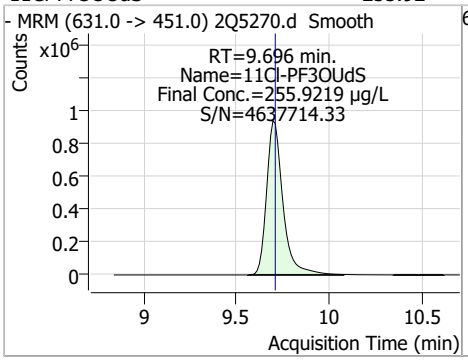
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	65.32	9.65	-0.01	1354688	663.0 -> 369.0	12.3	5.8	17.5

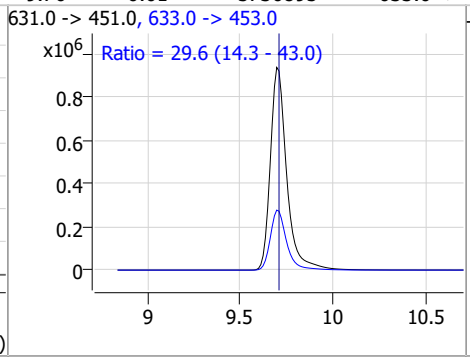


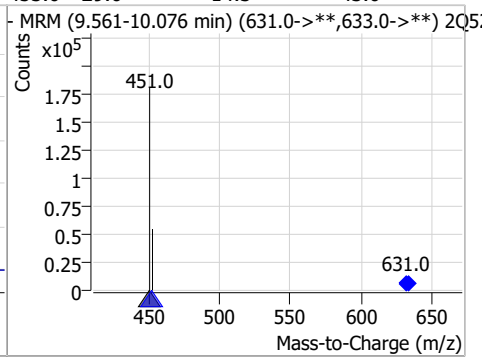




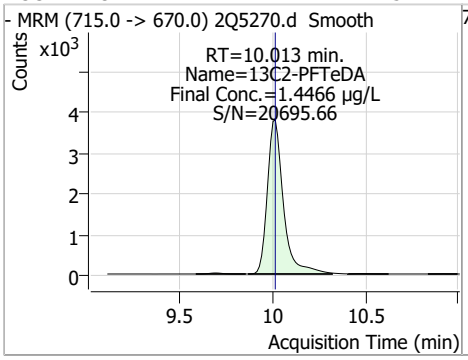
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	255.92	9.70	-0.01	5730895	633.0 -> 453.0	29.6	14.3	43.0

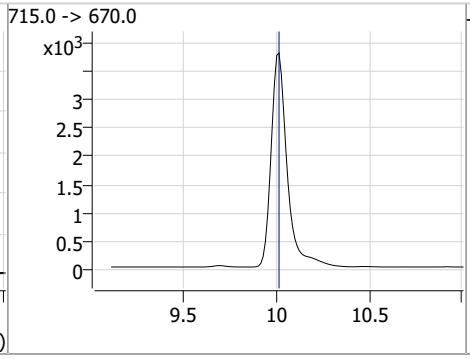


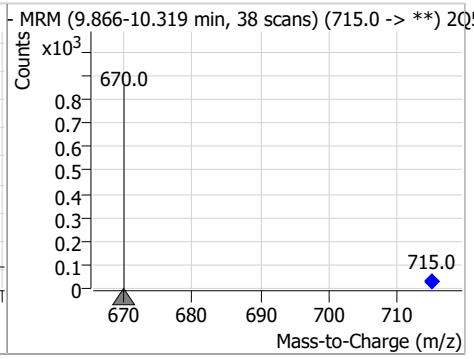




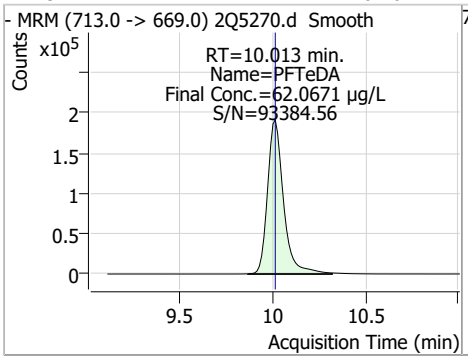
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.45	10.01	0.00	22776				

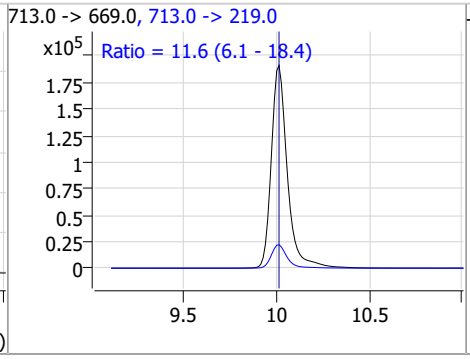


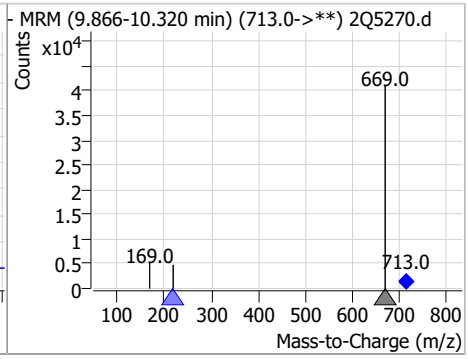




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	62.07	10.01	0.00	1143727	713.0 -> 219.0	11.6	6.1	18.4

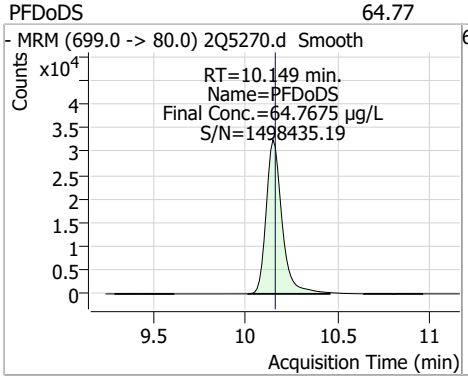


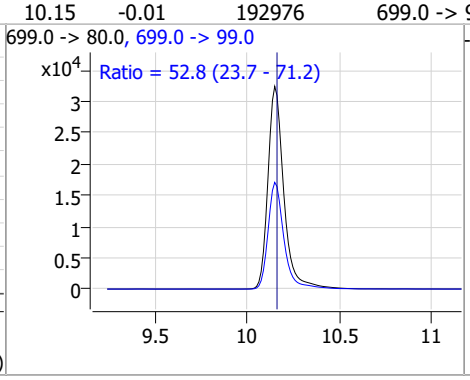


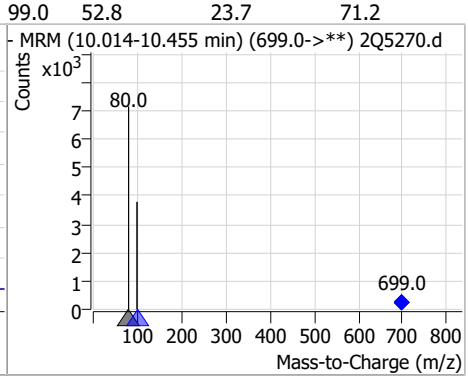


Perfluorinated Compounds by LC/MS/MS

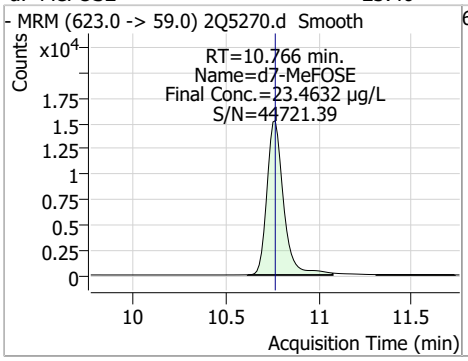
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	64.77	10.15	-0.01	192976	699.0 -> 99.0	52.8	23.7	71.2

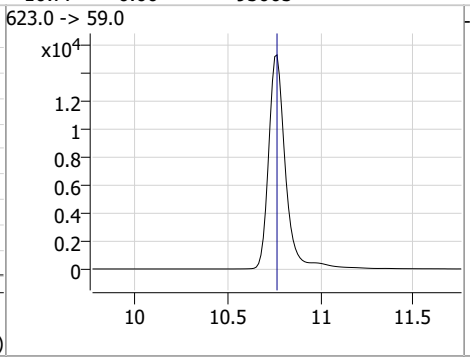


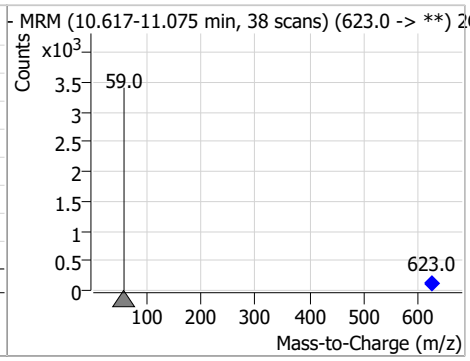




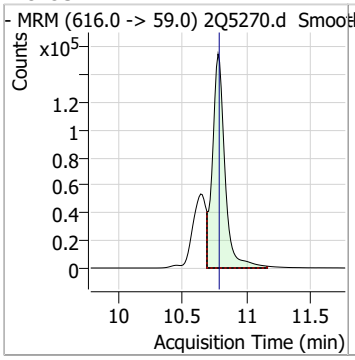
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	23.46	10.77	0.00	95005				

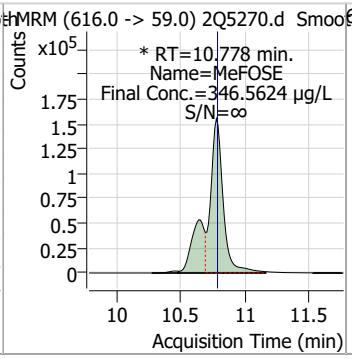


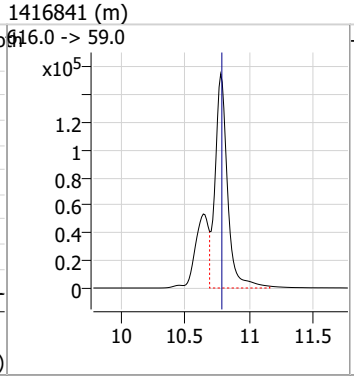


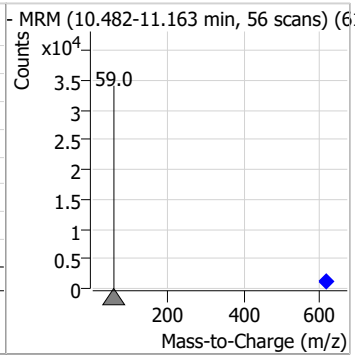


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	346.56	10.78	0.00	1416841 (m)				

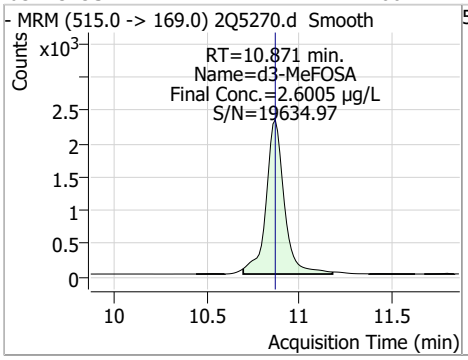


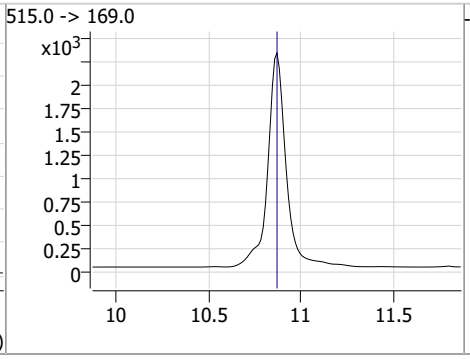


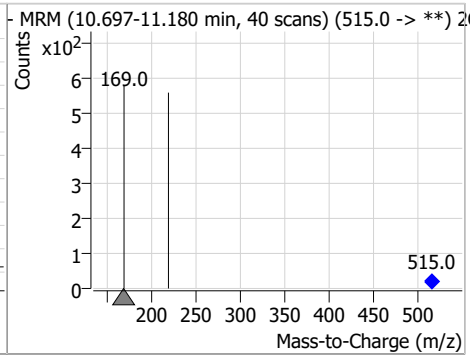




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.60	10.87	0.00	15833				

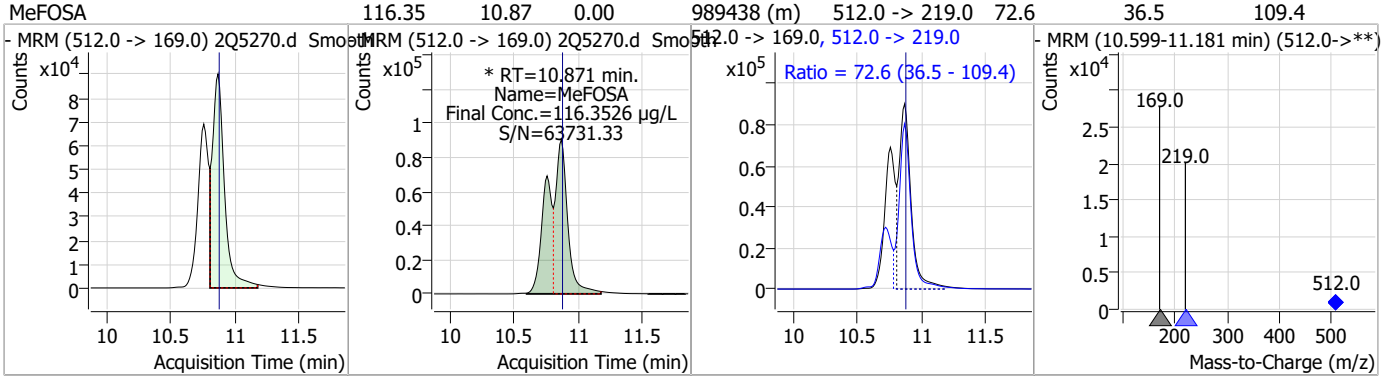




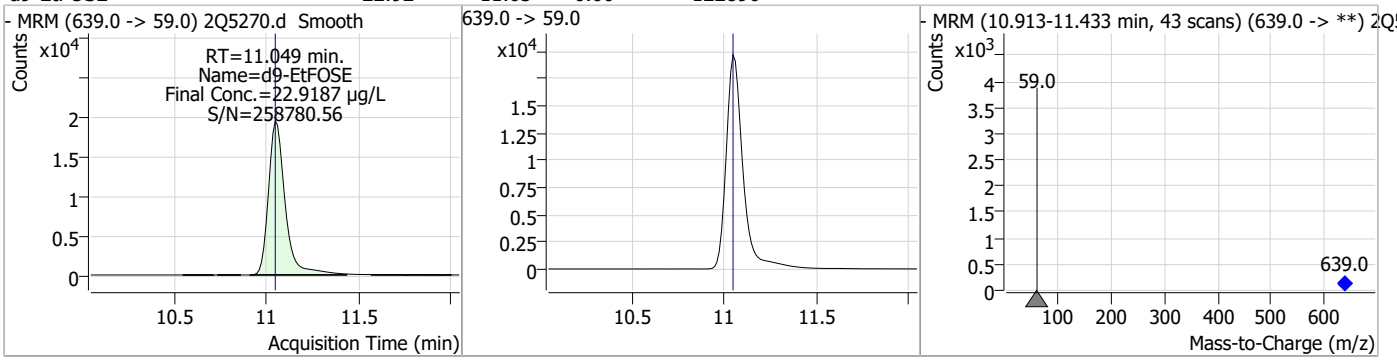


Perfluorinated Compounds by LC/MS/MS

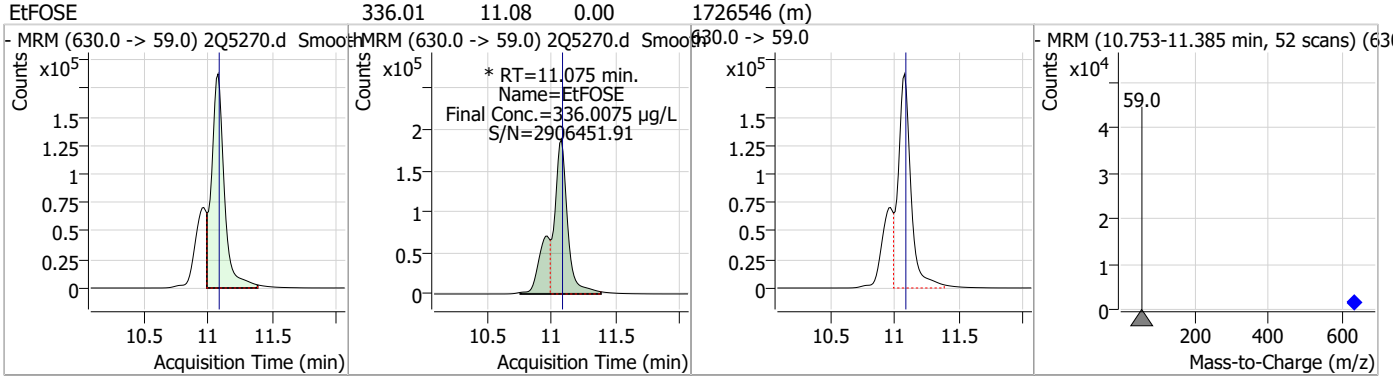
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	116.35	10.87	0.00	989438 (m)	512.0 -> 219.0	72.6	36.5	109.4



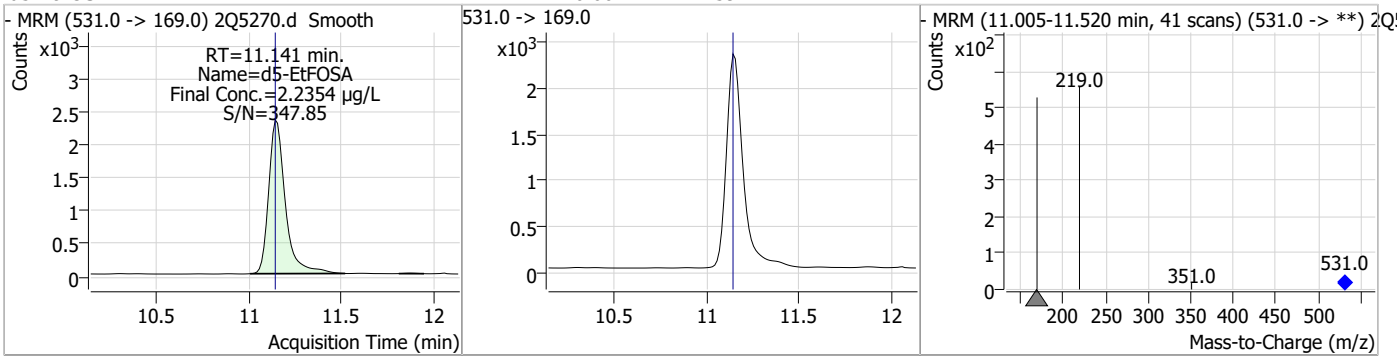
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	22.92	11.05	0.00	122890				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	336.01	11.08	0.00	1726546 (m)				

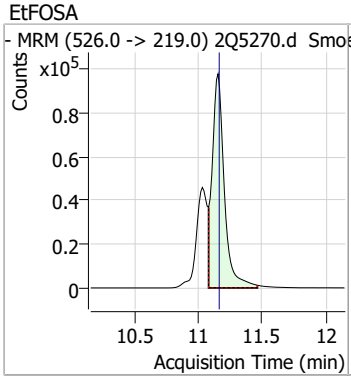


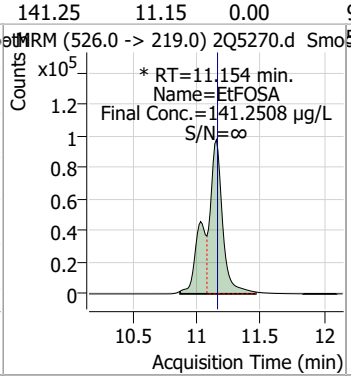
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.24	11.14	0.00	14592				

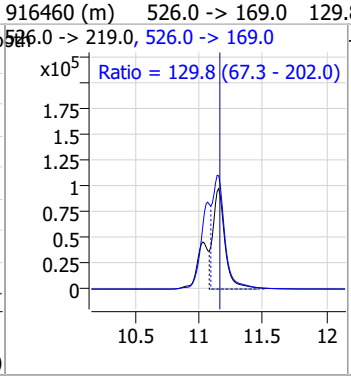


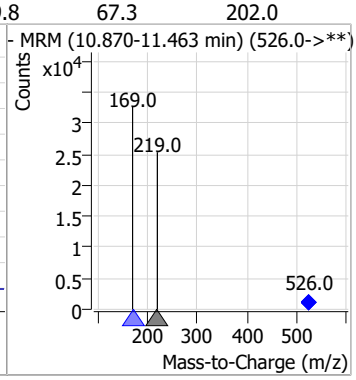
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	141.25	11.15	0.00	916460 (m)	526.0 -> 169.0	129.8	67.3	202.0









7.5.8

7

Manual Integration Approval Summary

Sample Number: T2Q96-IC96
Lab FileID: 2Q5270.D
Injection Time: 11/30/23 19:07
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.50	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.55	Split peak
EtFOSAA	2991-50-6		8.63	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5272.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 7:37:46 PM
Sample Name : ic96-0
Vial
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
Internal Standards							
M4-PFBA	-	217.0 -> 172.0	-	N.D.			
M5-PFPeA	4.810	268.0 -> 223.0	0	5.00	µg/L	m	0.000
M5-PFHxA	6.624	318.0 -> 273.0	0	1.25	µg/L	m	0.670
M4-PFHpA	7.029	367.0 -> 322.0	0	2.50	µg/L	m	0.234
M8-PFOA	7.348	421.0 -> 376.0	0	2.50	µg/L	m	-0.049
M9-PFNA	7.481	472.0 -> 427.0	0	1.25	µg/L	m	-0.431
M6-PFDA	8.425	519.0 -> 474.0	0	1.25	µg/L	m	0.024
M7-PFUnDA	8.901	570.0 -> 525.0	0	1.25	µg/L	m	0.049
M2-PFDoDA	9.709	615.0 -> 570.0	0	1.25	µg/L	m	0.441
M2-PFTeDA	10.319	715.0 -> 670.0	0	1.25	µg/L	m	0.306
M8-FOSA	-	506.0 -> 78.0	-	N.D.			
M3-PFBS	5.846	302.0 -> 99.0	0	2.50	µg/L	m	-0.037
		302.0 -> 80.0					
M3-PFHxS	8.012	402.0 -> 99.0	0	2.50	µg/L	m	0.503
M8-PFOS	8.487	507.0 -> 99.0	0	2.50	µg/L	m	-0.061
M2-4:2FTS	5.321	329.0 -> 81.0	0	5.00	µg/L	m	-0.335
M2-6:2FTS	-	429.0 -> 81.0	-	N.D.			
M2-8:2FTS	-	529.0 -> 81.0	-	N.D.			
M3-MeFOSAA	8.828	573.0 -> 419.0	0	5.00	µg/L	m	0.392
M3-HFPO-DA	6.580	287.0 -> 169.0	0	10.00	µg/L	m	0.285
M5-EtFOSAA	8.655	589.0 -> 419.0	0	5.00	µg/L	m	0.025
M7-MeFOSE	10.803	623.0 -> 59.0	0	25.00	µg/L	m	0.037
M9-EtFOSE	11.061	639.0 -> 59.0	0	25.00	µg/L	m	0.012
M5-EtFOSA	11.092	531.0 -> 169.0	0	2.50	µg/L	m	-0.049
M3-MeFOSA	10.759	515.0 -> 169.0	0	2.50	µg/L	m	-0.112
13C4-PFOS	8.536	503.0 -> 80.0	0	2.50	µg/L	m	-0.012
13C3-PFBA	3.268	216.0 -> 172.0	0	5.00	µg/L	m	-0.075
18O2-PFHxS	7.102	403.0 -> 84.0	0	2.50	µg/L	m	-0.407
13C4-PFOA	7.372	417.0 -> 372.0	0	2.50	µg/L	m	-0.025
13C2-PFDA	8.266	515.0 -> 470.0	0	1.25	µg/L	m	-0.135
13C5-PFNA	8.034	468.0 -> 423.0	0	1.25	µg/L	m	0.122
13C2-PFHxA	5.955	315.0 -> 270.0	0	2.50	µg/L	m	0.000
System Monitoring Compounds							
13C2-4:2FTS	5.321	329.0 -> 81.0	0		µg/L	m	-0.335
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C2-6:2FTS	-	429.0 -> 81.0	-	N.D.			
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C2-8:2FTS	-	529.0 -> 81.0	-	N.D.			
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C2-PFDoDA	9.709	615.0 -> 570.0	0		µg/L	m	0.441
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = NA%			
13C2-PFTeDA	10.319	715.0 -> 670.0	0		µg/L	m	0.306
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = NA%			
13C3-PFBS	5.846	302.0 -> 99.0	0		µg/L	m	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	8.012	402.0 -> 99.0	0		µg/L	m	0.503
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C4-PFBA	-	217.0 -> 172.0	-	N.D.			
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C4-PFHpA	6.672	367.0 -> 322.0	0		µg/L	m	-0.124
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C5-PFHxA	6.624	318.0 -> 273.0	0		µg/L	m	0.670
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C5-PFPeA	4.711	268.0 -> 223.0	0		µg/L	m	-0.100
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C6-PFDA	8.425	519.0 -> 474.0	0		µg/L	m	0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = NA%			
13C7-PFUnDA	8.901	570.0 -> 525.0	0		µg/L	m	0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = NA%			
13C8-FOSA	-	506.0 -> 78.0	-	N.D.			
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C8-PFOA	7.348	421.0 -> 376.0	0		µg/L	m	-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C8-PFOS	8.487	507.0 -> 99.0	0		µg/L	m	-0.061
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
13C9-PFNA	7.481	472.0 -> 427.0	0		µg/L	m	-0.431
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = NA%			
d3-MeFOSAA	8.828	573.0 -> 419.0	0		µg/L	m	0.392
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
13C3-HFPO-DA	6.134	287.0 -> 169.0	0		µg/L	m	-0.161
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = NA%			
d3-MeFOSA	10.759	515.0 -> 169.0	0		µg/L	m	-0.112
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
d5-EtFOSAA	8.655	589.0 -> 419.0	0		µg/L	m	0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = NA%			
d7-MeFOSE	10.803	623.0 -> 59.0	0		µg/L	m	0.037
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = NA%			
d9-EtFOSE	11.061	639.0 -> 59.0	0		µg/L	m	0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = NA%			
d5-EtFOSA	11.092	531.0 -> 169.0	0		µg/L	m	-0.049
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = NA%			
Target Compounds							QValue
4:2FTS	-	327.0 -> 307.0	-	N.D.			
		327.0 -> 81.0					
6:2FTS	7.668	427.0 -> 407.0	0		µg/L	m	1
		427.0 -> 81.0	0				
8:2FTS	-	527.0 -> 507.0	-	N.D.			
		527.0 -> 81.0					
EtFOSAA	8.324	584.0 -> 419.0	0		µg/L	m	1
		584.0 -> 483.0	0				
FOSA	-	498.0 -> 78.0	-	N.D.			
		498.0 -> 478.0					
MeFOSAA	-	570.0 -> 419.0	-	N.D.			
		570.0 -> 512.0					
PFBA	-	213.0 -> 169.0	-	N.D.			
PFBS	-	299.0 -> 80.0	-	N.D.			
		299.0 -> 99.0					
PFDA	7.665	513.0 -> 469.0	0		µg/L	m	1
		513.0 -> 219.0	0				
PFDoDA	-	613.0 -> 569.0	-	N.D.			
		613.0 -> 319.0					

Perfluorinated Compounds by LC/MS/MS

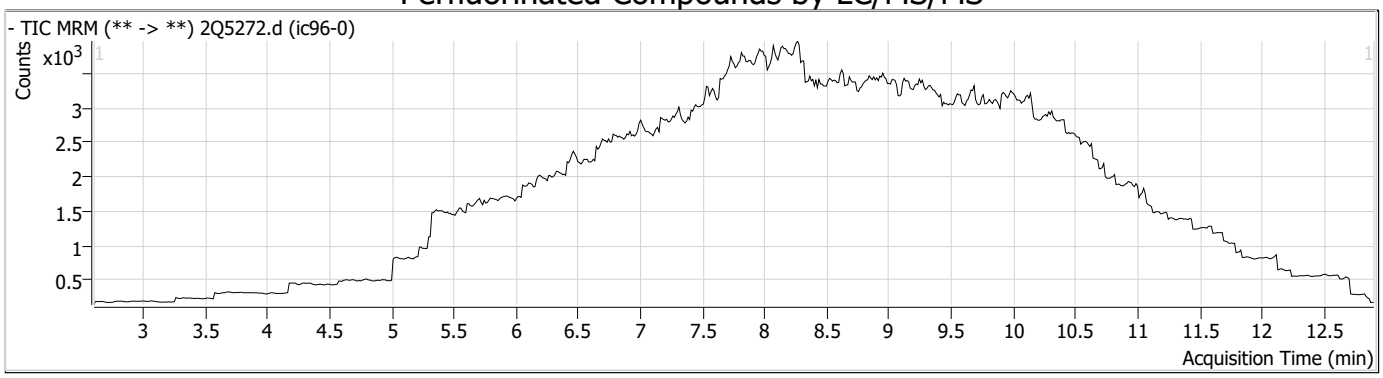
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	-	599.0 -> 80.0	-	N.D.			
		599.0 -> 99.0					
PFHpA	7.732	363.0 -> 319.0	0		µg/L	m	1
		363.0 -> 169.0					
PFHpS	-	449.0 -> 80.0	-	N.D.			
		449.0 -> 99.0					
PFHxA	-	313.0 -> 269.0	-	N.D.			
		313.0 -> 119.0					
PFHxS	-	399.0 -> 80.0	-	N.D.			
		399.0 -> 99.0					
PFNA	7.457	463.0 -> 419.0	0		µg/L	m	1
		463.0 -> 219.0	0				
PFNS	-	549.0 -> 80.0	-	N.D.			
		549.0 -> 99.0					
PFOA	-	413.0 -> 369.0	-	N.D.			
		413.0 -> 169.0					
PFOS	-	499.0 -> 80.0	-	N.D.			
		499.0 -> 99.0					
PFPeA	-	263.0 -> 219.0	-	N.D.			
PFPeS	-	349.0 -> 80.0	-	N.D.			
		349.0 -> 99.0					
PFTeDA	-	713.0 -> 669.0	-	N.D.			
		713.0 -> 219.0					
PFTrDA	-	663.0 -> 619.0	-	N.D.			
		663.0 -> 369.0					
PFUnDA	-	563.0 -> 519.0	-	N.D.			
		563.0 -> 269.0					
11Cl-PF3OUdS	-	631.0 -> 451.0	-	N.D.			
		633.0 -> 453.0					
9Cl-PF3ONS	-	531.0 -> 351.0	-	N.D.			
		533.0 -> 353.0					
ADONA	-	377.0 -> 251.0	-	N.D.			
		377.0 -> 85.0					
HFPO-DA	-	285.0 -> 169.0	-	N.D.			
		285.0 -> 185.0					
3:3FTCA	-	241.0 -> 177.0	-	N.D.			
		241.0 -> 117.0					
5:3FTCA	-	341.0 -> 237.0	-	N.D.			
		341.0 -> 217.0					
7:3FTCA	-	441.0 -> 337.0	-	N.D.			
		441.0 -> 317.0					
EtFOSA	-	526.0 -> 219.0	-	N.D.			
		526.0 -> 169.0					
EtFOSE	-	630.0 -> 59.0	-	N.D.			
MeFOSA	-	512.0 -> 169.0	-	N.D.			
		512.0 -> 219.0					
MeFOSE	-	616.0 -> 59.0	-	N.D.			
PFDoDS	-	699.0 -> 80.0	-	N.D.			
		699.0 -> 99.0					
NFDHA	-	295.0 -> 201.0	-	N.D.			
		201.0 -> 85.0					
		295.0 -> 85.0					
PFMBA	-	279.0 -> 85.0	-	N.D.			
PFMPA	-	229.0 -> 85.0	-	N.D.			
PFEESA	6.415	315.0 -> 135.0	0		µg/L	m	1
		315.0 -> 69.0	0				

Perfluorinated Compounds by LC/MS/MS

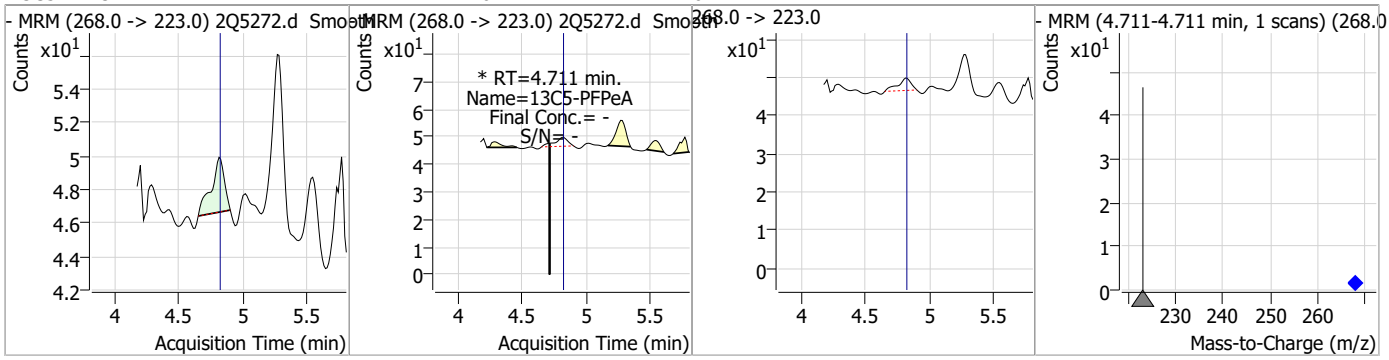
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

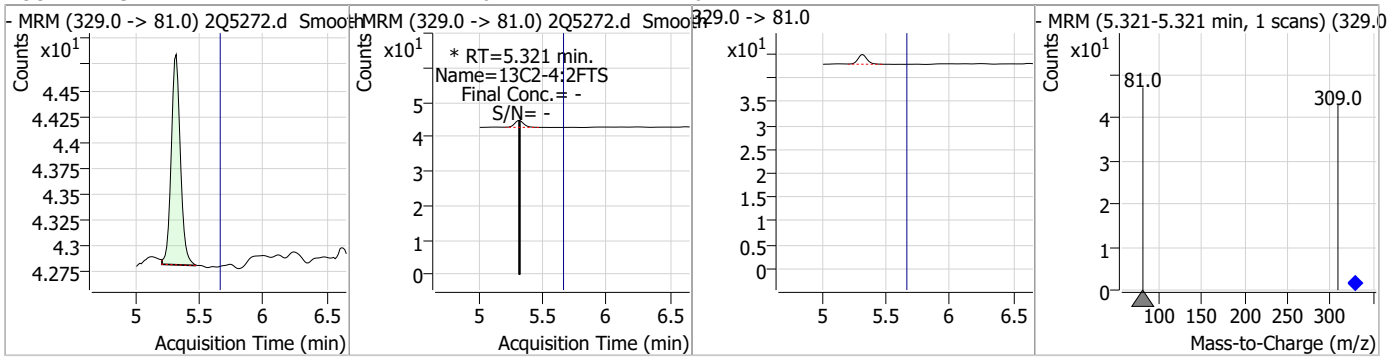
Perfluorinated Compounds by LC/MS/MS



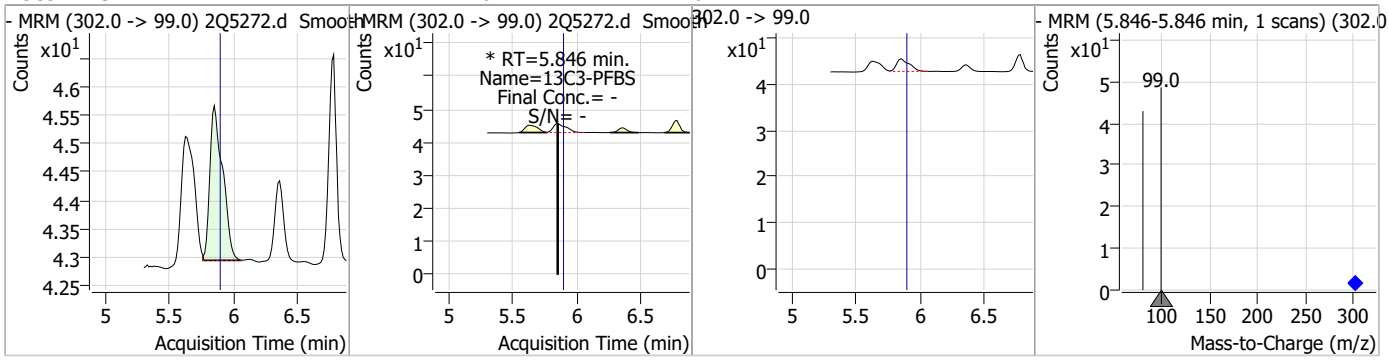
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS		0		0				

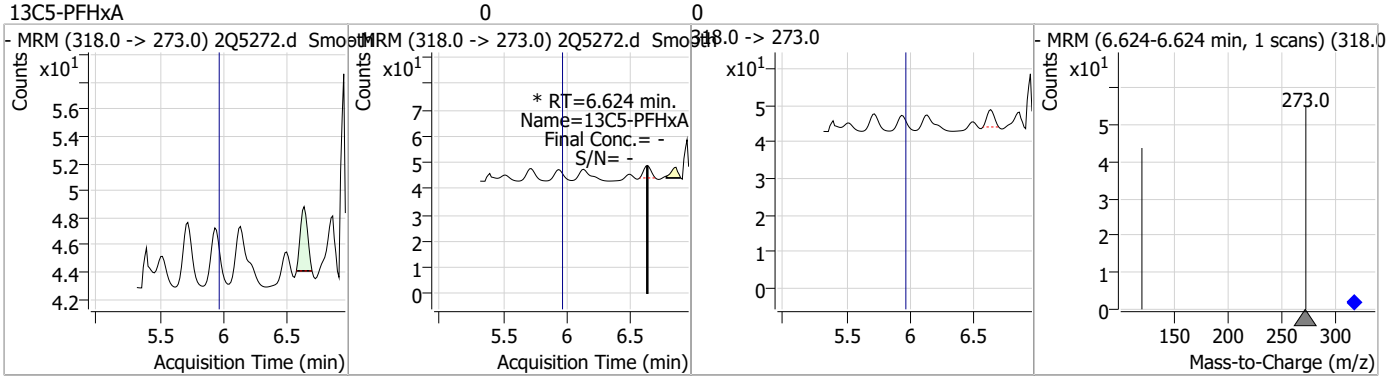


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS		0		0				

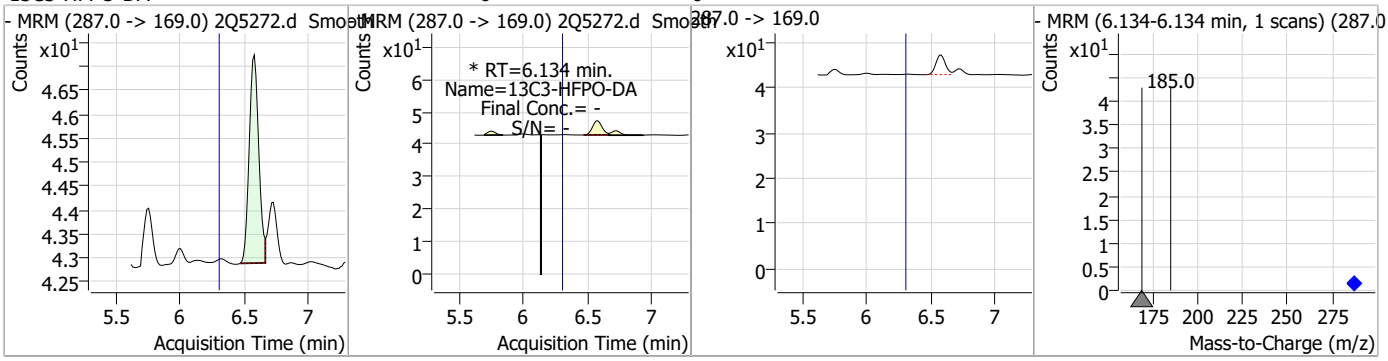


Perfluorinated Compounds by LC/MS/MS

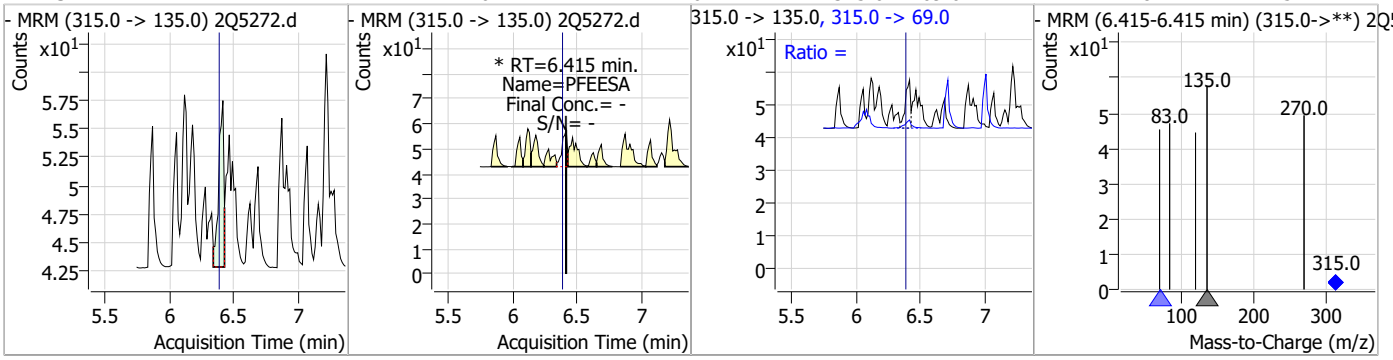
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA		0		0				



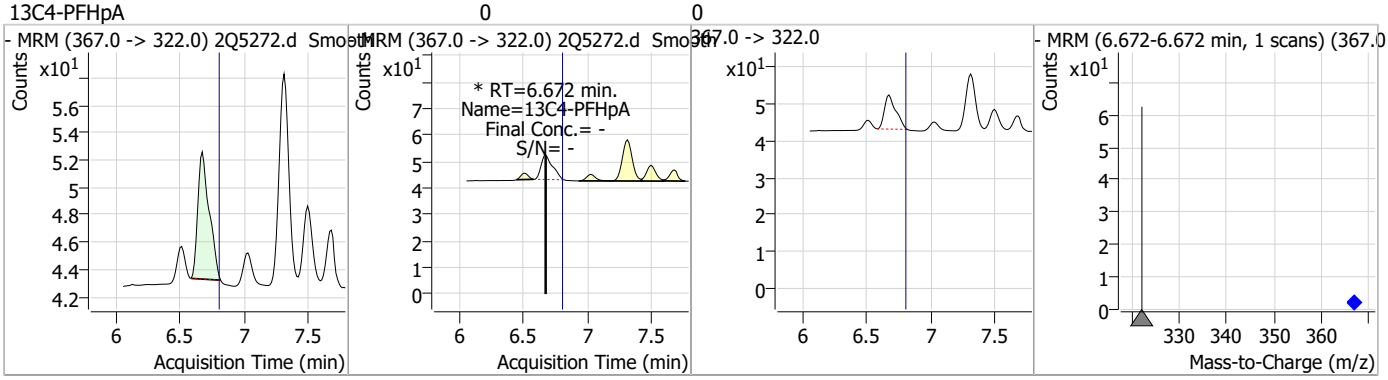
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA		0		0	315.0 -> 69.0		4.8	14.5

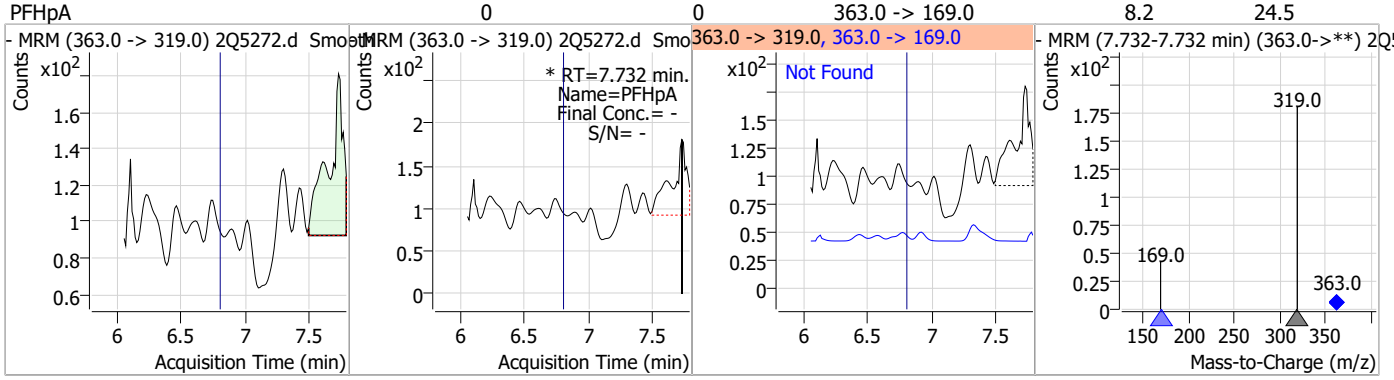


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA		0		0				

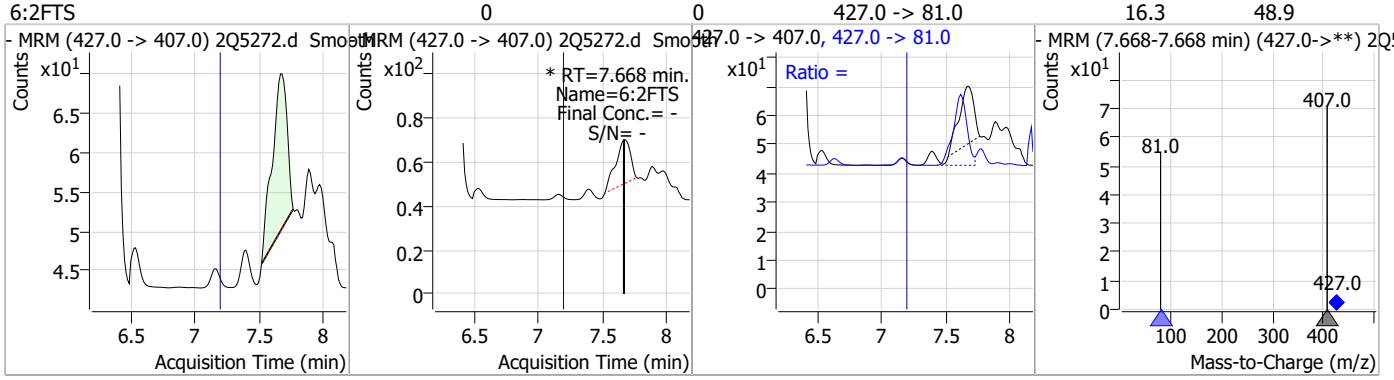


Perfluorinated Compounds by LC/MS/MS

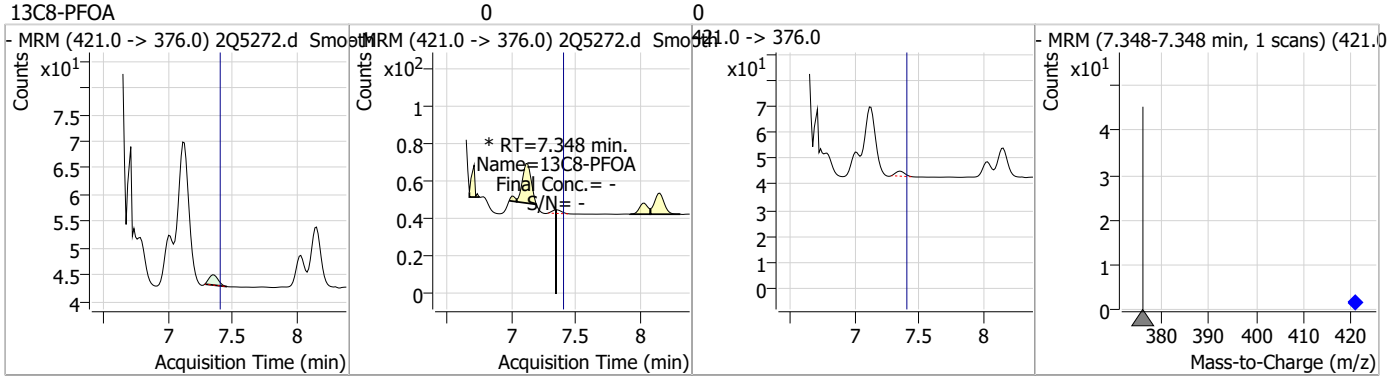
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA		0		0	363.0 -> 169.0		8.2	24.5



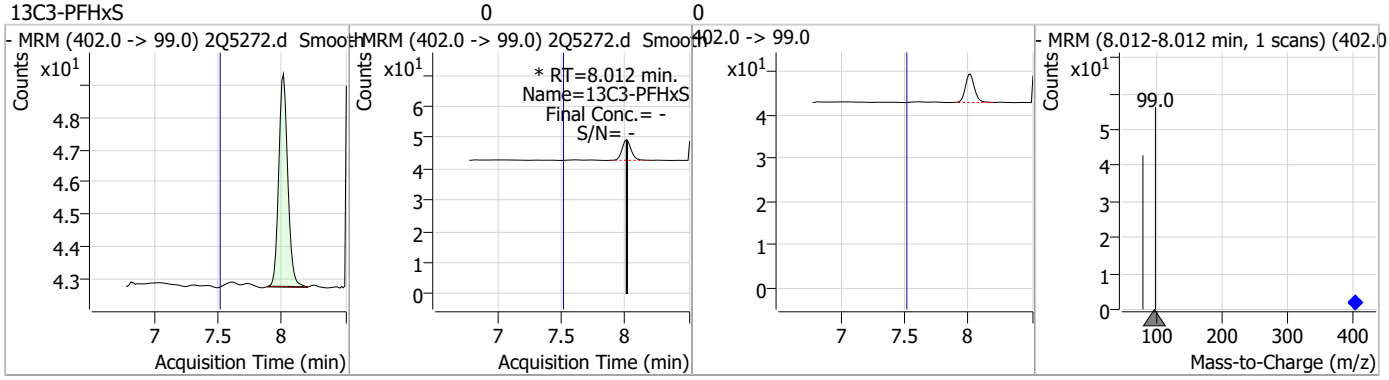
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS		0		0	427.0 -> 81.0		16.3	48.9



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA		0		0				

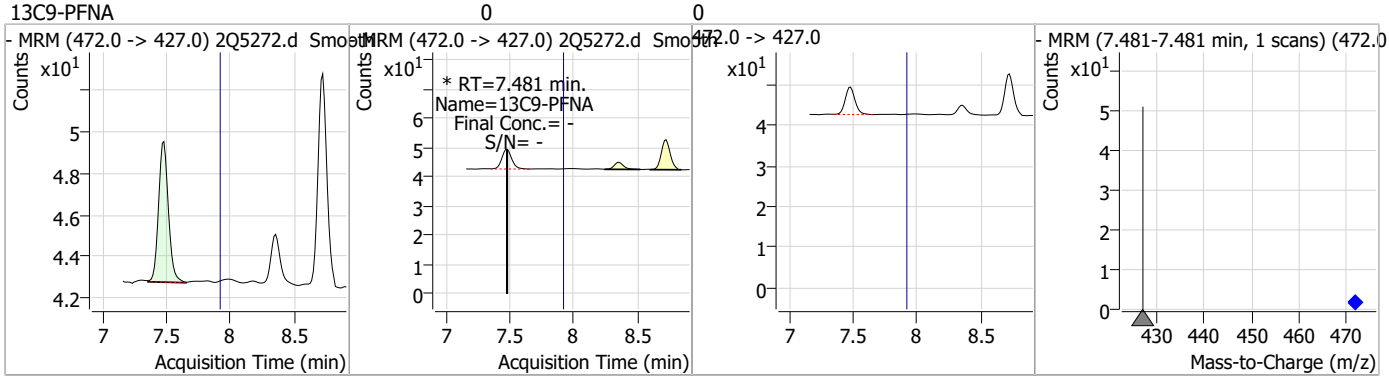


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS		0		0				

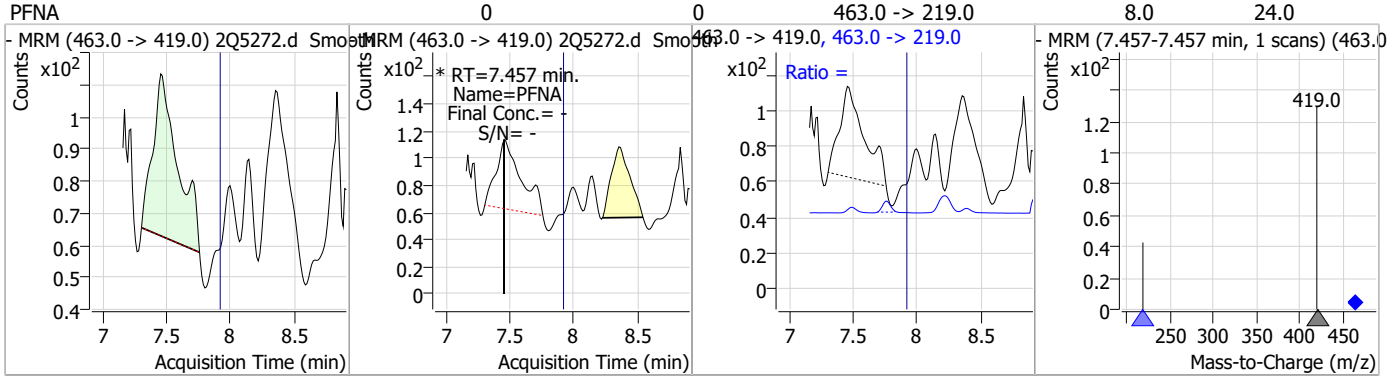


Perfluorinated Compounds by LC/MS/MS

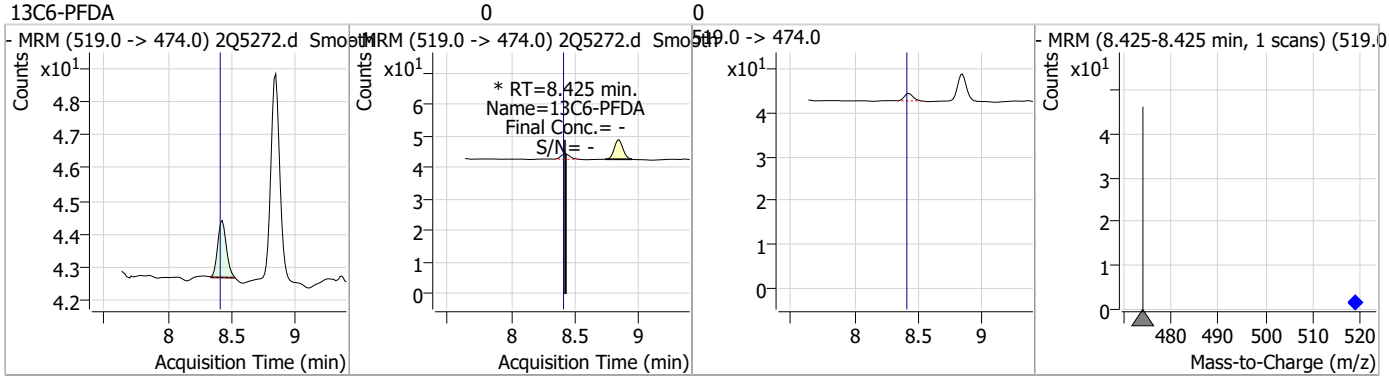
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA		0		0				



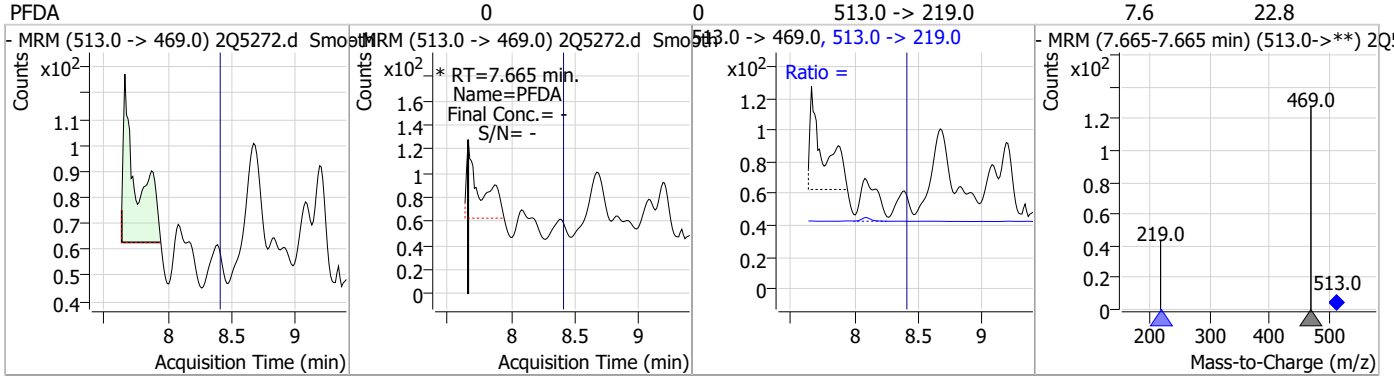
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA		0		0	463.0 -> 219.0		8.0	24.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA		0		0				

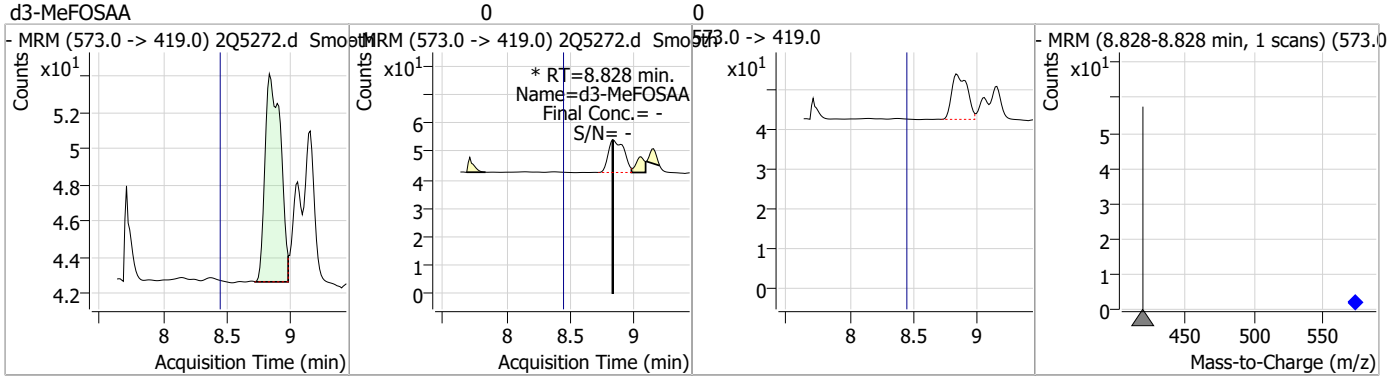


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA		0		0	513.0 -> 219.0		7.6	22.8

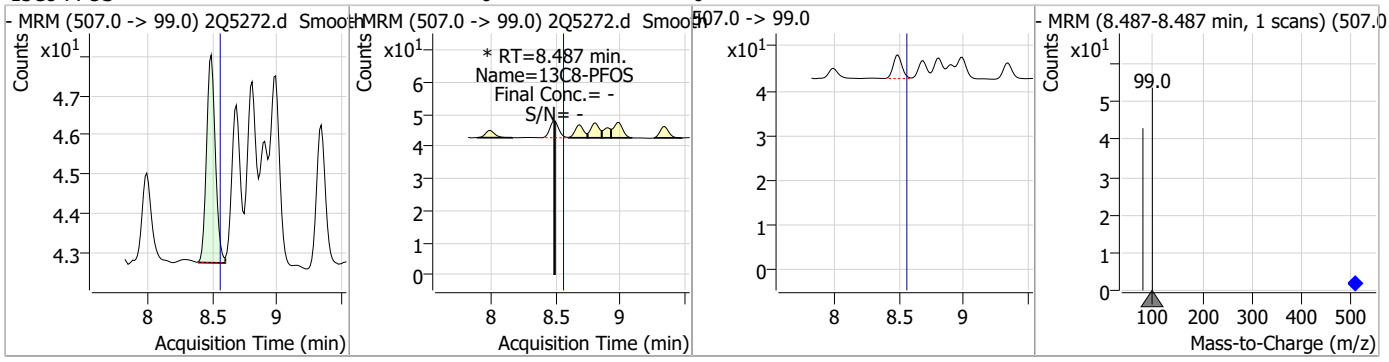


Perfluorinated Compounds by LC/MS/MS

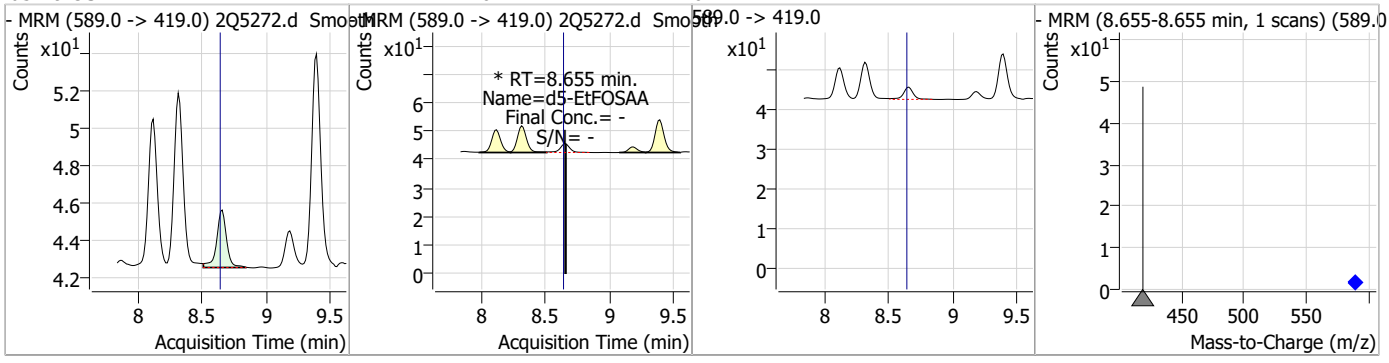
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA		0		0				



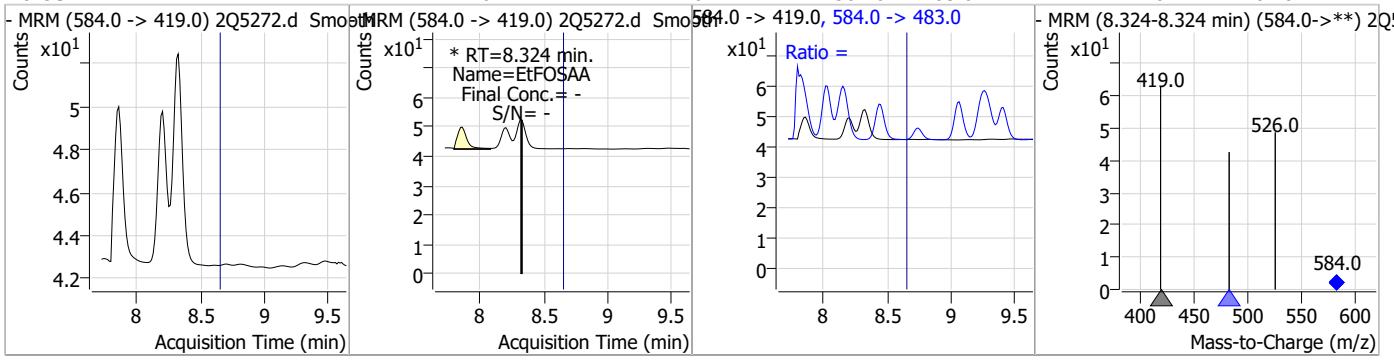
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA		0		0				

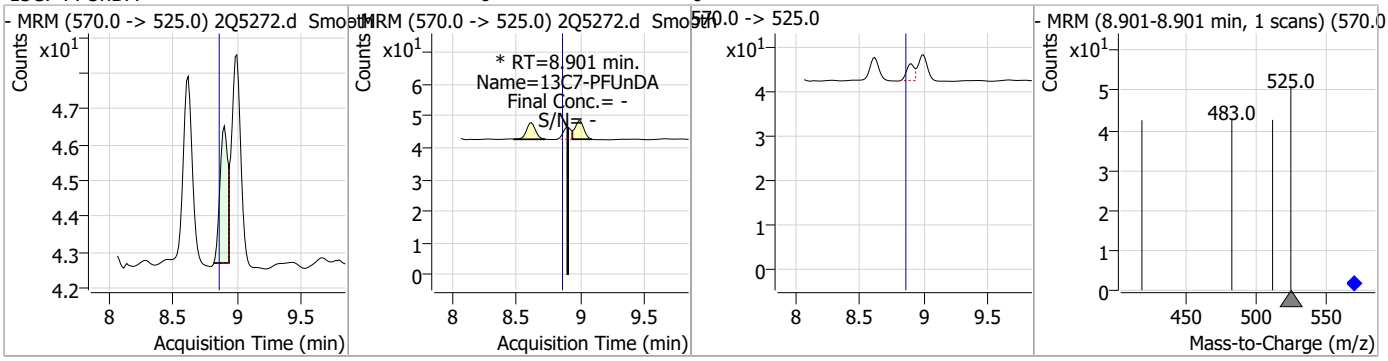


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA		0		0	584.0 -> 483.0		22.6	67.8

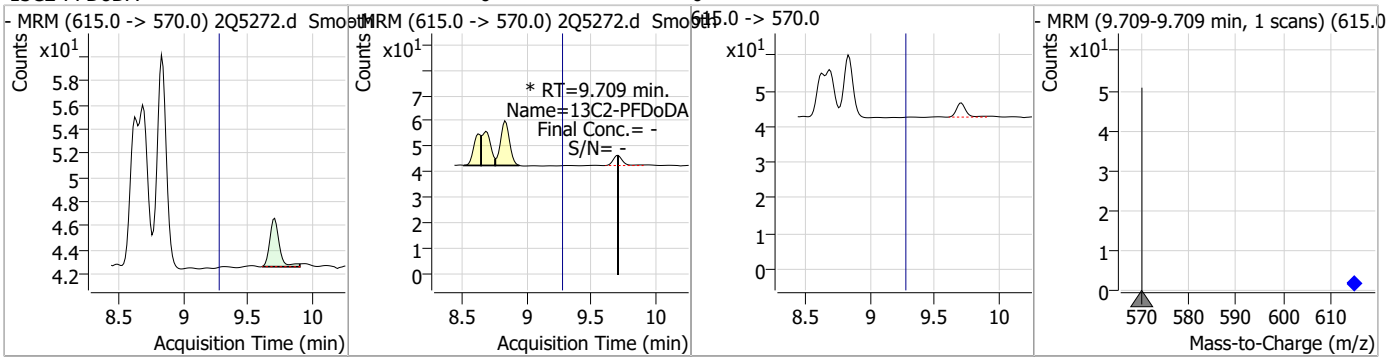


Perfluorinated Compounds by LC/MS/MS

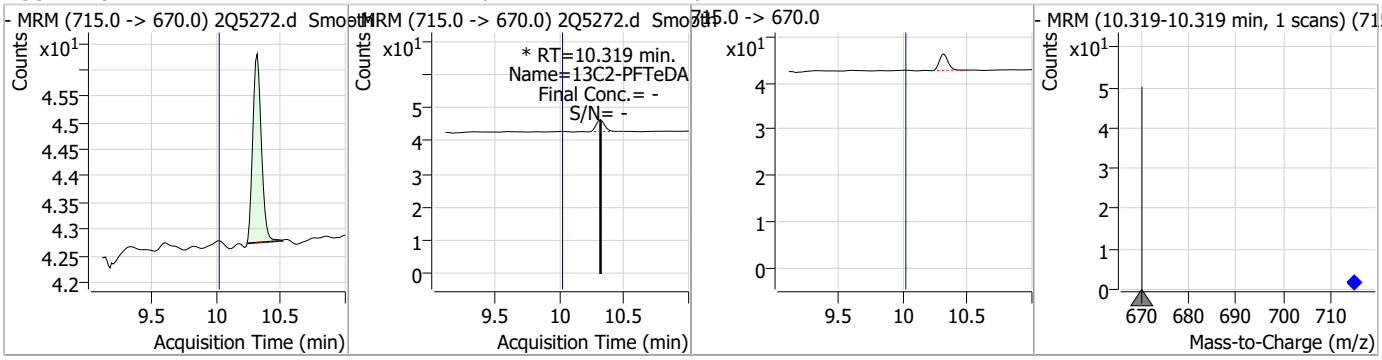
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA		0		0				



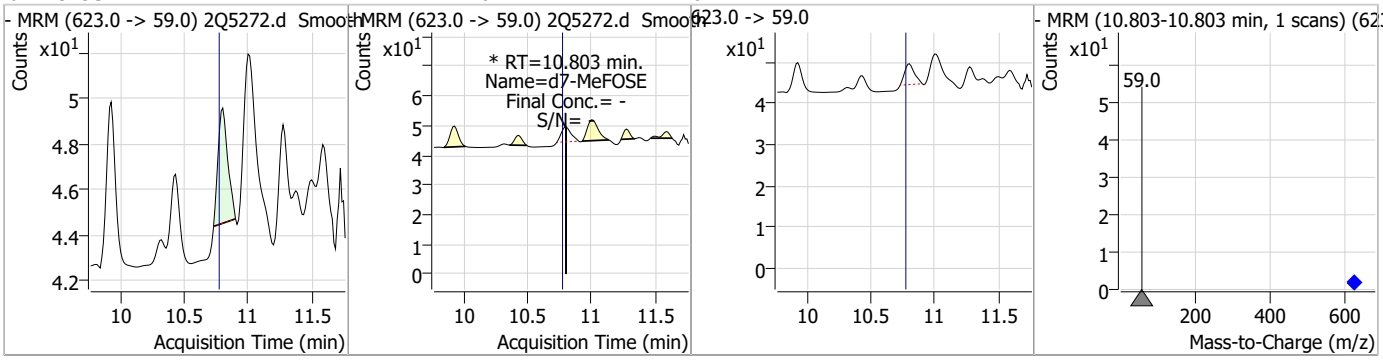
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA		0		0				

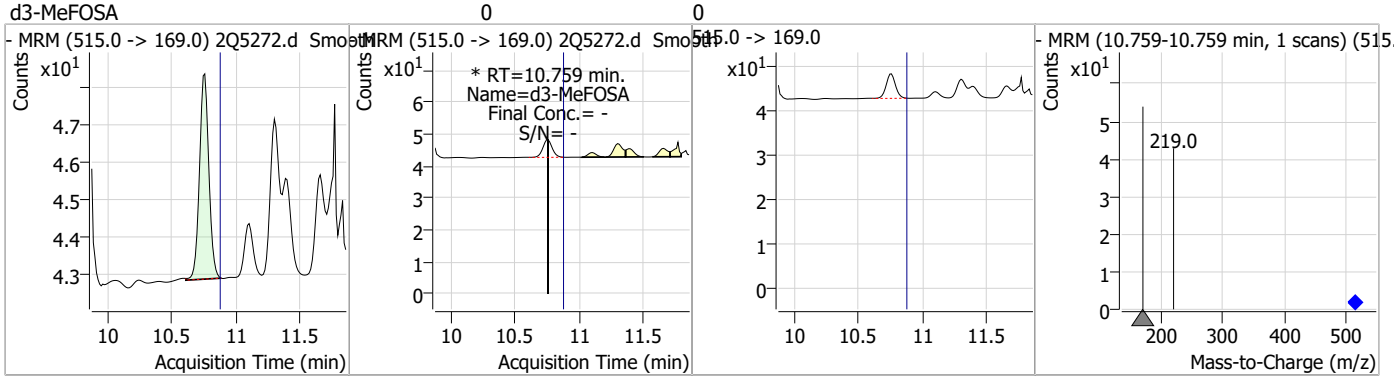


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE		0		0				

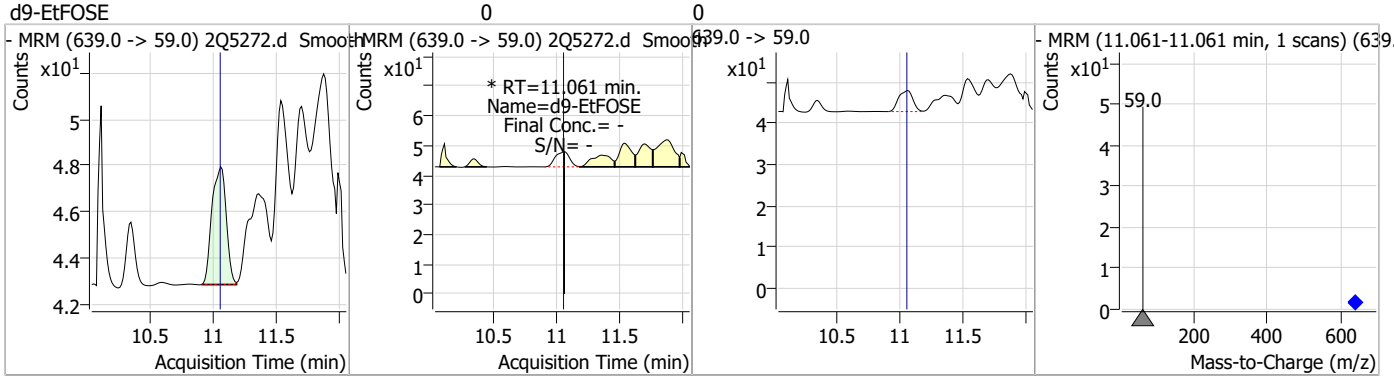


Perfluorinated Compounds by LC/MS/MS

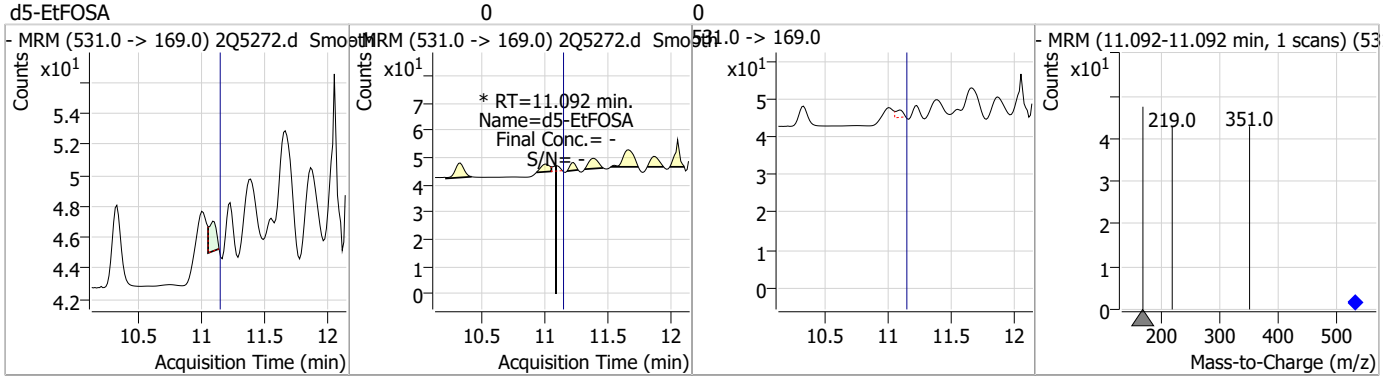
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE		0		0				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA		0		0				



Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5274.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 8:07:07 PM
Sample Name : icv96-5
Vial : P1-B3
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	173196	10.00	µg/L	0.000
M5-PFPeA	4.810	268.0 -> 223.0	109029	5.00	µg/L	0.000
M5-PFHxA	5.942	318.0 -> 273.0	57737	1.25	µg/L	-0.012
M4-PFHpA	6.783	367.0 -> 322.0	46756	2.50	µg/L	-0.012
M8-PFOA	7.384	421.0 -> 376.0	80900	2.50	µg/L	-0.012
M9-PFNA	7.900	472.0 -> 427.0	36007	1.25	µg/L	-0.012
M6-PFDA	8.376	519.0 -> 474.0	17211	1.25	µg/L	-0.024
M7-PFUnDA	8.840	570.0 -> 525.0	27637	1.25	µg/L	-0.012
M2-PFDoDA	9.256	615.0 -> 570.0	29685	1.25	µg/L	-0.012
M2-PFTeDA	10.001	715.0 -> 670.0	20373	1.25	µg/L	-0.012
M8-FOSA	9.653	506.0 -> 78.0	22960	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6895	2.50	µg/L	-0.012
		302.0 -> 80.0	16490			
M3-PFHxS	7.496	402.0 -> 99.0	6122	2.50	µg/L	-0.012
M8-PFOS	8.536	507.0 -> 99.0	6240	2.50	µg/L	-0.012
M2-4:2FTS	5.644	329.0 -> 81.0	1516	5.00	µg/L	-0.012
M2-6:2FTS	7.162	429.0 -> 81.0	2613	5.00	µg/L	-0.012
M2-8:2FTS	8.167	529.0 -> 81.0	4929	5.00	µg/L	-0.024
M3-MeFOSAA	8.422	573.0 -> 419.0	44921	5.00	µg/L	-0.013
M3-HFPO-DA	6.295	287.0 -> 169.0	28698	10.00	µg/L	0.000
M5-EtFOSAA	8.618	589.0 -> 419.0	35389	5.00	µg/L	-0.012
M7-MeFOSE	10.766	623.0 -> 59.0	99993	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	129097	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16259	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14528	2.50	µg/L	0.000
13C4-PFOS	8.536	503.0 -> 80.0	13445	2.50	µg/L	-0.012
13C3-PFBA	3.330	216.0 -> 172.0	78209	5.00	µg/L	-0.012
18O2-PFHxS	7.496	403.0 -> 84.0	7814	2.50	µg/L	-0.012
13C4-PFOA	7.385	417.0 -> 372.0	81028	2.50	µg/L	-0.012
13C2-PFDA	8.376	515.0 -> 470.0	34489	1.25	µg/L	-0.024
13C5-PFNA	7.900	468.0 -> 423.0	40371	1.25	µg/L	-0.012
13C2-PFHxA	5.943	315.0 -> 270.0	58467	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1516	5.31	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.3%		
13C2-6:2FTS	7.162	429.0 -> 81.0	2613	4.13	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 82.6%		
13C2-8:2FTS	8.167	529.0 -> 81.0	4929	5.63	µg/L	-0.024
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.6%		
13C2-PFDoDA	9.256	615.0 -> 570.0	29685	1.08	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.3%		
13C2-PFTeDA	10.001	715.0 -> 670.0	20373	1.01	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 80.7%		
13C3-PFBS	5.871	302.0 -> 99.0	6895	2.37	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.9%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.496	402.0 -> 99.0	6122	2.01	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.3%			
13C4-PFBA	3.339	217.0 -> 172.0	173196	9.84	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.4%			
13C4-PFHpA	6.783	367.0 -> 322.0	46756	2.46	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.4%			
13C5-PFHxA	5.942	318.0 -> 273.0	57737	2.38	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.1%			
13C5-PFPeA	4.810	268.0 -> 223.0	109029	4.98	µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 99.5%			
13C6-PFDA	8.376	519.0 -> 474.0	17211	1.20	µg/L		-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 95.6%			
13C7-PFUnDA	8.840	570.0 -> 525.0	27637	1.16	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.1%			
13C8-FOSA	9.653	506.0 -> 78.0	22960	2.52	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.9%			
13C8-PFOA	7.384	421.0 -> 376.0	80900	2.41	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.5%			
13C8-PFOS	8.536	507.0 -> 99.0	6240	2.13	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 85.3%			
13C9-PFNA	7.900	472.0 -> 427.0	36007	1.14	µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.2%			
d3-MeFOSAA	8.422	573.0 -> 419.0	44921	5.13	µg/L		-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.7%			
13C3-HFPO-DA	6.295	287.0 -> 169.0	28698	10.35	µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 103.5%			
d3-MeFOSA	10.871	515.0 -> 169.0	14528	2.41	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.5%			
d5-EtFOSAA	8.618	589.0 -> 419.0	35389	4.89	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.9%			
d7-MeFOSE	10.766	623.0 -> 59.0	99993	24.96	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 99.9%			
d9-EtFOSE	11.049	639.0 -> 59.0	129097	24.34	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 97.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	16259	2.52	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.7%			
Target Compounds							QValue
4:2FTS	5.644	327.0 -> 307.0	44554	17.66	µg/L		98
		327.0 -> 81.0	22383				
6:2FTS	7.175	427.0 -> 407.0	92831	24.21	µg/L		95
		427.0 -> 81.0	27401				
8:2FTS	8.167	527.0 -> 507.0	82824	18.58	µg/L		95
		527.0 -> 81.0	27302				
EtFOSAA	8.631	584.0 -> 419.0	32450	5.46	µg/L	m	100
		584.0 -> 483.0	14642				
FOSA	9.655	498.0 -> 78.0	85237	10.31	µg/L	m	99
		498.0 -> 478.0	3790				
MeFOSAA	8.423	570.0 -> 419.0	37247	5.12	µg/L	m	90
		570.0 -> 512.0	11092				
PFBA	3.333	213.0 -> 169.0	87972	20.23	µg/L		100
PFBS	5.872	299.0 -> 80.0	34709	4.83	µg/L		95
		299.0 -> 99.0	13686				
PFDA	8.376	513.0 -> 469.0	131810	4.61	µg/L		100
		513.0 -> 219.0	20071				
PFDoDA	9.256	613.0 -> 569.0	113131	4.97	µg/L		94
		613.0 -> 319.0	21320				

Perfluorinated Compounds by LC/MS/MS

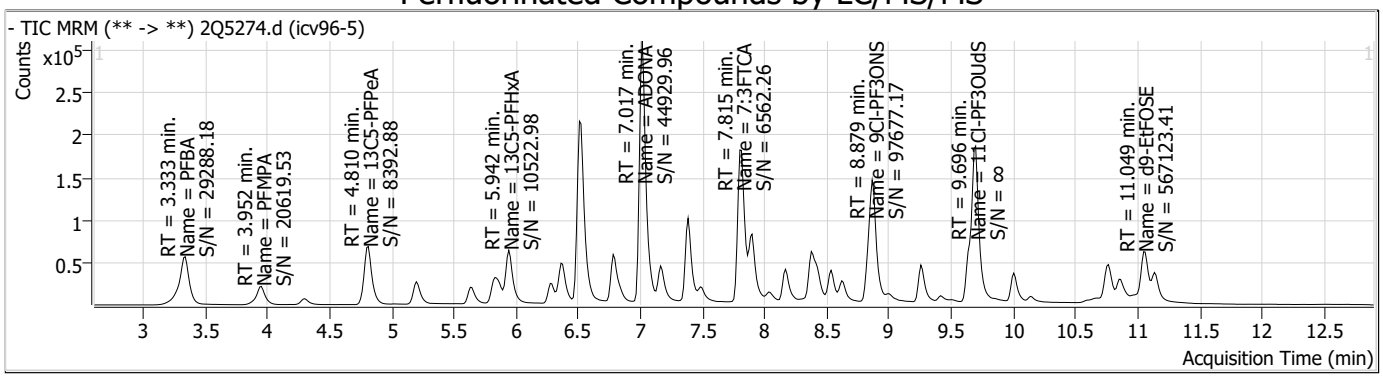
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.415	599.0 -> 80.0	15856	4.79	µg/L		100
		599.0 -> 99.0	8056				
PFHpA	6.796	363.0 -> 319.0	136706	4.68	µg/L		94
		363.0 -> 169.0	25944				
PFHpS	8.047	449.0 -> 80.0	22137	5.71	µg/L		92
		449.0 -> 99.0	10425				
PFHxA	5.945	313.0 -> 269.0	119185	5.22	µg/L		99
		313.0 -> 119.0	3772				
PFHxS	7.497	399.0 -> 80.0	22597	5.29	µg/L	m	100
		399.0 -> 99.0	13051				
PFNA	7.900	463.0 -> 419.0	145334	5.37	µg/L		98
		463.0 -> 219.0	22033				
PFNS	9.000	549.0 -> 80.0	14169	5.04	µg/L		90
		549.0 -> 99.0	9182				
PFOA	7.385	413.0 -> 369.0	167517	5.29	µg/L		98
		413.0 -> 169.0	33765				
PFOS	8.537	499.0 -> 80.0	27935	5.24	µg/L	m	99
		499.0 -> 99.0	11755				
PFPeA	4.812	263.0 -> 219.0	199041	10.13	µg/L		100
PFPeS	6.845	349.0 -> 80.0	17728	4.29	µg/L		89
		349.0 -> 99.0	8879				
PFTeDA	10.001	713.0 -> 669.0	89881	5.45	µg/L		99
		713.0 -> 219.0	11472				
PFTrDA	9.647	663.0 -> 619.0	116166	5.33	µg/L		99
		663.0 -> 369.0	13081				
PFUnDA	8.841	563.0 -> 519.0	144513	5.22	µg/L		99
		563.0 -> 269.0	24143				
11Cl-PF3OUdS	9.696	631.0 -> 451.0	509040	19.71	µg/L		98
		633.0 -> 453.0	150341				
9Cl-PF3ONS	8.879	531.0 -> 351.0	363111	20.42	µg/L		99
		533.0 -> 353.0	106889				
ADONA	7.017	377.0 -> 251.0	891522	19.60	µg/L		100
		377.0 -> 85.0	265612				
HFPO-DA	6.295	285.0 -> 169.0	57909	18.73	µg/L		99
		285.0 -> 185.0	4828				
3:3FTCA	4.301	241.0 -> 177.0	29126	23.90	µg/L		98
		241.0 -> 117.0	2378				
5:3FTCA	6.524	341.0 -> 237.0	525297	131.54	µg/L		99
		341.0 -> 217.0	369730				
7:3FTCA	7.815	441.0 -> 337.0	552255	129.69	µg/L		99
		441.0 -> 317.0	217437				
EtFOSA	11.154	526.0 -> 219.0	69921	9.67	µg/L	m	99
		526.0 -> 169.0	92972				
EtFOSE	11.075	630.0 -> 59.0	141405	26.20	µg/L	m	100
MeFOSA	10.871	512.0 -> 169.0	76272	9.77	µg/L	m	73
		512.0 -> 219.0	38582				
MeFOSE	10.778	616.0 -> 59.0	110326	25.64	µg/L	m	100
PFDoDS	10.149	699.0 -> 80.0	15428	5.77	µg/L		94
		699.0 -> 99.0	7962				
NFDHA	5.835	295.0 -> 201.0	15446	11.00	µg/L		99
		201.0 -> 85.0	81995				
		295.0 -> 85.0	3541				
PFMBA	5.201	279.0 -> 85.0	111307	10.49	µg/L		100
PFMPA	3.952	229.0 -> 85.0	112290	10.10	µg/L		100
PFEESA	6.365	315.0 -> 135.0	170088	10.86	µg/L		99
		315.0 -> 69.0	15465				

Perfluorinated Compounds by LC/MS/MS

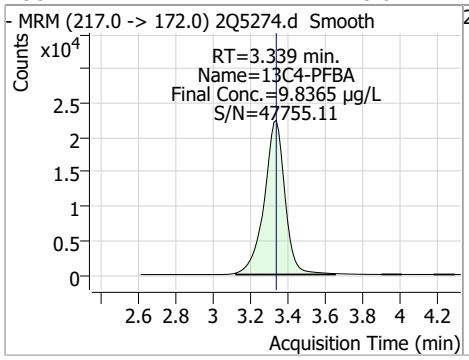
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

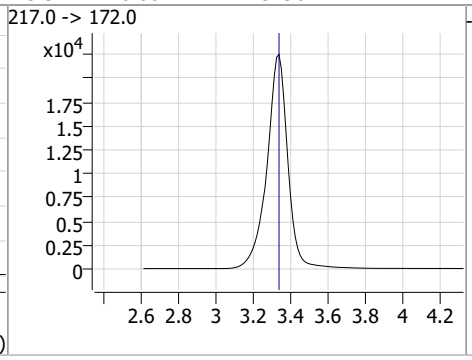
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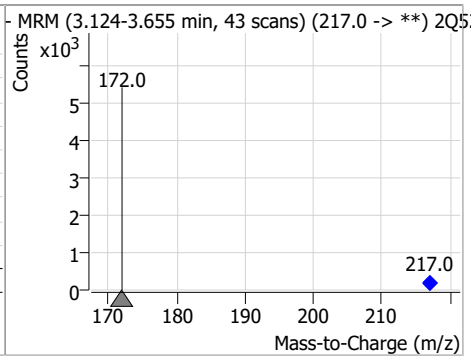
Perfluorinated Compounds by LC/MS/MS



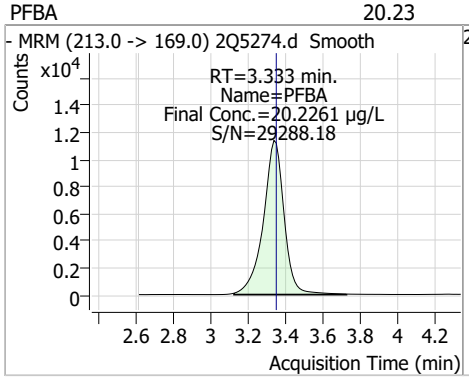
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.84	3.34	0.00	173196				

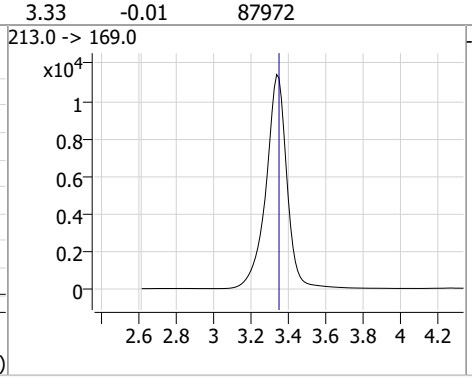


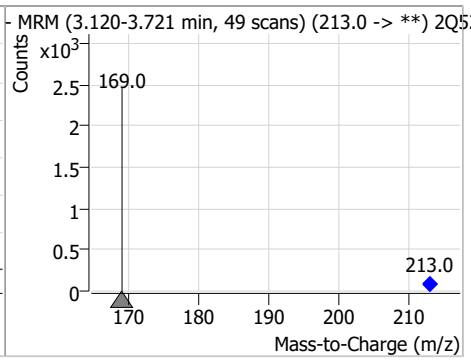




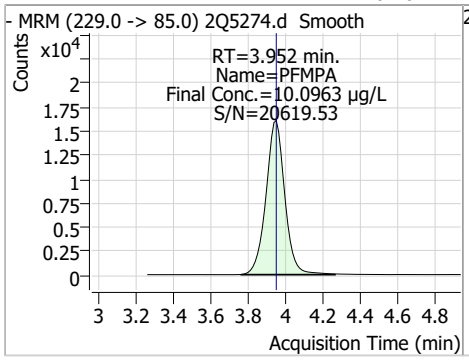
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.23	3.33	-0.01	87972				

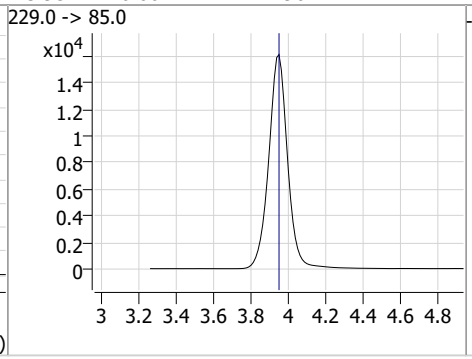


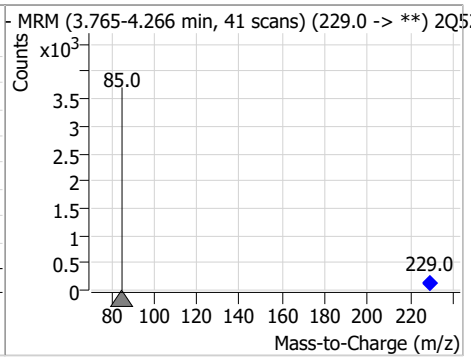




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	10.10	3.95	0.00	112290				

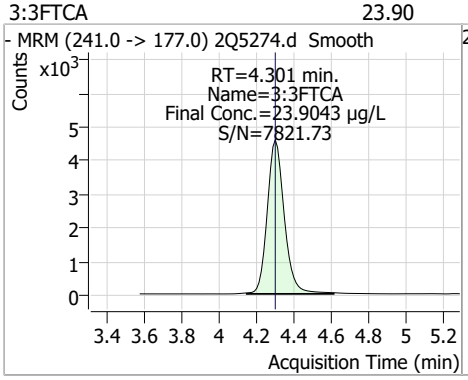


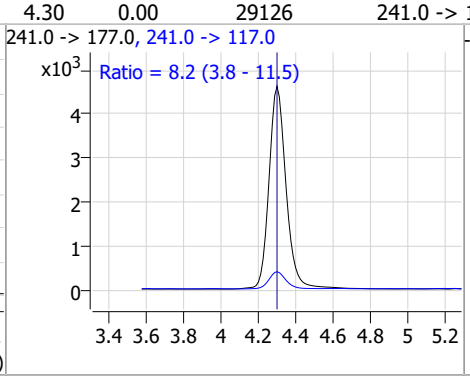


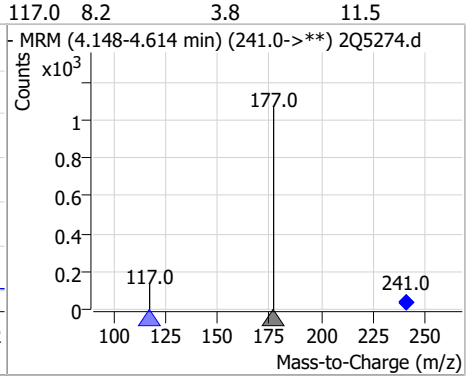


Perfluorinated Compounds by LC/MS/MS

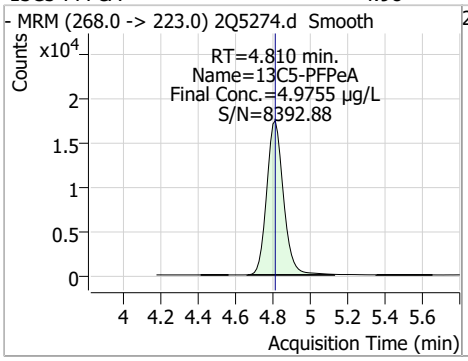
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.90	4.30	0.00	29126	241.0 -> 117.0	8.2	3.8	11.5

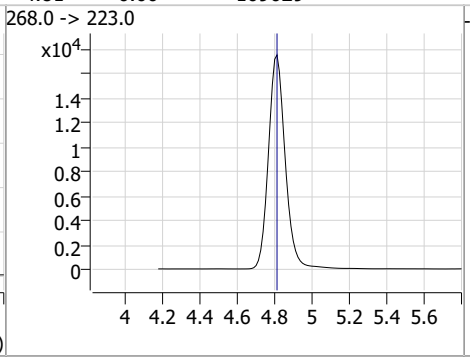


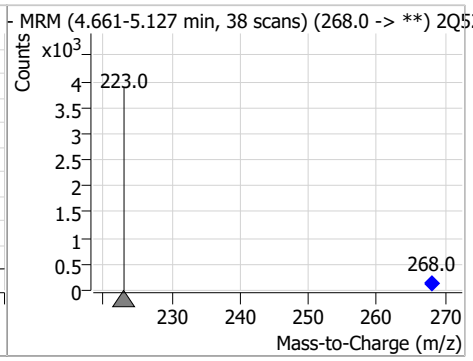




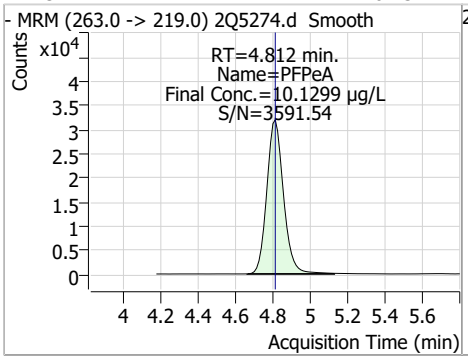
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.98	4.81	0.00	109029				

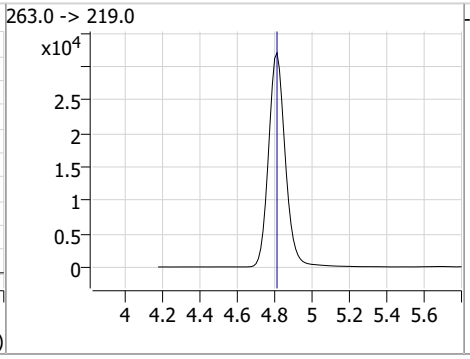


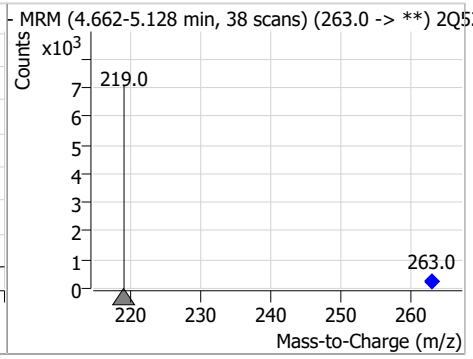




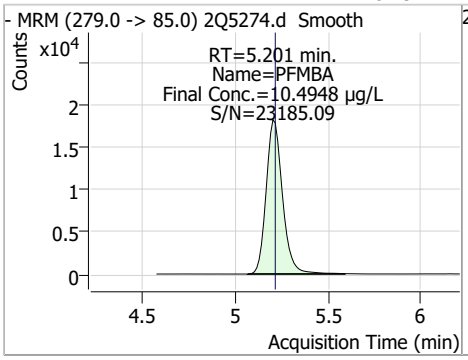
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.13	4.81	0.00	199041				

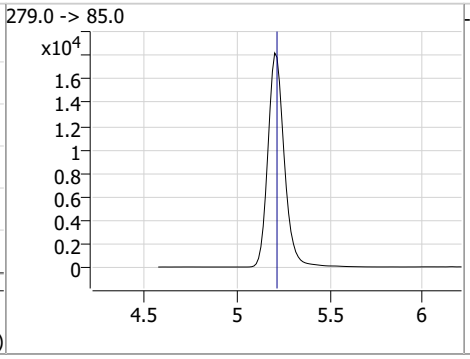


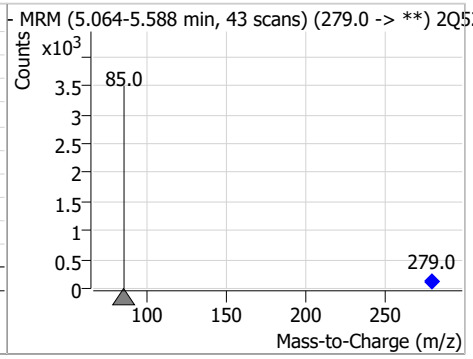




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.49	5.20	-0.01	111307				

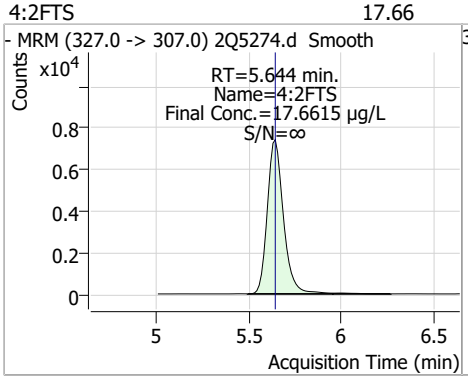


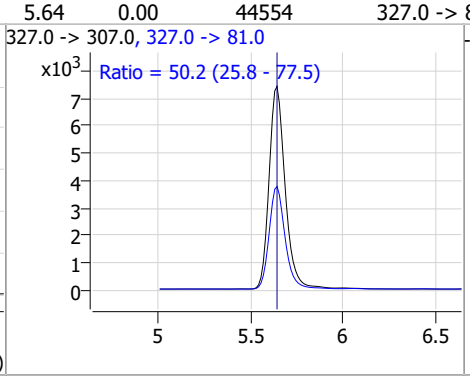


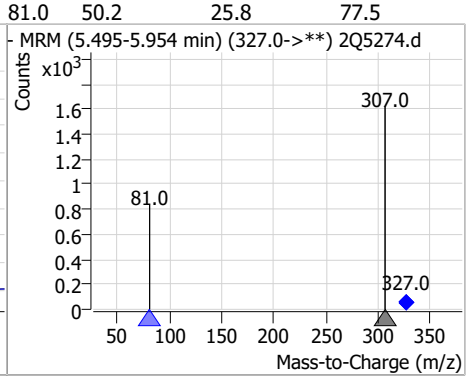


Perfluorinated Compounds by LC/MS/MS

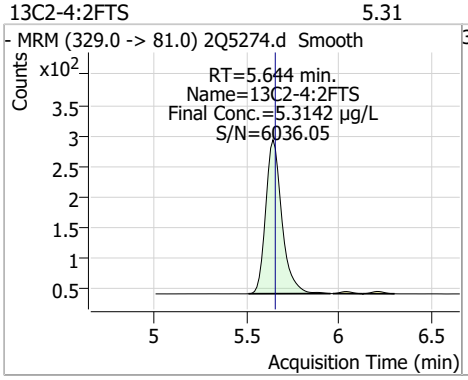
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	17.66	5.64	0.00	44554	327.0 -> 81.0	50.2	25.8	77.5

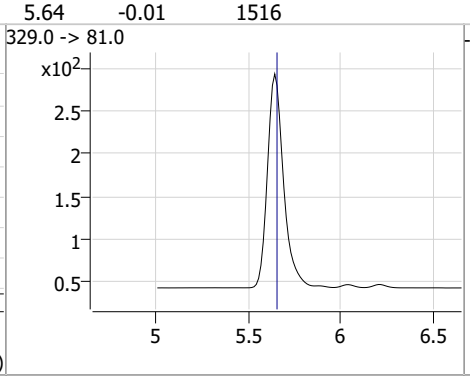


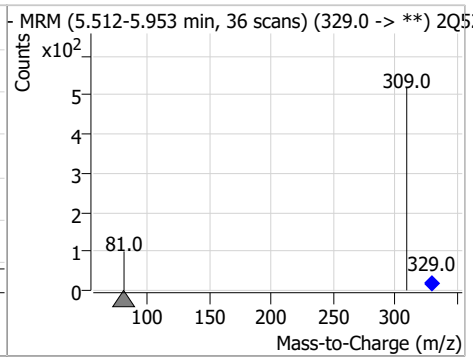




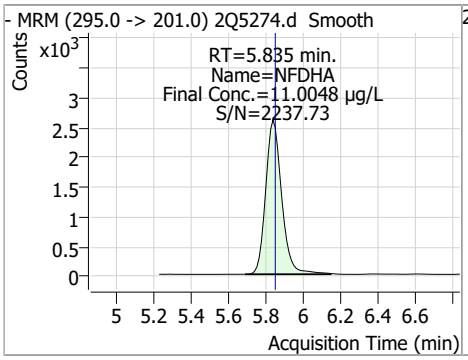
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.31	5.64	-0.01	1516				

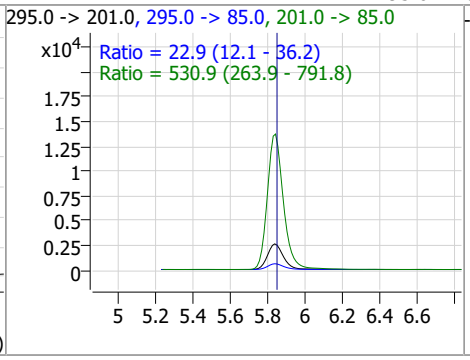


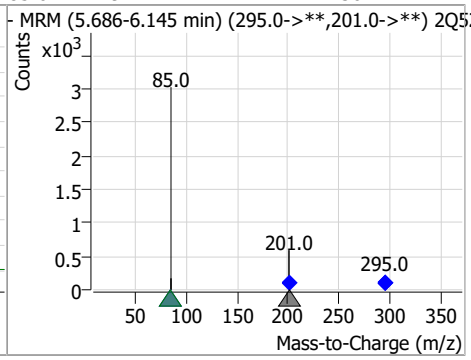




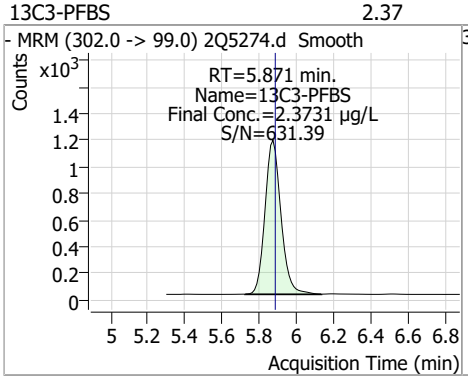
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	11.00	5.84	-0.01	15446	201.0 -> 85.0	530.9	263.9	791.8
					295.0 -> 85.0	22.9	12.1	36.2

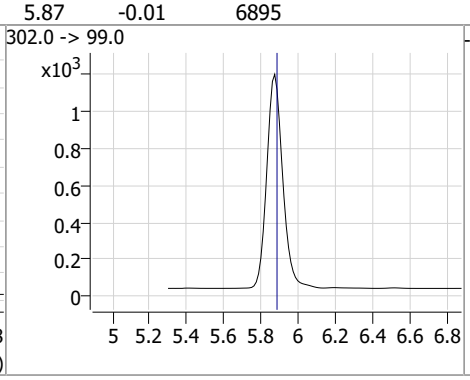


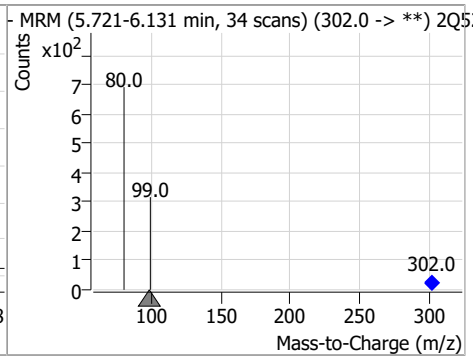




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.37	5.87	-0.01	6895				

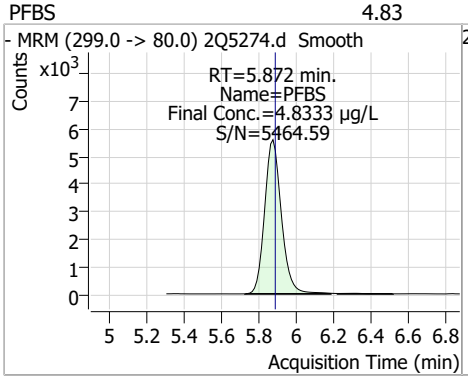


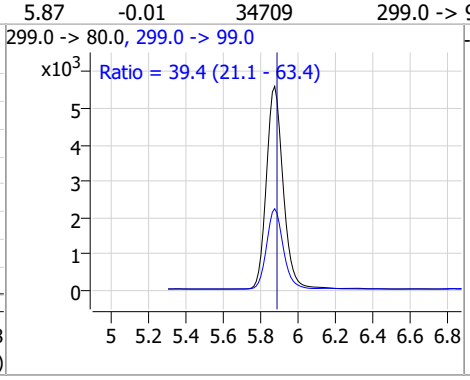


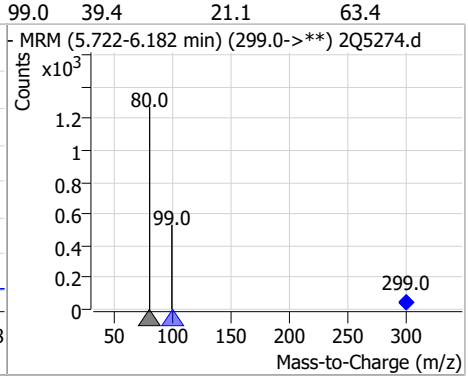


Perfluorinated Compounds by LC/MS/MS

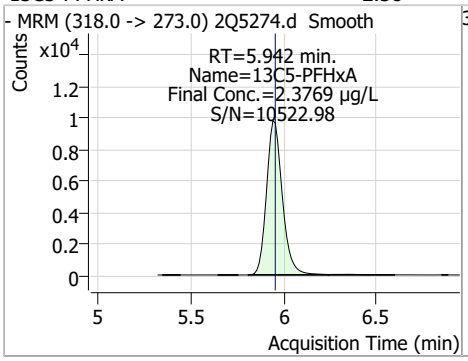
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	4.83	5.87	-0.01	34709	299.0 -> 99.0	39.4	21.1	63.4

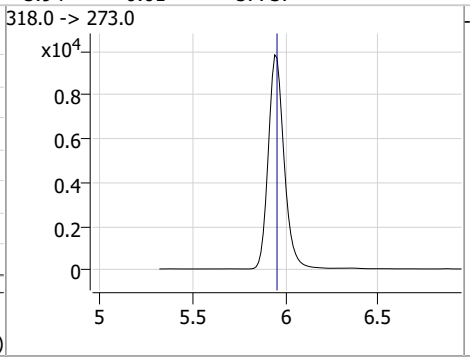


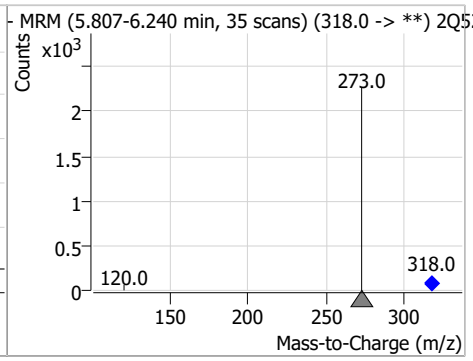




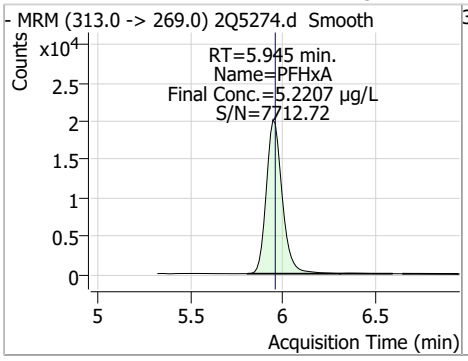
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.38	5.94	-0.01	57737				

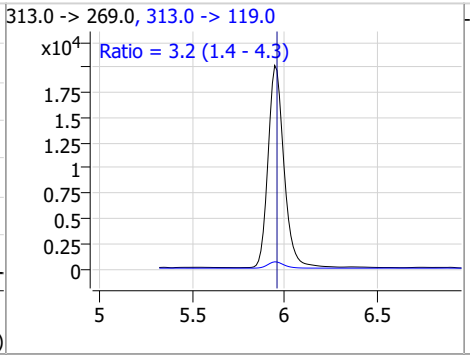


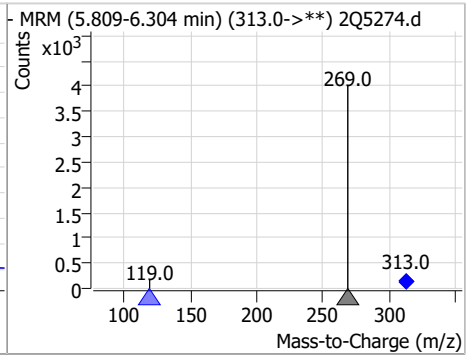




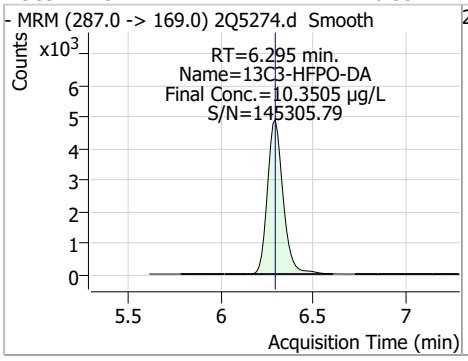
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	5.22	5.94	-0.01	119185	313.0 -> 119.0	3.2	1.4	4.3

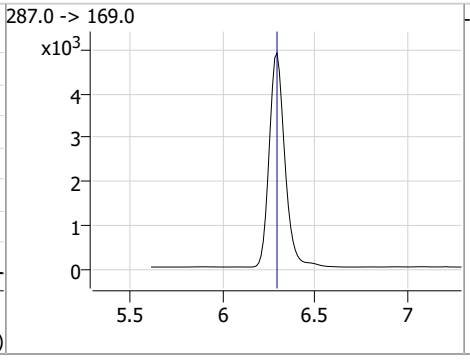


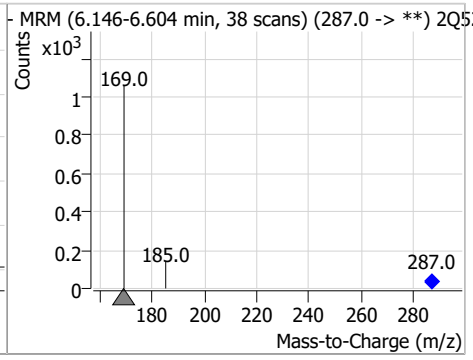




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.35	6.29	0.00	28698				

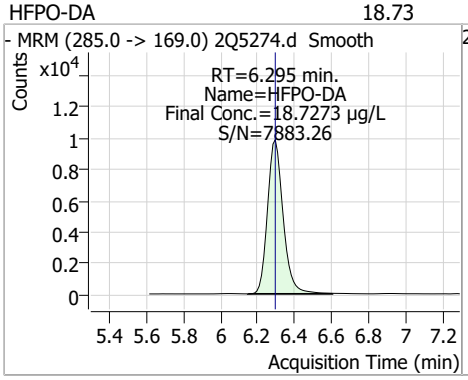


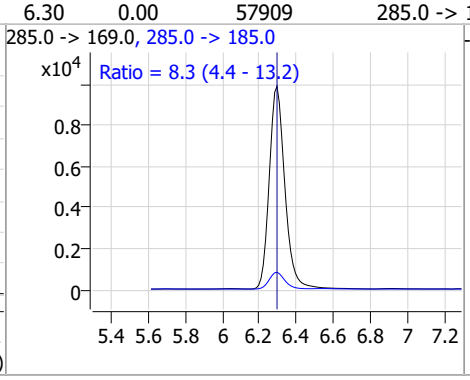


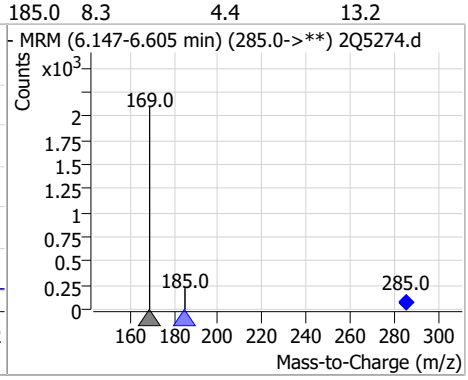


Perfluorinated Compounds by LC/MS/MS

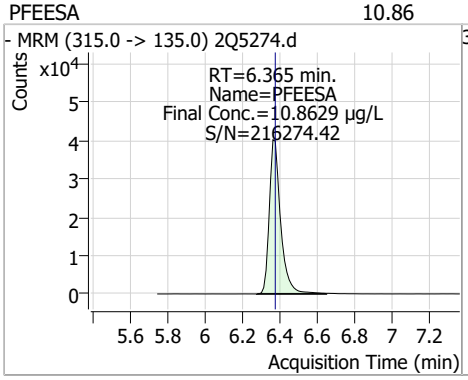
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	18.73	6.30	0.00	57909	285.0 -> 185.0	8.3	4.4	13.2

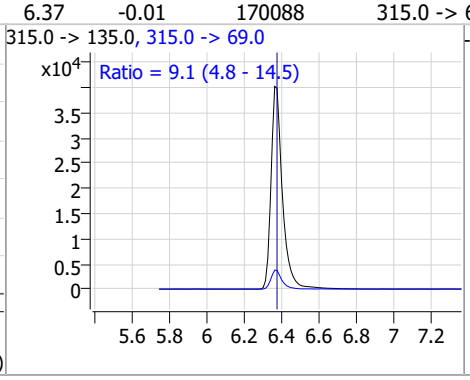


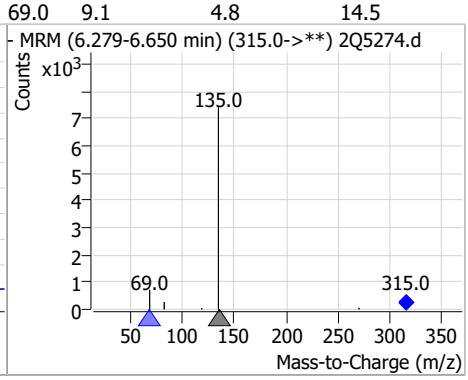




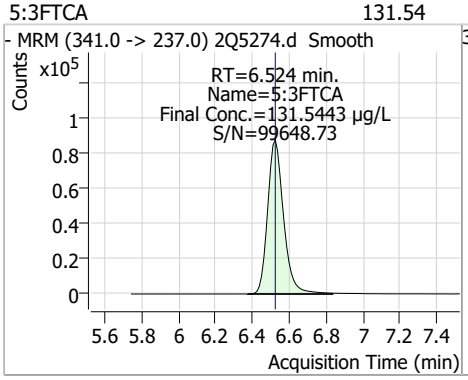
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.86	6.37	-0.01	170088	315.0 -> 69.0	9.1	4.8	14.5

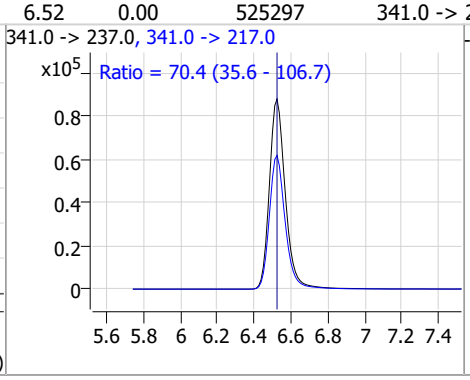


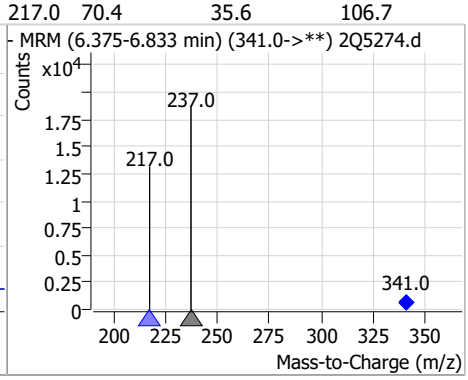




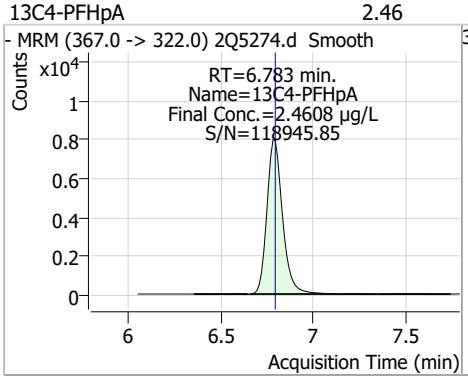
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	131.54	6.52	0.00	525297	341.0 -> 217.0	70.4	35.6	106.7

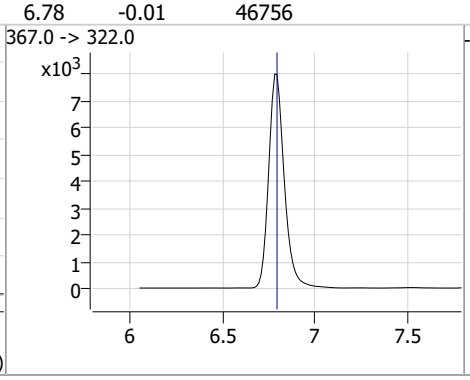


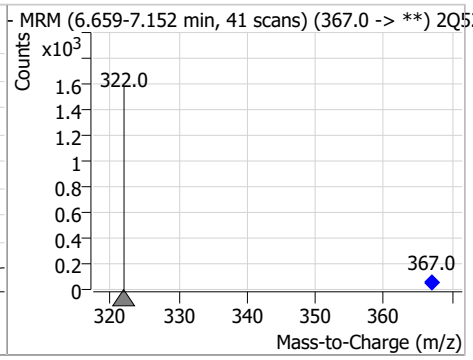




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.46	6.78	-0.01	46756				

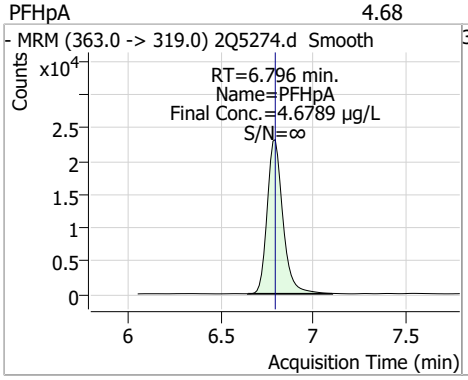


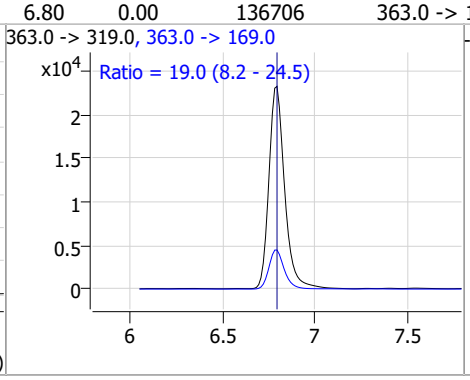


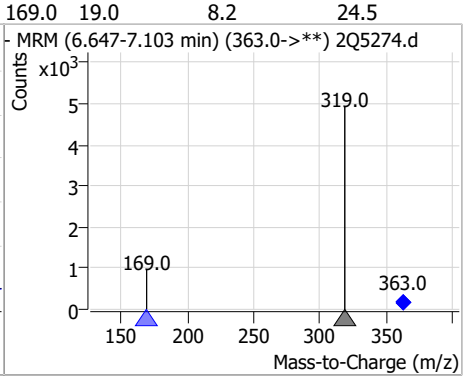


Perfluorinated Compounds by LC/MS/MS

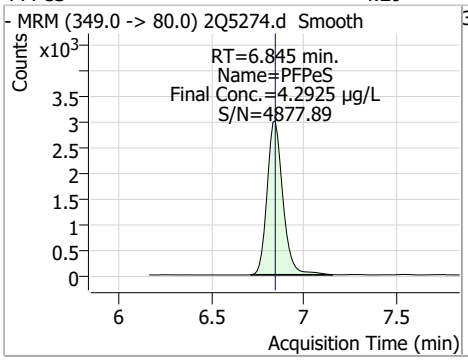
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	4.68	6.80	0.00	136706	363.0 -> 169.0	19.0	8.2	24.5

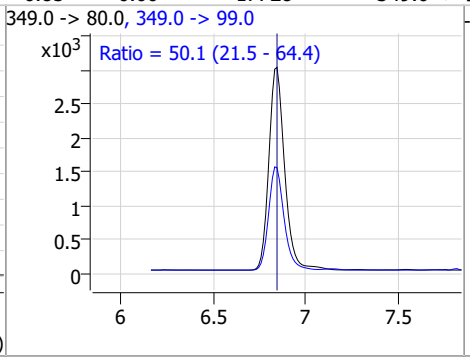


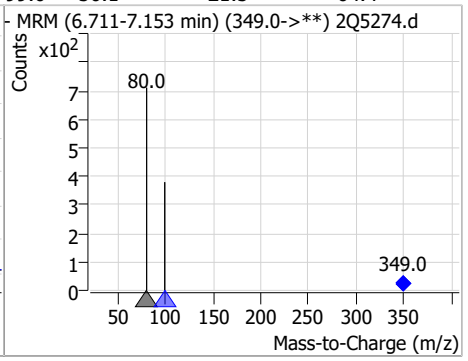




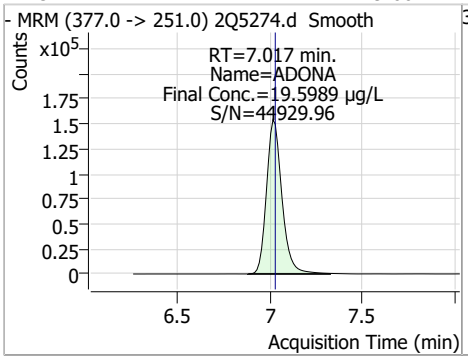
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	4.29	6.85	0.00	17728	349.0 -> 99.0	50.1	21.5	64.4

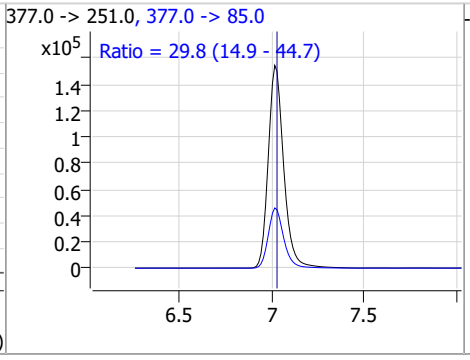


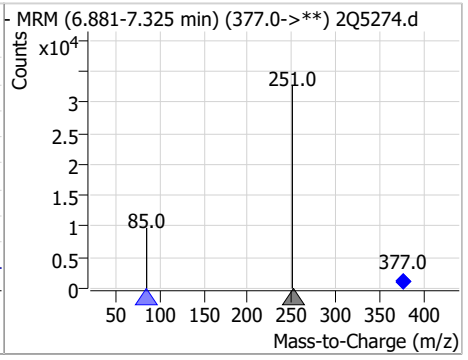




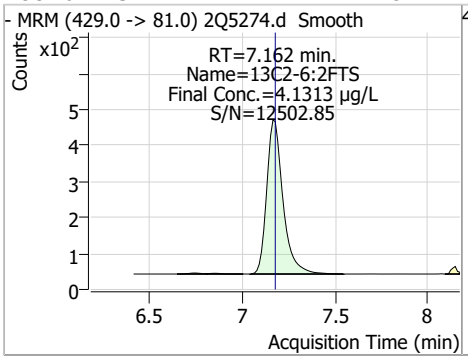
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	19.60	7.02	-0.01	891522	377.0 -> 85.0	29.8	14.9	44.7

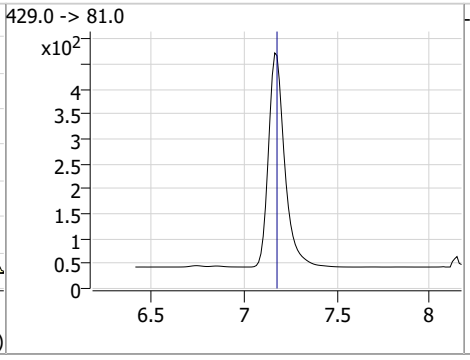


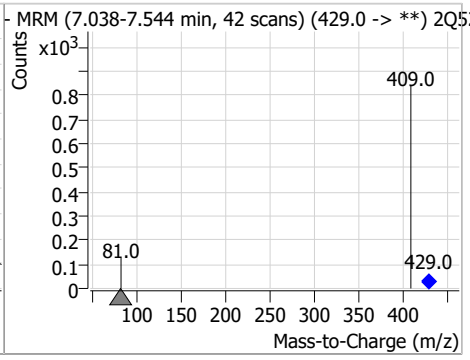




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.13	7.16	-0.01	2613				

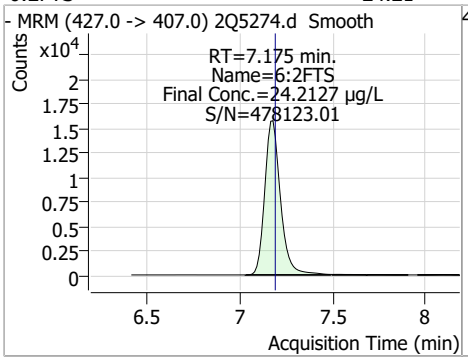


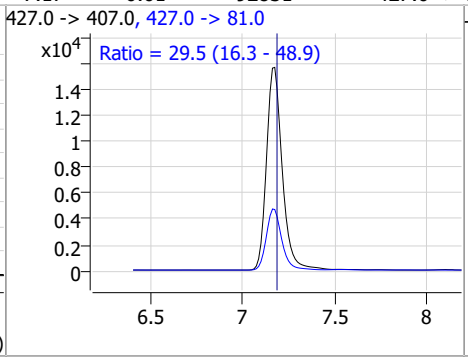


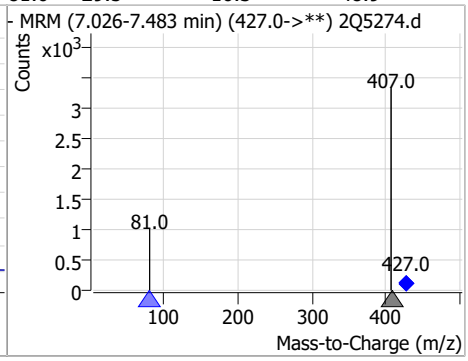


Perfluorinated Compounds by LC/MS/MS

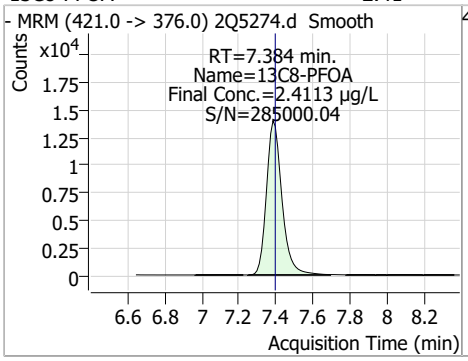
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	24.21	7.17	-0.01	92831	427.0 -> 81.0	29.5	16.3	48.9

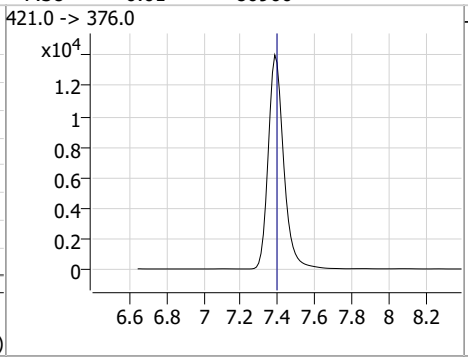


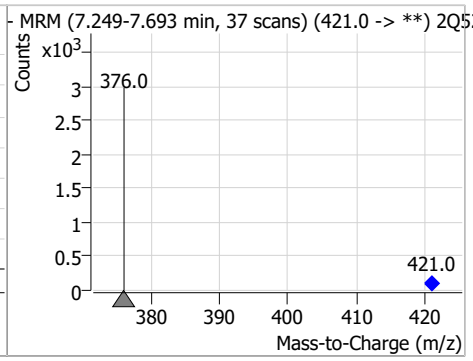




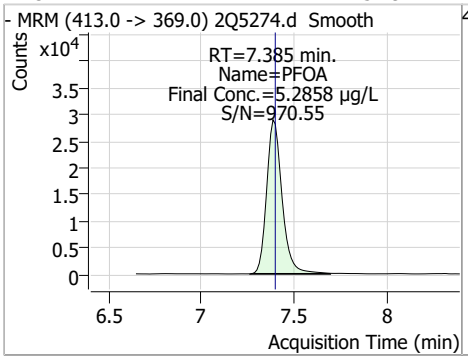
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.41	7.38	-0.01	80900				

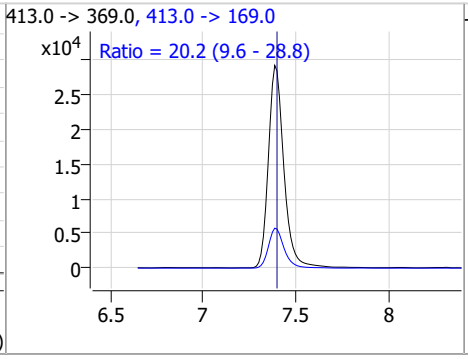


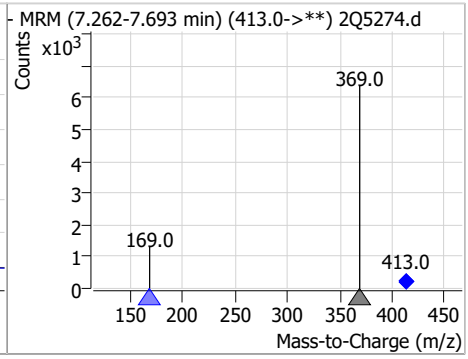




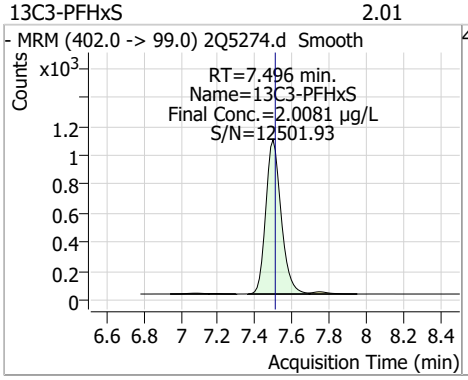
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	5.29	7.38	-0.01	167517	413.0 -> 169.0	20.2	9.6	28.8

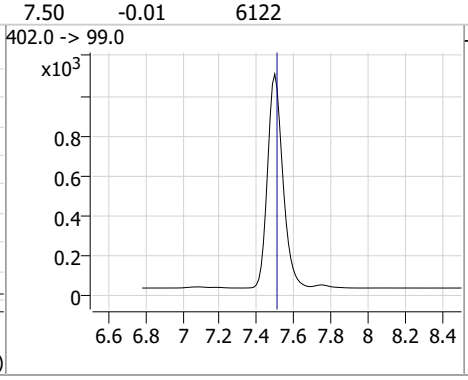


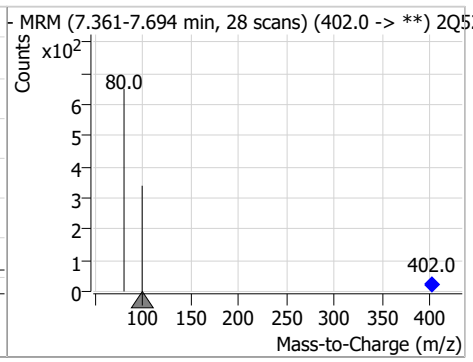




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.01	7.50	-0.01	6122				

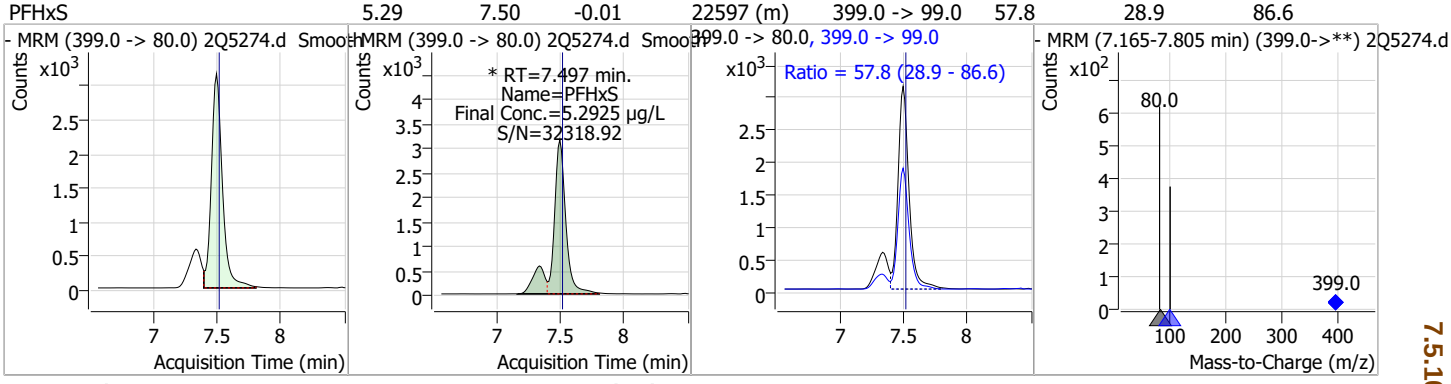




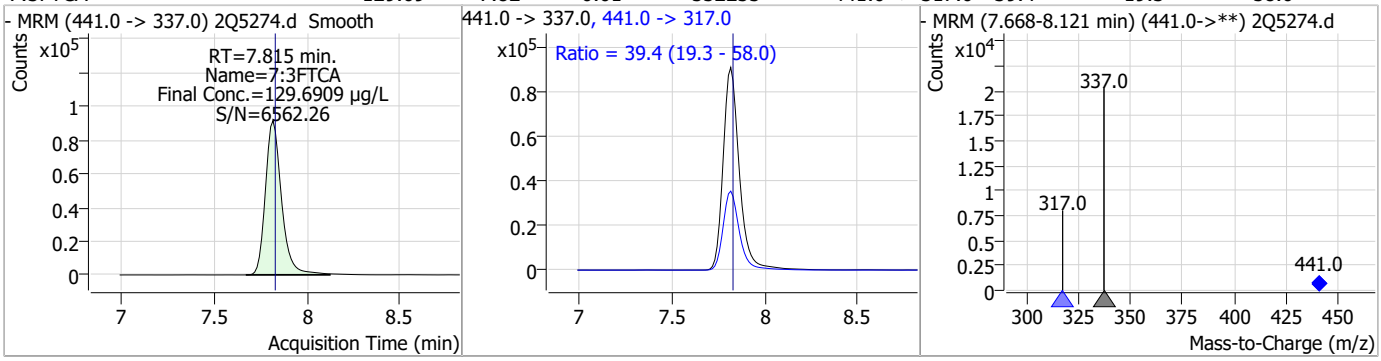


Perfluorinated Compounds by LC/MS/MS

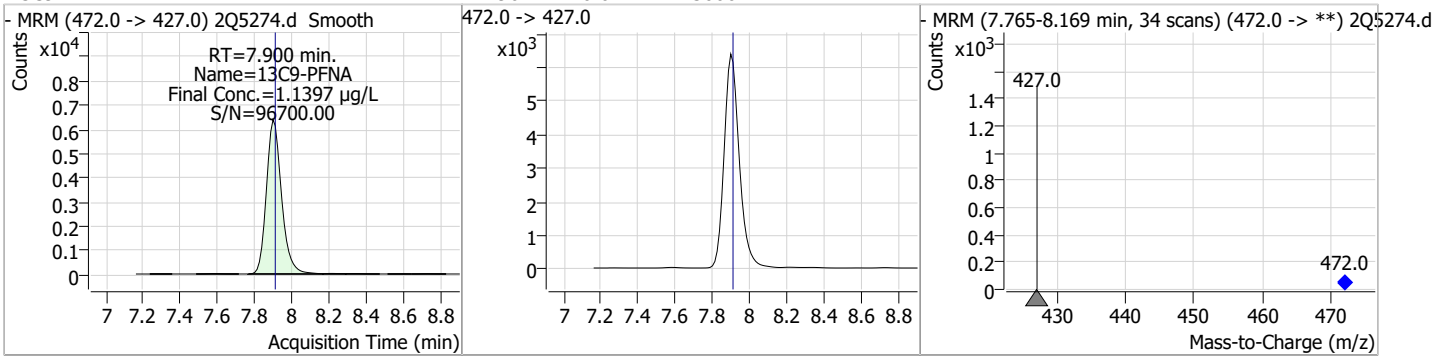
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	5.29	7.50	-0.01	22597 (m)	399.0 -> 99.0	57.8	28.9	86.6



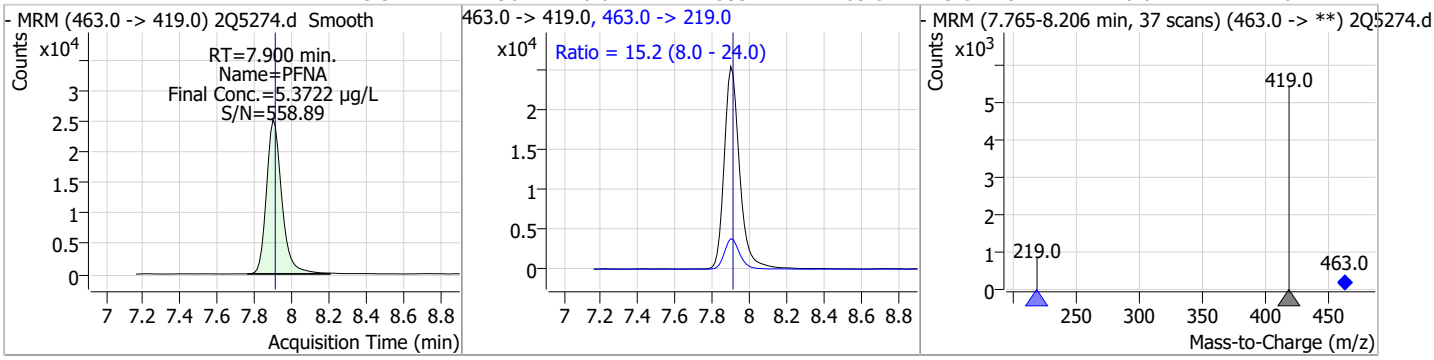
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	129.69	7.82	-0.01	552255	441.0 -> 317.0	39.4	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.90	-0.01	36007				

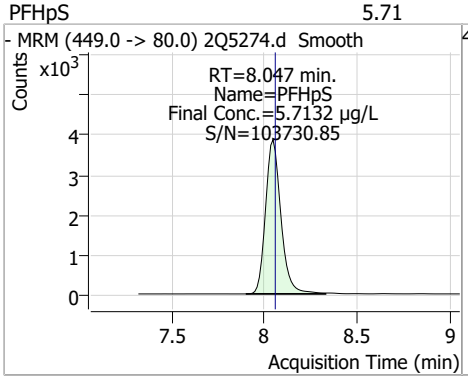


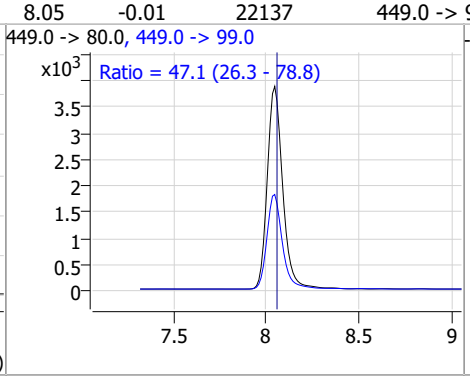
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	5.37	7.90	-0.01	145334	463.0 -> 219.0	15.2	8.0	24.0

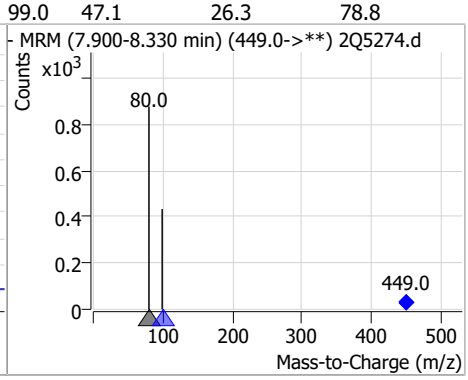


Perfluorinated Compounds by LC/MS/MS

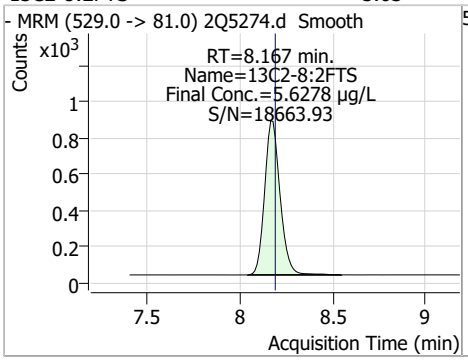
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	5.71	8.05	-0.01	22137	449.0 -> 99.0	47.1	26.3	78.8

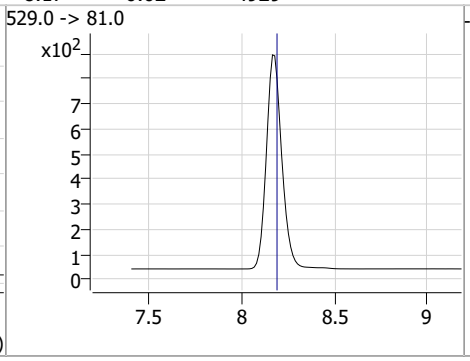


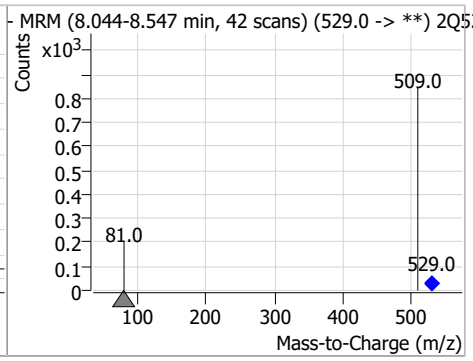




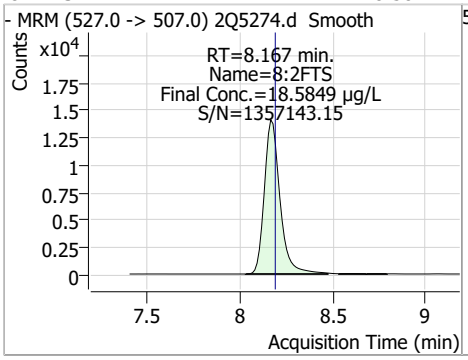
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.63	8.17	-0.02	4929				

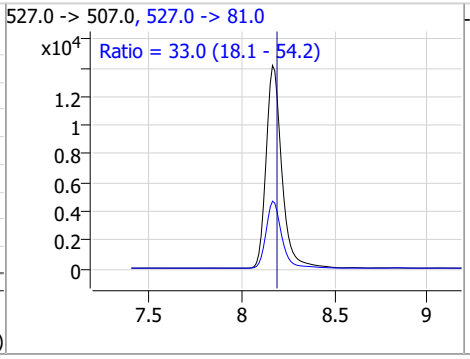


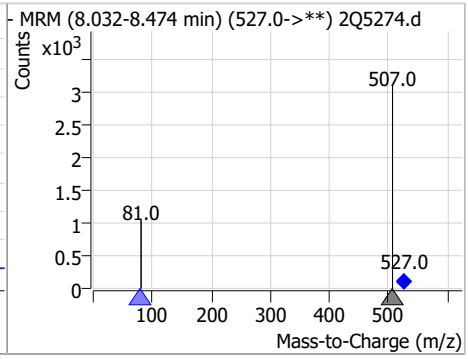




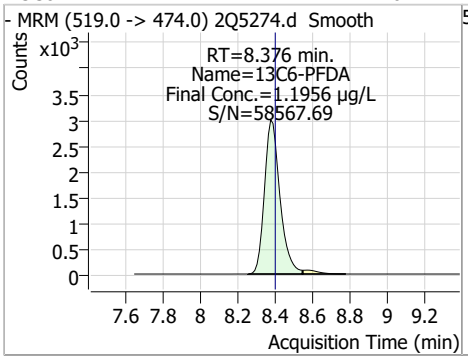
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	18.58	8.17	-0.02	82824	527.0 -> 81.0	33.0	18.1	54.2

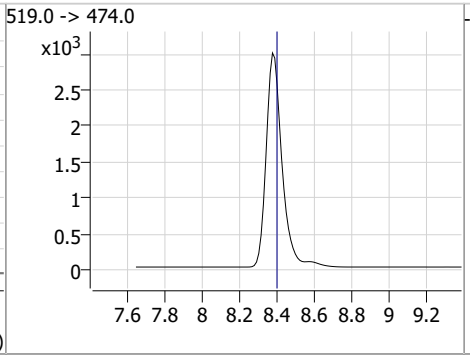


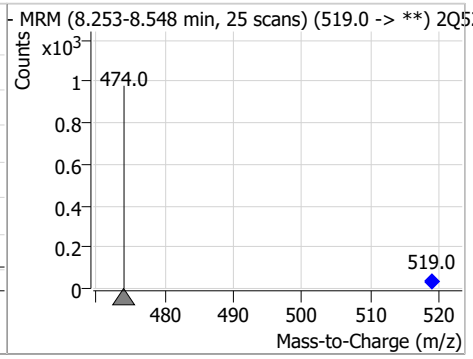




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.20	8.38	-0.02	17211				

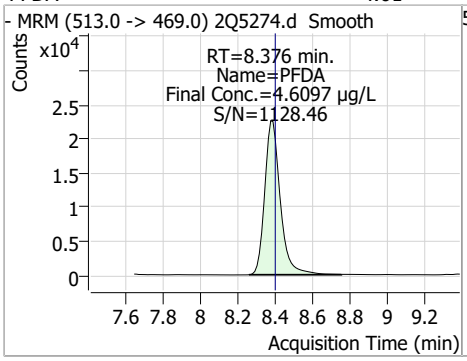


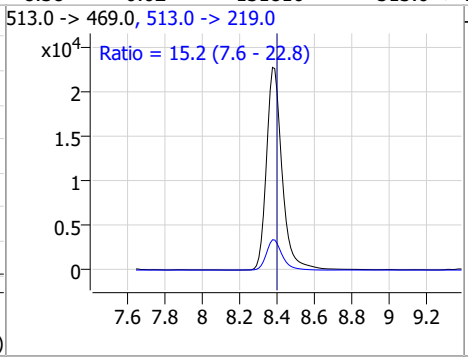


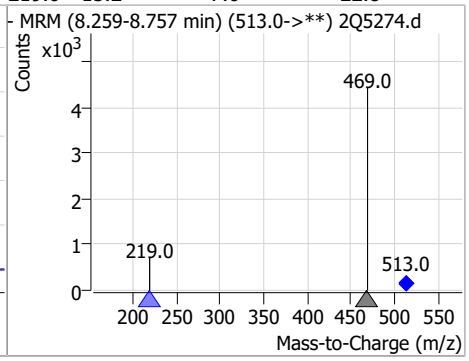


Perfluorinated Compounds by LC/MS/MS

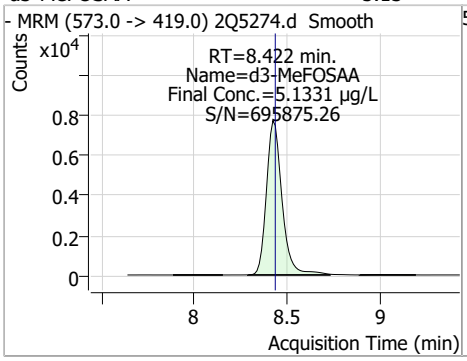
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	4.61	8.38	-0.02	131810	513.0 -> 219.0	15.2	7.6	22.8

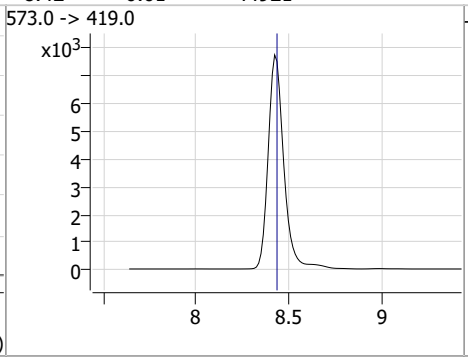


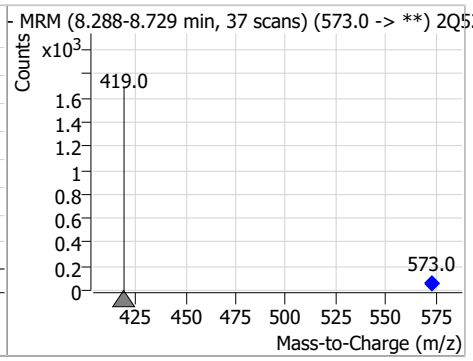




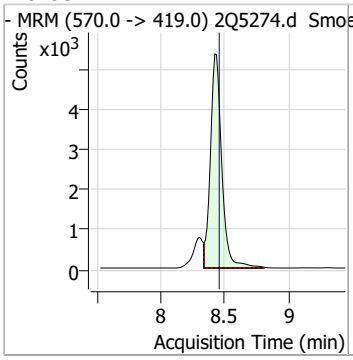
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.13	8.42	-0.01	44921				

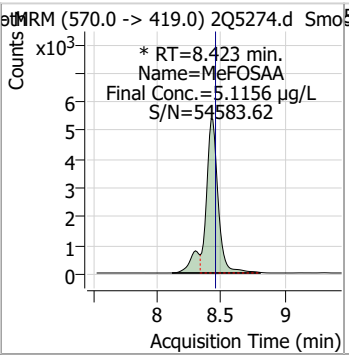


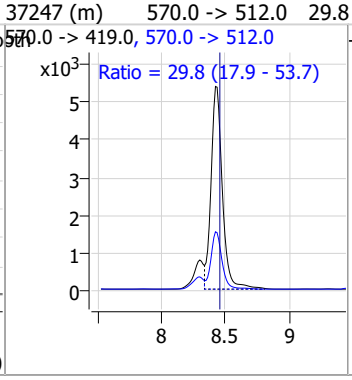


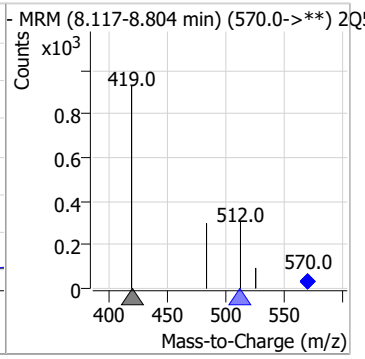


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.12	8.42	-0.03	37247 (m)	570.0 -> 512.0	29.8	17.9	53.7

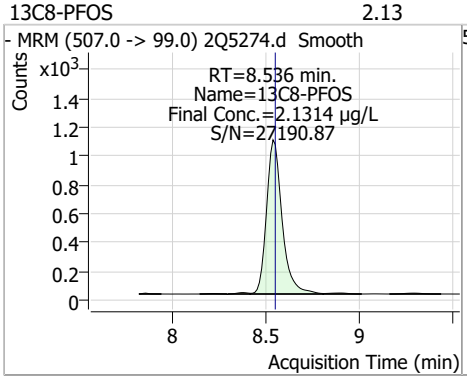


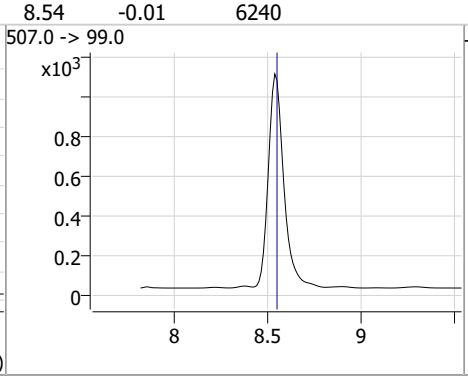


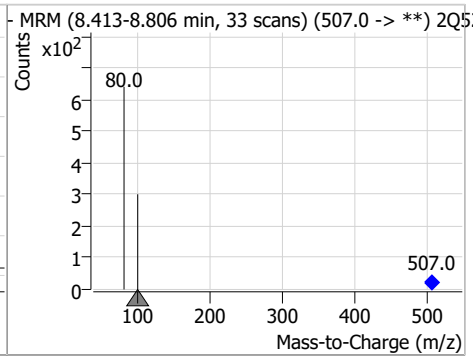




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.13	8.54	-0.01	6240				

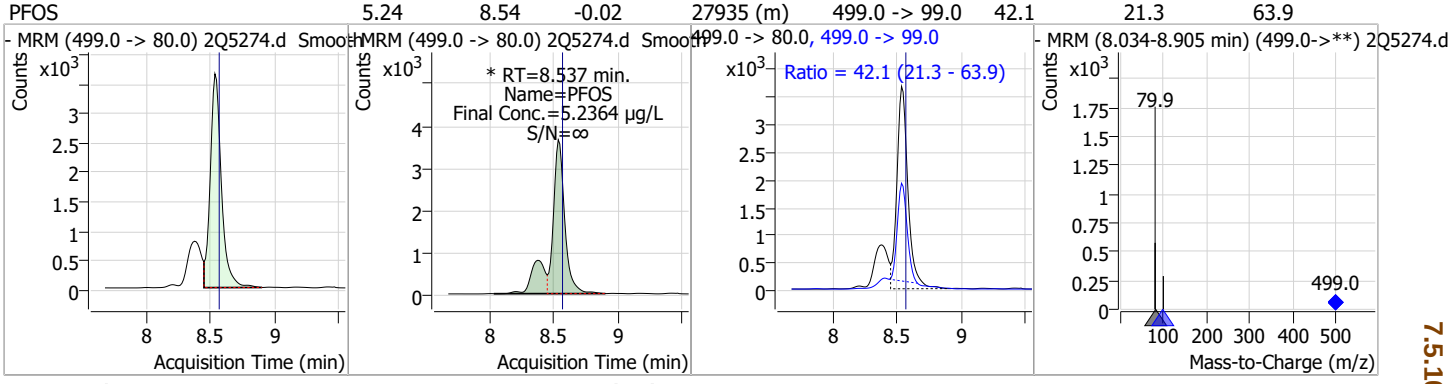




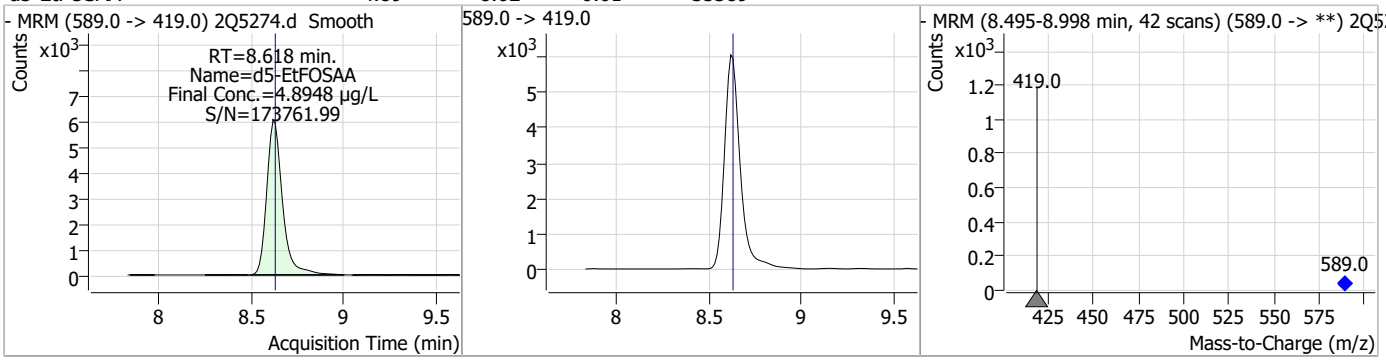


Perfluorinated Compounds by LC/MS/MS

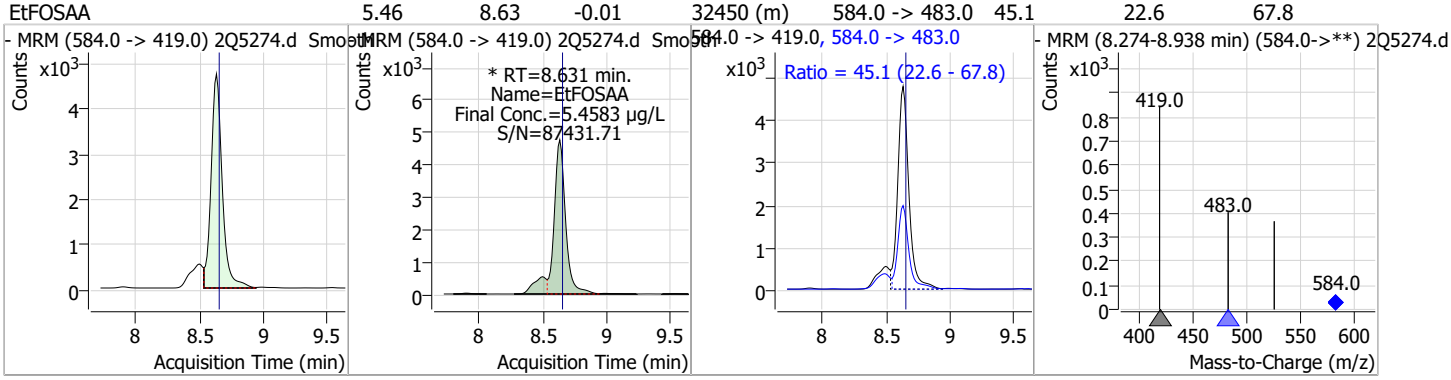
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	5.24	8.54	-0.02	27935 (m)	499.0 -> 99.0	42.1	21.3	63.9



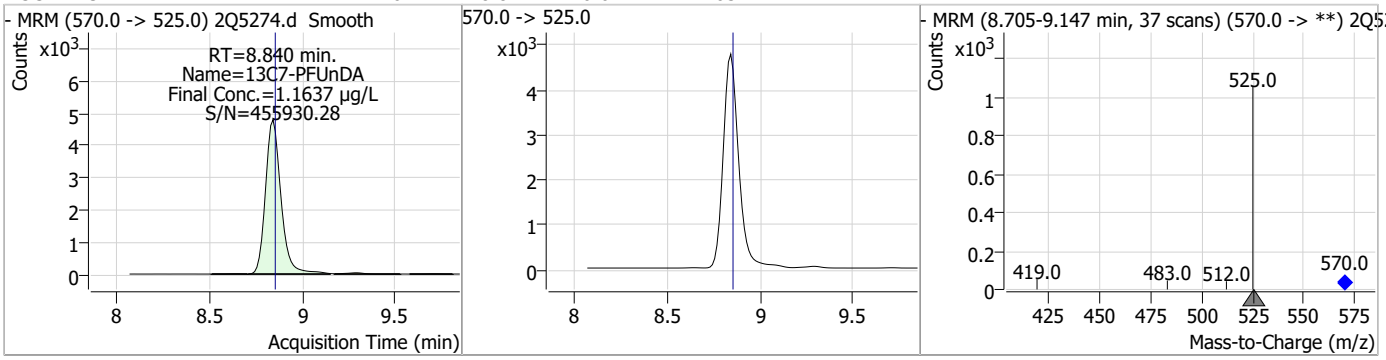
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	4.89	8.62	-0.01	35389				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	5.46	8.63	-0.01	32450 (m)	584.0 -> 483.0	45.1	22.6	67.8

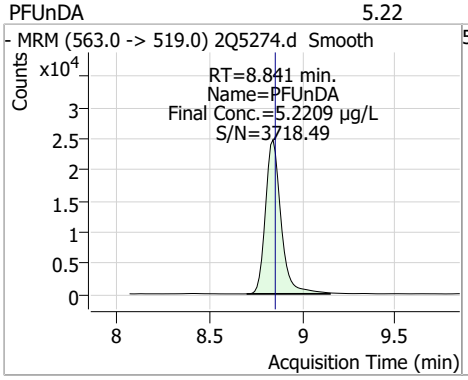


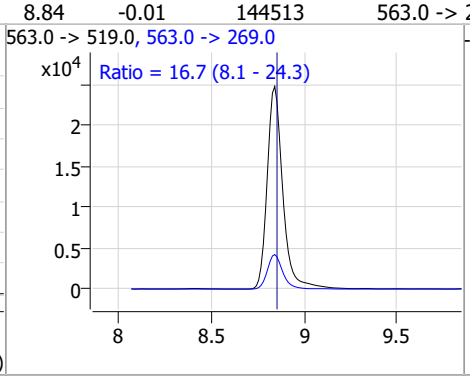
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.16	8.84	-0.01	27637				

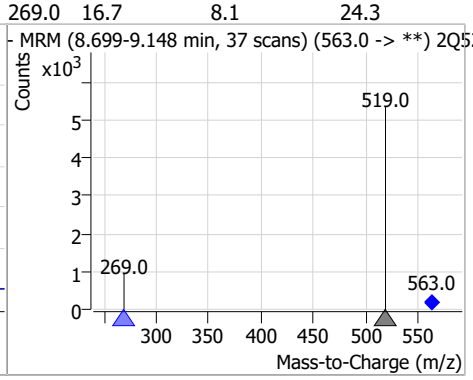


Perfluorinated Compounds by LC/MS/MS

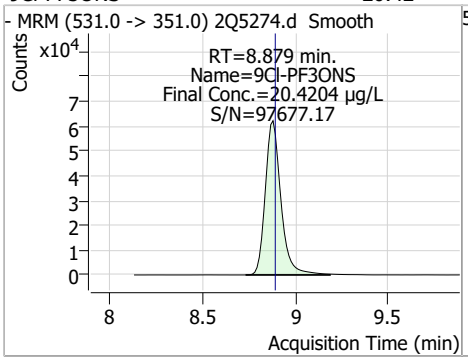
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.22	8.84	-0.01	144513	563.0 -> 269.0	16.7	8.1	24.3

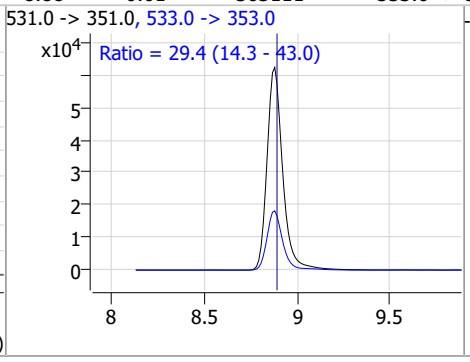


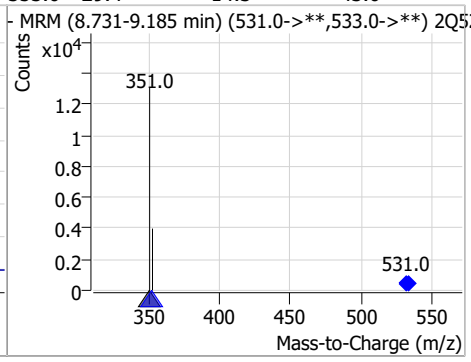




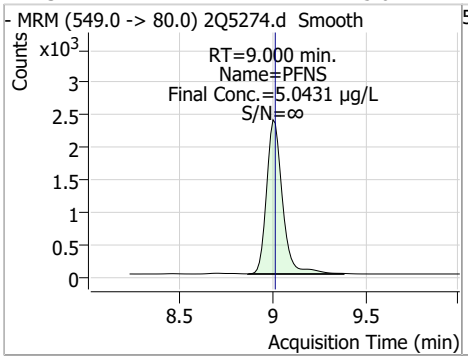
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	20.42	8.88	-0.01	363111	533.0 -> 353.0	29.4	14.3	43.0

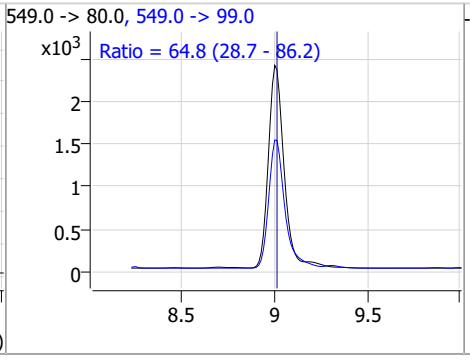


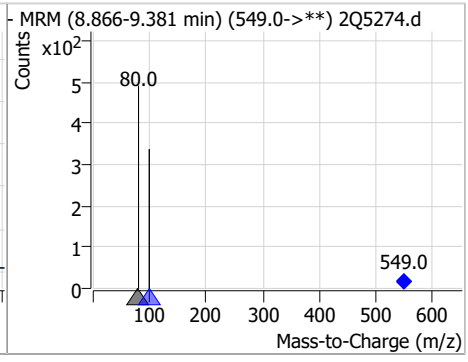




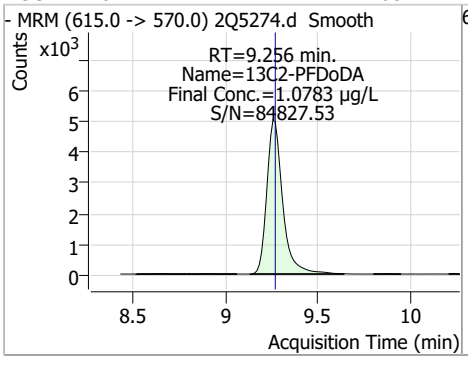
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	5.04	9.00	-0.01	14169	549.0 -> 99.0	64.8	28.7	86.2

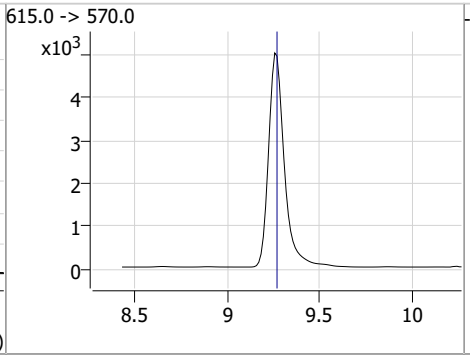


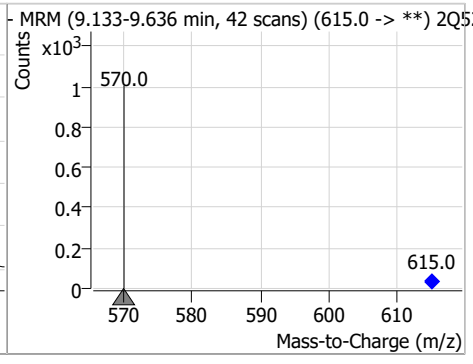




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.08	9.26	-0.01	29685				

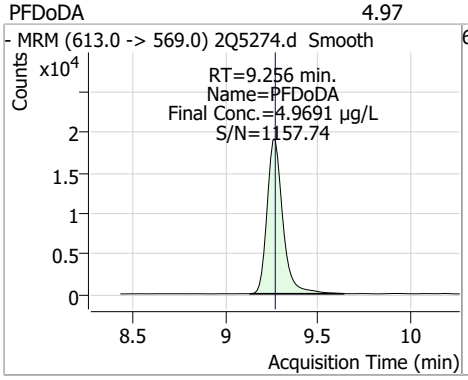


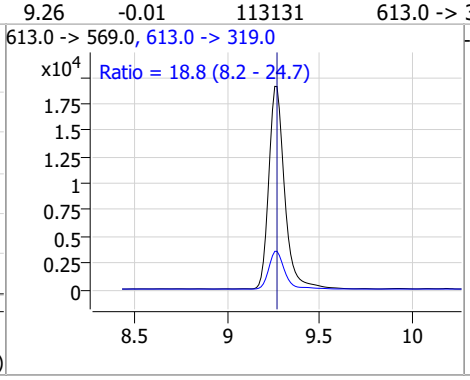


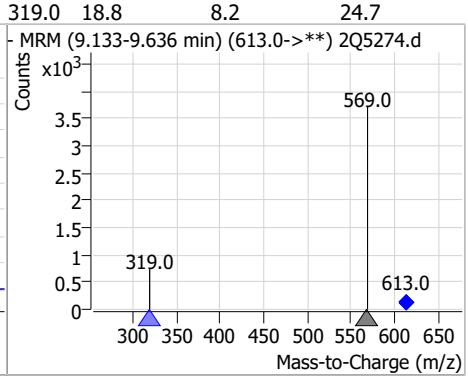


Perfluorinated Compounds by LC/MS/MS

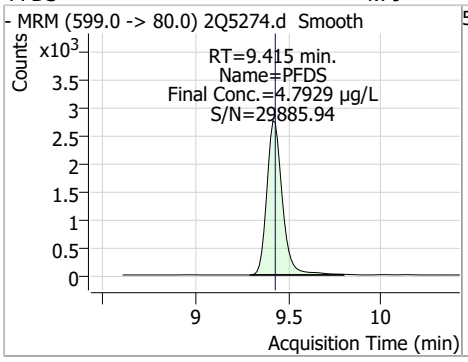
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	4.97	9.26	-0.01	113131	613.0 -> 319.0	18.8	8.2	24.7

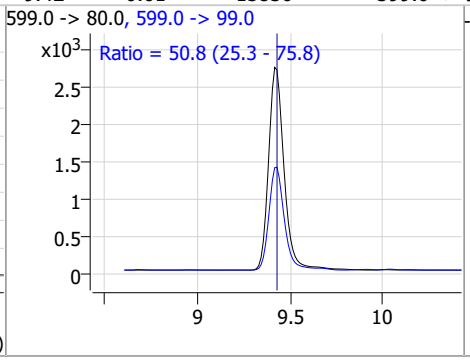


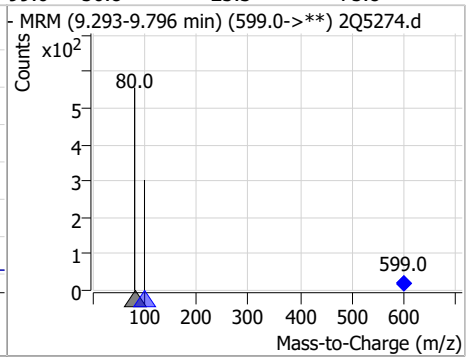




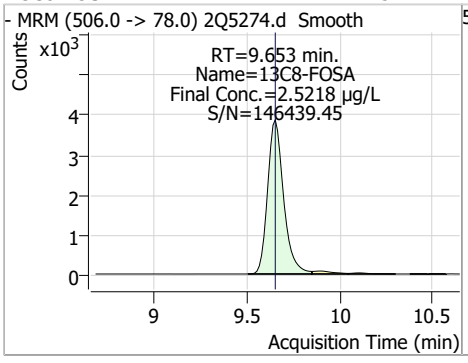
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	4.79	9.42	-0.01	15856	599.0 -> 99.0	50.8	25.3	75.8

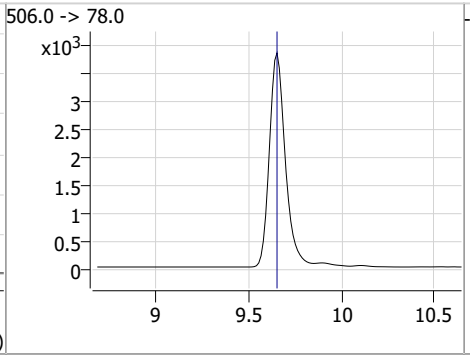


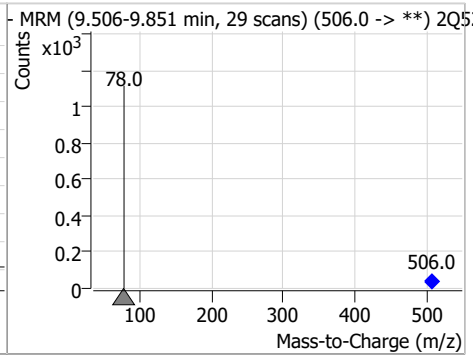




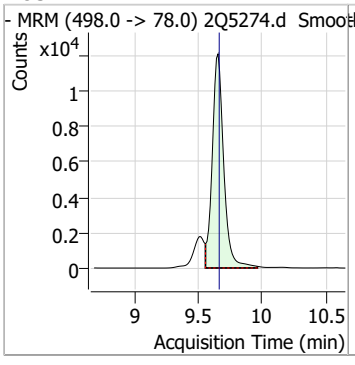
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.52	9.65	0.00	22960				

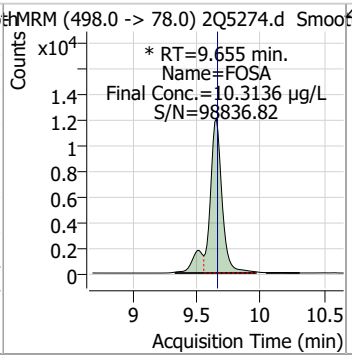


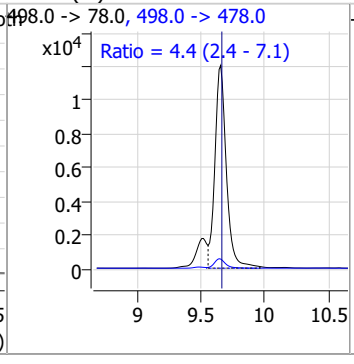


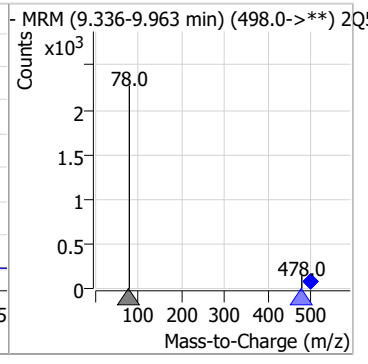


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	10.31	9.65	0.00	85237 (m)	498.0 -> 478.0	4.4	2.4	7.1



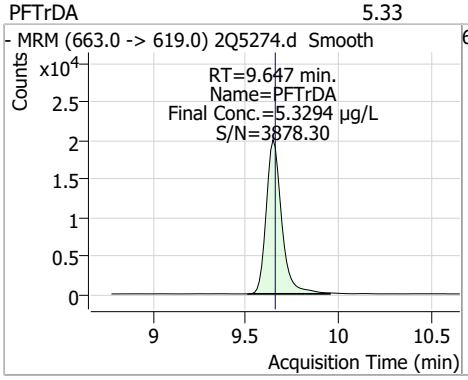


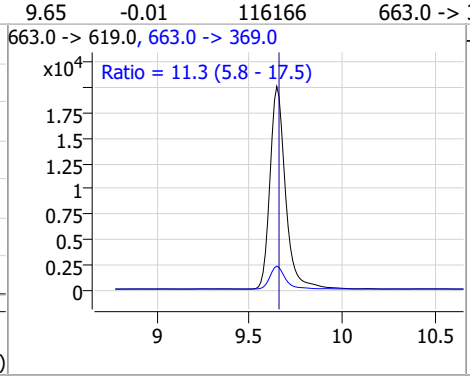


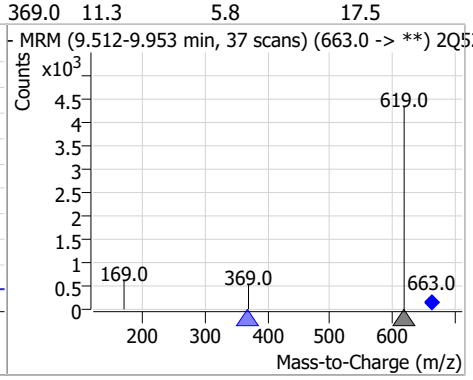


Perfluorinated Compounds by LC/MS/MS

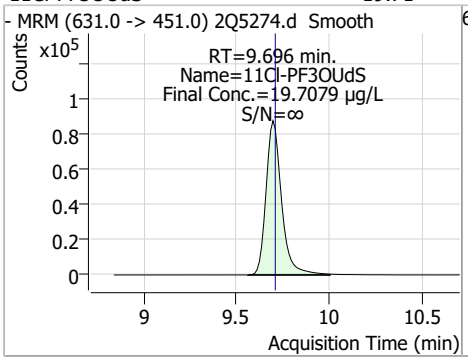
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	5.33	9.65	-0.01	116166	663.0 -> 369.0	11.3	5.8	17.5

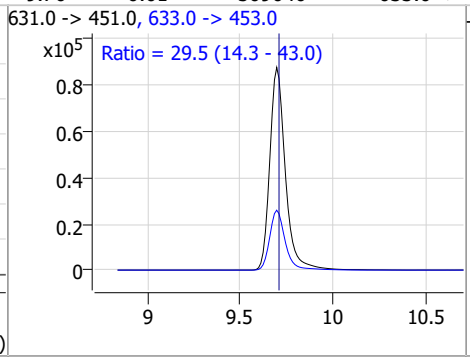


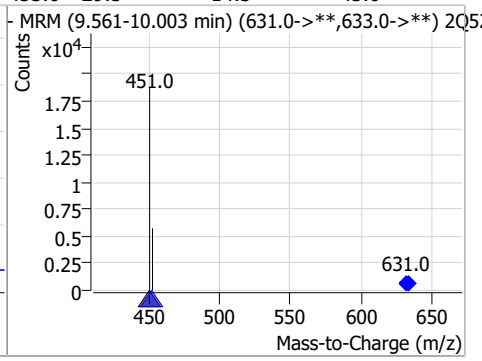




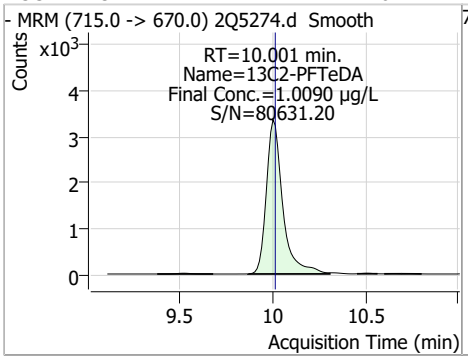
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	19.71	9.70	-0.01	509040	633.0 -> 453.0	29.5	14.3	43.0

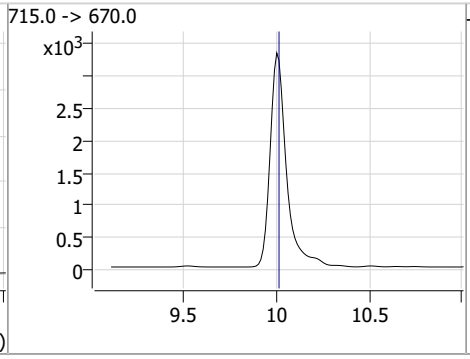


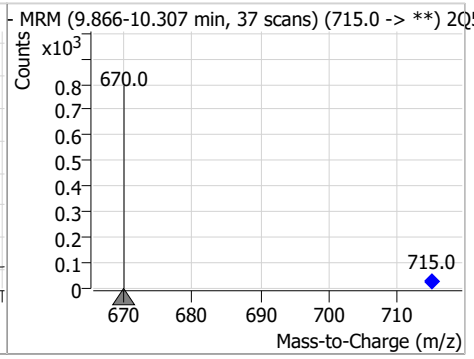




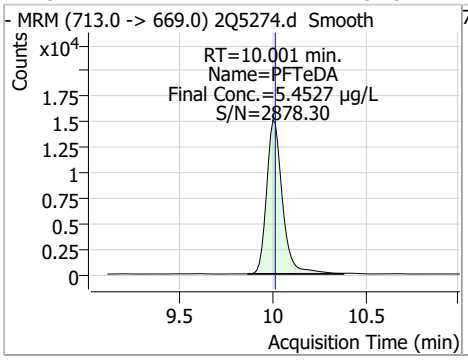
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.01	10.00	-0.01	20373				

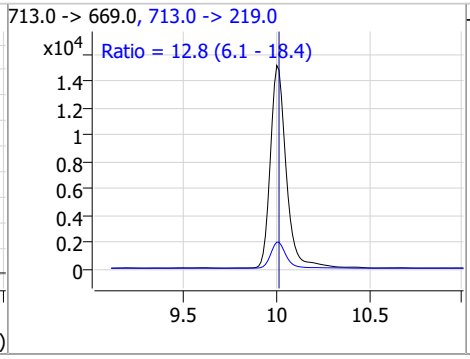


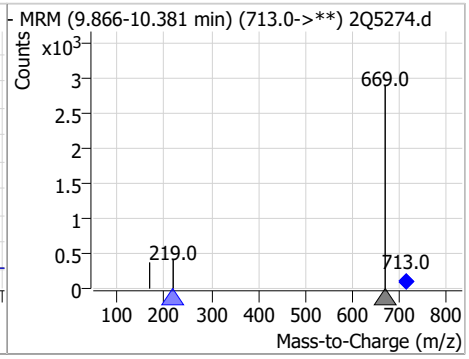




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	5.45	10.00	-0.01	89881	713.0 -> 219.0	12.8	6.1	18.4

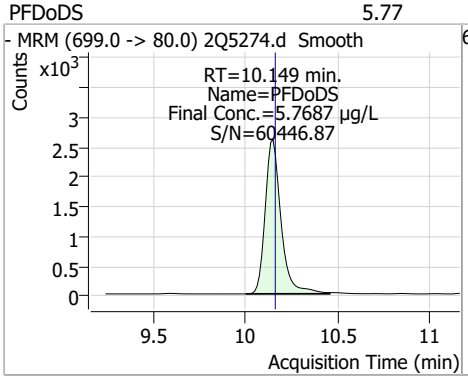


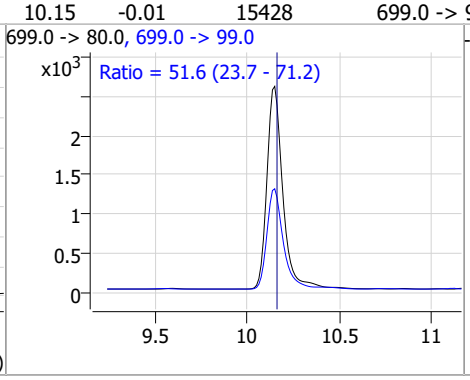


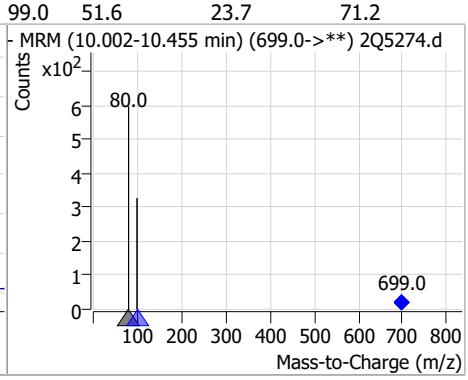


Perfluorinated Compounds by LC/MS/MS

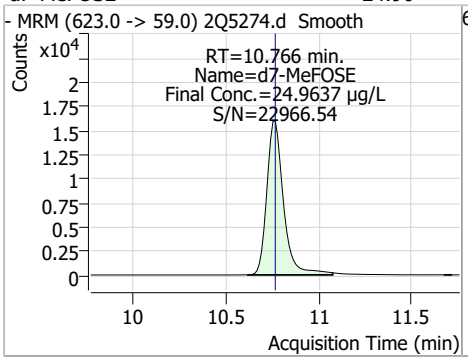
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	5.77	10.15	-0.01	15428	699.0 -> 99.0	51.6	23.7	71.2

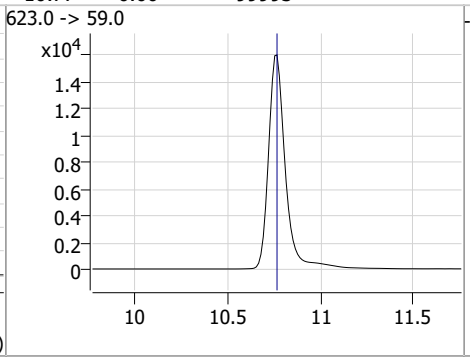


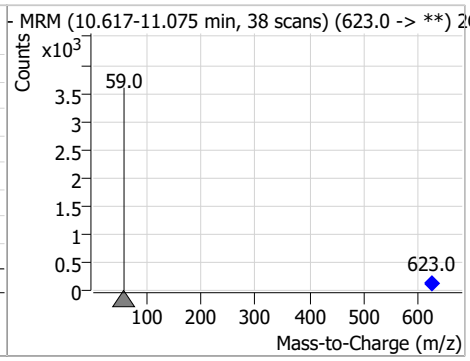




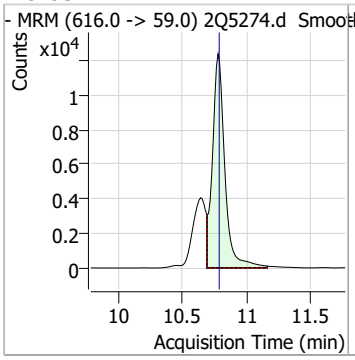
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.96	10.77	0.00	99993				

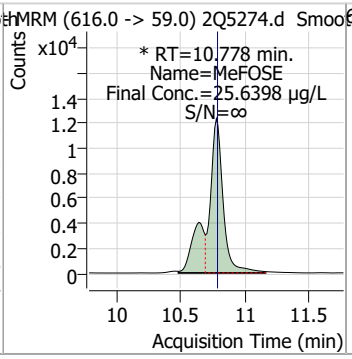


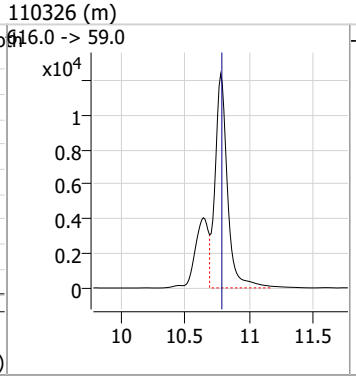


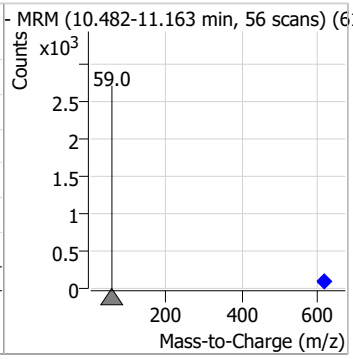


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	25.64	10.78	0.00	110326 (m)				

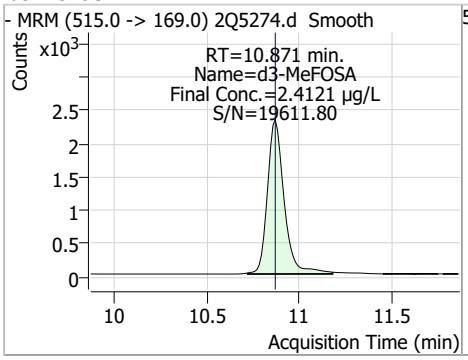


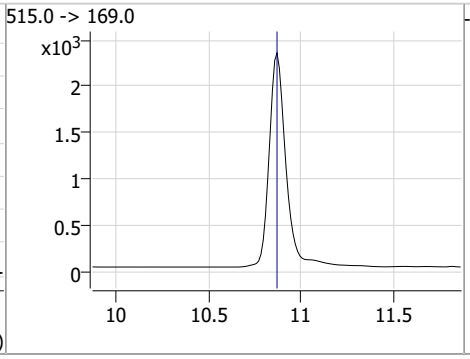


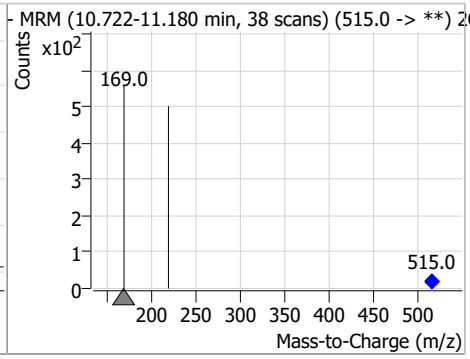




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.41	10.87	0.00	14528				

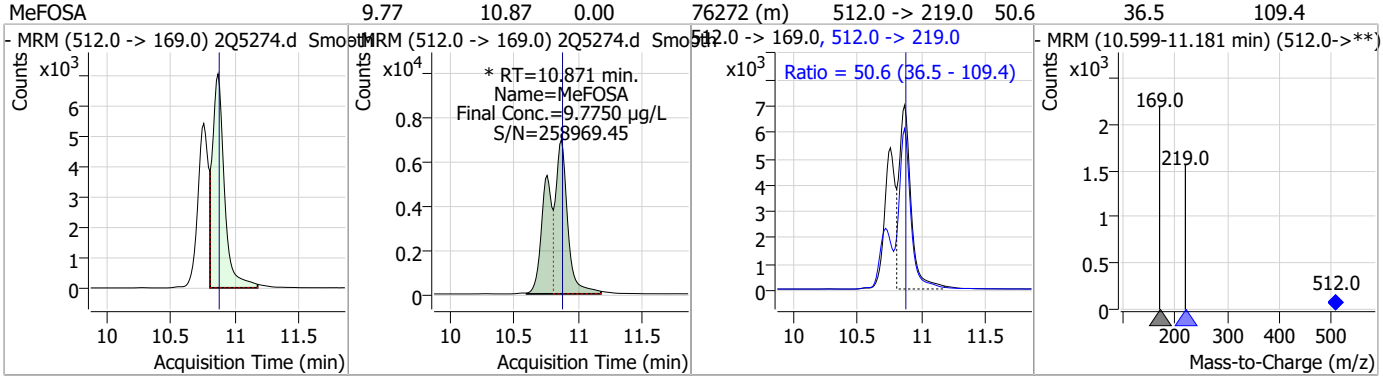




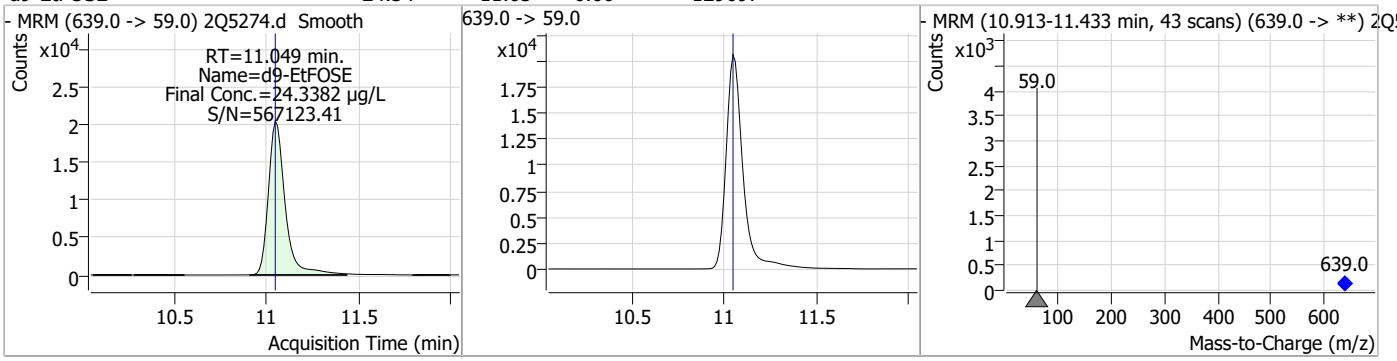


Perfluorinated Compounds by LC/MS/MS

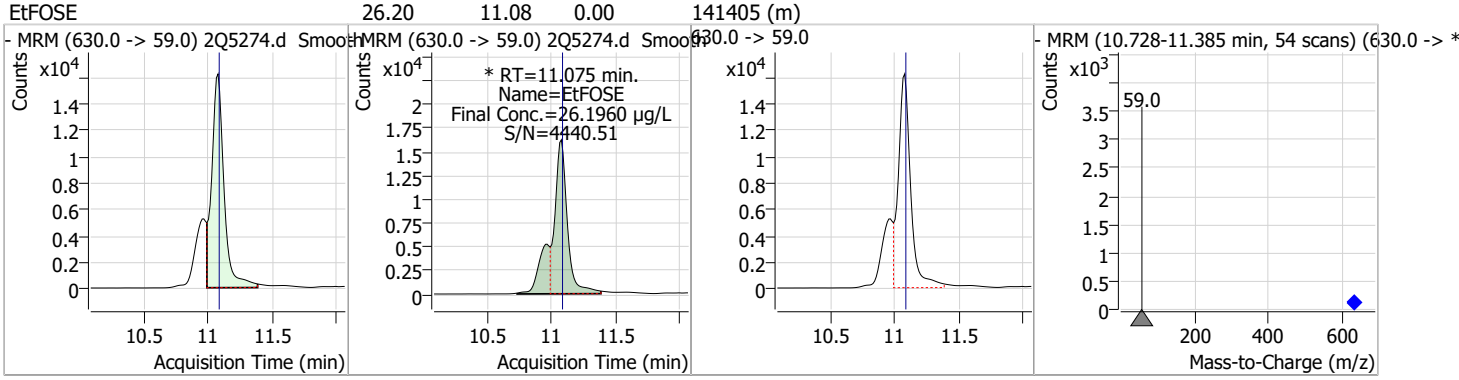
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	9.77	10.87	0.00	76272 (m)	512.0 -> 219.0	50.6	36.5	109.4



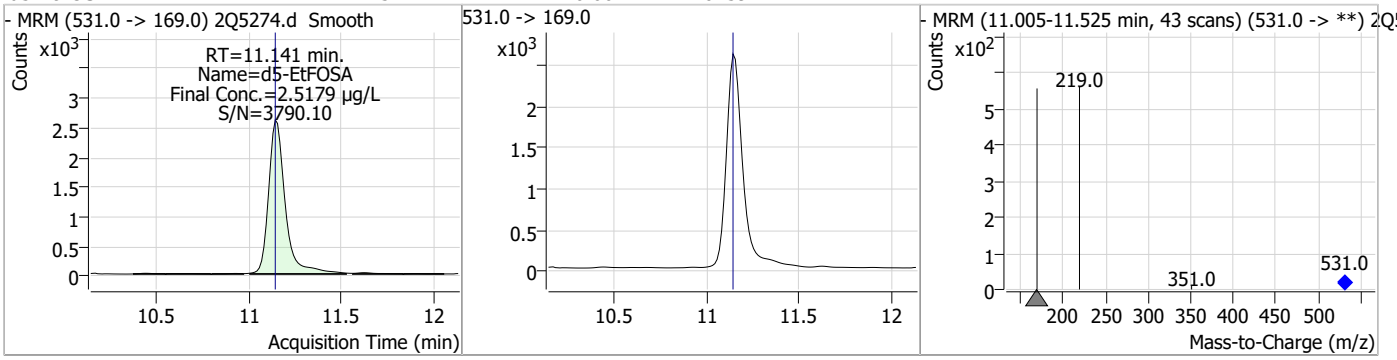
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.34	11.05	0.00	129097				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	26.20	11.08	0.00	141405 (m)				

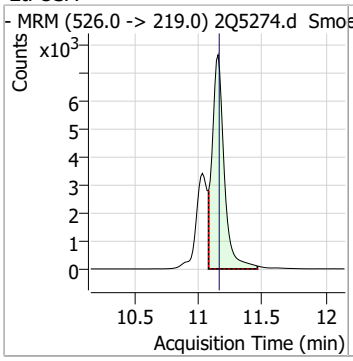


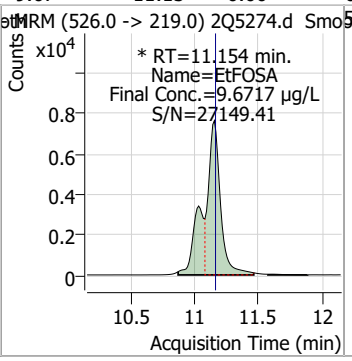
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.52	11.14	0.00	16259				

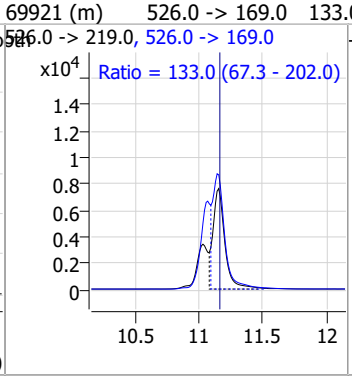


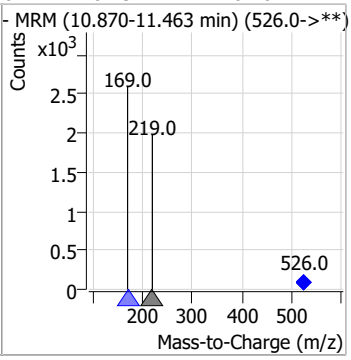
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	9.67	11.15	0.00	69921 (m)	526.0 -> 169.0	133.0	67.3	202.0









Manual Integration Approval Summary

Sample Number: T2Q96-ICV96
Lab FileID: 2Q5274.D
Injection Time: 11/30/23 20:07
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.50	Split peak
MeFOSAA	2355-31-9		8.42	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.54	Split peak
EtFOSAA	2991-50-6		8.63	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSE	1691-99-2		11.07	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 10:56

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5276.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 11/30/2023 8:37:33 PM
Sample Name : cc96-1.0LL
Vial : P1-B1
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50767,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.327	217.0 -> 172.0	188579	10.00	µg/L	-0.013
M5-PFPeA	4.798	268.0 -> 223.0	121947	5.00	µg/L	-0.012
M5-PFHxA	5.942	318.0 -> 273.0	67085	1.25	µg/L	-0.012
M4-PFHpA	6.795	367.0 -> 322.0	54931	2.50	µg/L	0.000
M8-PFOA	7.397	421.0 -> 376.0	89231	2.50	µg/L	0.000
M9-PFNA	7.912	472.0 -> 427.0	41409	1.25	µg/L	0.000
M6-PFDA	8.388	519.0 -> 474.0	18580	1.25	µg/L	-0.012
M7-PFUnDA	8.840	570.0 -> 525.0	32242	1.25	µg/L	-0.012
M2-PFDoDA	9.256	615.0 -> 570.0	37238	1.25	µg/L	-0.012
M2-PFTeDA	10.001	715.0 -> 670.0	24457	1.25	µg/L	-0.012
M8-FOSA	9.653	506.0 -> 78.0	25841	2.50	µg/L	0.000
M3-PFBS	5.871	302.0 -> 99.0	6856	2.50	µg/L	-0.012
		302.0 -> 80.0	17776			
M3-PFHxS	7.496	402.0 -> 99.0	6970	2.50	µg/L	-0.012
M8-PFOS	8.548	507.0 -> 99.0	8317	2.50	µg/L	0.000
M2-4:2FTS	5.644	329.0 -> 81.0	1685	5.00	µg/L	-0.012
M2-6:2FTS	7.175	429.0 -> 81.0	3919	5.00	µg/L	0.000
M2-8:2FTS	8.179	529.0 -> 81.0	4645	5.00	µg/L	-0.012
M3-MeFOSAA	8.435	573.0 -> 419.0	51471	5.00	µg/L	0.000
M3-HFPO-DA	6.295	287.0 -> 169.0	29468	10.00	µg/L	0.000
M5-EtFOSAA	8.630	589.0 -> 419.0	44250	5.00	µg/L	0.000
M7-MeFOSE	10.766	623.0 -> 59.0	111789	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	148072	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	18080	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	15556	2.50	µg/L	0.000
13C4-PFOS	8.549	503.0 -> 80.0	14715	2.50	µg/L	0.000
13C3-PFBA	3.330	216.0 -> 172.0	82583	5.00	µg/L	-0.012
18O2-PFHxS	7.496	403.0 -> 84.0	7812	2.50	µg/L	-0.012
13C4-PFOA	7.397	417.0 -> 372.0	83115	2.50	µg/L	0.000
13C2-PFDA	8.388	515.0 -> 470.0	33286	1.25	µg/L	-0.012
13C5-PFNA	7.912	468.0 -> 423.0	42577	1.25	µg/L	0.000
13C2-PFHxA	5.943	315.0 -> 270.0	63455	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.644	329.0 -> 81.0	1685	5.91	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.1%		
13C2-6:2FTS	7.175	429.0 -> 81.0	3919	6.20	µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 124.0%		
13C2-8:2FTS	8.179	529.0 -> 81.0	4645	5.30	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 106.1%		
13C2-PFDoDA	9.256	615.0 -> 570.0	37238	1.40	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 112.1%		
13C2-PFTeDA	10.001	715.0 -> 670.0	24457	1.26	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 100.4%		
13C3-PFBS	5.871	302.0 -> 99.0	6856	2.36	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units		Dev(Min)
13C3-PFHxS	7.496	402.0 -> 99.0	6970	2.29 µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.5%		
13C4-PFBA	3.327	217.0 -> 172.0	188579	10.14 µg/L		-0.013
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 101.4%		
13C4-PFHpA	6.795	367.0 -> 322.0	54931	2.66 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.5%		
13C5-PFHxA	5.942	318.0 -> 273.0	67085	2.54 µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.8%		
13C5-PFPeA	4.798	268.0 -> 223.0	121947	5.13 µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.6%		
13C6-PFDA	8.388	519.0 -> 474.0	18580	1.34 µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 107.0%		
13C7-PFUnDA	8.840	570.0 -> 525.0	32242	1.41 µg/L		-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 112.5%		
13C8-FOSA	9.653	506.0 -> 78.0	25841	2.59 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.7%		
13C8-PFOA	7.397	421.0 -> 376.0	89231	2.59 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.7%		
13C8-PFOS	8.548	507.0 -> 99.0	8317	2.60 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.8%		
13C9-PFNA	7.912	472.0 -> 427.0	41409	1.24 µg/L		0.000
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.4%		
d3-MeFOSAA	8.435	573.0 -> 419.0	51471	5.37 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.5%		
13C3-HFPO-DA	6.295	287.0 -> 169.0	29468	9.79 µg/L		0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 97.9%		
d3-MeFOSA	10.871	515.0 -> 169.0	15556	2.36 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.4%		
d5-EtFOSAA	8.630	589.0 -> 419.0	44250	5.59 µg/L		0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 111.8%		
d7-MeFOSE	10.766	623.0 -> 59.0	111789	25.50 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 102.0%		
d9-EtFOSE	11.049	639.0 -> 59.0	148072	25.51 µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 102.0%		
d5-EtFOSA	11.141	531.0 -> 169.0	18080	2.56 µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.3%		
Target Compounds						QValue
4:2FTS	5.644	327.0 -> 307.0	1936	0.69 µg/L		97
		327.0 -> 81.0	1042			
6:2FTS	7.175	427.0 -> 407.0	3315	0.58 µg/L		83
		427.0 -> 81.0	1402			
8:2FTS	8.179	527.0 -> 507.0	3130	0.75 µg/L		88
		527.0 -> 81.0	917			
EtFOSAA	8.643	584.0 -> 419.0	1188	0.16 µg/L	m	71
		584.0 -> 483.0	760			
FOSA	9.643	498.0 -> 78.0	3486	0.37 µg/L		99
		498.0 -> 478.0	172			
MeFOSAA	8.436	570.0 -> 419.0	1205	0.15 µg/L	m	91
		570.0 -> 512.0	492			
PFBA	3.333	213.0 -> 169.0	3463	0.73 µg/L		100
PFBS	5.872	299.0 -> 80.0	1460	0.20 µg/L		87
		299.0 -> 99.0	500			
PFDA	8.389	513.0 -> 469.0	5546	0.21 µg/L		90
		513.0 -> 219.0	615			
PFDoDA	9.268	613.0 -> 569.0	5190	0.18 µg/L		99
		613.0 -> 319.0	838			

Perfluorinated Compounds by LC/MS/MS

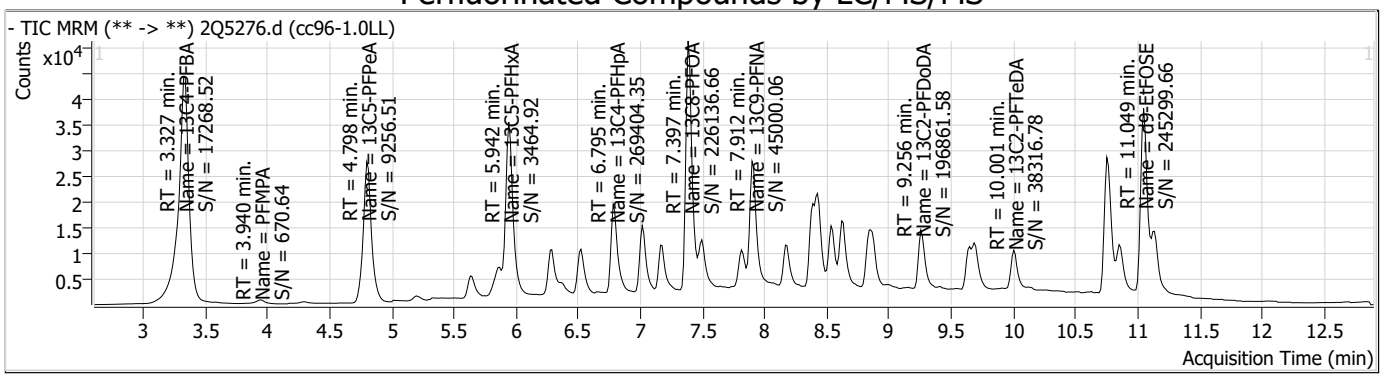
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.428	599.0 -> 80.0	779	0.20	µg/L		92
		599.0 -> 99.0	436				
PFHpA	6.796	363.0 -> 319.0	6510	0.23	µg/L		99
		363.0 -> 169.0	1040				
PFHpS	8.047	449.0 -> 80.0	798	0.18	µg/L		93
		449.0 -> 99.0	457				
PFHxA	5.945	313.0 -> 269.0	5332	0.20	µg/L		100
		313.0 -> 119.0	156				
PFHxS	7.509	399.0 -> 80.0	1043	0.21	µg/L	m	88
		399.0 -> 99.0	506				
PFNA	7.912	463.0 -> 419.0	5947	0.19	µg/L		83
		463.0 -> 219.0	1377				
PFNS	9.013	549.0 -> 80.0	873	0.23	µg/L		82
		549.0 -> 99.0	388				
PFOA	7.397	413.0 -> 369.0	6550	0.19	µg/L		92
		413.0 -> 169.0	1027				
PFOS	8.537	499.0 -> 80.0	1346	0.19	µg/L	m	80
		499.0 -> 99.0	747				
PFPeA	4.799	263.0 -> 219.0	8153	0.37	µg/L		100
PFPeS	6.845	349.0 -> 80.0	901	0.22	µg/L		91
		349.0 -> 99.0	441				
PFTeDA	10.001	713.0 -> 669.0	4322	0.22	µg/L		69
		713.0 -> 219.0					
PFTrDA	9.647	663.0 -> 619.0	4009	0.15	µg/L		100
		663.0 -> 369.0	462				
PFUnDA	8.841	563.0 -> 519.0	4630	0.14	µg/L	m	91
		563.0 -> 269.0	937				
11Cl-PF3OUdS	9.696	631.0 -> 451.0	18870	0.71	µg/L		92
		633.0 -> 453.0	6187				
9Cl-PF3ONS	8.879	531.0 -> 351.0	15408	0.84	µg/L		96
		533.0 -> 353.0	4760				
ADONA	7.017	377.0 -> 251.0	37174	0.80	µg/L		100
		377.0 -> 85.0	11144				
HFPO-DA	6.295	285.0 -> 169.0	2669	0.84	µg/L		76
		285.0 -> 185.0					
3:3FTCA	4.301	241.0 -> 177.0	1260	0.92	µg/L		99
		241.0 -> 117.0	89				
5:3FTCA	6.524	341.0 -> 237.0	21279	4.59	µg/L		97
		341.0 -> 217.0	14639				
7:3FTCA	7.815	441.0 -> 337.0	22809	4.61	µg/L		92
		441.0 -> 317.0	7775				
EtFOSA	11.154	526.0 -> 219.0	2989	0.37	µg/L	m	93
		526.0 -> 169.0	3776				
EtFOSE	11.075	630.0 -> 59.0	5892	0.95	µg/L		100
MeFOSA	10.871	512.0 -> 169.0	3453	0.41	µg/L	m	98
		512.0 -> 219.0	2449				
MeFOSE	10.778	616.0 -> 59.0	4507	0.94	µg/L	m	100
PFDoDS	10.136	699.0 -> 80.0	753	0.21	µg/L		95
		699.0 -> 99.0	384				
NFDHA	5.835	295.0 -> 201.0	509	0.31	µg/L		49
		201.0 -> 85.0	3459				
		295.0 -> 85.0	119				
PFMBA	5.201	279.0 -> 85.0	4628	0.39	µg/L		100
PFMPA	3.940	229.0 -> 85.0	4434	0.36	µg/L		100
PFEESA	6.377	315.0 -> 135.0	6928	0.38	µg/L		100
		315.0 -> 69.0	663				

Perfluorinated Compounds by LC/MS/MS

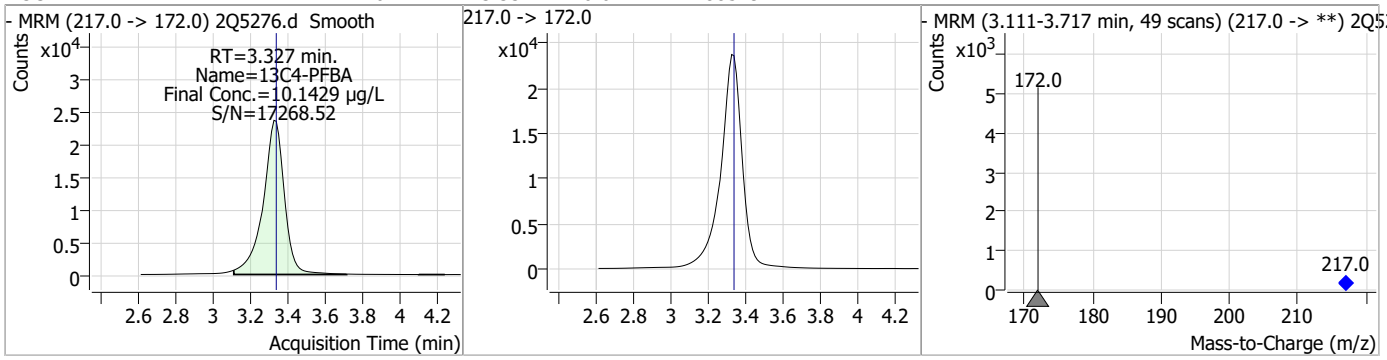
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

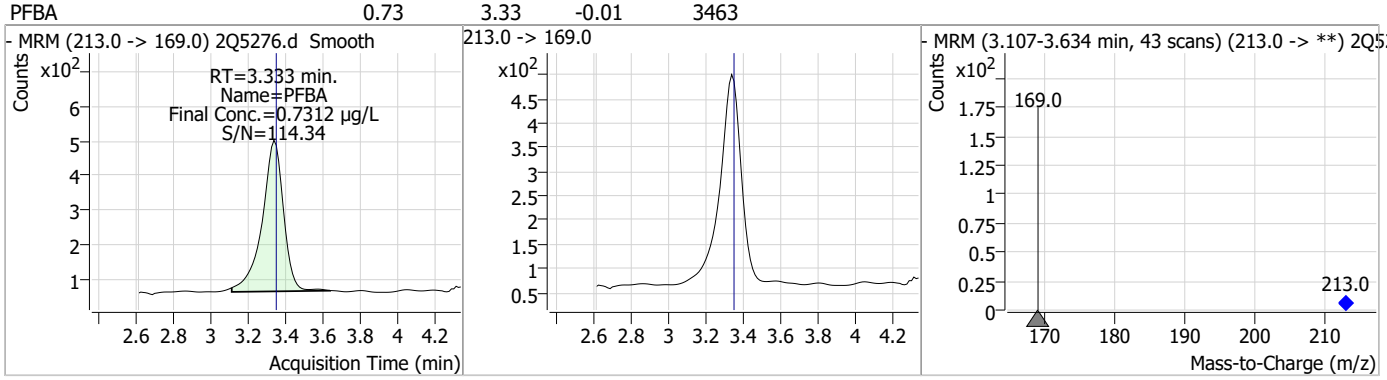
Perfluorinated Compounds by LC/MS/MS



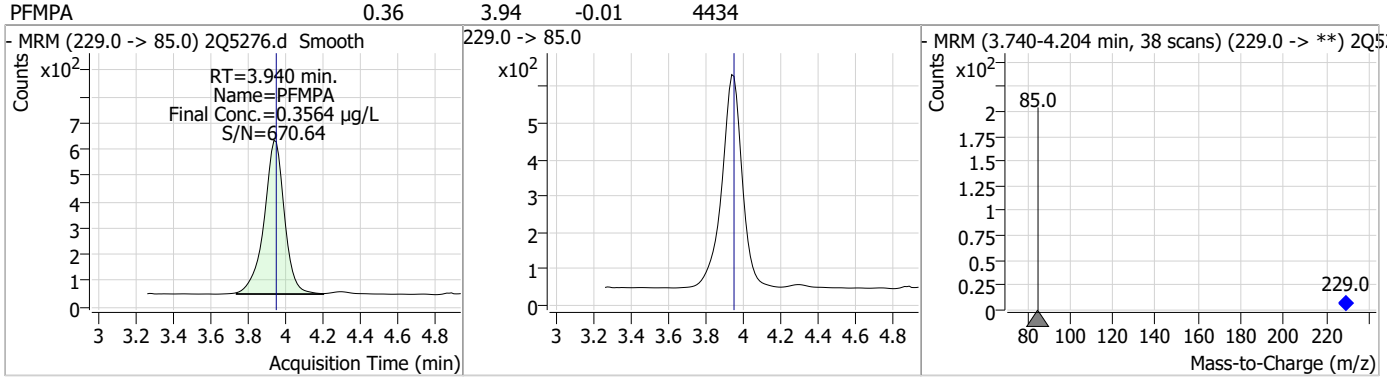
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.14	3.33	-0.01	188579				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	0.73	3.33	-0.01	3463				

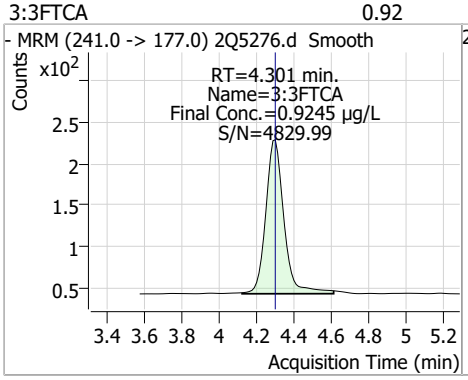


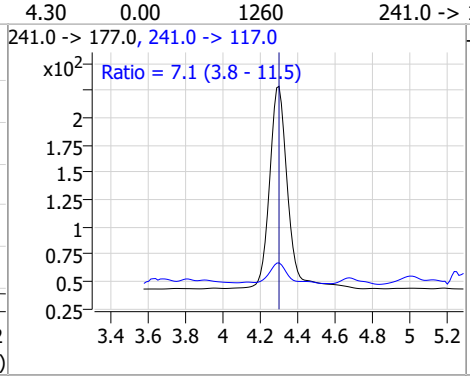
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	0.36	3.94	-0.01	4434				

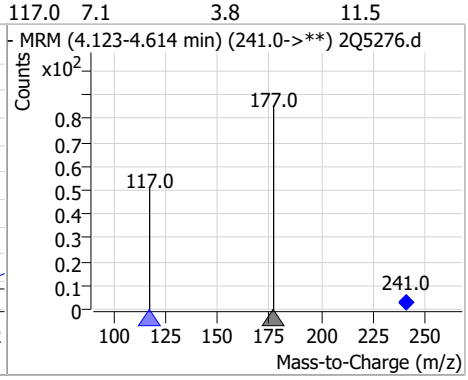


Perfluorinated Compounds by LC/MS/MS

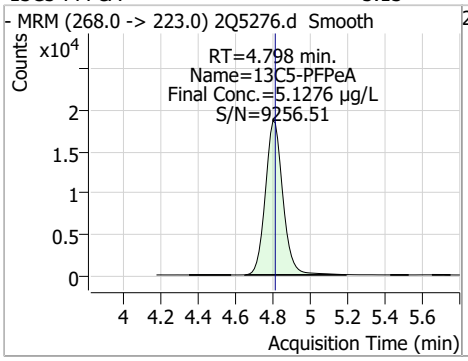
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	0.92	4.30	0.00	1260	241.0 -> 117.0	7.1	3.8	11.5

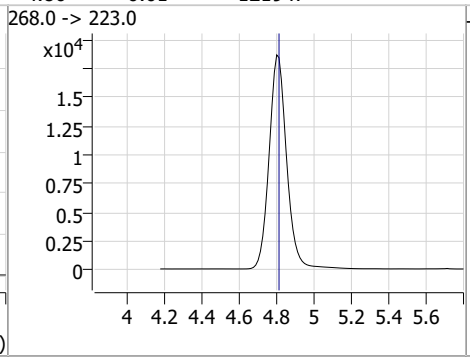


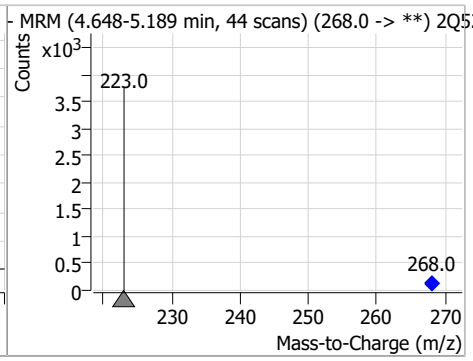




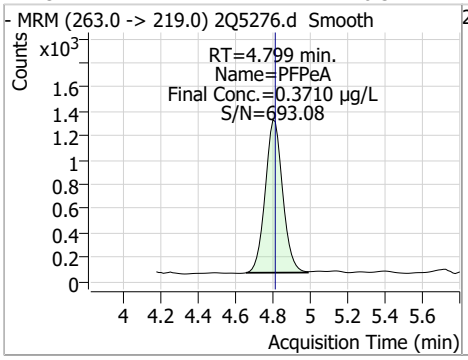
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.13	4.80	-0.01	121947				

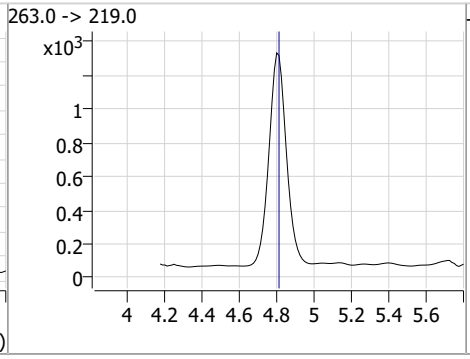


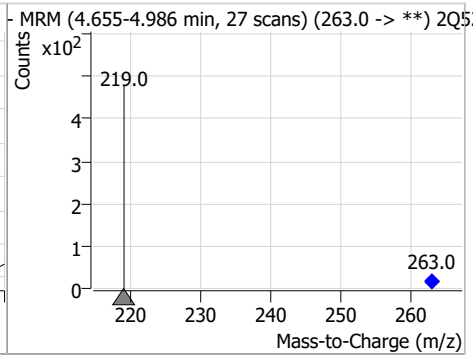




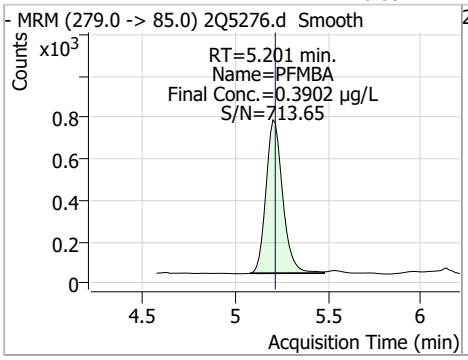
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	0.37	4.80	-0.01	8153				

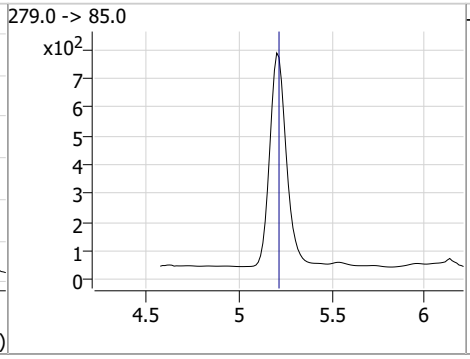


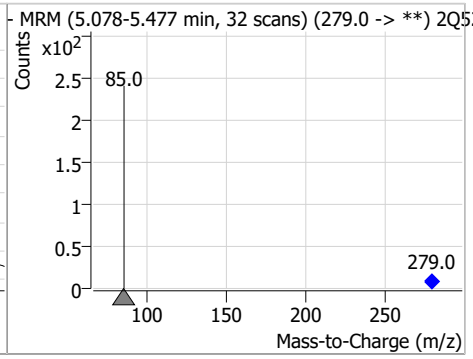




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	0.39	5.20	-0.01	4628				

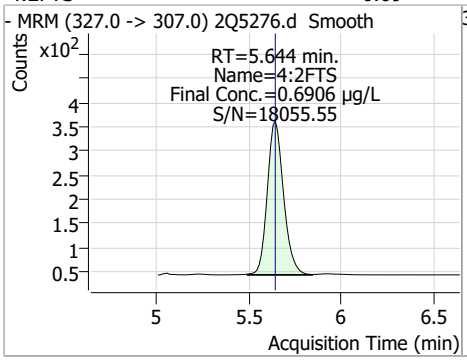


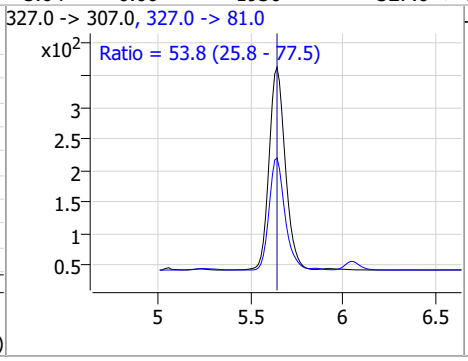


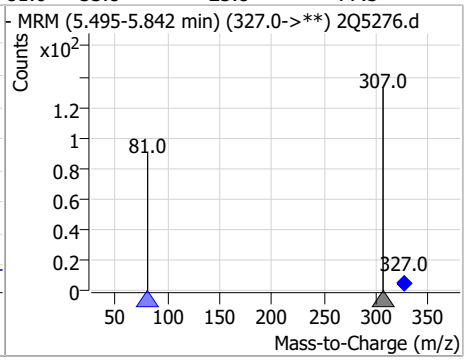


Perfluorinated Compounds by LC/MS/MS

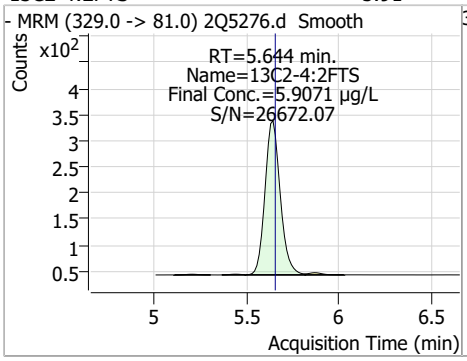
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	0.69	5.64	0.00	1936	327.0 -> 81.0	53.8	25.8	77.5

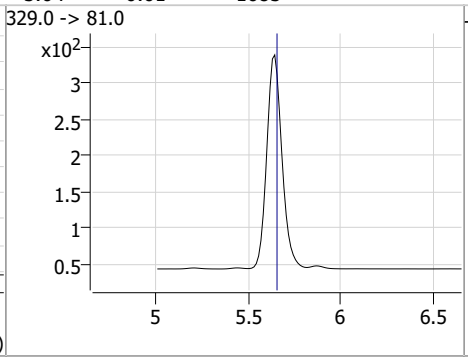


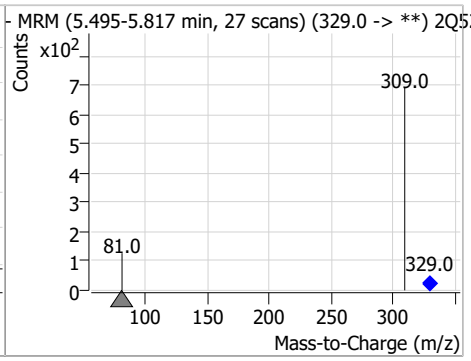




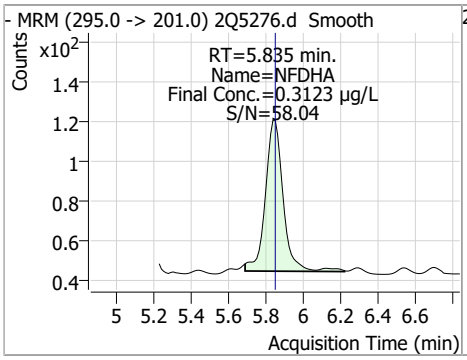
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.91	5.64	-0.01	1685				

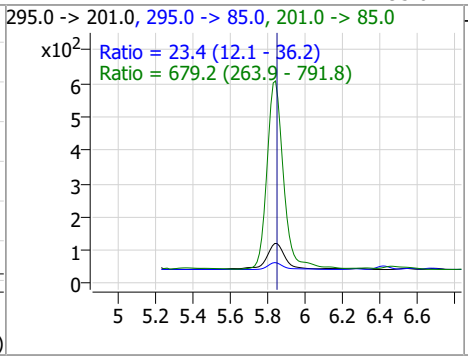


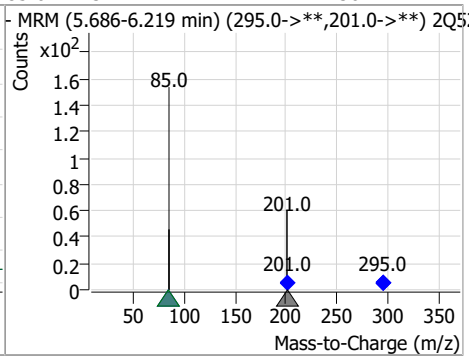




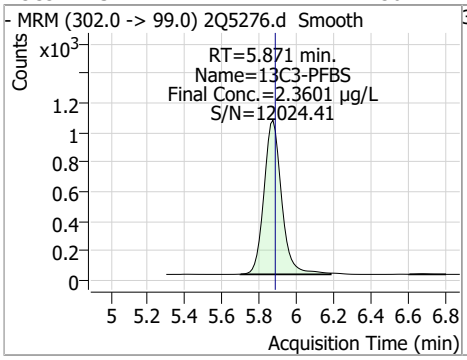
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	0.31	5.84	-0.01	509	201.0 -> 85.0	679.2	263.9	791.8
					295.0 -> 85.0	23.4	12.1	36.2

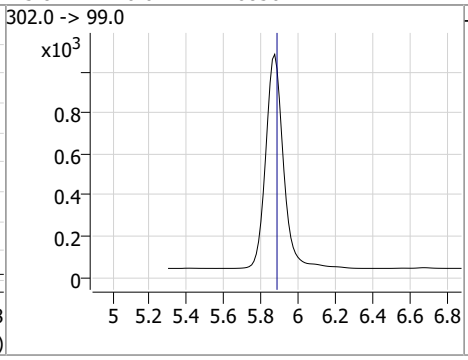


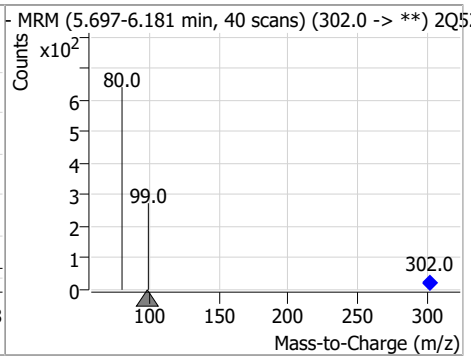




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.36	5.87	-0.01	6856				

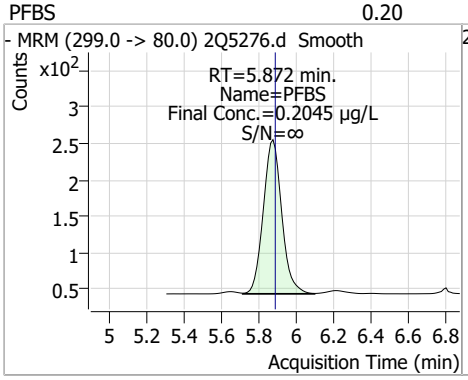


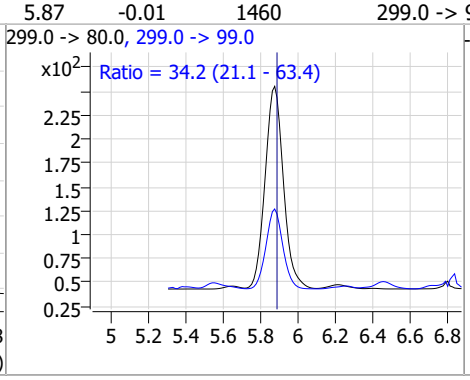


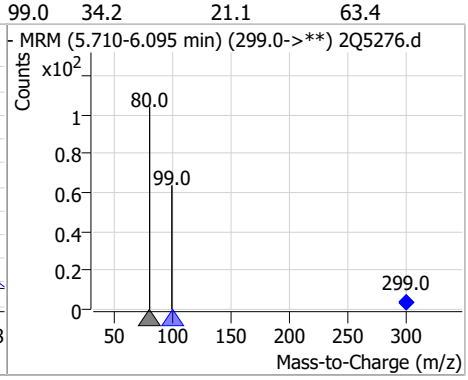


Perfluorinated Compounds by LC/MS/MS

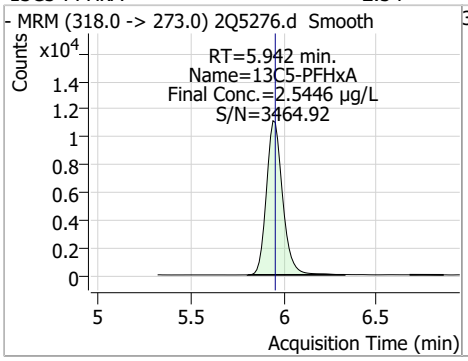
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	0.20	5.87	-0.01	1460	299.0 -> 99.0	34.2	21.1	63.4

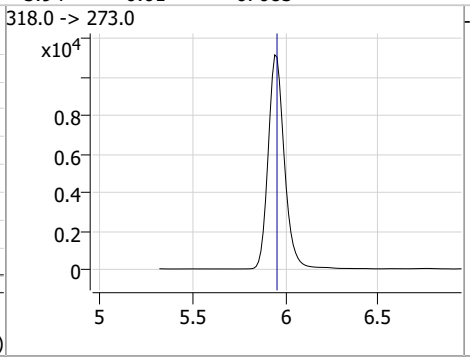


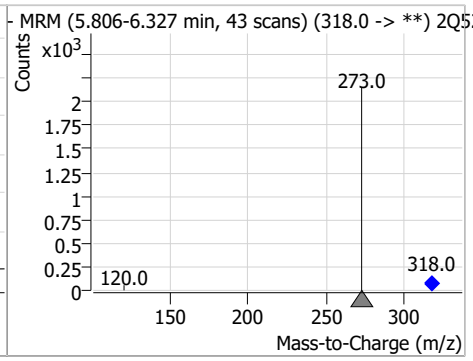




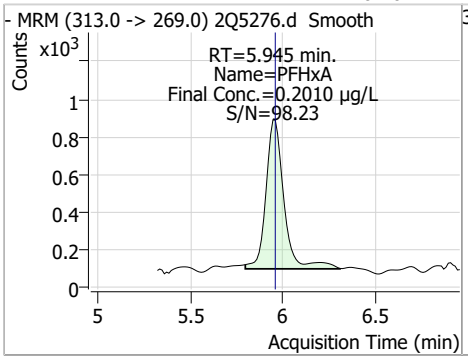
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.54	5.94	-0.01	67085				

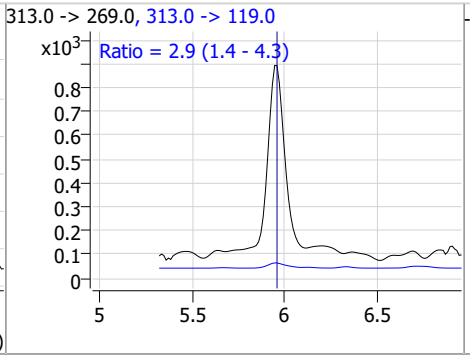


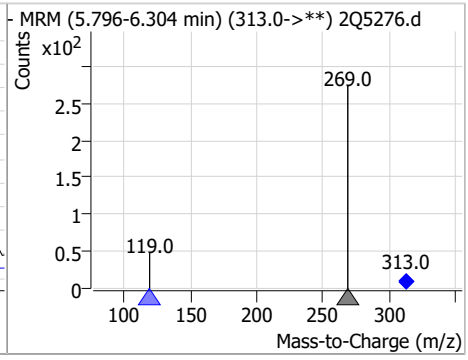




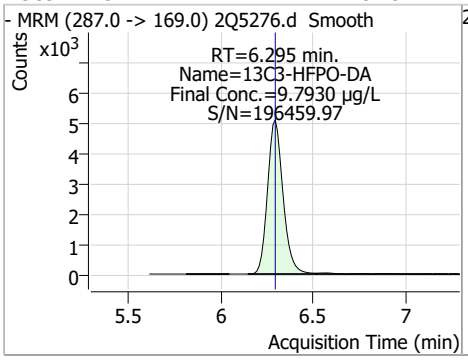
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	0.20	5.94	-0.01	5332	313.0 -> 119.0	2.9	1.4	4.3

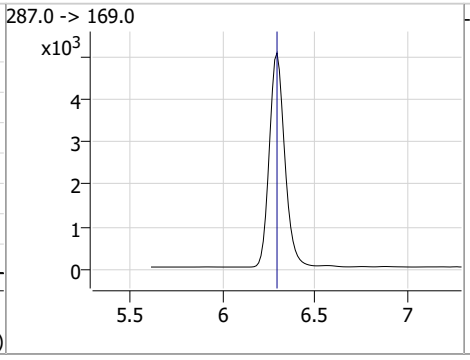


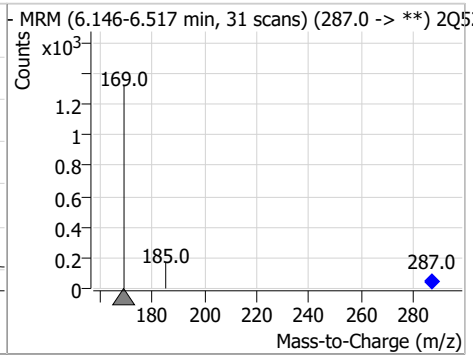




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.79	6.29	0.00	29468				

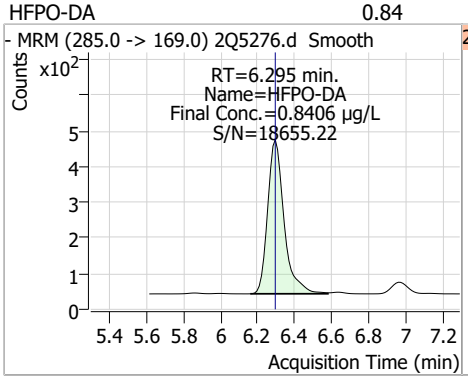


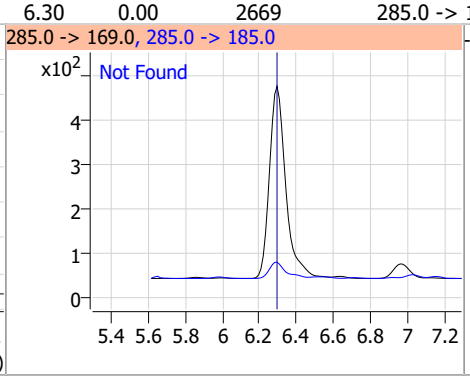


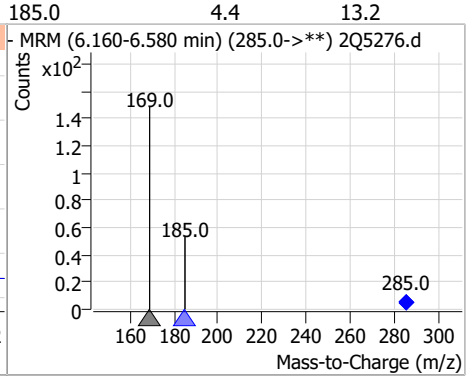


Perfluorinated Compounds by LC/MS/MS

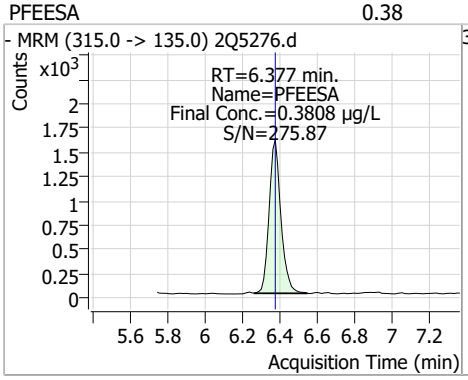
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	0.84	6.30	0.00	2669	285.0 -> 185.0		4.4	13.2

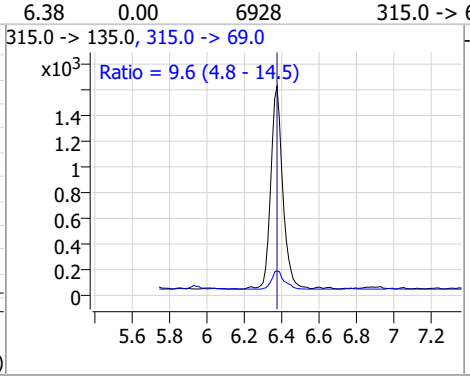


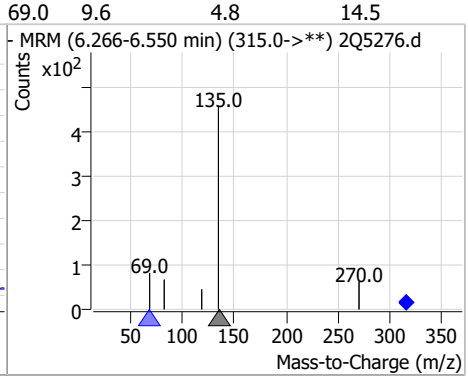




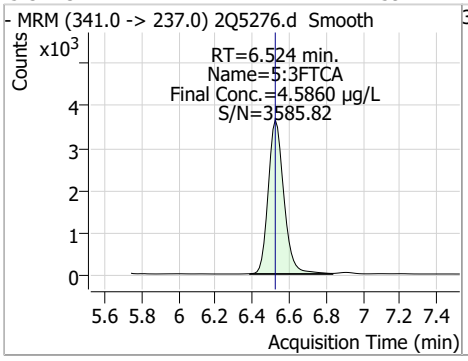
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	0.38	6.38	0.00	6928	315.0 -> 69.0	9.6	4.8	14.5

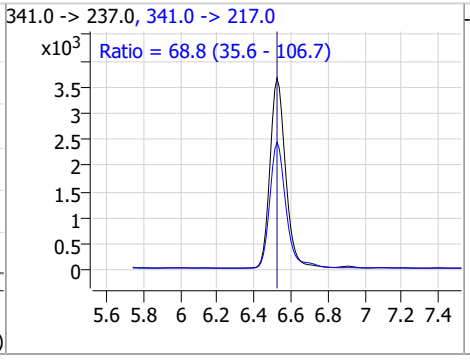


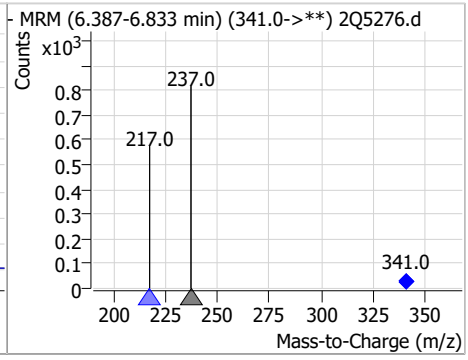




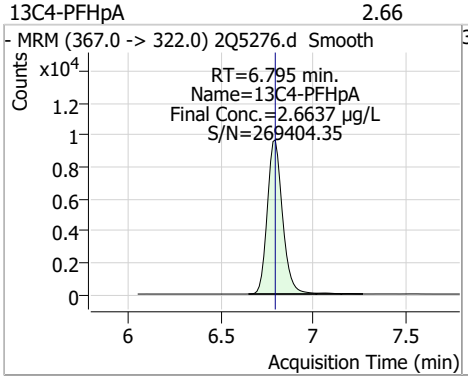
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	4.59	6.52	0.00	21279	341.0 -> 217.0	68.8	35.6	106.7

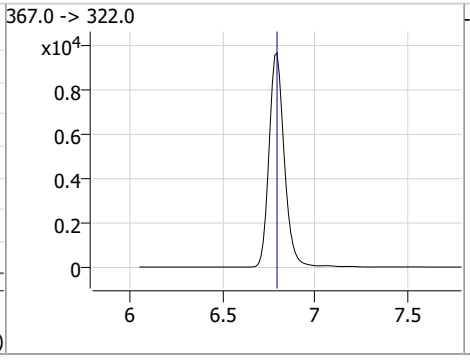


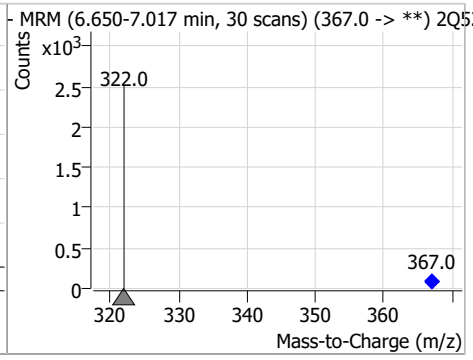




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.66	6.80	0.00	54931				

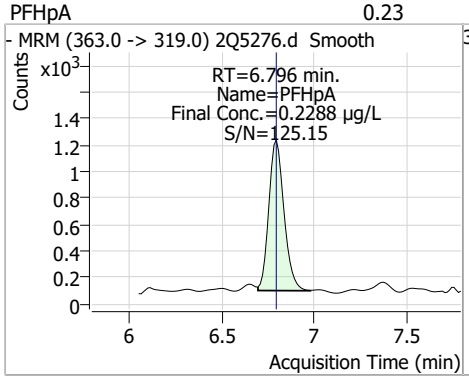


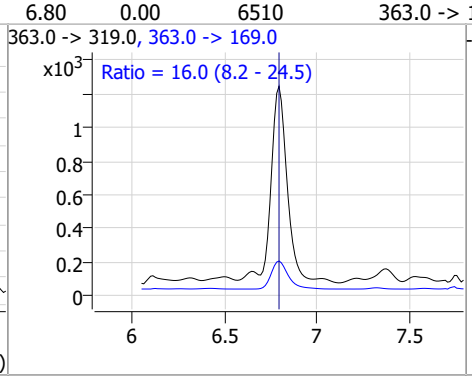


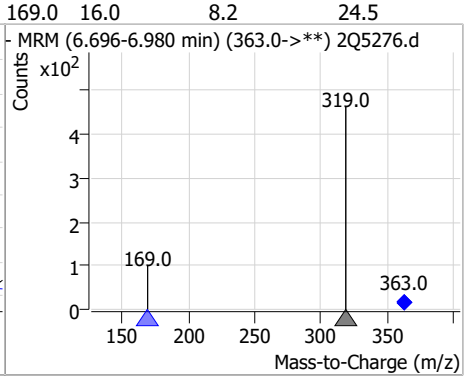


Perfluorinated Compounds by LC/MS/MS

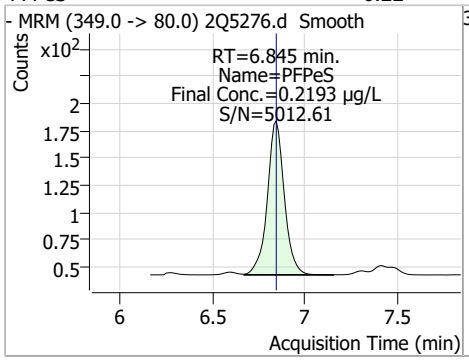
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	0.23	6.80	0.00	6510	363.0 -> 169.0	16.0	8.2	24.5

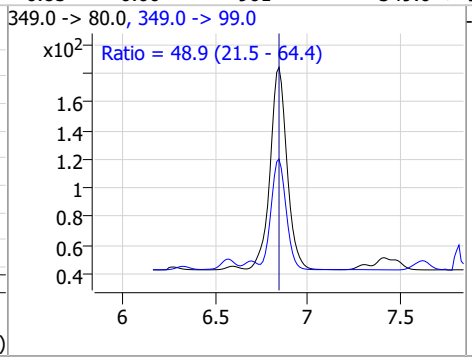


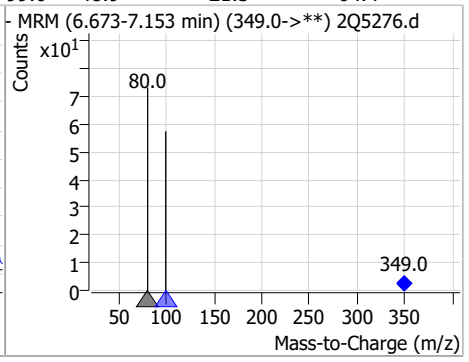




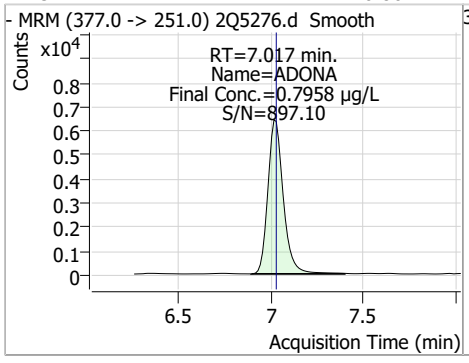
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	0.22	6.85	0.00	901	349.0 -> 99.0	48.9	21.5	64.4

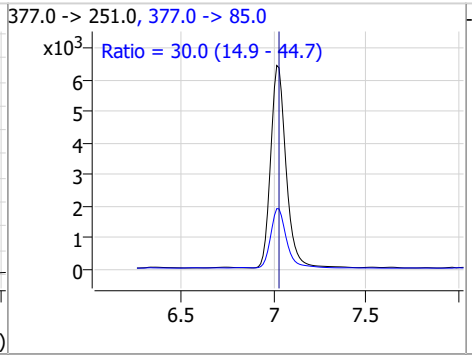


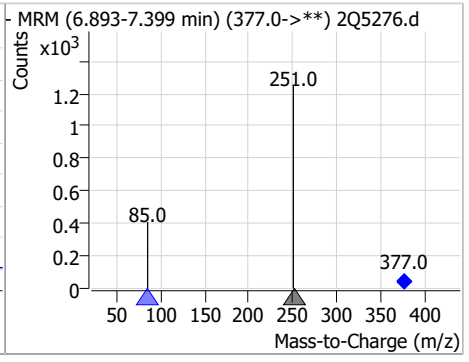




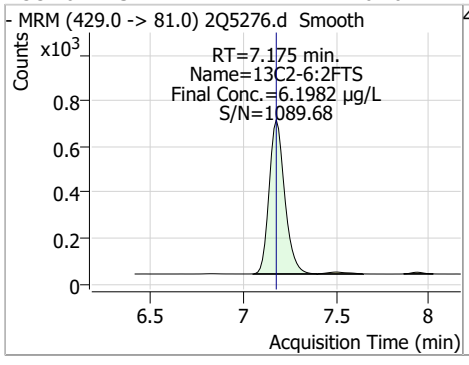
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	0.80	7.02	-0.01	37174	377.0 -> 85.0	30.0	14.9	44.7

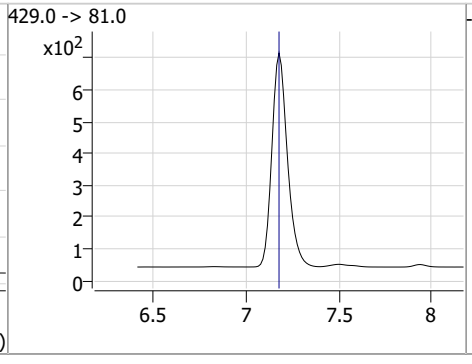


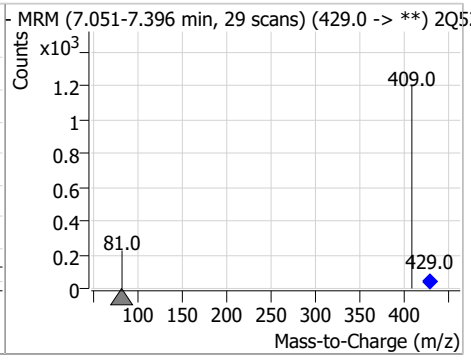




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	6.20	7.17	0.00	3919				

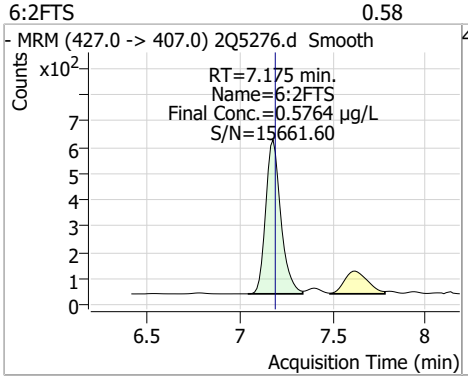


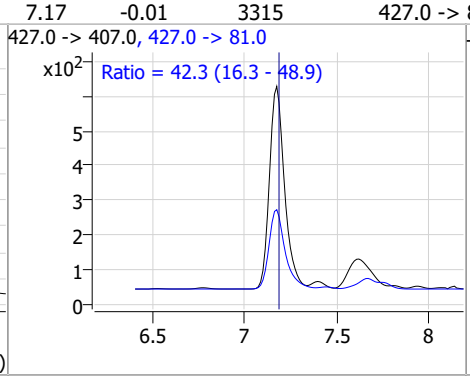


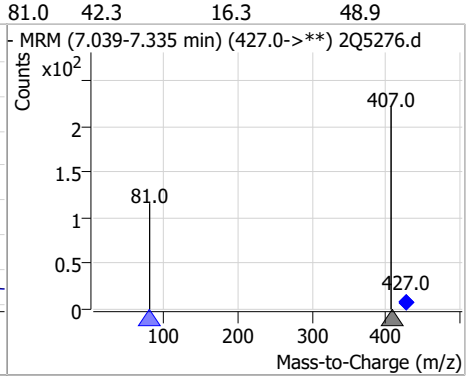


Perfluorinated Compounds by LC/MS/MS

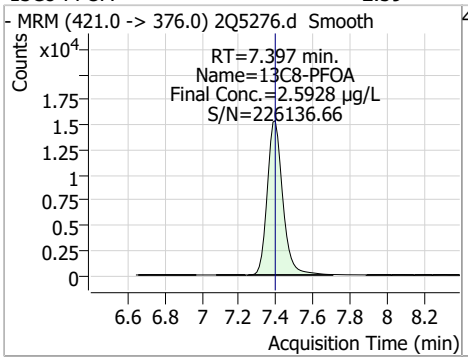
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	0.58	7.17	-0.01	3315	427.0 -> 81.0	42.3	16.3	48.9

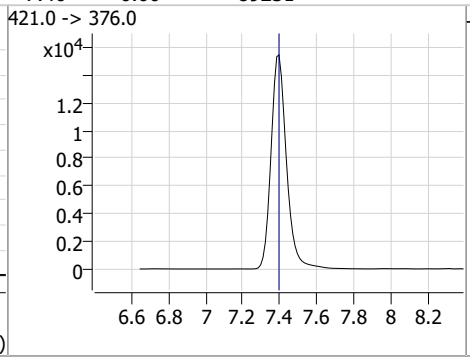


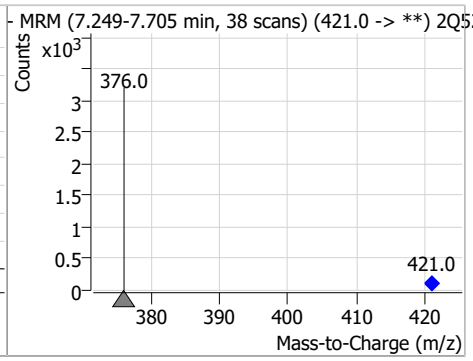




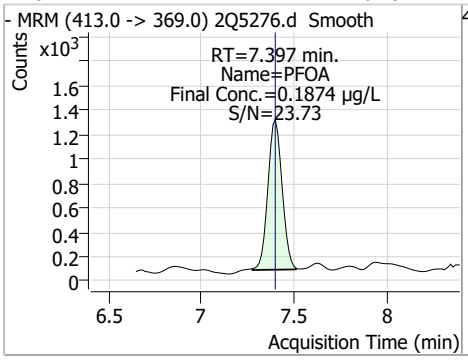
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.59	7.40	0.00	89231				

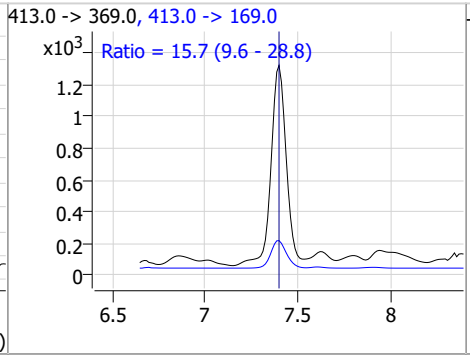


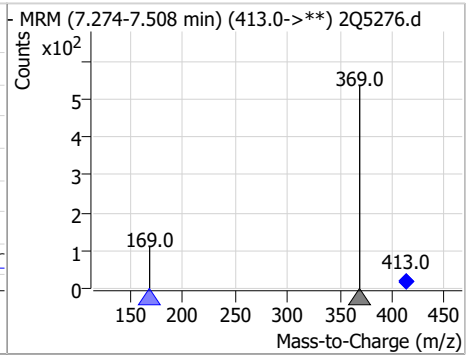




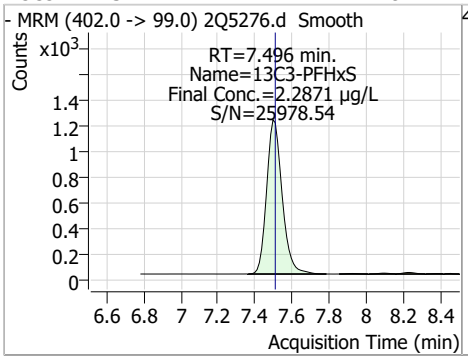
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	0.19	7.40	0.00	6550	413.0 -> 169.0	15.7	9.6	28.8

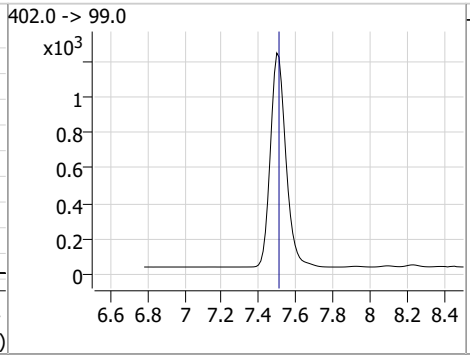


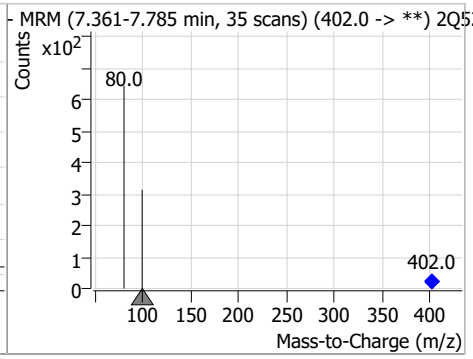




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.29	7.50	-0.01	6970				

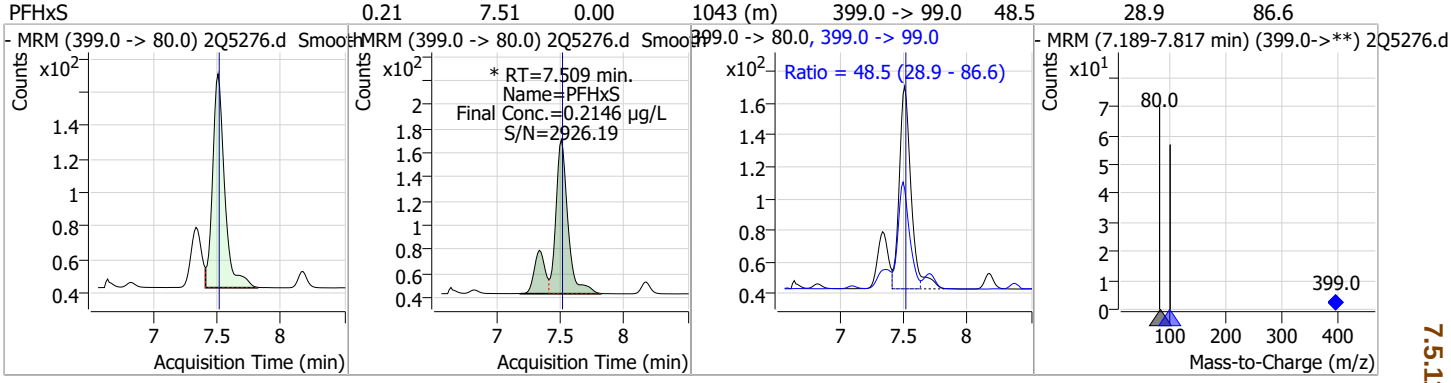




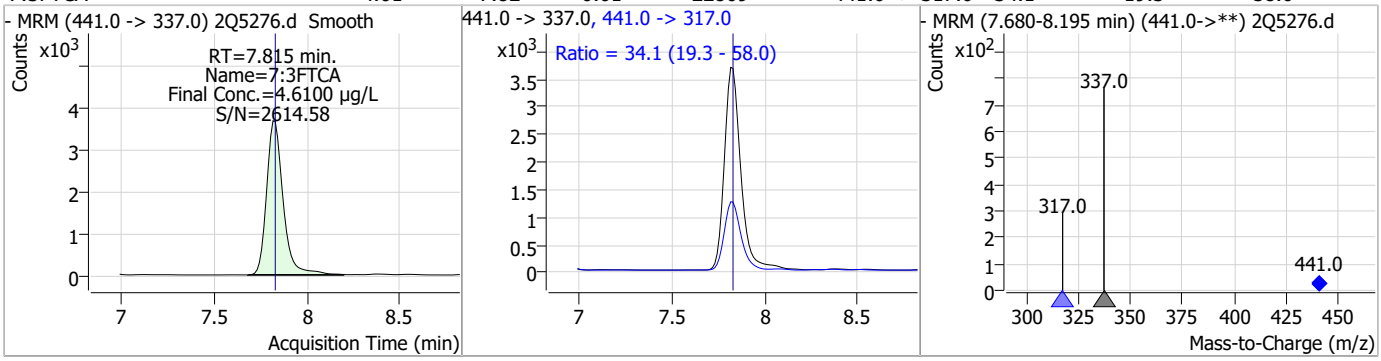


Perfluorinated Compounds by LC/MS/MS

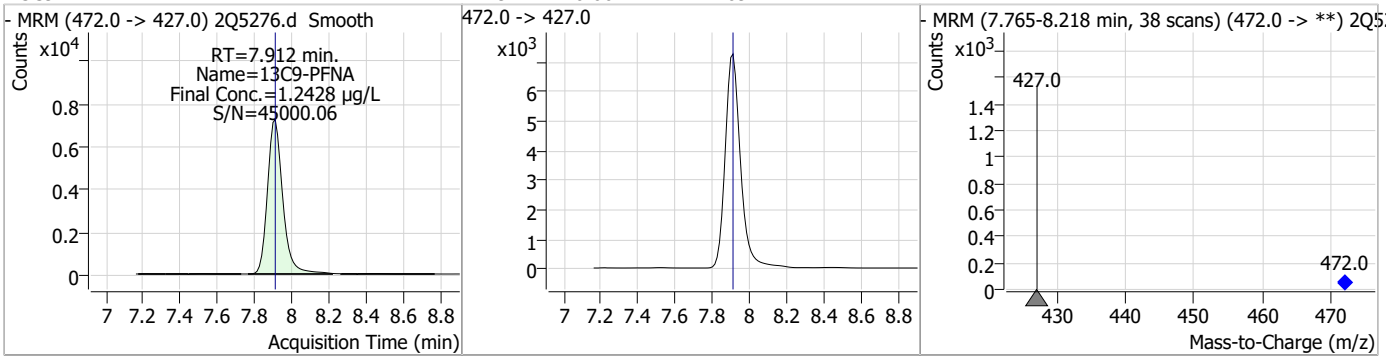
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	0.21	7.51	0.00	1043 (m)	399.0 -> 99.0	48.5	28.9	86.6



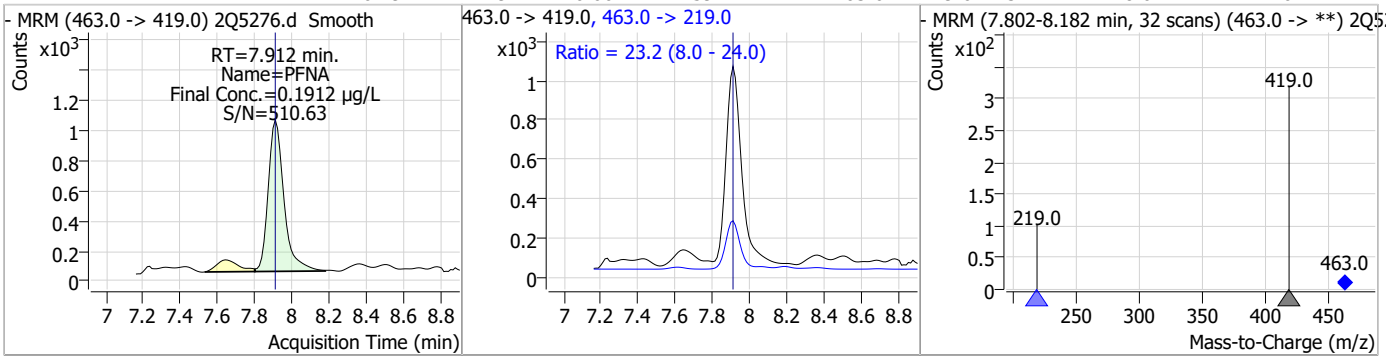
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	4.61	7.82	-0.01	22809	441.0 -> 317.0	34.1	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.24	7.91	0.00	41409				

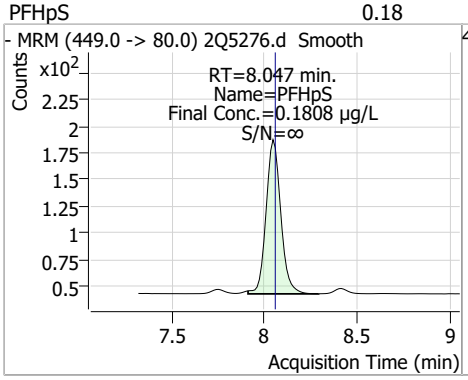


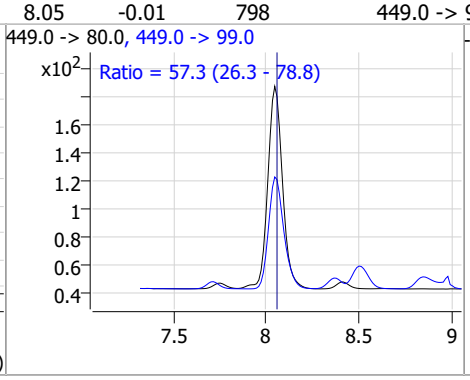
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	0.19	7.91	0.00	5947	463.0 -> 219.0	23.2	8.0	24.0

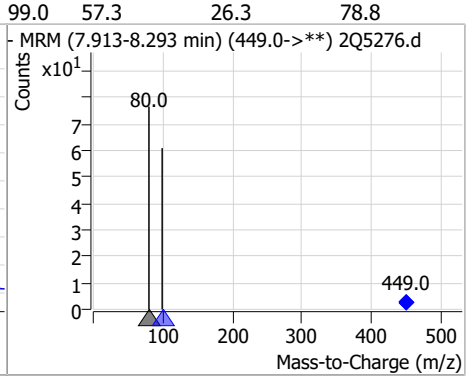


Perfluorinated Compounds by LC/MS/MS

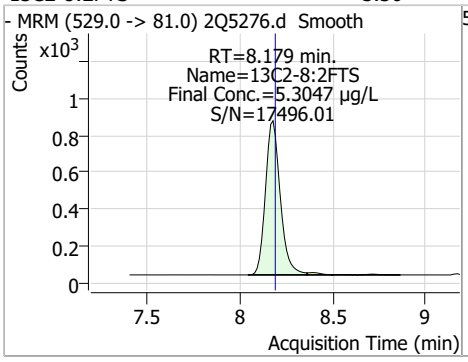
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	0.18	8.05	-0.01	798	449.0 -> 99.0	57.3	26.3	78.8

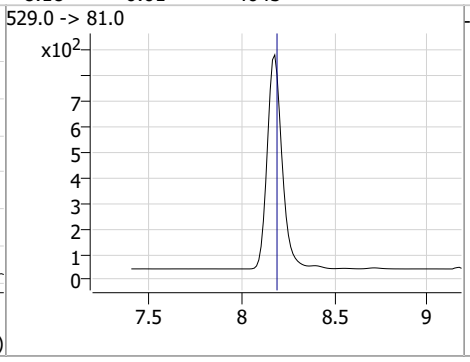


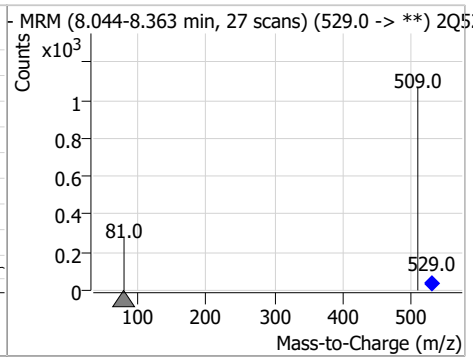




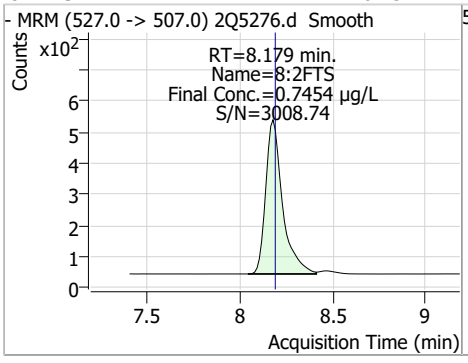
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.30	8.18	-0.01	4645				

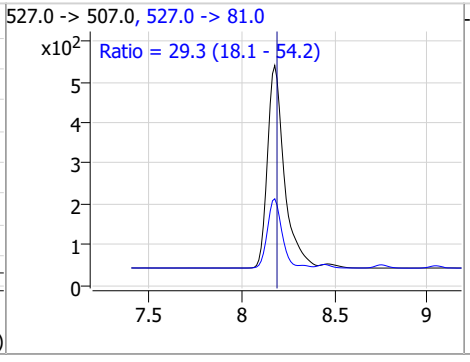


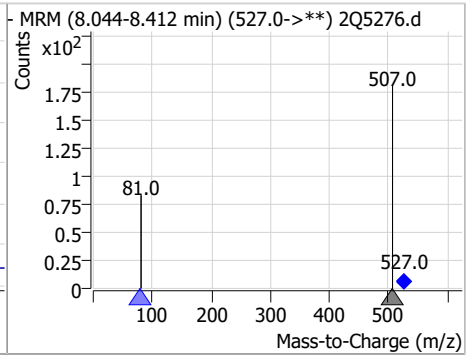




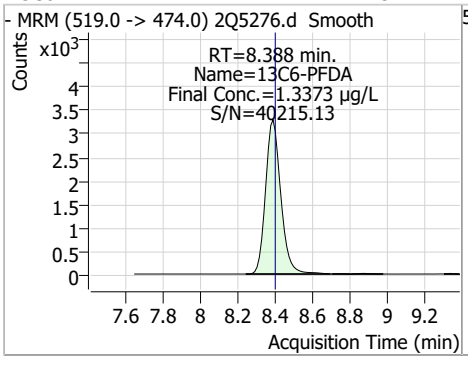
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	0.75	8.18	-0.01	3130	527.0 -> 81.0	29.3	18.1	54.2

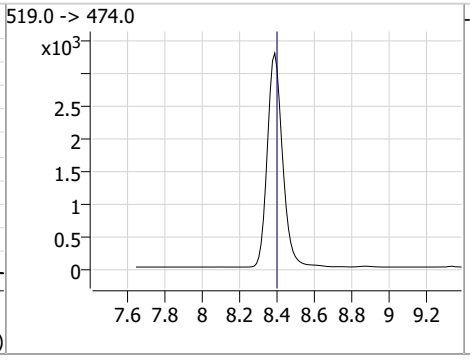


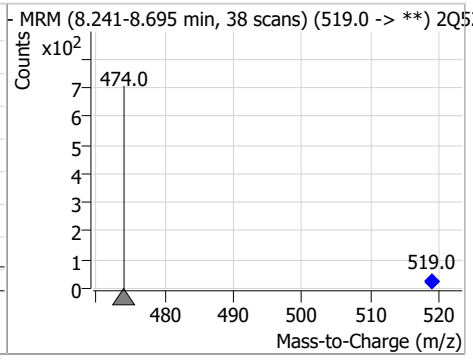




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.34	8.39	-0.01	18580				

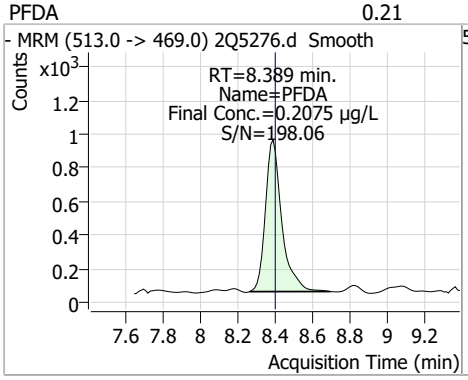


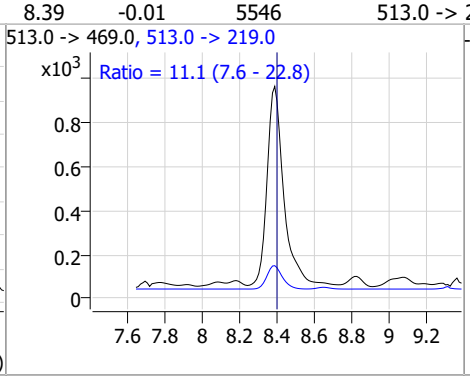


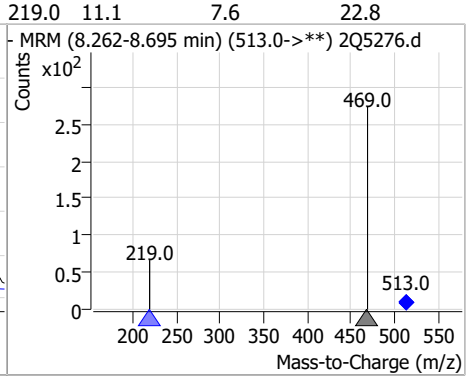


Perfluorinated Compounds by LC/MS/MS

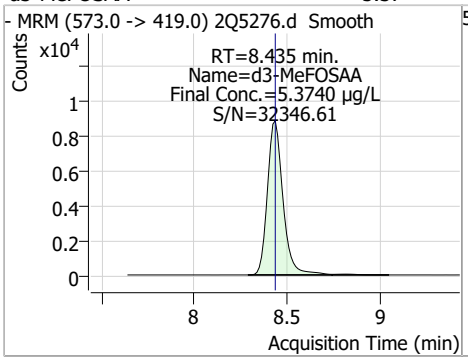
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	0.21	8.39	-0.01	5546	513.0 -> 219.0	11.1	7.6	22.8

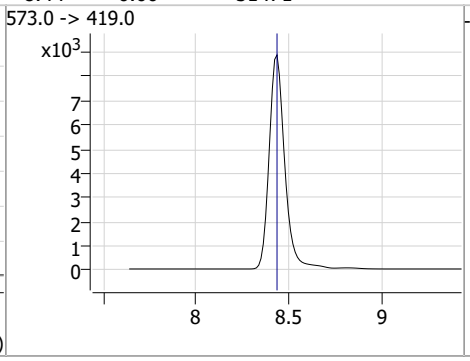


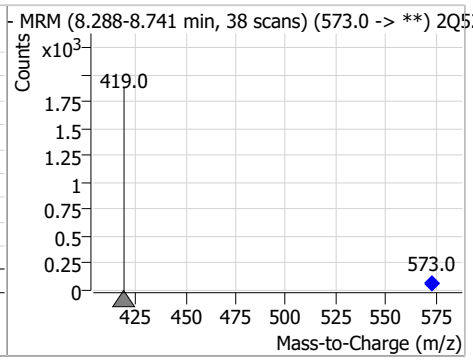




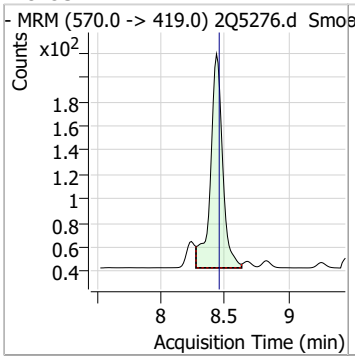
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.37	8.44	0.00	51471				

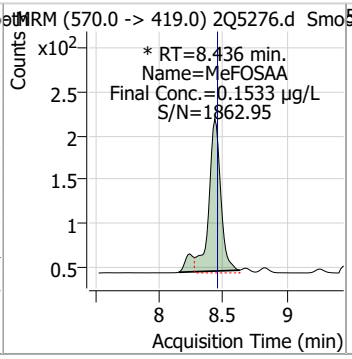


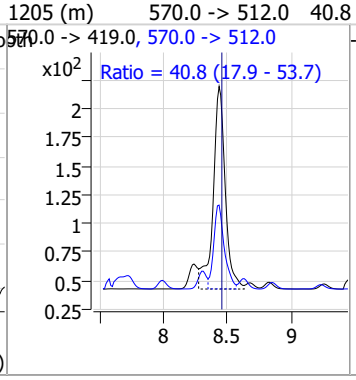


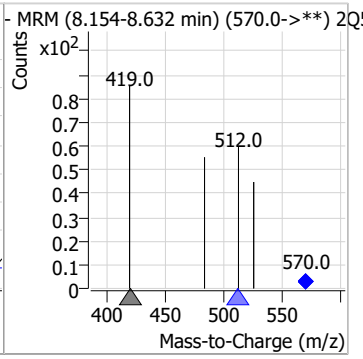


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	0.15	8.44	-0.01	1205 (m)	570.0 -> 512.0	40.8	17.9	53.7

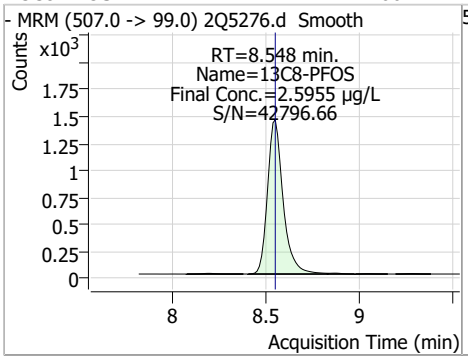


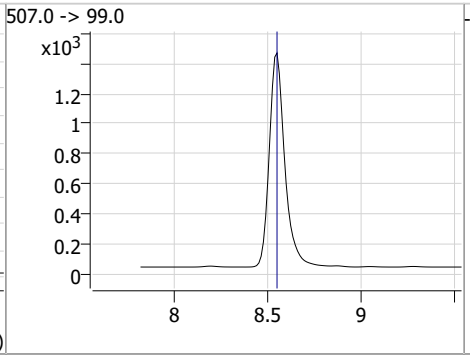


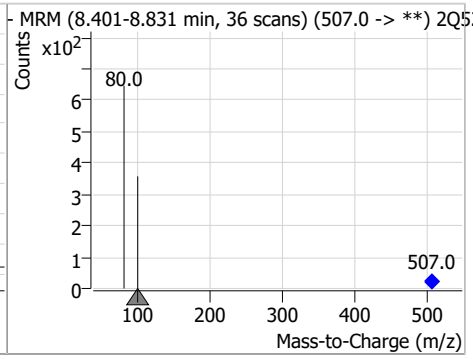




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.60	8.55	0.00	8317				

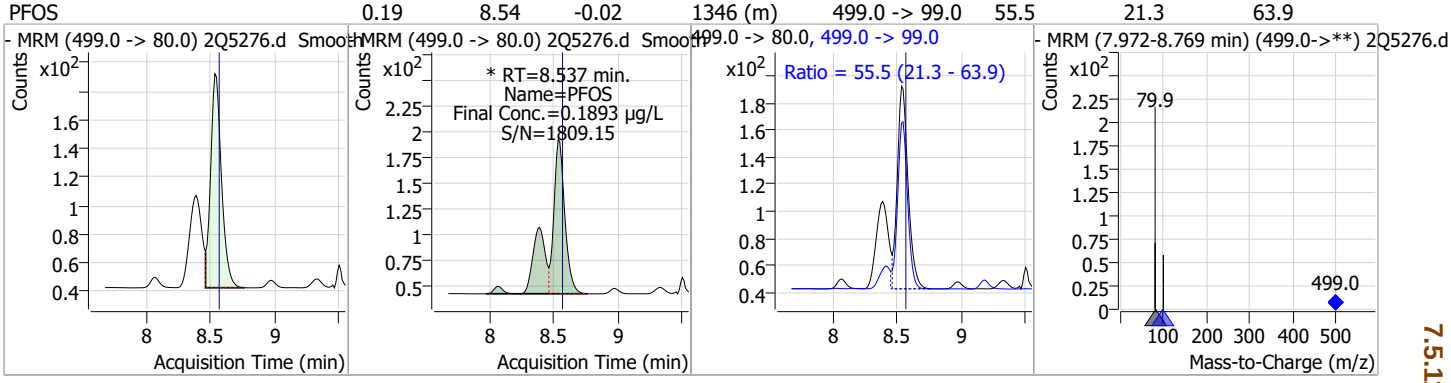




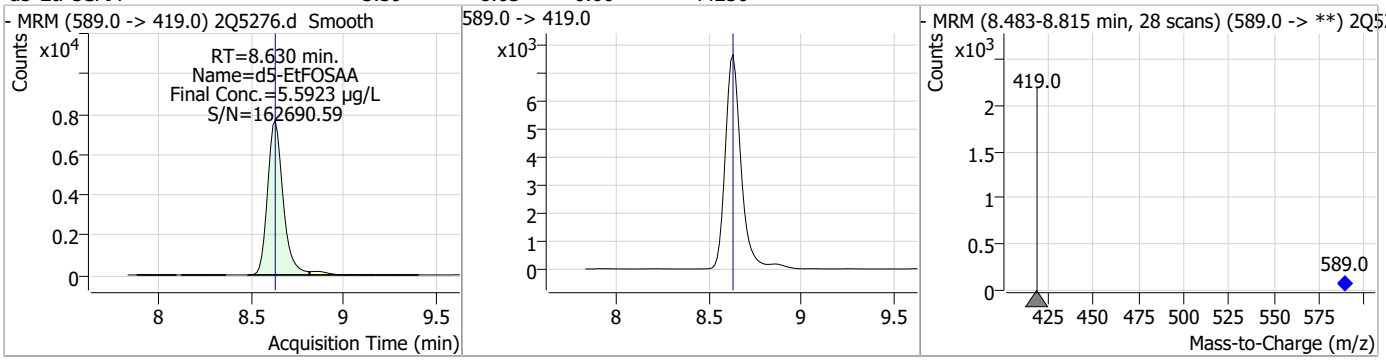


Perfluorinated Compounds by LC/MS/MS

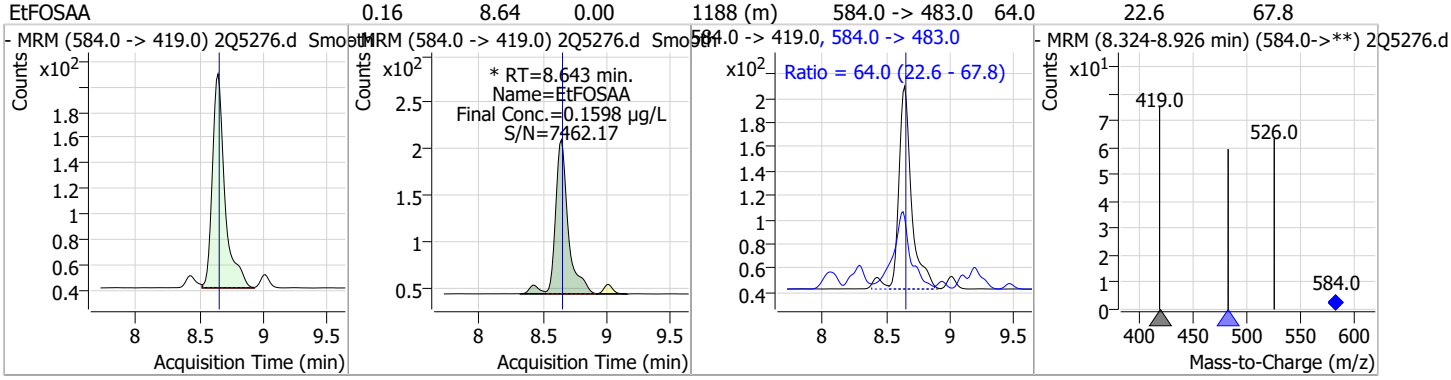
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	0.19	8.54	-0.02	1346 (m)	499.0 -> 99.0	55.5	21.3	63.9



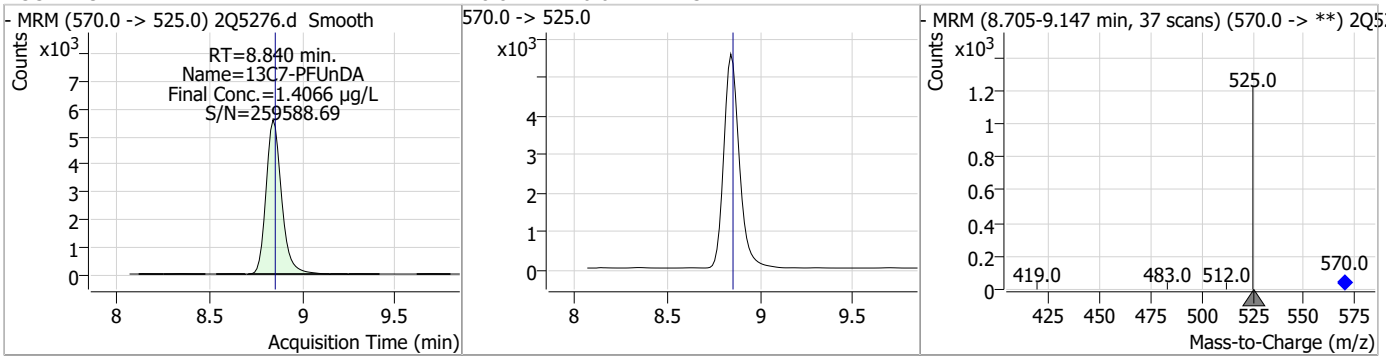
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.59	8.63	0.00	44250				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	0.16	8.64	0.00	1188 (m)	584.0 -> 483.0	64.0	22.6	67.8

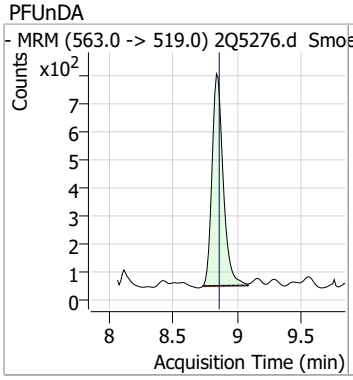


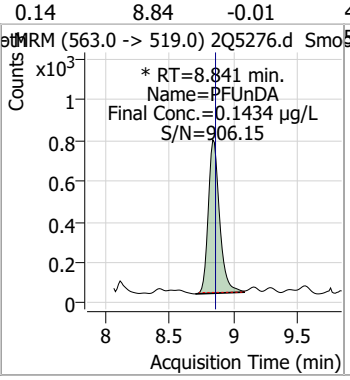
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.41	8.84	-0.01	32242				

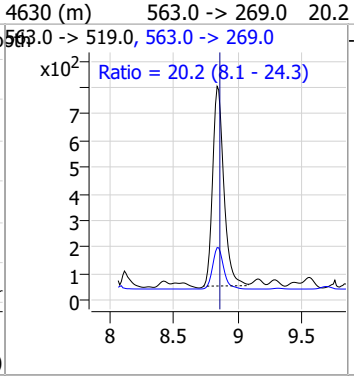


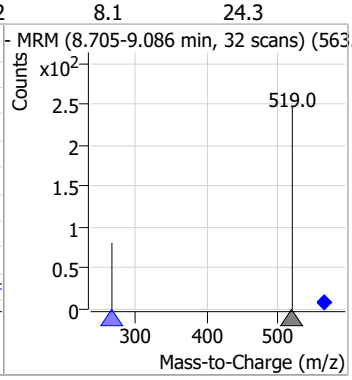
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	0.14	8.84	-0.01	4630 (m)	563.0 -> 269.0	20.2	8.1	24.3

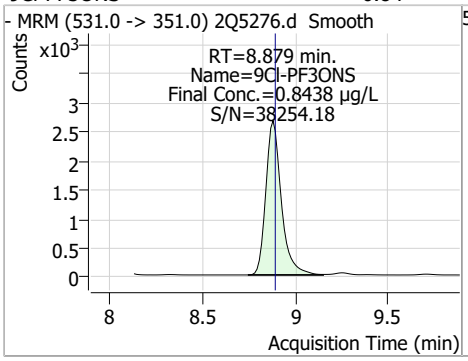


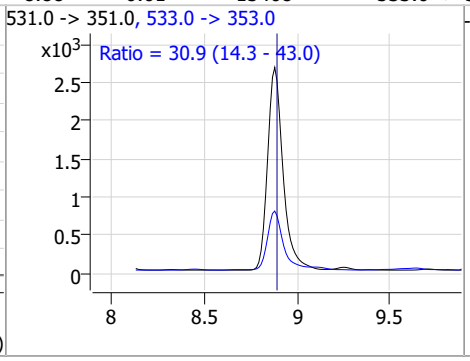


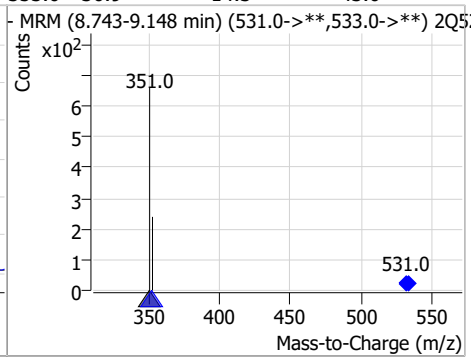




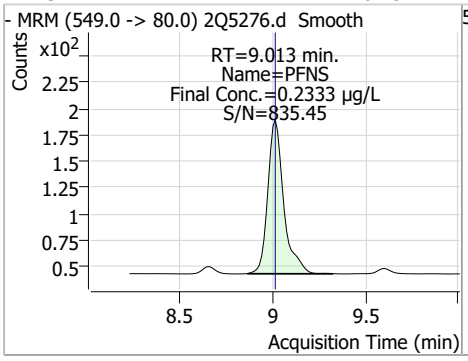
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	0.84	8.88	-0.01	15408	533.0 -> 353.0	30.9	14.3	43.0

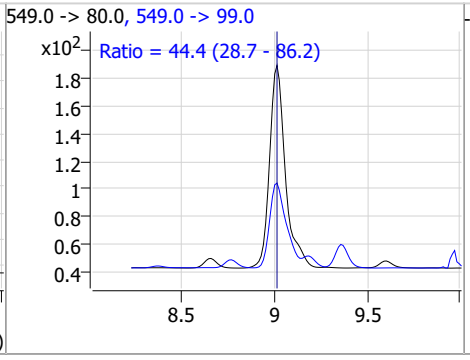


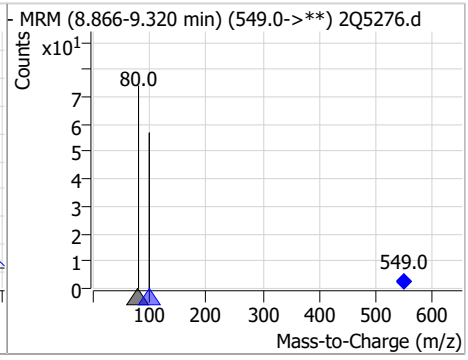




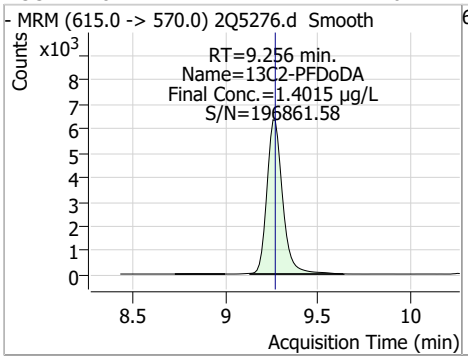
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	0.23	9.01	0.00	873	549.0 -> 99.0	44.4	28.7	86.2

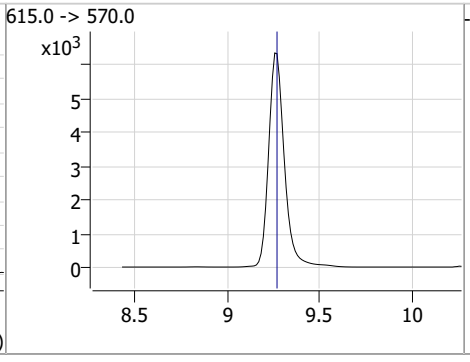


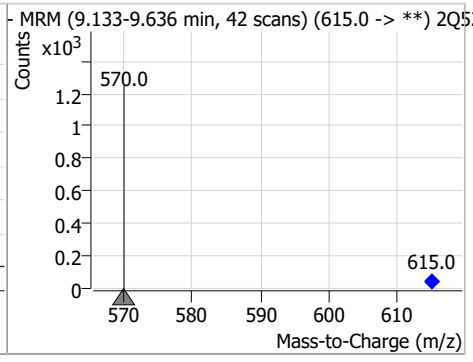




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.40	9.26	-0.01	37238				

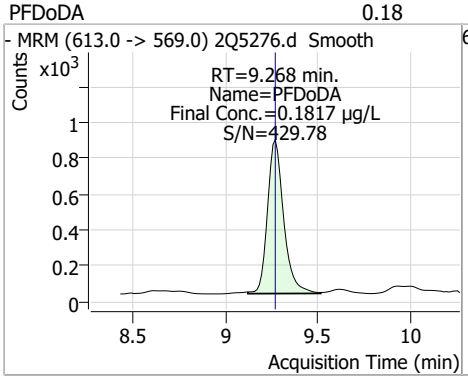


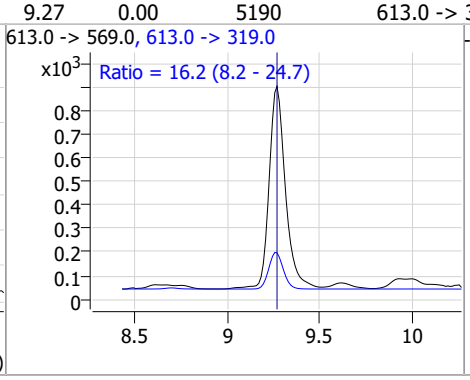


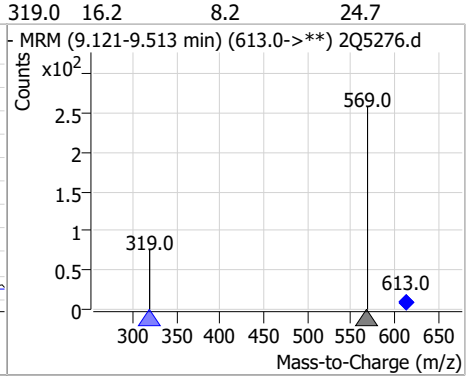


Perfluorinated Compounds by LC/MS/MS

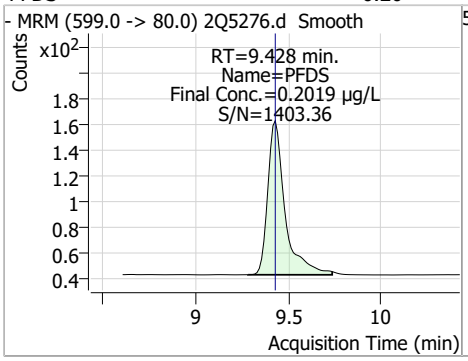
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	0.18	9.27	0.00	5190	613.0 -> 319.0	16.2	8.2	24.7

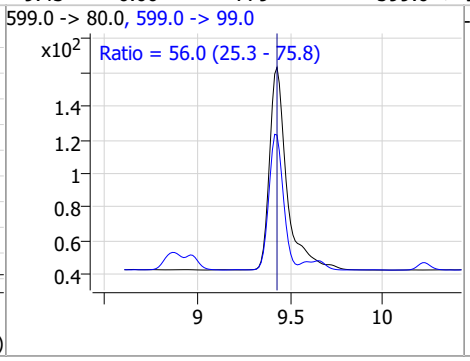


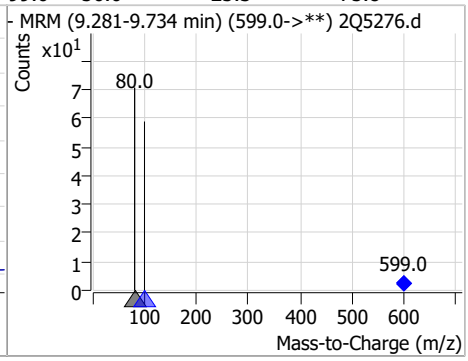




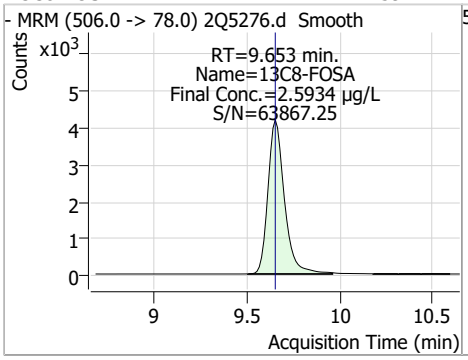
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	0.20	9.43	0.00	779	599.0 -> 99.0	56.0	25.3	75.8

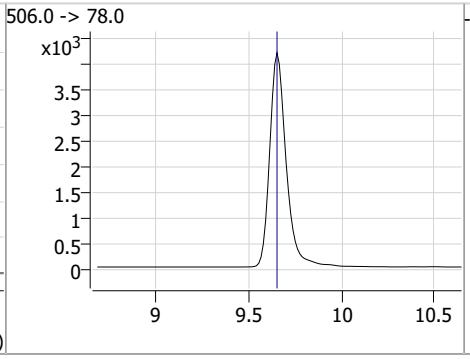


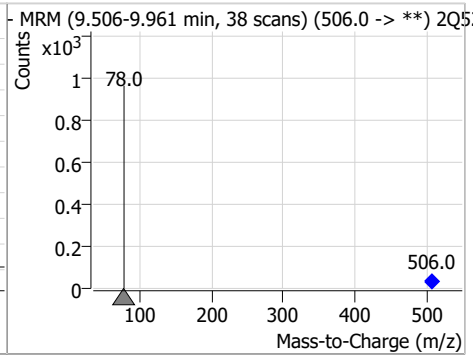




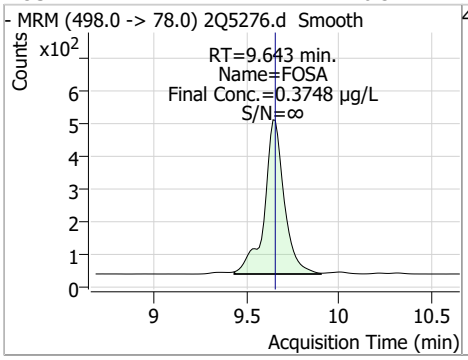
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.59	9.65	0.00	25841				

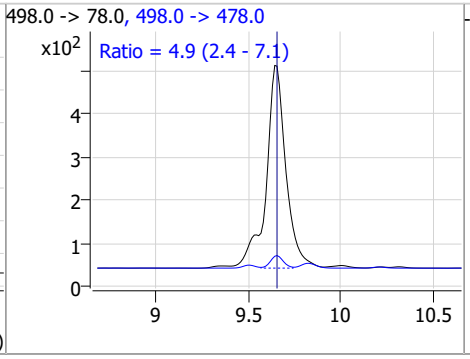


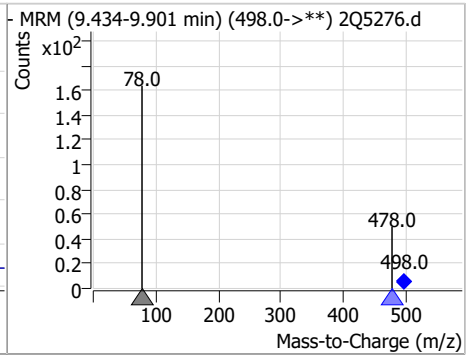




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	0.37	9.64	-0.01	3486	498.0 -> 478.0	4.9	2.4	7.1

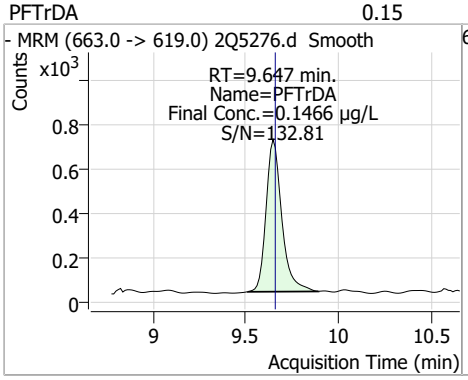


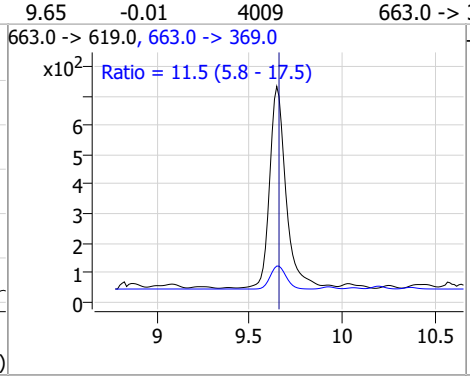


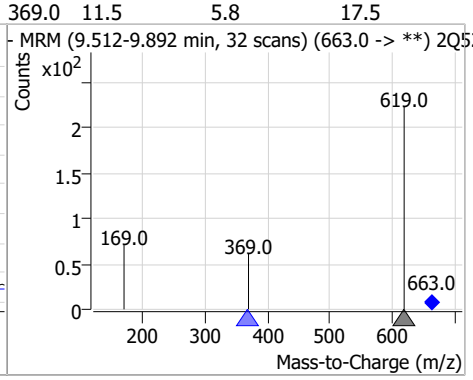


Perfluorinated Compounds by LC/MS/MS

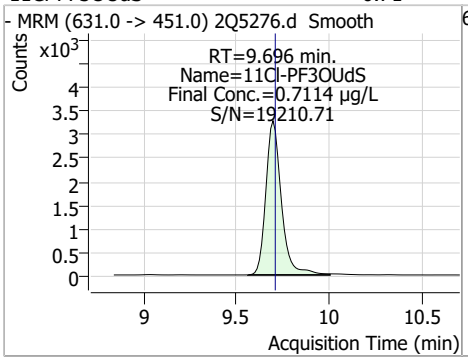
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	0.15	9.65	-0.01	4009	663.0 -> 369.0	11.5	5.8	17.5

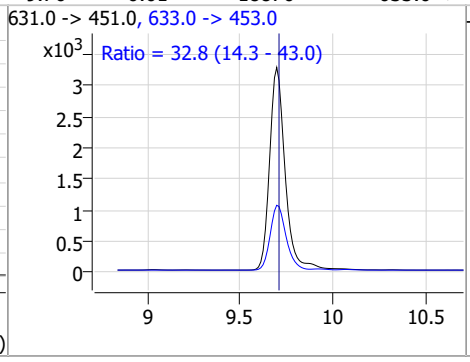


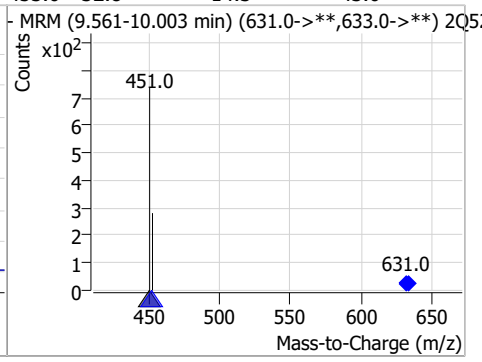




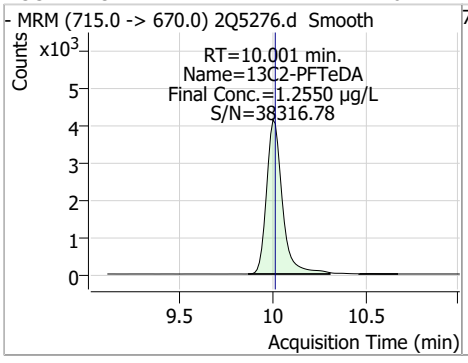
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	0.71	9.70	-0.01	18870	633.0 -> 453.0	32.8	14.3	43.0

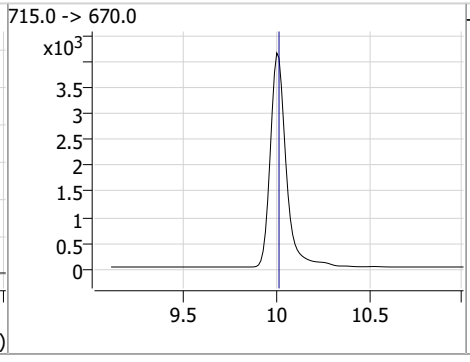


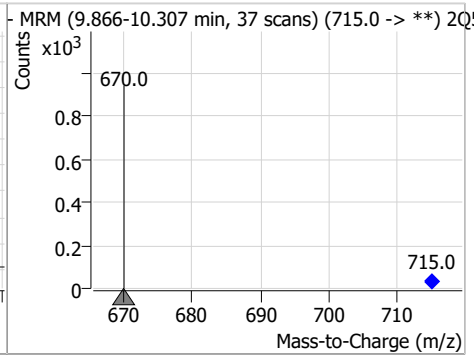




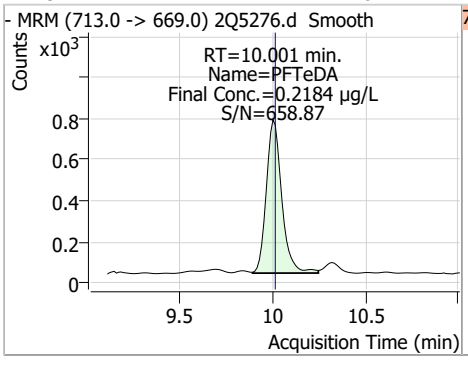
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.26	10.00	-0.01	24457				

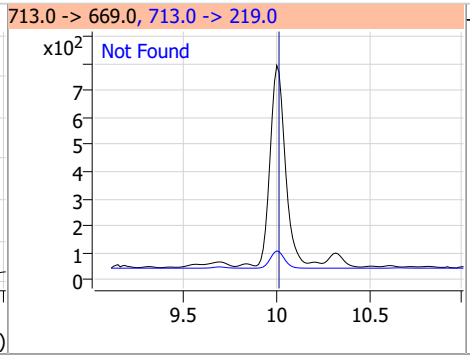


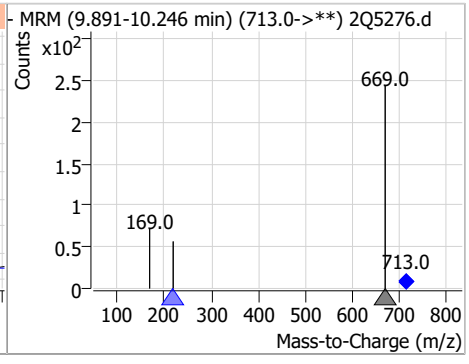




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	0.22	10.00	-0.01	4322	713.0 -> 219.0		6.1	18.4

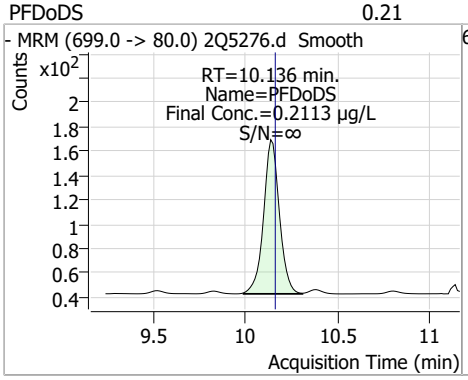


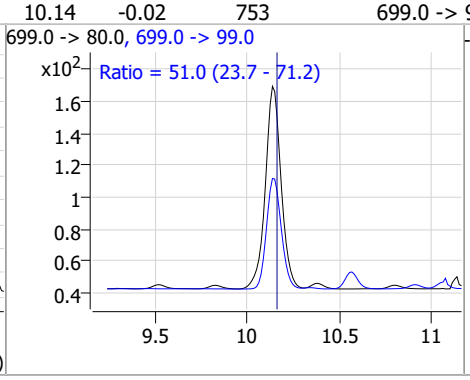


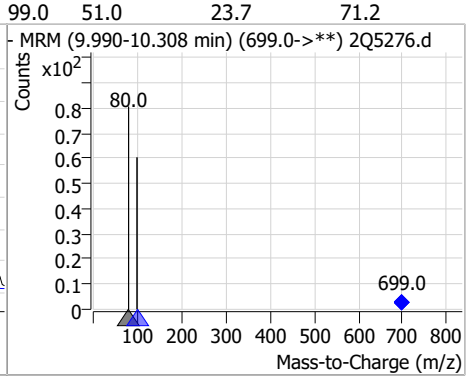


Perfluorinated Compounds by LC/MS/MS

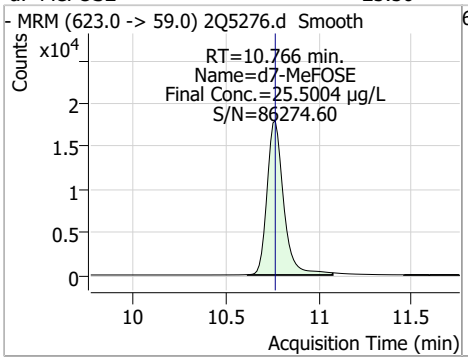
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	0.21	10.14	-0.02	753	699.0 -> 99.0	51.0	23.7	71.2

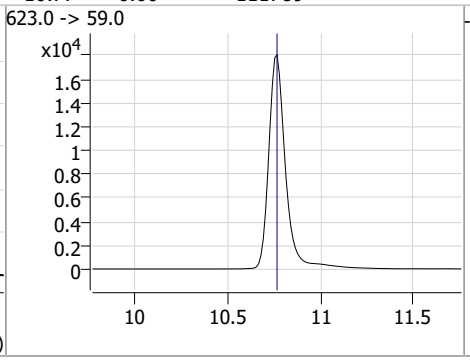


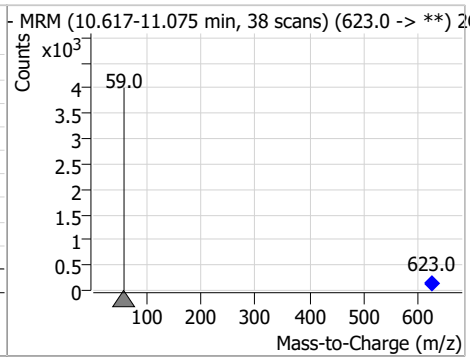




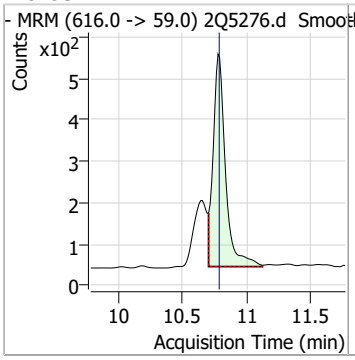
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	25.50	10.77	0.00	111789				

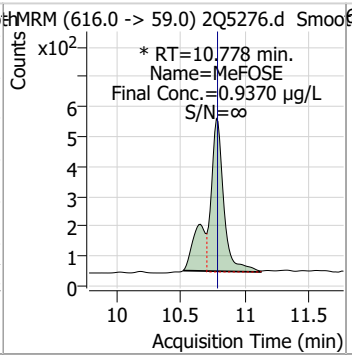


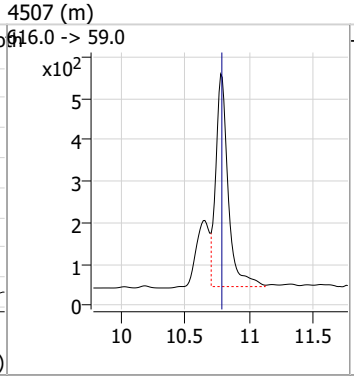


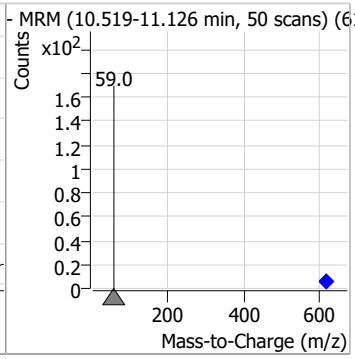


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	0.94	10.78	0.00	4507 (m)				

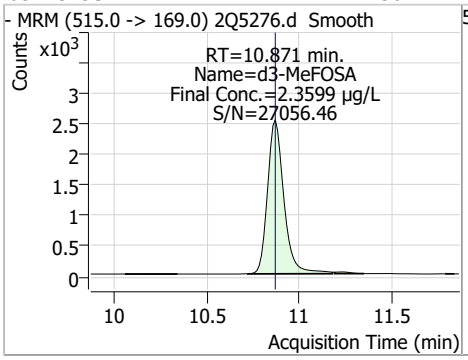


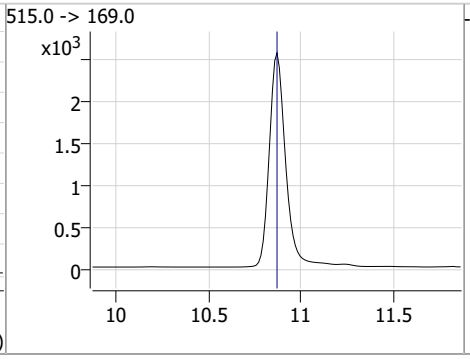


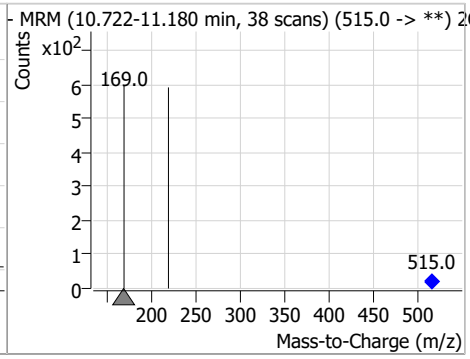




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.36	10.87	0.00	15556				

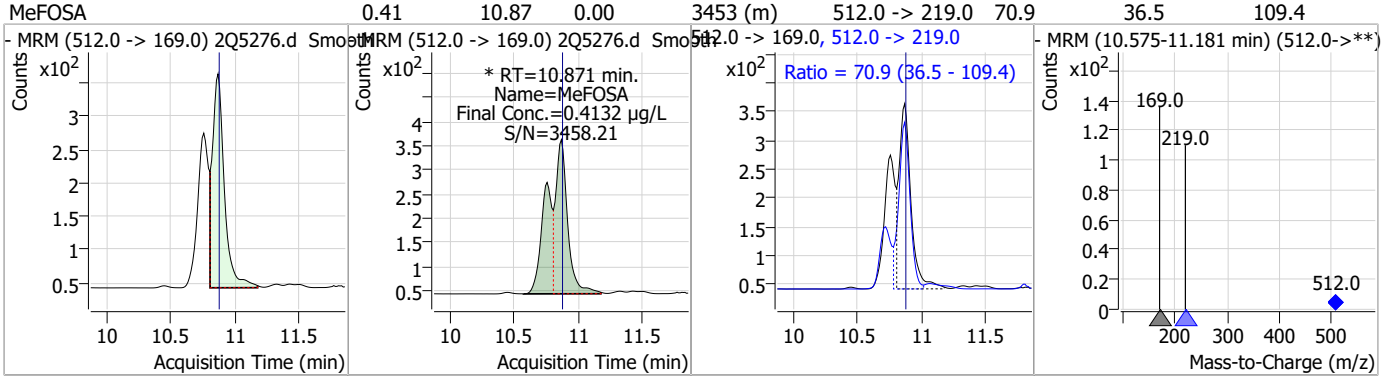




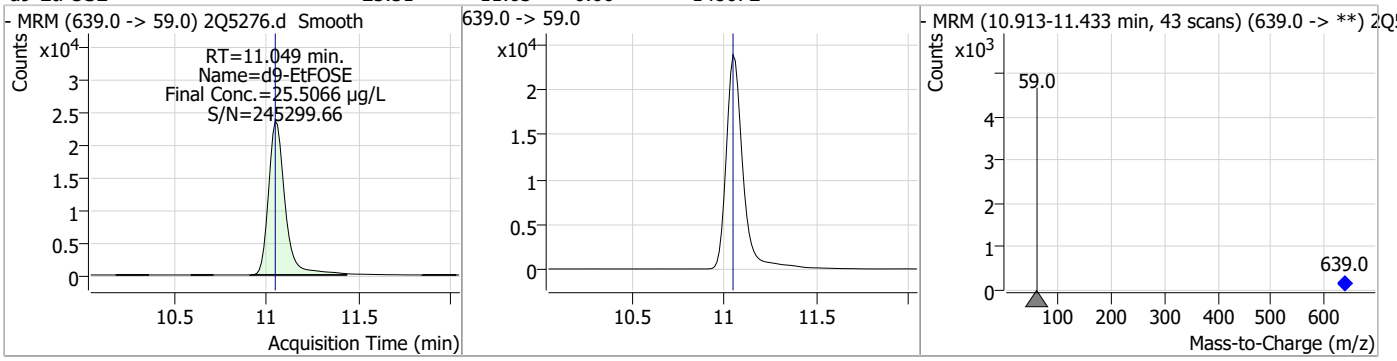


Perfluorinated Compounds by LC/MS/MS

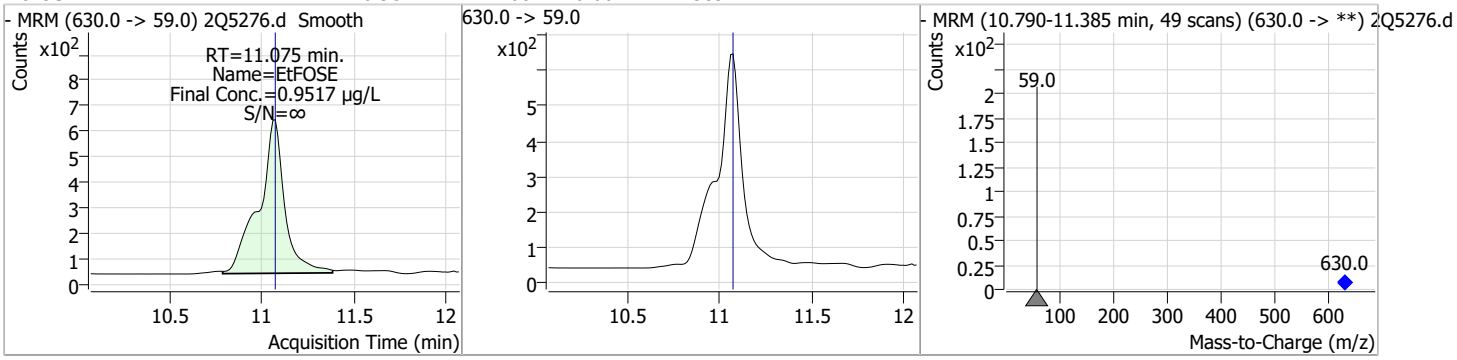
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	0.41	10.87	0.00	3453 (m)	512.0 -> 219.0	70.9	36.5	109.4



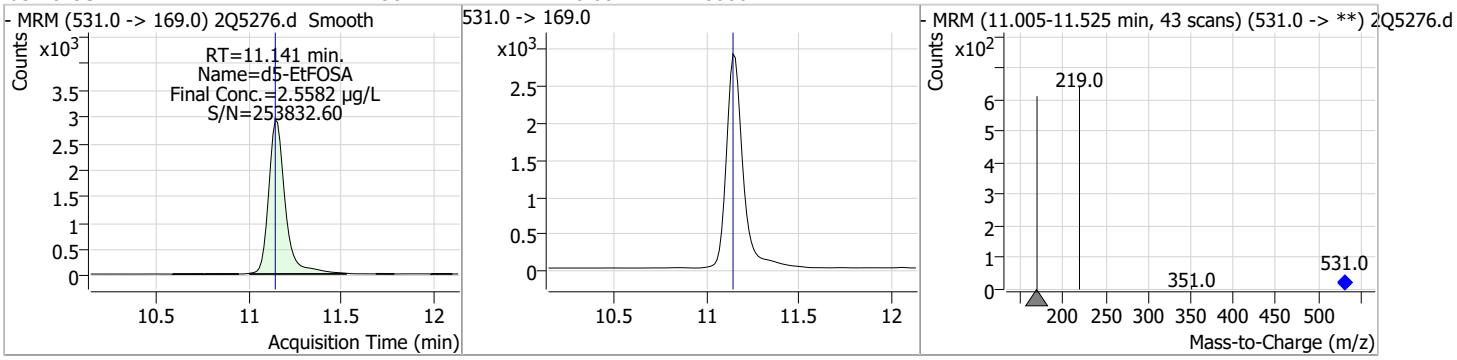
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	25.51	11.05	0.00	148072				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	0.95	11.08	0.00	5892				

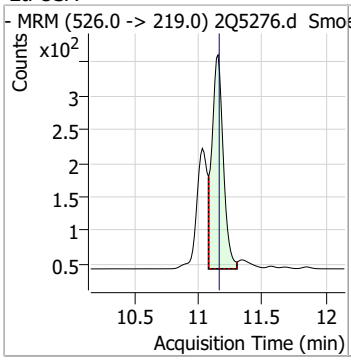


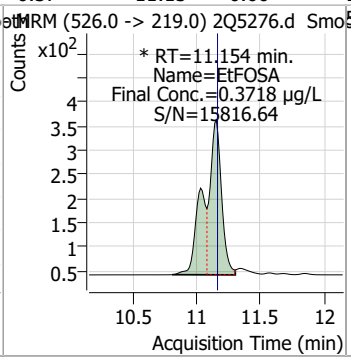
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.56	11.14	0.00	18080				

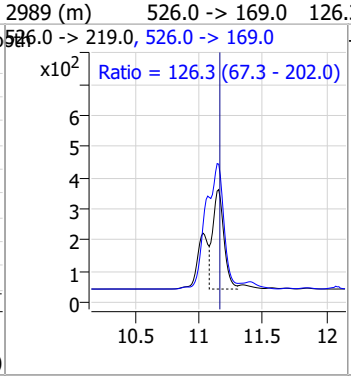


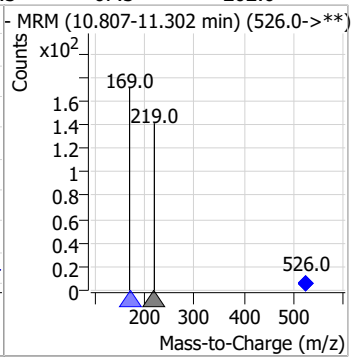
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	0.37	11.15	0.00	2989 (m)	526.0 -> 169.0	126.3	67.3	202.0









7.5.11

7

Manual Integration Approval Summary

Sample Number: T2Q96-CC96
Lab FileID: 2Q5276.D
Injection Time: 11/30/23 20:37
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 10:14 Paul Czajak
Supervisor approved: 12/05/23 10:56 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.51	Split peak
MeFOSAA	2355-31-9		8.44	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.54	Split peak
EtFOSAA	2991-50-6		8.64	Split peak
Perfluoroundecanoic acid	2058-94-8		8.84	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5379.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/1/2023 11:55:19 PM
Sample Name : cc96-5
Vial : P1-A6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50765,T2Q96,5.0,,,5,1,soil

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	180022	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	112492	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	60227	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	46157	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	82439	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	39283	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	15722	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	26811	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	32423	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	21676	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	23003	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6296	2.50	µg/L	-0.037
		302.0 -> 80.0	16839			
M3-PFHxS	7.472	402.0 -> 99.0	7244	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6975	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1547	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	3123	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4803	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	50992	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	27843	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	39910	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	106374	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	139733	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16021	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	15225	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	12490	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	80535	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	8104	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	78116	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	33765	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	39249	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	59578	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1547	5.23	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 104.6%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3123	4.76	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 95.2%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4803	5.29	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 105.8%		
13C2-PFDoDA	9.219	615.0 -> 570.0	32423	1.20	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.2%		
13C2-PFTeDA	9.964	715.0 -> 670.0	21676	1.10	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 87.7%		
13C3-PFBS	5.846	302.0 -> 99.0	6296	2.09	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 83.6%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	7244	2.29	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.7%			
13C4-PFBA	3.314	217.0 -> 172.0	180022	9.93	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.3%			
13C4-PFHpA	6.770	367.0 -> 322.0	46157	2.38	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.4%			
13C5-PFHxA	5.930	318.0 -> 273.0	60227	2.43	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.3%			
13C5-PFPeA	4.785	268.0 -> 223.0	112492	5.04	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.8%			
13C6-PFDA	8.352	519.0 -> 474.0	15722	1.12	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.2%			
13C7-PFUnDA	8.803	570.0 -> 525.0	26811	1.15	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 92.3%			
13C8-FOSA	9.653	506.0 -> 78.0	23003	2.72	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.8%			
13C8-PFOA	7.360	421.0 -> 376.0	82439	2.55	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.9%			
13C8-PFOS	8.512	507.0 -> 99.0	6975	2.56	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.6%			
13C9-PFNA	7.875	472.0 -> 427.0	39283	1.28	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 102.3%			
d3-MeFOSAA	8.398	573.0 -> 419.0	50992	6.27	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 125.4%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	27843	9.85	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.5%			
d3-MeFOSA	10.871	515.0 -> 169.0	15225	2.72	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 108.8%			
d5-EtFOSAA	8.593	589.0 -> 419.0	39910	5.94	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 118.8%			
d7-MeFOSE	10.753	623.0 -> 59.0	106374	28.59	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 114.4%			
d9-EtFOSE	11.049	639.0 -> 59.0	139733	28.36	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 113.4%			
d5-EtFOSA	11.141	531.0 -> 169.0	16021	2.67	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.8%			
Target Compounds							QValue
4:2FTS	5.619	327.0 -> 307.0	45371	17.63	µg/L		97
		327.0 -> 81.0	24328				
6:2FTS	7.149	427.0 -> 407.0	92631	20.25	µg/L		98
		427.0 -> 81.0	28945				
8:2FTS	8.143	527.0 -> 507.0	90667	20.88	µg/L		95
		527.0 -> 81.0	30188				
EtFOSAA	8.606	584.0 -> 419.0	33448	5.02	µg/L	m	86
		584.0 -> 483.0	18507				
FOSA	9.655	498.0 -> 78.0	85841	10.57	µg/L	m	98
		498.0 -> 478.0	4160				
MeFOSAA	8.398	570.0 -> 419.0	42668	5.16	µg/L		91
		570.0 -> 512.0	13023				
PFBA	3.321	213.0 -> 169.0	92090	20.37	µg/L		100
PFBS	5.847	299.0 -> 80.0	34518	5.26	µg/L		99
		299.0 -> 99.0	14786				
PFDA	8.352	513.0 -> 469.0	140514	5.38	µg/L		99
		513.0 -> 219.0	21011				
PFDoDA	9.219	613.0 -> 569.0	130422	5.24	µg/L		98
		613.0 -> 319.0	20386				

Perfluorinated Compounds by LC/MS/MS

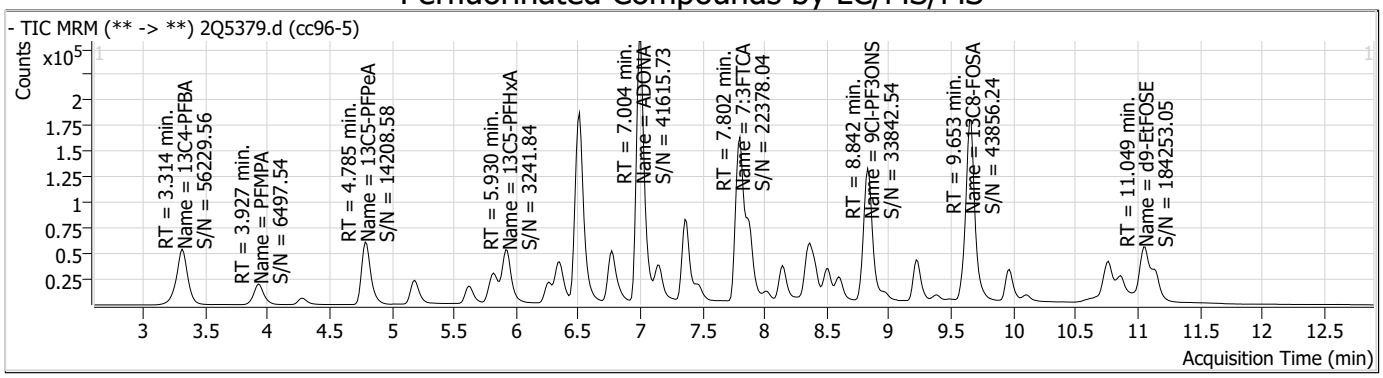
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	16770	5.23	µg/L		99
		599.0 -> 99.0	8336				
PFHpA	6.770	363.0 -> 319.0	146219	5.07	µg/L		97
		363.0 -> 169.0	25936				
PFHpS	8.023	449.0 -> 80.0	23132	5.05	µg/L		95
		449.0 -> 99.0	11311				
PFHxA	5.932	313.0 -> 269.0	123022	5.17	µg/L		100
		313.0 -> 119.0	3448				
PFHxS	7.473	399.0 -> 80.0	23534	4.70	µg/L	m	87
		399.0 -> 99.0	11441				
PFNA	7.876	463.0 -> 419.0	153525	5.20	µg/L		99
		463.0 -> 219.0	23842				
PFNS	8.964	549.0 -> 80.0	16233	5.28	µg/L		96
		549.0 -> 99.0	9775				
PFOA	7.373	413.0 -> 369.0	165147	5.11	µg/L		98
		413.0 -> 169.0	33300				
PFOS	8.512	499.0 -> 80.0	31044	5.22	µg/L	m	95
		499.0 -> 99.0	15084				
PFPeA	4.787	263.0 -> 219.0	205289	10.13	µg/L		100
PFPeS	6.821	349.0 -> 80.0	18462	4.90	µg/L		89
		349.0 -> 99.0	9176				
PFTeDA	9.964	713.0 -> 669.0	93962	5.36	µg/L		99
		713.0 -> 219.0	11209				
PFTrDA	9.610	663.0 -> 619.0	118122	4.96	µg/L		99
		663.0 -> 369.0	13461				
PFUnDA	8.804	563.0 -> 519.0	141164	5.26	µg/L		100
		563.0 -> 269.0	23131				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	535519	21.37	µg/L		100
		633.0 -> 453.0	154894				
9Cl-PF3ONS	8.842	531.0 -> 351.0	367114	21.28	µg/L		97
		533.0 -> 353.0	110581				
ADONA	7.004	377.0 -> 251.0	905172	20.51	µg/L		100
		377.0 -> 85.0	271869				
HFPO-DA	6.271	285.0 -> 169.0	60078	20.02	µg/L		99
		285.0 -> 185.0	5466				
3:3FTCA	4.288	241.0 -> 177.0	29987	23.85	µg/L		98
		241.0 -> 117.0	2499				
5:3FTCA	6.511	341.0 -> 237.0	526558	126.41	µg/L		99
		341.0 -> 217.0	376698				
7:3FTCA	7.802	441.0 -> 337.0	560360	126.15	µg/L		98
		441.0 -> 317.0	224805				
EtFOSA	11.154	526.0 -> 219.0	73102	10.61	µg/L	m	89
		526.0 -> 169.0	95033				
EtFOSE	11.062	630.0 -> 59.0	148120	25.36	µg/L		100
MeFOSA	10.871	512.0 -> 169.0	79006	9.67	µg/L	m	78
		512.0 -> 219.0	55542				
MeFOSE	10.778	616.0 -> 59.0	110621	24.32	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	16465	5.51	µg/L		93
		699.0 -> 99.0	8619				
NFDHA	5.811	295.0 -> 201.0	15097	10.31	µg/L		90
		201.0 -> 85.0	84243				
		295.0 -> 85.0	4168				
PFMBA	5.188	279.0 -> 85.0	117449	10.73	µg/L		100
PFMPA	3.927	229.0 -> 85.0	117072	10.20	µg/L		100
PFEESA	6.353	315.0 -> 135.0	173400	10.62	µg/L		99
		315.0 -> 69.0	15915				

Perfluorinated Compounds by LC/MS/MS

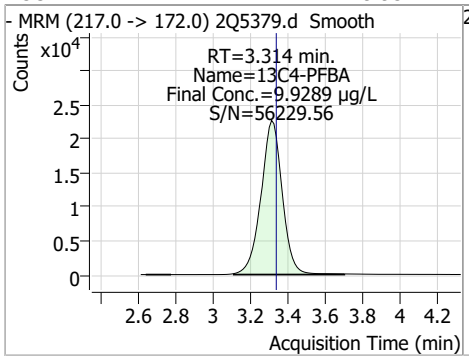
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

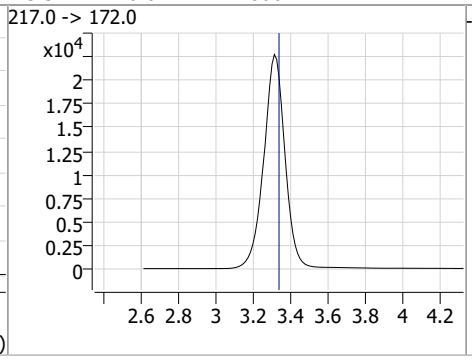
= Qualifier out of range, m = manually integrated, + = Area summed

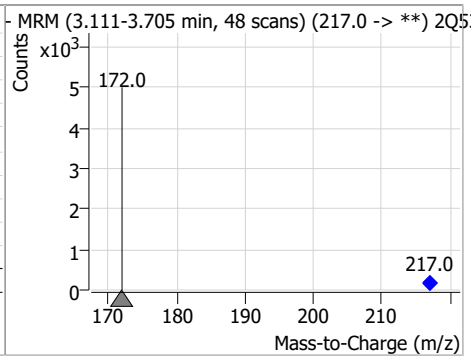
Perfluorinated Compounds by LC/MS/MS



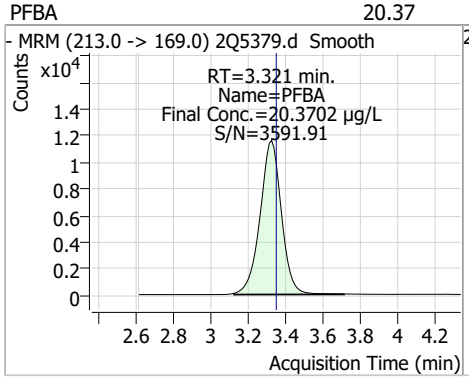
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.93	3.31	-0.02	180022				

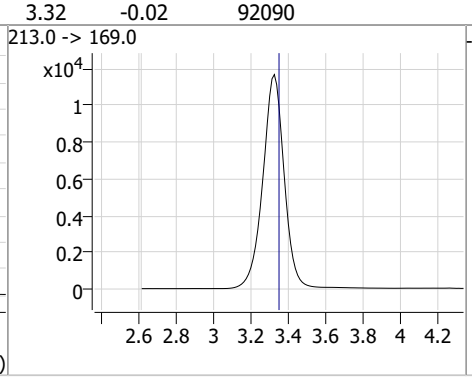


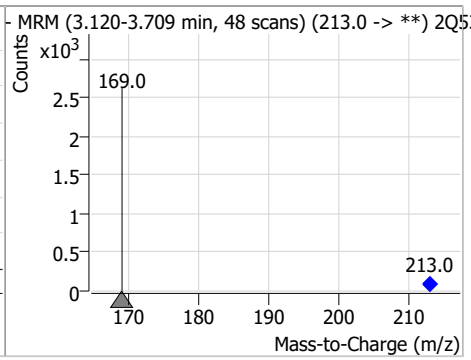




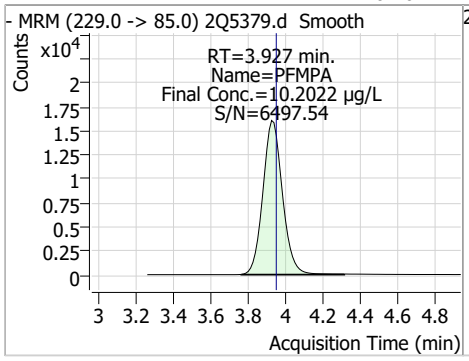
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.37	3.32	-0.02	92090				

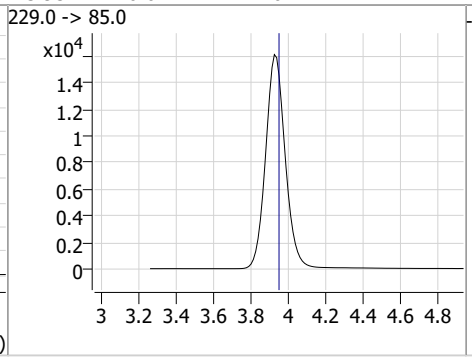


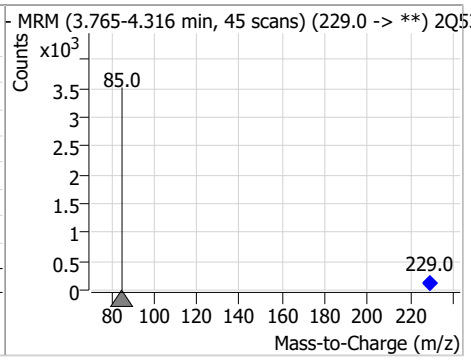




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	10.20	3.93	-0.02	117072				

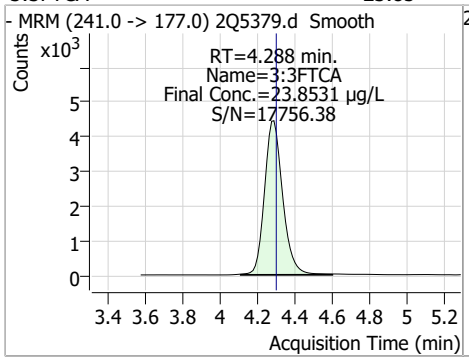


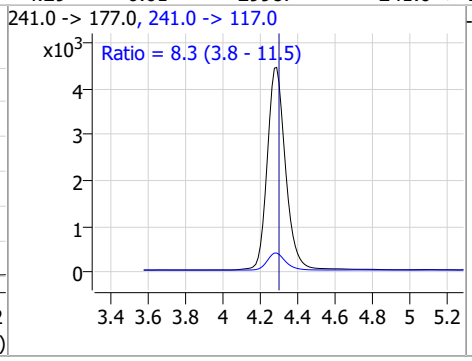


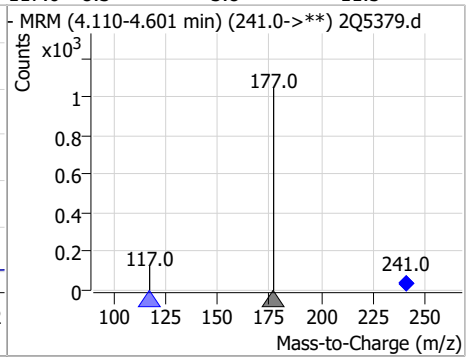


Perfluorinated Compounds by LC/MS/MS

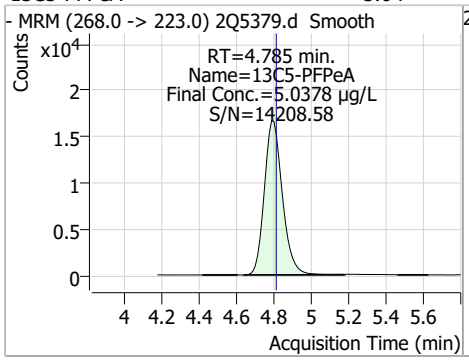
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.85	4.29	-0.01	29987	241.0 -> 117.0	8.3	3.8	11.5

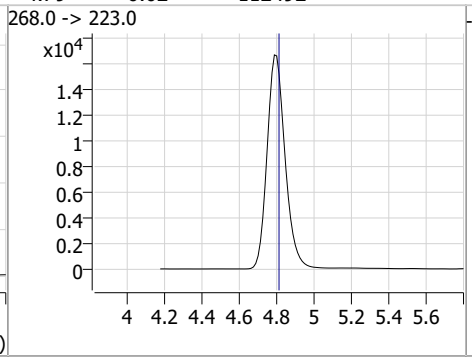


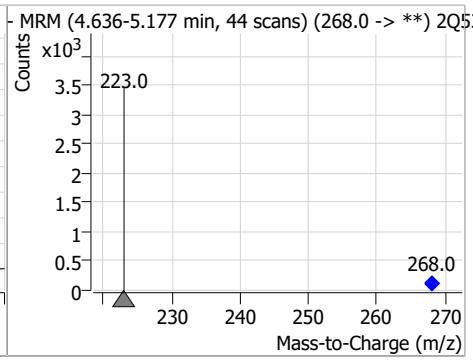




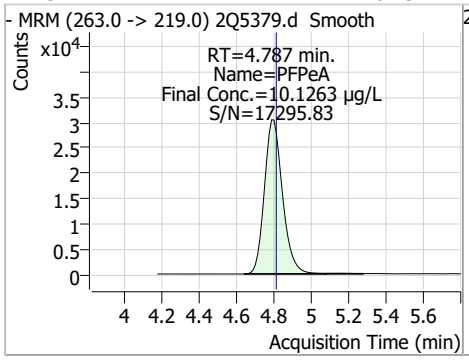
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.04	4.79	-0.02	112492				

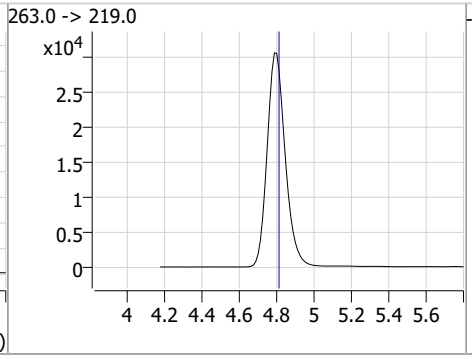


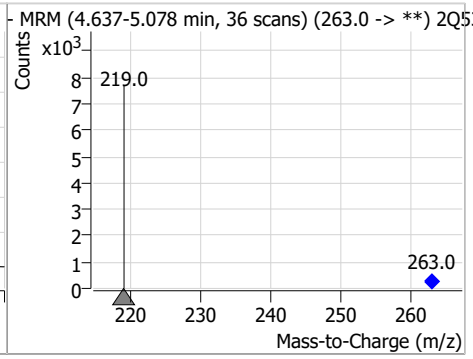




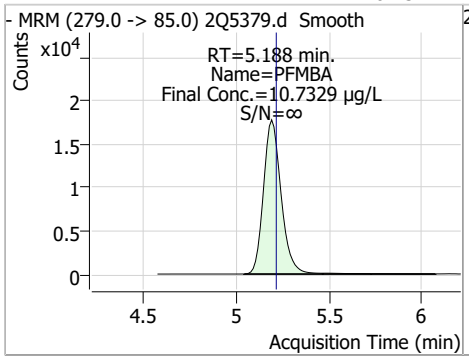
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.13	4.79	-0.02	205289				

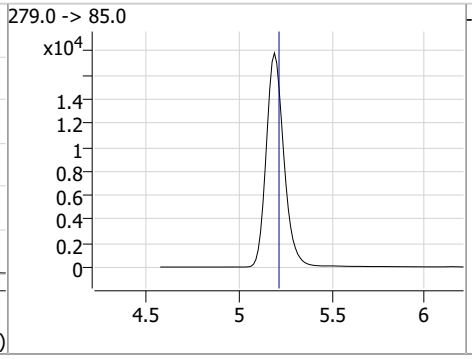


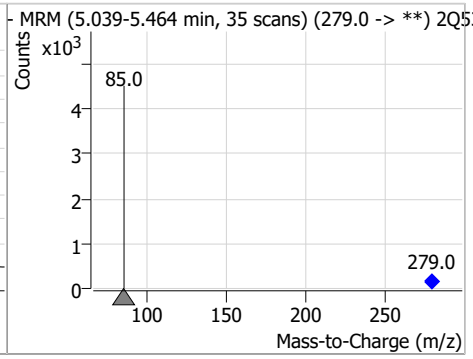




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.73	5.19	-0.02	117449				

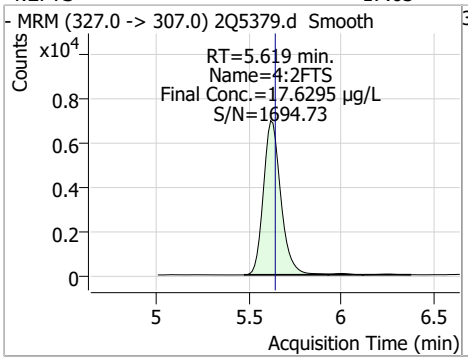


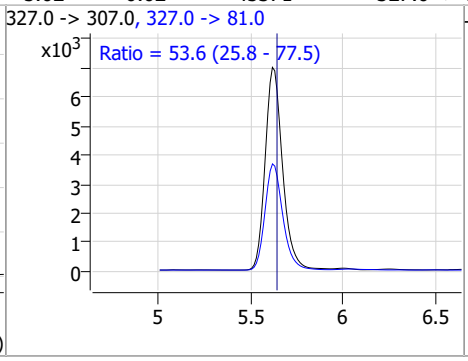


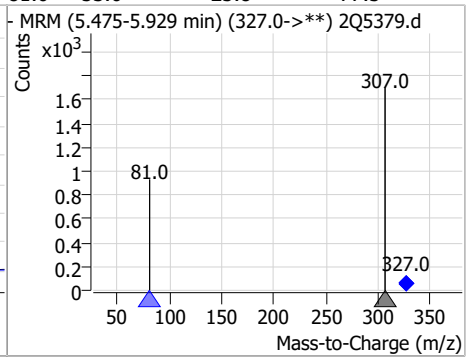


Perfluorinated Compounds by LC/MS/MS

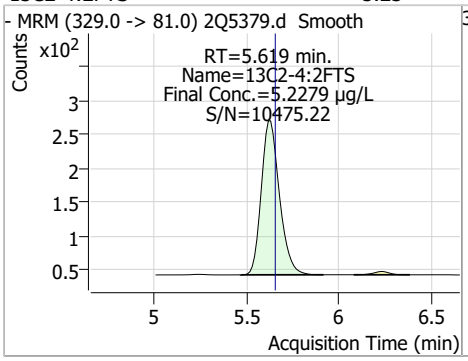
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	17.63	5.62	-0.02	45371	327.0 -> 81.0	53.6	25.8	77.5

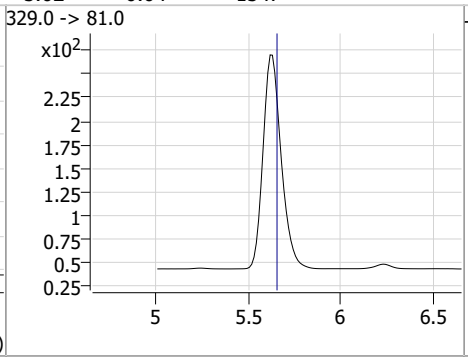


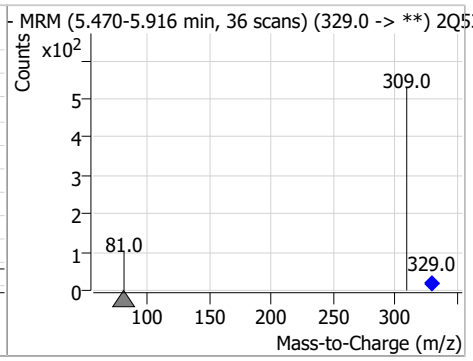




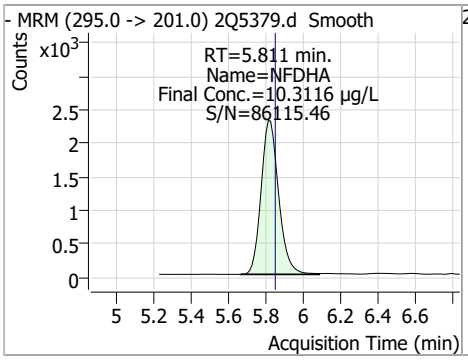
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.23	5.62	-0.04	1547				

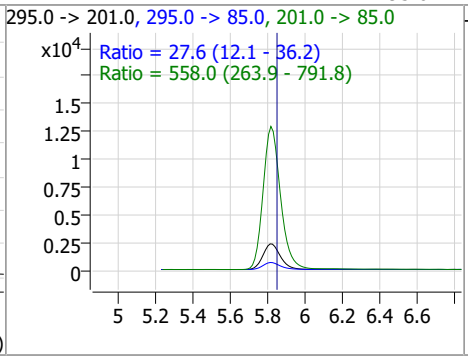


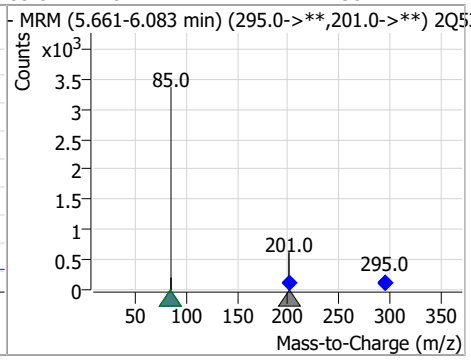




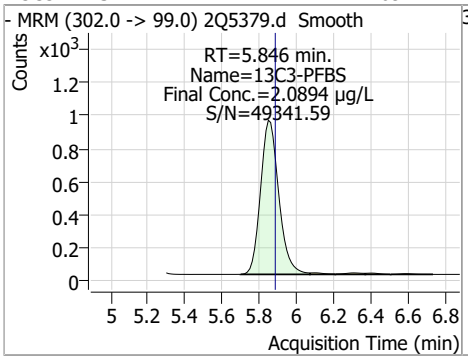
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	10.31	5.81	-0.04	15097	201.0 -> 85.0	558.0	263.9	791.8
					295.0 -> 85.0	27.6	12.1	36.2

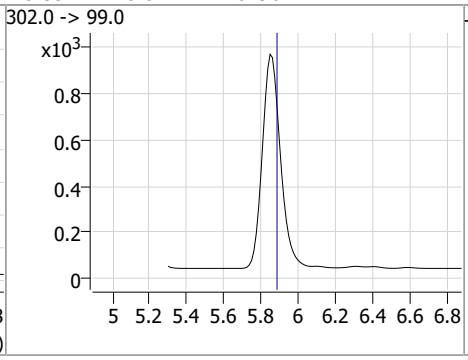


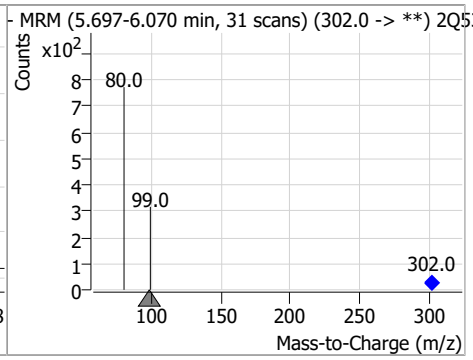




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.09	5.85	-0.04	6296				

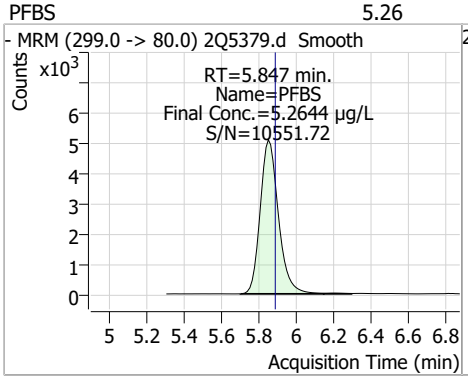


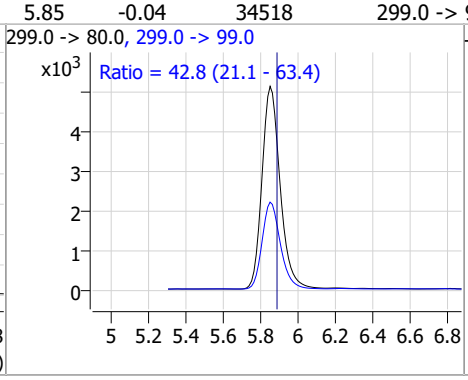


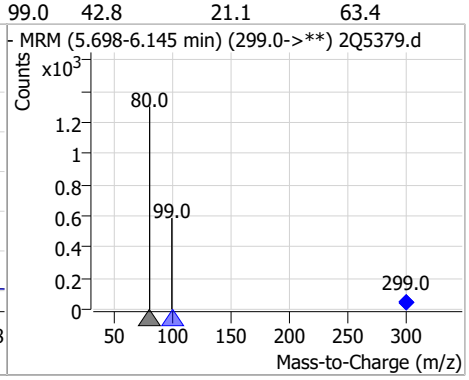


Perfluorinated Compounds by LC/MS/MS

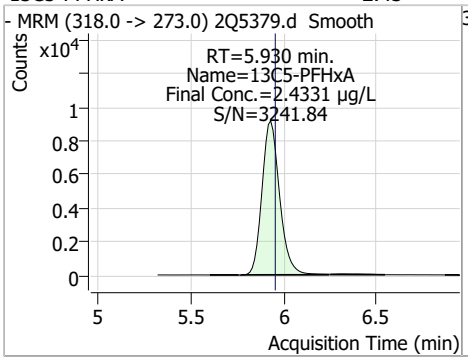
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	5.26	5.85	-0.04	34518	299.0 -> 99.0	42.8	21.1	63.4

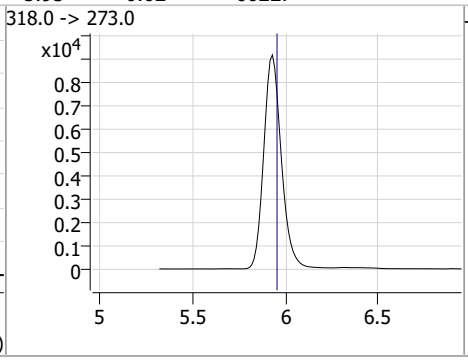


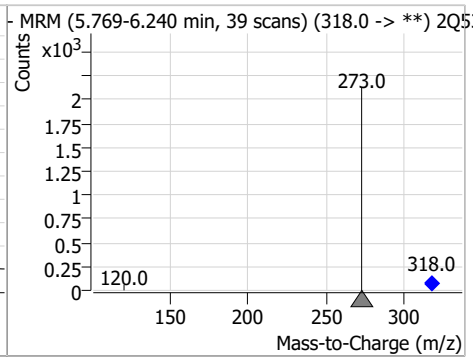




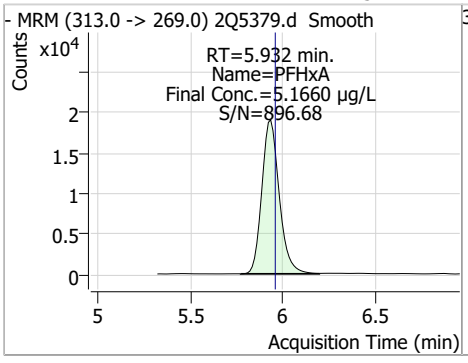
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.43	5.93	-0.02	60227				

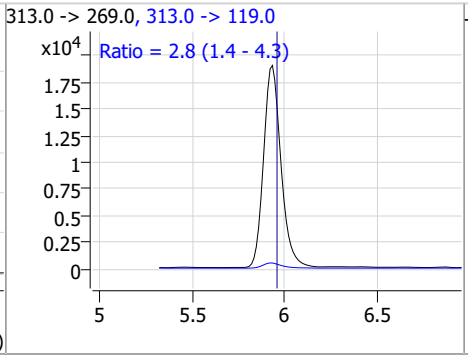


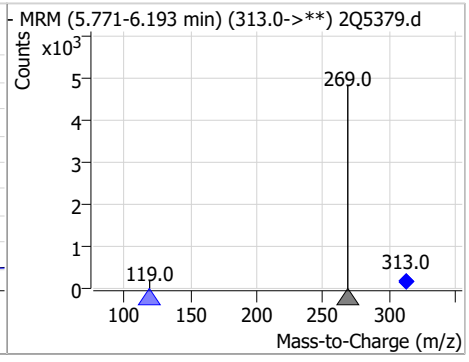




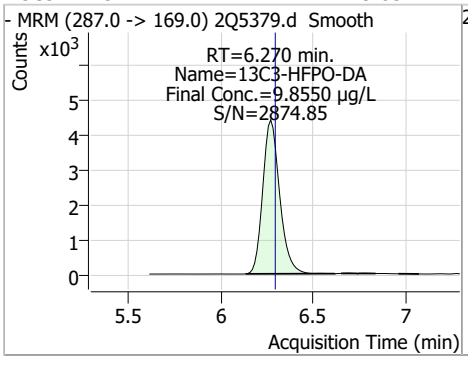
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	5.17	5.93	-0.02	123022	313.0 -> 119.0	2.8	1.4	4.3

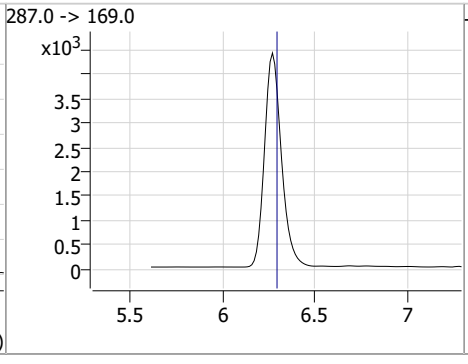


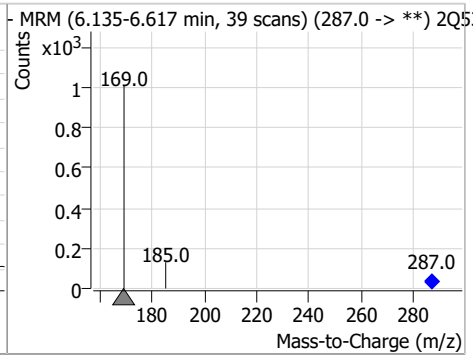




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.85	6.27	-0.02	27843				

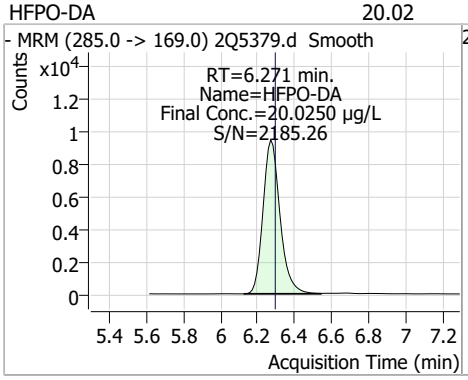


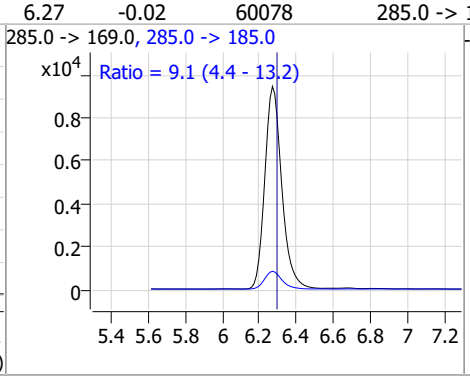


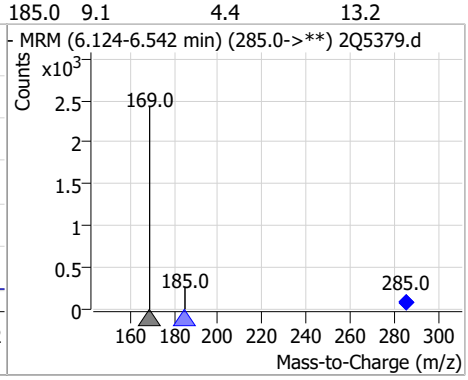


Perfluorinated Compounds by LC/MS/MS

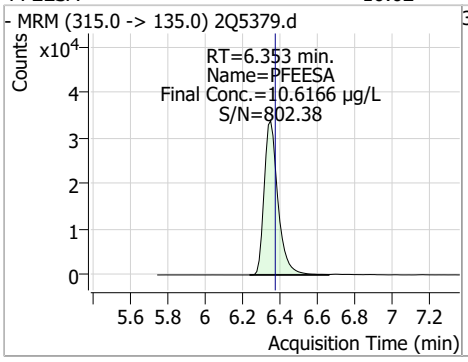
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	20.02	6.27	-0.02	60078	285.0 -> 185.0	9.1	4.4	13.2

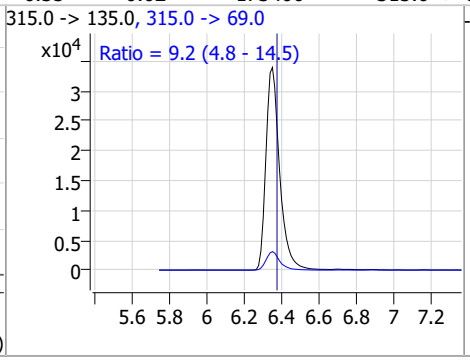


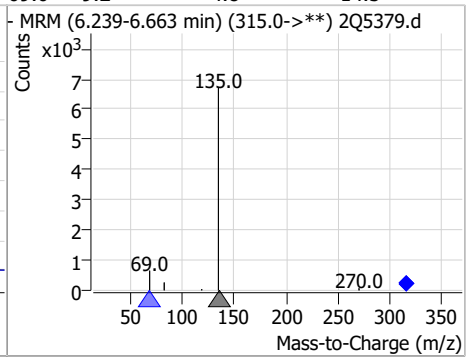




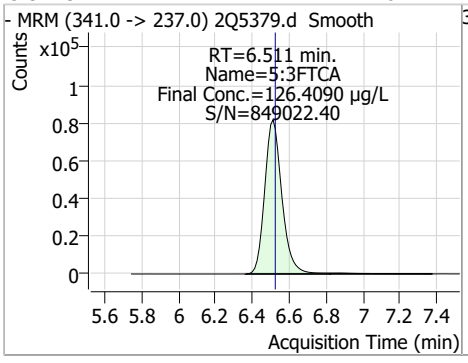
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.62	6.35	-0.02	173400	315.0 -> 69.0	9.2	4.8	14.5

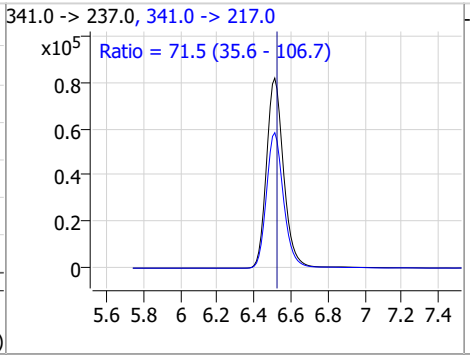


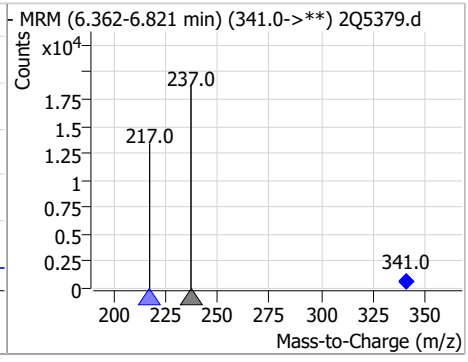




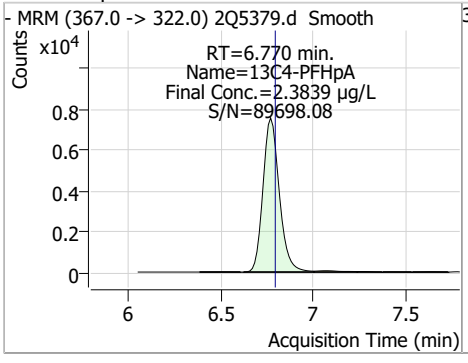
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	126.41	6.51	-0.01	526558	341.0 -> 217.0	71.5	35.6	106.7

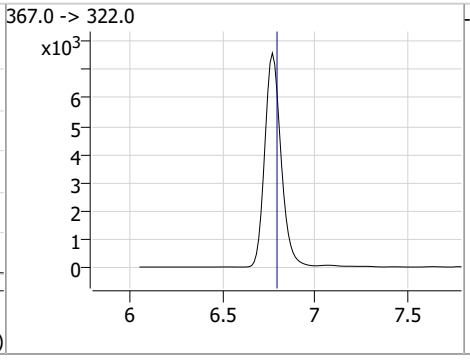


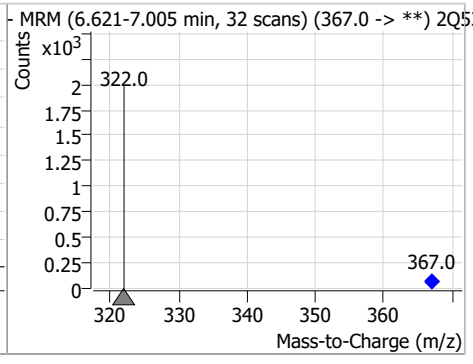




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.38	6.77	-0.03	46157				

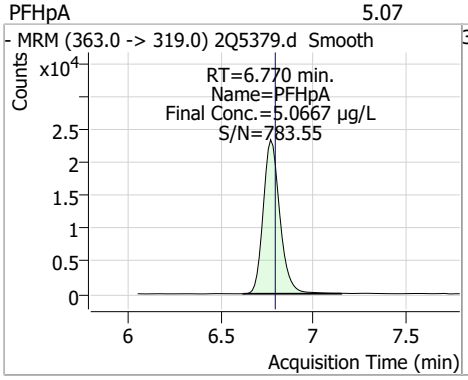


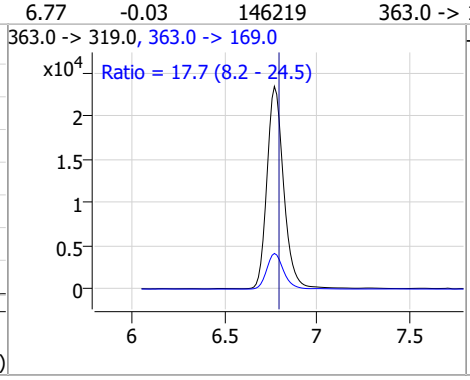


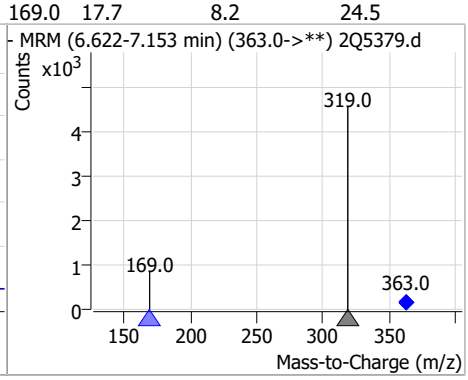


Perfluorinated Compounds by LC/MS/MS

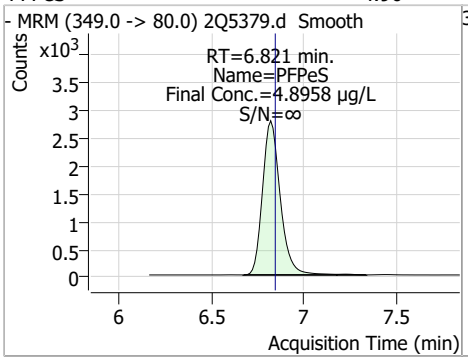
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	5.07	6.77	-0.03	146219	363.0 -> 169.0	17.7	8.2	24.5

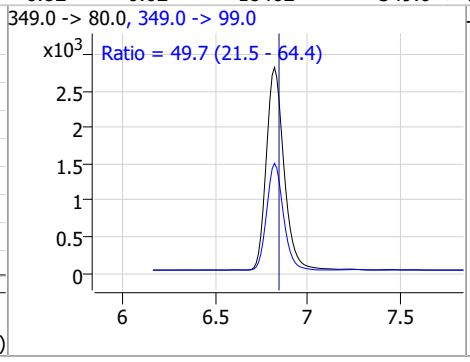


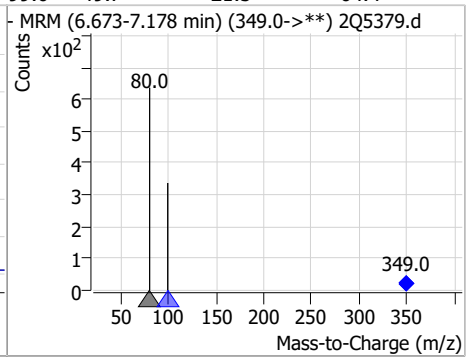




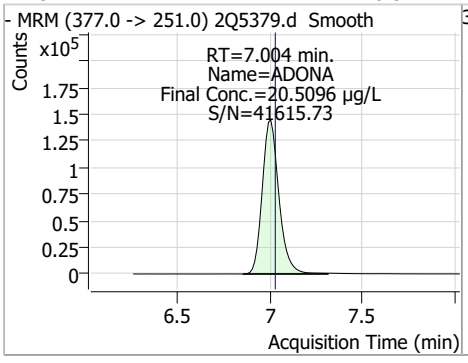
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	4.90	6.82	-0.02	18462	349.0 -> 99.0	49.7	21.5	64.4

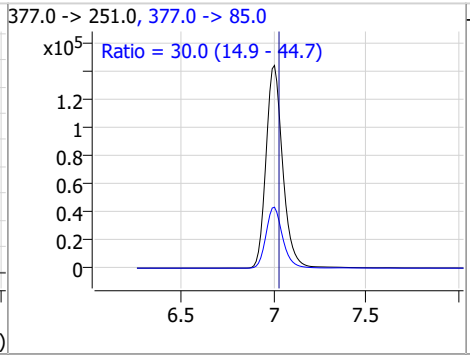


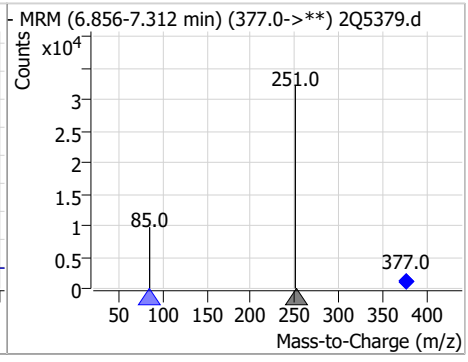




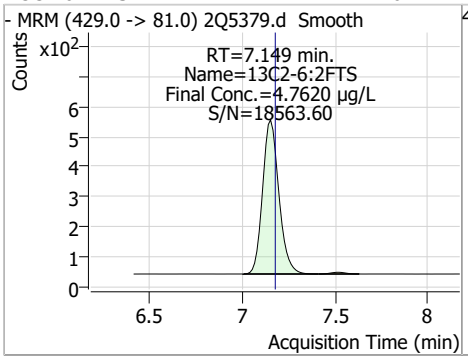
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	20.51	7.00	-0.02	905172	377.0 -> 85.0	30.0	14.9	44.7

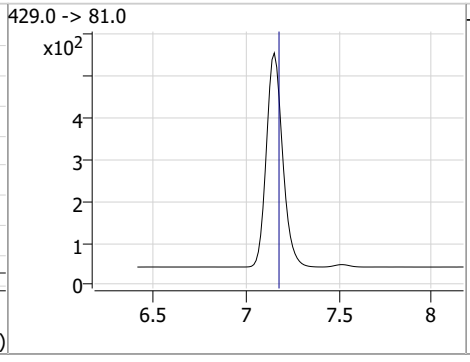


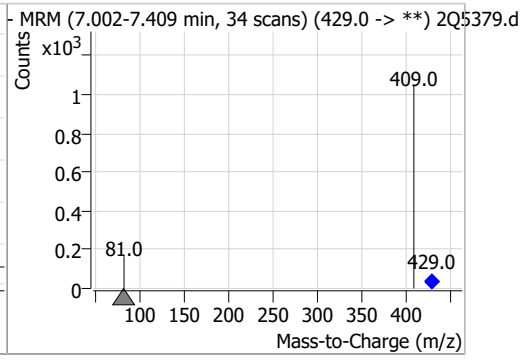




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.76	7.15	-0.03	3123				

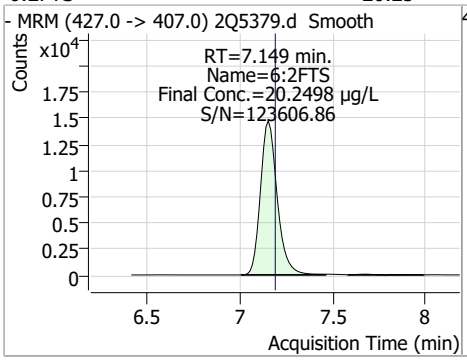


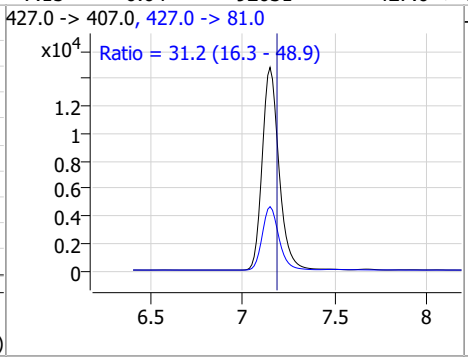


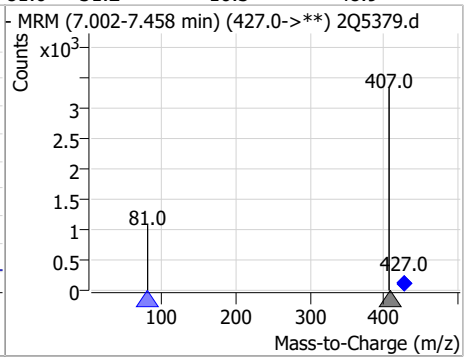


Perfluorinated Compounds by LC/MS/MS

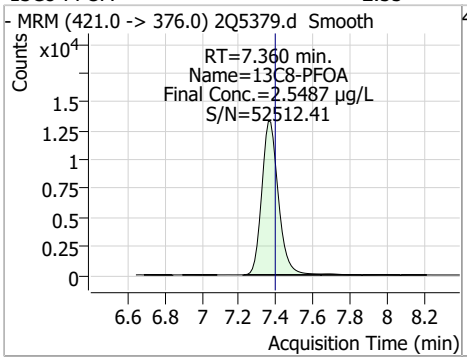
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	20.25	7.15	-0.04	92631	427.0 -> 81.0	31.2	16.3	48.9

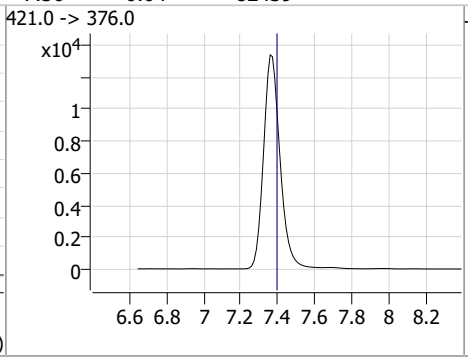


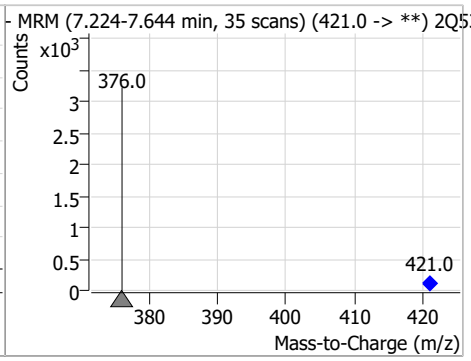




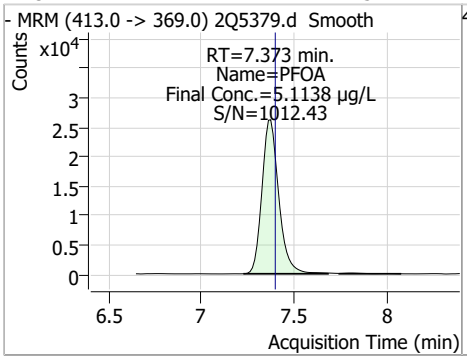
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.55	7.36	-0.04	82439				

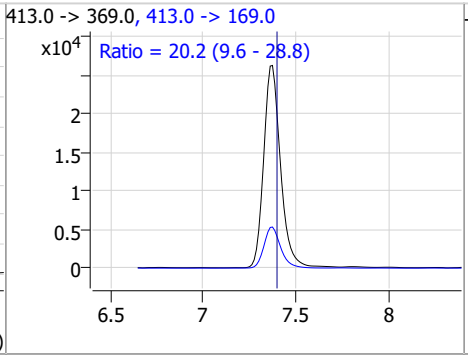


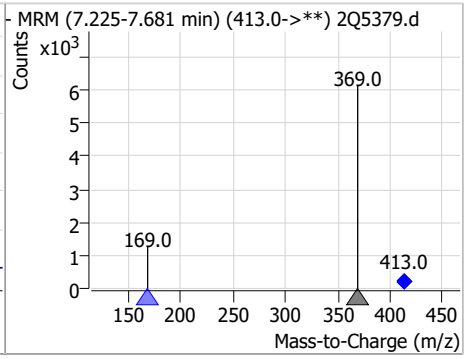




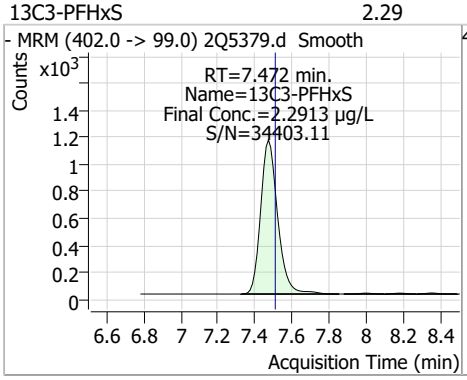
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	5.11	7.37	-0.02	165147	413.0 -> 169.0	20.2	9.6	28.8

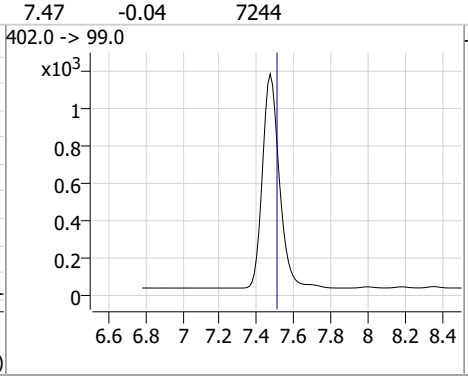


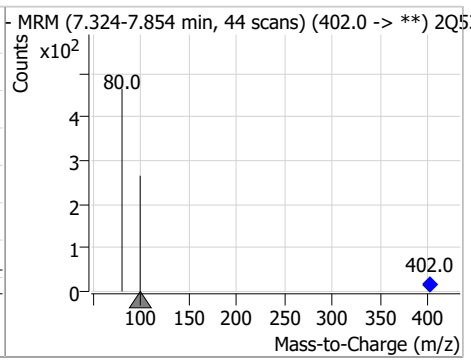




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.29	7.47	-0.04	7244				

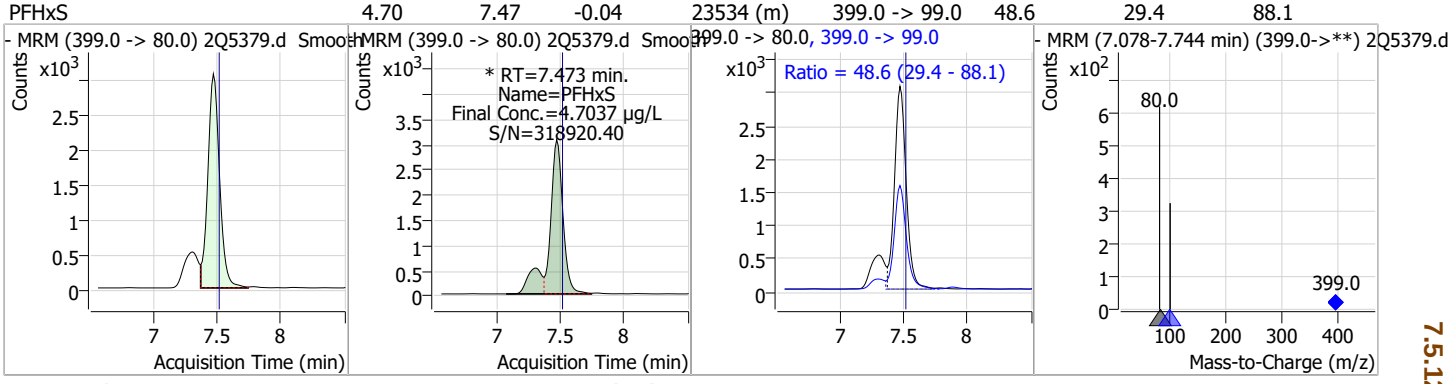




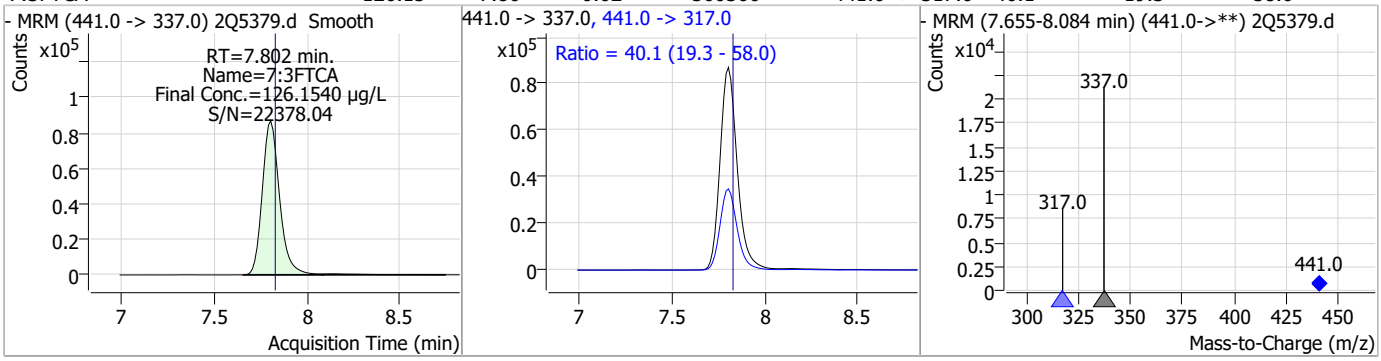


Perfluorinated Compounds by LC/MS/MS

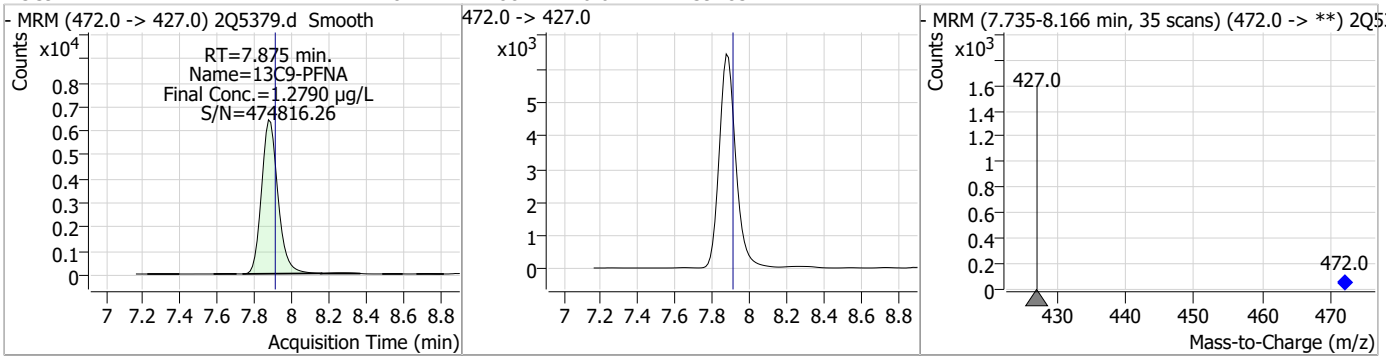
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	4.70	7.47	-0.04	23534 (m)	399.0 -> 99.0	48.6	29.4	88.1



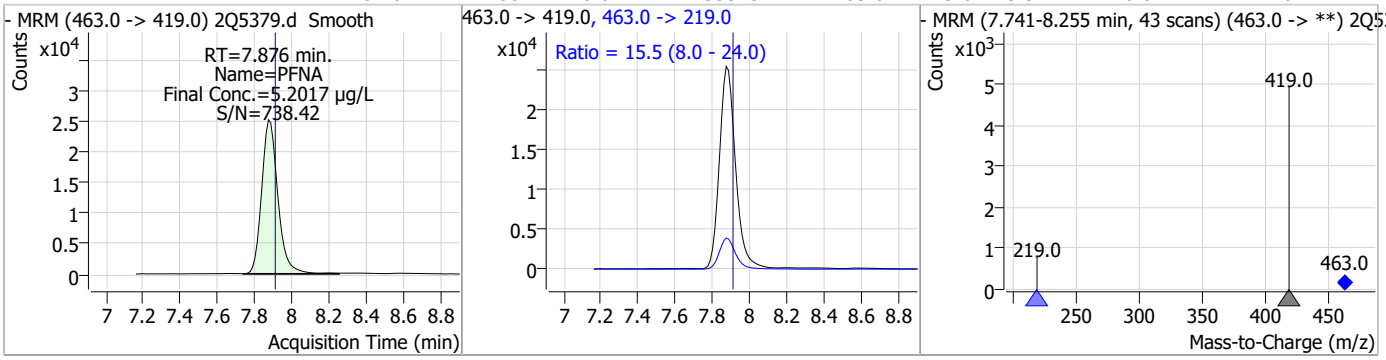
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	126.15	7.80	-0.02	560360	441.0 -> 317.0	40.1	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.28	7.88	-0.04	39283				

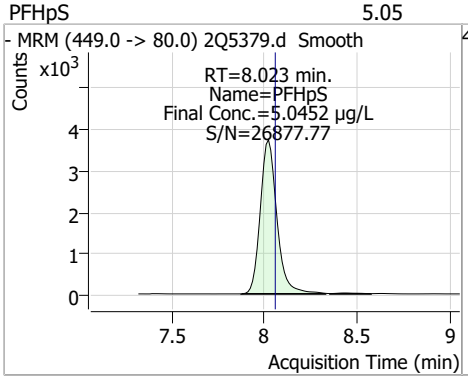


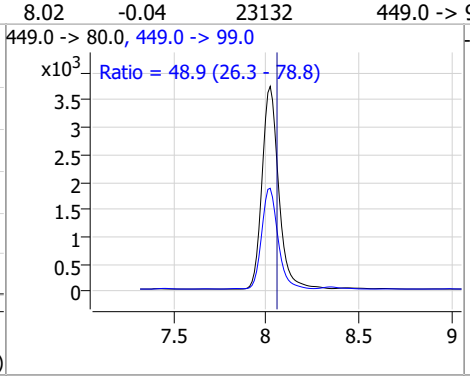
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	5.20	7.88	-0.04	153525	463.0 -> 219.0	15.5	8.0	24.0

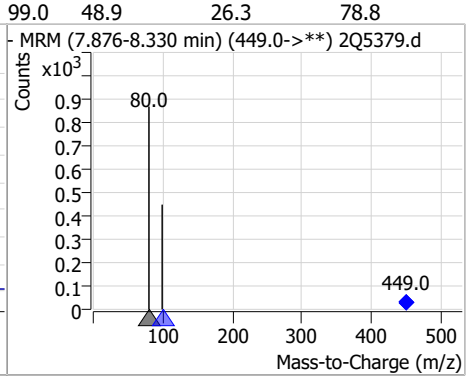


Perfluorinated Compounds by LC/MS/MS

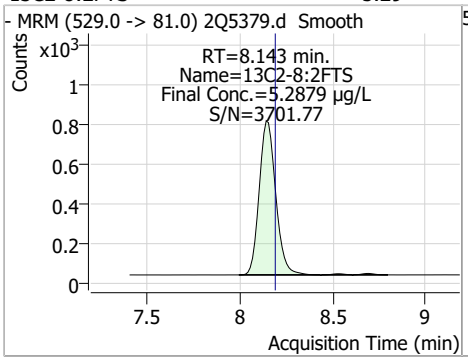
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	5.05	8.02	-0.04	23132	449.0 -> 99.0	48.9	26.3	78.8

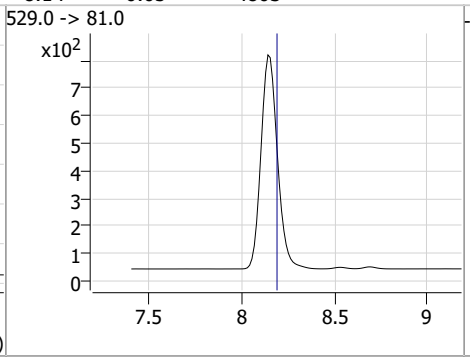


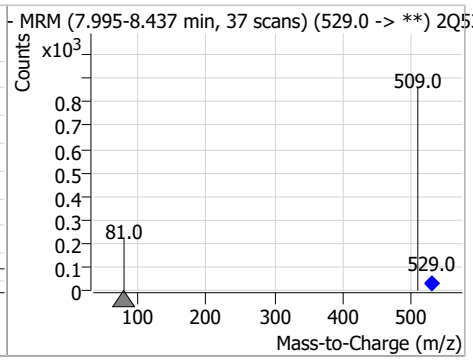




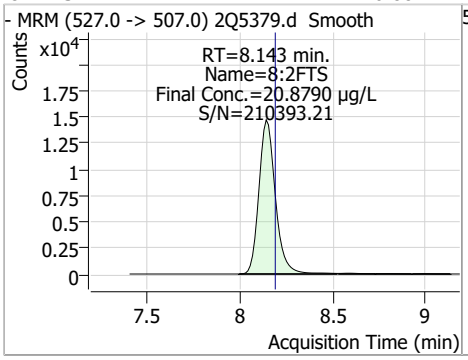
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.29	8.14	-0.05	4803				

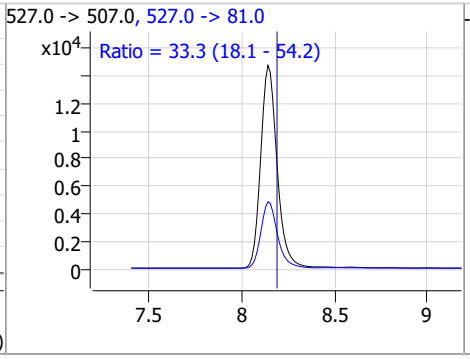


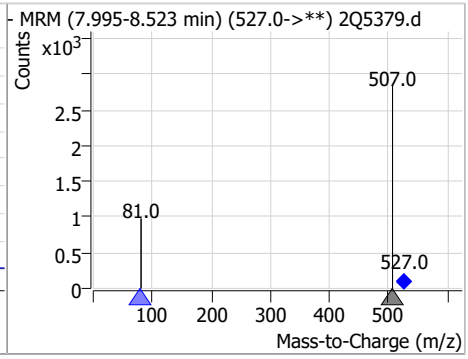




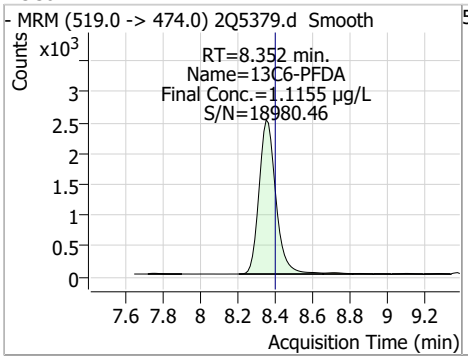
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	20.88	8.14	-0.05	90667	527.0 -> 81.0	33.3	18.1	54.2

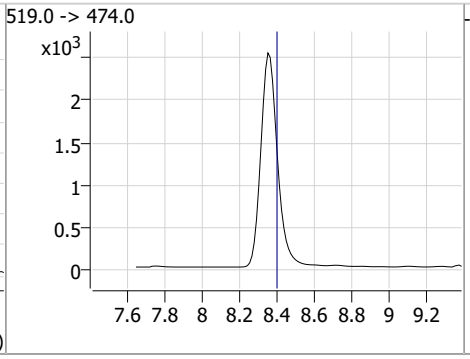


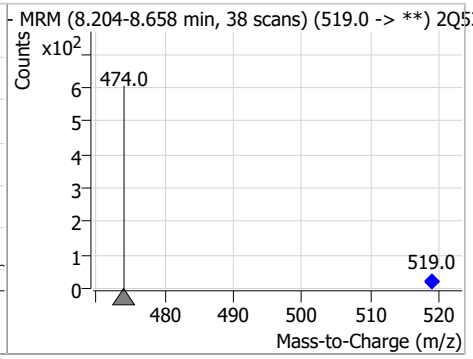




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.12	8.35	-0.05	15722				

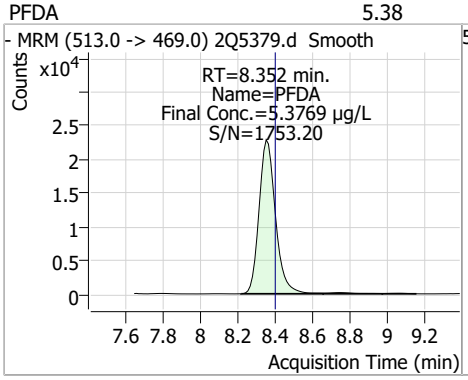


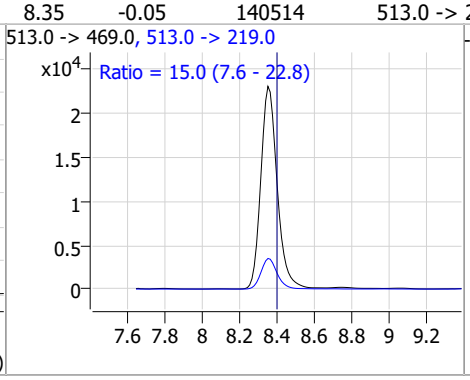


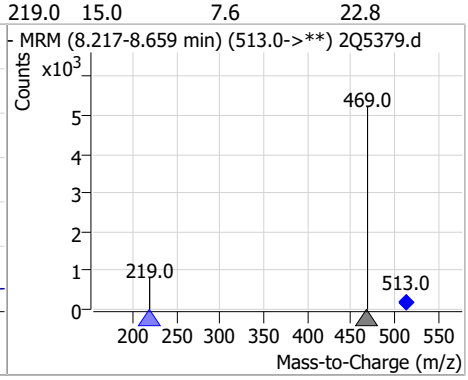


Perfluorinated Compounds by LC/MS/MS

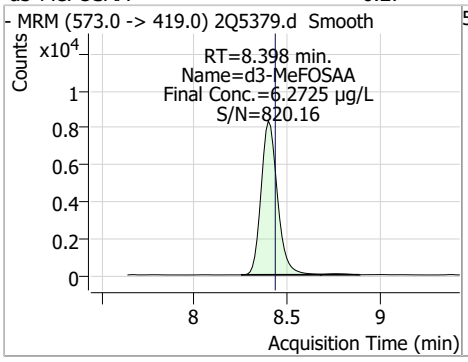
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	5.38	8.35	-0.05	140514	513.0 -> 219.0	15.0	7.6	22.8

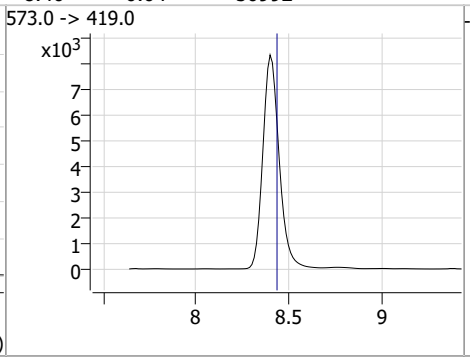


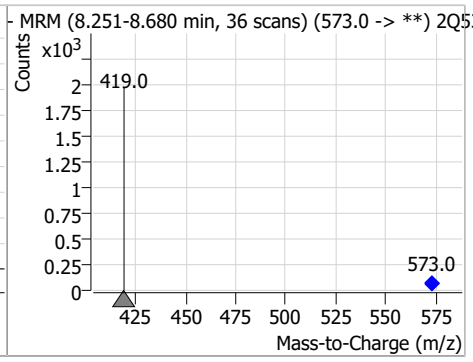




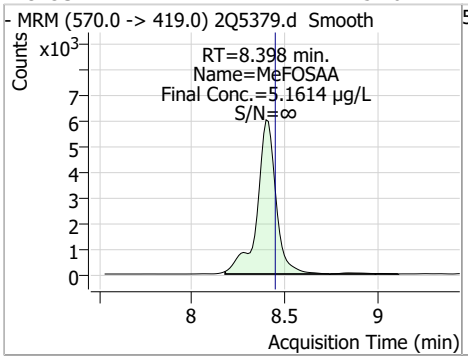
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	6.27	8.40	-0.04	50992				

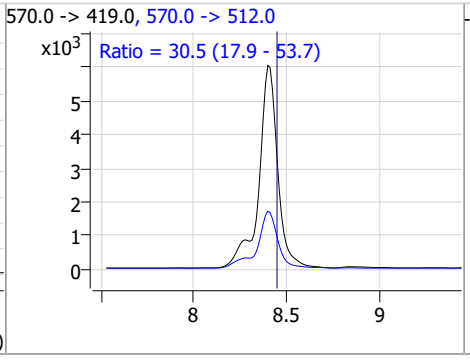


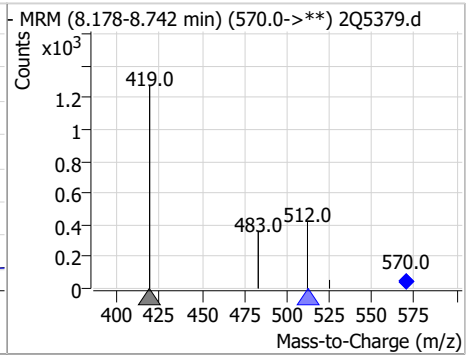




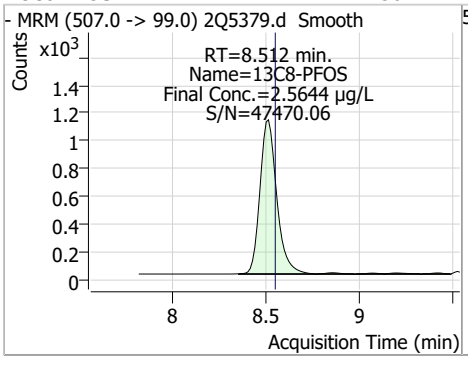
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.16	8.40	-0.05	42668	570.0 -> 512.0	30.5	17.9	53.7

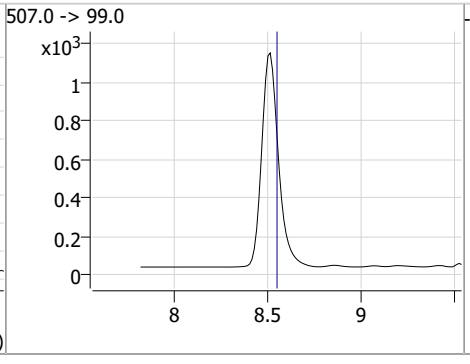


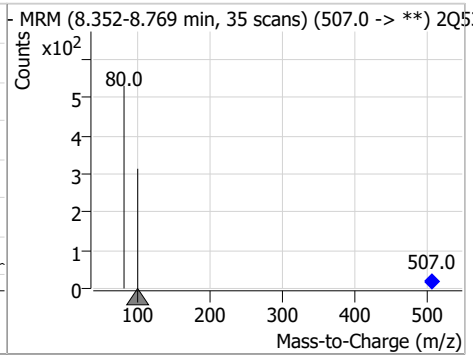




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.56	8.51	-0.04	6975				

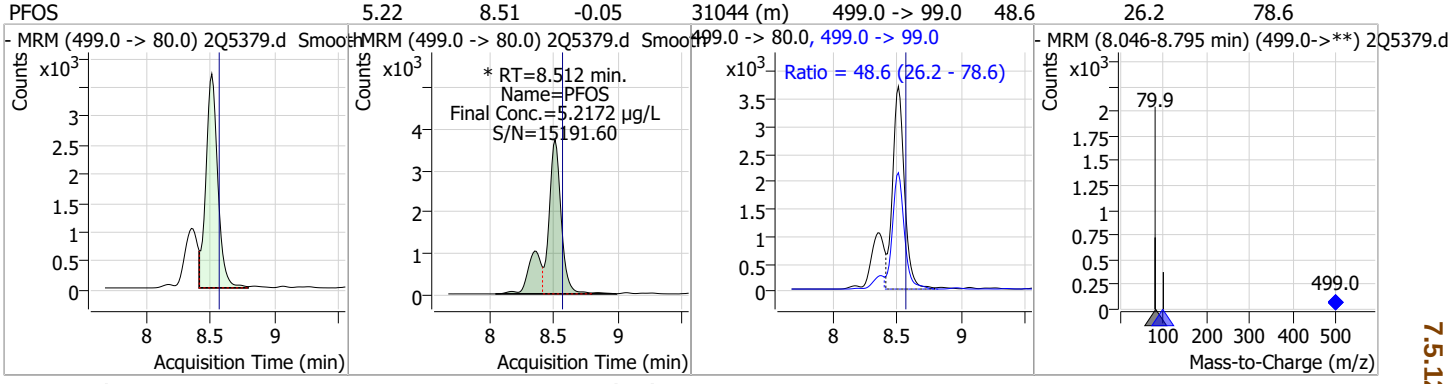




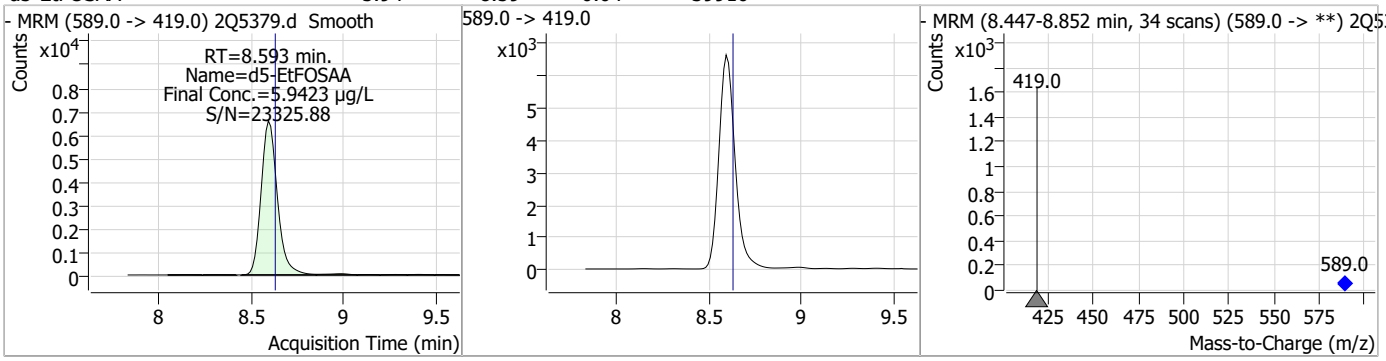


Perfluorinated Compounds by LC/MS/MS

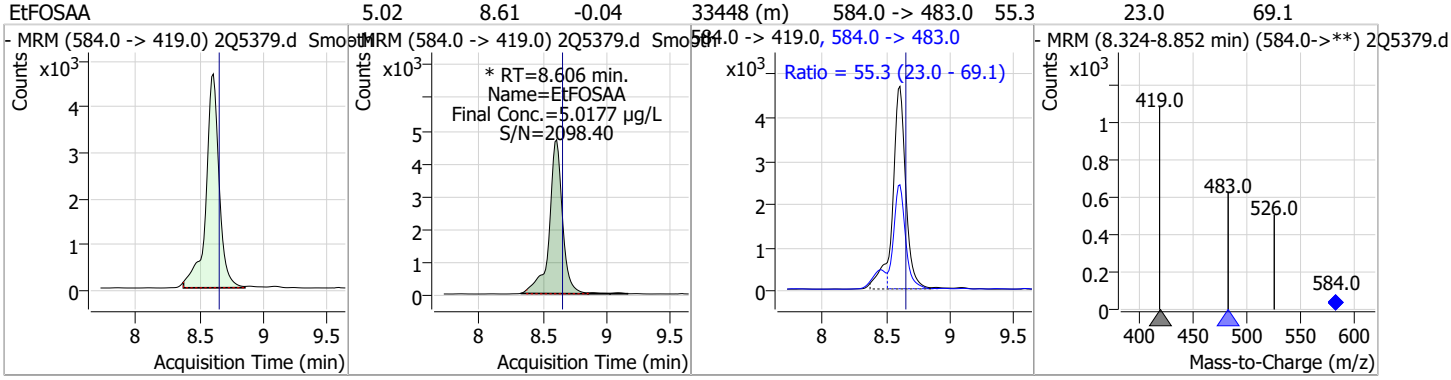
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	5.22	8.51	-0.05	31044 (m)	499.0 -> 99.0	48.6	26.2	78.6



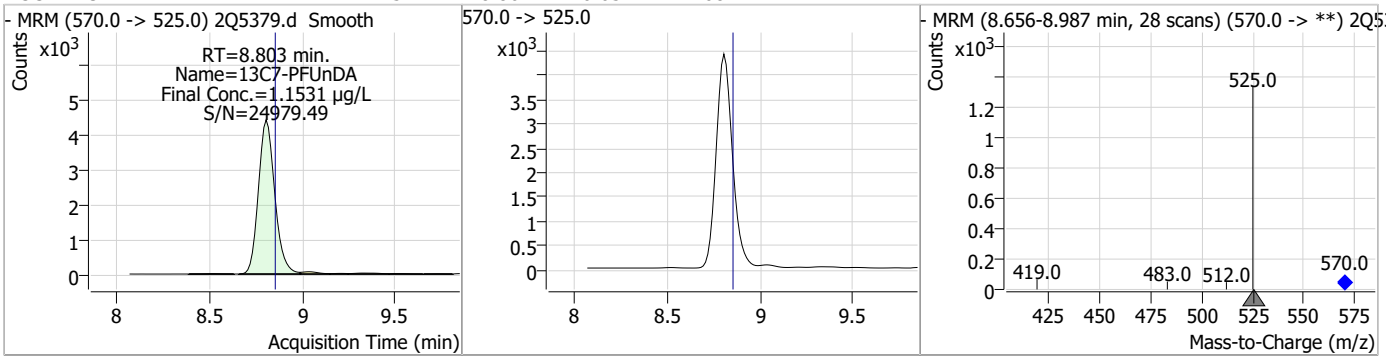
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.94	8.59	-0.04	39910				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	5.02	8.61	-0.04	33448 (m)	584.0 -> 483.0	55.3	23.0	69.1

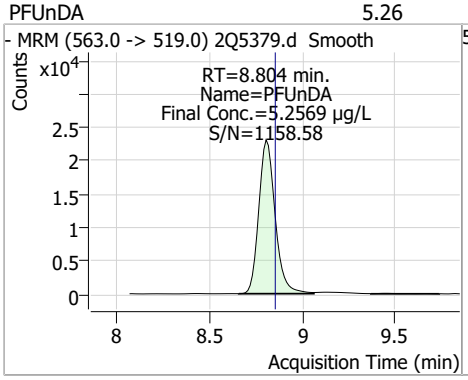


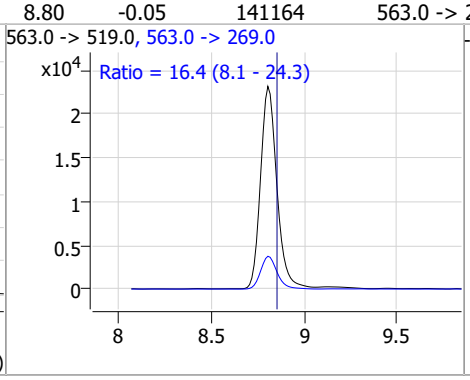
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.15	8.80	-0.05	26811				

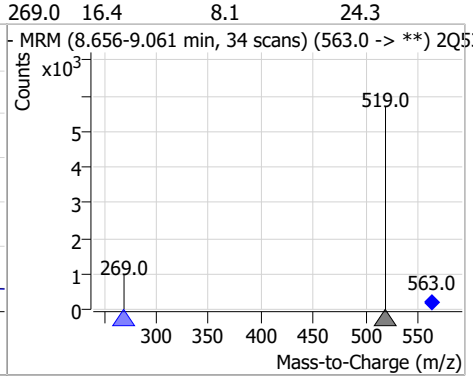


Perfluorinated Compounds by LC/MS/MS

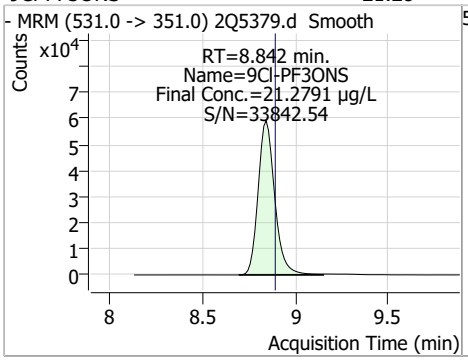
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.26	8.80	-0.05	141164	563.0 -> 269.0	16.4	8.1	24.3

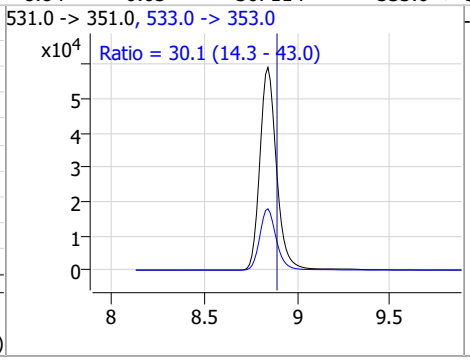


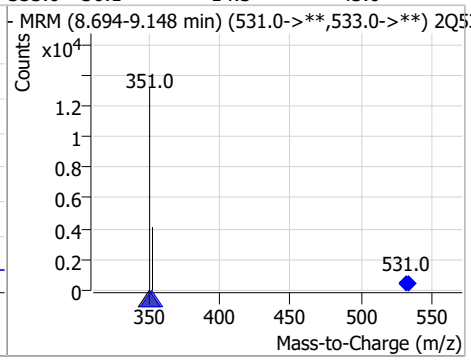




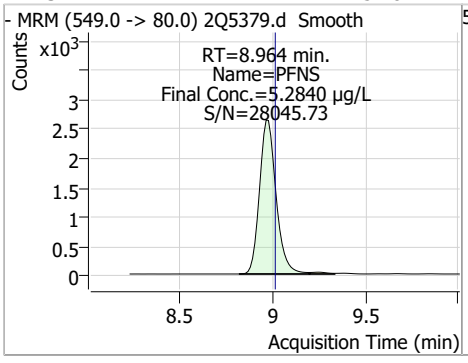
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	21.28	8.84	-0.05	367114	533.0 -> 353.0	30.1	14.3	43.0

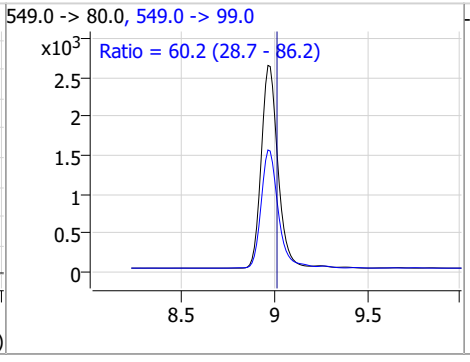


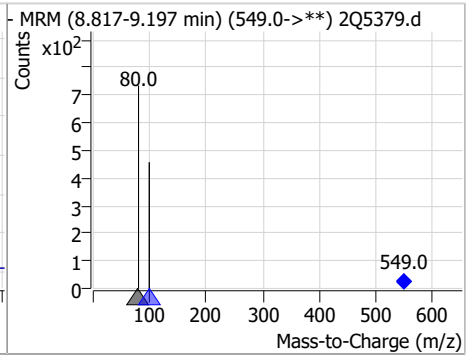




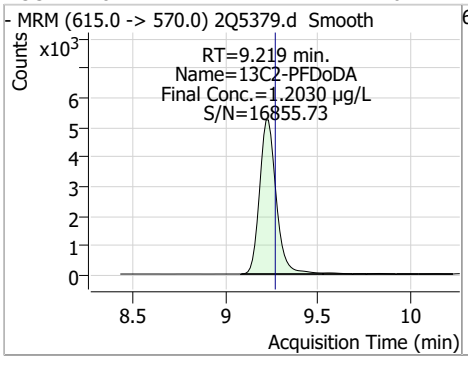
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	5.28	8.96	-0.05	16233	549.0 -> 99.0	60.2	28.7	86.2

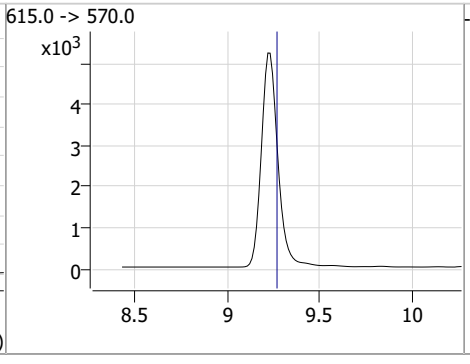


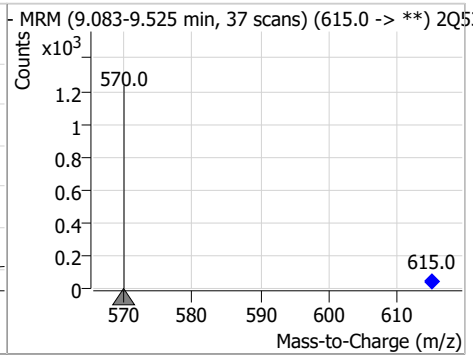




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.20	9.22	-0.05	32423				

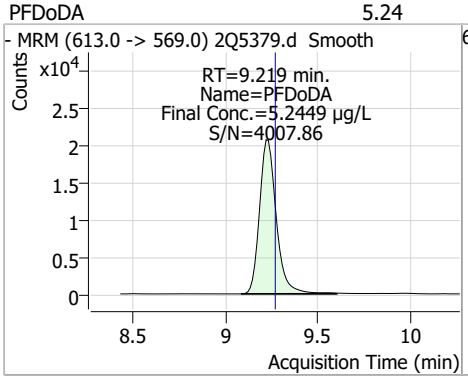


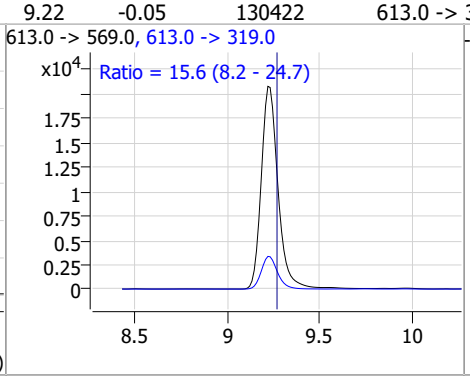


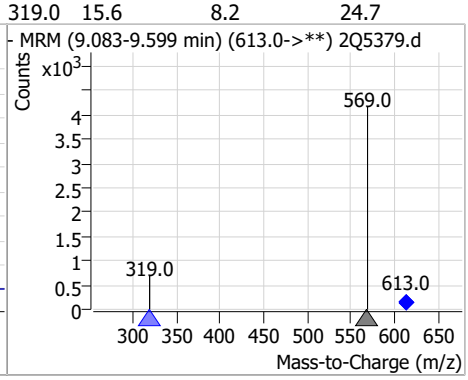


Perfluorinated Compounds by LC/MS/MS

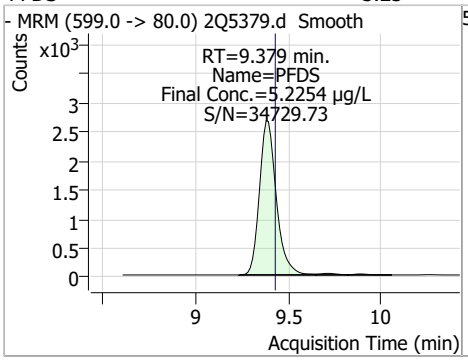
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	5.24	9.22	-0.05	130422	613.0 -> 319.0	15.6	8.2	24.7

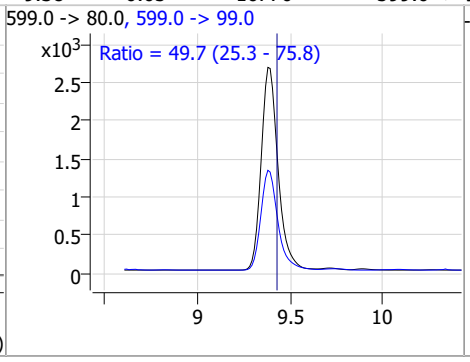


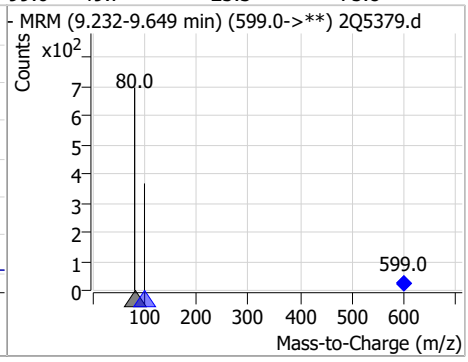




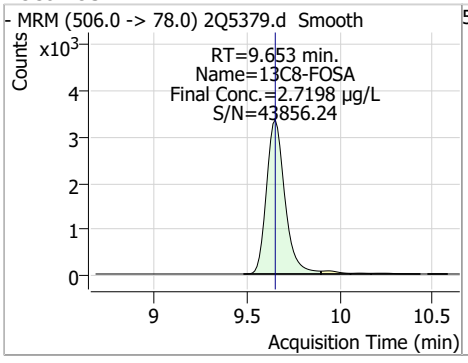
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	5.23	9.38	-0.05	16770	599.0 -> 99.0	49.7	25.3	75.8

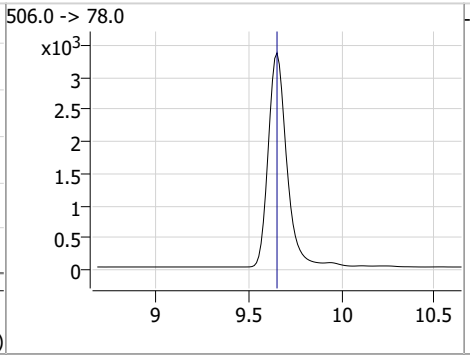


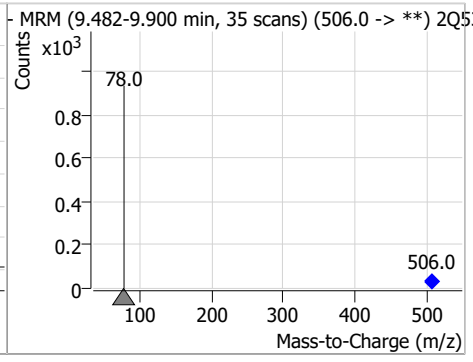




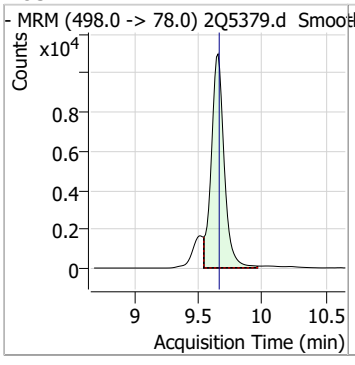
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.72	9.65	0.00	23003				

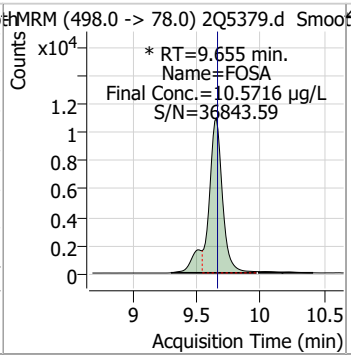


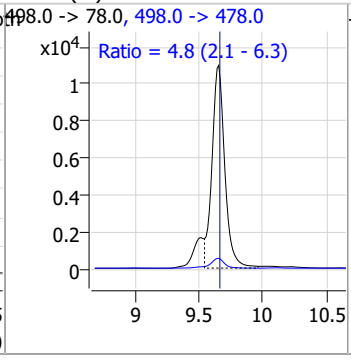


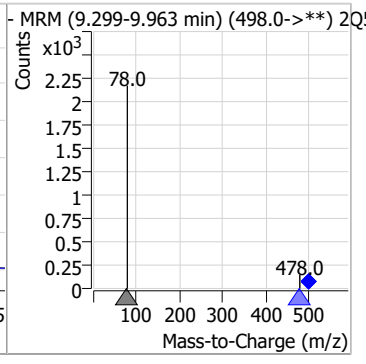


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	10.57	9.65	0.00	85841 (m)	498.0 -> 478.0	4.8	2.1	6.3



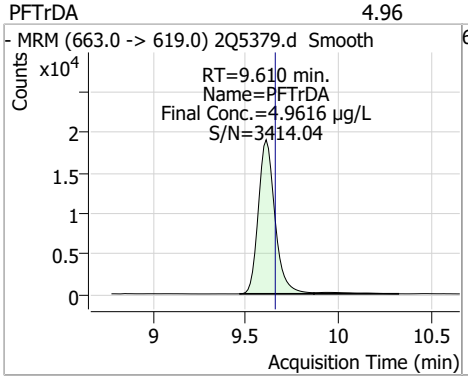


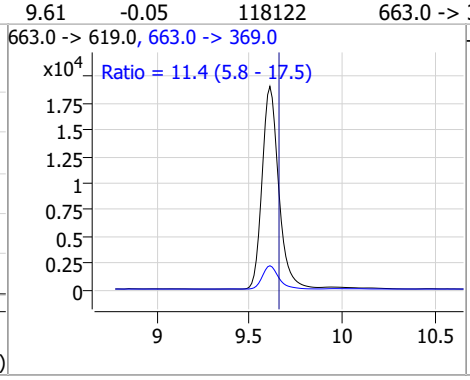


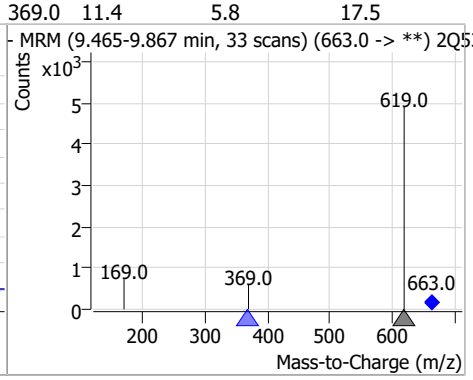


Perfluorinated Compounds by LC/MS/MS

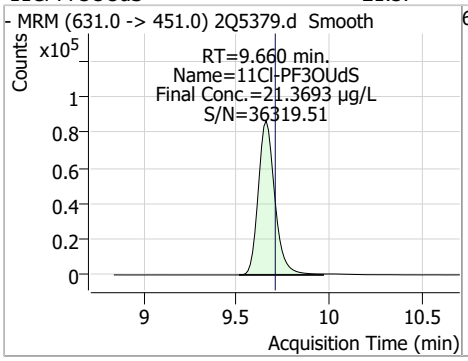
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	4.96	9.61	-0.05	118122	663.0 -> 369.0	11.4	5.8	17.5

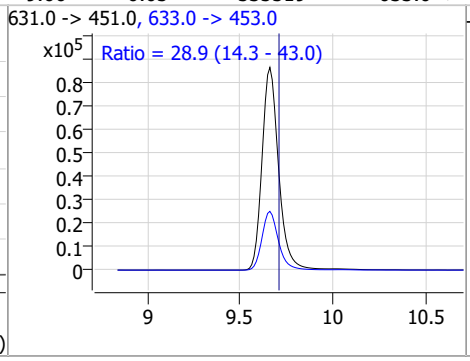


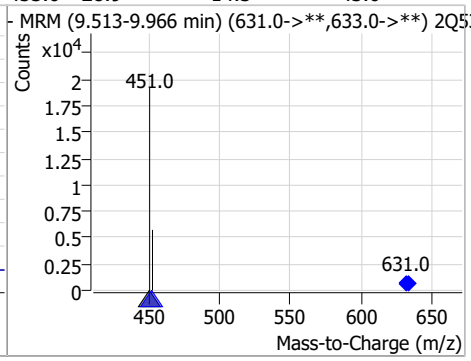




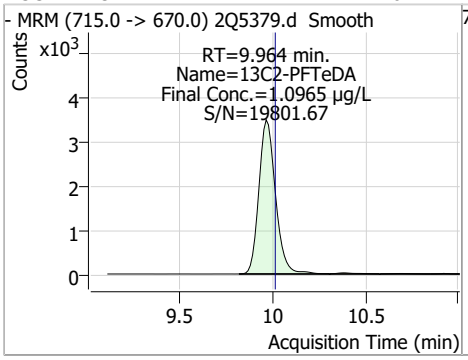
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	21.37	9.66	-0.05	535519	633.0 -> 453.0	28.9	14.3	43.0

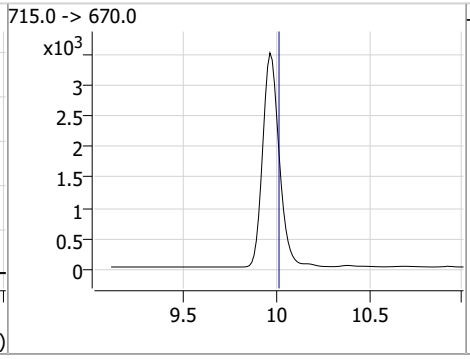


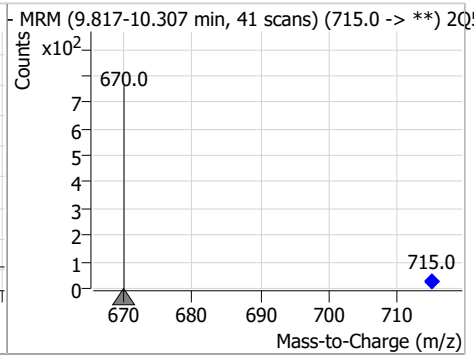




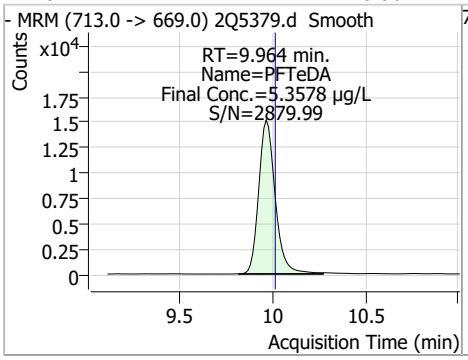
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.10	9.96	-0.05	21676				

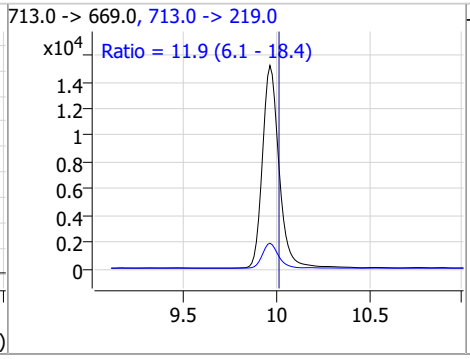


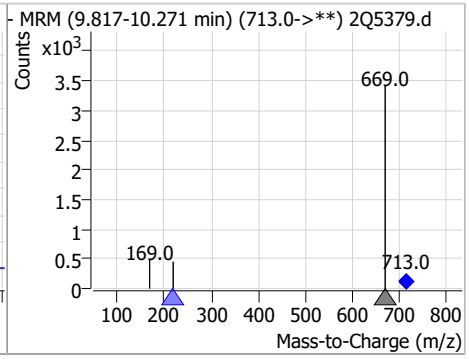




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	5.36	9.96	-0.05	93962	713.0 -> 219.0	11.9	6.1	18.4

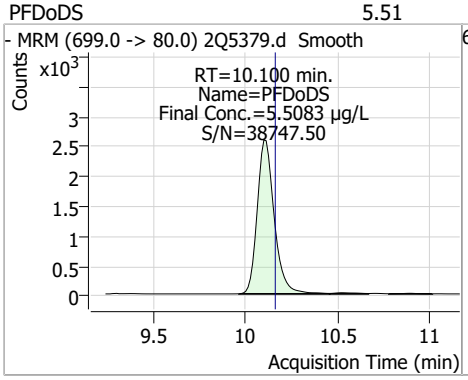


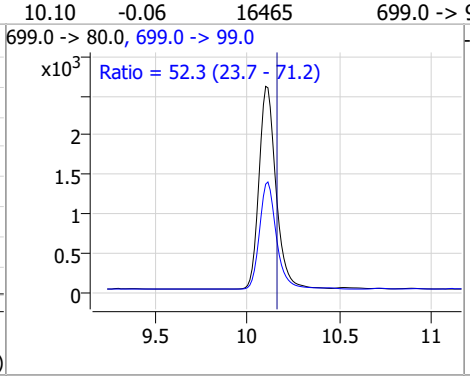


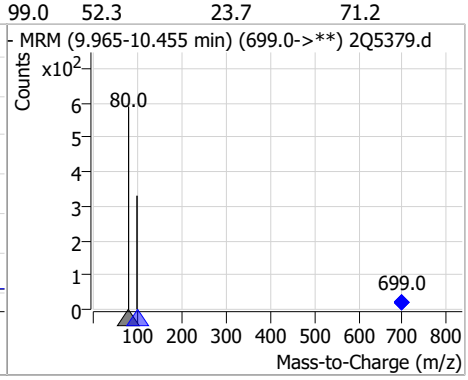


Perfluorinated Compounds by LC/MS/MS

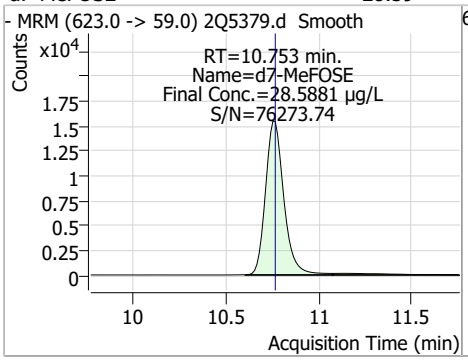
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	5.51	10.10	-0.06	16465	699.0 -> 99.0	52.3	23.7	71.2

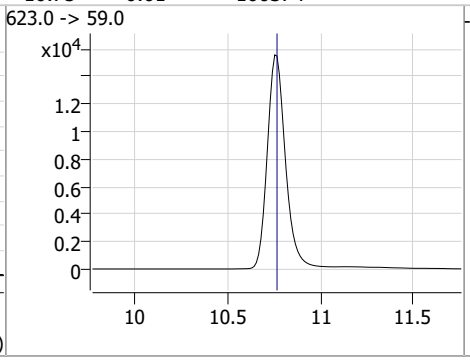


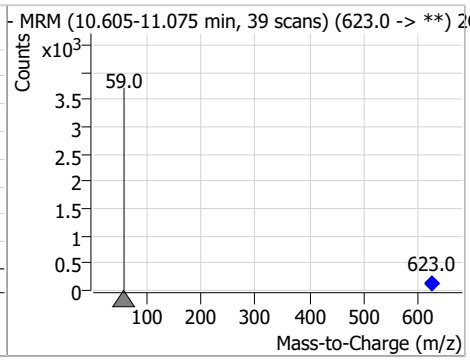




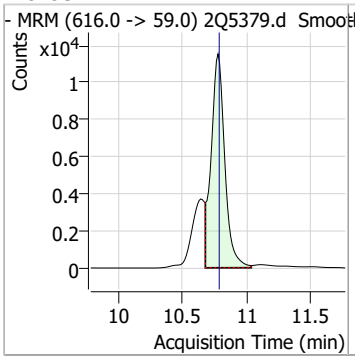
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	28.59	10.75	-0.01	106374				

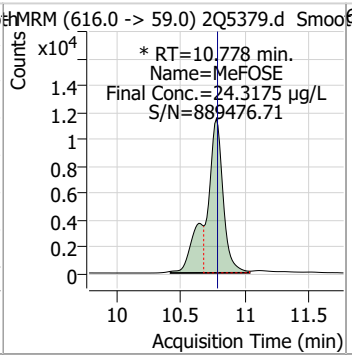


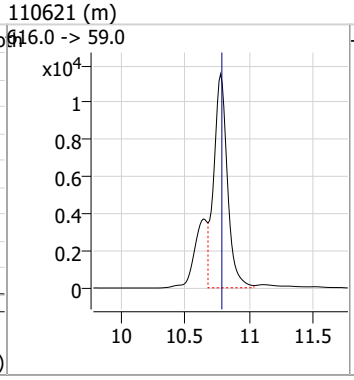


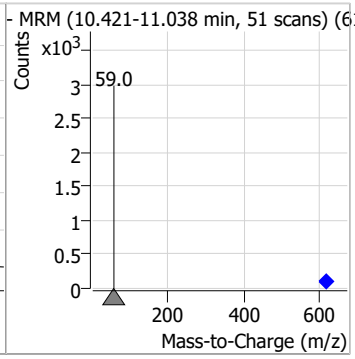


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	24.32	10.78	0.00	110621 (m)				

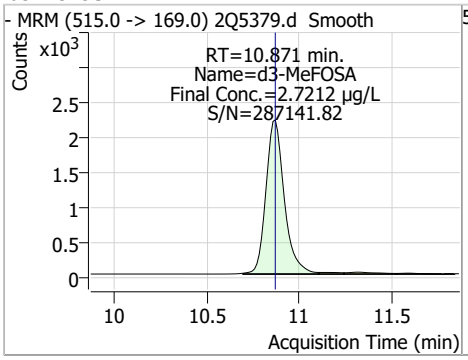


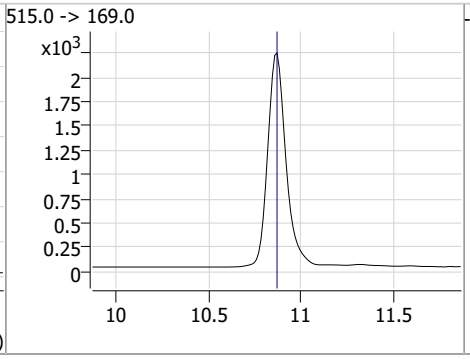


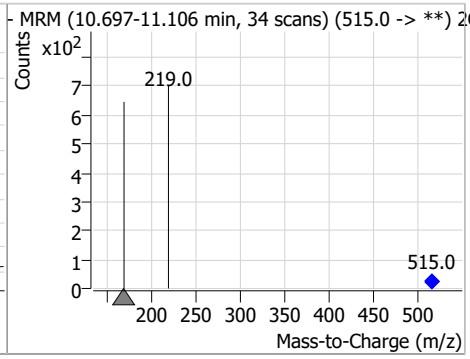




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.72	10.87	0.00	15225				

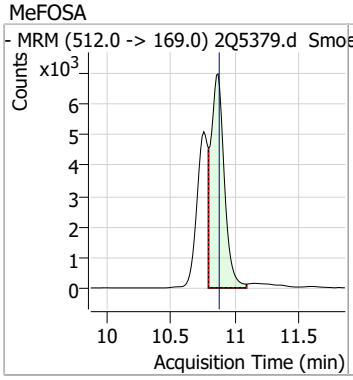


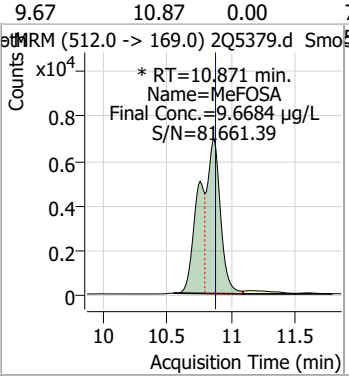


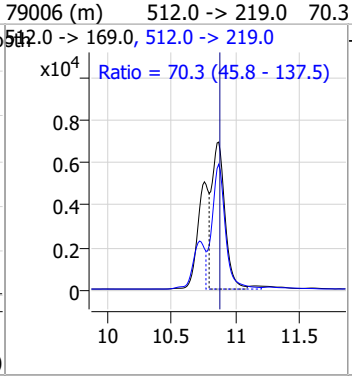


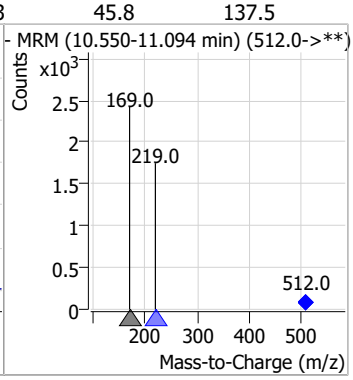
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	9.67	10.87	0.00	79006 (m)	512.0 -> 219.0	70.3	45.8	137.5

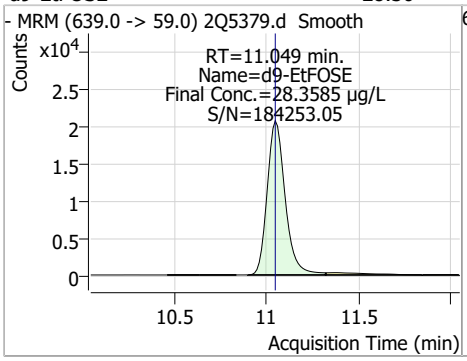


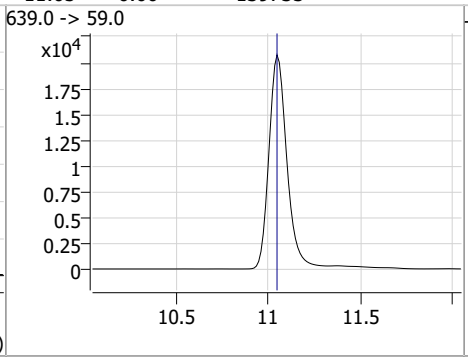


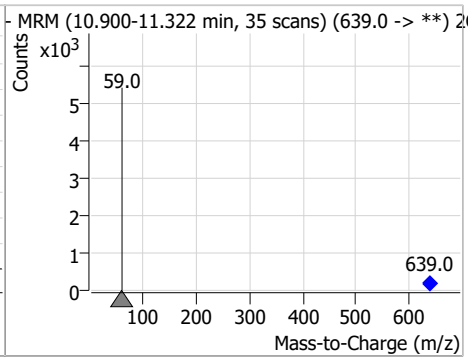




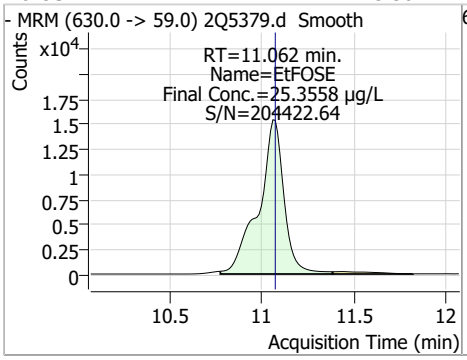
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	28.36	11.05	0.00	139733				

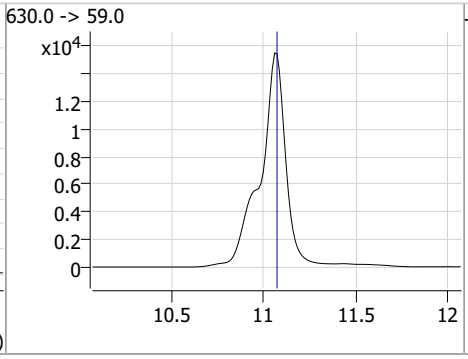


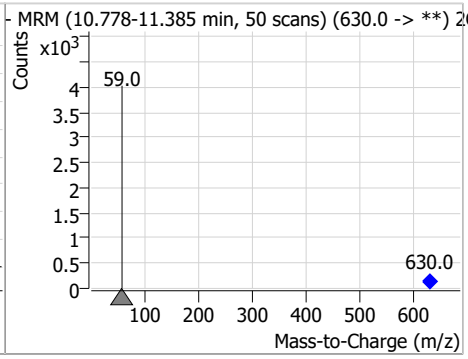




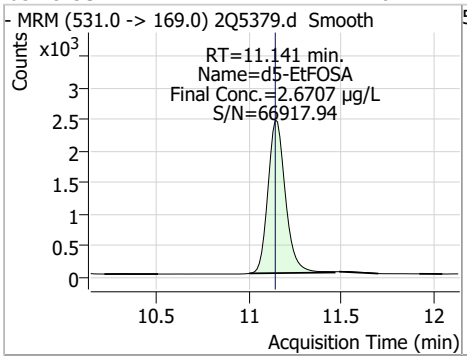
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	25.36	11.06	-0.01	148120				

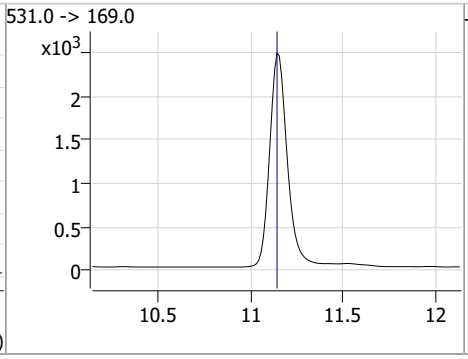


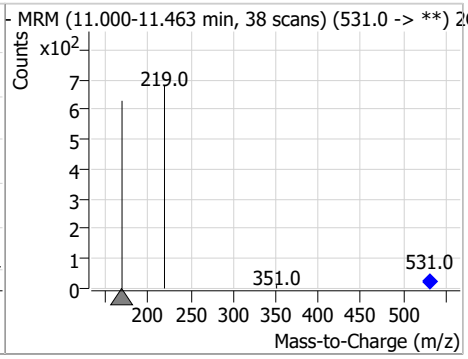




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.67	11.14	0.00	16021				

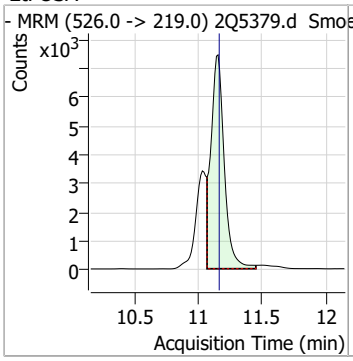


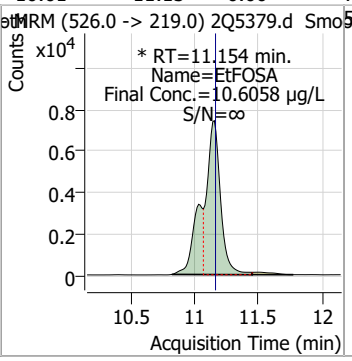


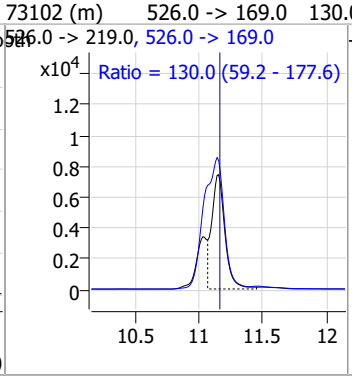


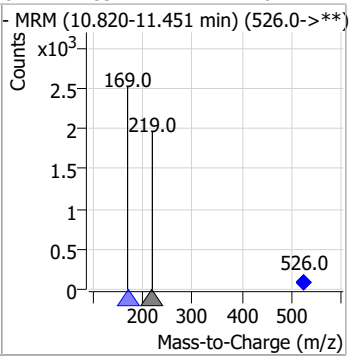
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	10.61	11.15	0.00	73102 (m)	526.0 -> 169.0	130.0	59.2	177.6









Manual Integration Approval Summary

Sample Number: T2Q96-CC96
Lab FileID: 2Q5379.D
Injection Time: 12/01/23 23:55
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.61	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5397.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 4:29:53 AM
Sample Name : cc96-5
Vial : P1-A6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,514,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	179892	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	111983	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	60209	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	48186	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	80352	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	37631	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	18468	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	27205	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	31526	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	22905	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	22121	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	6529	2.50	µg/L	-0.037
		302.0 -> 80.0	16777			
M3-PFHxS	7.472	402.0 -> 99.0	6785	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	7227	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1534	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	3102	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4255	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	45976	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	28844	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	40751	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	101422	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	136718	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16395	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14931	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	14053	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	80918	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	7811	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	77028	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	32223	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	37008	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	61538	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1534	5.38	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.6%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3102	4.91	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.1%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4255	4.86	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.2%		
13C2-PFDoDA	9.219	615.0 -> 570.0	31526	1.23	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.1%		
13C2-PFTeDA	9.964	715.0 -> 670.0	22905	1.21	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.1%		
13C3-PFBS	5.846	302.0 -> 99.0	6529	2.25	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.9%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6785	2.23	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 89.1%			
13C4-PFBA	3.314	217.0 -> 172.0	179892	9.87	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.7%			
13C4-PFHpA	6.770	367.0 -> 322.0	48186	2.41	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.4%			
13C5-PFHxA	5.930	318.0 -> 273.0	60209	2.35	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.2%			
13C5-PFPeA	4.785	268.0 -> 223.0	111983	4.86	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C6-PFDA	8.352	519.0 -> 474.0	18468	1.37	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 109.8%			
13C7-PFUnDA	8.803	570.0 -> 525.0	27205	1.23	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.1%			
13C8-FOSA	9.653	506.0 -> 78.0	22121	2.32	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.0%			
13C8-PFOA	7.372	421.0 -> 376.0	80352	2.52	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.8%			
13C8-PFOS	8.512	507.0 -> 99.0	7227	2.36	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.5%			
13C9-PFNA	7.875	472.0 -> 427.0	37631	1.30	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 104.0%			
d3-MeFOSAA	8.398	573.0 -> 419.0	45976	5.03	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.5%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	28844	9.88	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 98.8%			
d3-MeFOSA	10.871	515.0 -> 169.0	14931	2.37	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.9%			
d5-EtFOSAA	8.593	589.0 -> 419.0	40751	5.39	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.9%			
d7-MeFOSE	10.753	623.0 -> 59.0	101422	24.23	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 96.9%			
d9-EtFOSE	11.049	639.0 -> 59.0	136718	24.66	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 98.6%			
d5-EtFOSA	11.141	531.0 -> 169.0	16395	2.43	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.2%			
Target Compounds							**QValue**
4:2FTS	5.619	327.0 -> 307.0	45755	17.93	µg/L		100
		327.0 -> 81.0	23759				
6:2FTS	7.149	427.0 -> 407.0	94106	20.72	µg/L		94
		427.0 -> 81.0	27611				
8:2FTS	8.143	527.0 -> 507.0	91546	23.80	µg/L		93
		527.0 -> 81.0	29065				
EtFOSAA	8.606	584.0 -> 419.0	32256	4.74	µg/L	m	85
		584.0 -> 483.0	18064				
FOSA	9.655	498.0 -> 78.0	86381	11.06	µg/L	m	98
		498.0 -> 478.0	4169				
MeFOSAA	8.398	570.0 -> 419.0	39415	5.29	µg/L	m	85
		570.0 -> 512.0	10642				
PFBA	3.321	213.0 -> 169.0	91957	20.36	µg/L		100
PFBS	5.847	299.0 -> 80.0	36579	5.38	µg/L		94
		299.0 -> 99.0	14178				
PFDA	8.352	513.0 -> 469.0	142457	4.64	µg/L		96
		513.0 -> 219.0	19476				
PFDoDA	9.219	613.0 -> 569.0	124140	5.13	µg/L		98
		613.0 -> 319.0	21209				

Perfluorinated Compounds by LC/MS/MS

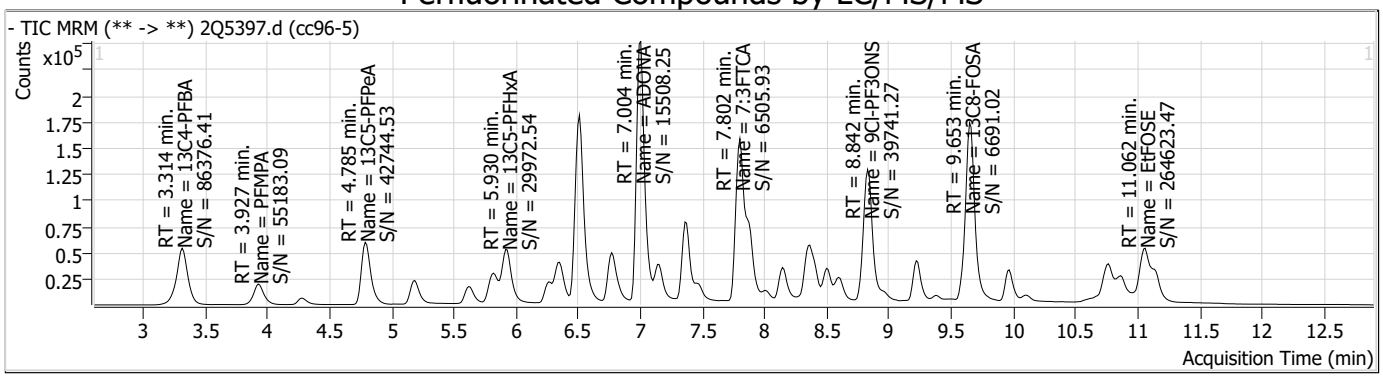
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	15287	4.69	µg/L		97
		599.0 -> 99.0	7448				
PFHpA	6.770	363.0 -> 319.0	141206	4.69	µg/L		96
		363.0 -> 169.0	25421				
PFHpS	8.023	449.0 -> 80.0	20868	4.86	µg/L		97
		449.0 -> 99.0	11361				
PFHxA	5.932	313.0 -> 269.0	124079	5.21	µg/L		99
		313.0 -> 119.0	3374				
PFHxS	7.473	399.0 -> 80.0	23862	5.09	µg/L	m	91
		399.0 -> 99.0	12313				
PFNA	7.876	463.0 -> 419.0	146644	5.19	µg/L		98
		463.0 -> 219.0	24408				
PFNS	8.964	549.0 -> 80.0	15573	4.89	µg/L		96
		549.0 -> 99.0	8507				
PFOA	7.373	413.0 -> 369.0	162549	5.16	µg/L		98
		413.0 -> 169.0	32915				
PFOS	8.512	499.0 -> 80.0	29821	4.84	µg/L	m	94
		499.0 -> 99.0	14319				
PFPeA	4.787	263.0 -> 219.0	205696	10.19	µg/L		100
PFPeS	6.821	349.0 -> 80.0	19594	5.01	µg/L		89
		349.0 -> 99.0	9819				
PFTeDA	9.964	713.0 -> 669.0	91610	4.94	µg/L		97
		713.0 -> 219.0	10313				
PFTrDA	9.610	663.0 -> 619.0	122628	5.30	µg/L		100
		663.0 -> 369.0	14292				
PFUnDA	8.804	563.0 -> 519.0	138365	5.08	µg/L		100
		563.0 -> 269.0	22379				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	514023	19.80	µg/L		97
		633.0 -> 453.0	154957				
9Cl-PF3ONS	8.842	531.0 -> 351.0	365905	20.47	µg/L		96
		533.0 -> 353.0	112112				
ADONA	7.004	377.0 -> 251.0	905013	19.79	µg/L		100
		377.0 -> 85.0	268449				
HFPO-DA	6.271	285.0 -> 169.0	62024	19.96	µg/L		100
		285.0 -> 185.0	5480				
3:3FTCA	4.276	241.0 -> 177.0	29978	23.95	µg/L		99
		241.0 -> 117.0	2400				
5:3FTCA	6.511	341.0 -> 237.0	522806	125.54	µg/L		99
		341.0 -> 217.0	374885				
7:3FTCA	7.802	441.0 -> 337.0	549553	123.76	µg/L		99
		441.0 -> 317.0	217687				
EtFOSA	11.154	526.0 -> 219.0	70807	10.04	µg/L	m	86
		526.0 -> 169.0	95067				
EtFOSE	11.062	630.0 -> 59.0	146218	25.58	µg/L		100
MeFOSA	10.871	512.0 -> 169.0	79388	9.91	µg/L	m	79
		512.0 -> 219.0	56970				
MeFOSE	10.778	616.0 -> 59.0	109631	25.28	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	15063	4.86	µg/L		93
		699.0 -> 99.0	7833				
NFDHA	5.811	295.0 -> 201.0	15812	10.80	µg/L		98
		201.0 -> 85.0	84248				
		295.0 -> 85.0	4394				
PFMBA	5.188	279.0 -> 85.0	117624	10.80	µg/L		100
PFMPA	3.927	229.0 -> 85.0	116716	10.22	µg/L		100
PFEESA	6.353	315.0 -> 135.0	171142	10.48	µg/L		99
		315.0 -> 69.0	15942				

Perfluorinated Compounds by LC/MS/MS

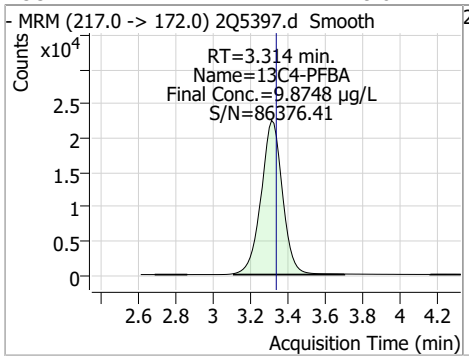
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

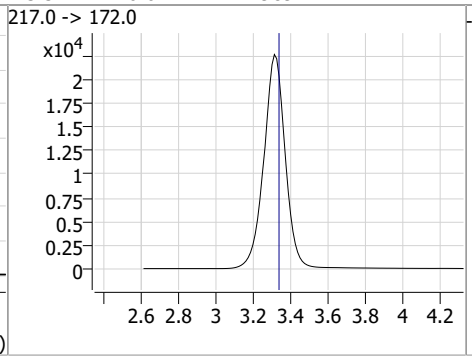
= Qualifier out of range, m = manually integrated, + = Area summed

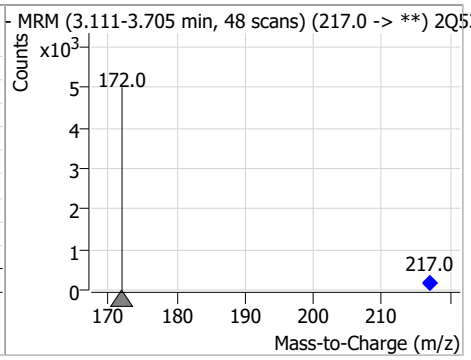
Perfluorinated Compounds by LC/MS/MS



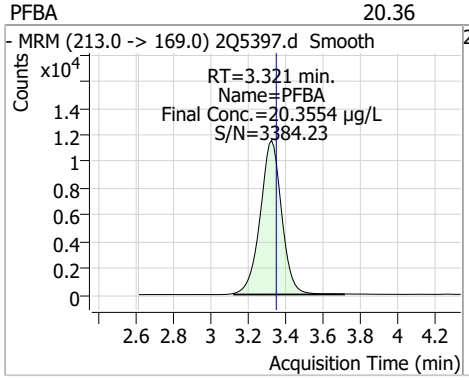
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.87	3.31	-0.02	179892				

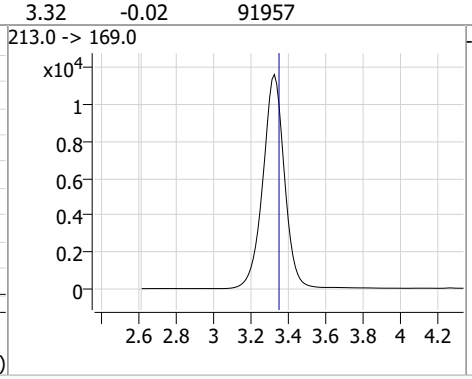


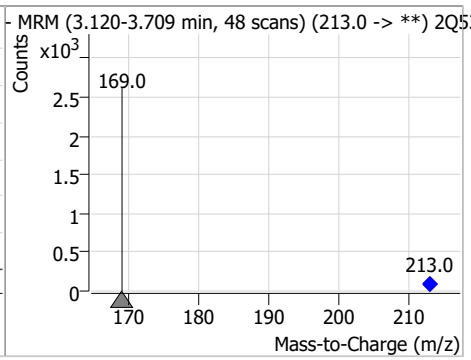




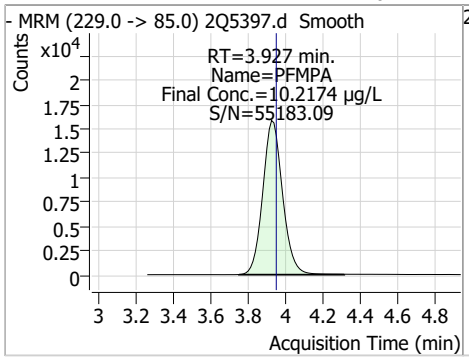
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.36	3.32	-0.02	91957				

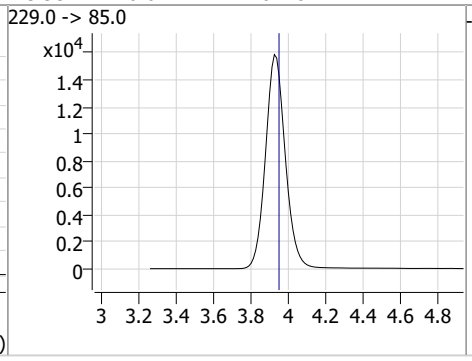


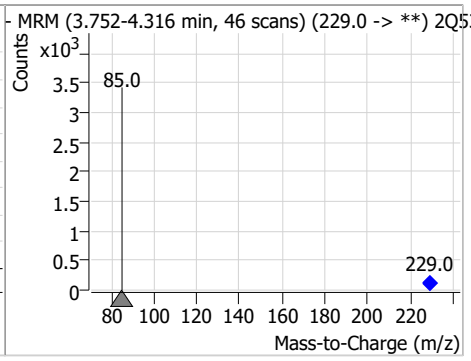




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	10.22	3.93	-0.02	116716				

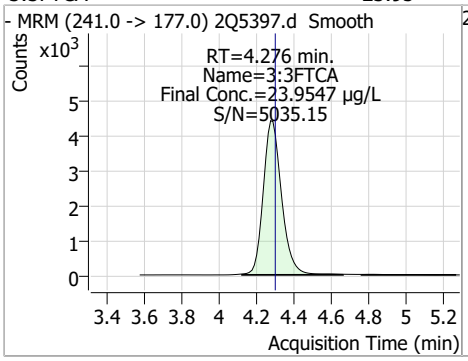


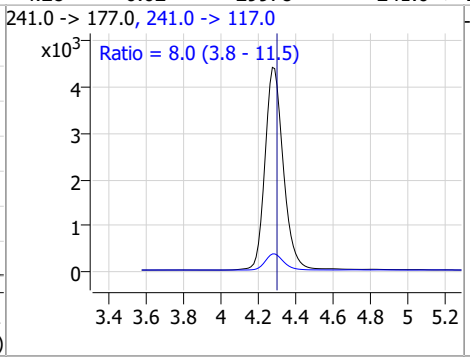


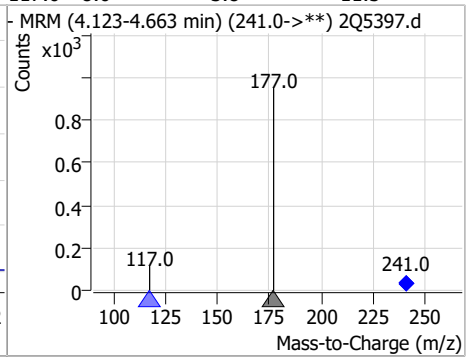


Perfluorinated Compounds by LC/MS/MS

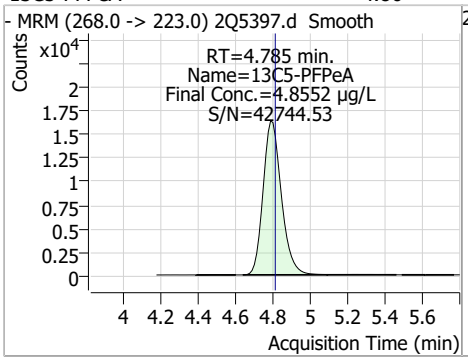
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.95	4.28	-0.02	29978	241.0 -> 117.0	8.0	3.8	11.5

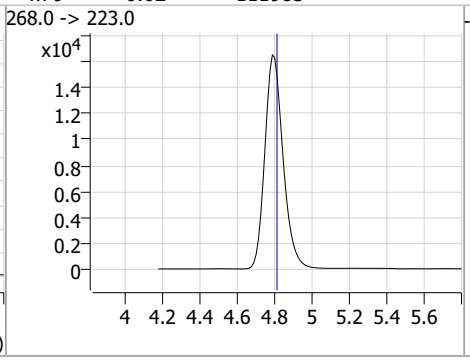


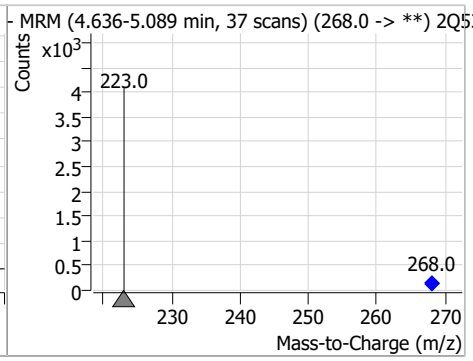




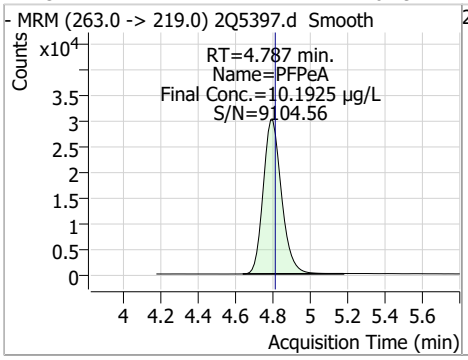
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	4.86	4.79	-0.02	111983				

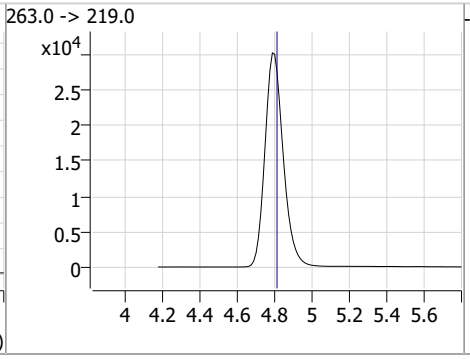


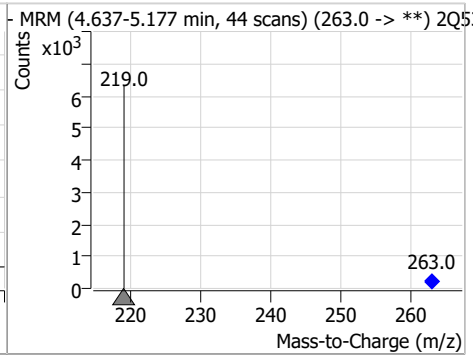




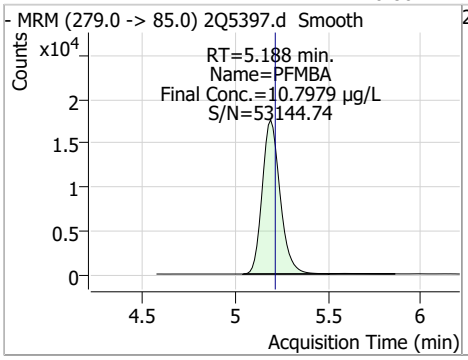
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.19	4.79	-0.02	205696				

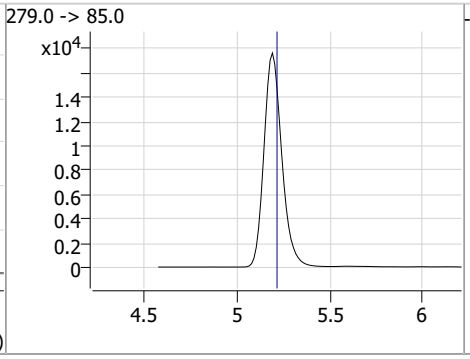


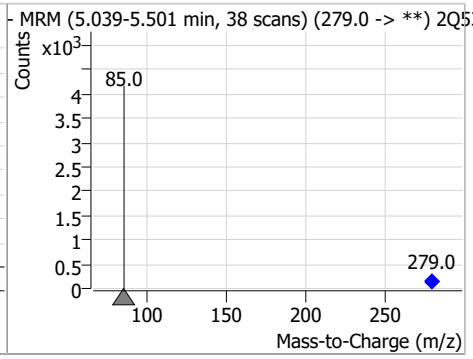




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.80	5.19	-0.02	117624				

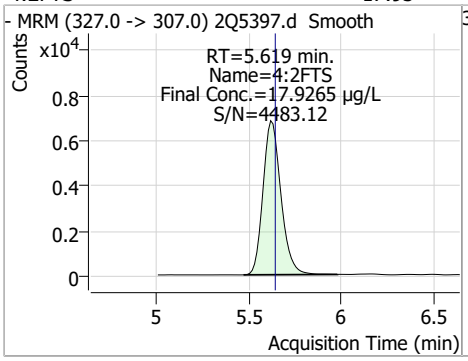


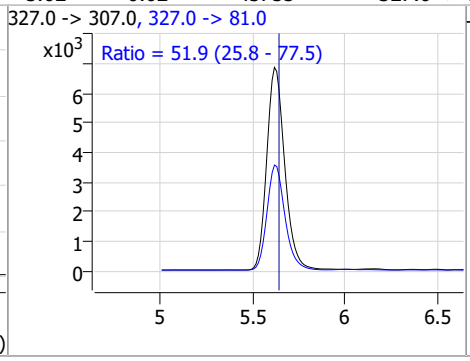


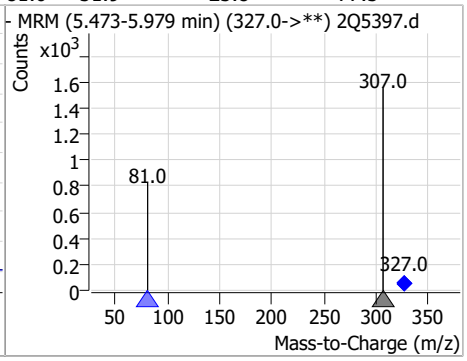


Perfluorinated Compounds by LC/MS/MS

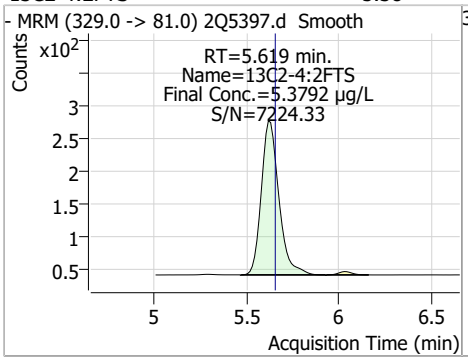
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	17.93	5.62	-0.02	45755	327.0 -> 81.0	51.9	25.8	77.5

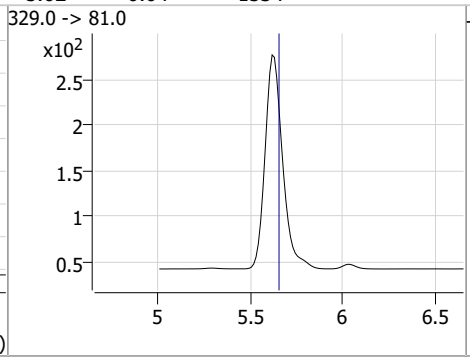


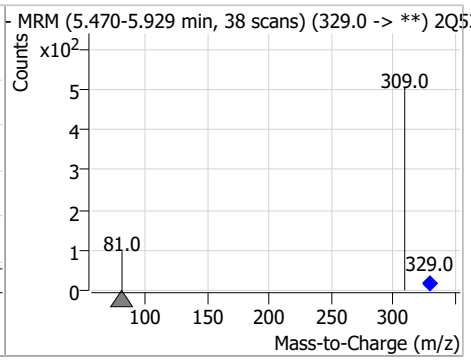




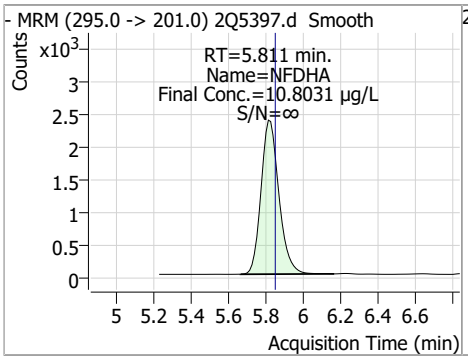
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.38	5.62	-0.04	1534				

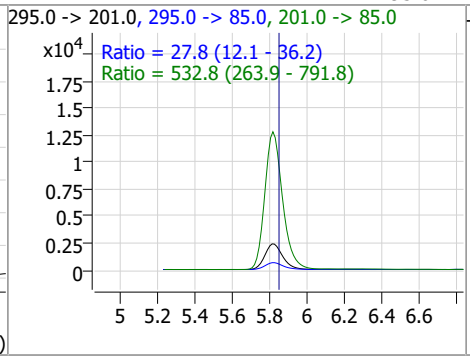


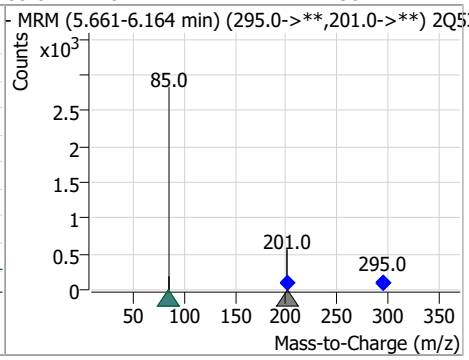




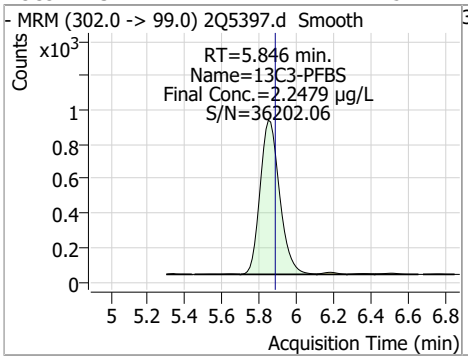
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	10.80	5.81	-0.04	15812	201.0 -> 85.0	532.8	263.9	791.8
					295.0 -> 85.0	27.8	12.1	36.2

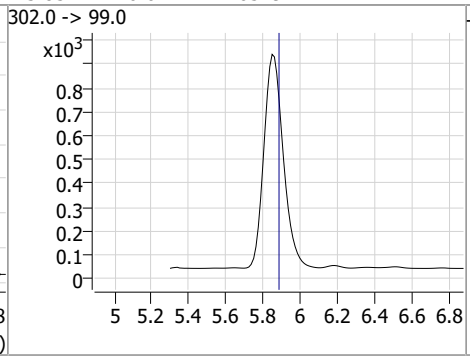


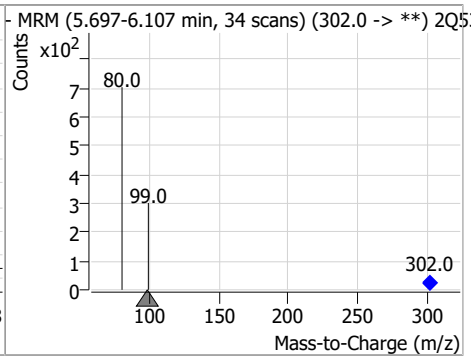




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.25	5.85	-0.04	6529				

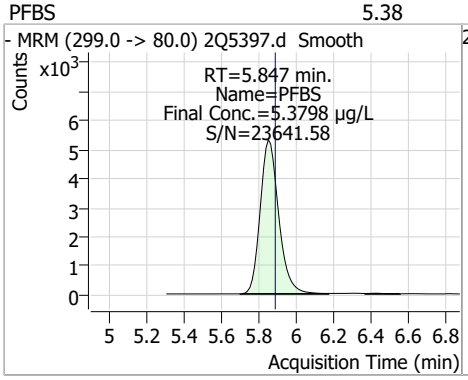


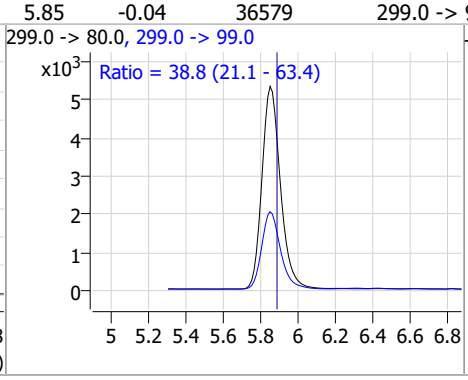


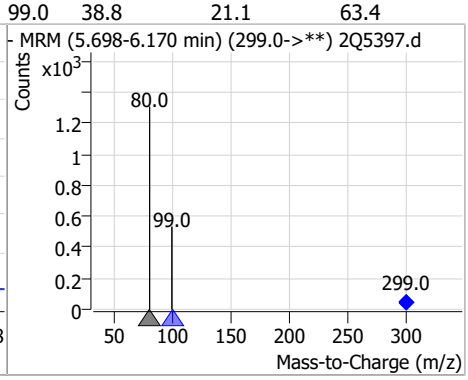


Perfluorinated Compounds by LC/MS/MS

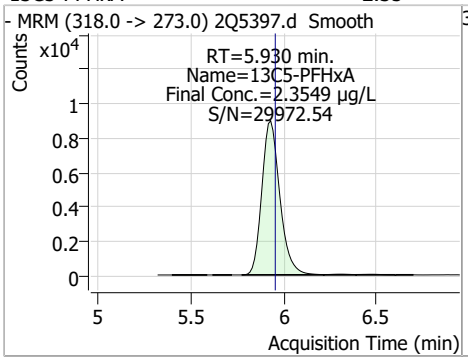
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	5.38	5.85	-0.04	36579	299.0 -> 99.0	38.8	21.1	63.4

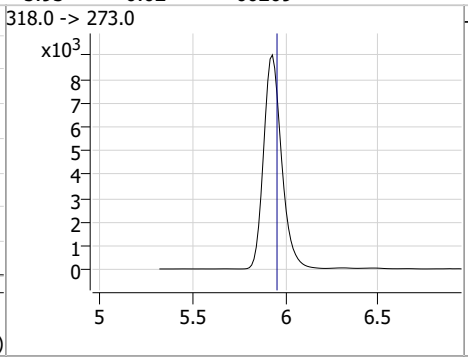


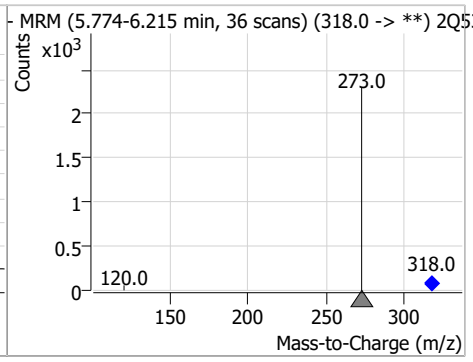




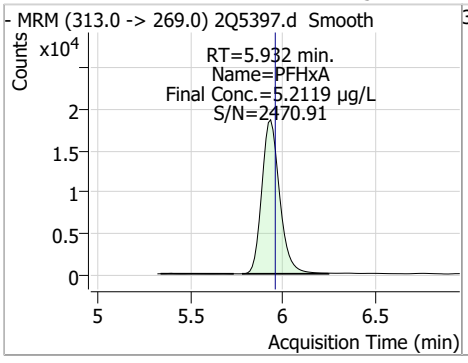
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.35	5.93	-0.02	60209				

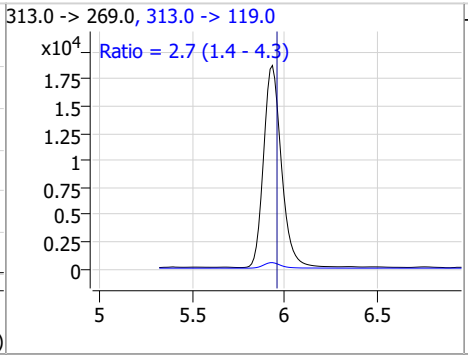


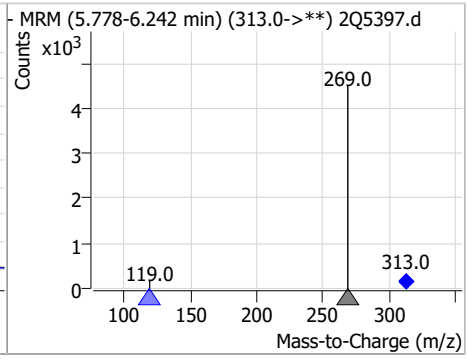




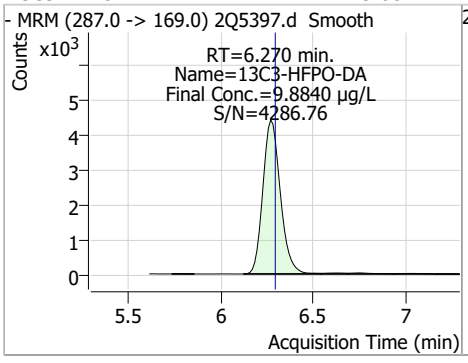
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	5.21	5.93	-0.02	124079	313.0 -> 119.0	2.7	1.4	4.3

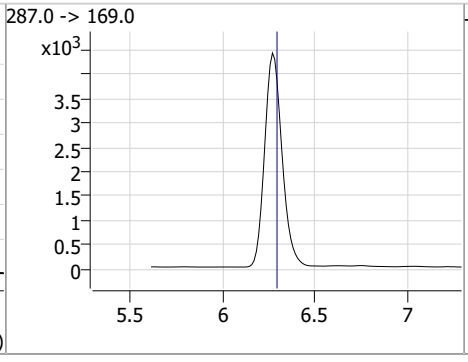


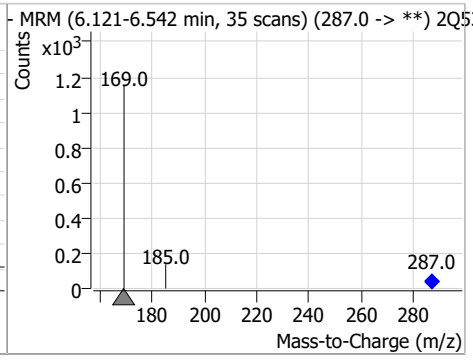




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.88	6.27	-0.02	28844				

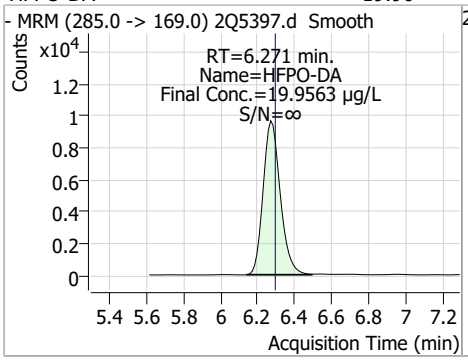


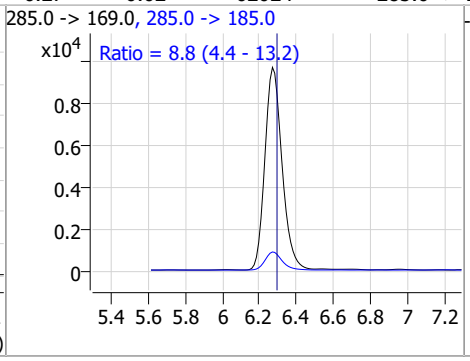


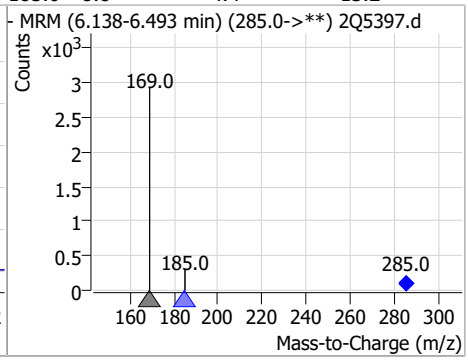


Perfluorinated Compounds by LC/MS/MS

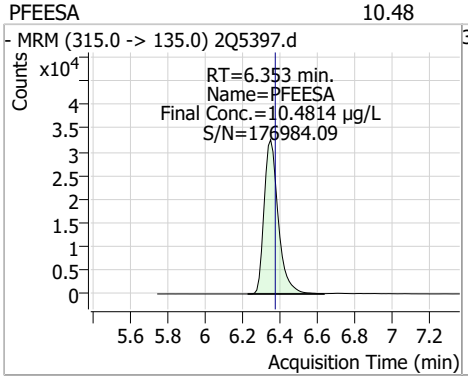
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	19.96	6.27	-0.02	62024	285.0 -> 185.0	8.8	4.4	13.2

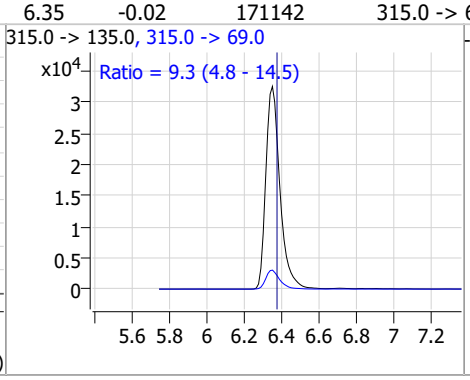


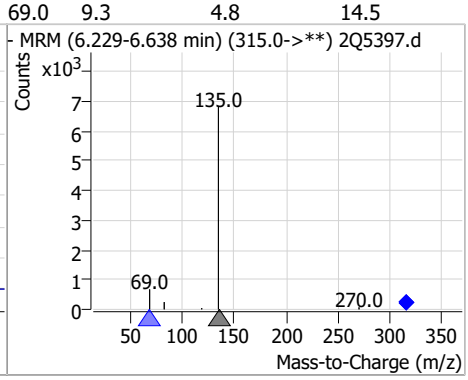




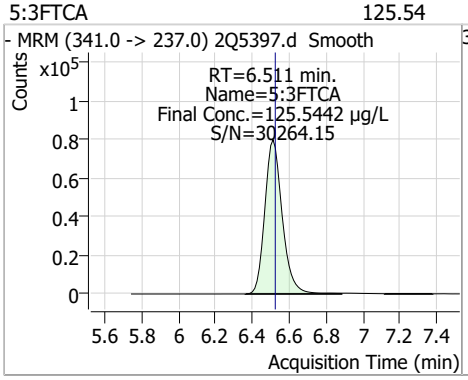
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.48	6.35	-0.02	171142	315.0 -> 69.0	9.3	4.8	14.5

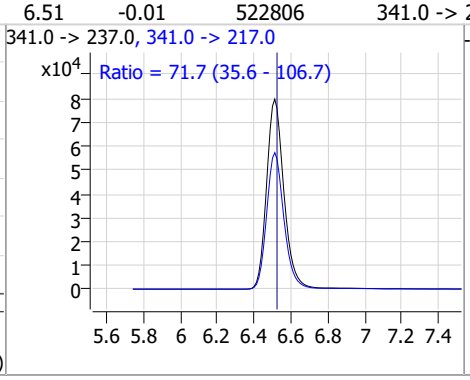


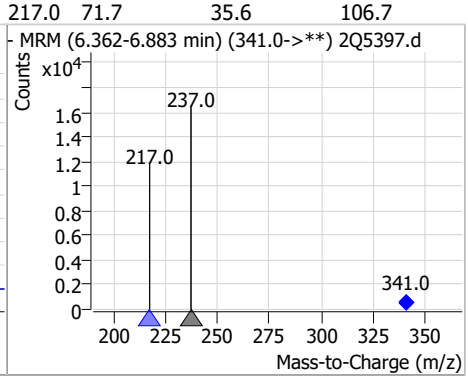




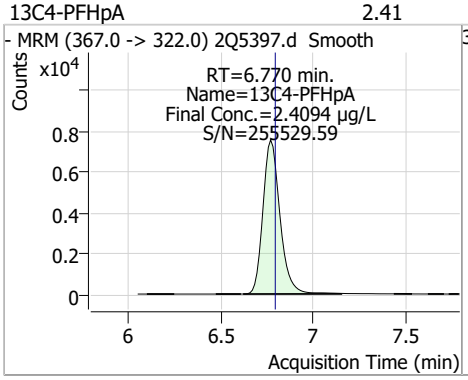
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	125.54	6.51	-0.01	522806	341.0 -> 217.0	71.7	35.6	106.7

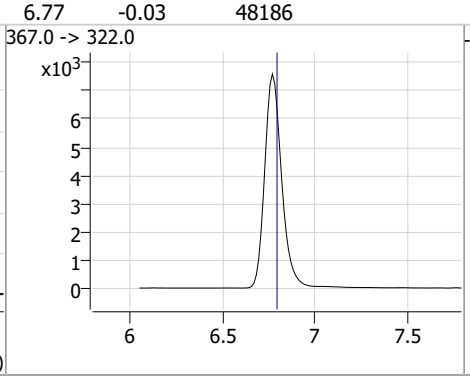


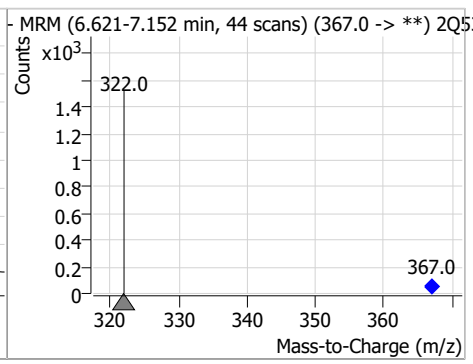




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.41	6.77	-0.03	48186				

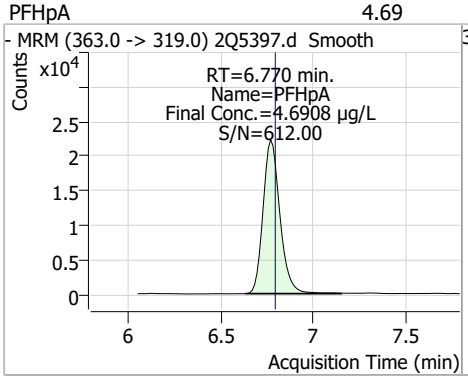


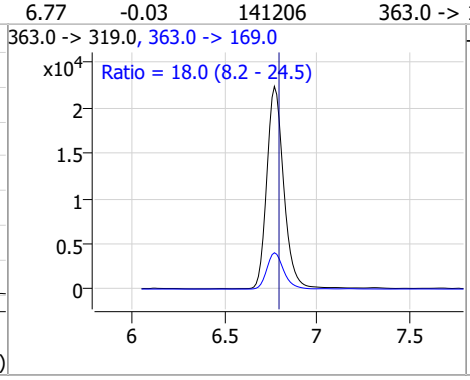


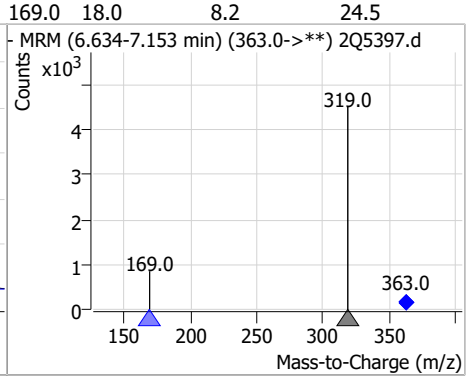


Perfluorinated Compounds by LC/MS/MS

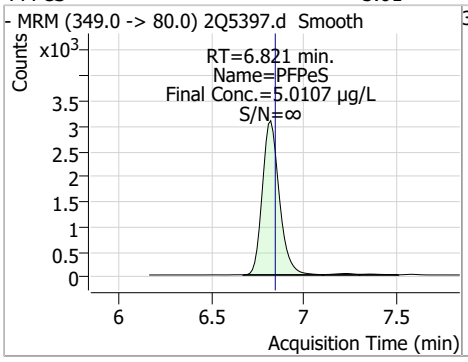
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	4.69	6.77	-0.03	141206	363.0 -> 169.0	18.0	8.2	24.5

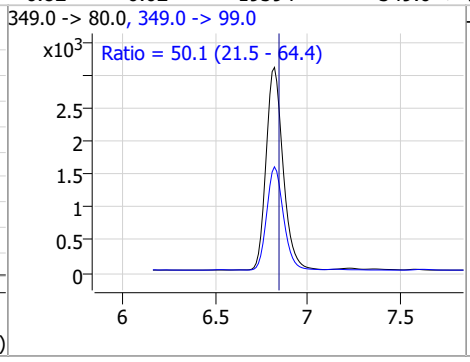


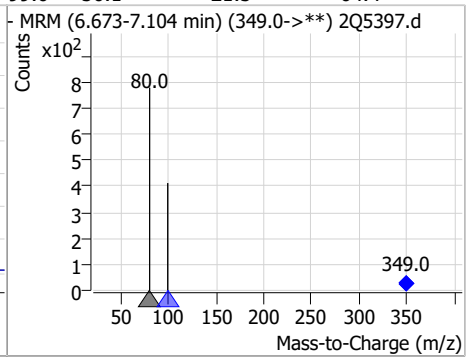




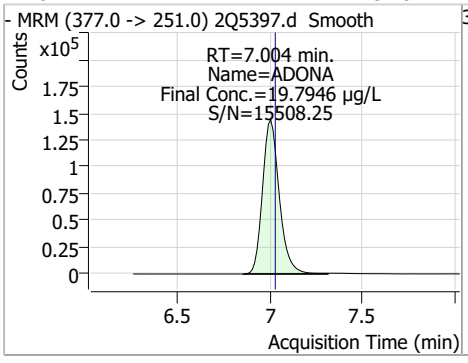
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	5.01	6.82	-0.02	19594	349.0 -> 99.0	50.1	21.5	64.4

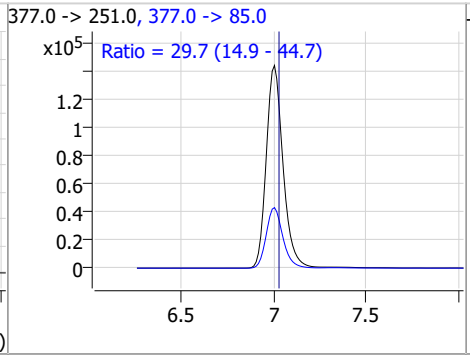


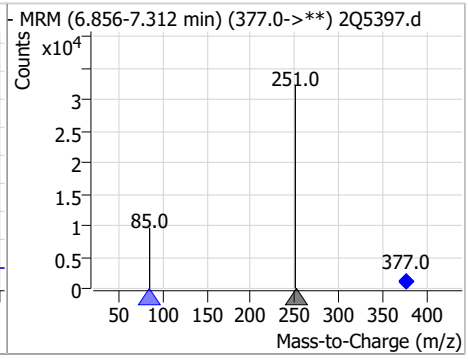




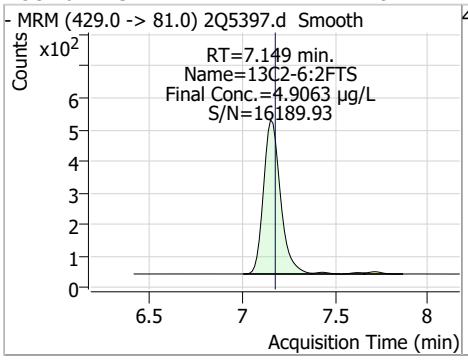
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	19.79	7.00	-0.02	905013	377.0 -> 85.0	29.7	14.9	44.7

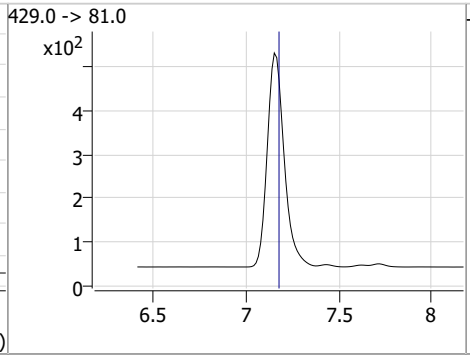


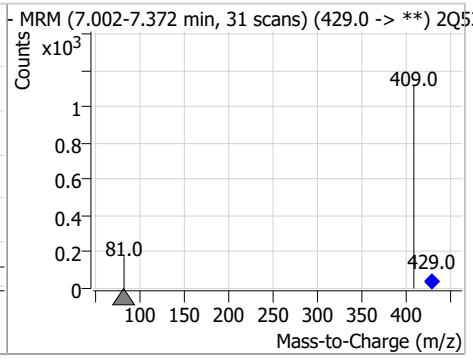




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.91	7.15	-0.03	3102				

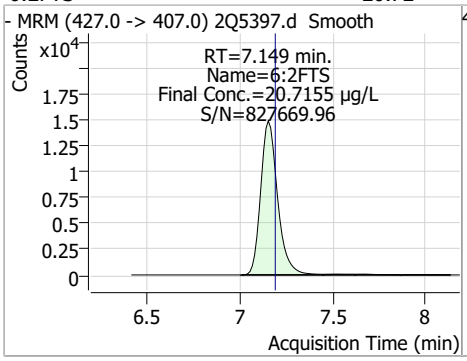


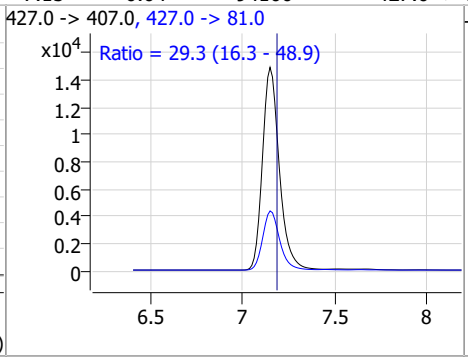


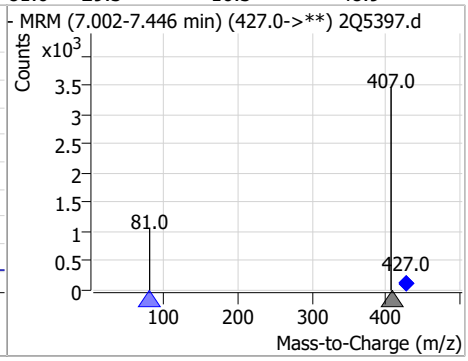


Perfluorinated Compounds by LC/MS/MS

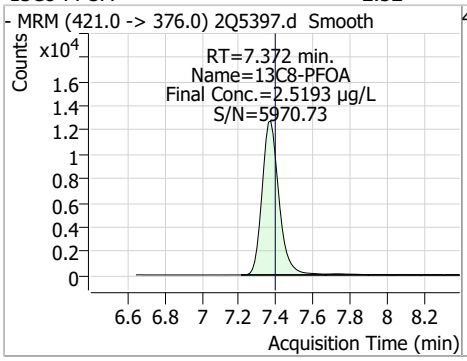
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	20.72	7.15	-0.04	94106	427.0 -> 81.0	29.3	16.3	48.9

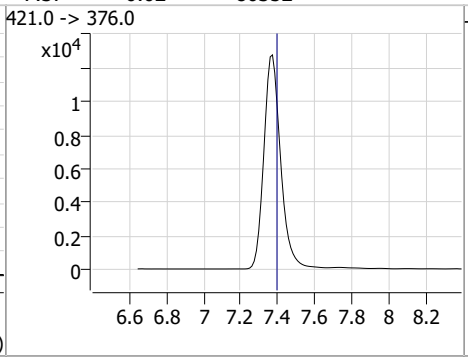


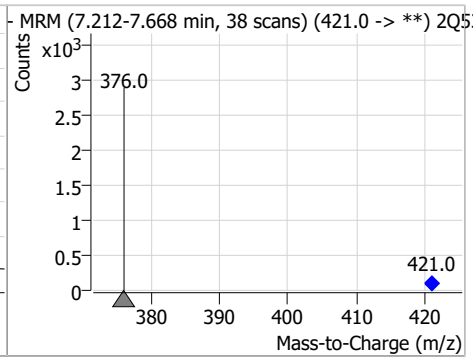




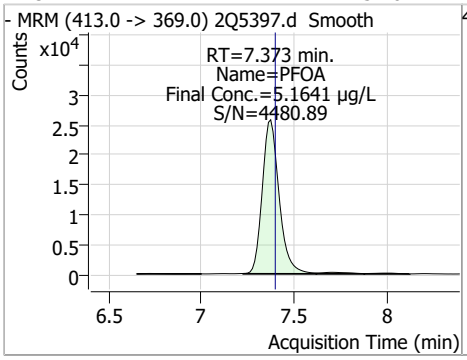
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.52	7.37	-0.02	80352				

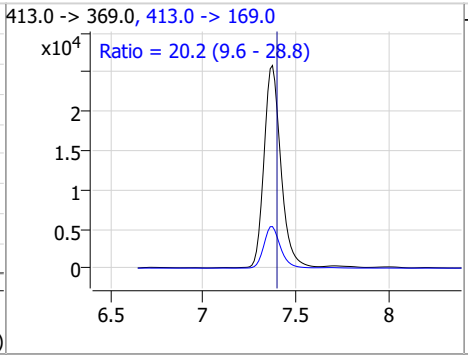


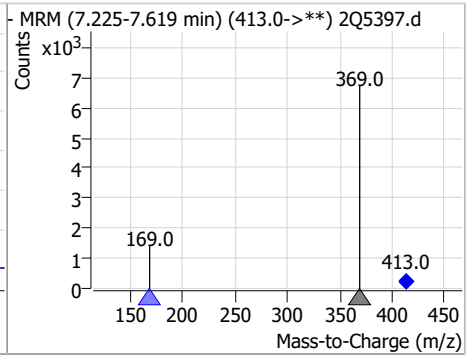




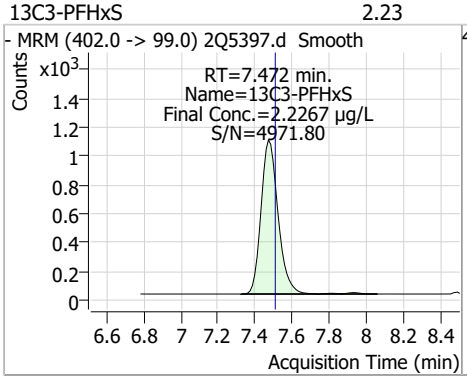
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	5.16	7.37	-0.02	162549	413.0 -> 169.0	20.2	9.6	28.8

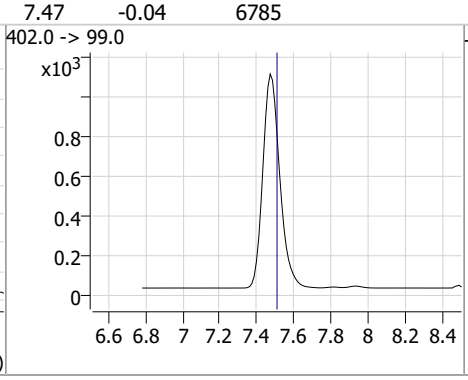


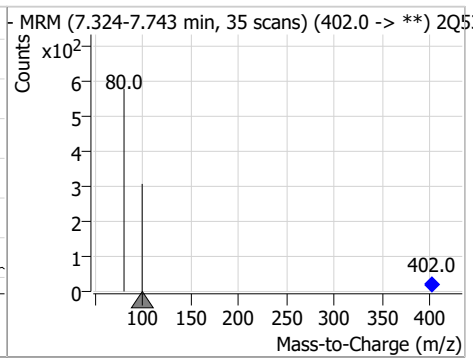




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.23	7.47	-0.04	6785				

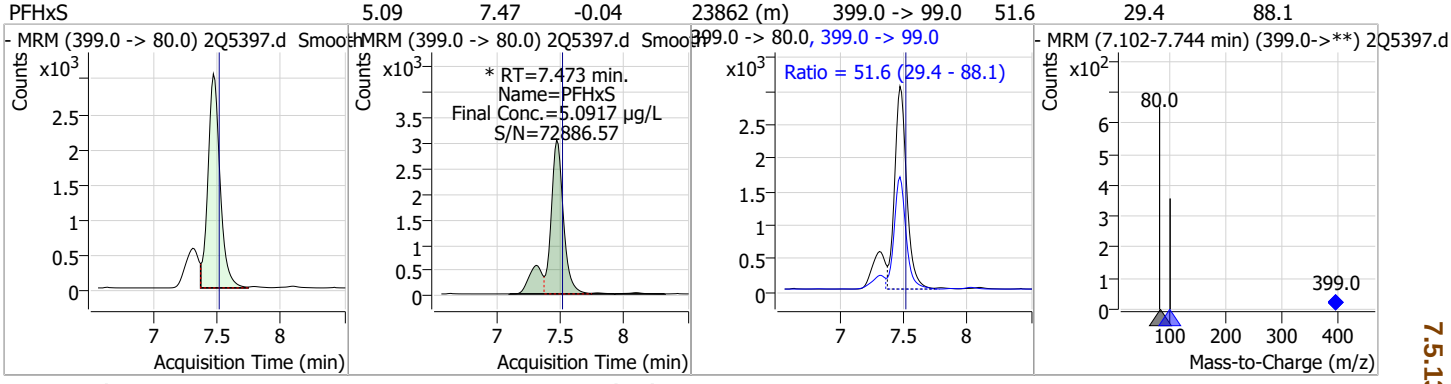




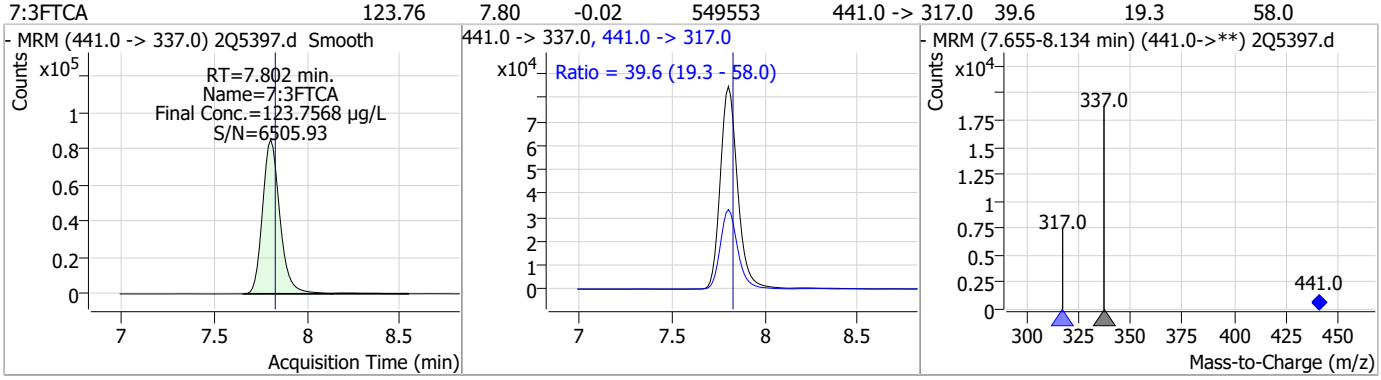


Perfluorinated Compounds by LC/MS/MS

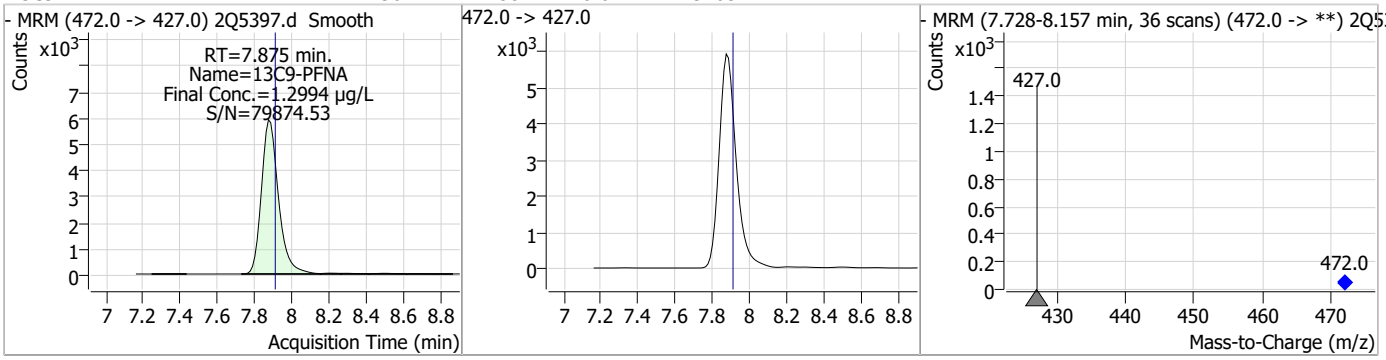
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	5.09	7.47	-0.04	23862 (m)	399.0 -> 99.0	51.6	29.4	88.1



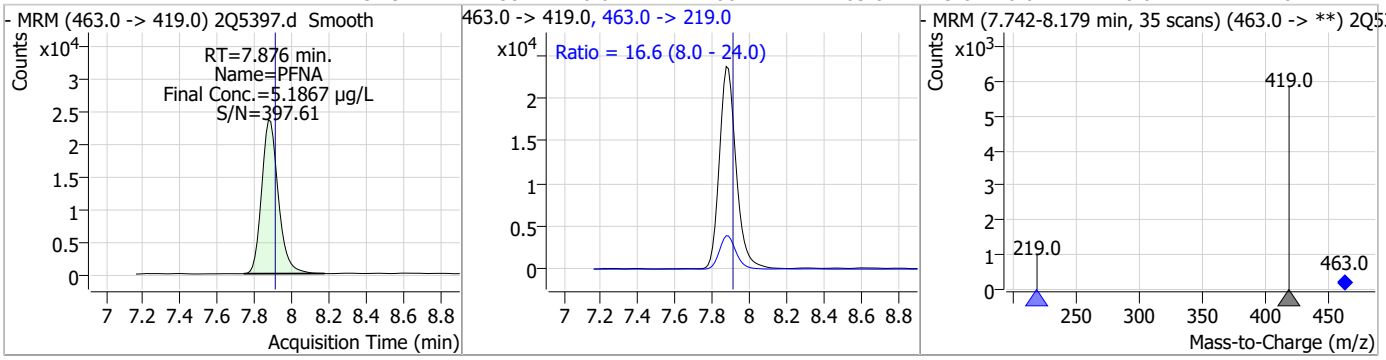
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	123.76	7.80	-0.02	549553	441.0 -> 317.0	39.6	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.30	7.88	-0.04	37631				

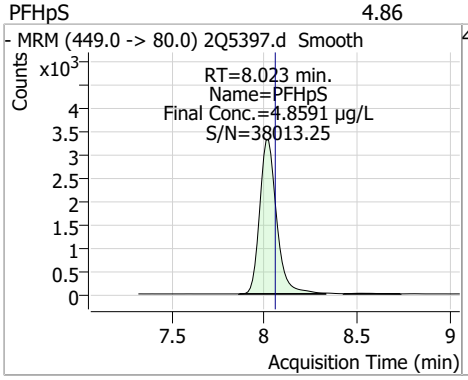


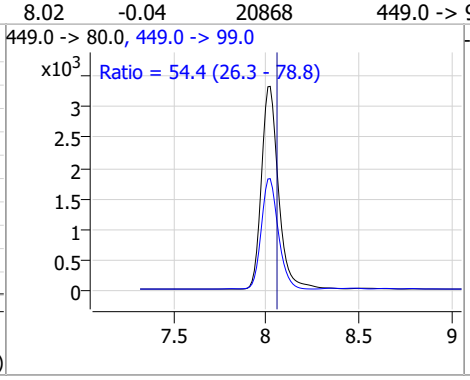
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	5.19	7.88	-0.04	146644	463.0 -> 219.0	16.6	8.0	24.0

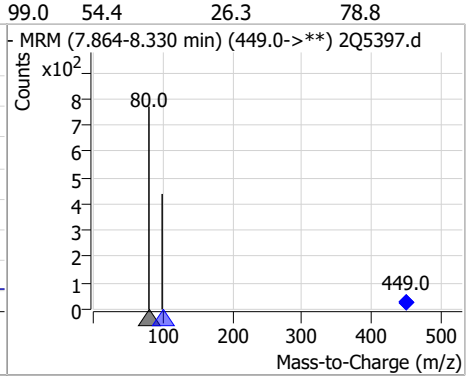


Perfluorinated Compounds by LC/MS/MS

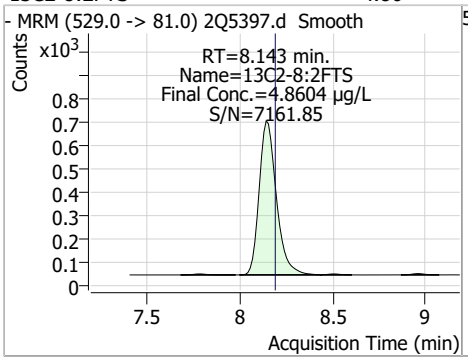
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	4.86	8.02	-0.04	20868	449.0 -> 99.0	54.4	26.3	78.8

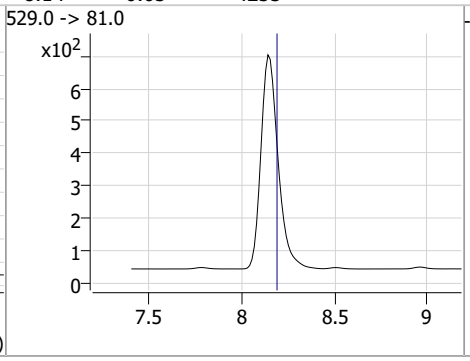


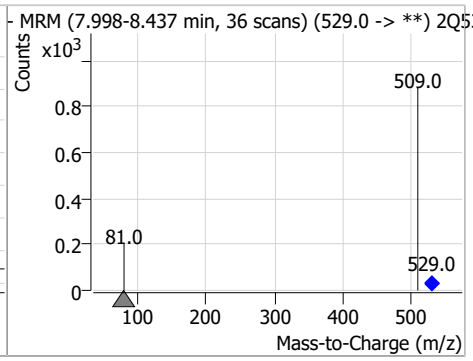




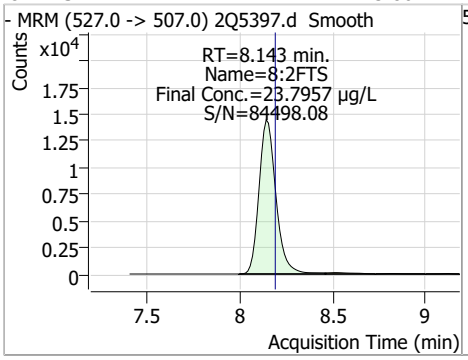
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.86	8.14	-0.05	4255				

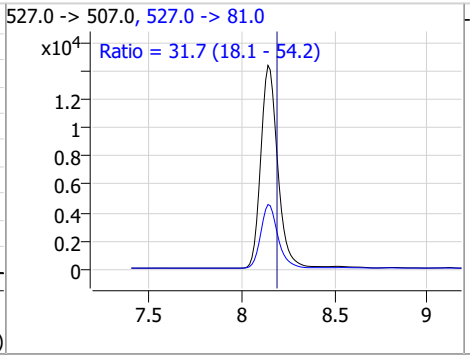


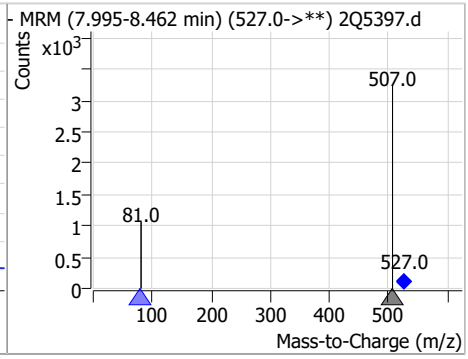




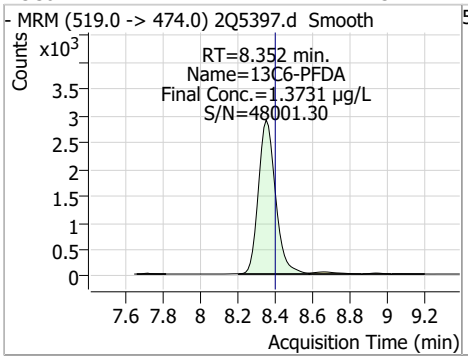
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	23.80	8.14	-0.05	91546	527.0 -> 81.0	31.7	18.1	54.2

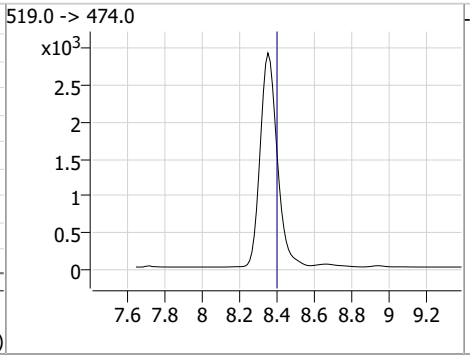


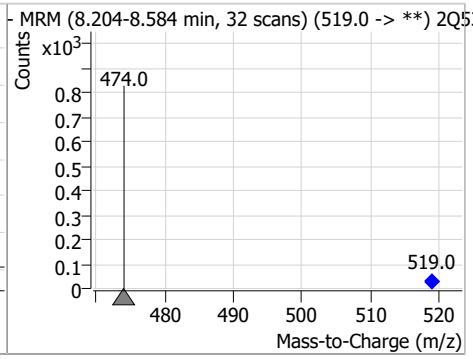




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.37	8.35	-0.05	18468				

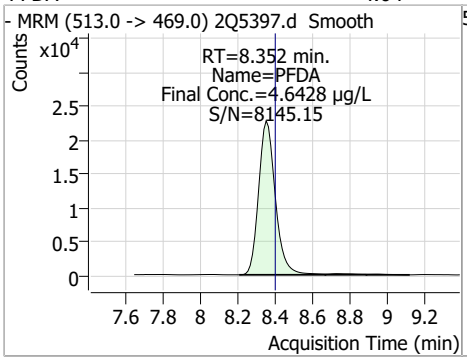


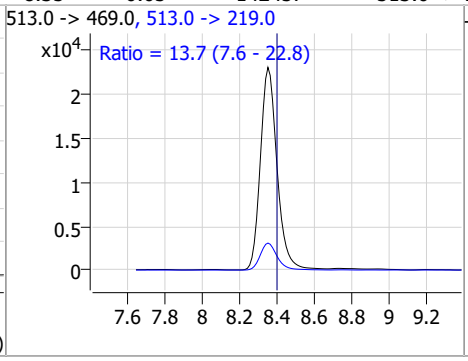


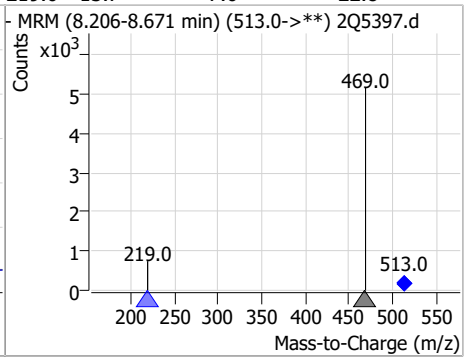


Perfluorinated Compounds by LC/MS/MS

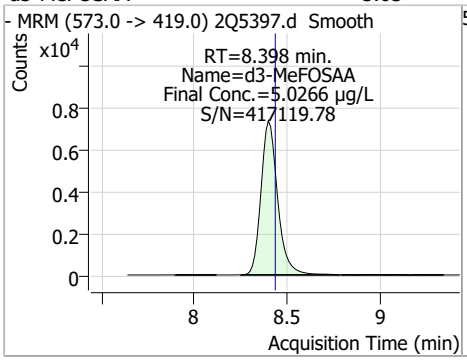
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	4.64	8.35	-0.05	142457	513.0 -> 219.0	13.7	7.6	22.8

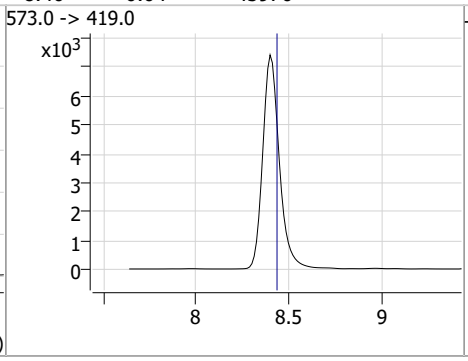


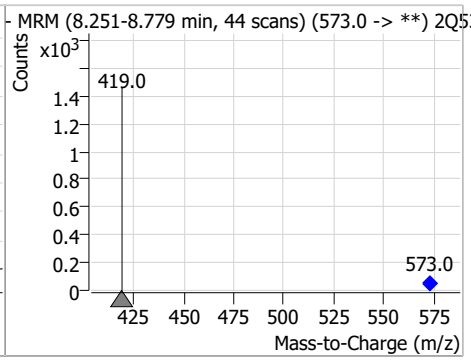




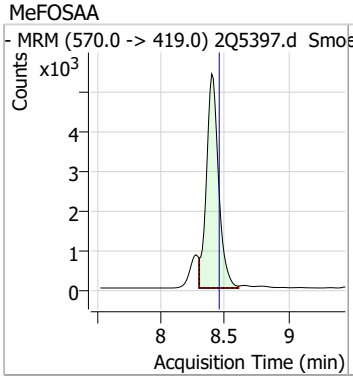
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.03	8.40	-0.04	45976				

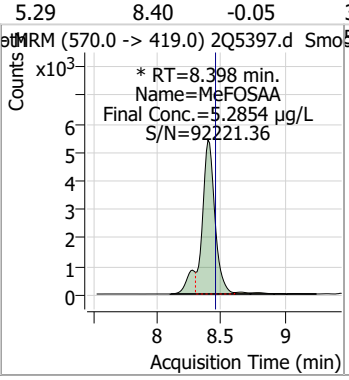


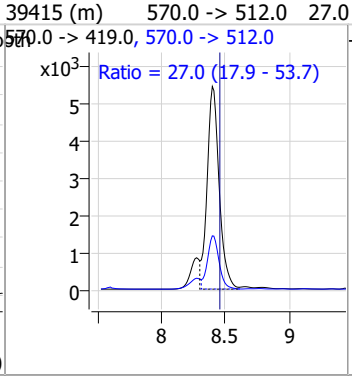


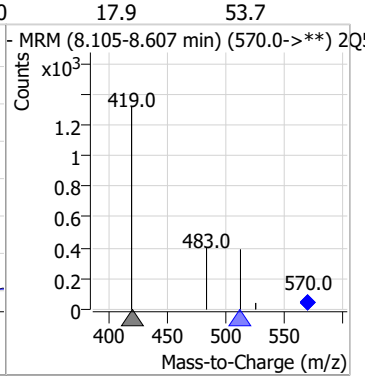


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.29	8.40	-0.05	39415 (m)	570.0 -> 512.0	27.0	17.9	53.7

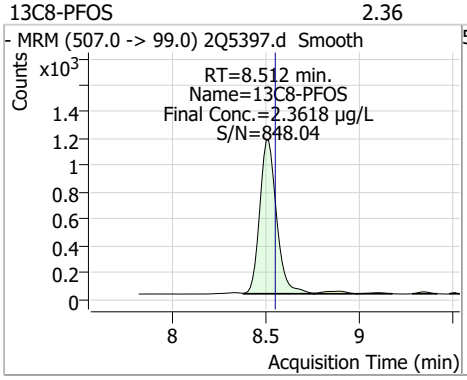


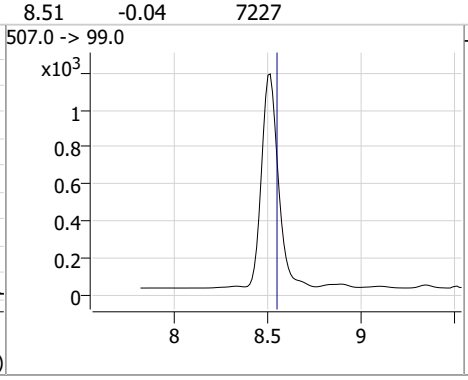


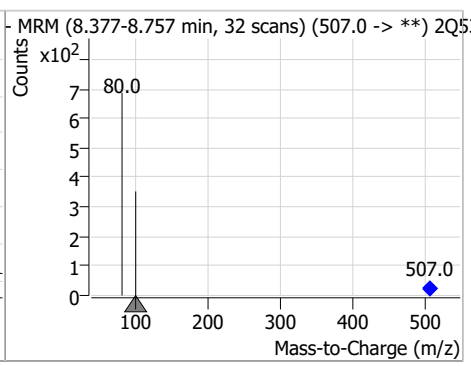




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.36	8.51	-0.04	7227				

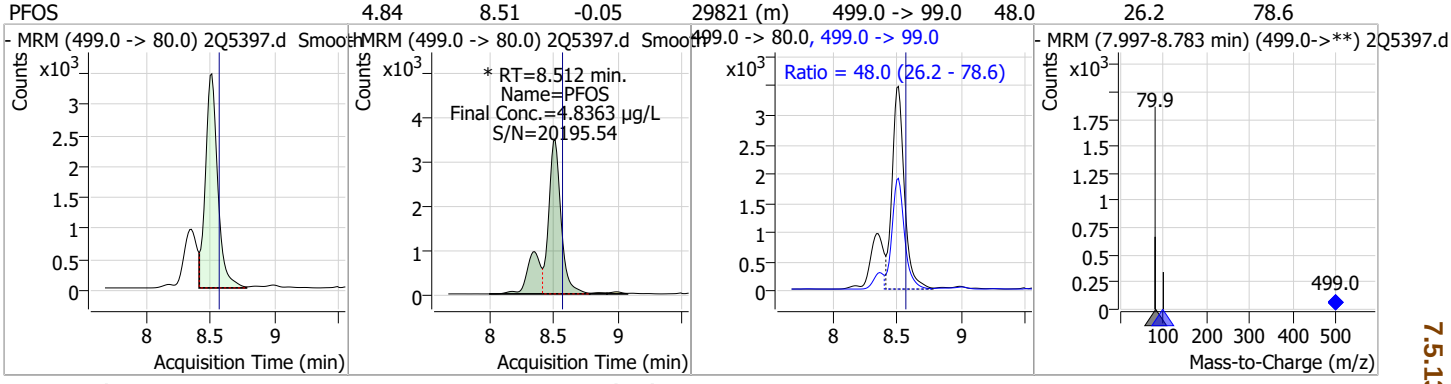




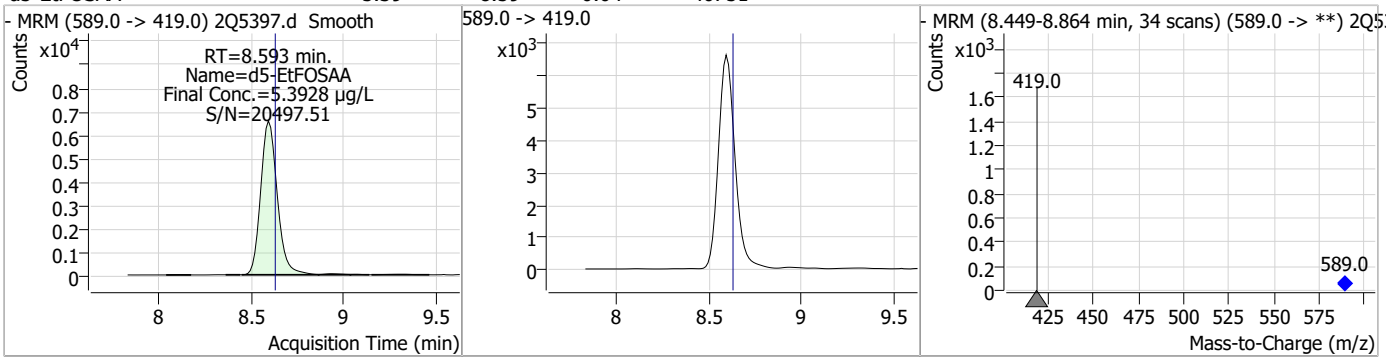


Perfluorinated Compounds by LC/MS/MS

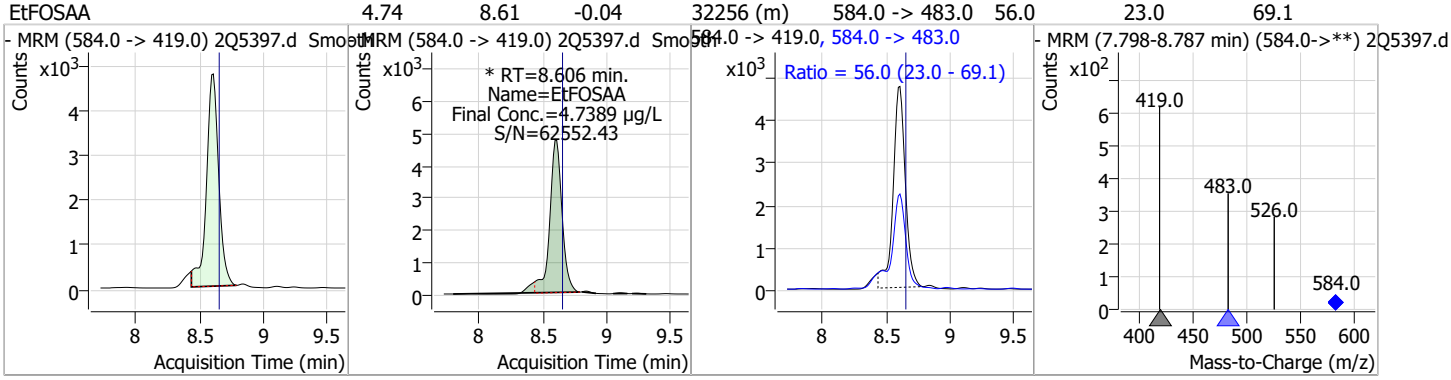
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	4.84	8.51	-0.05	29821 (m)	499.0 -> 99.0	48.0	26.2	78.6



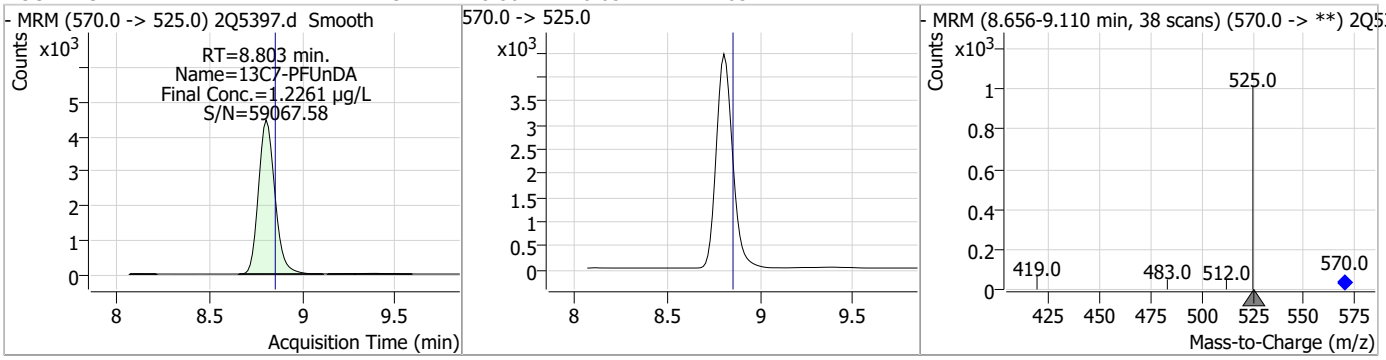
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.39	8.59	-0.04	40751				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	4.74	8.61	-0.04	32256 (m)	584.0 -> 483.0	56.0	23.0	69.1

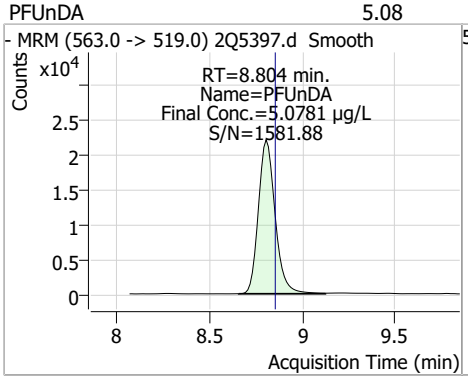


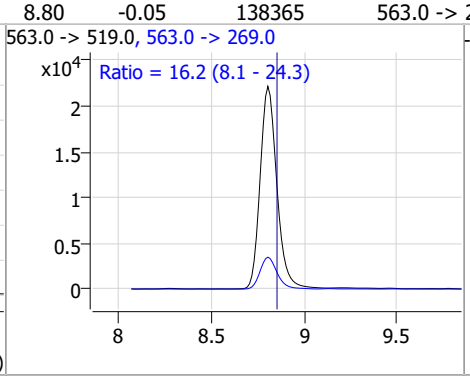
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.23	8.80	-0.05	27205				

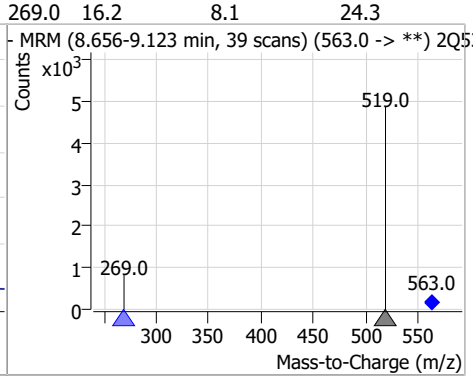


Perfluorinated Compounds by LC/MS/MS

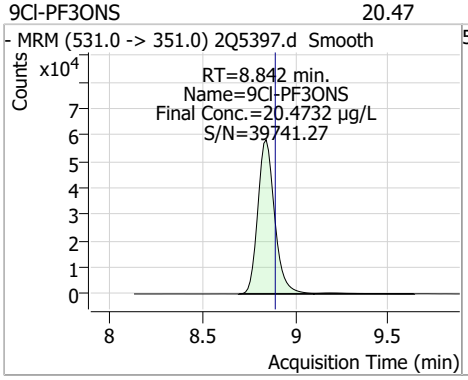
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.08	8.80	-0.05	138365	563.0 -> 269.0	16.2	8.1	24.3

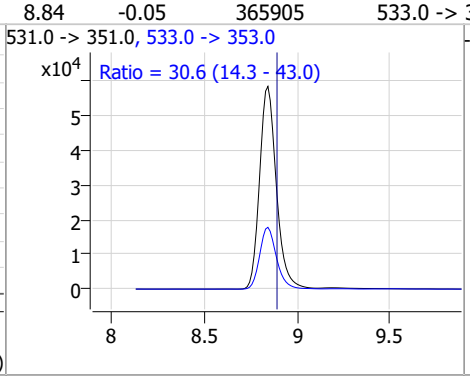


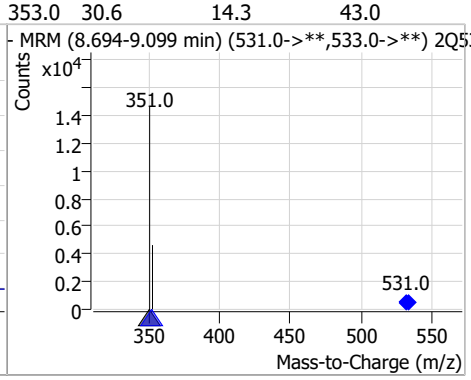




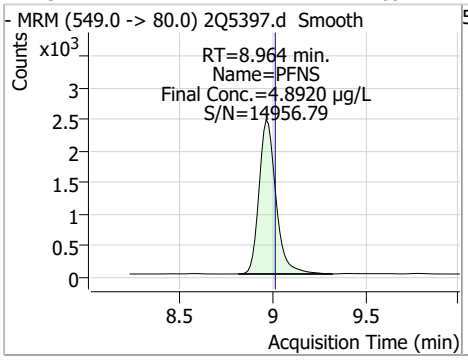
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	20.47	8.84	-0.05	365905	533.0 -> 353.0	30.6	14.3	43.0

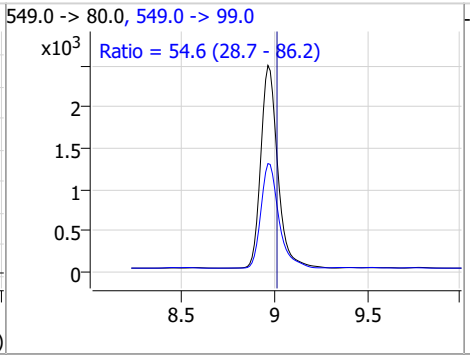


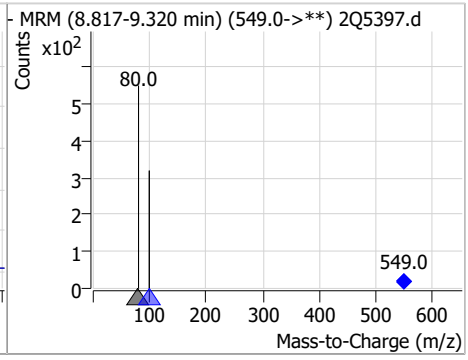




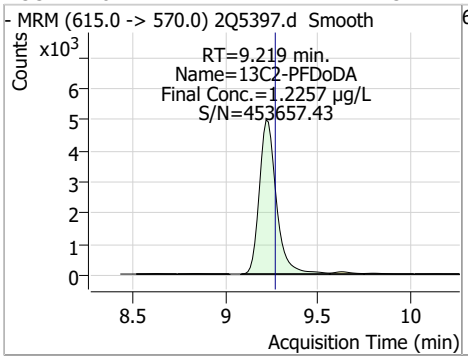
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	4.89	8.96	-0.05	15573	549.0 -> 99.0	54.6	28.7	86.2

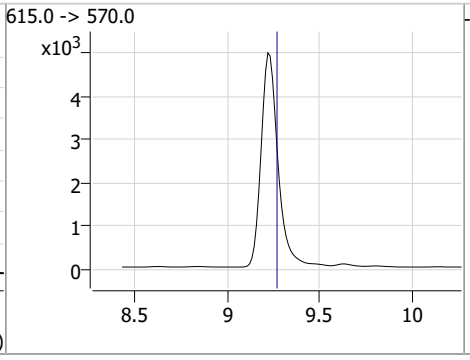


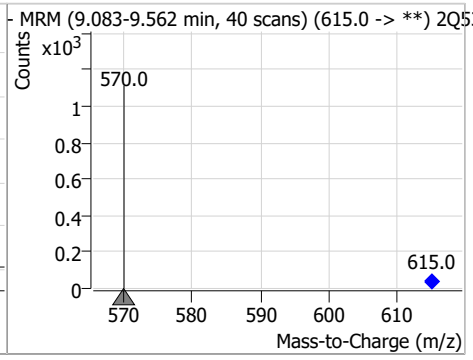




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.23	9.22	-0.05	31526				

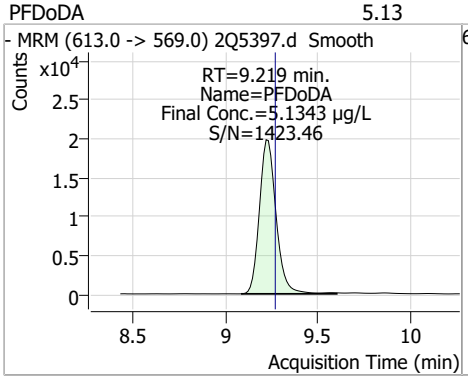


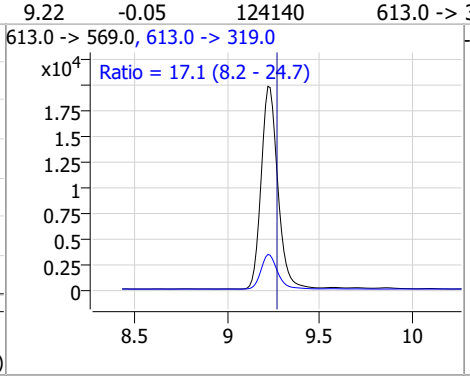


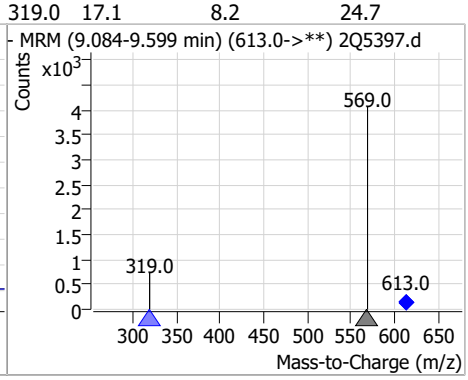


Perfluorinated Compounds by LC/MS/MS

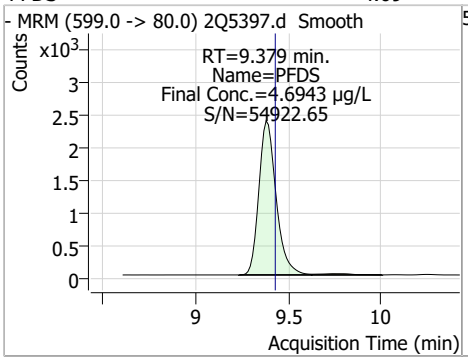
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	5.13	9.22	-0.05	124140	613.0 -> 319.0	17.1	8.2	24.7

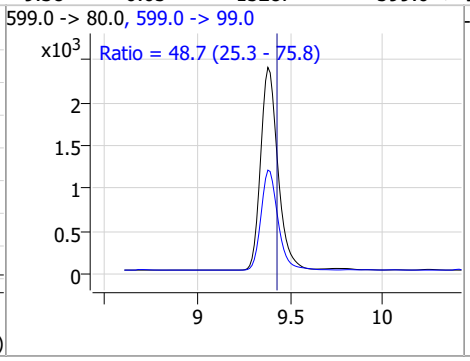


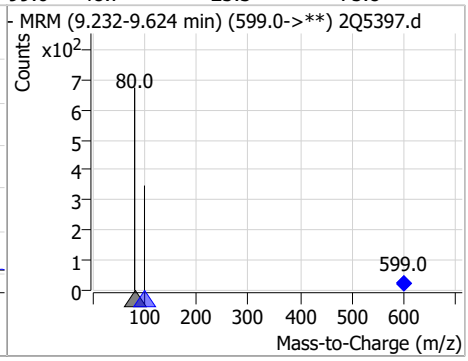




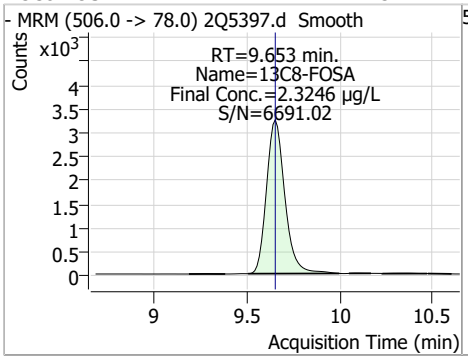
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	4.69	9.38	-0.05	15287	599.0 -> 99.0	48.7	25.3	75.8

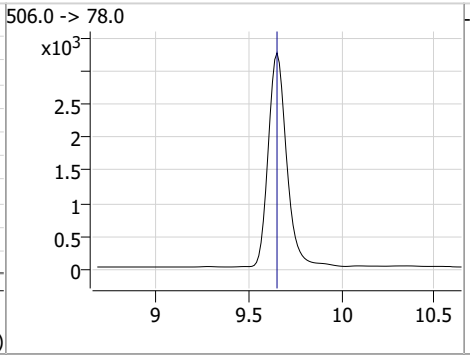


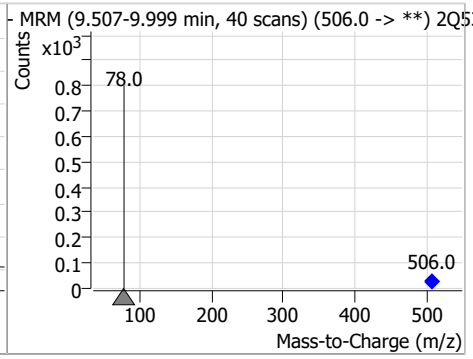




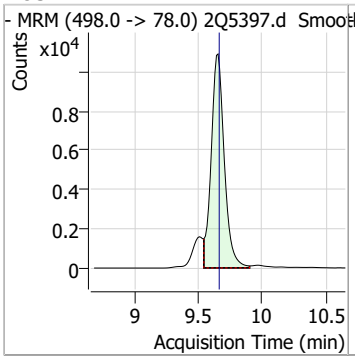
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.32	9.65	0.00	22121				

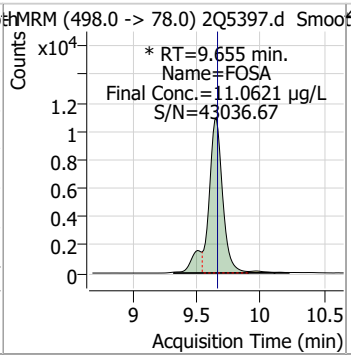


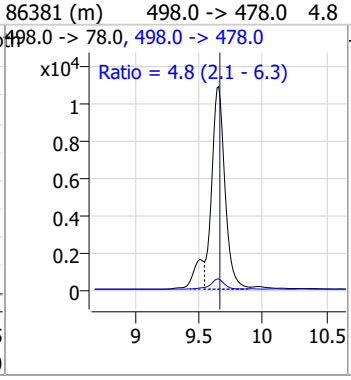


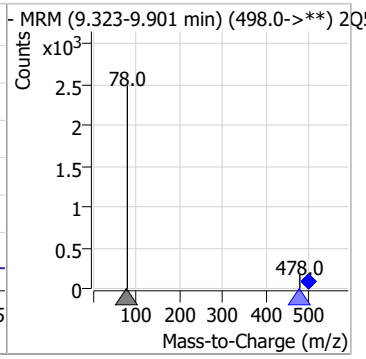


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	11.06	9.65	0.00	86381 (m)	498.0 -> 478.0	4.8	2.1	6.3



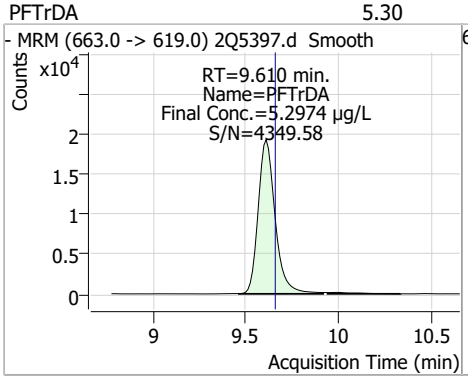


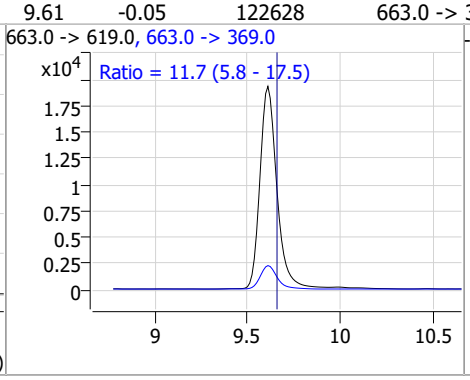


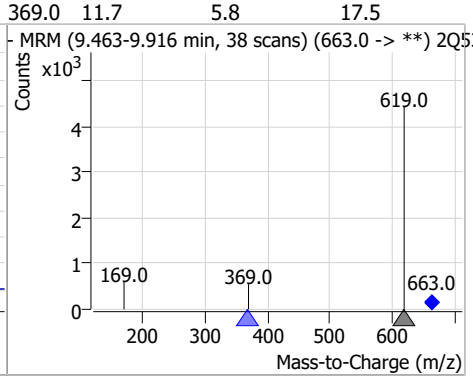


Perfluorinated Compounds by LC/MS/MS

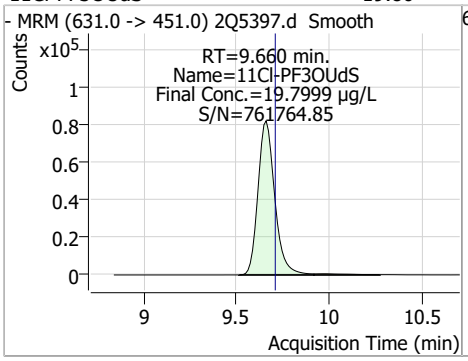
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	5.30	9.61	-0.05	122628	663.0 -> 369.0	11.7	5.8	17.5

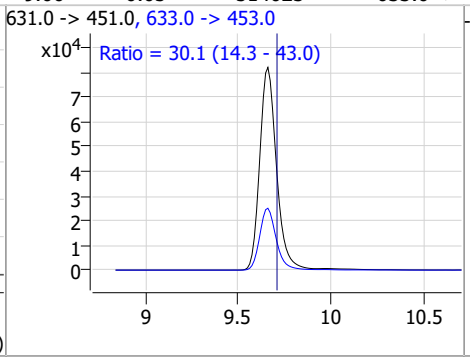


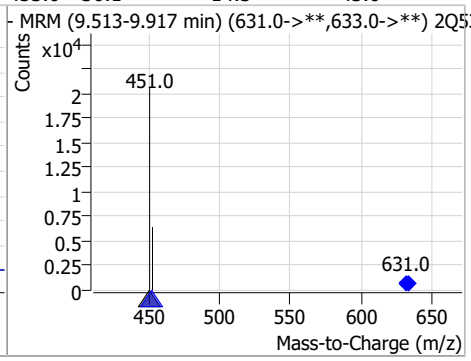




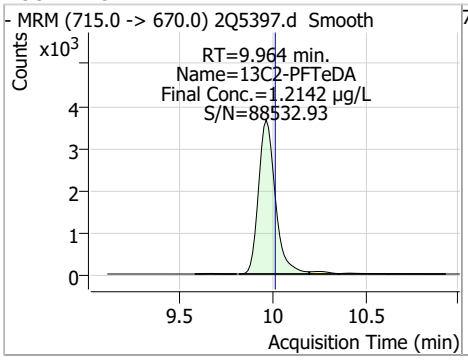
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	19.80	9.66	-0.05	514023	633.0 -> 453.0	30.1	14.3	43.0

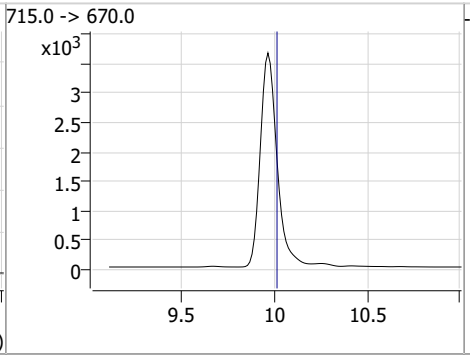


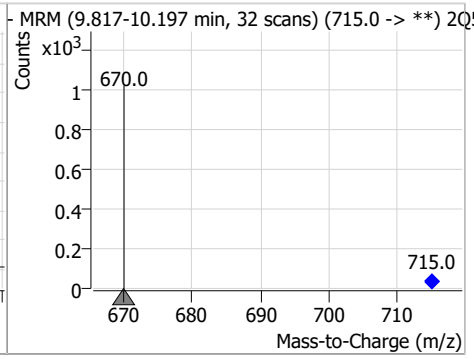




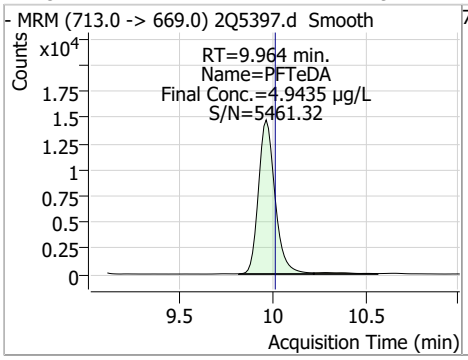
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.21	9.96	-0.05	22905				

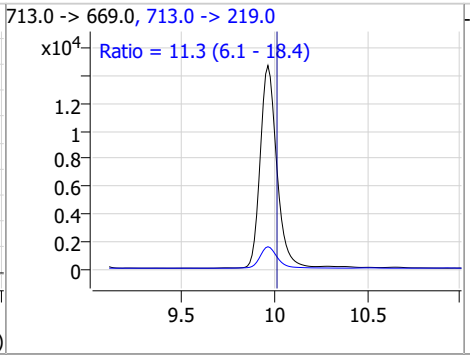


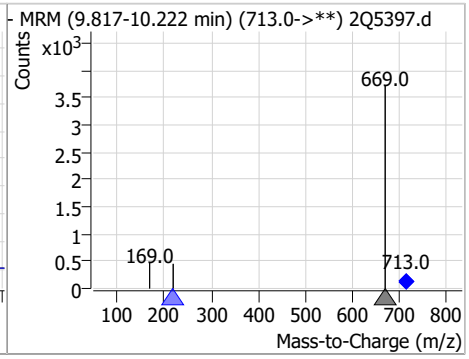




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	4.94	9.96	-0.05	91610	713.0 -> 219.0	11.3	6.1	18.4

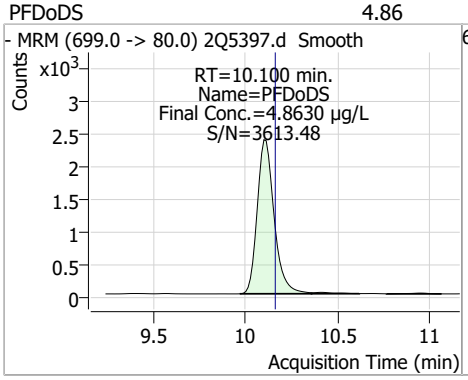


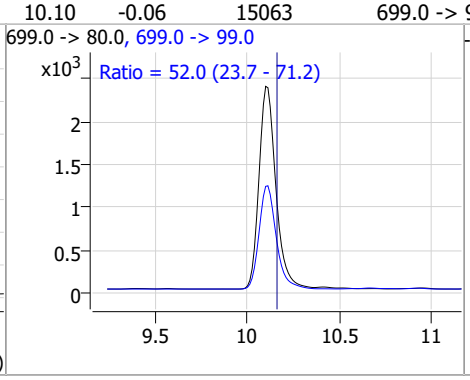


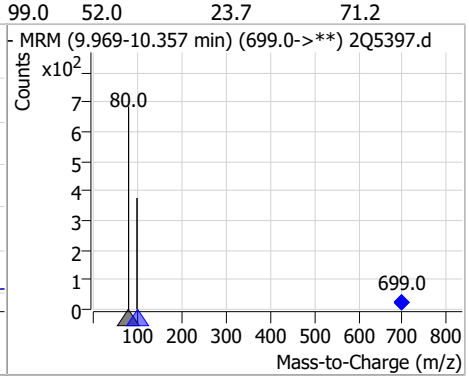


Perfluorinated Compounds by LC/MS/MS

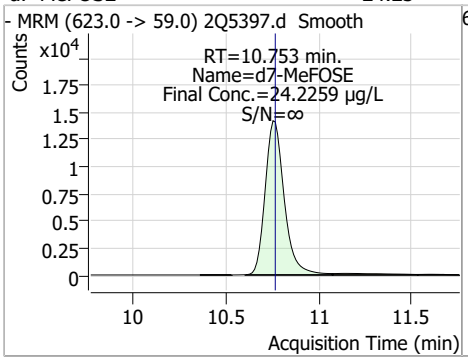
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	4.86	10.10	-0.06	15063	699.0 -> 99.0	52.0	23.7	71.2

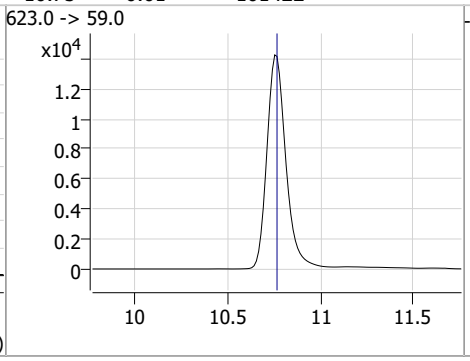


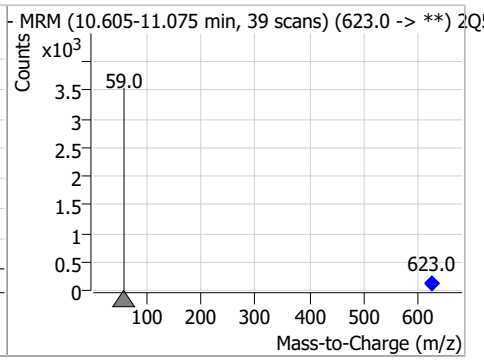




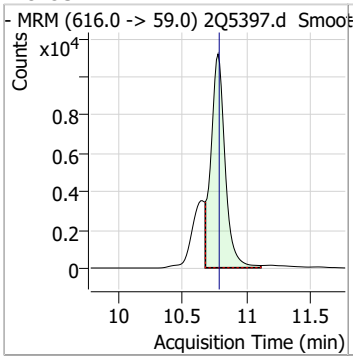
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.23	10.75	-0.01	101422				

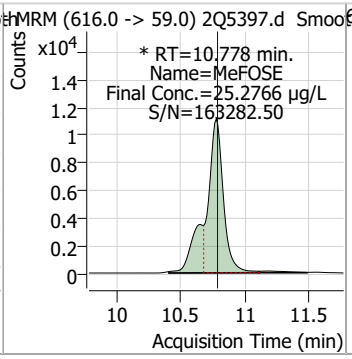


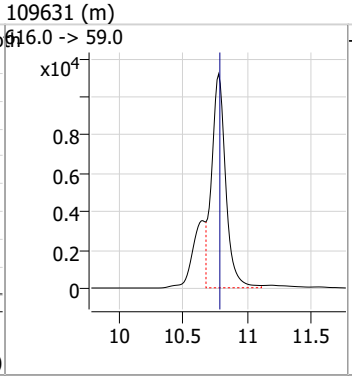


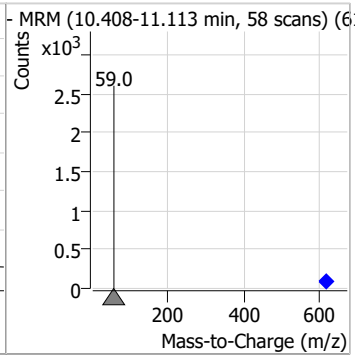


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	25.28	10.78	0.00	109631 (m)				

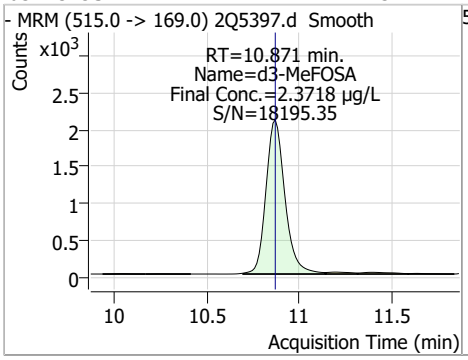


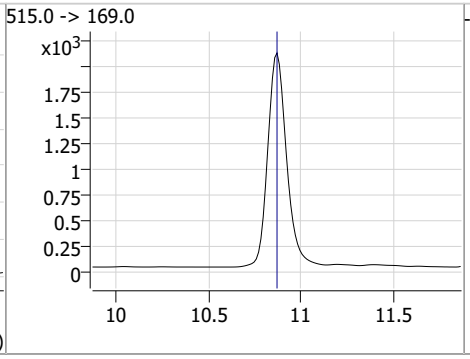


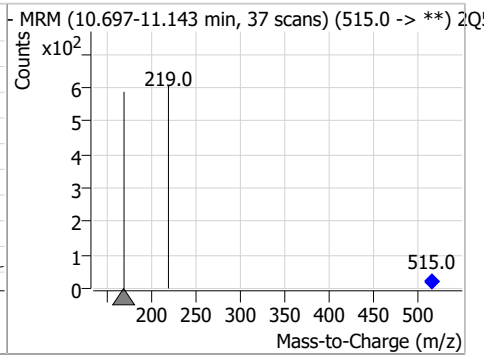




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.37	10.87	0.00	14931				

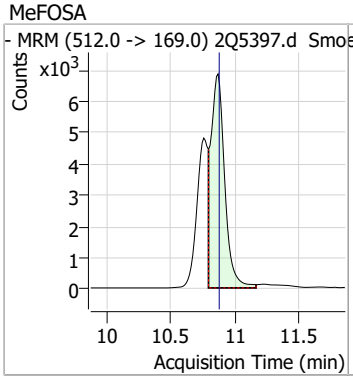


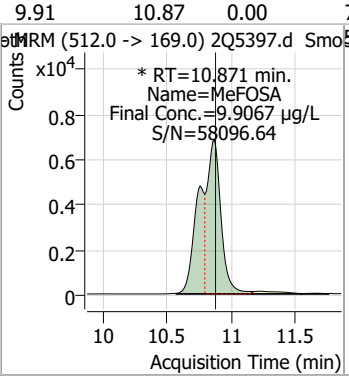


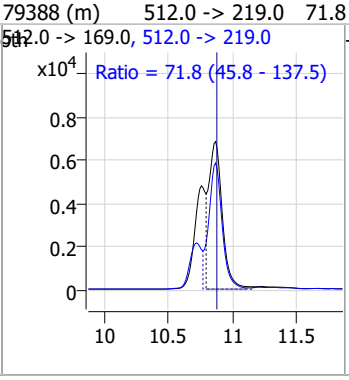


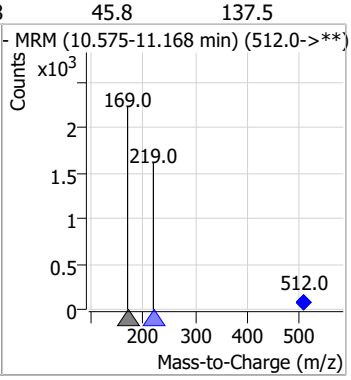
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	9.91	10.87	0.00	79388 (m)	512.0 -> 219.0	71.8	45.8	137.5

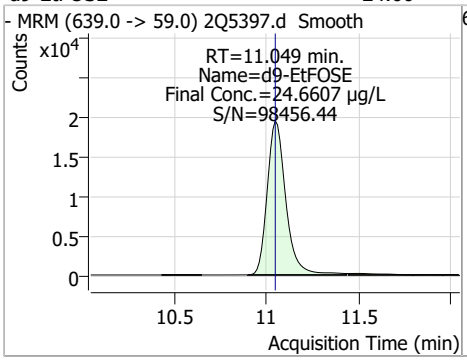


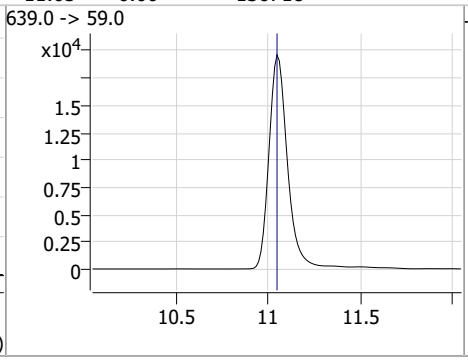


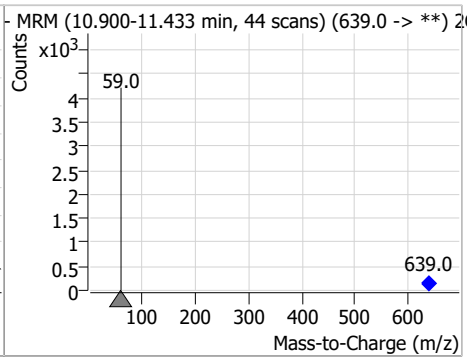




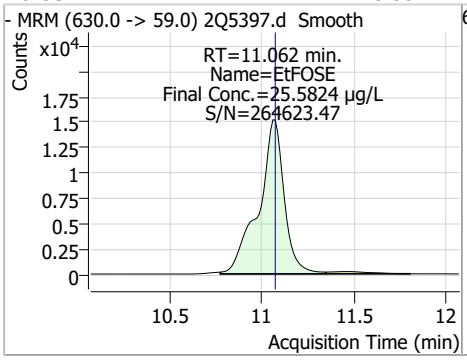
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.66	11.05	0.00	136718				

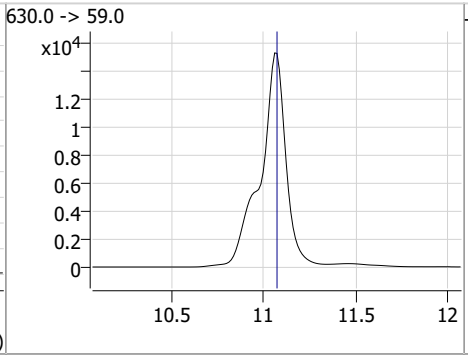


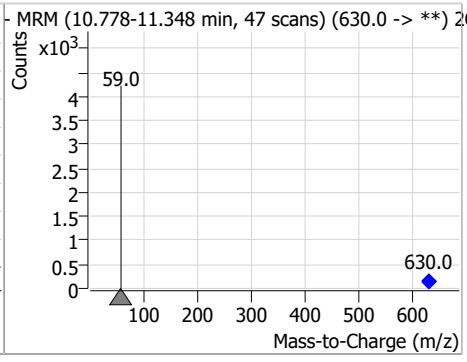




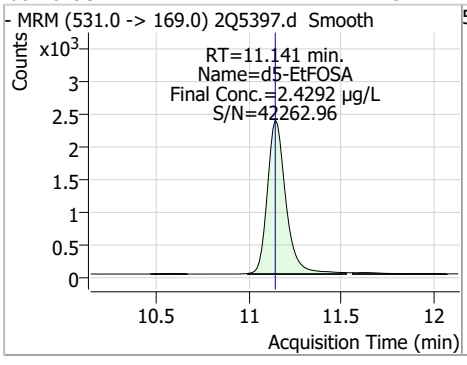
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	25.58	11.06	-0.01	146218				

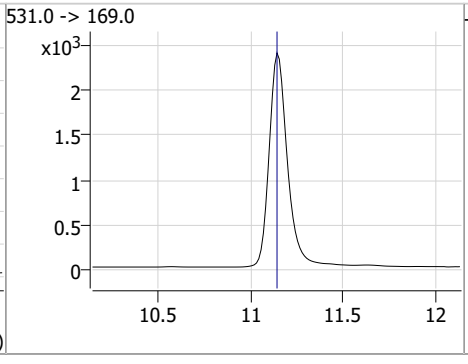


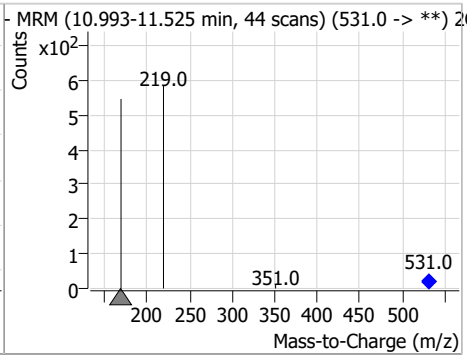




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.43	11.14	0.00	16395				

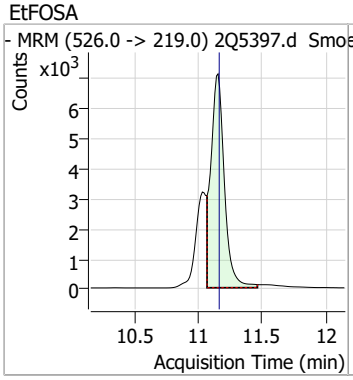


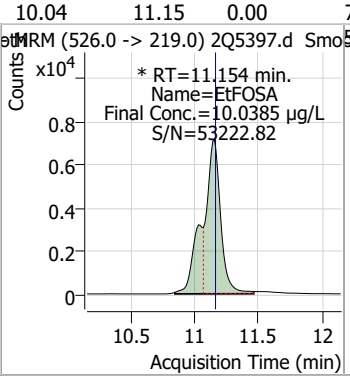


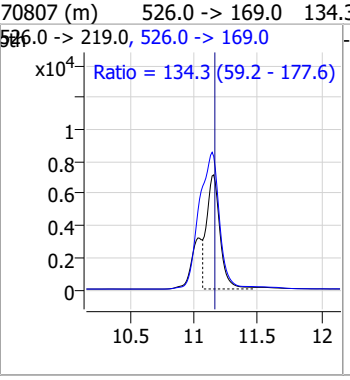


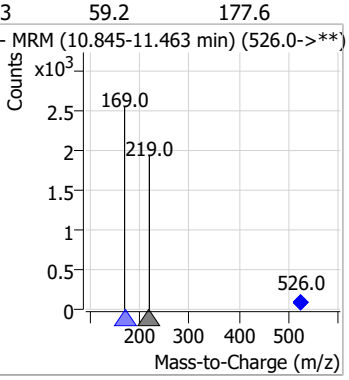
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	10.04	11.15	0.00	70807 (m)	526.0 -> 169.0	134.3	59.2	177.6









7.5.13

7

Manual Integration Approval Summary

Sample Number: T2Q96-CC96
Lab FileID: 2Q5397.D
Injection Time: 12/02/23 04:29
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
MeFOSAA	2355-31-9		8.40	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.61	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.87	Split peak
EtFOSA	4151-50-2		11.15	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5409.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 7:33:13 AM
Sample Name : cc96-4
Vial : P1-A5
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,522,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.327	217.0 -> 172.0	189931	10.00	µg/L	-0.013
M5-PFPeA	4.798	268.0 -> 223.0	117060	5.00	µg/L	-0.012
M5-PFHxA	5.930	318.0 -> 273.0	59994	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	48370	2.50	µg/L	-0.025
M8-PFOA	7.360	421.0 -> 376.0	83709	2.50	µg/L	-0.037
M9-PFNA	7.875	472.0 -> 427.0	38518	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	16290	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	26878	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	32234	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	22179	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	23200	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	7463	2.50	µg/L	-0.037
		302.0 -> 80.0	17203			
M3-PFHxS	7.472	402.0 -> 99.0	6621	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	8088	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1370	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	3050	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	4614	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	48142	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	28985	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	42958	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	103784	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	139908	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16761	2.50	µg/L	0.000
M3-MeFOSA	10.871	515.0 -> 169.0	14625	2.50	µg/L	0.000
13C4-PFOS	8.512	503.0 -> 80.0	13131	2.50	µg/L	-0.037
13C3-PFBA	3.330	216.0 -> 172.0	84664	5.00	µg/L	-0.012
18O2-PFHxS	7.472	403.0 -> 84.0	8402	2.50	µg/L	-0.037
13C4-PFOA	7.360	417.0 -> 372.0	86001	2.50	µg/L	-0.037
13C2-PFDA	8.352	515.0 -> 470.0	33491	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	45495	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	61329	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1370	4.46	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 89.3%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3050	4.48	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 89.7%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4614	4.90	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.0%		
13C2-PFDoDA	9.219	615.0 -> 570.0	32234	1.21	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.5%		
13C2-PFTeDA	9.964	715.0 -> 670.0	22179	1.13	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 90.5%		
13C3-PFBS	5.846	302.0 -> 99.0	7463	2.39	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 95.6%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6621	2.02	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 80.8%			
13C4-PFBA	3.327	217.0 -> 172.0	189931	9.96	µg/L		-0.013
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.6%			
13C4-PFHpA	6.770	367.0 -> 322.0	48370	2.43	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.1%			
13C5-PFHxA	5.930	318.0 -> 273.0	59994	2.35	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.2%			
13C5-PFPeA	4.798	268.0 -> 223.0	117060	5.09	µg/L		-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 101.9%			
13C6-PFDA	8.352	519.0 -> 474.0	16290	1.17	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.2%			
13C7-PFUnDA	8.803	570.0 -> 525.0	26878	1.17	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.2%			
13C8-FOSA	9.653	506.0 -> 78.0	23200	2.61	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 104.4%			
13C8-PFOA	7.360	421.0 -> 376.0	83709	2.35	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.0%			
13C8-PFOS	8.512	507.0 -> 99.0	8088	2.83	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 113.1%			
13C9-PFNA	7.875	472.0 -> 427.0	38518	1.08	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.6%			
d3-MeFOSAA	8.398	573.0 -> 419.0	48142	5.63	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.7%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	28985	9.97	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.7%			
d3-MeFOSA	10.871	515.0 -> 169.0	14625	2.49	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.5%			
d5-EtFOSAA	8.593	589.0 -> 419.0	42958	6.08	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 121.7%			
d7-MeFOSE	10.753	623.0 -> 59.0	103784	26.53	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 106.1%			
d9-EtFOSE	11.049	639.0 -> 59.0	139908	27.01	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 108.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	16761	2.66	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 106.3%			
Target Compounds							QValue
4:2FTS	5.632	327.0 -> 307.0	24569	10.78	µg/L		97
		327.0 -> 81.0	12158				
6:2FTS	7.149	427.0 -> 407.0	48163	10.78	µg/L		93
		427.0 -> 81.0	13691				
8:2FTS	8.143	527.0 -> 507.0	45814	10.98	µg/L		94
		527.0 -> 81.0	14994				
EtFOSAA	8.594	584.0 -> 419.0	17375	2.42	µg/L	m	98
		584.0 -> 483.0	8194				
FOSA	9.655	498.0 -> 78.0	43990	5.37	µg/L		99
		498.0 -> 478.0	1698				
MeFOSAA	8.398	570.0 -> 419.0	20724	2.68	µg/L		97
		570.0 -> 512.0	7107				
PFBA	3.321	213.0 -> 169.0	47265	9.91	µg/L		100
PFBS	5.847	299.0 -> 80.0	18073	2.33	µg/L		98
		299.0 -> 99.0	7387				
PFDA	8.352	513.0 -> 469.0	67232	2.50	µg/L		94
		513.0 -> 219.0	11805				
PFDoDA	9.219	613.0 -> 569.0	56043	2.27	µg/L		96
		613.0 -> 319.0	10254				

Perfluorinated Compounds by LC/MS/MS

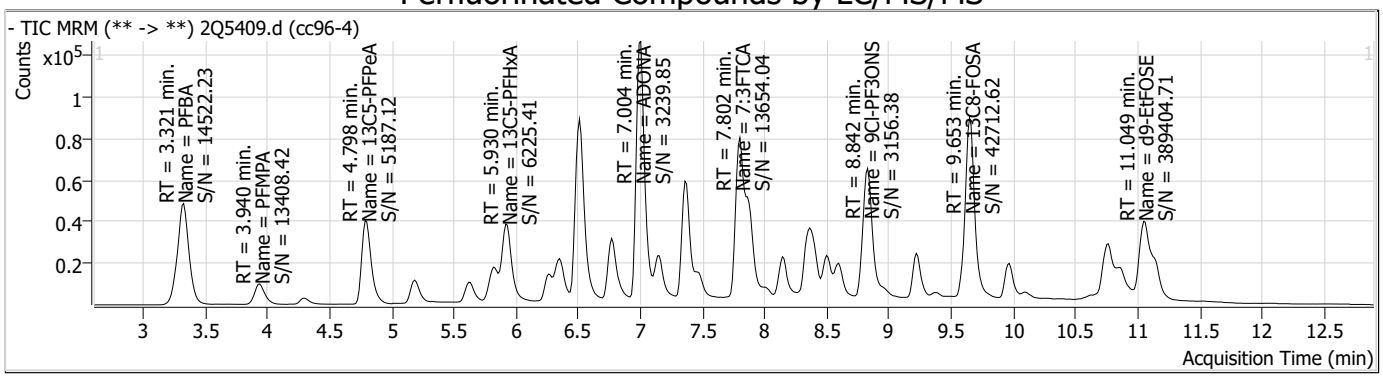
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	7812	2.43	µg/L		80
		599.0 -> 99.0	2882				
PFHpA	6.770	363.0 -> 319.0	72405	2.42	µg/L		97
		363.0 -> 169.0	12696				
PFHpS	8.010	449.0 -> 80.0	10461	2.50	µg/L		98
		449.0 -> 99.0	5360				
PFHxA	5.932	313.0 -> 269.0	59167	2.49	µg/L		98
		313.0 -> 119.0	2070				
PFHxS	7.473	399.0 -> 80.0	11981	2.62	µg/L	m	91
		399.0 -> 99.0	6196				
PFNA	7.876	463.0 -> 419.0	72827	2.52	µg/L		98
		463.0 -> 219.0	12192				
PFNS	8.964	549.0 -> 80.0	7106	1.99	µg/L		86
		549.0 -> 99.0	4843				
PFOA	7.373	413.0 -> 369.0	82153	2.51	µg/L		98
		413.0 -> 169.0	16642				
PFOS	8.512	499.0 -> 80.0	15524	2.25	µg/L	m	95
		499.0 -> 99.0	7546				
PFPeA	4.799	263.0 -> 219.0	100182	4.75	µg/L		100
PFPeS	6.821	349.0 -> 80.0	9398	2.10	µg/L		92
		349.0 -> 99.0	4492				
PFTeDA	9.964	713.0 -> 669.0	46604	2.60	µg/L		97
		713.0 -> 219.0	6230				
PFTrDA	9.610	663.0 -> 619.0	61201	2.59	µg/L		97
		663.0 -> 369.0	7853				
PFUnDA	8.804	563.0 -> 519.0	70147	2.61	µg/L		100
		563.0 -> 269.0	11223				
11Cl-PF3OUdS	9.660	631.0 -> 451.0	256247	9.82	µg/L		98
		633.0 -> 453.0	75597				
9Cl-PF3ONS	8.842	531.0 -> 351.0	180745	10.06	µg/L		98
		533.0 -> 353.0	49883				
ADONA	7.004	377.0 -> 251.0	464280	10.11	µg/L		100
		377.0 -> 85.0	137731				
HFPO-DA	6.271	285.0 -> 169.0	29624	9.49	µg/L		99
		285.0 -> 185.0	2539				
3:3FTCA	4.301	241.0 -> 177.0	14681	11.22	µg/L		98
		241.0 -> 117.0	1243				
5:3FTCA	6.511	341.0 -> 237.0	260974	62.89	µg/L		100
		341.0 -> 217.0	186486				
7:3FTCA	7.802	441.0 -> 337.0	281412	63.60	µg/L		96
		441.0 -> 317.0	101577				
EtFOSA	11.154	526.0 -> 219.0	37578	5.21	µg/L		94
		526.0 -> 169.0	46979				
EtFOSE	11.075	630.0 -> 59.0	73885	12.63	µg/L		100
MeFOSA	10.859	512.0 -> 169.0	39157	4.99	µg/L	m	85
		512.0 -> 219.0	30452				
MeFOSE	10.778	616.0 -> 59.0	55534	12.51	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	7599	2.19	µg/L		95
		699.0 -> 99.0	3349				
NFDHA	5.823	295.0 -> 201.0	8092	5.55	µg/L		94
		201.0 -> 85.0	44179				
		295.0 -> 85.0	2239				
PFMBA	5.188	279.0 -> 85.0	59124	5.19	µg/L		100
PFMPA	3.940	229.0 -> 85.0	58092	4.86	µg/L		100
PFEESA	6.353	315.0 -> 135.0	89177	5.48	µg/L		100
		315.0 -> 69.0	8481				

Perfluorinated Compounds by LC/MS/MS

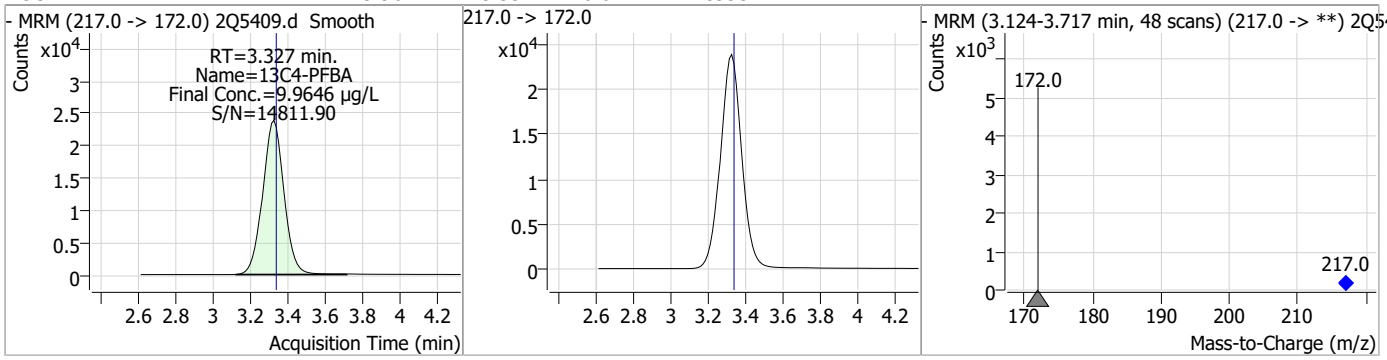
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

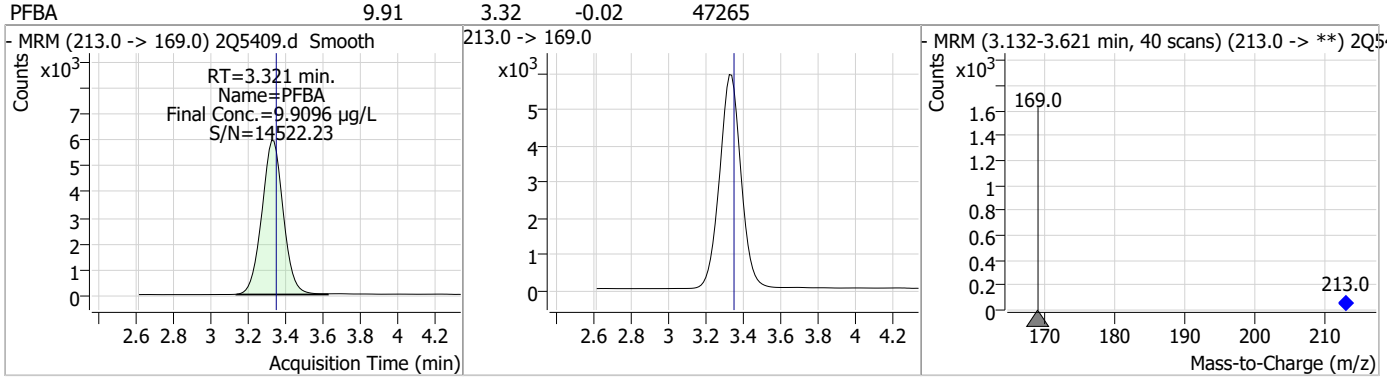
Perfluorinated Compounds by LC/MS/MS



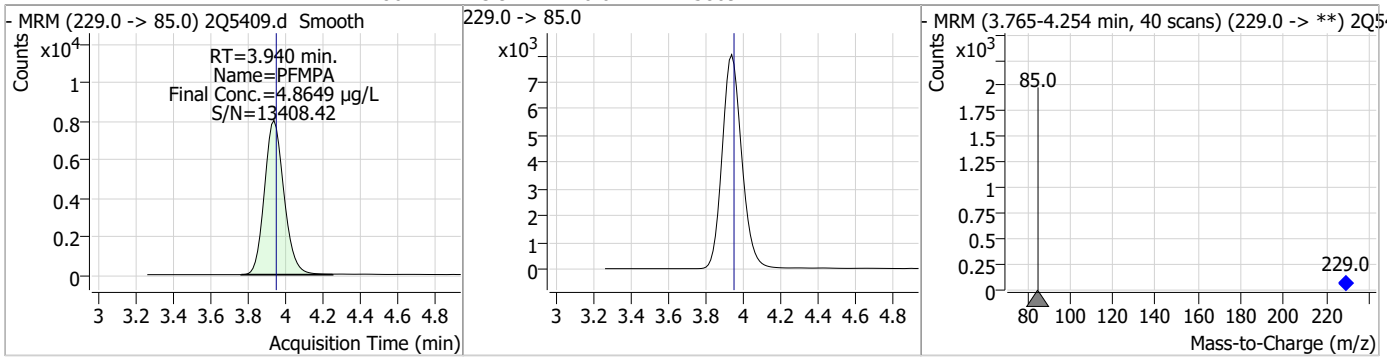
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.96	3.33	-0.01	189931				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	9.91	3.32	-0.02	47265				

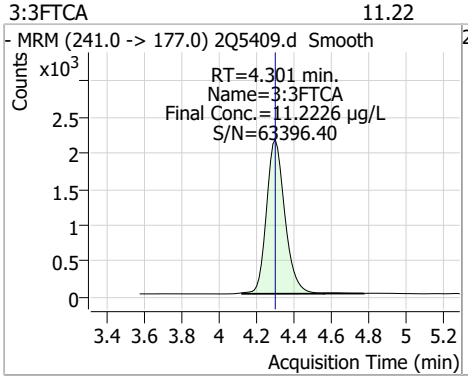


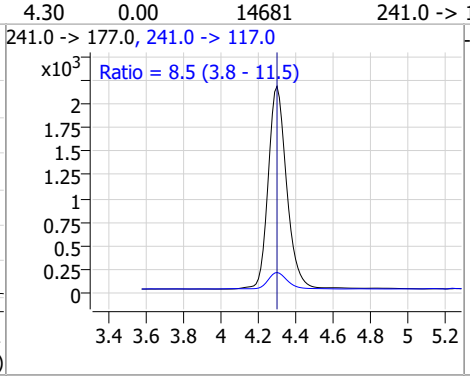
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.86	3.94	-0.01	58092				

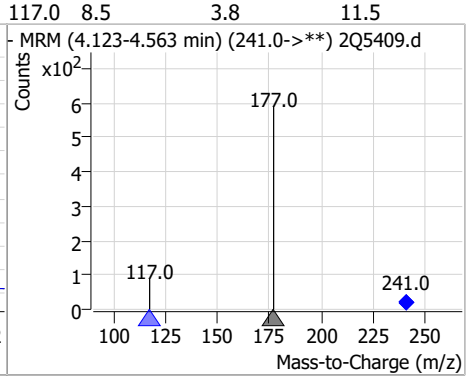


Perfluorinated Compounds by LC/MS/MS

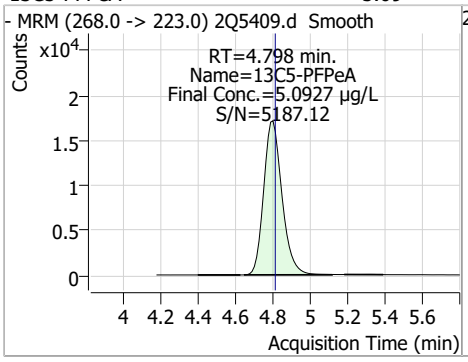
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	11.22	4.30	0.00	14681	241.0 -> 117.0	8.5	3.8	11.5

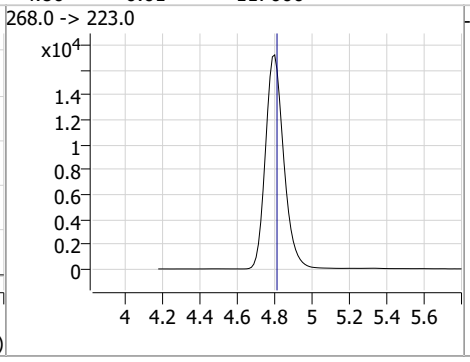


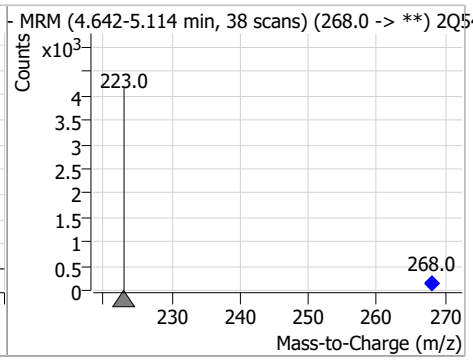




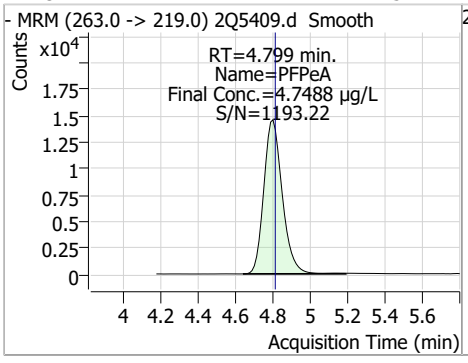
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.09	4.80	-0.01	117060				

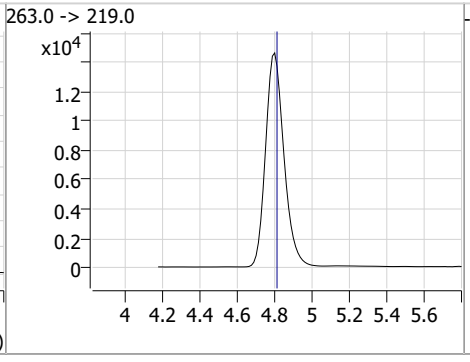


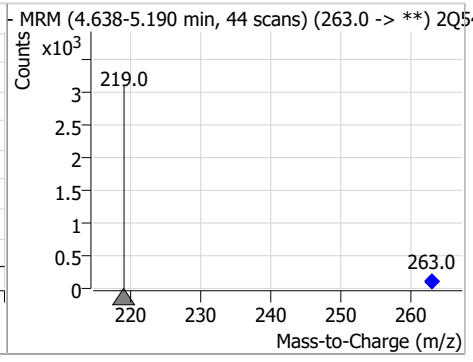




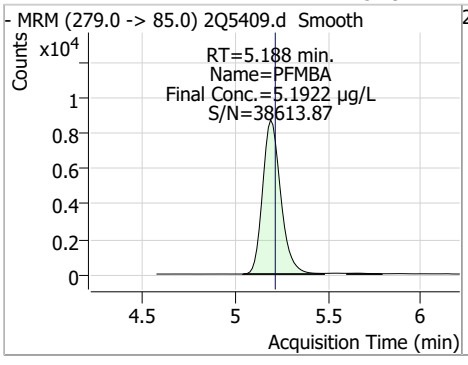
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	4.75	4.80	-0.01	100182				

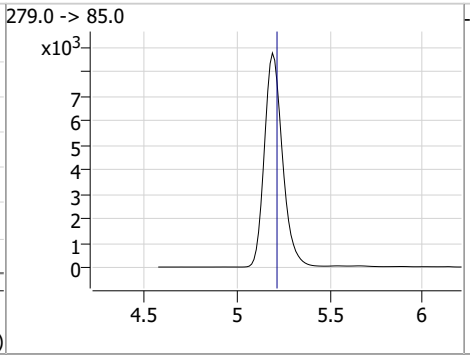


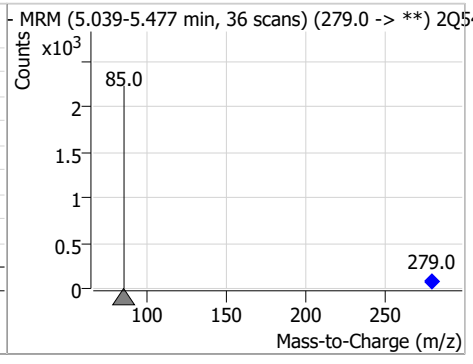




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	5.19	5.19	-0.02	59124				

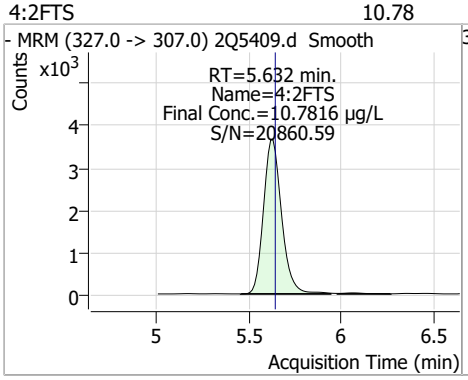


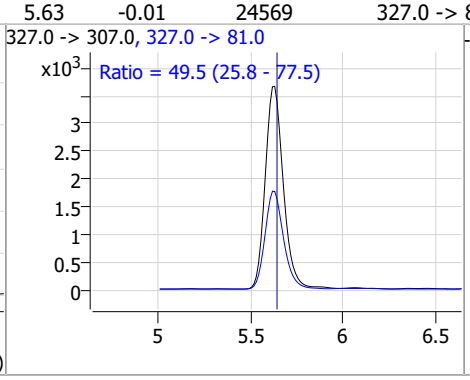


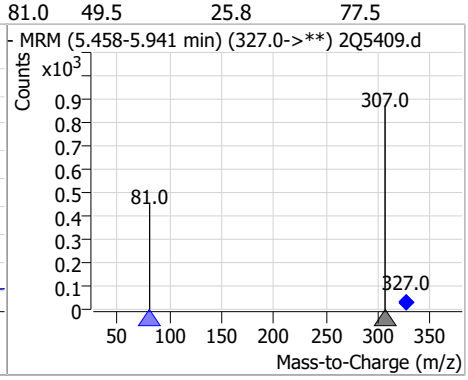


Perfluorinated Compounds by LC/MS/MS

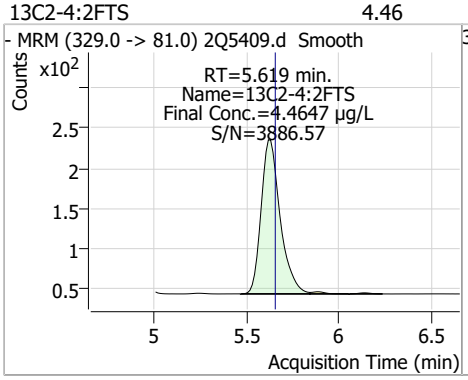
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	10.78	5.63	-0.01	24569	327.0 -> 81.0	49.5	25.8	77.5

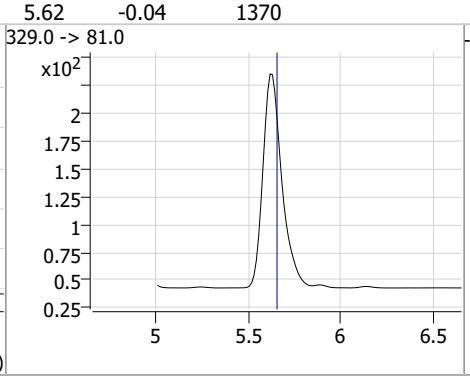


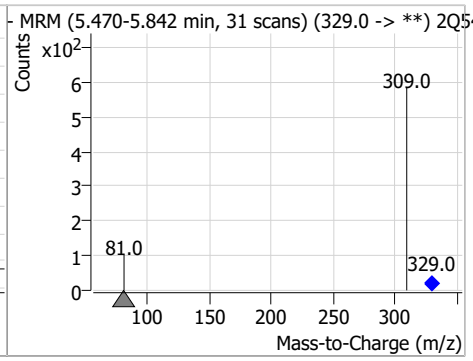




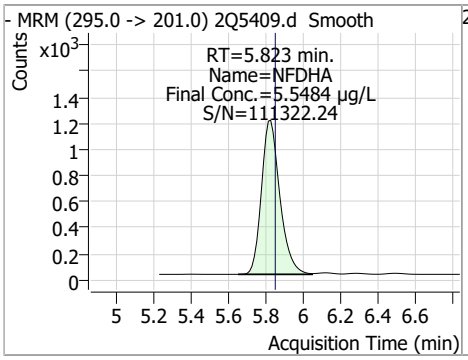
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.46	5.62	-0.04	1370				

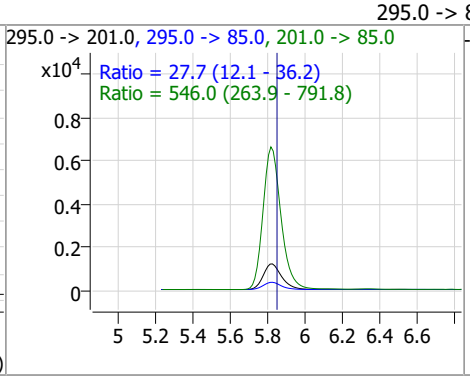


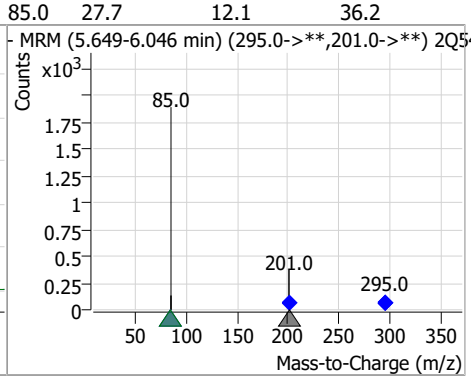




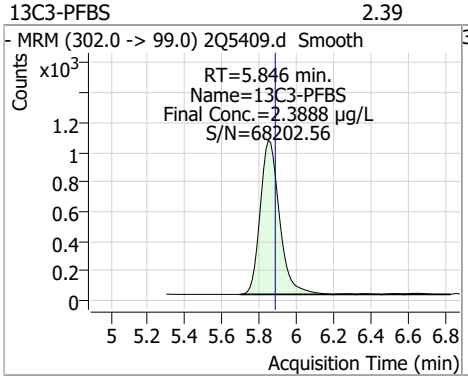
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	5.55	5.82	-0.02	8092	201.0 -> 85.0	546.0	263.9	791.8
					295.0 -> 85.0	27.7	12.1	36.2

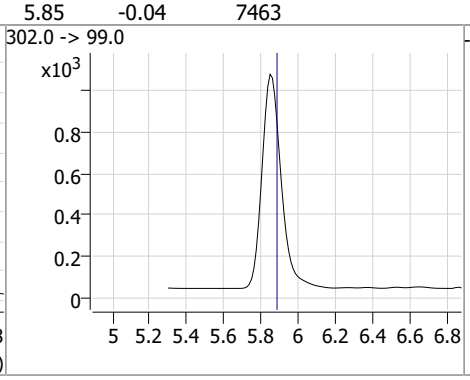


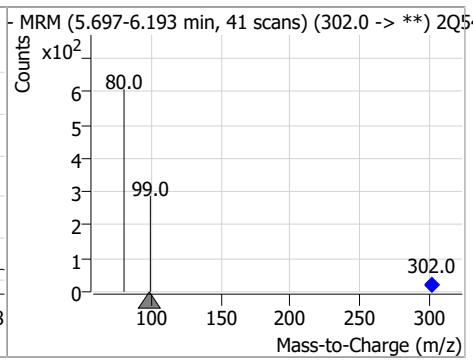




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.39	5.85	-0.04	7463				

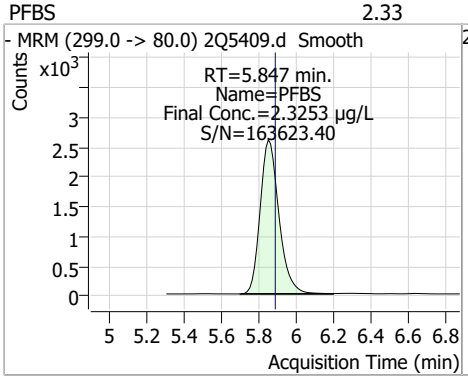


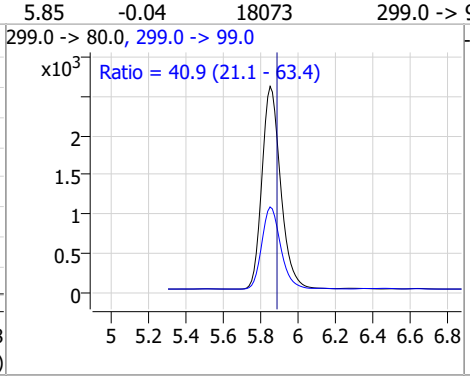


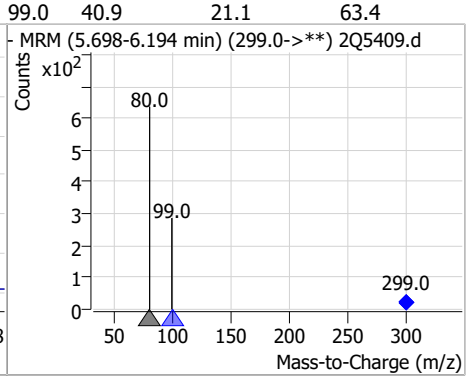


Perfluorinated Compounds by LC/MS/MS

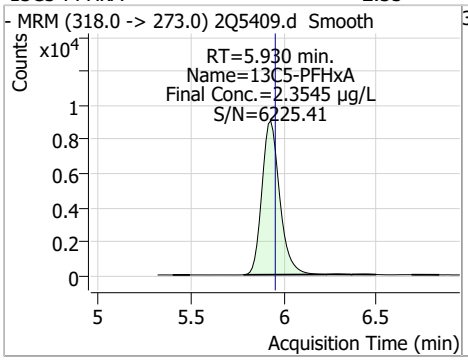
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.33	5.85	-0.04	18073	299.0 -> 99.0	40.9	21.1	63.4

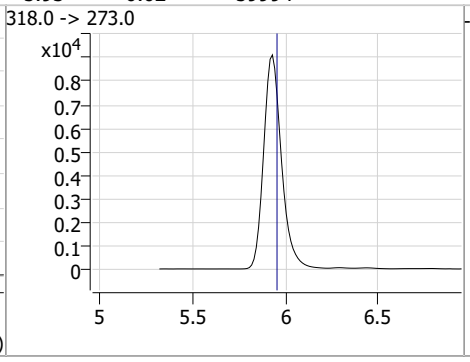


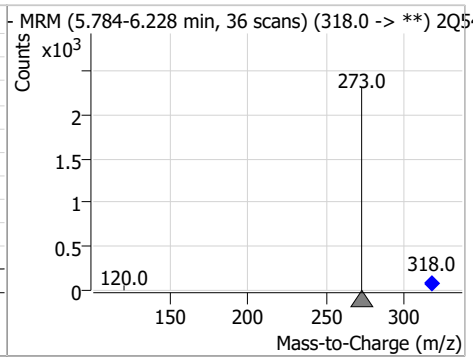




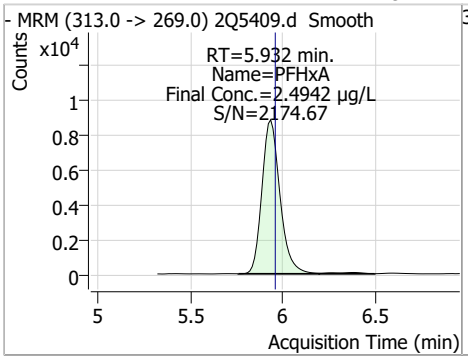
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.35	5.93	-0.02	59994				

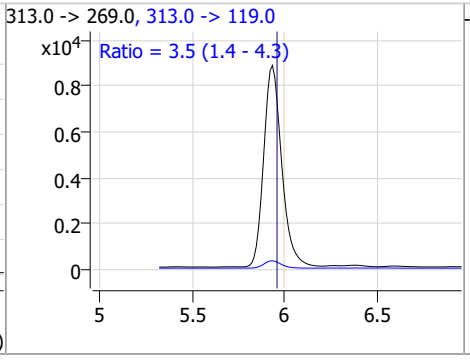


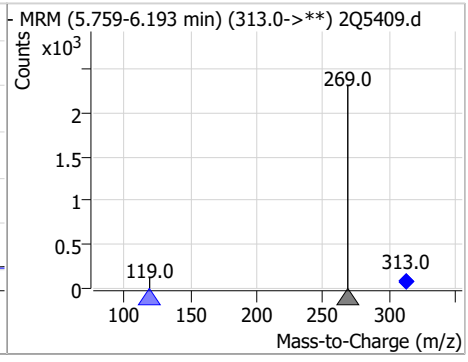




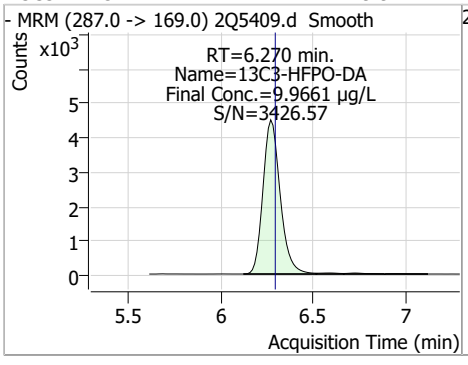
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.49	5.93	-0.02	59167	313.0 -> 119.0	3.5	1.4	4.3

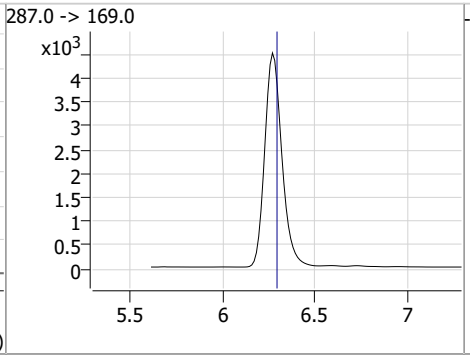


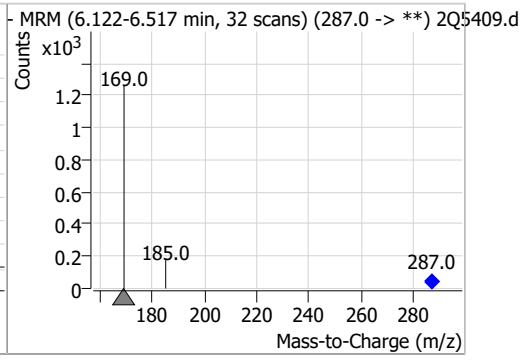




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	9.97	6.27	-0.02	28985				

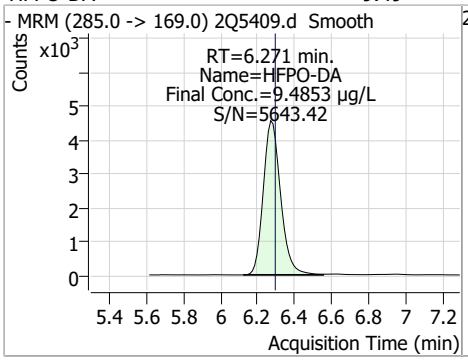


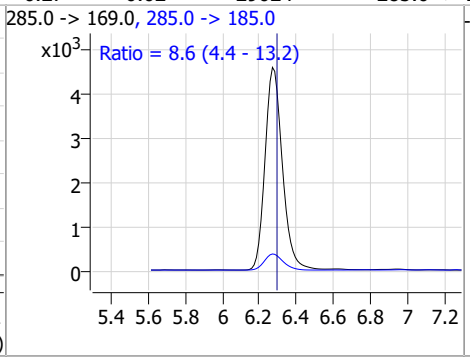


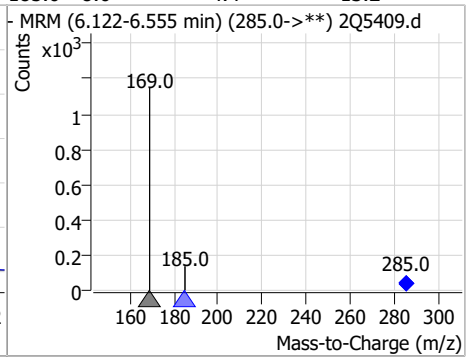


Perfluorinated Compounds by LC/MS/MS

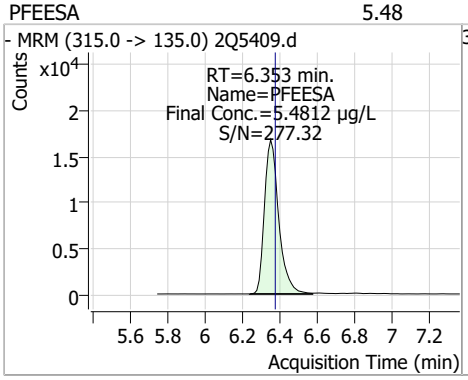
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	9.49	6.27	-0.02	29624	285.0 -> 185.0	8.6	4.4	13.2

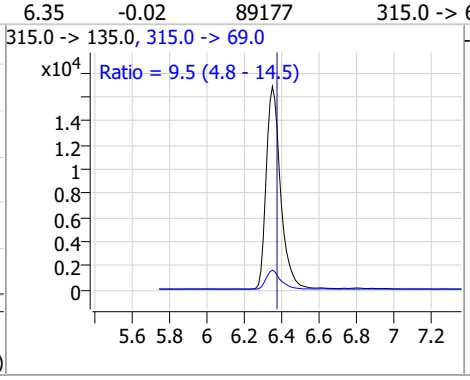


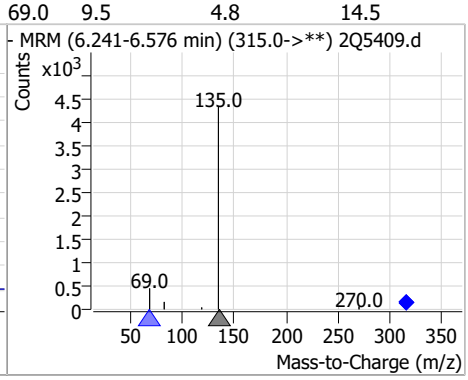




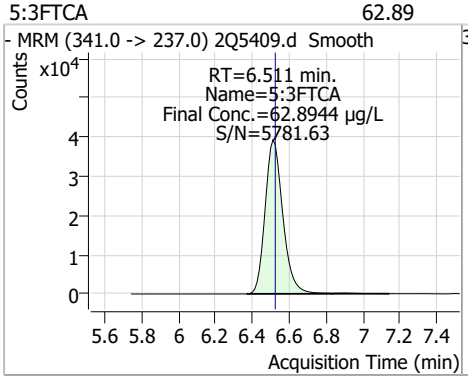
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.48	6.35	-0.02	89177	315.0 -> 69.0	9.5	4.8	14.5

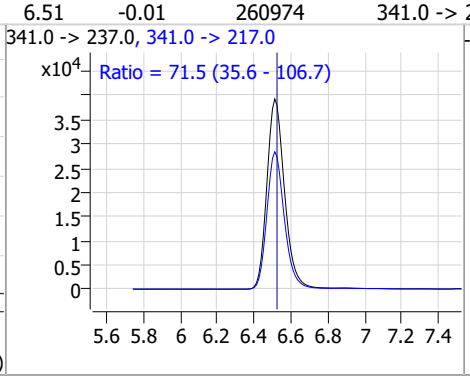


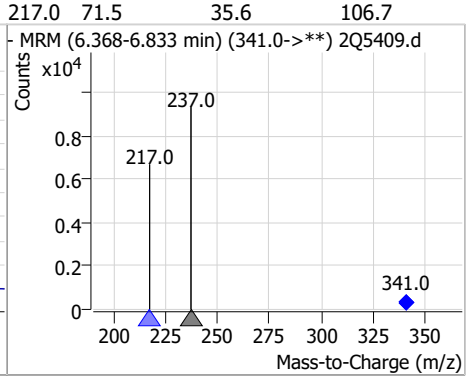




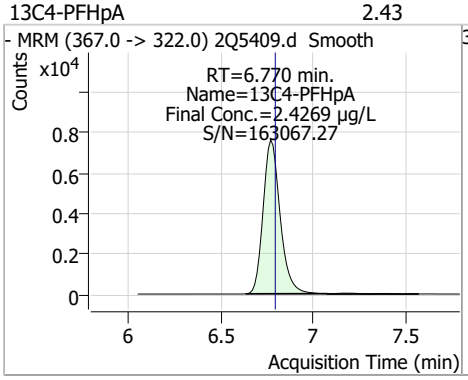
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	62.89	6.51	-0.01	260974	341.0 -> 217.0	71.5	35.6	106.7

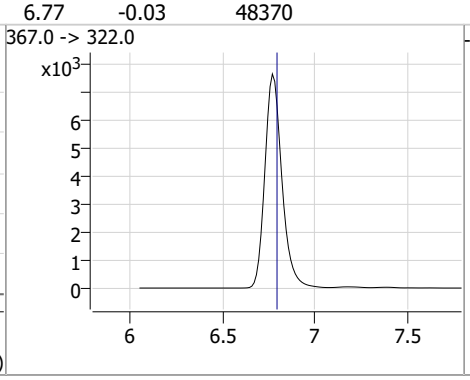


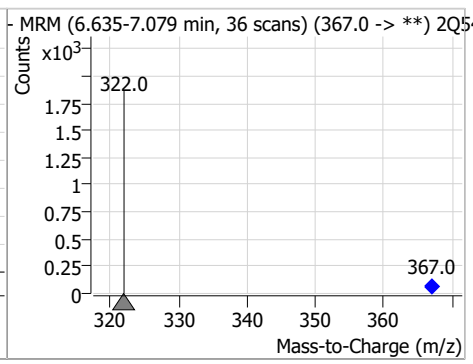




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.43	6.77	-0.03	48370				

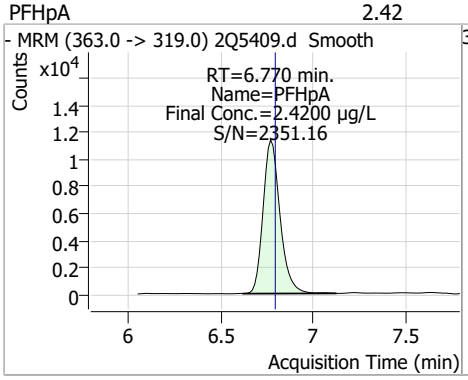


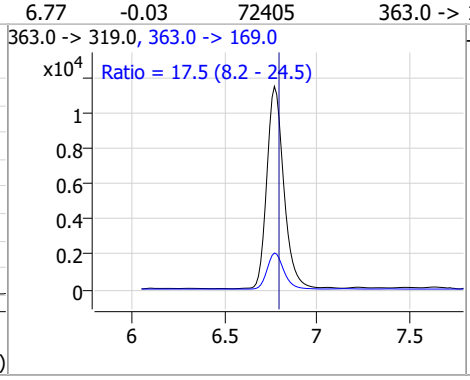


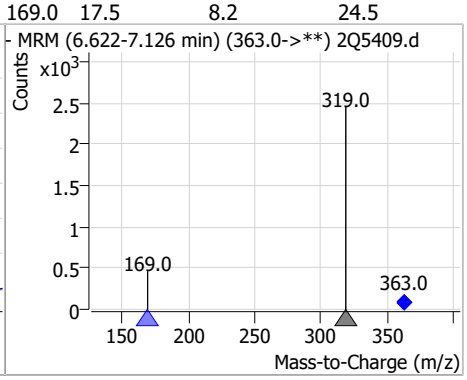


Perfluorinated Compounds by LC/MS/MS

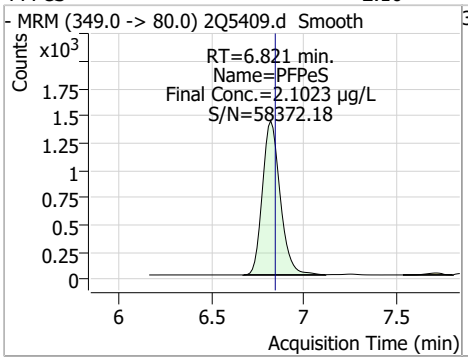
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.42	6.77	-0.03	72405	363.0 -> 169.0	17.5	8.2	24.5

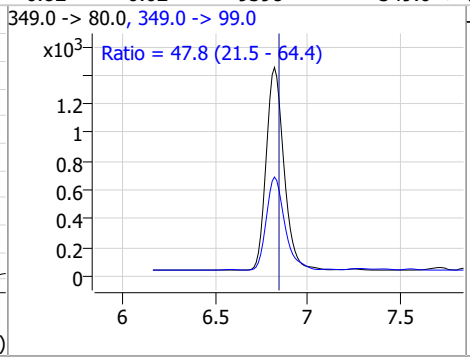


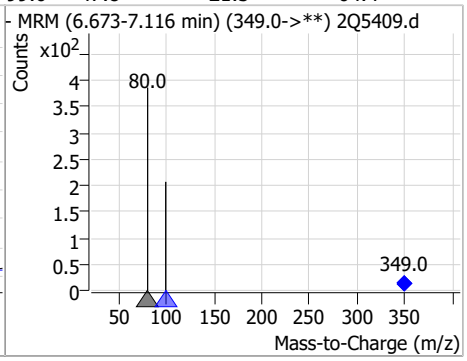




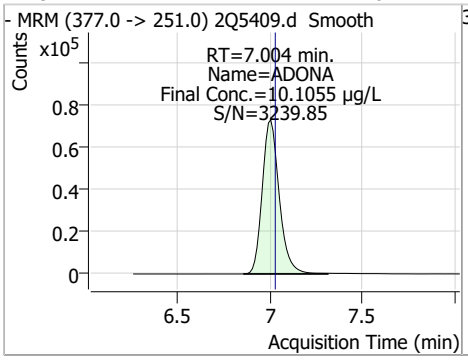
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.10	6.82	-0.02	9398	349.0 -> 99.0	47.8	21.5	64.4

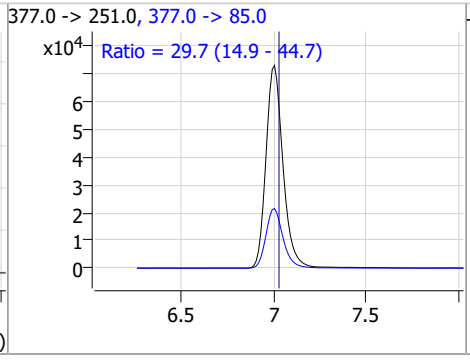


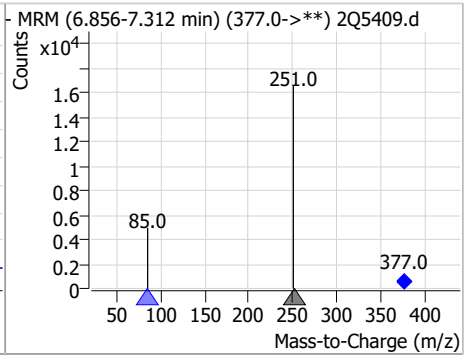




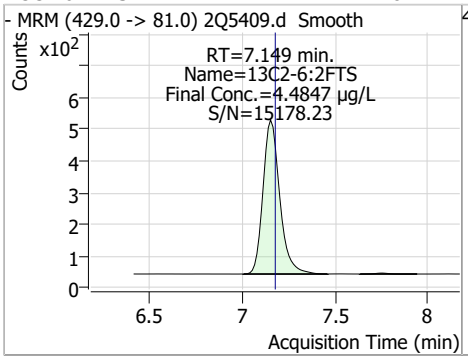
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	10.11	7.00	-0.02	464280	377.0 -> 85.0	29.7	14.9	44.7

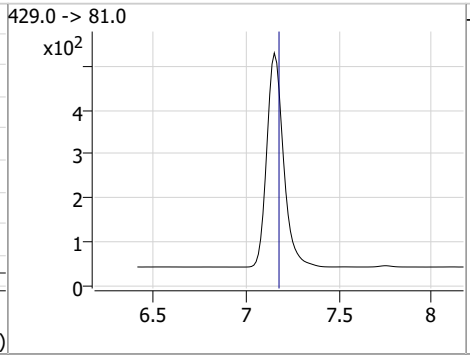


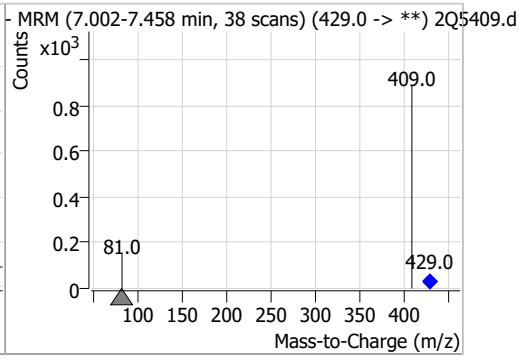




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.48	7.15	-0.03	3050				

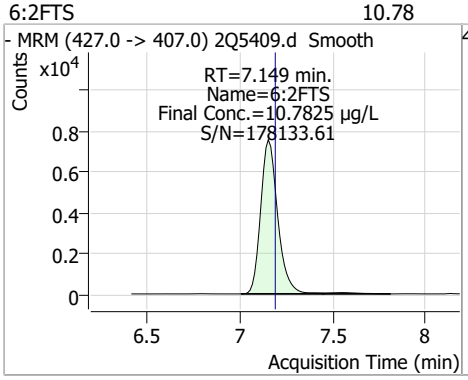


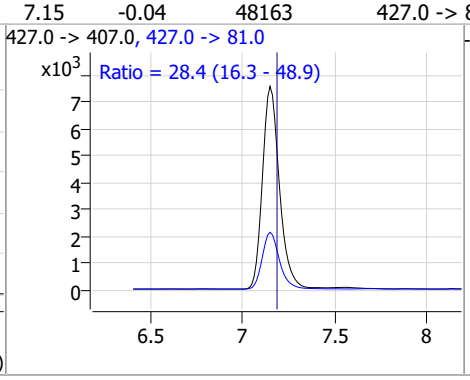


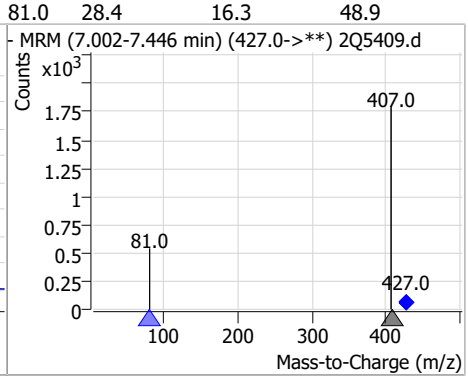


Perfluorinated Compounds by LC/MS/MS

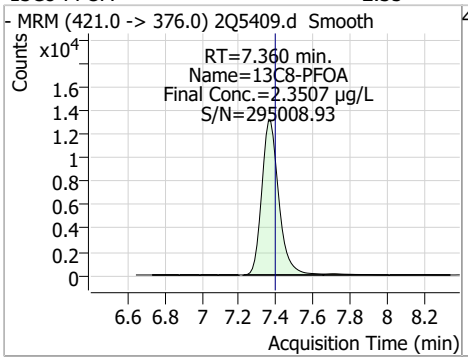
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	10.78	7.15	-0.04	48163	427.0 -> 81.0	28.4	16.3	48.9

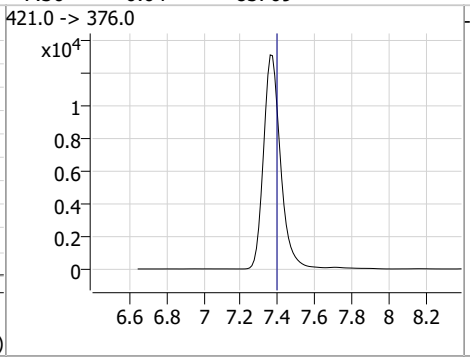


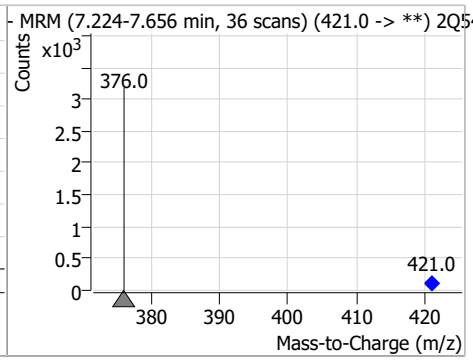




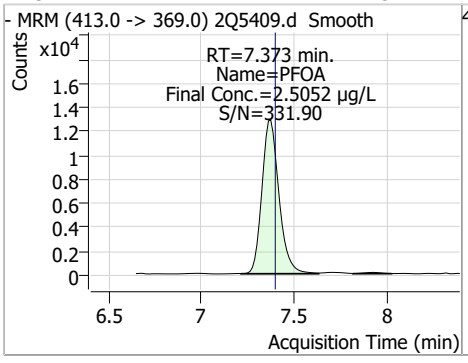
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.35	7.36	-0.04	83709				

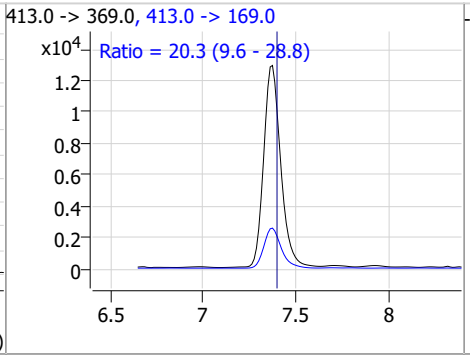


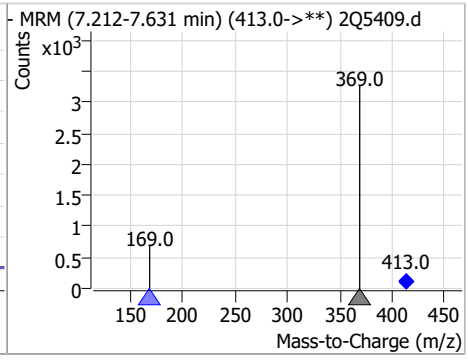




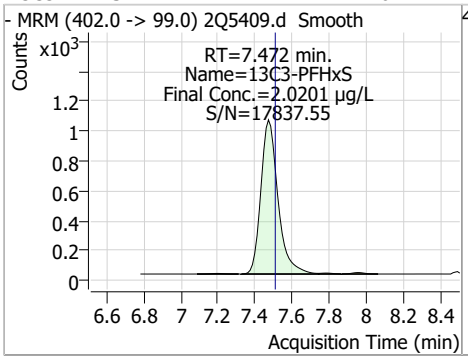
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	2.51	7.37	-0.02	82153	413.0 -> 169.0	20.3	9.6	28.8

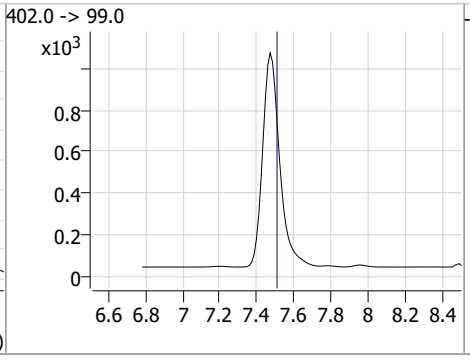


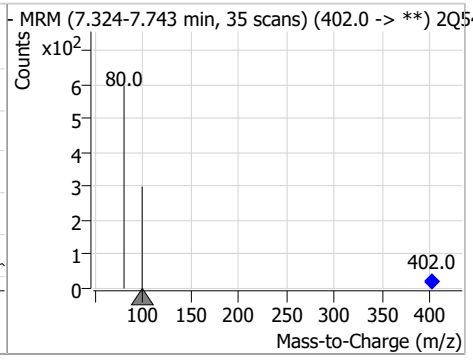




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.02	7.47	-0.04	6621				

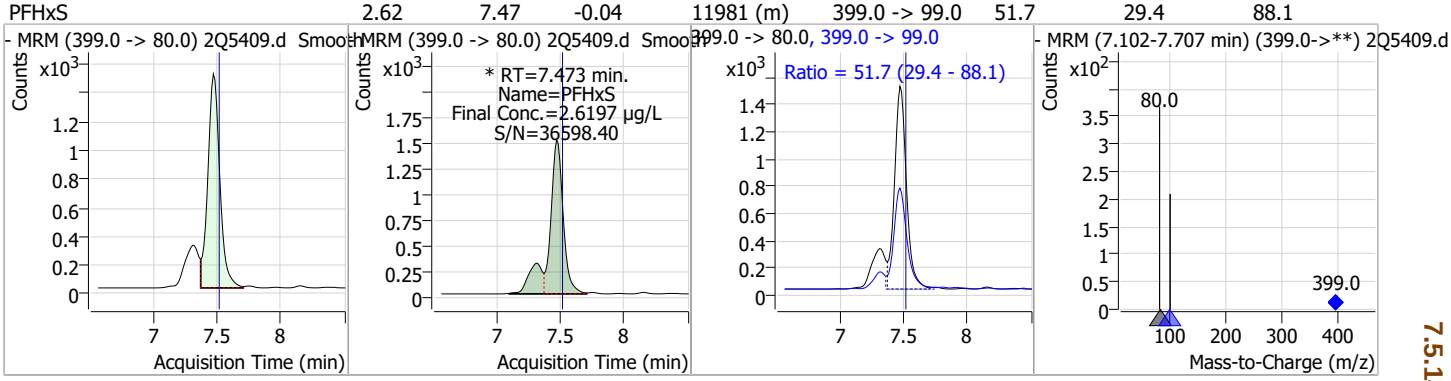




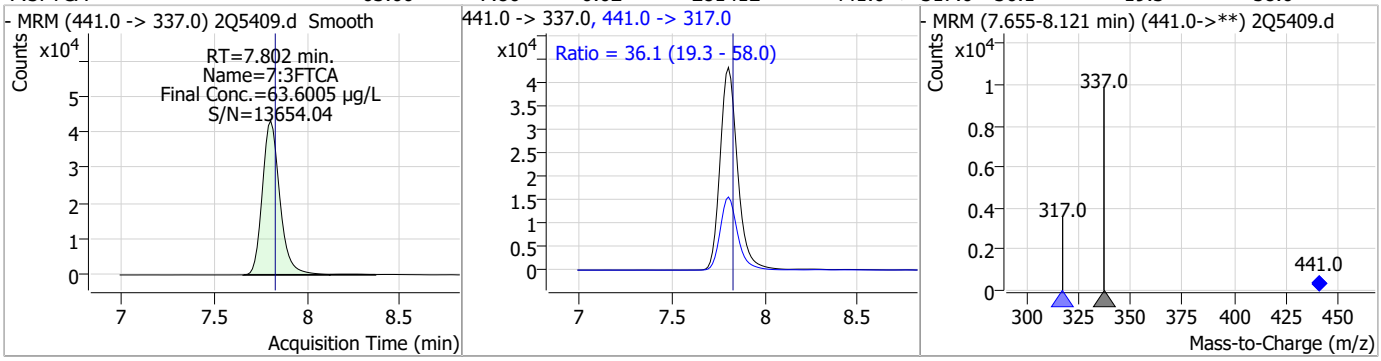


Perfluorinated Compounds by LC/MS/MS

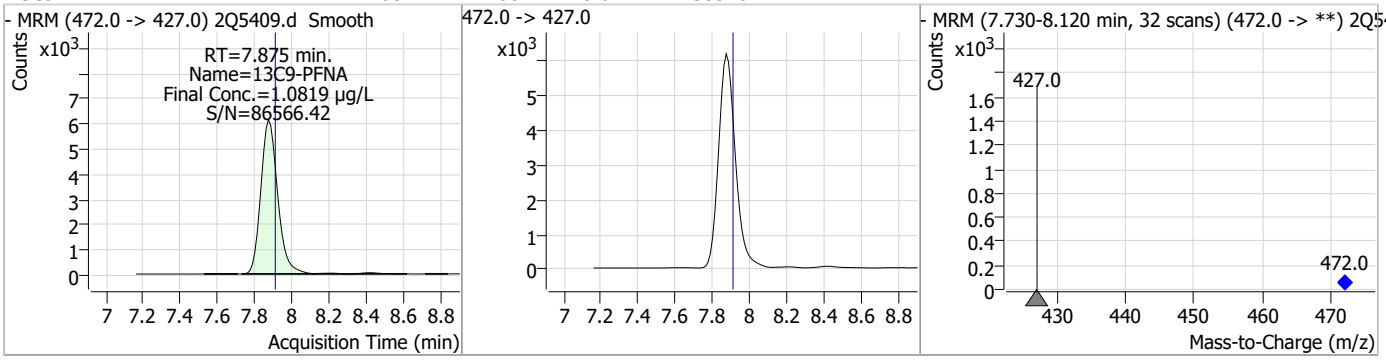
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.62	7.47	-0.04	11981 (m)	399.0 -> 99.0	51.7	29.4	88.1



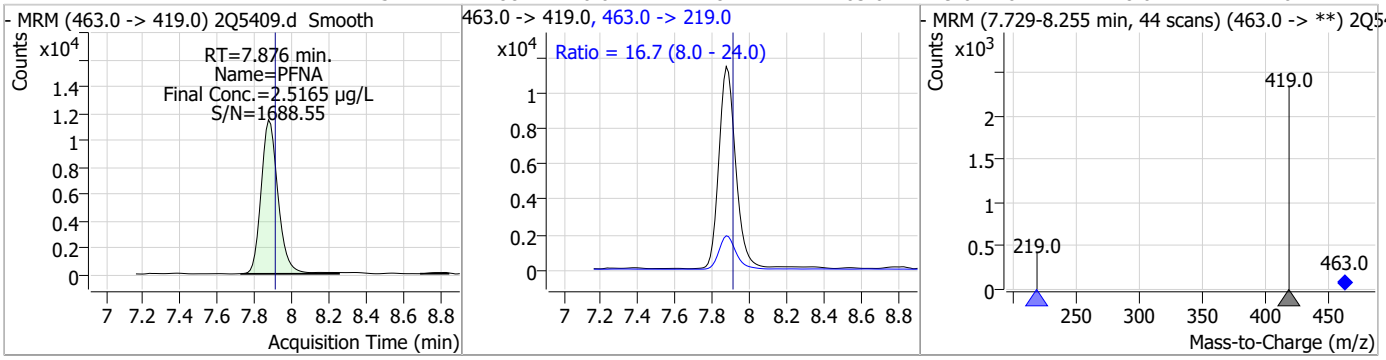
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	63.60	7.80	-0.02	281412	441.0 -> 317.0	36.1	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.08	7.88	-0.04	38518				

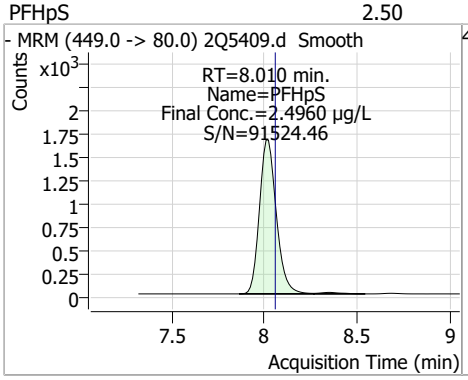


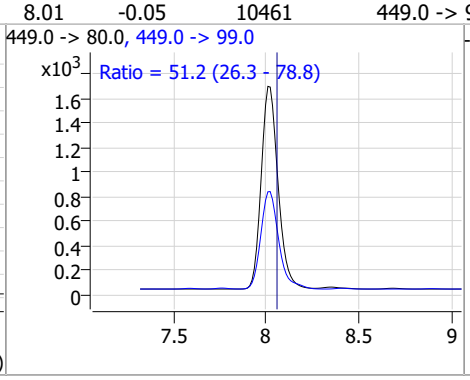
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.52	7.88	-0.04	72827	463.0 -> 219.0	16.7	8.0	24.0

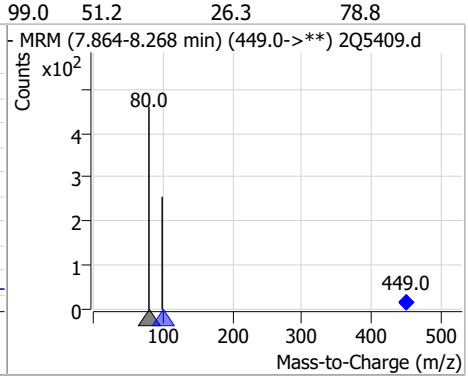


Perfluorinated Compounds by LC/MS/MS

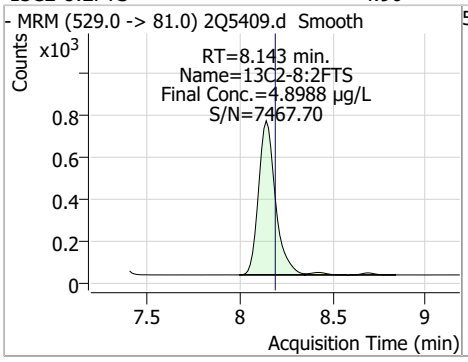
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.50	8.01	-0.05	10461	449.0 -> 99.0	51.2	26.3	78.8

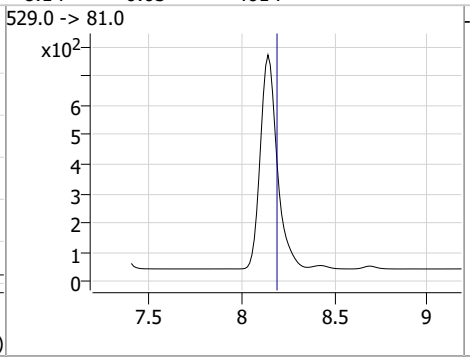


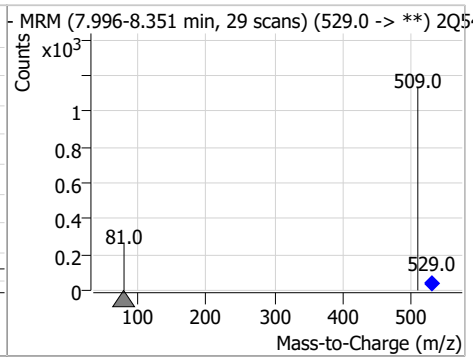




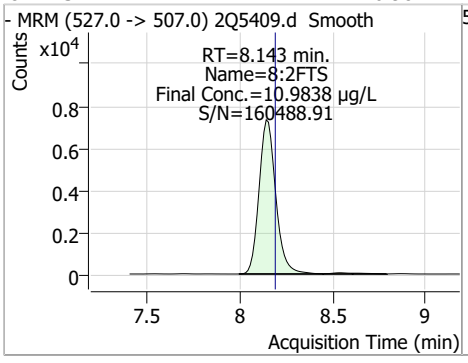
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	4.90	8.14	-0.05	4614				

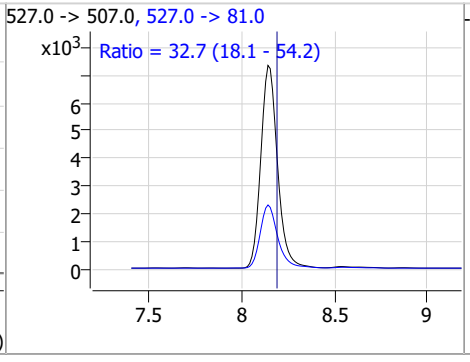


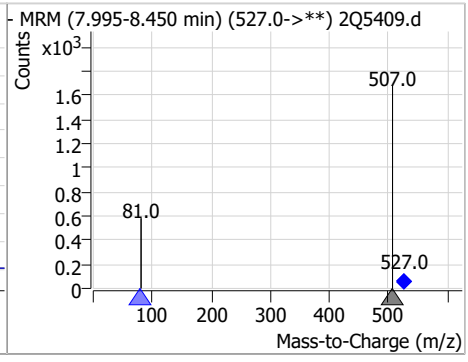




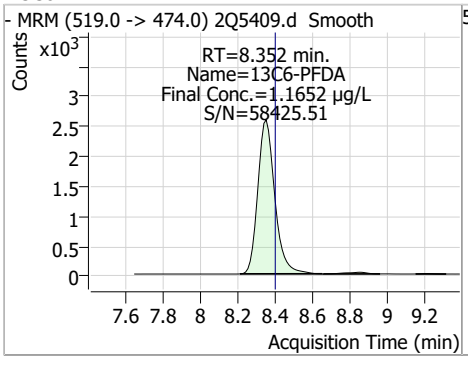
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	10.98	8.14	-0.05	45814	527.0 -> 81.0	32.7	18.1	54.2

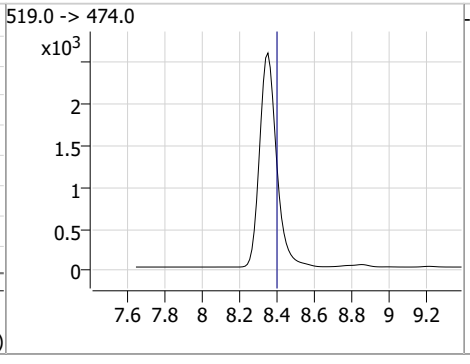


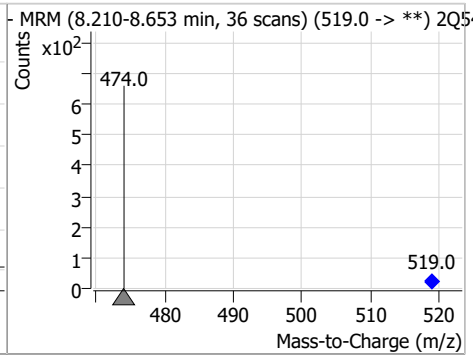




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.17	8.35	-0.05	16290				

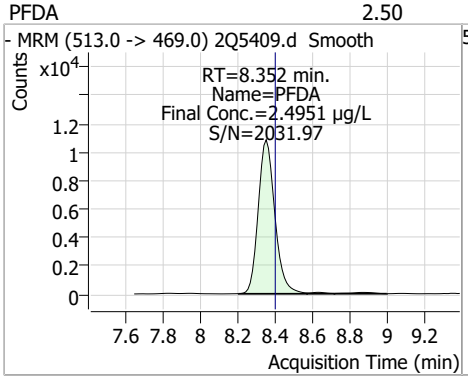


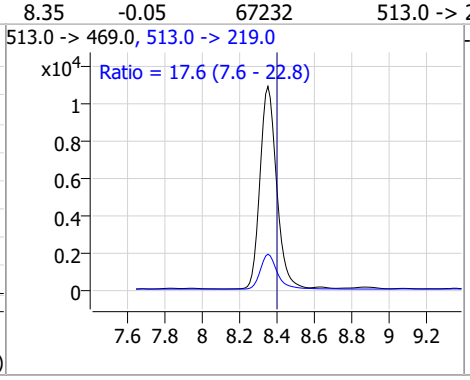


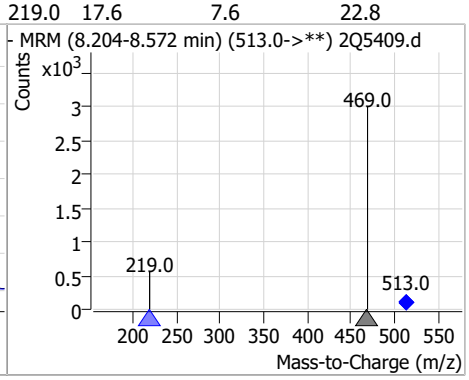


Perfluorinated Compounds by LC/MS/MS

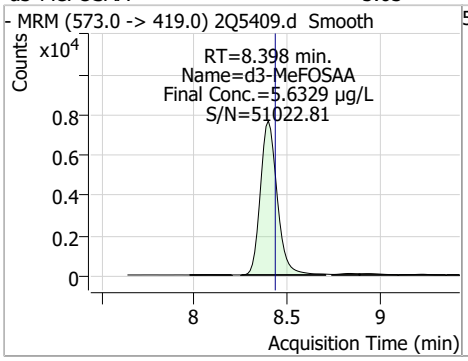
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.50	8.35	-0.05	67232	513.0 -> 219.0	17.6	7.6	22.8

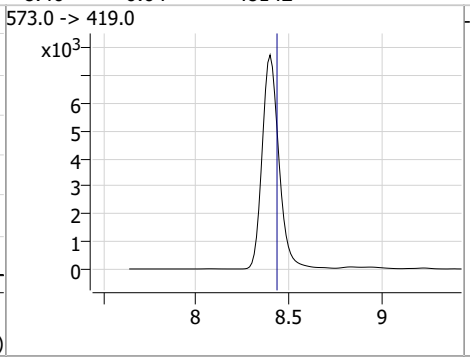


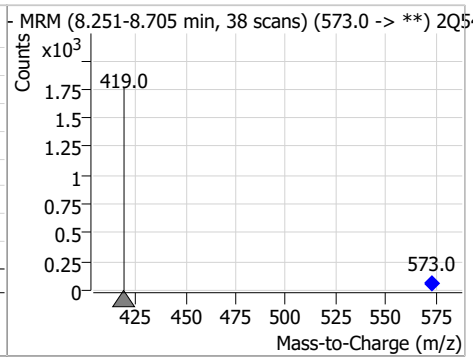




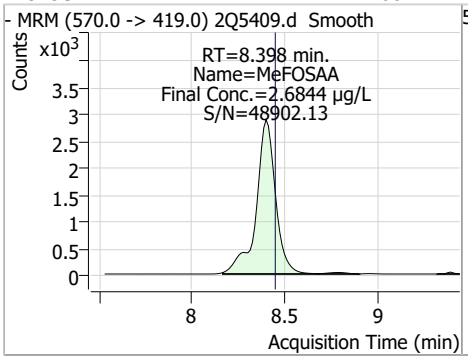
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.63	8.40	-0.04	48142				

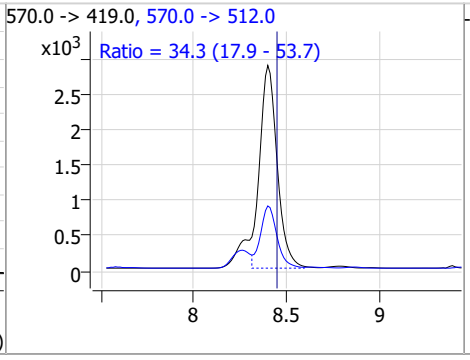


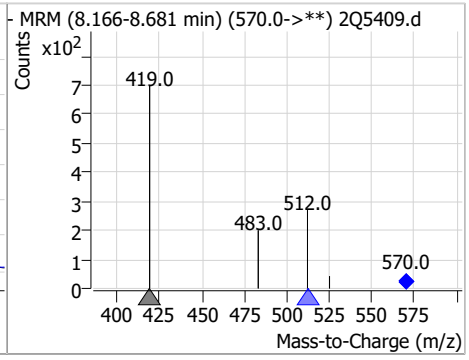




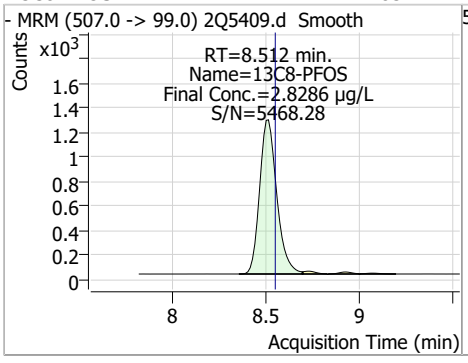
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	2.68	8.40	-0.05	20724	570.0 -> 512.0	34.3	17.9	53.7

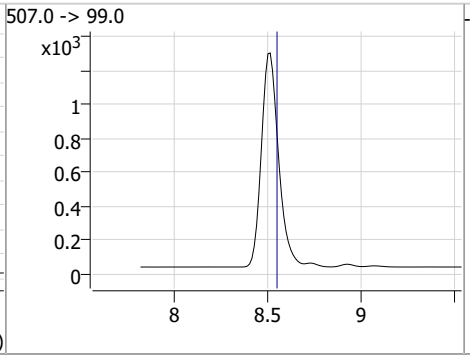


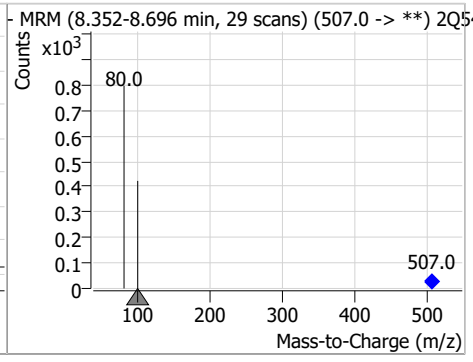




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.83	8.51	-0.04	8088				

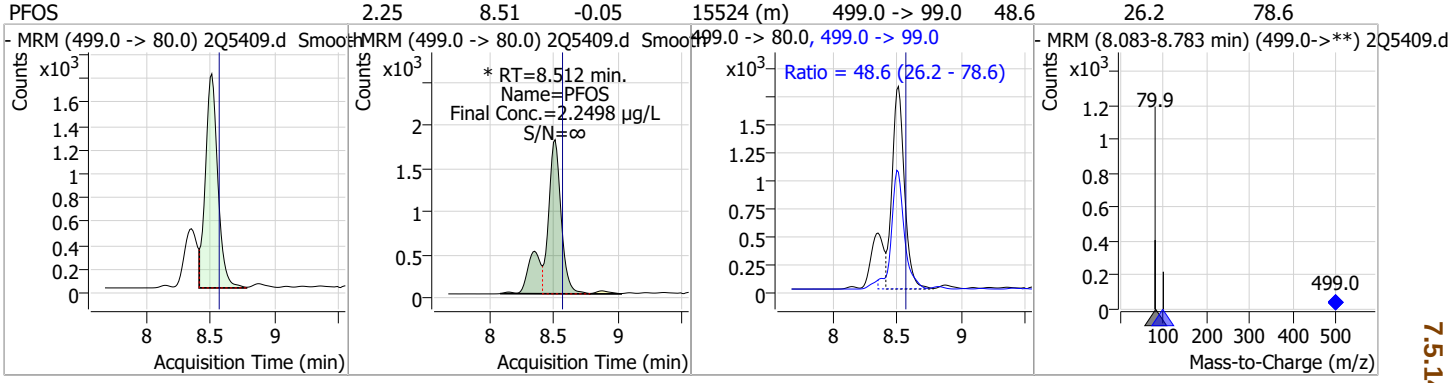




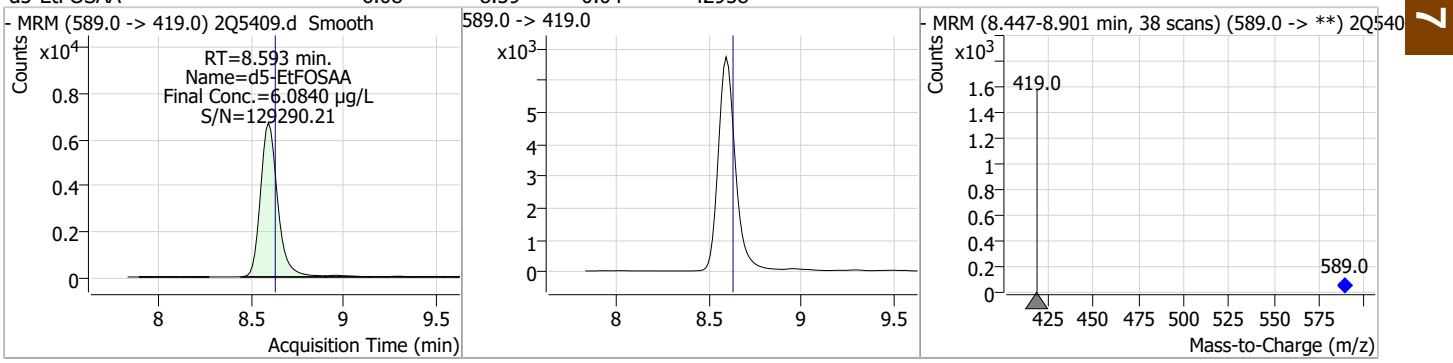


Perfluorinated Compounds by LC/MS/MS

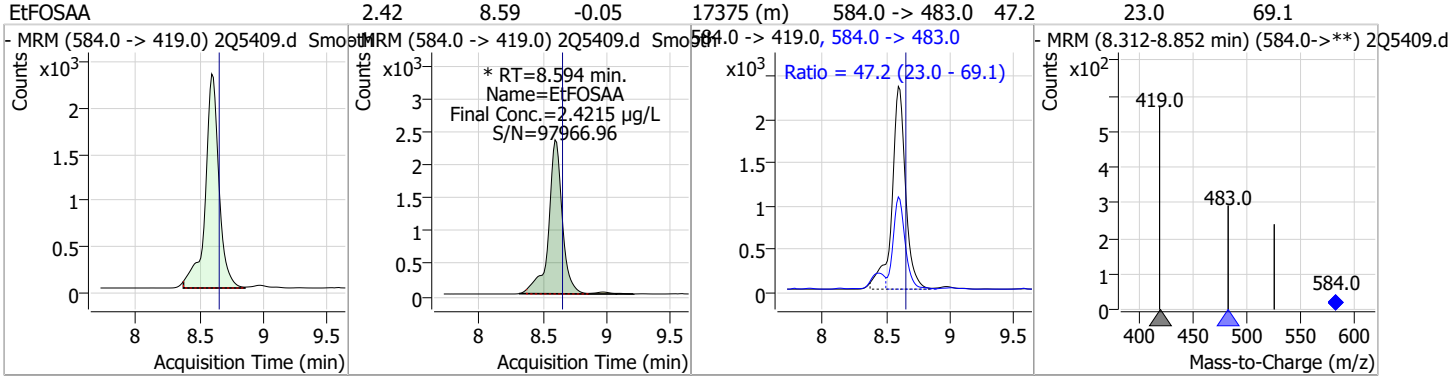
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.25	8.51	-0.05	15524 (m)	499.0 -> 99.0	48.6	26.2	78.6



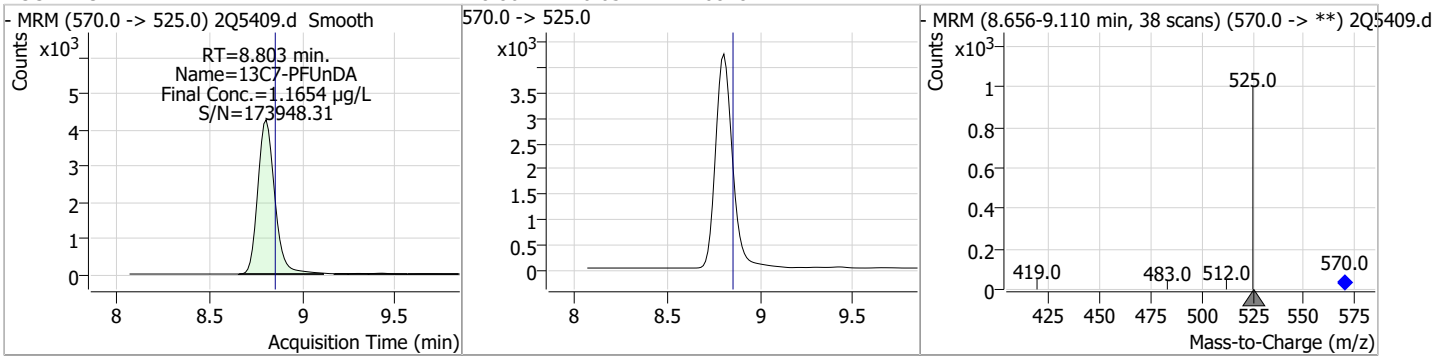
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	6.08	8.59	-0.04	42958				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.42	8.59	-0.05	17375 (m)	584.0 -> 483.0	47.2	23.0	69.1

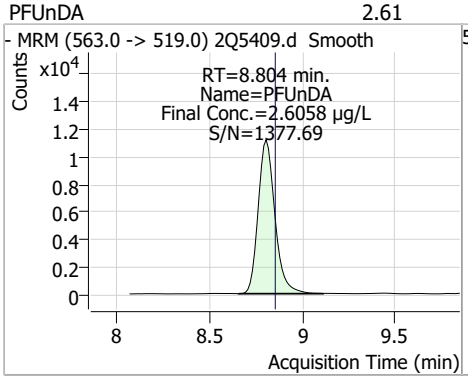


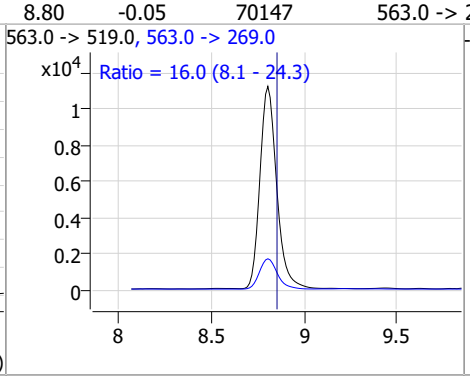
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.17	8.80	-0.05	26878				

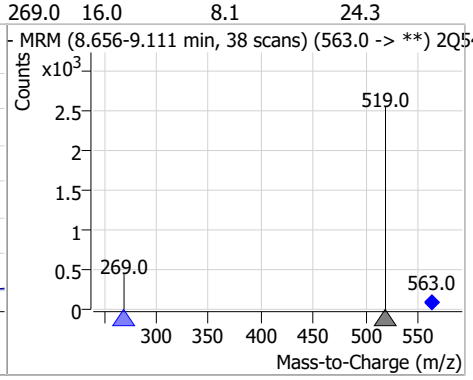


Perfluorinated Compounds by LC/MS/MS

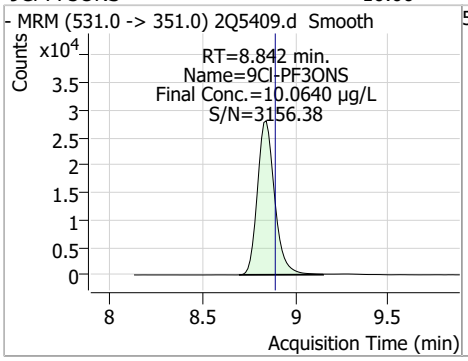
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.61	8.80	-0.05	70147	563.0 -> 269.0	16.0	8.1	24.3

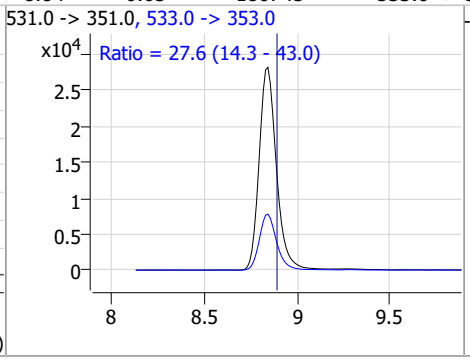


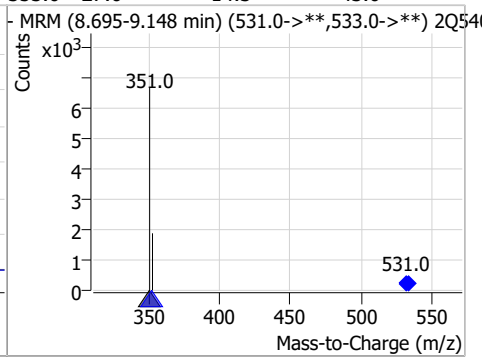




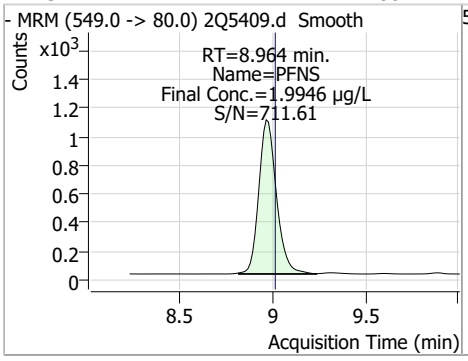
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	10.06	8.84	-0.05	180745	533.0 -> 353.0	27.6	14.3	43.0

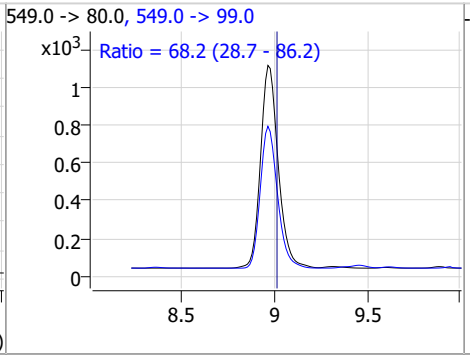


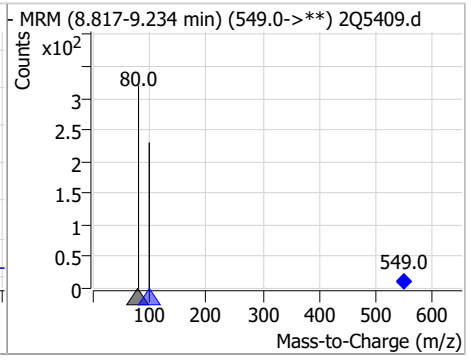




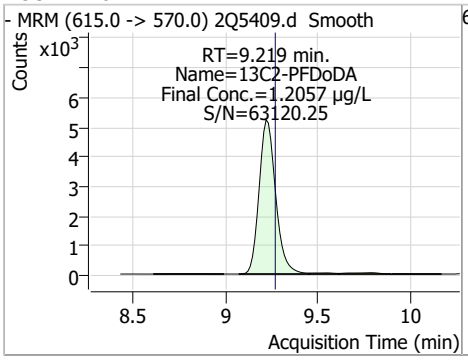
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	1.99	8.96	-0.05	7106	549.0 -> 99.0	68.2	28.7	86.2

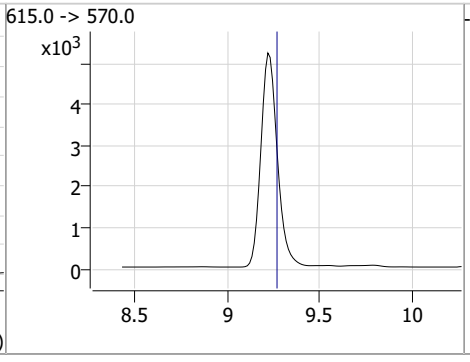


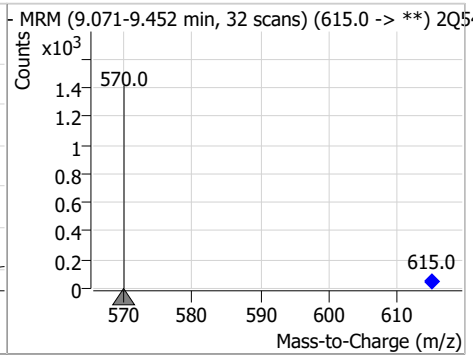




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.21	9.22	-0.05	32234				

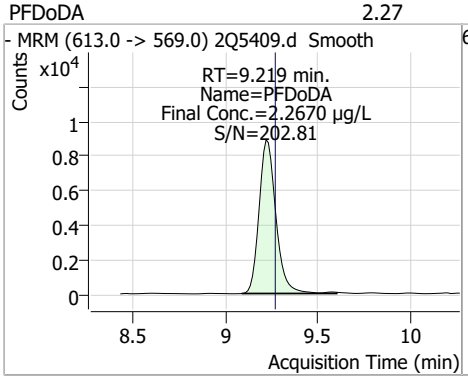


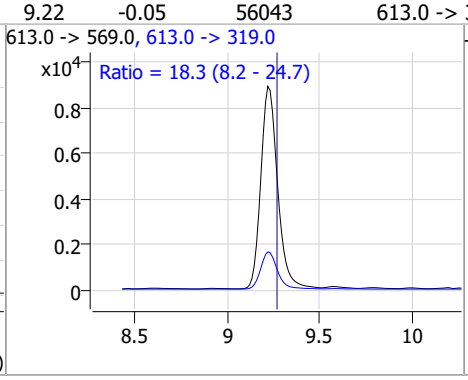


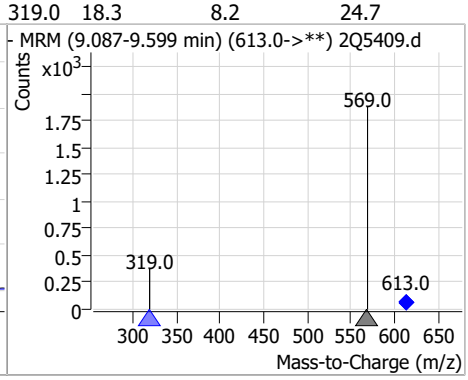


Perfluorinated Compounds by LC/MS/MS

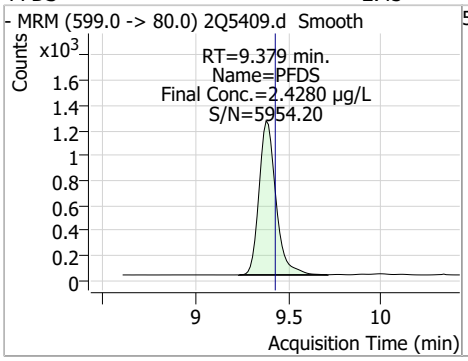
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.27	9.22	-0.05	56043	613.0 -> 319.0	18.3	8.2	24.7

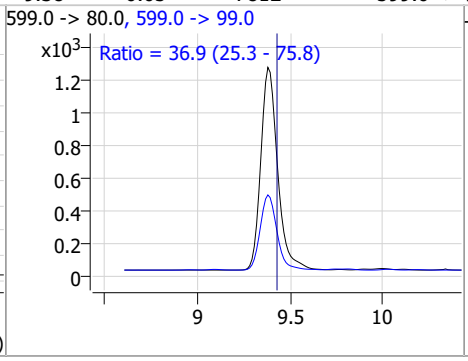


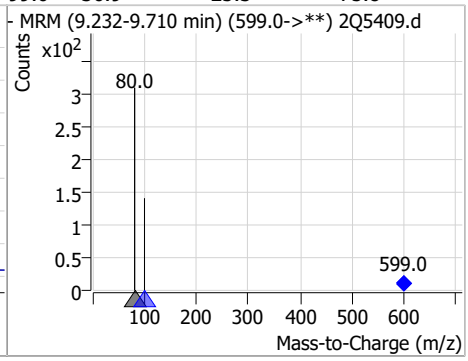




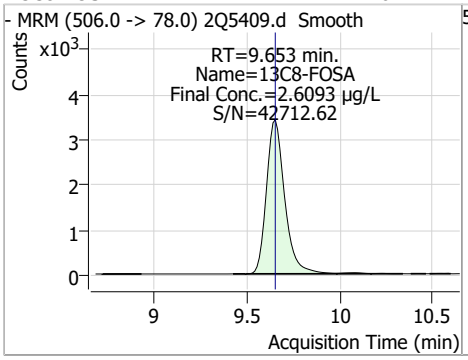
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	2.43	9.38	-0.05	7812	599.0 -> 99.0	36.9	25.3	75.8

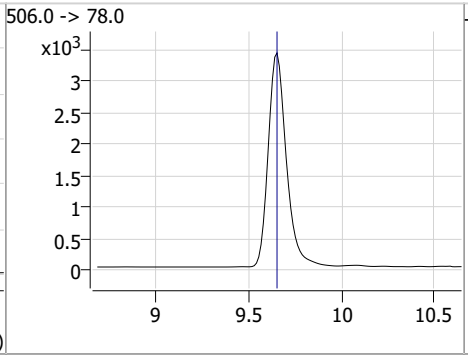


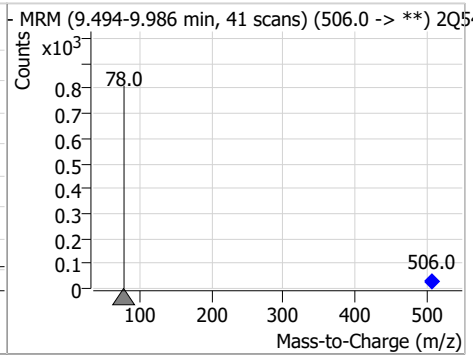




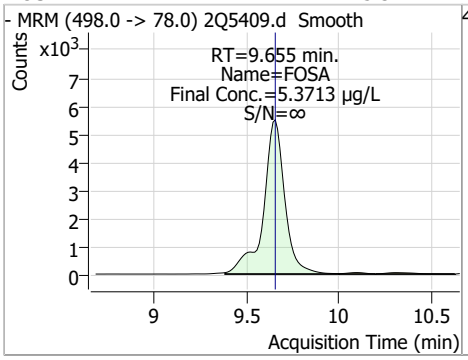
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.61	9.65	0.00	23200				

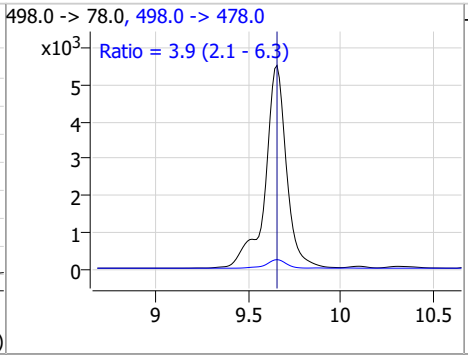


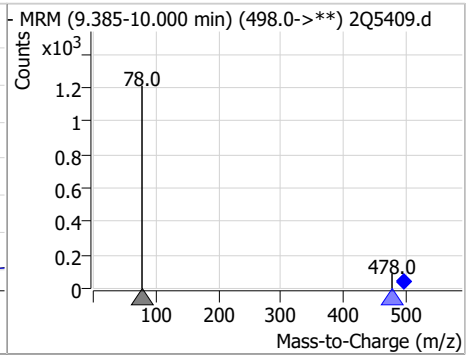




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	5.37	9.65	0.00	43990	498.0 -> 478.0	3.9	2.1	6.3

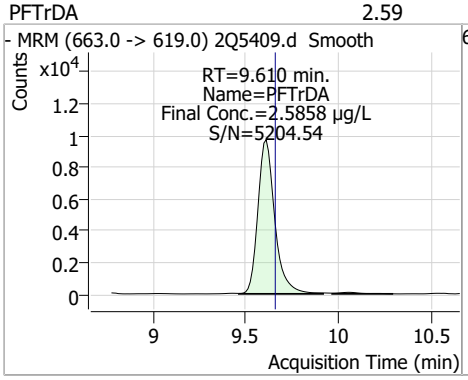


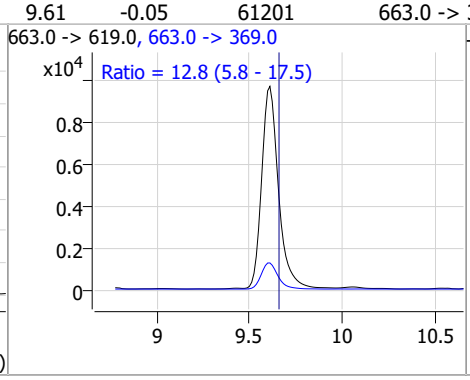


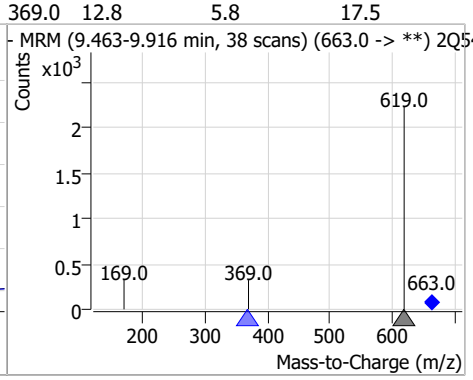


Perfluorinated Compounds by LC/MS/MS

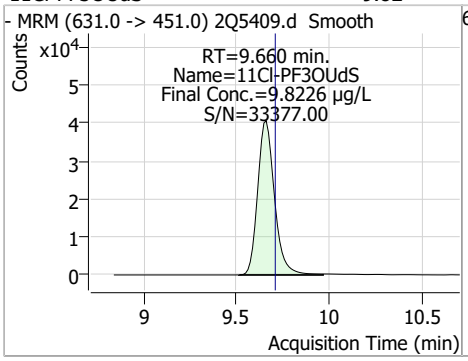
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.59	9.61	-0.05	61201	663.0 -> 369.0	12.8	5.8	17.5

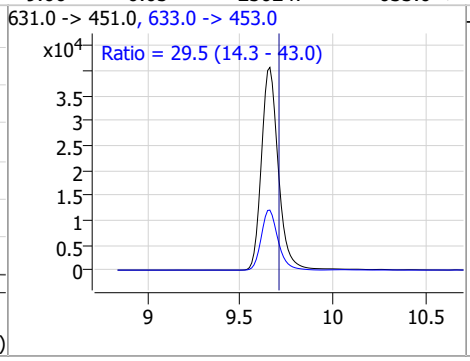


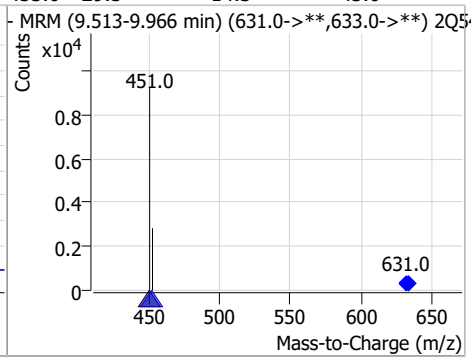




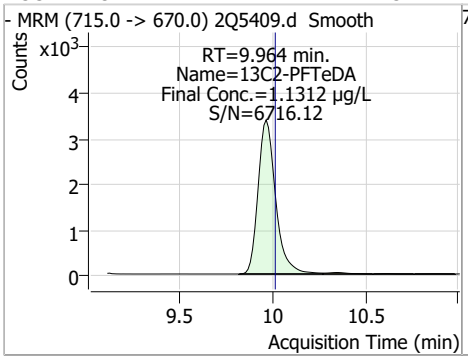
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	9.82	9.66	-0.05	256247	633.0 -> 453.0	29.5	14.3	43.0

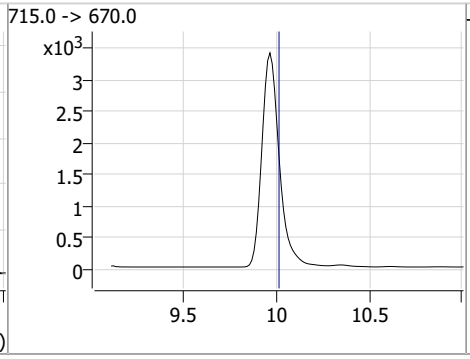


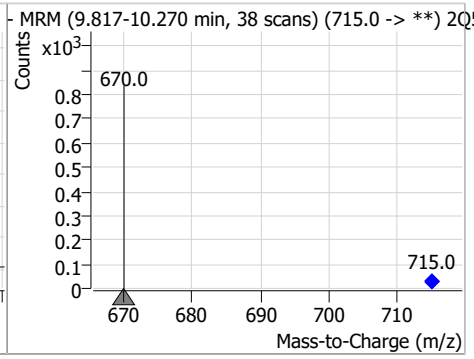




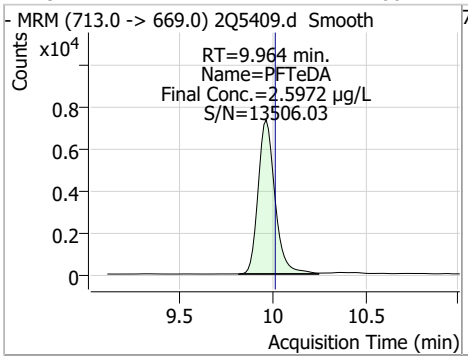
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.13	9.96	-0.05	22179				

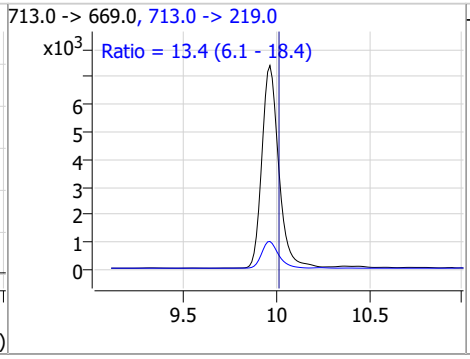


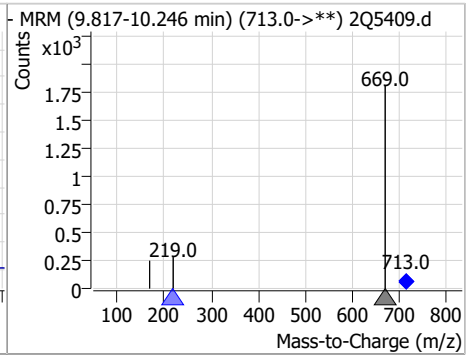




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.60	9.96	-0.05	46604	713.0 -> 219.0	13.4	6.1	18.4

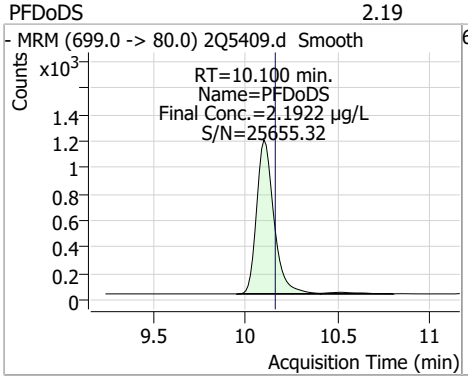


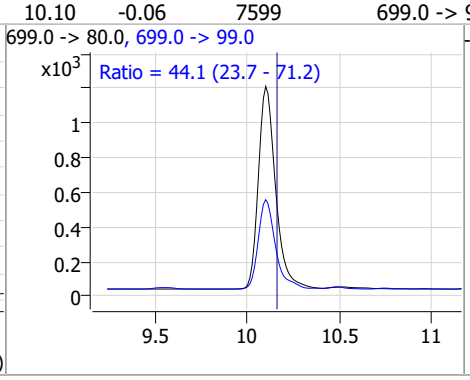


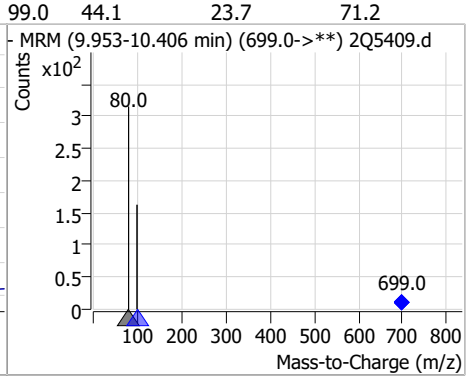


Perfluorinated Compounds by LC/MS/MS

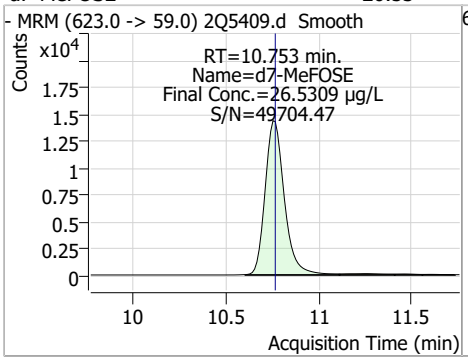
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.19	10.10	-0.06	7599	699.0 -> 99.0	44.1	23.7	71.2

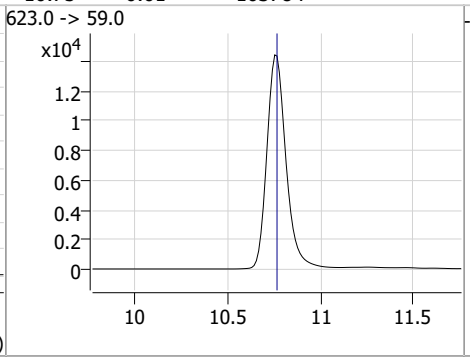


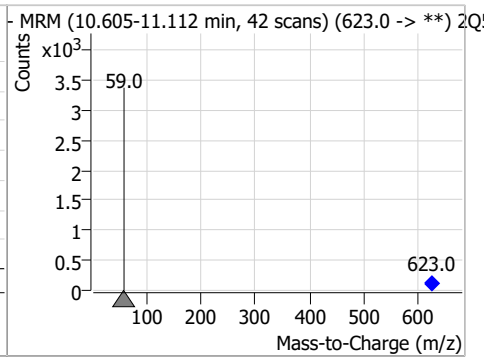




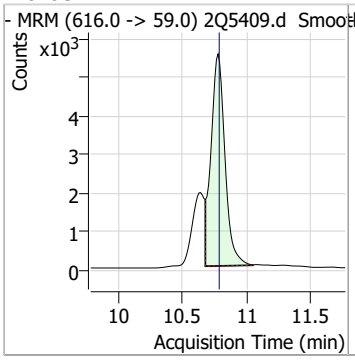
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	26.53	10.75	-0.01	103784				

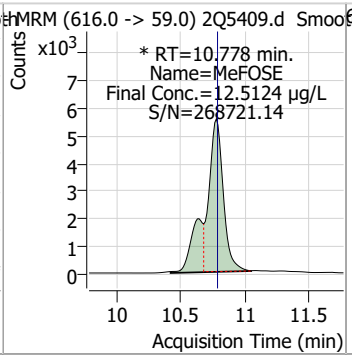


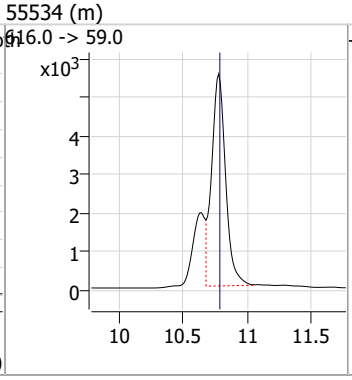


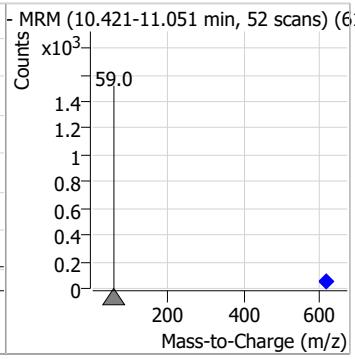


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	12.51	10.78	0.00	55534 (m)				

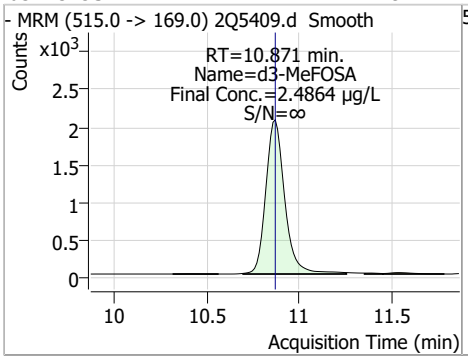


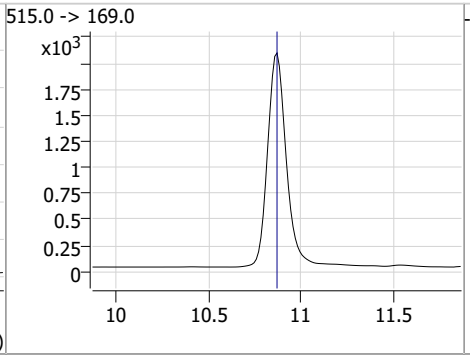


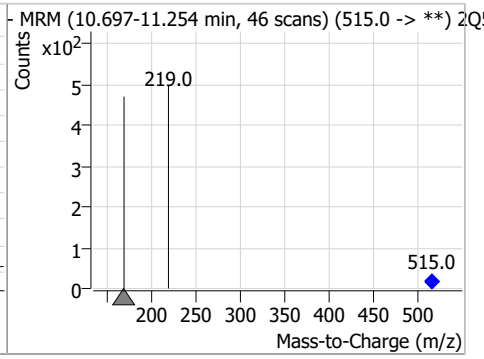




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.49	10.87	0.00	14625				

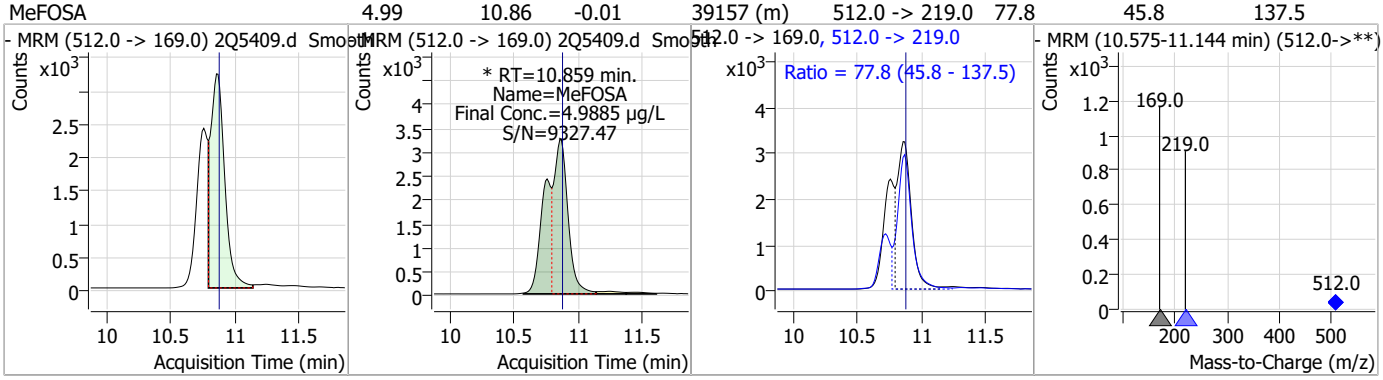




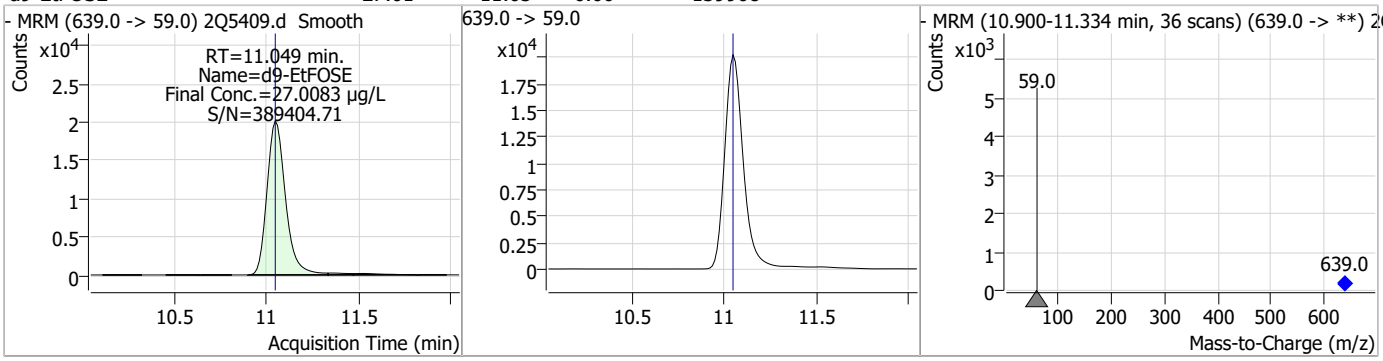


Perfluorinated Compounds by LC/MS/MS

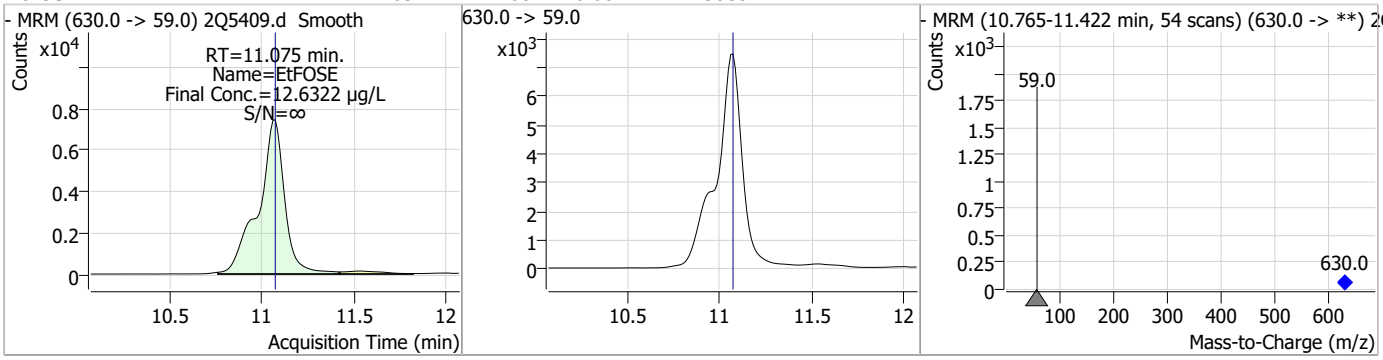
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	4.99	10.86	-0.01	39157 (m)	512.0 -> 219.0	77.8	45.8	137.5



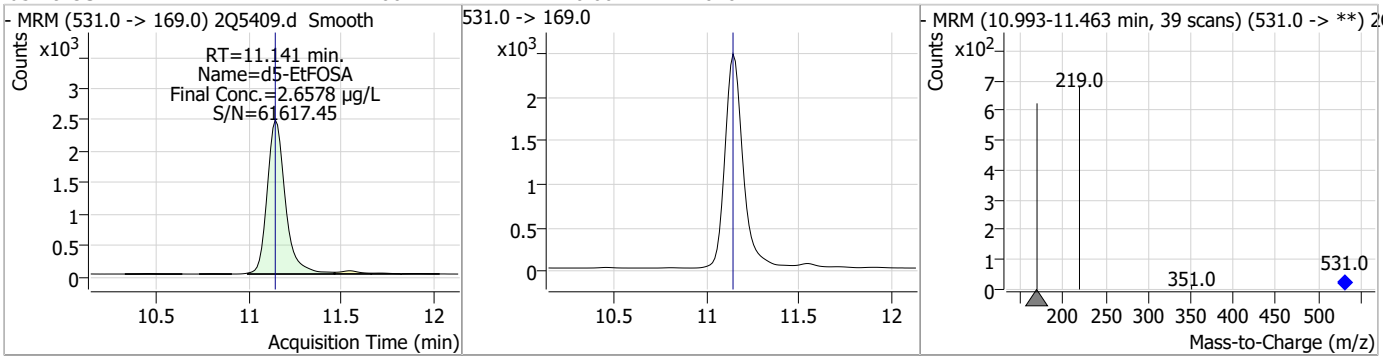
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	27.01	11.05	0.00	139908				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	12.63	11.08	0.00	73885				

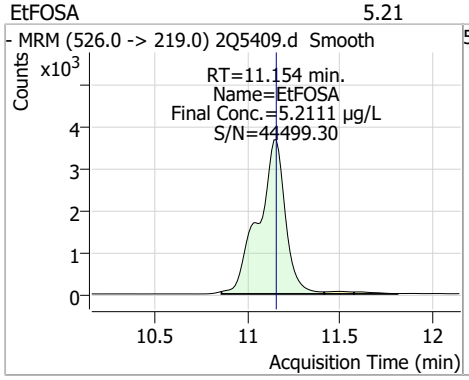


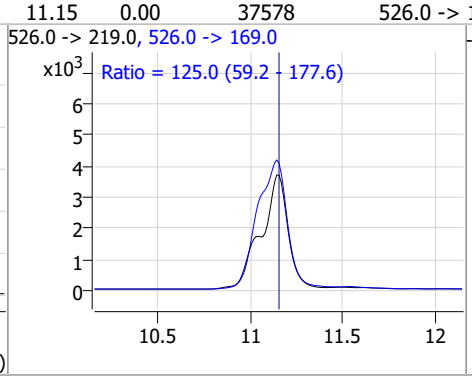
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.66	11.14	0.00	16761				

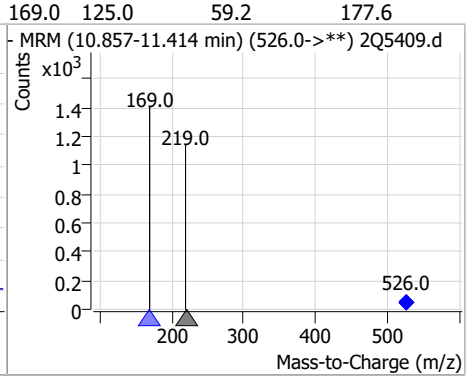


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	5.21	11.15	0.00	37578	526.0 -> 169.0	125.0	59.2	177.6







Manual Integration Approval Summary

Sample Number: T2Q96-CC96
Lab FileID: 2Q5409.D
Injection Time: 12/02/23 07:33
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.59	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.86	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/05/23 17:51

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5419.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/2/2023 10:06:17 AM
Sample Name : cc96-5
Vial : P1-A6
DA Method File : T2Q95.batch.bin
Batch Name : T2Q96.batch.bin
Sample Information : OP50811,T2Q96,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.314	217.0 -> 172.0	181998	10.00	µg/L	-0.025
M5-PFPeA	4.785	268.0 -> 223.0	111953	5.00	µg/L	-0.025
M5-PFHxA	5.930	318.0 -> 273.0	61068	1.25	µg/L	-0.025
M4-PFHpA	6.770	367.0 -> 322.0	49756	2.50	µg/L	-0.025
M8-PFOA	7.372	421.0 -> 376.0	78778	2.50	µg/L	-0.025
M9-PFNA	7.875	472.0 -> 427.0	38021	1.25	µg/L	-0.037
M6-PFDA	8.352	519.0 -> 474.0	16312	1.25	µg/L	-0.049
M7-PFUnDA	8.803	570.0 -> 525.0	26226	1.25	µg/L	-0.049
M2-PFDoDA	9.219	615.0 -> 570.0	33451	1.25	µg/L	-0.049
M2-PFTeDA	9.964	715.0 -> 670.0	22439	1.25	µg/L	-0.049
M8-FOSA	9.653	506.0 -> 78.0	23236	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	7180	2.50	µg/L	-0.037
		302.0 -> 80.0	17643			
M3-PFHxS	7.472	402.0 -> 99.0	6921	2.50	µg/L	-0.037
M8-PFOS	8.512	507.0 -> 99.0	6855	2.50	µg/L	-0.037
M2-4:2FTS	5.619	329.0 -> 81.0	1222	5.00	µg/L	-0.037
M2-6:2FTS	7.149	429.0 -> 81.0	2972	5.00	µg/L	-0.025
M2-8:2FTS	8.143	529.0 -> 81.0	5058	5.00	µg/L	-0.049
M3-MeFOSAA	8.398	573.0 -> 419.0	48134	5.00	µg/L	-0.037
M3-HFPO-DA	6.270	287.0 -> 169.0	29267	10.00	µg/L	-0.025
M5-EtFOSAA	8.593	589.0 -> 419.0	41912	5.00	µg/L	-0.037
M7-MeFOSE	10.753	623.0 -> 59.0	102344	25.00	µg/L	-0.012
M9-EtFOSE	11.049	639.0 -> 59.0	135320	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16448	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	15013	2.50	µg/L	-0.012
13C4-PFOS	8.512	503.0 -> 80.0	13449	2.50	µg/L	-0.037
13C3-PFBA	3.317	216.0 -> 172.0	81381	5.00	µg/L	-0.025
18O2-PFHxS	7.472	403.0 -> 84.0	7772	2.50	µg/L	-0.037
13C4-PFOA	7.372	417.0 -> 372.0	78021	2.50	µg/L	-0.025
13C2-PFDA	8.352	515.0 -> 470.0	33946	1.25	µg/L	-0.049
13C5-PFNA	7.875	468.0 -> 423.0	42417	1.25	µg/L	-0.037
13C2-PFHxA	5.930	315.0 -> 270.0	59721	2.50	µg/L	-0.025
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1222	4.31	µg/L	-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 86.2%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2972	4.72	µg/L	-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 94.5%		
13C2-8:2FTS	8.143	529.0 -> 81.0	5058	5.81	µg/L	-0.049
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 116.1%		
13C2-PFDoDA	9.219	615.0 -> 570.0	33451	1.23	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 98.8%		
13C2-PFTeDA	9.964	715.0 -> 670.0	22439	1.13	µg/L	-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 90.3%		
13C3-PFBS	5.846	302.0 -> 99.0	7180	2.48	µg/L	-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6921	2.28	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.3%			
13C4-PFBA	3.314	217.0 -> 172.0	181998	9.93	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.3%			
13C4-PFHpA	6.770	367.0 -> 322.0	49756	2.56	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.5%			
13C5-PFHxA	5.930	318.0 -> 273.0	61068	2.46	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.4%			
13C5-PFPeA	4.785	268.0 -> 223.0	111953	5.00	µg/L		-0.025
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.0%			
13C6-PFDA	8.352	519.0 -> 474.0	16312	1.15	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 92.1%			
13C7-PFUnDA	8.803	570.0 -> 525.0	26226	1.12	µg/L		-0.049
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.8%			
13C8-FOSA	9.653	506.0 -> 78.0	23236	2.55	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.1%			
13C8-PFOA	7.372	421.0 -> 376.0	78778	2.44	µg/L		-0.025
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 97.5%			
13C8-PFOS	8.512	507.0 -> 99.0	6855	2.34	µg/L		-0.037
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 93.6%			
13C9-PFNA	7.875	472.0 -> 427.0	38021	1.15	µg/L		-0.037
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.6%			
d3-MeFOSAA	8.398	573.0 -> 419.0	48134	5.50	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.0%			
13C3-HFPO-DA	6.270	287.0 -> 169.0	29267	10.33	µg/L		-0.025
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 103.3%			
d3-MeFOSA	10.858	515.0 -> 169.0	15013	2.49	µg/L		-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 99.7%			
d5-EtFOSAA	8.593	589.0 -> 419.0	41912	5.80	µg/L		-0.037
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 115.9%			
d7-MeFOSE	10.753	623.0 -> 59.0	102344	25.54	µg/L		-0.012
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 102.2%			
d9-EtFOSE	11.049	639.0 -> 59.0	135320	25.50	µg/L		0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 102.0%			
d5-EtFOSA	11.141	531.0 -> 169.0	16448	2.55	µg/L		0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 101.9%			
Target Compounds							QValue
4:2FTS	5.619	327.0 -> 307.0	47686	23.45	µg/L		100
		327.0 -> 81.0	24771				
6:2FTS	7.149	427.0 -> 407.0	94407	21.69	µg/L		96
		427.0 -> 81.0	28821				
8:2FTS	8.143	527.0 -> 507.0	84752	18.53	µg/L		99
		527.0 -> 81.0	30900				
EtFOSAA	8.594	584.0 -> 419.0	33518	4.79	µg/L	m	87
		584.0 -> 483.0	18254				
FOSA	9.655	498.0 -> 78.0	86881	10.59	µg/L	m	99
		498.0 -> 478.0	3848				
MeFOSAA	8.398	570.0 -> 419.0	39109	5.01	µg/L		88
		570.0 -> 512.0	11316				
PFBA	3.321	213.0 -> 169.0	92315	20.20	µg/L		100
PFBS	5.847	299.0 -> 80.0	36258	4.85	µg/L		93
		299.0 -> 99.0	13654				
PFDA	8.352	513.0 -> 469.0	139074	5.13	µg/L		98
		513.0 -> 219.0	22162				
PFDoDA	9.219	613.0 -> 569.0	124181	4.84	µg/L		99
		613.0 -> 319.0	20740				

Perfluorinated Compounds by LC/MS/MS

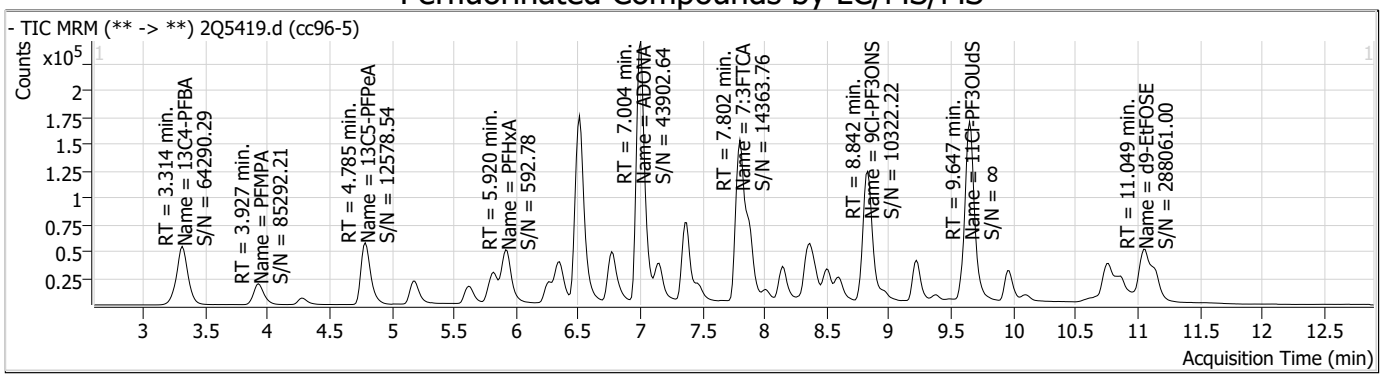
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	15050	4.79	µg/L		96
		599.0 -> 99.0	7966				
PFHpA	6.770	363.0 -> 319.0	144652	4.65	µg/L		97
		363.0 -> 169.0	25465				
PFHpS	8.023	449.0 -> 80.0	23376	5.34	µg/L		98
		449.0 -> 99.0	11957				
PFHxA	5.920	313.0 -> 269.0	120653	5.00	µg/L		100
		313.0 -> 119.0	3347				
PFHxS	7.473	399.0 -> 80.0	22913	4.79	µg/L	m	92
		399.0 -> 99.0	12082				
PFNA	7.876	463.0 -> 419.0	139788	4.89	µg/L		97
		463.0 -> 219.0	24216				
PFNS	8.964	549.0 -> 80.0	15860	5.25	µg/L		95
		549.0 -> 99.0	9720				
PFOA	7.373	413.0 -> 369.0	159406	5.17	µg/L		96
		413.0 -> 169.0	33699				
PFOS	8.512	499.0 -> 80.0	29648	5.07	µg/L	m	96
		499.0 -> 99.0	14612				
PFPeA	4.787	263.0 -> 219.0	204862	10.15	µg/L		100
PFPeS	6.821	349.0 -> 80.0	19041	4.43	µg/L		98
		349.0 -> 99.0	8448				
PFTeDA	9.964	713.0 -> 669.0	95394	5.25	µg/L		93
		713.0 -> 219.0	9276				
PFTrDA	9.610	663.0 -> 619.0	120824	4.92	µg/L		99
		663.0 -> 369.0	13714				
PFUnDA	8.804	563.0 -> 519.0	141500	5.39	µg/L		99
		563.0 -> 269.0	22559				
11Cl-PF3OUdS	9.647	631.0 -> 451.0	514731	19.54	µg/L		98
		633.0 -> 453.0	153206				
9Cl-PF3ONS	8.842	531.0 -> 351.0	364197	20.08	µg/L		98
		533.0 -> 353.0	107552				
ADONA	7.004	377.0 -> 251.0	906744	19.55	µg/L		98
		377.0 -> 85.0	262217				
HFPO-DA	6.271	285.0 -> 169.0	62217	19.73	µg/L		99
		285.0 -> 185.0	5361				
3:3FTCA	4.288	241.0 -> 177.0	29945	23.93	µg/L		100
		241.0 -> 117.0	2327				
5:3FTCA	6.511	341.0 -> 237.0	518559	122.77	µg/L		98
		341.0 -> 217.0	376542				
7:3FTCA	7.802	441.0 -> 337.0	550404	122.20	µg/L		99
		441.0 -> 317.0	217957				
EtFOSA	11.142	526.0 -> 219.0	73995	10.46	µg/L		91
		526.0 -> 169.0	95278				
EtFOSE	11.062	630.0 -> 59.0	143194	25.31	µg/L		100
MeFOSA	10.859	512.0 -> 169.0	77922	9.67	µg/L	m	82
		512.0 -> 219.0	58229				
MeFOSE	10.778	616.0 -> 59.0	113578	25.95	µg/L	m	100
PFDoDS	10.100	699.0 -> 80.0	16228	5.52	µg/L		94
		699.0 -> 99.0	8318				
NFDHA	5.811	295.0 -> 201.0	16717	11.26	µg/L		96
		201.0 -> 85.0	86212				
		295.0 -> 85.0	4032				
PFMBA	5.188	279.0 -> 85.0	116948	10.74	µg/L		100
PFMPA	3.927	229.0 -> 85.0	115791	10.14	µg/L		100
PFEESA	6.353	315.0 -> 135.0	171748	10.37	µg/L		99
		315.0 -> 69.0	15754				

Perfluorinated Compounds by LC/MS/MS

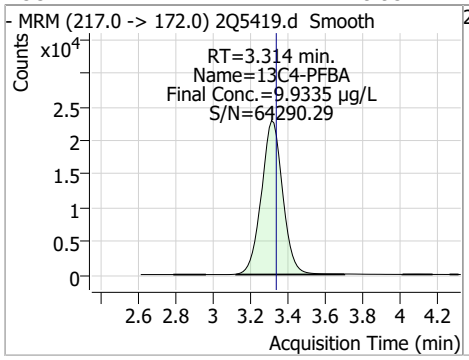
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

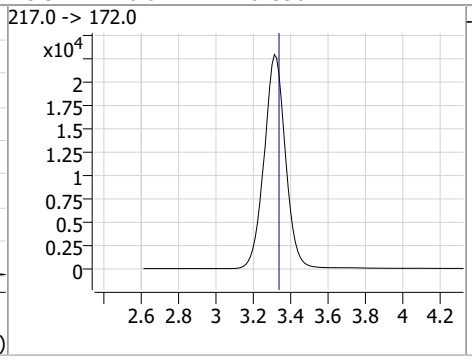
= Qualifier out of range, m = manually integrated, + = Area summed

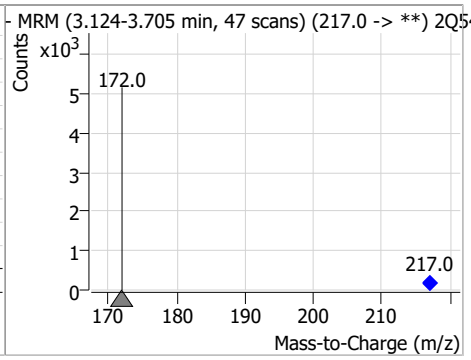
Perfluorinated Compounds by LC/MS/MS



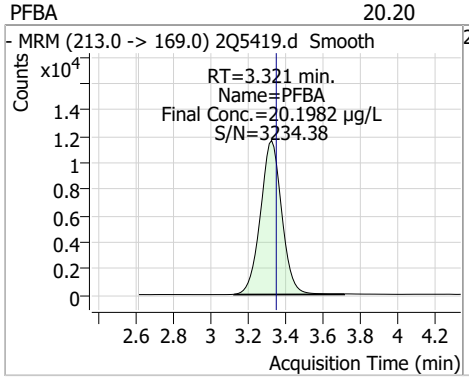
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.93	3.31	-0.02	181998				

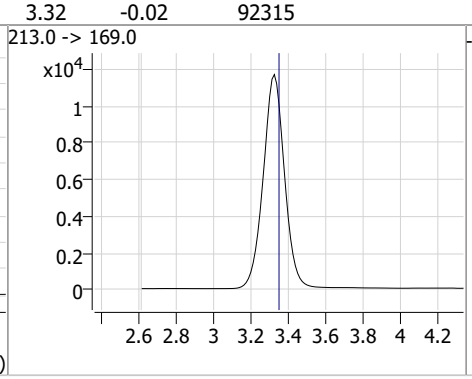


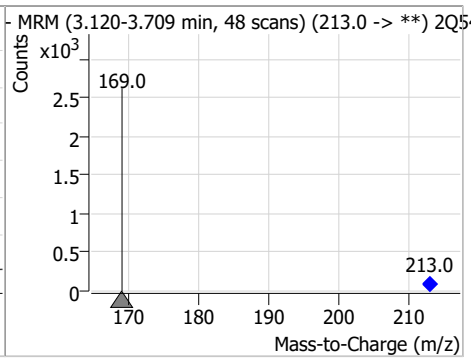




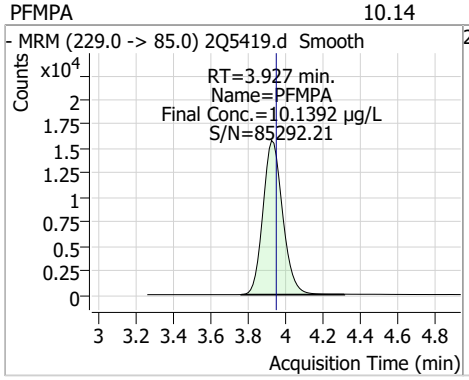
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.20	3.32	-0.02	92315				

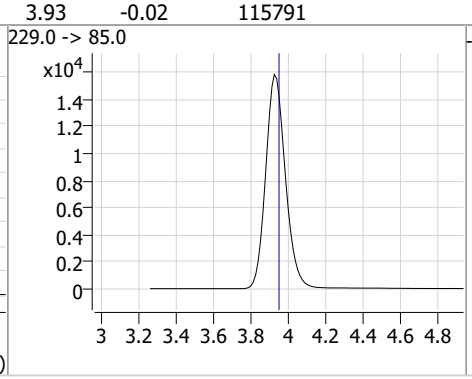


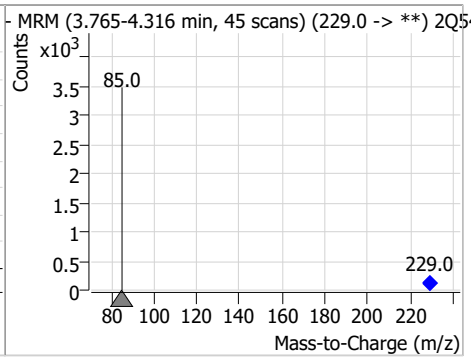




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	10.14	3.93	-0.02	115791				

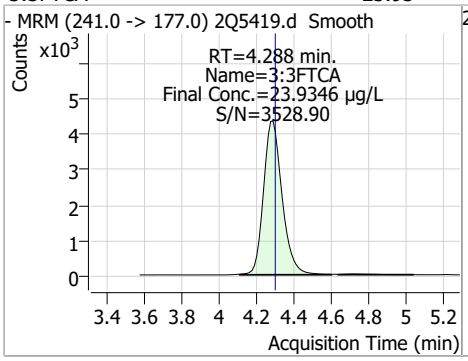


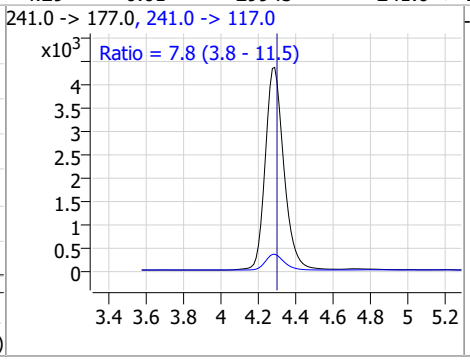


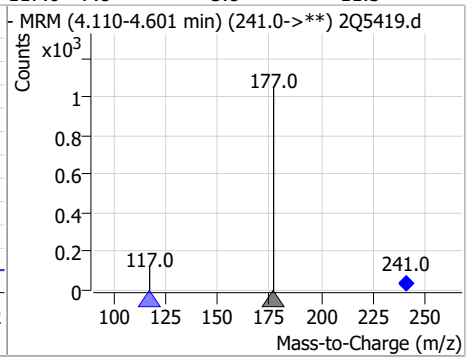


Perfluorinated Compounds by LC/MS/MS

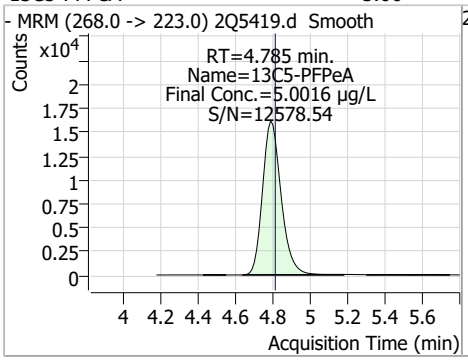
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.93	4.29	-0.01	29945	241.0 -> 117.0	7.8	3.8	11.5

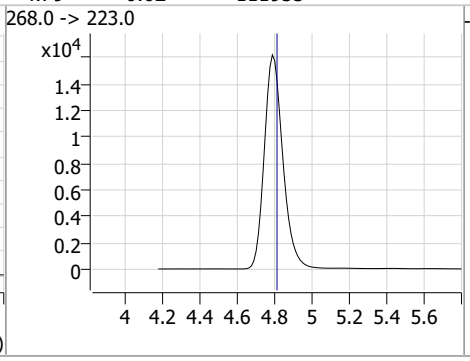


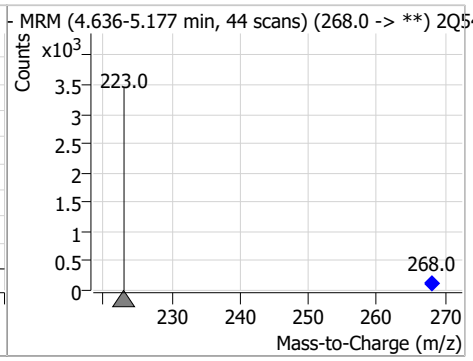




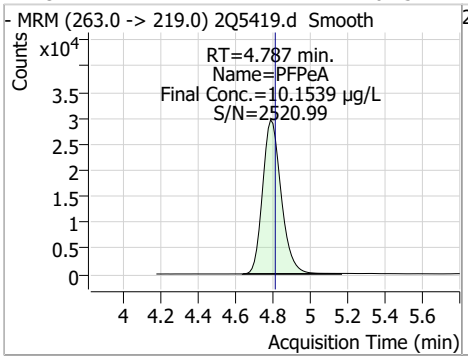
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.00	4.79	-0.02	111953				

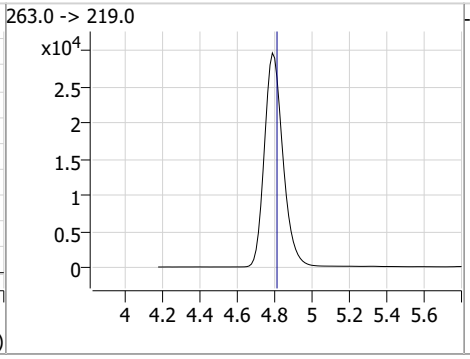


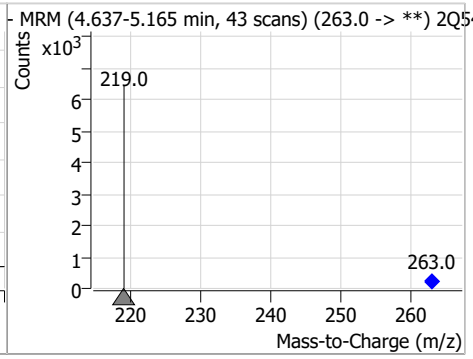




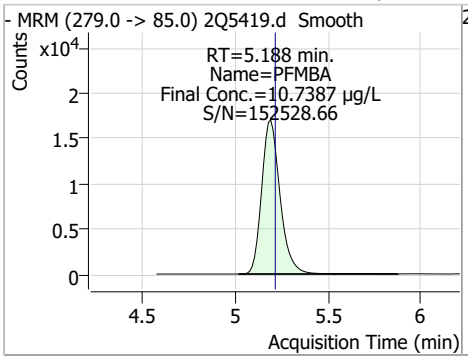
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.15	4.79	-0.02	204862				

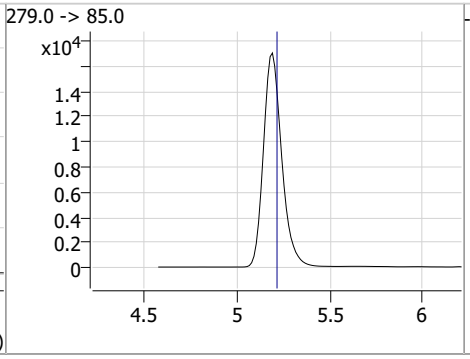


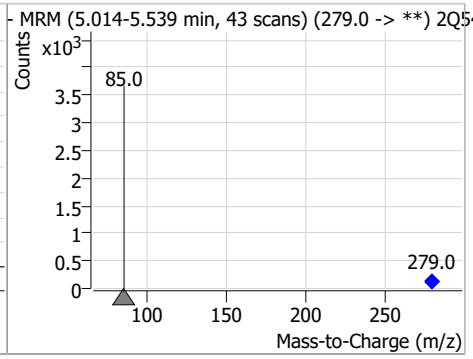




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.74	5.19	-0.02	116948				

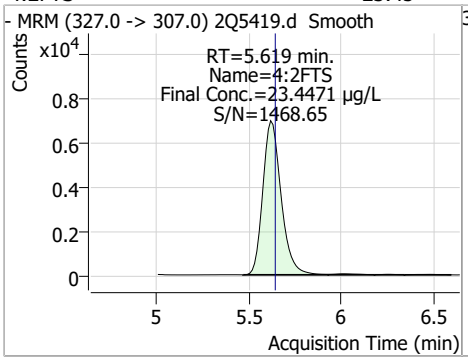


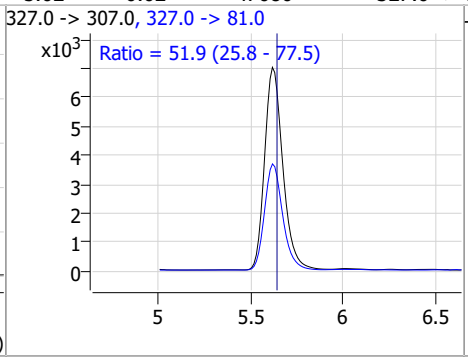


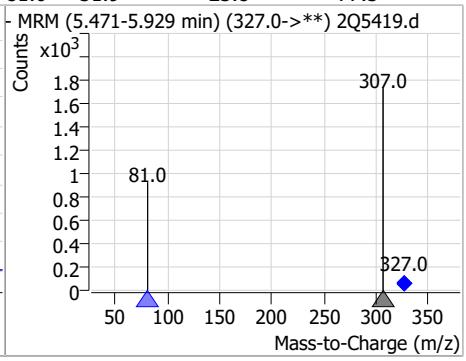


Perfluorinated Compounds by LC/MS/MS

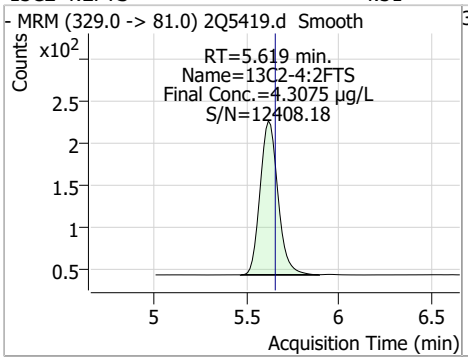
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	23.45	5.62	-0.02	47686	327.0 -> 81.0	51.9	25.8	77.5

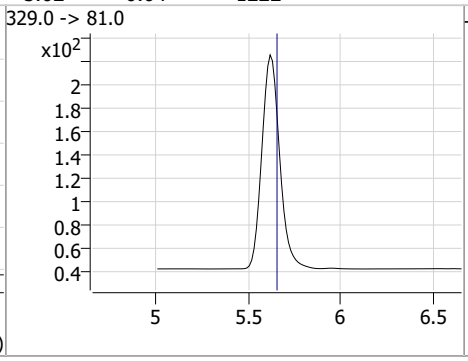


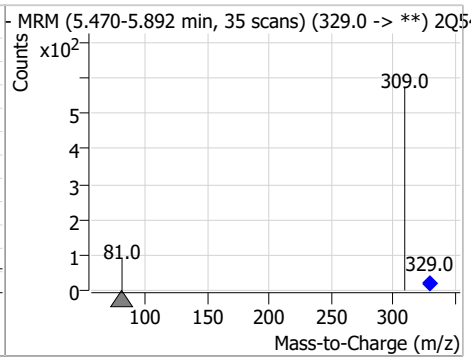




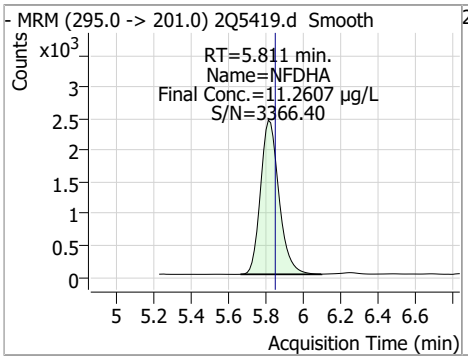
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	4.31	5.62	-0.04	1222				

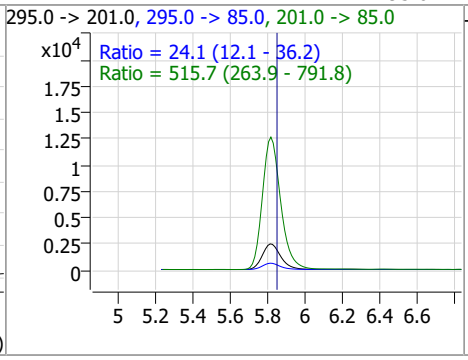


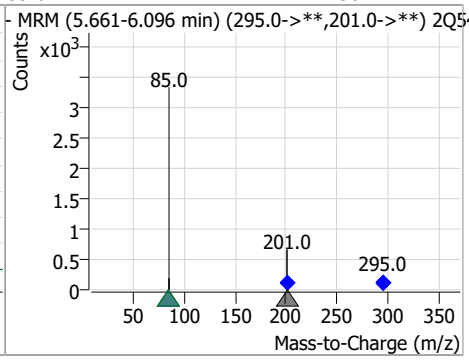




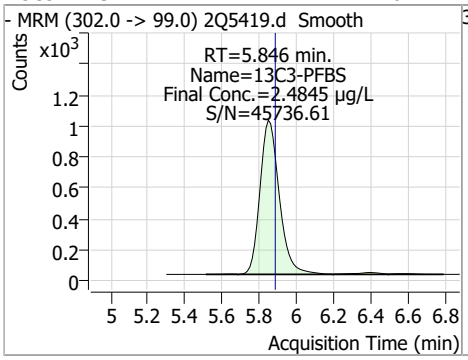
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	11.26	5.81	-0.04	16717	201.0 -> 85.0	515.7	263.9	791.8
					295.0 -> 85.0	24.1	12.1	36.2

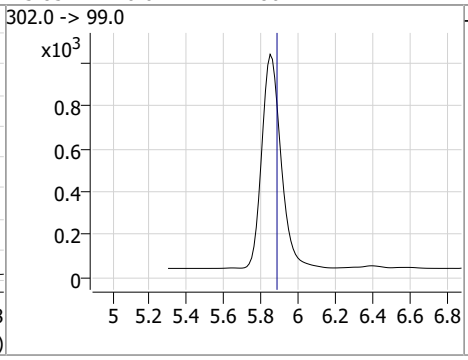


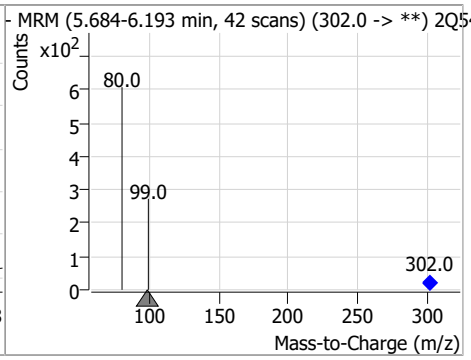




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.48	5.85	-0.04	7180				

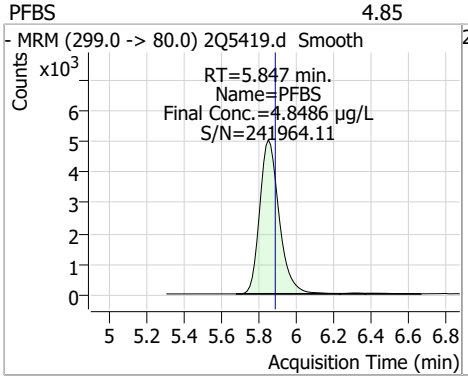


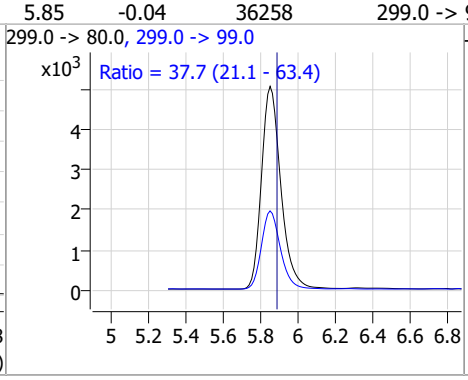


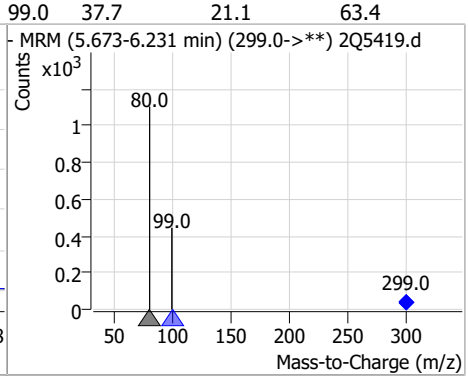


Perfluorinated Compounds by LC/MS/MS

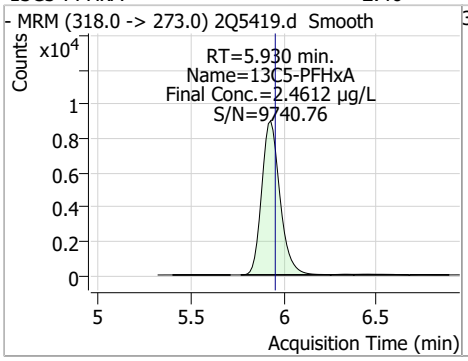
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	4.85	5.85	-0.04	36258	299.0 -> 99.0	37.7	21.1	63.4

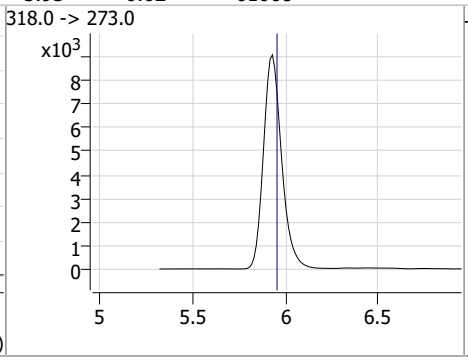


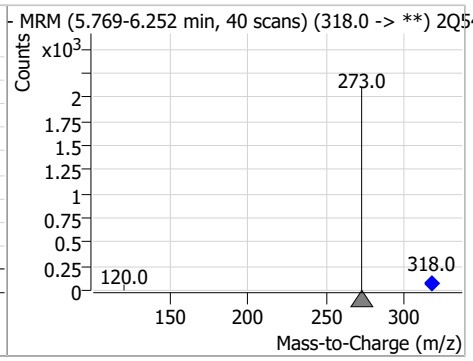




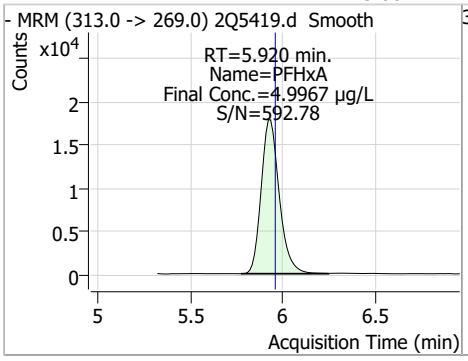
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.46	5.93	-0.02	61068				

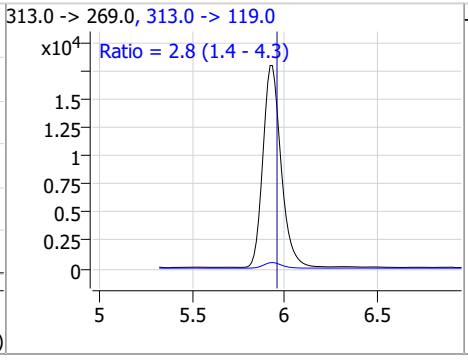


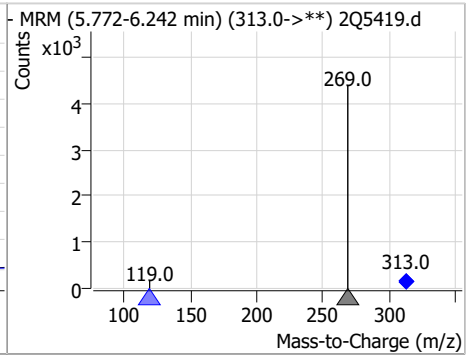




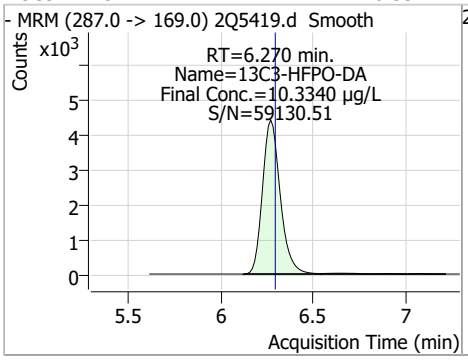
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	5.00	5.92	-0.04	120653	313.0 -> 119.0	2.8	1.4	4.3

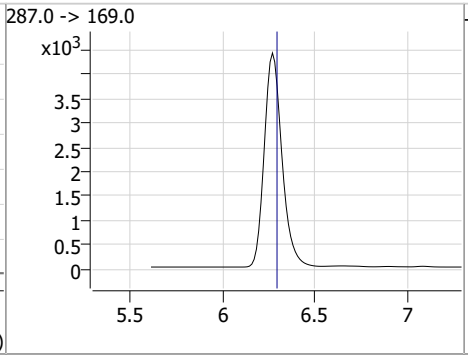


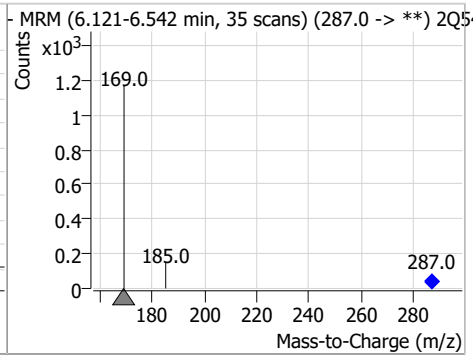




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	10.33	6.27	-0.02	29267				

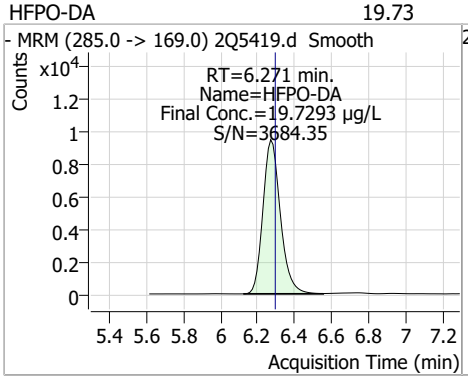


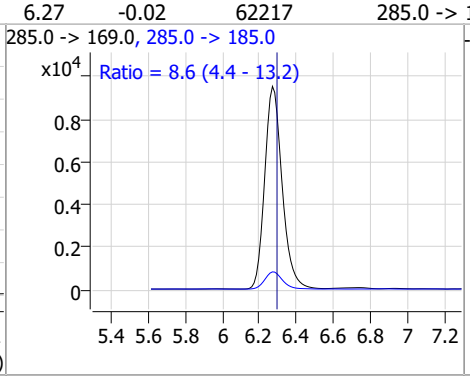


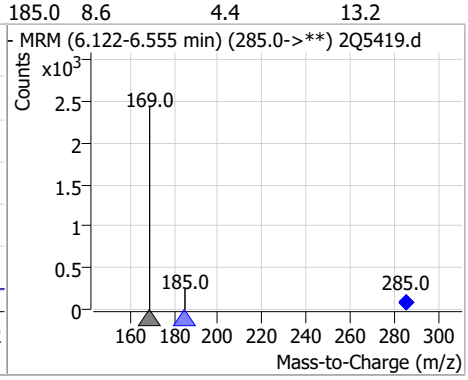


Perfluorinated Compounds by LC/MS/MS

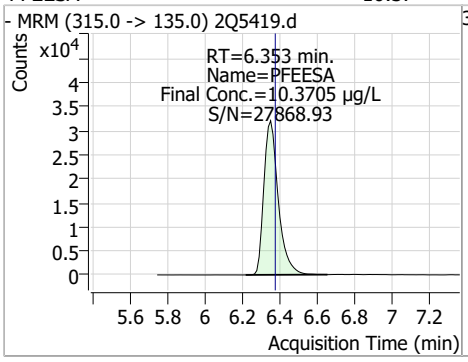
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	19.73	6.27	-0.02	62217	285.0 -> 185.0	8.6	4.4	13.2

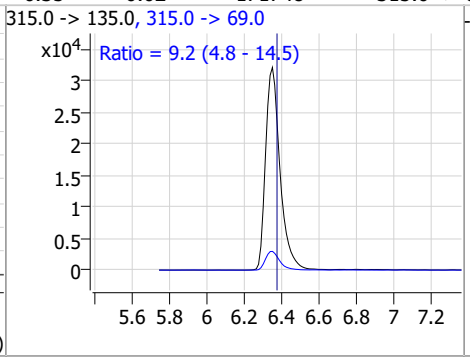


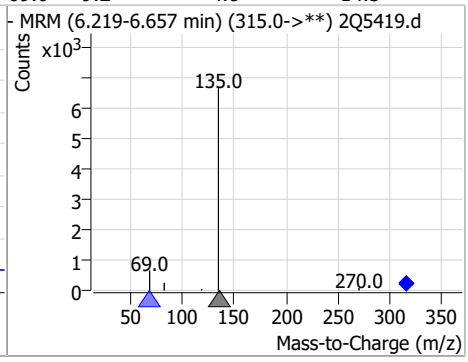




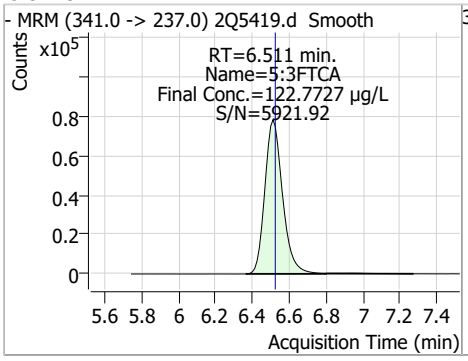
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.37	6.35	-0.02	171748	315.0 -> 69.0	9.2	4.8	14.5

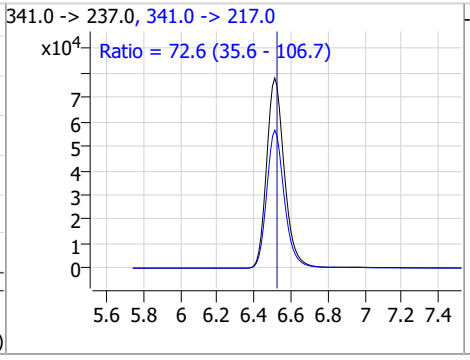


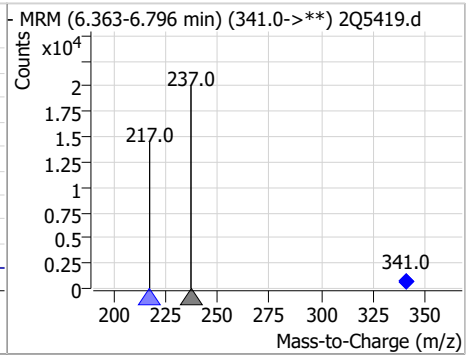




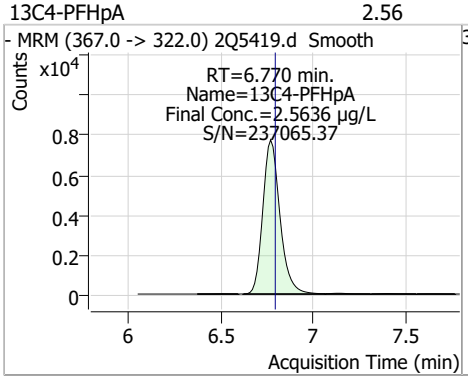
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	122.77	6.51	-0.01	518559	341.0 -> 217.0	72.6	35.6	106.7

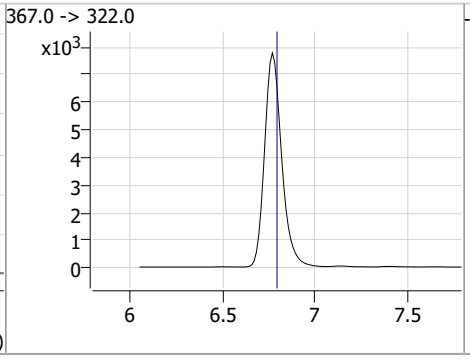


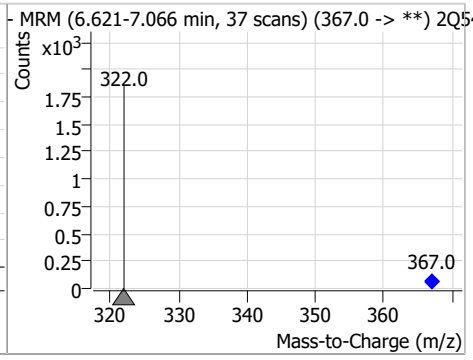




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.56	6.77	-0.03	49756				

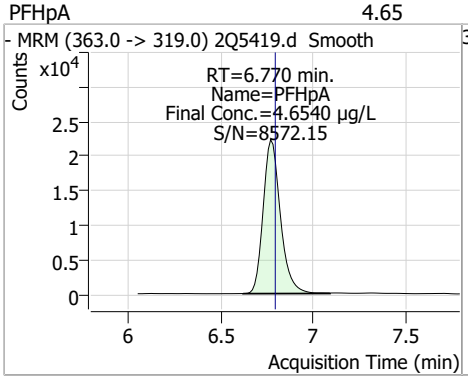


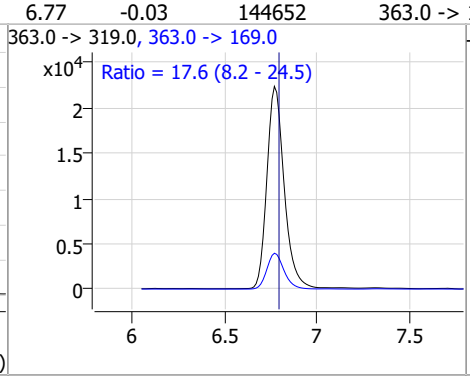


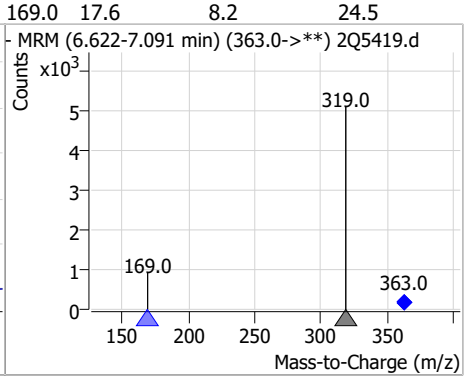


Perfluorinated Compounds by LC/MS/MS

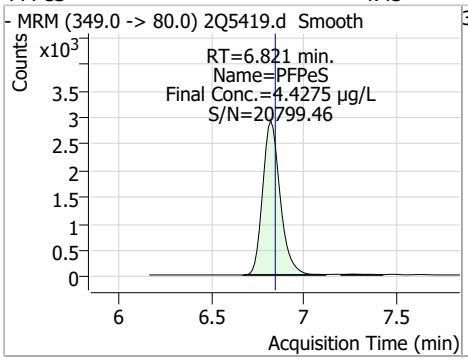
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	4.65	6.77	-0.03	144652	363.0 -> 169.0	17.6	8.2	24.5

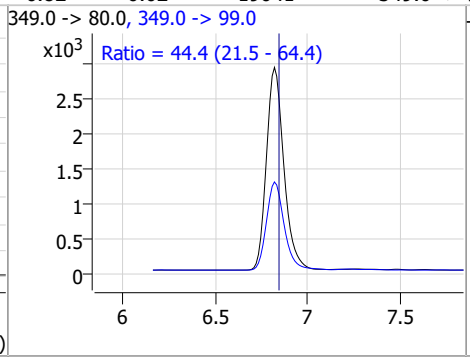


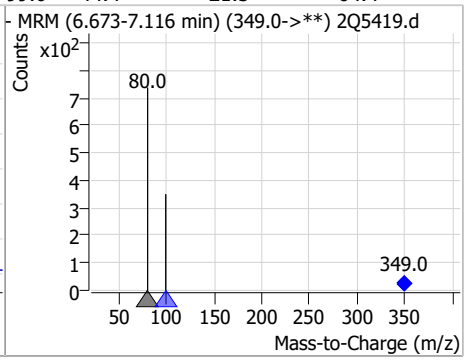




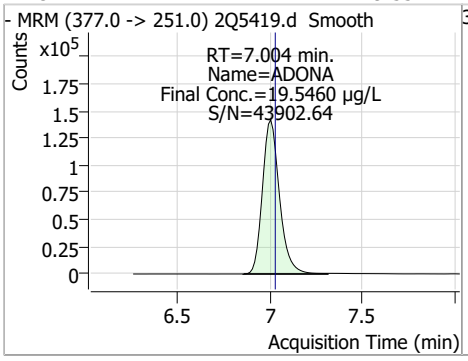
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	4.43	6.82	-0.02	19041	349.0 -> 99.0	44.4	21.5	64.4

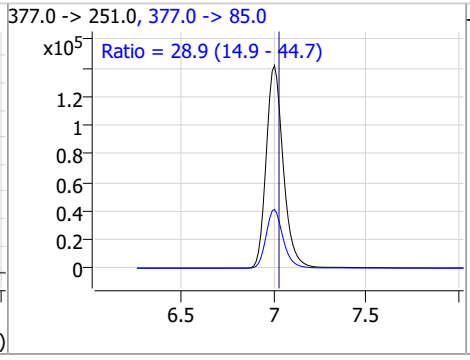


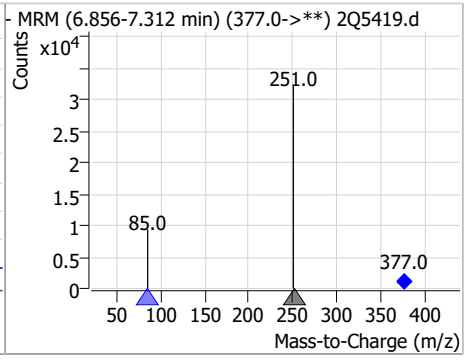




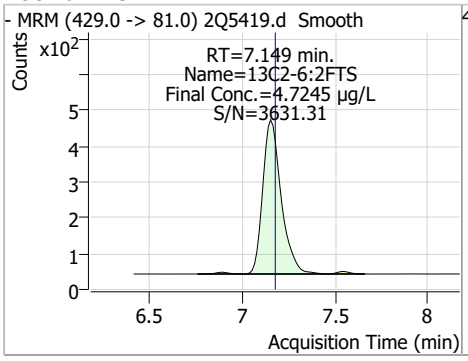
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	19.55	7.00	-0.02	906744	377.0 -> 85.0	28.9	14.9	44.7

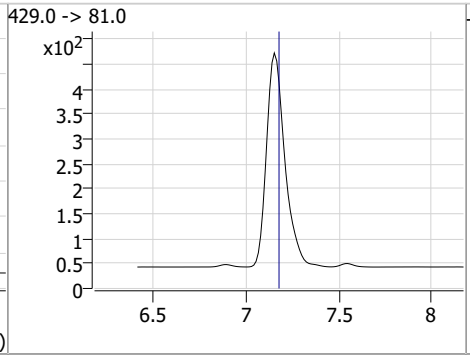


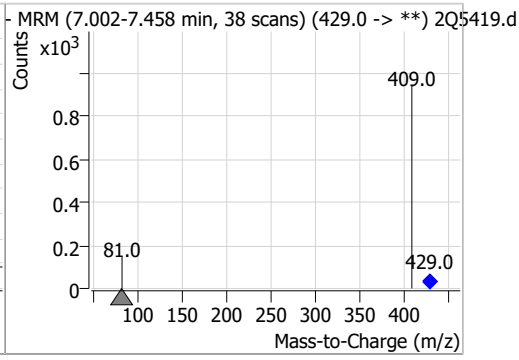




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.72	7.15	-0.03	2972				

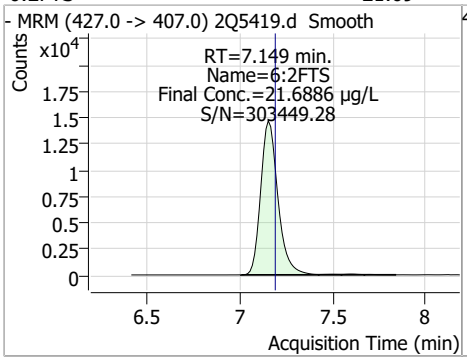


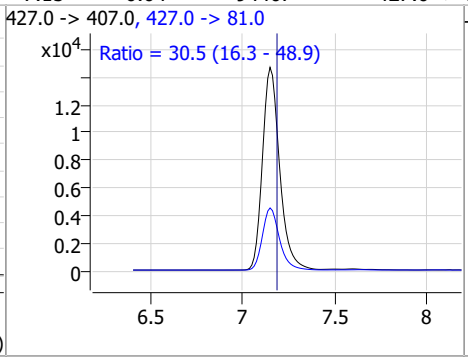


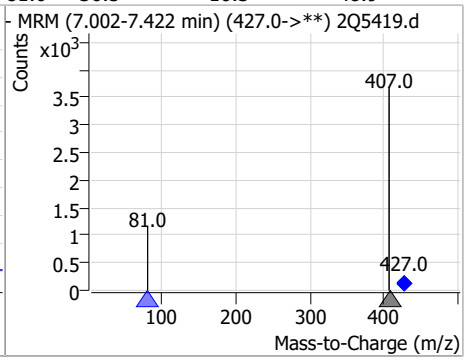


Perfluorinated Compounds by LC/MS/MS

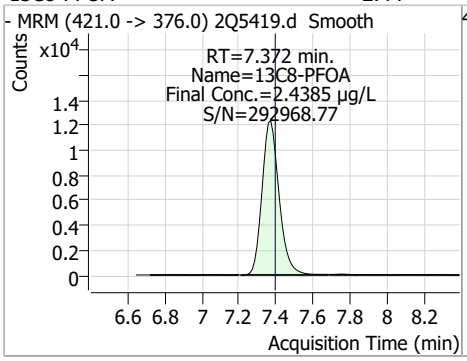
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	21.69	7.15	-0.04	94407	427.0 -> 81.0	30.5	16.3	48.9

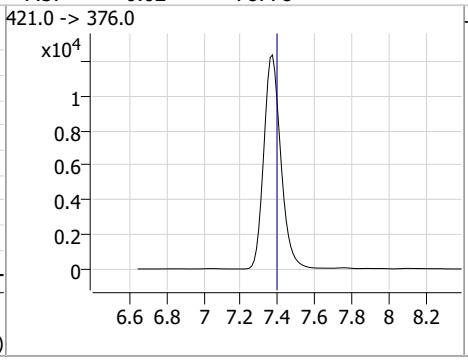


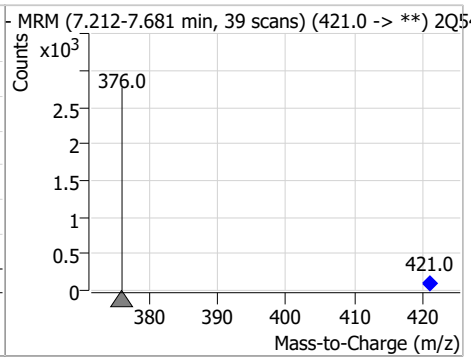




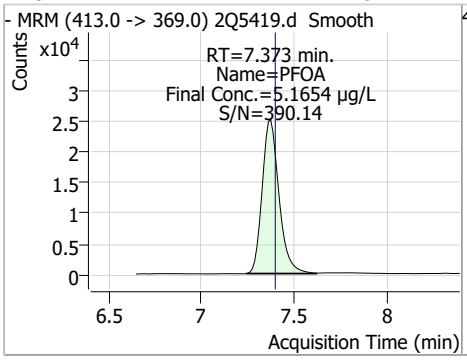
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.44	7.37	-0.02	78778				

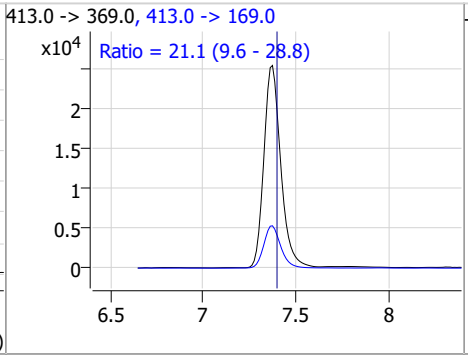


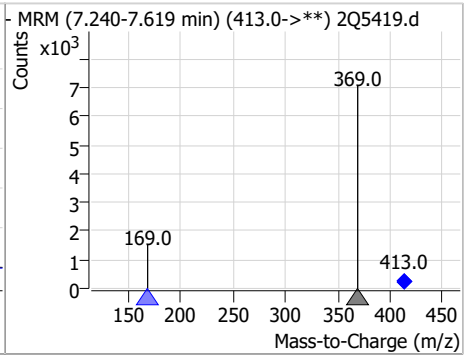




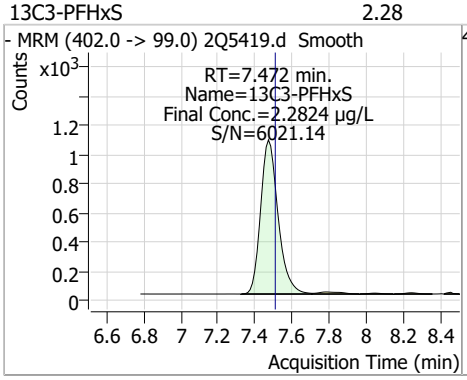
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	5.17	7.37	-0.02	159406	413.0 -> 169.0	21.1	9.6	28.8

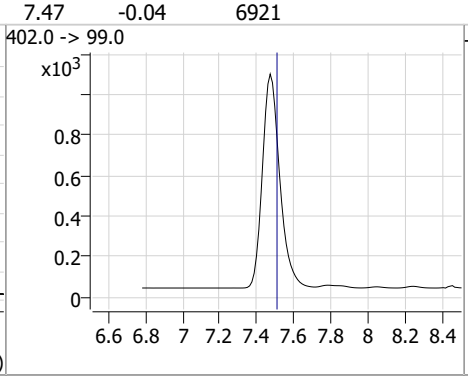


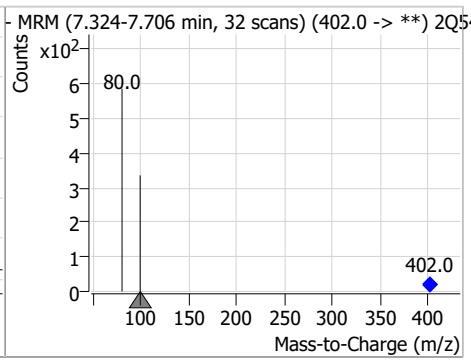




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.28	7.47	-0.04	6921				

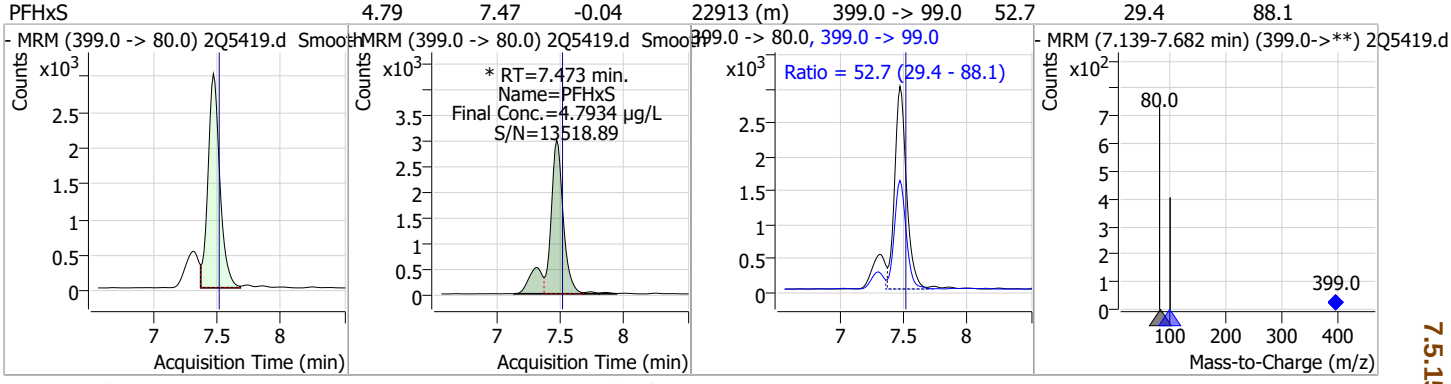




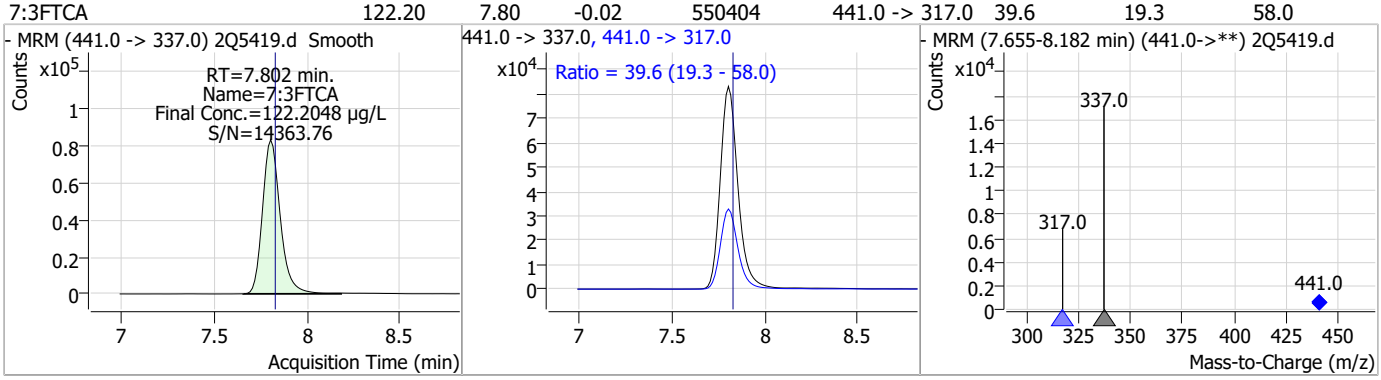


Perfluorinated Compounds by LC/MS/MS

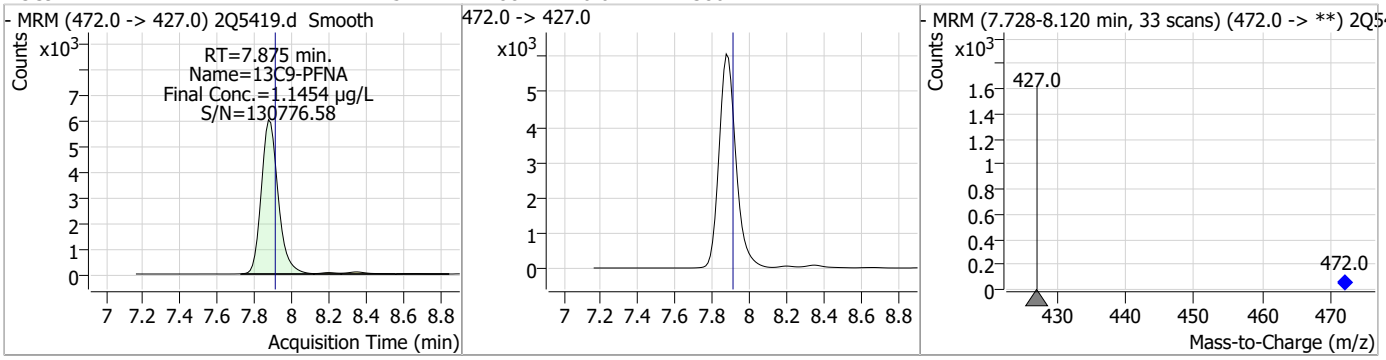
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	4.79	7.47	-0.04	22913 (m)	399.0 -> 99.0	52.7	29.4	88.1



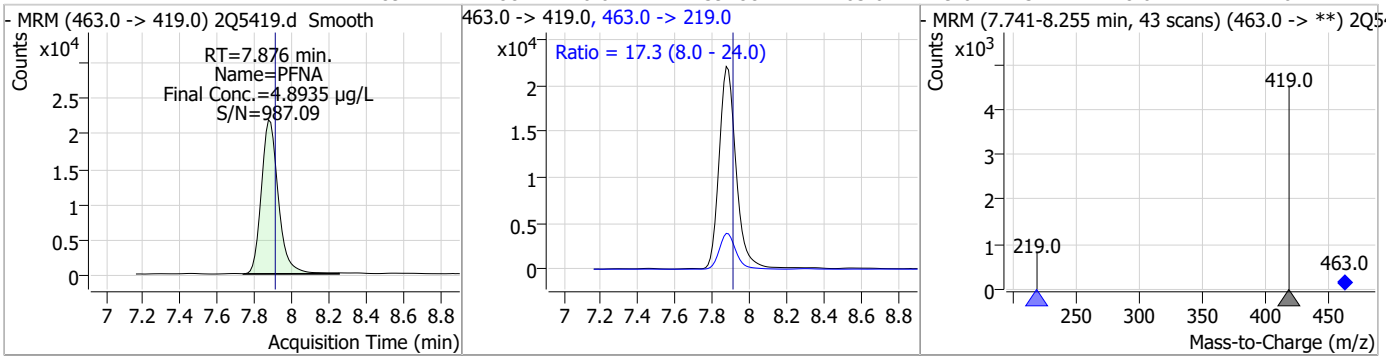
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	122.20	7.80	-0.02	550404	441.0 -> 317.0	39.6	19.3	58.0



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.15	7.88	-0.04	38021				

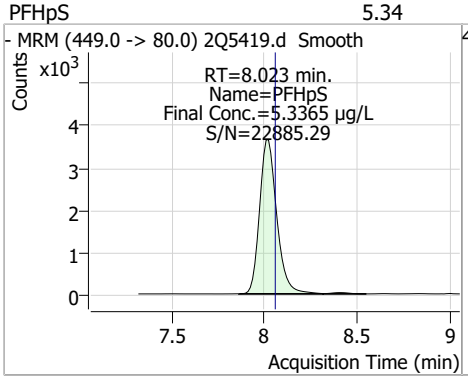


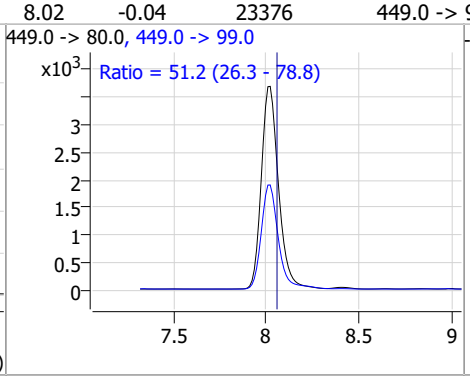
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	4.89	7.88	-0.04	139788	463.0 -> 219.0	17.3	8.0	24.0

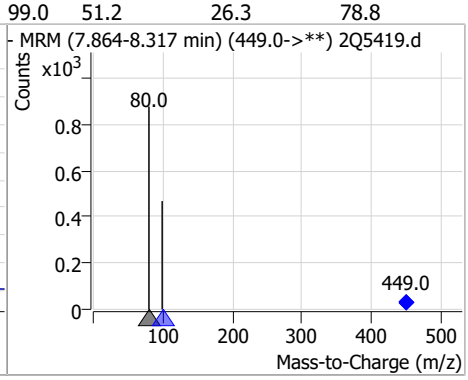


Perfluorinated Compounds by LC/MS/MS

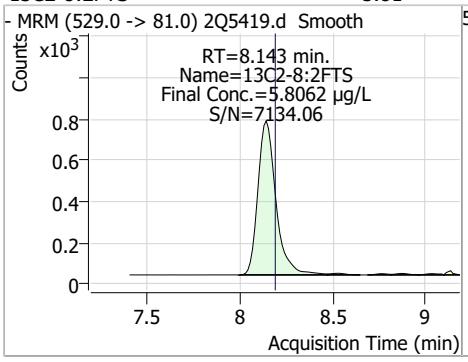
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	5.34	8.02	-0.04	23376	449.0 -> 99.0	51.2	26.3	78.8

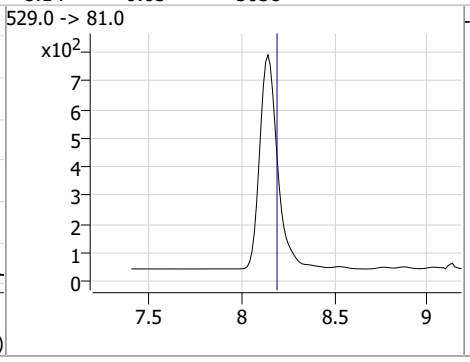


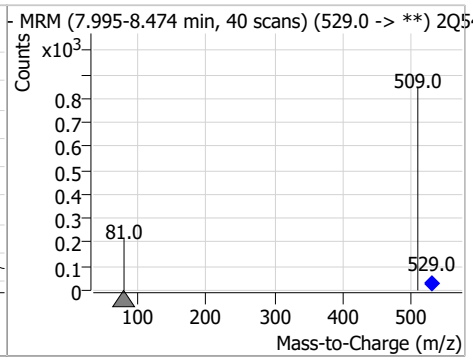




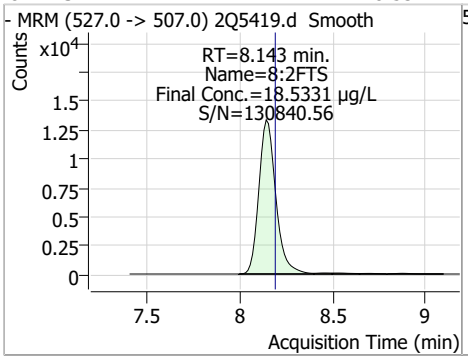
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.81	8.14	-0.05	5058				

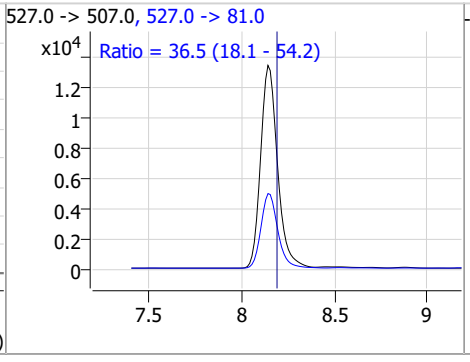


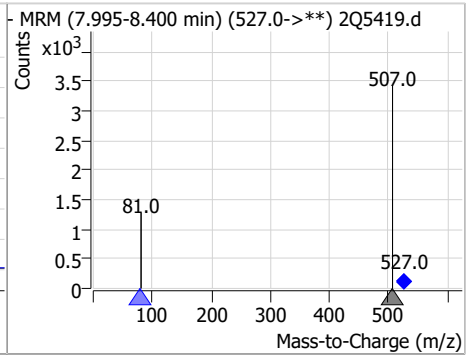




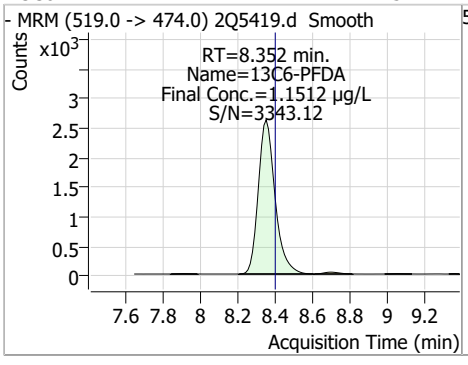
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	18.53	8.14	-0.05	84752	527.0 -> 81.0	36.5	18.1	54.2

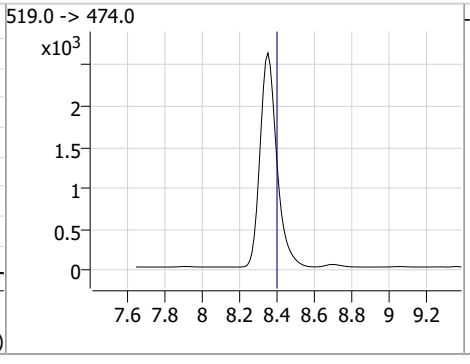


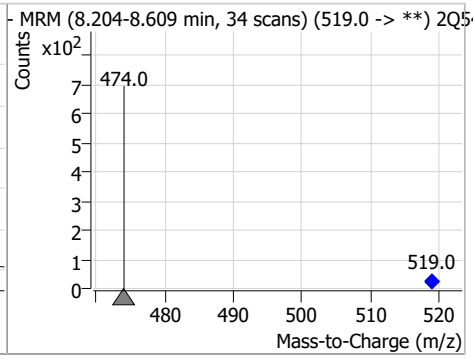




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.15	8.35	-0.05	16312				

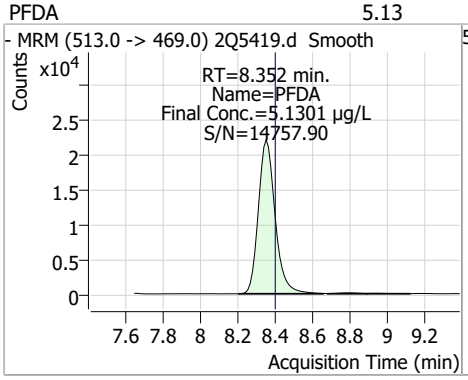


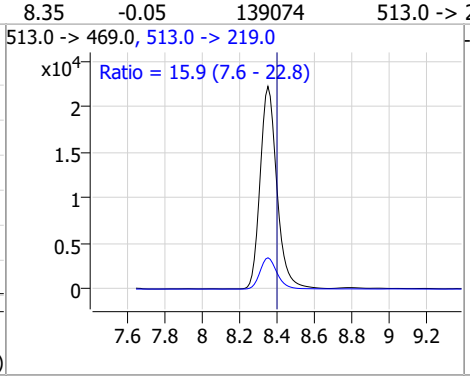


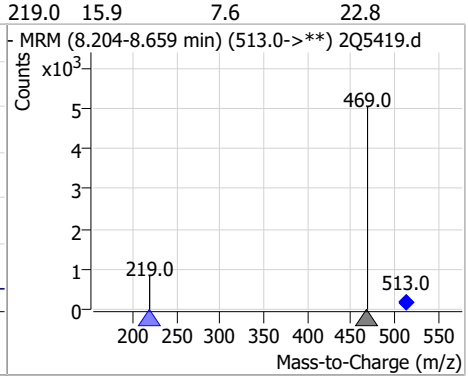


Perfluorinated Compounds by LC/MS/MS

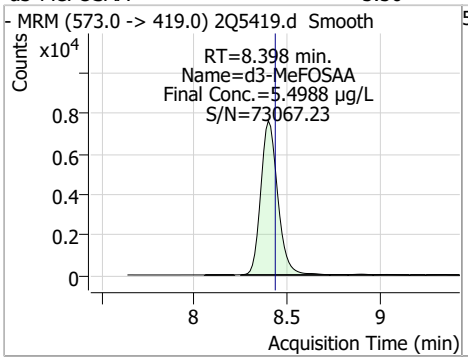
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	5.13	8.35	-0.05	139074	513.0 -> 219.0	15.9	7.6	22.8

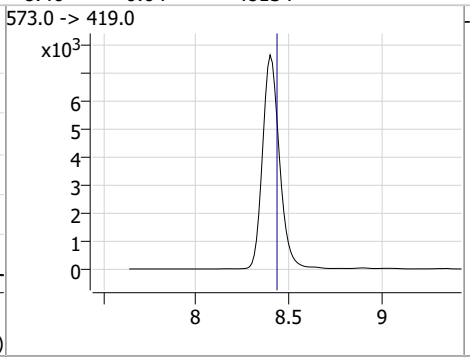


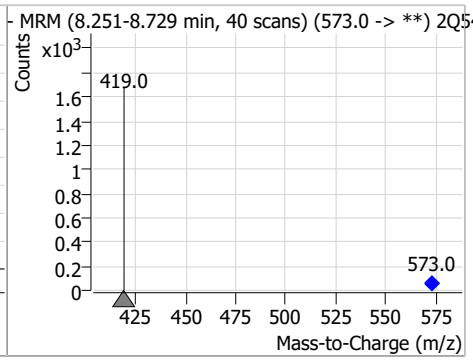




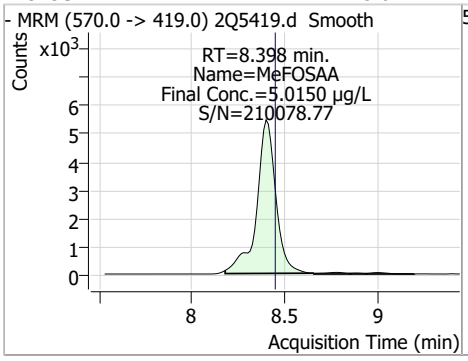
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.50	8.40	-0.04	48134				

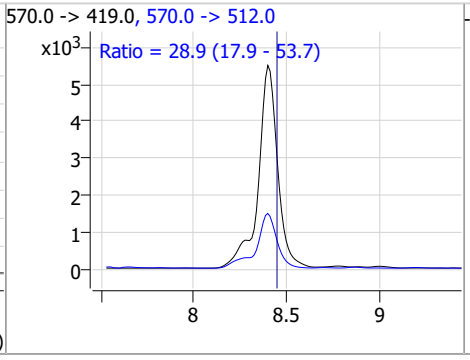


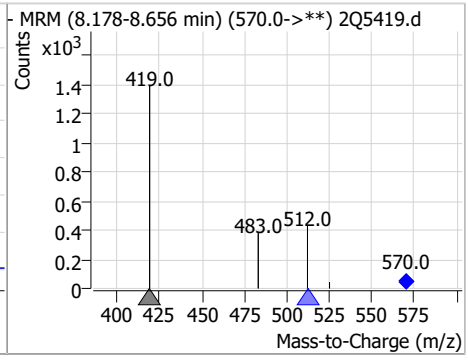




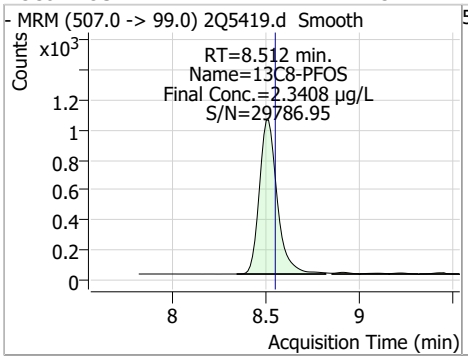
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.01	8.40	-0.05	39109	570.0 -> 512.0	28.9	17.9	53.7

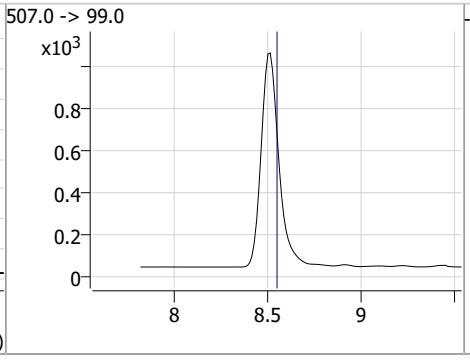


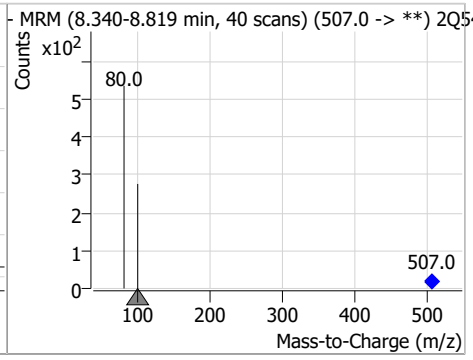




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.34	8.51	-0.04	6855				

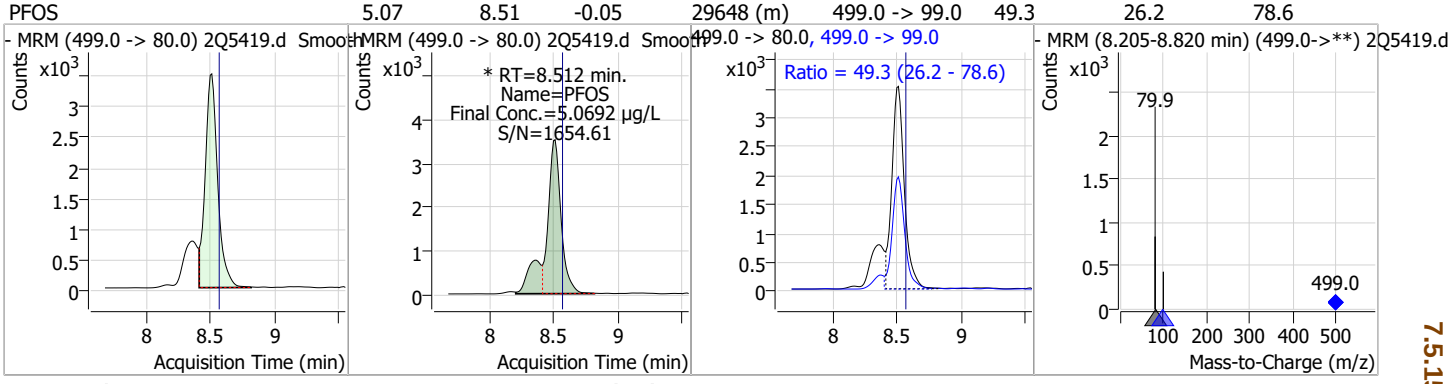




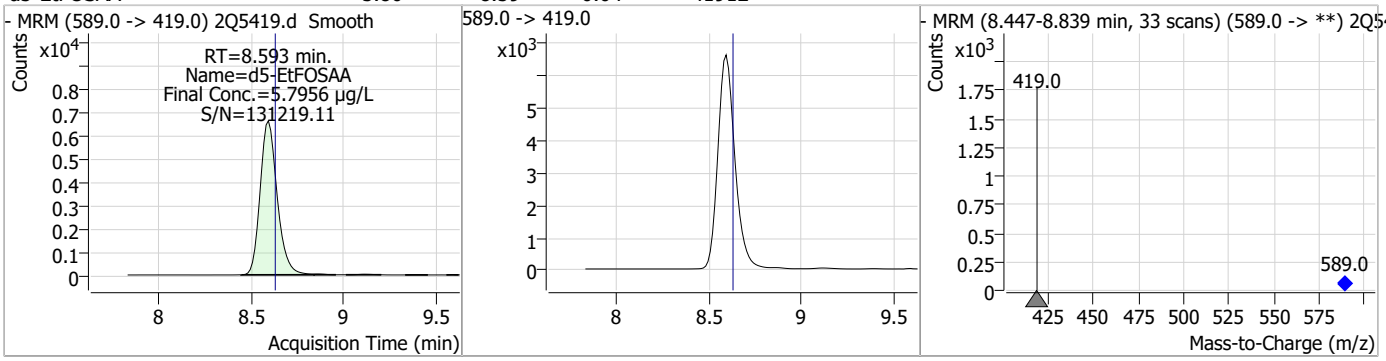


Perfluorinated Compounds by LC/MS/MS

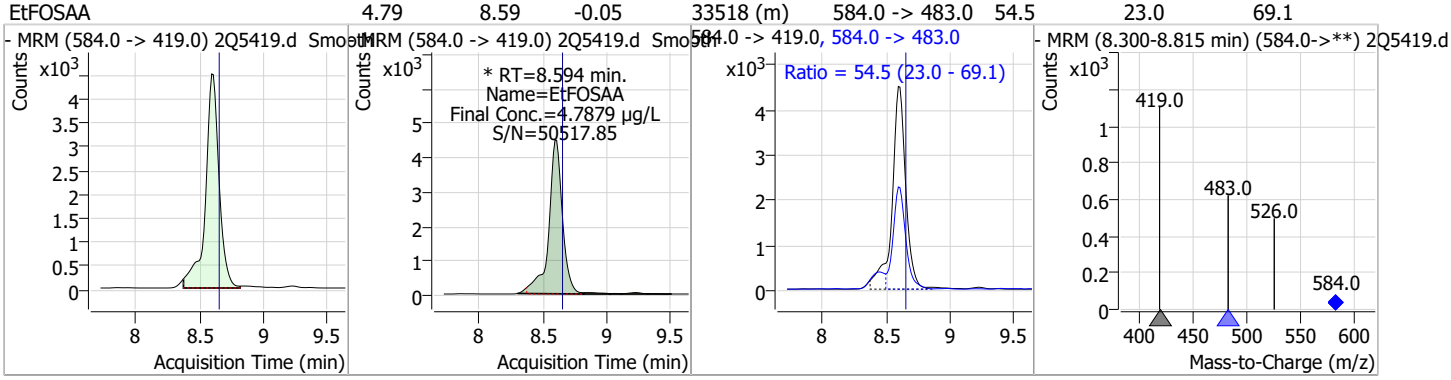
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	5.07	8.51	-0.05	29648 (m)	499.0 -> 99.0	49.3	26.2	78.6



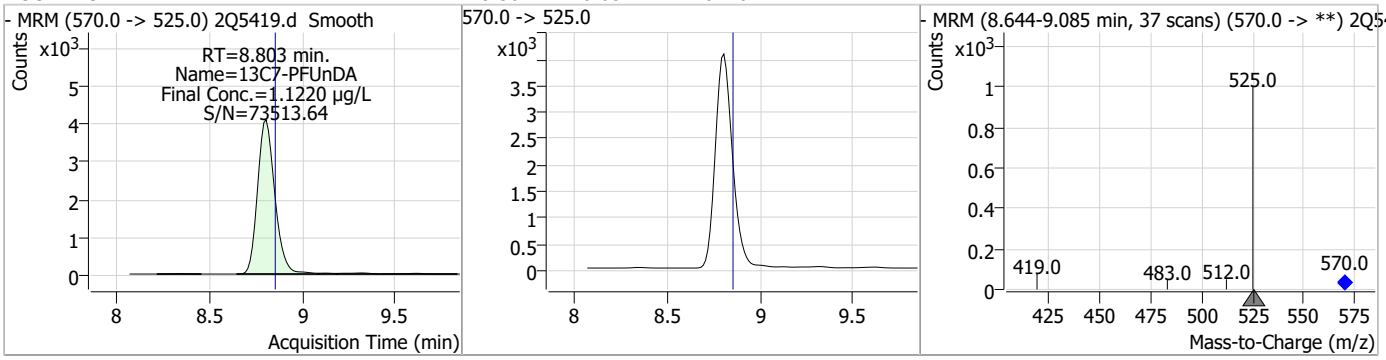
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.80	8.59	-0.04	41912				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	4.79	8.59	-0.05	33518 (m)	584.0 -> 483.0	54.5	23.0	69.1

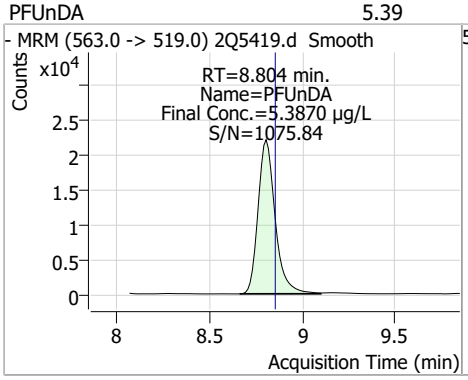


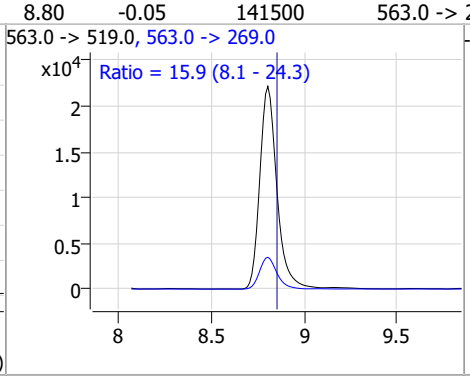
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.12	8.80	-0.05	26226				

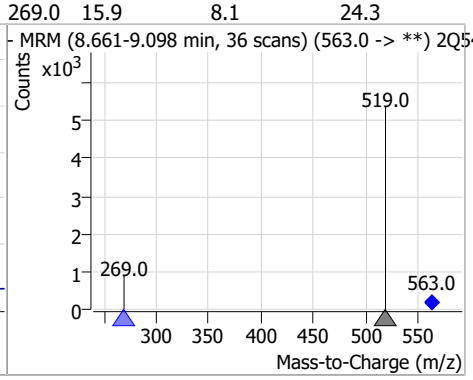


Perfluorinated Compounds by LC/MS/MS

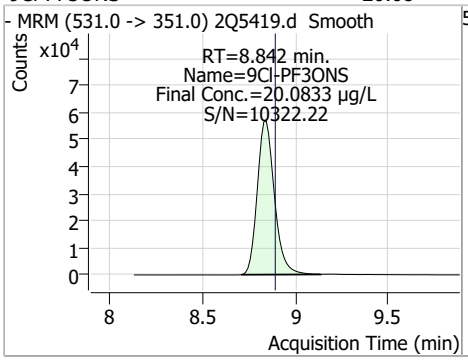
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.39	8.80	-0.05	141500	563.0 -> 269.0	15.9	8.1	24.3

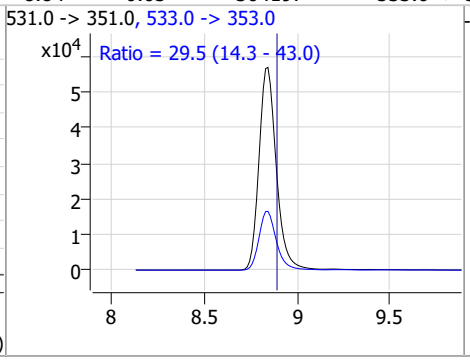


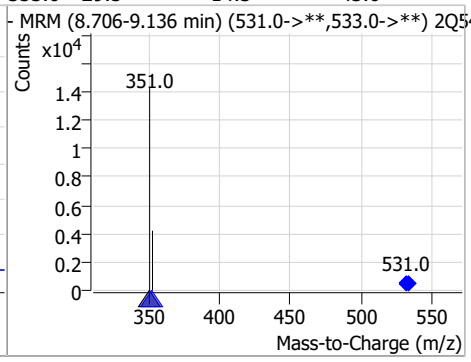




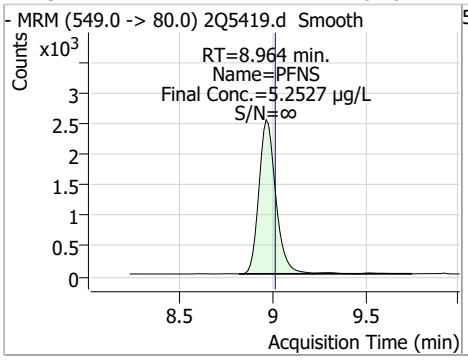
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	20.08	8.84	-0.05	364197	533.0 -> 353.0	29.5	14.3	43.0

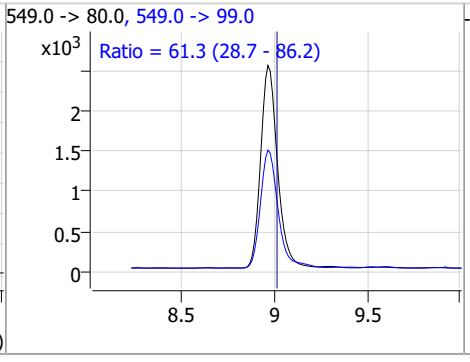


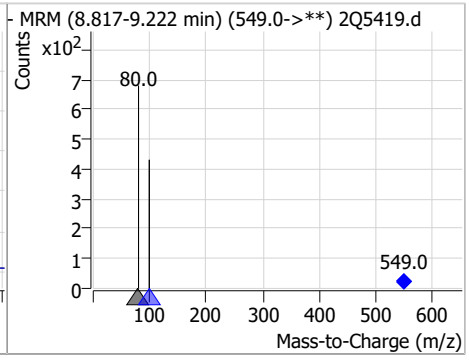




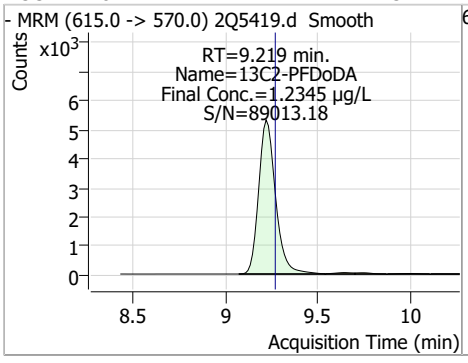
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	5.25	8.96	-0.05	15860	549.0 -> 99.0	61.3	28.7	86.2

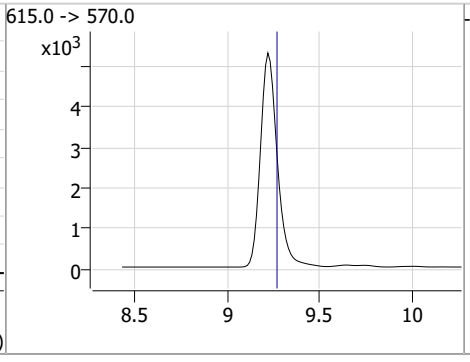


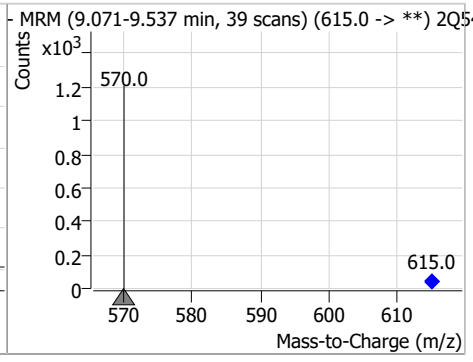




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.23	9.22	-0.05	33451				

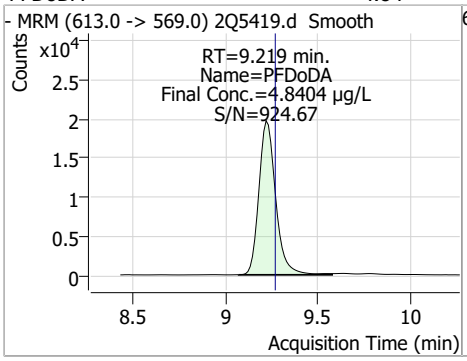


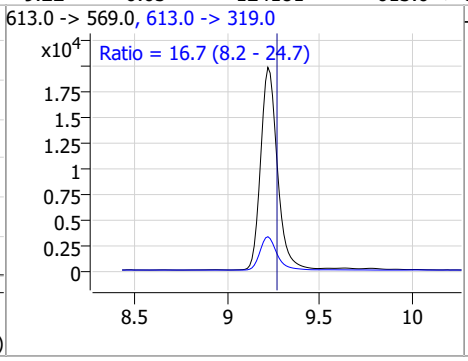


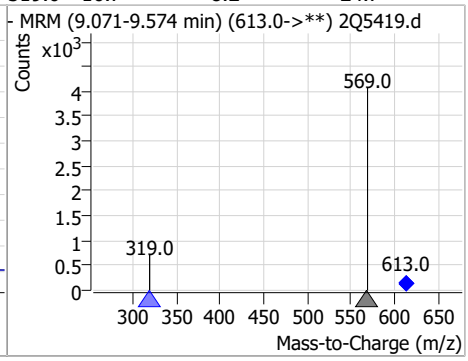


Perfluorinated Compounds by LC/MS/MS

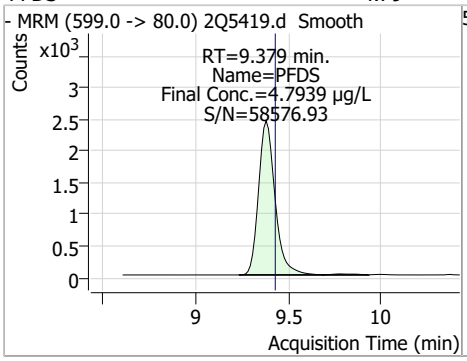
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	4.84	9.22	-0.05	124181	613.0 -> 319.0	16.7	8.2	24.7

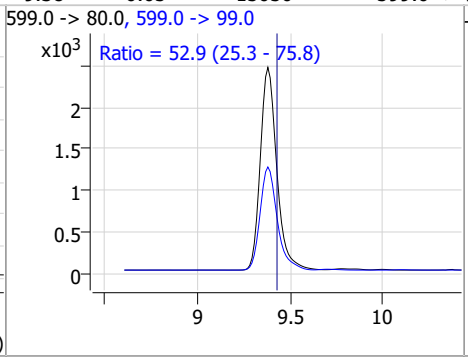


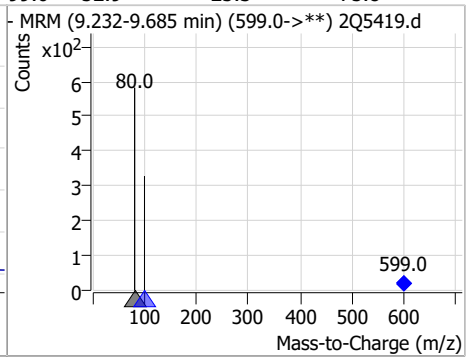




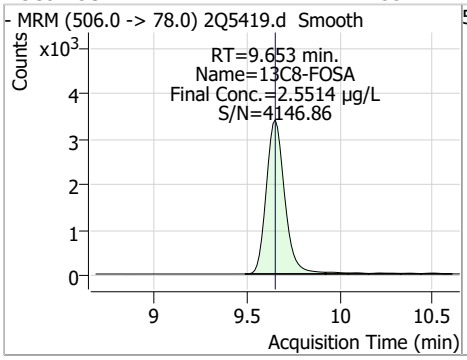
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	4.79	9.38	-0.05	15050	599.0 -> 99.0	52.9	25.3	75.8

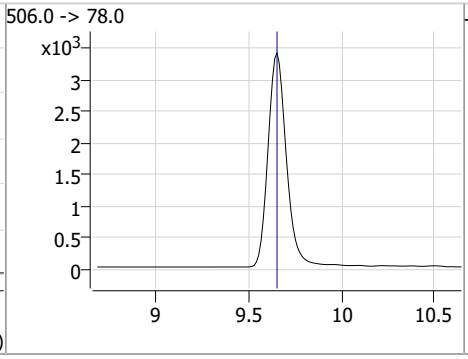


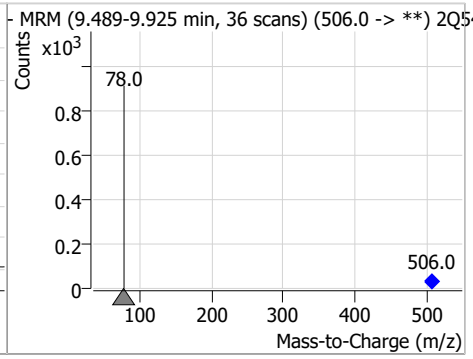




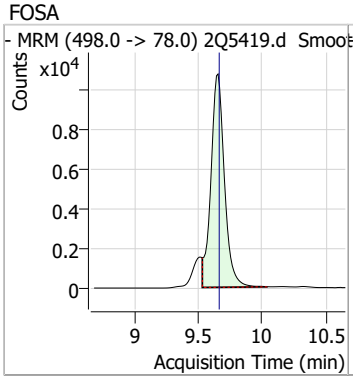
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.55	9.65	0.00	23236				

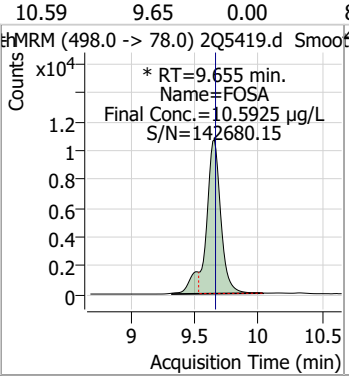


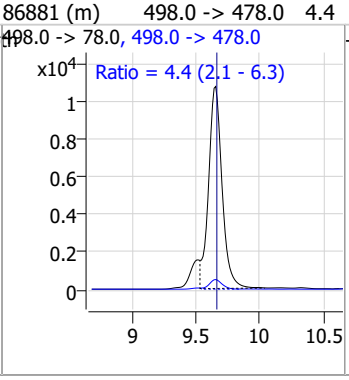


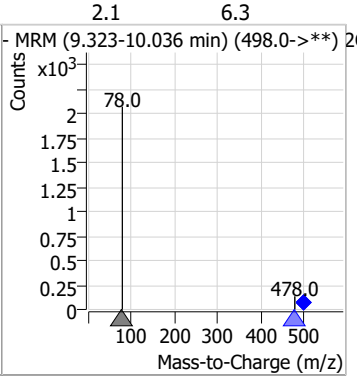


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	10.59	9.65	0.00	86881 (m)	498.0 -> 478.0	4.4	2.1	6.3



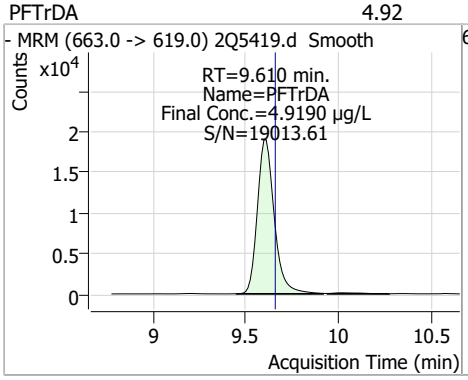


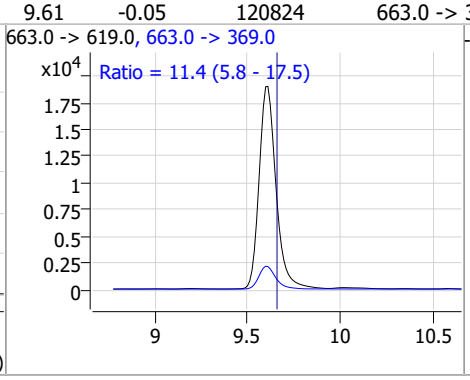


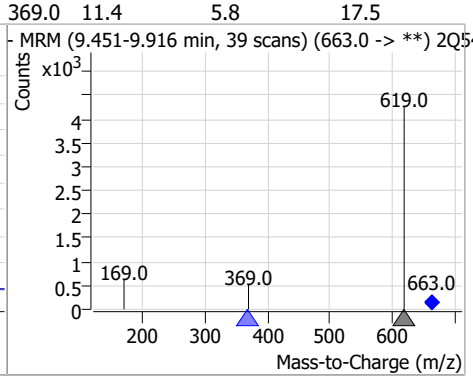


Perfluorinated Compounds by LC/MS/MS

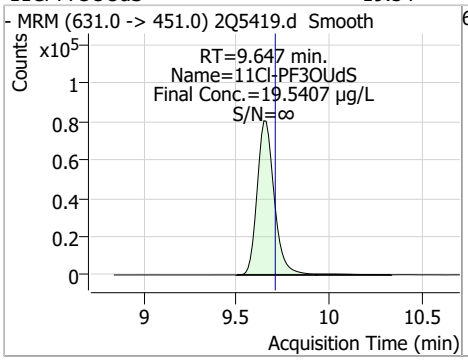
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	4.92	9.61	-0.05	120824	663.0 -> 369.0	11.4	5.8	17.5

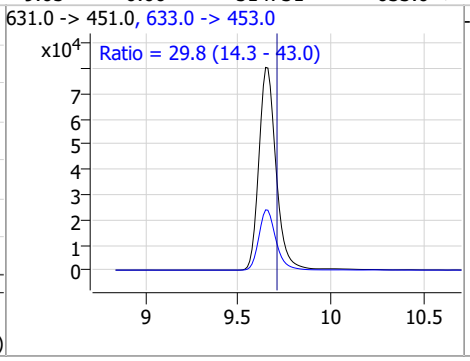


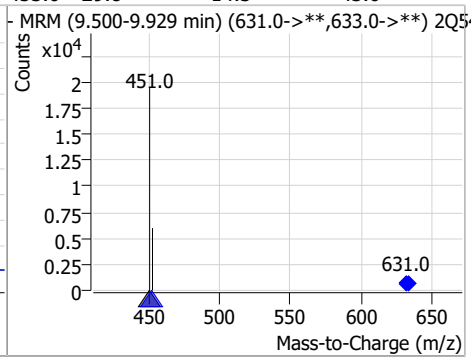




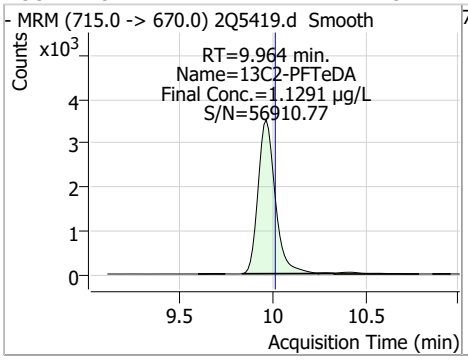
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	19.54	9.65	-0.06	514731	633.0 -> 453.0	29.8	14.3	43.0

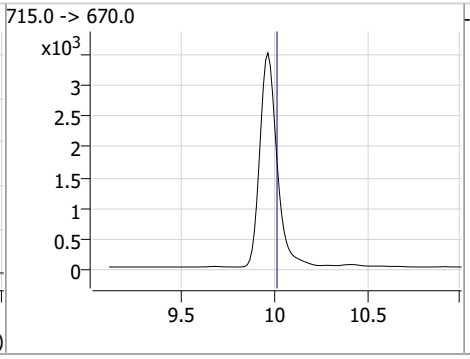


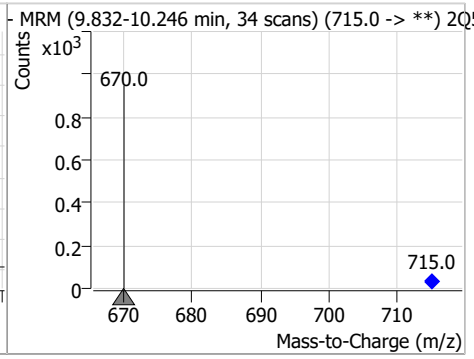




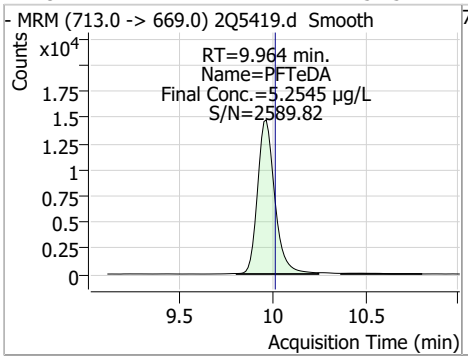
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.13	9.96	-0.05	22439				

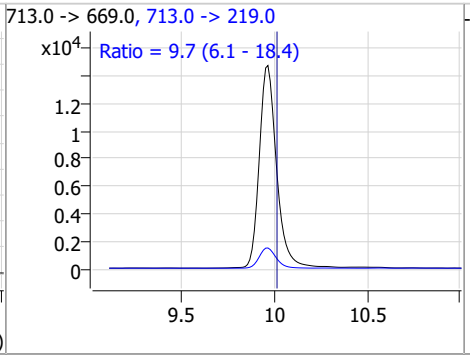


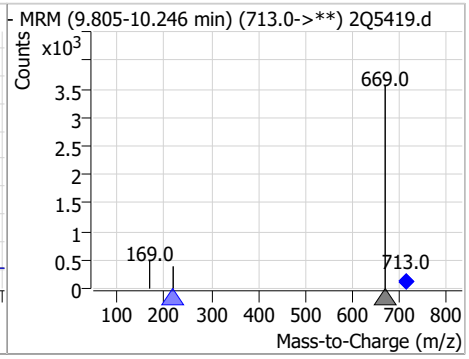




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	5.25	9.96	-0.05	95394	713.0 -> 219.0	9.7	6.1	18.4

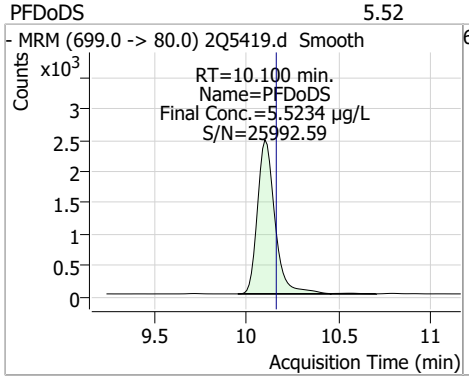


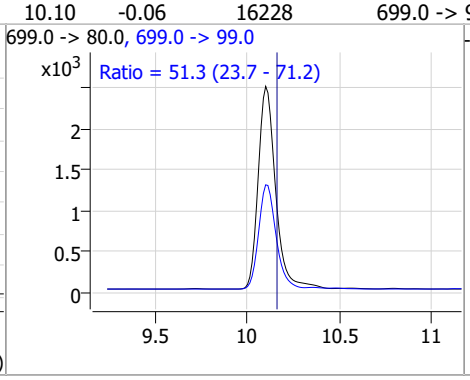


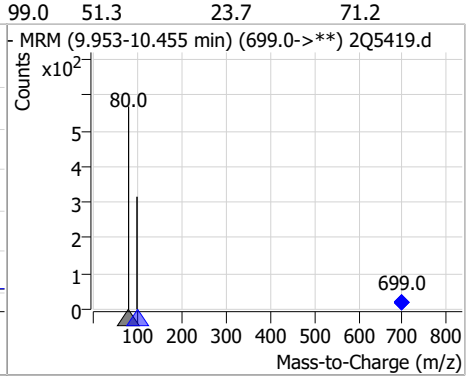


Perfluorinated Compounds by LC/MS/MS

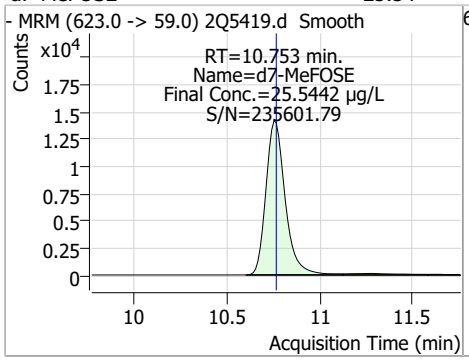
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	5.52	10.10	-0.06	16228	699.0 -> 99.0	51.3	23.7	71.2

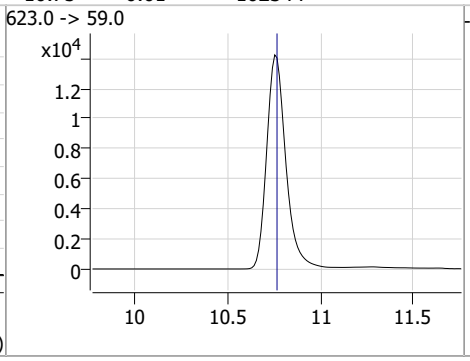


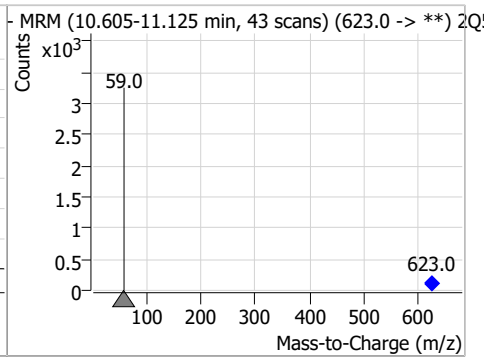




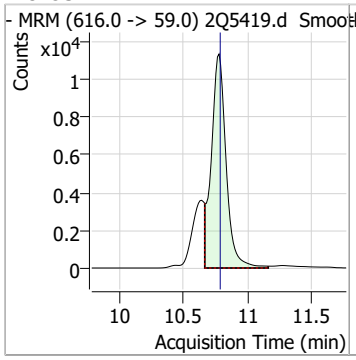
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	25.54	10.75	-0.01	102344				

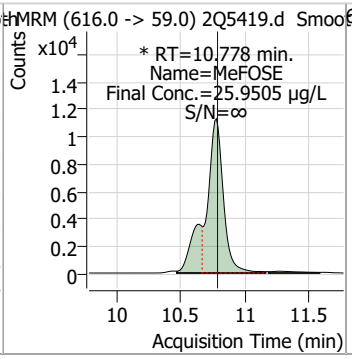


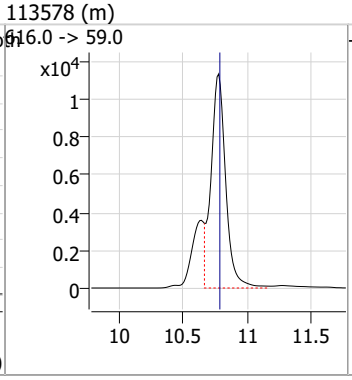


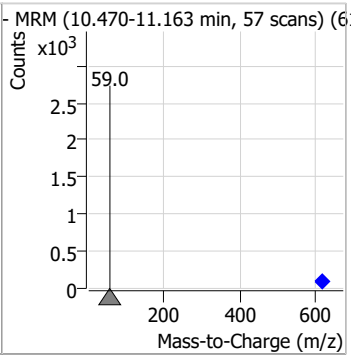


Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	25.95	10.78	0.00	113578 (m)				

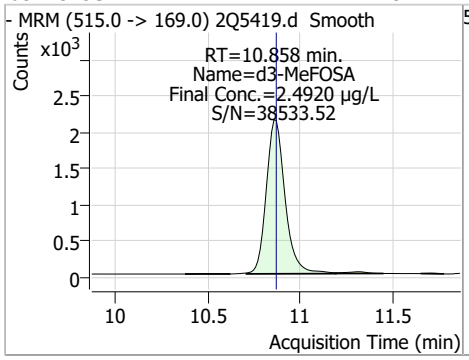


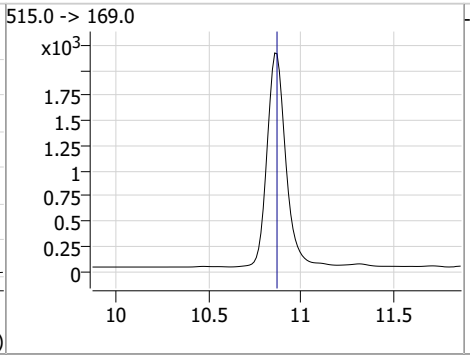


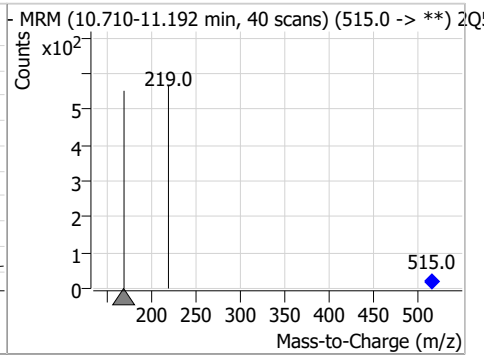




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.49	10.86	-0.01	15013				

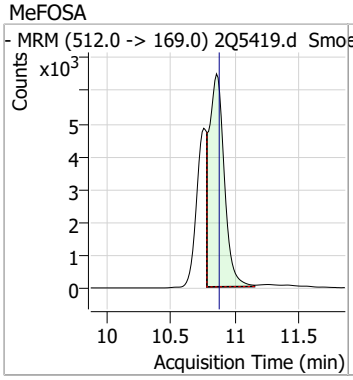


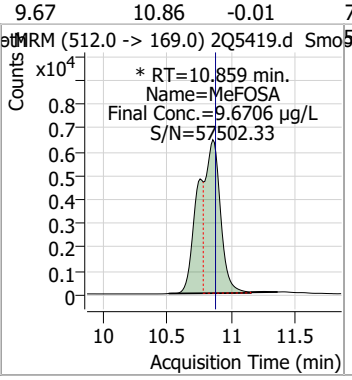


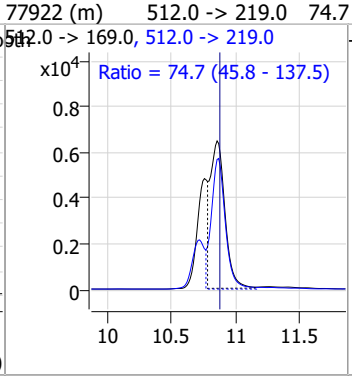


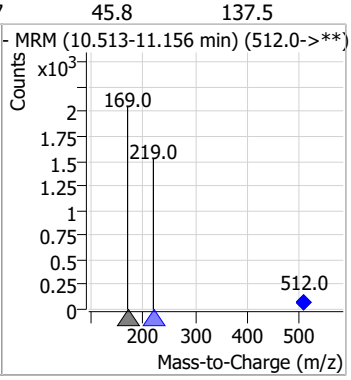
Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	9.67	10.86	-0.01	77922 (m)	512.0 -> 219.0	74.7	45.8	137.5

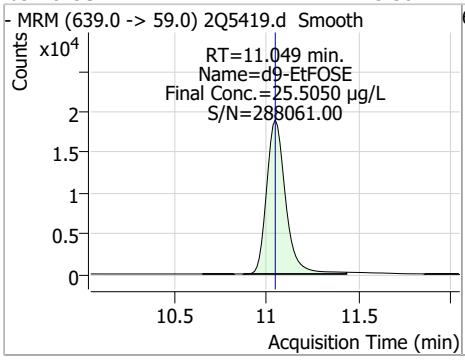


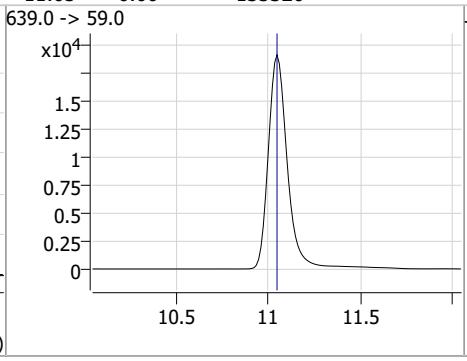


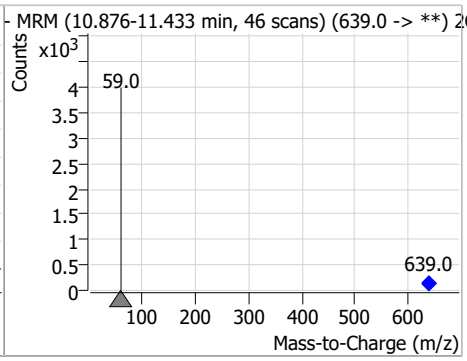




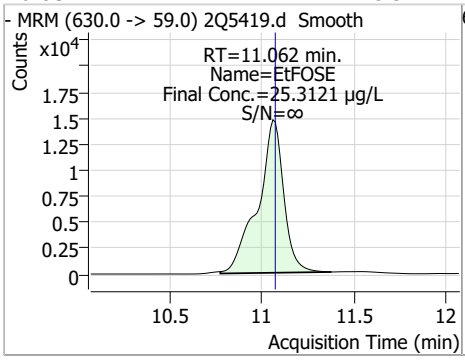
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	25.50	11.05	0.00	135320				

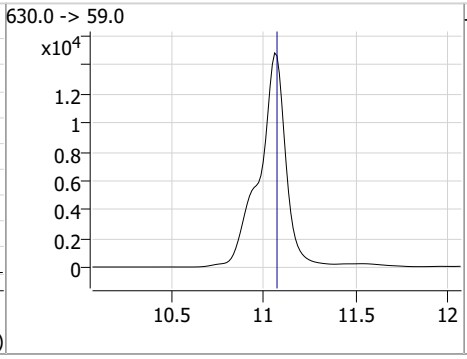


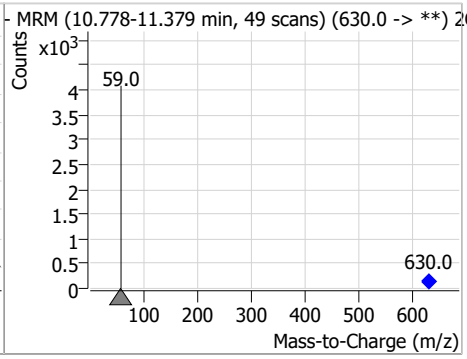




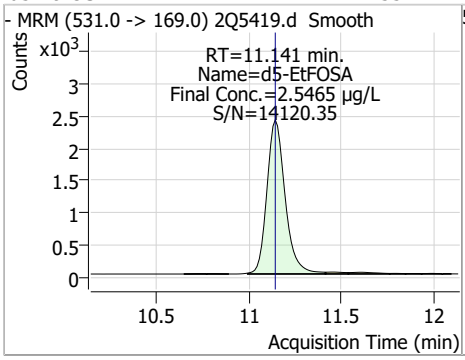
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	25.31	11.06	-0.01	143194				

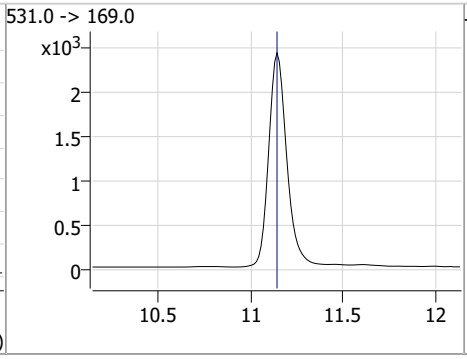


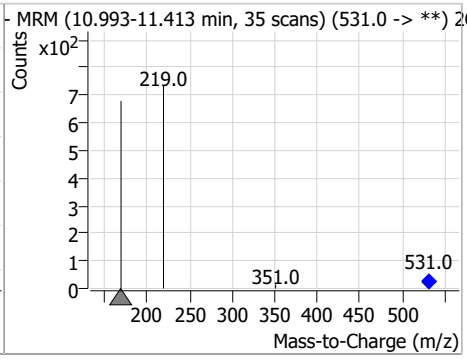




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.55	11.14	0.00	16448				

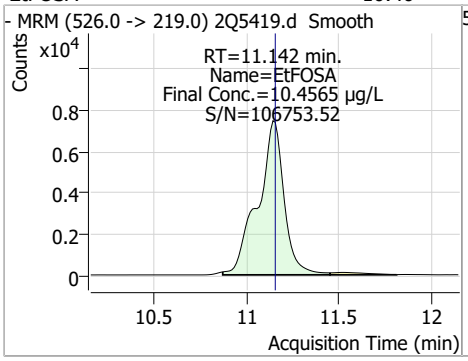


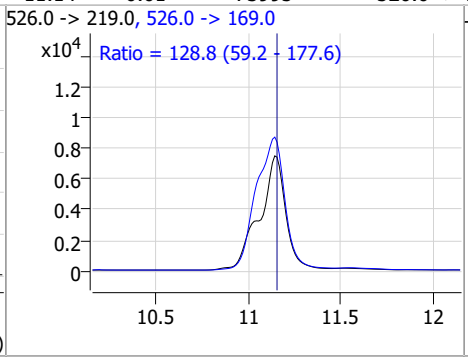


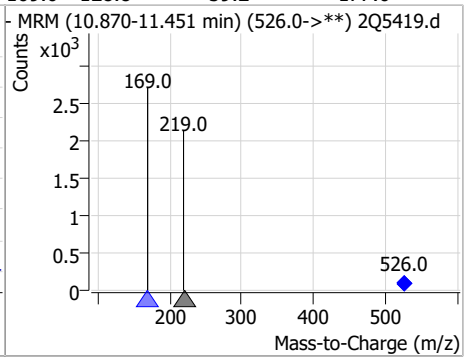


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	10.46	11.14	-0.01	73995	526.0 -> 169.0	128.8	59.2	177.6







Manual Integration Approval Summary

Sample Number: T2Q96-CC96
Lab FileID: 2Q5419.D
Injection Time: 12/02/23 10:06
Method: EPA DRAFT 1633
Analyst approved: 12/05/23 16:15 Paul Czajak
Supervisor approved: 12/05/23 17:51 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.51	Split peak
EtFOSAA	2991-50-6		8.59	Split peak
PFOSA	754-91-6		9.65	Split peak
MeFOSE	24448-09-7		10.78	Split peak
MeFOSA	31506-32-8		10.86	Split peak

Manual Integrations APPROVED (compounds with "m" flag)
Raj Kamal Singh 12/06/23 18:14

Perfluorinated Compounds by LC/MS/MS

Data File : 2Q5531.d
Operator : paulc2
Acq. Method : 1633_aquisition.m
Acq. Date-Time : 12/5/2023 6:32:21 PM
Sample Name : cc96-5
Vial : P1-A6
DA Method File : T2Q96.batch.bin
Batch Name : T2Q97.batch.bin
Sample Information : OP50850,T2Q97,5.0,,,5,1,soil

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.327	217.0 -> 172.0	172203	10.00	µg/L	0.000
M5-PFPeA	4.798	268.0 -> 223.0	106118	5.00	µg/L	0.000
M5-PFHxA	5.930	318.0 -> 273.0	60397	1.25	µg/L	-0.012
M4-PFHpA	6.770	367.0 -> 322.0	44987	2.50	µg/L	-0.013
M8-PFOA	7.360	421.0 -> 376.0	78474	2.50	µg/L	-0.012
M9-PFNA	7.875	472.0 -> 427.0	34680	1.25	µg/L	-0.012
M6-PFDA	8.352	519.0 -> 474.0	14975	1.25	µg/L	-0.012
M7-PFUnDA	8.803	570.0 -> 525.0	26904	1.25	µg/L	-0.012
M2-PFDoDA	9.219	615.0 -> 570.0	31838	1.25	µg/L	-0.012
M2-PFTeDA	9.964	715.0 -> 670.0	22038	1.25	µg/L	-0.012
M8-FOSA	9.653	506.0 -> 78.0	22831	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	7383	2.50	µg/L	-0.012
		302.0 -> 80.0	16563			
M3-PFHxS	7.472	402.0 -> 99.0	6747	2.50	µg/L	-0.012
M8-PFOS	8.512	507.0 -> 99.0	7868	2.50	µg/L	0.000
M2-4:2FTS	5.619	329.0 -> 81.0	1472	5.00	µg/L	-0.012
M2-6:2FTS	7.149	429.0 -> 81.0	2971	5.00	µg/L	-0.013
M2-8:2FTS	8.143	529.0 -> 81.0	4554	5.00	µg/L	-0.012
M3-MeFOSAA	8.398	573.0 -> 419.0	46462	5.00	µg/L	-0.012
M3-HFPO-DA	6.270	287.0 -> 169.0	29943	10.00	µg/L	-0.012
M5-EtFOSAA	8.593	589.0 -> 419.0	40933	5.00	µg/L	-0.013
M7-MeFOSE	10.753	623.0 -> 59.0	101521	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	134169	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16085	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	14659	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	12991	2.50	µg/L	-0.012
13C3-PFBA	3.317	216.0 -> 172.0	77164	5.00	µg/L	-0.013
18O2-PFHxS	7.472	403.0 -> 84.0	7538	2.50	µg/L	-0.012
13C4-PFOA	7.360	417.0 -> 372.0	77233	2.50	µg/L	-0.012
13C2-PFDA	8.352	515.0 -> 470.0	32159	1.25	µg/L	-0.012
13C5-PFNA	7.875	468.0 -> 423.0	38929	1.25	µg/L	-0.012
13C2-PFHxA	5.930	315.0 -> 270.0	56299	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1472	5.35	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.0%		
13C2-6:2FTS	7.149	429.0 -> 81.0	2971	4.87	µg/L	-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 97.4%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4554	5.39	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 107.8%		
13C2-PFDoDA	9.219	615.0 -> 570.0	31838	1.24	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 99.2%		
13C2-PFTeDA	9.964	715.0 -> 670.0	22038	1.17	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.6%		
13C3-PFBS	5.846	302.0 -> 99.0	7383	2.63	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 105.4%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units	Dev(Min)
13C3-PFHxS	7.472	402.0 -> 99.0	6747	2.29 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 91.8%	
13C4-PFBA	3.327	217.0 -> 172.0	172203	9.91 µg/L	0.000
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 99.1%	
13C4-PFHpA	6.770	367.0 -> 322.0	44987	2.46 µg/L	-0.013
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.4%	
13C5-PFHxA	5.930	318.0 -> 273.0	60397	2.58 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.3%	
13C5-PFPeA	4.798	268.0 -> 223.0	106118	5.03 µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 100.6%	
13C6-PFDA	8.352	519.0 -> 474.0	14975	1.12 µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 89.2%	
13C7-PFUnDA	8.803	570.0 -> 525.0	26904	1.21 µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 97.2%	
13C8-FOSA	9.653	506.0 -> 78.0	22831	2.60 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.8%	
13C8-PFOA	7.360	421.0 -> 376.0	78474	2.45 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.2%	
13C8-PFOS	8.512	507.0 -> 99.0	7868	2.78 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 111.2%	
13C9-PFNA	7.875	472.0 -> 427.0	34680	1.14 µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.1%	
d3-MeFOSAA	8.398	573.0 -> 419.0	46462	5.49 µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 109.9%	
13C3-HFPO-DA	6.270	287.0 -> 169.0	29943	11.22 µg/L	-0.012
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 112.2%	
d3-MeFOSA	10.858	515.0 -> 169.0	14659	2.52 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.8%	
d5-EtFOSAA	8.593	589.0 -> 419.0	40933	5.86 µg/L	-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 117.2%	
d7-MeFOSE	10.753	623.0 -> 59.0	101521	26.23 µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 104.9%	
d9-EtFOSE	11.049	639.0 -> 59.0	134169	26.18 µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 104.7%	
d5-EtFOSA	11.141	531.0 -> 169.0	16085	2.58 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 103.1%	
Target Compounds					QValue
4:2FTS	5.619	327.0 -> 307.0	47065	19.21 µg/L	98
		327.0 -> 81.0	24143		
6:2FTS	7.149	427.0 -> 407.0	91672	21.07 µg/L	100
		427.0 -> 81.0	27662		
8:2FTS	8.143	527.0 -> 507.0	85157	20.68 µg/L	99
		527.0 -> 81.0	28663		
EtFOSAA	8.594	584.0 -> 419.0	36534	5.34 µg/L	79
		584.0 -> 483.0	18330		
FOSA	9.655	498.0 -> 78.0	79701	9.89 µg/L	96
		498.0 -> 478.0	4447		
MeFOSAA	8.398	570.0 -> 419.0	41086	5.45 µg/L	94
		570.0 -> 512.0	11095		
PFBA	3.321	213.0 -> 169.0	87581	20.25 µg/L	100
PFBS	5.847	299.0 -> 80.0	33986	4.42 µg/L	97
		299.0 -> 99.0	13243		
PFDA	8.352	513.0 -> 469.0	130973	5.26 µg/L	97
		513.0 -> 219.0	20529		
PFDoDA	9.219	613.0 -> 569.0	121994	5.00 µg/L	96
		613.0 -> 319.0	20579		

Perfluorinated Compounds by LC/MS/MS

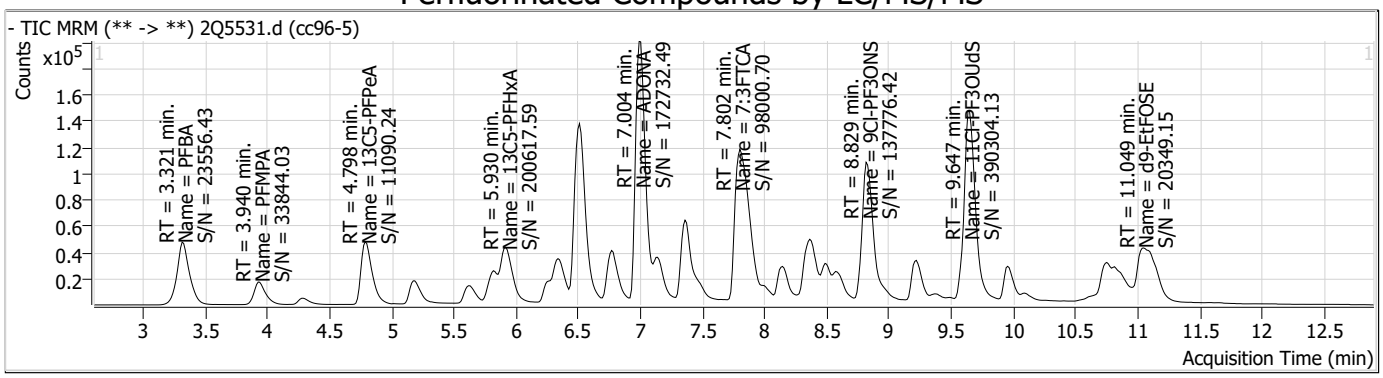
Compound	RT	Transition	Response	Conc.	Units		Dev(Min)
PFDS	9.379	599.0 -> 80.0	15376	4.77	µg/L		92
		599.0 -> 99.0	8188				
PFHpA	6.770	363.0 -> 319.0	137208	4.88	µg/L		97
		363.0 -> 169.0	25117				
PFHpS	8.010	449.0 -> 80.0	23309	5.46	µg/L		89
		449.0 -> 99.0	11226				
PFHxA	5.932	313.0 -> 269.0	114254	4.78	µg/L		99
		313.0 -> 119.0	3503				
PFHxS	7.473	399.0 -> 80.0	23406	5.02	µg/L	m	93
		399.0 -> 99.0	12374				
PFNA	7.876	463.0 -> 419.0	127669	4.90	µg/L		97
		463.0 -> 219.0	23340				
PFNS	8.964	549.0 -> 80.0	14871	4.29	µg/L		92
		549.0 -> 99.0	9853				
PFOA	7.360	413.0 -> 369.0	151779	4.94	µg/L		97
		413.0 -> 169.0	32544				
PFOS	8.500	499.0 -> 80.0	29258	4.36	µg/L	m	84
		499.0 -> 99.0	13729				
PFPeA	4.799	263.0 -> 219.0	194550	10.17	µg/L		100
PFPeS	6.821	349.0 -> 80.0	17891	4.05	µg/L		90
		349.0 -> 99.0	9907				
PFTeDA	9.964	713.0 -> 669.0	100235	5.62	µg/L		97
		713.0 -> 219.0	9719				
PFTrDA	9.598	663.0 -> 619.0	124833	5.34	µg/L		98
		663.0 -> 369.0	13999				
PFUnDA	8.804	563.0 -> 519.0	143774	5.34	µg/L		93
		563.0 -> 269.0	21134				
11Cl-PF3OUdS	9.647	631.0 -> 451.0	519911	19.29	µg/L		98
		633.0 -> 453.0	153829				
9Cl-PF3ONS	8.829	531.0 -> 351.0	354161	19.09	µg/L		97
		533.0 -> 353.0	107693				
ADONA	7.004	377.0 -> 251.0	873452	18.40	µg/L		99
		377.0 -> 85.0	260722				
HFPO-DA	6.271	285.0 -> 169.0	62922	19.50	µg/L		94
		285.0 -> 185.0	5085				
3:3FTCA	4.288	241.0 -> 177.0	27749	23.40	µg/L		99
		241.0 -> 117.0	2247				
5:3FTCA	6.511	341.0 -> 237.0	494109	118.28	µg/L		97
		341.0 -> 217.0	351593				
7:3FTCA	7.802	441.0 -> 337.0	524380	117.72	µg/L		96
		441.0 -> 317.0	202216				
EtFOSA	11.142	526.0 -> 219.0	71301	10.30	µg/L		95
		526.0 -> 169.0	94937				
EtFOSE	11.062	630.0 -> 59.0	144128	25.70	µg/L		100
MeFOSA	10.859	512.0 -> 169.0	81951	10.42	µg/L		66
		512.0 -> 219.0	44886				
MeFOSE	10.766	616.0 -> 59.0	106194	24.46	µg/L		100
PFDoDS	10.100	699.0 -> 80.0	15712	4.66	µg/L		92
		699.0 -> 99.0	8700				
NFDHA	5.811	295.0 -> 201.0	15773	10.74	µg/L		92
		201.0 -> 85.0	81673				
		295.0 -> 85.0	4260				
PFMBA	5.188	279.0 -> 85.0	111929	10.84	µg/L		100
PFMPA	3.940	229.0 -> 85.0	112334	10.38	µg/L		100
PFEESA	6.353	315.0 -> 135.0	164448	10.04	µg/L		97
		315.0 -> 69.0	17144				

Perfluorinated Compounds by LC/MS/MS

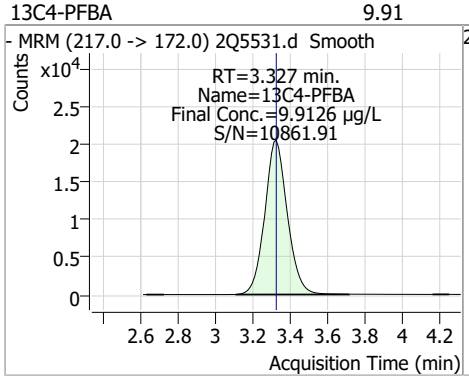
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

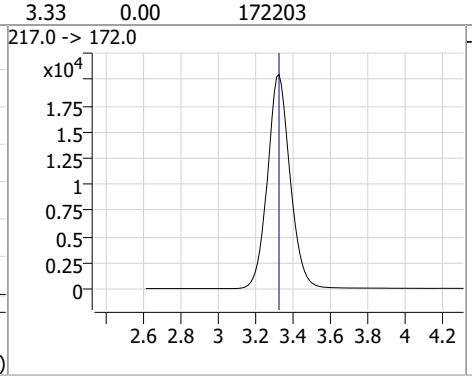
= Qualifier out of range, m = manually integrated, + = Area summed

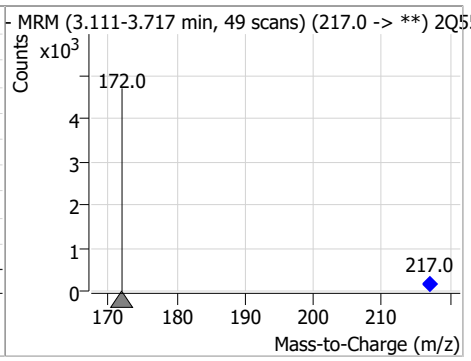
Perfluorinated Compounds by LC/MS/MS



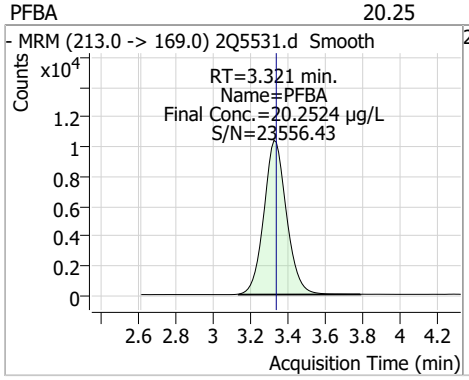
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	9.91	3.33	0.00	172203				

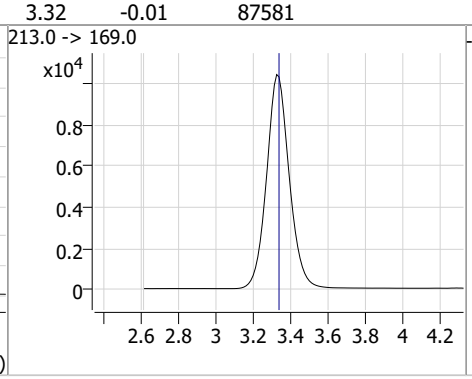


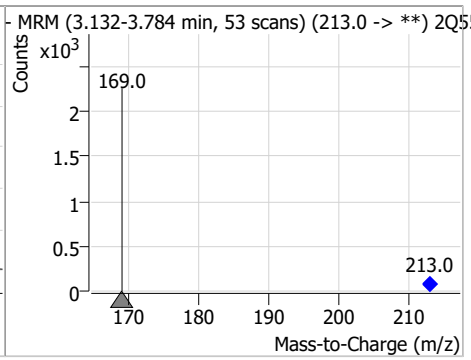




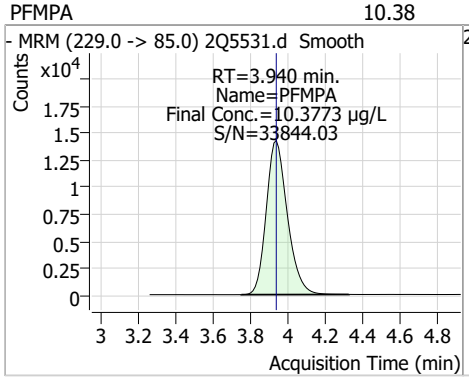
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	20.25	3.32	-0.01	87581				

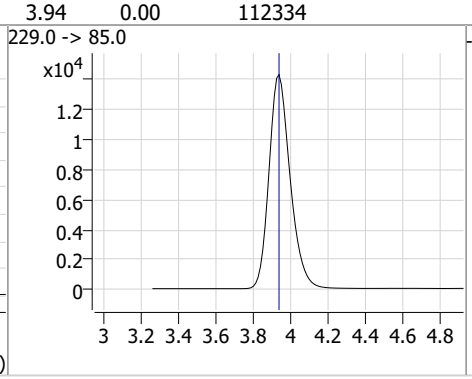


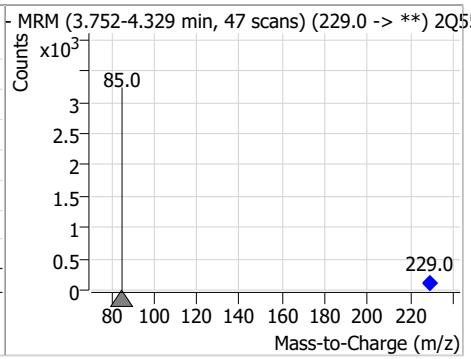




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	10.38	3.94	0.00	112334				

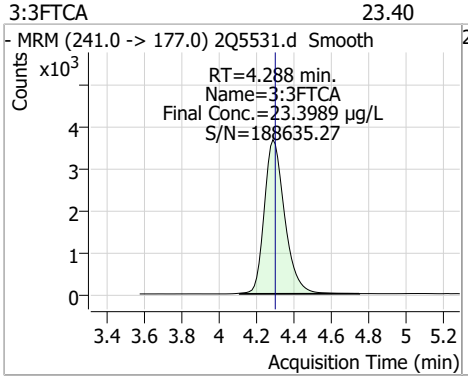


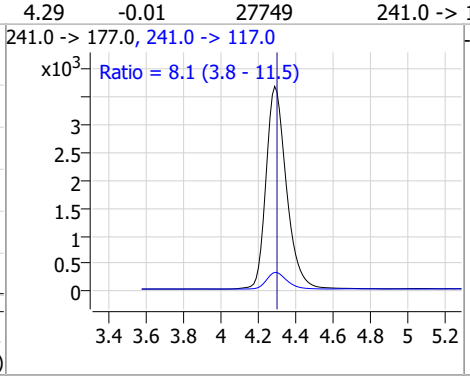


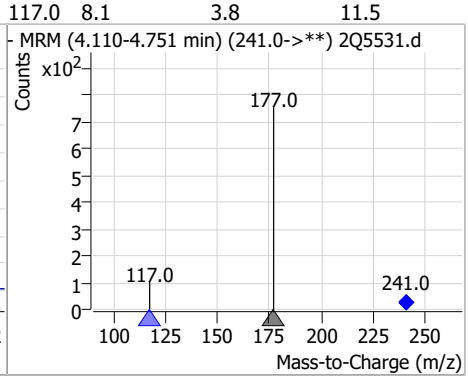


Perfluorinated Compounds by LC/MS/MS

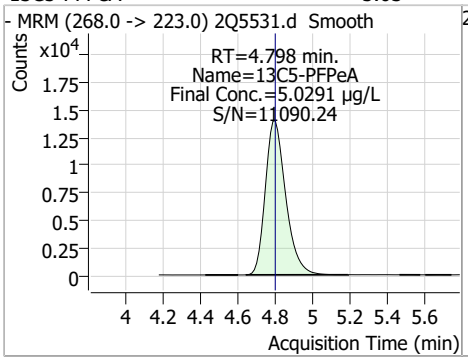
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	23.40	4.29	-0.01	27749	241.0 -> 117.0	8.1	3.8	11.5

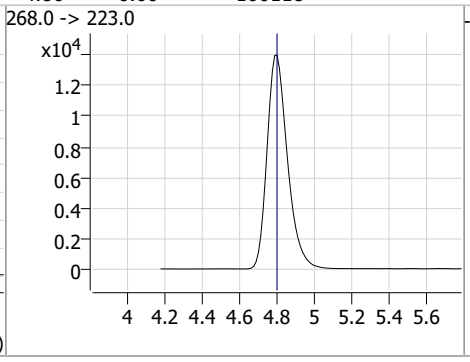


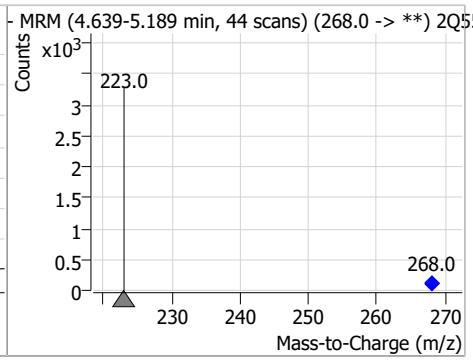




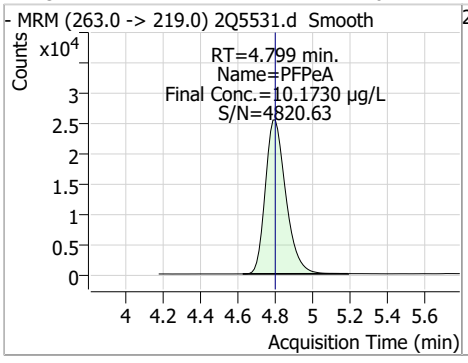
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.03	4.80	0.00	106118				

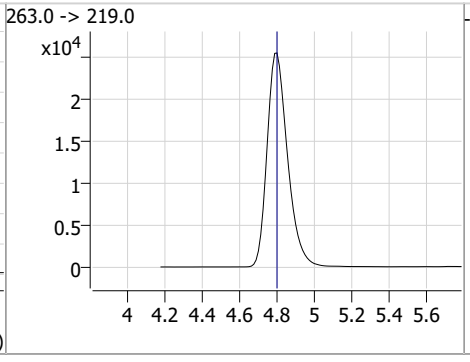


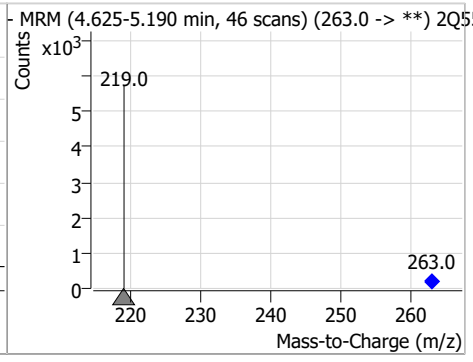




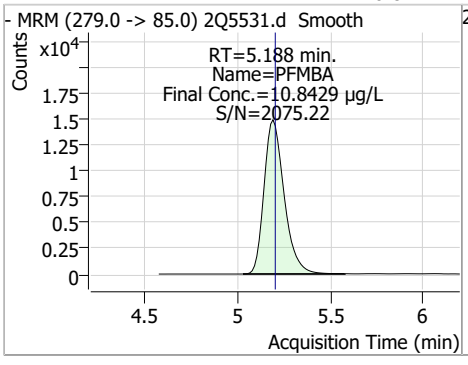
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	10.17	4.80	0.00	194550				

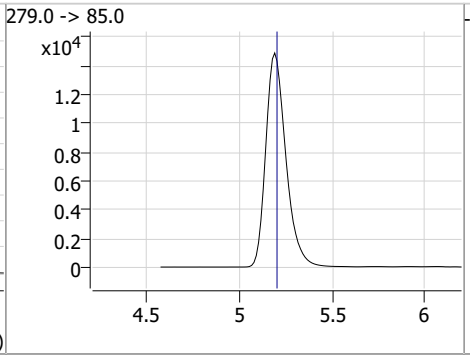


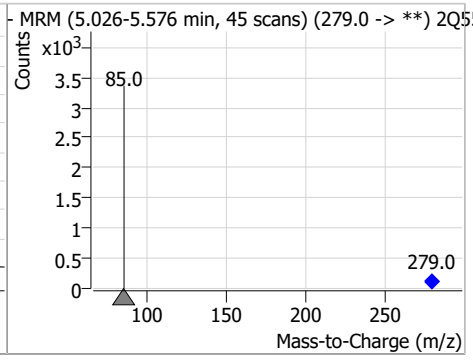




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	10.84	5.19	-0.01	111929				

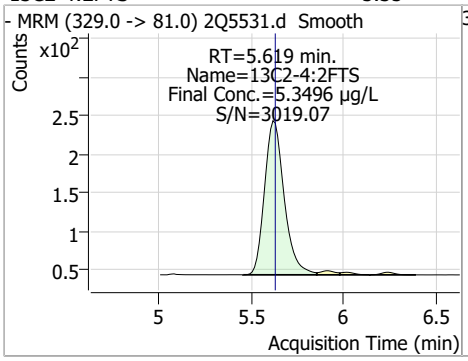


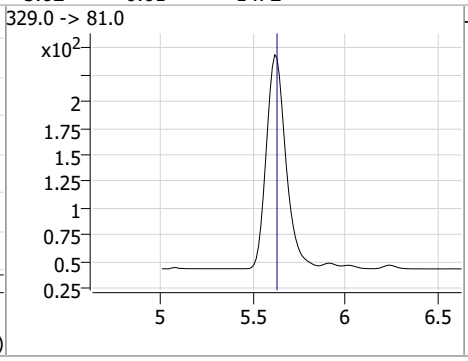


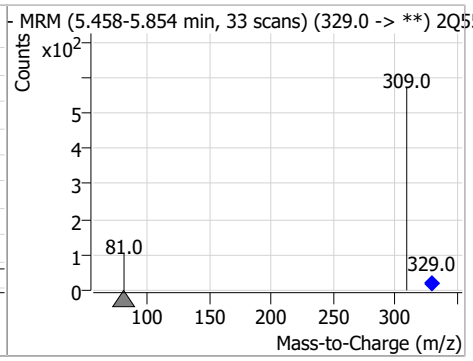


Perfluorinated Compounds by LC/MS/MS

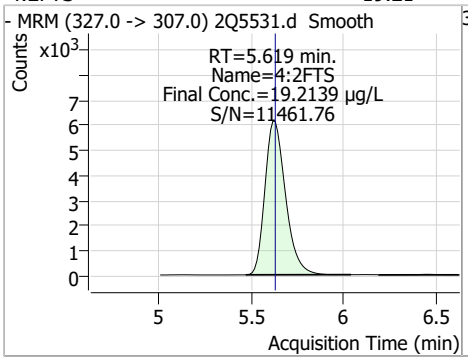
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.35	5.62	-0.01	1472				

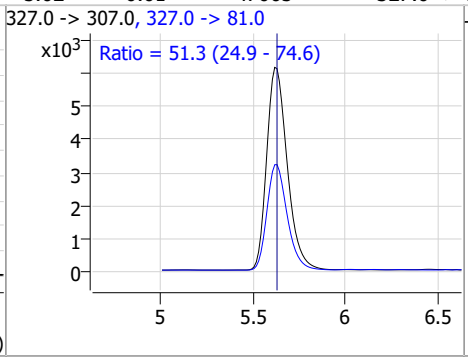


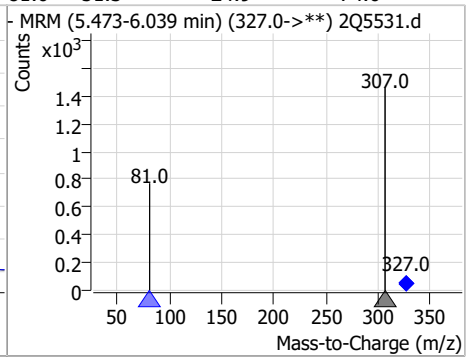




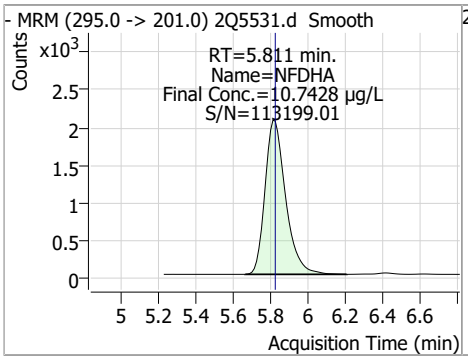
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	19.21	5.62	-0.01	47065	327.0 -> 81.0	51.3	24.9	74.6

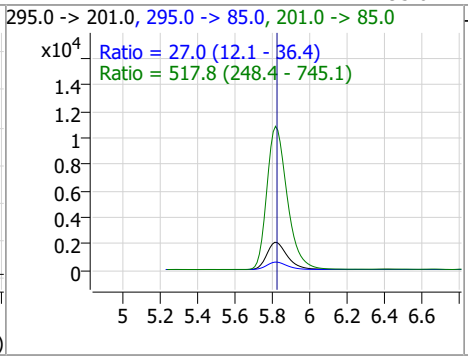


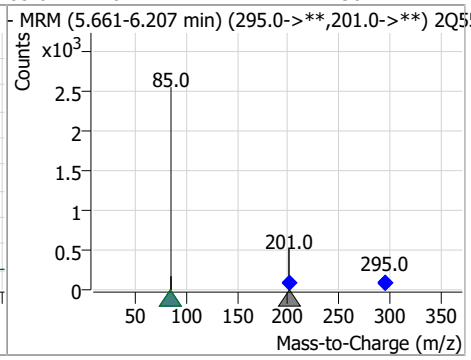




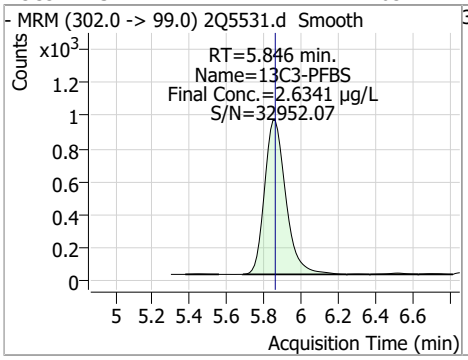
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	10.74	5.81	-0.01	15773	201.0 -> 85.0	517.8	248.4	745.1
					295.0 -> 85.0	27.0	12.1	36.4

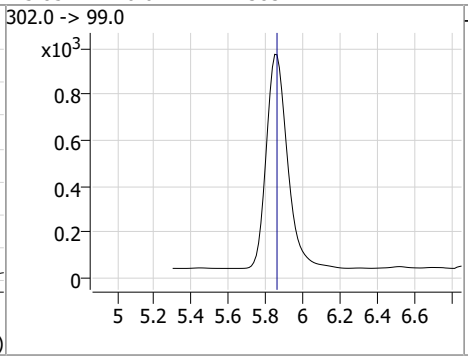


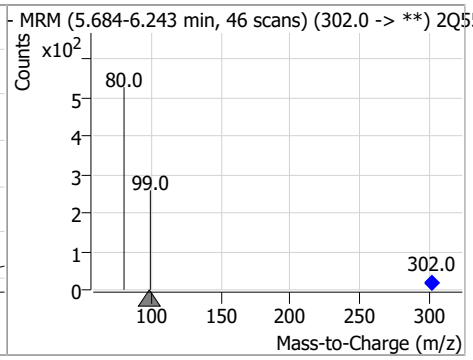




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.63	5.85	-0.01	7383				

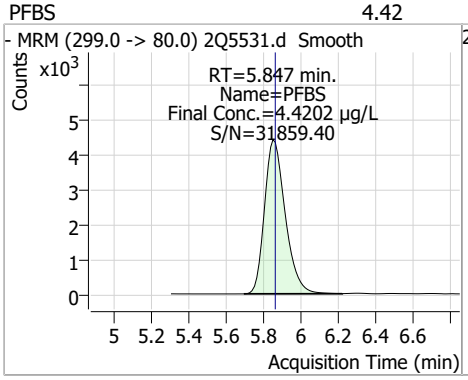


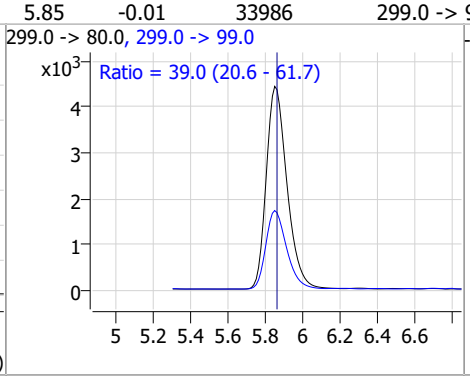


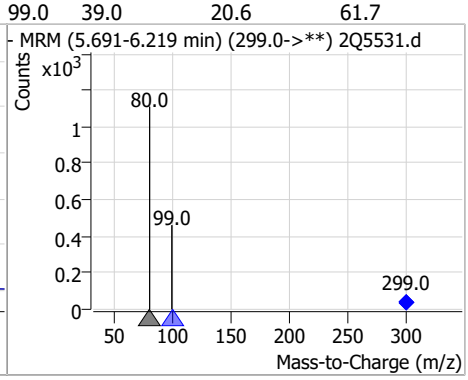


Perfluorinated Compounds by LC/MS/MS

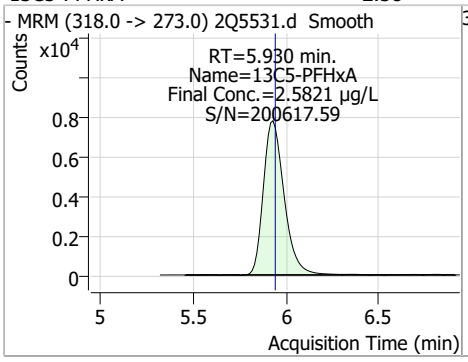
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	4.42	5.85	-0.01	33986	299.0 -> 99.0	39.0	20.6	61.7

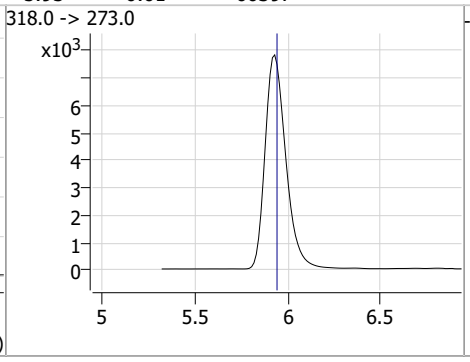


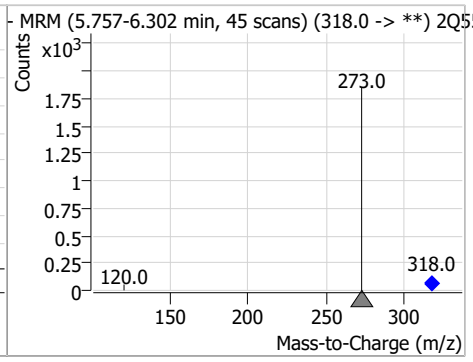




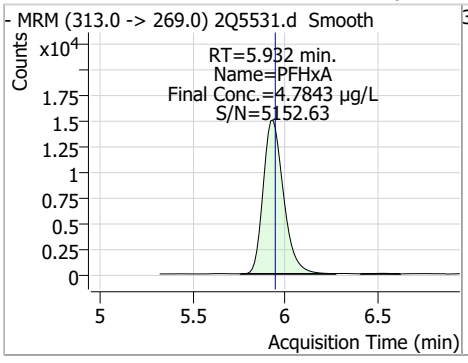
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.58	5.93	-0.01	60397				

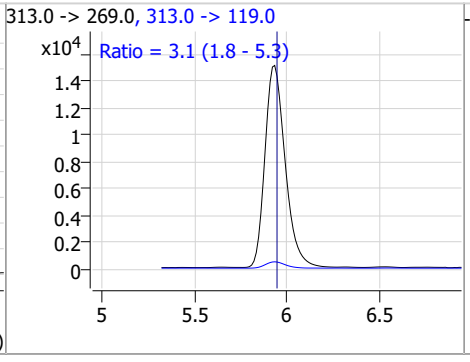


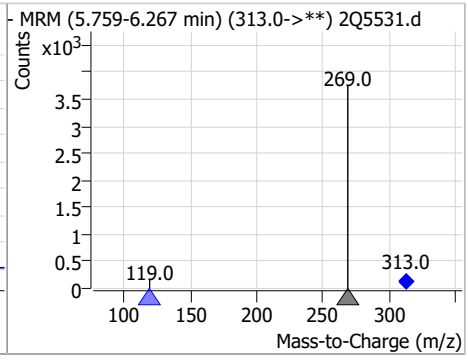




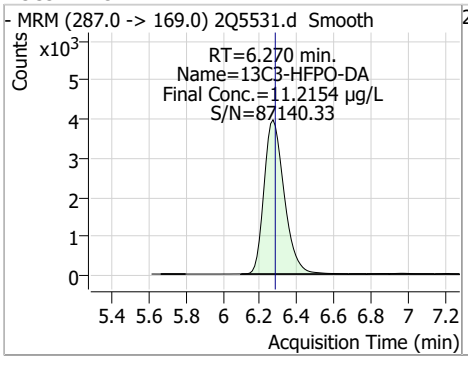
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	4.78	5.93	-0.01	114254	313.0 -> 119.0	3.1	1.8	5.3

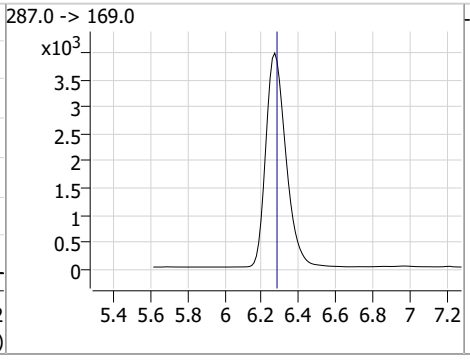


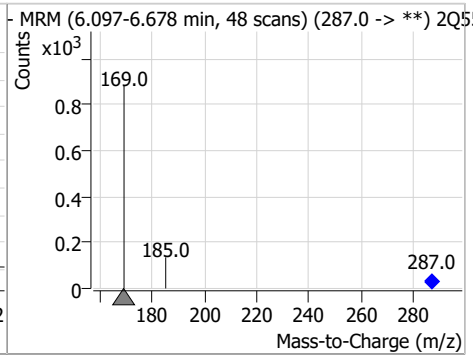




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	11.22	6.27	-0.01	29943				

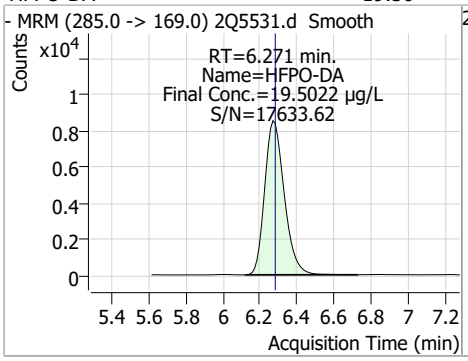


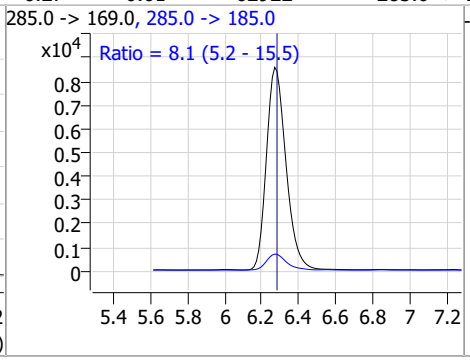


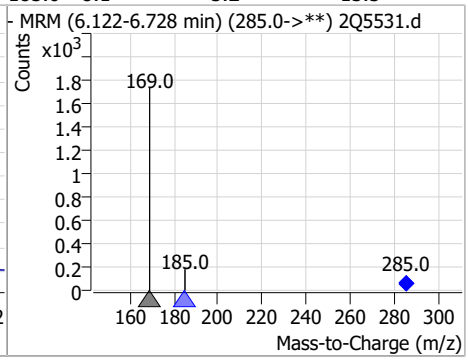


Perfluorinated Compounds by LC/MS/MS

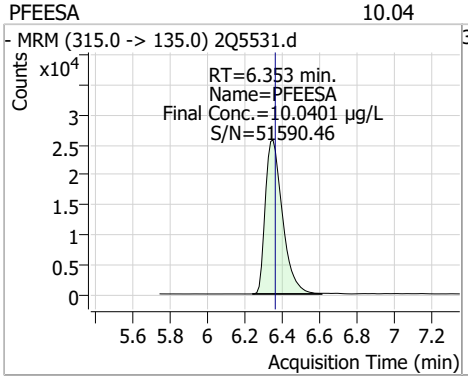
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	19.50	6.27	-0.01	62922	285.0 -> 185.0	8.1	5.2	15.5

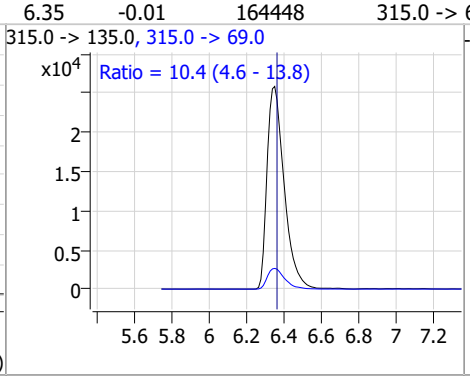


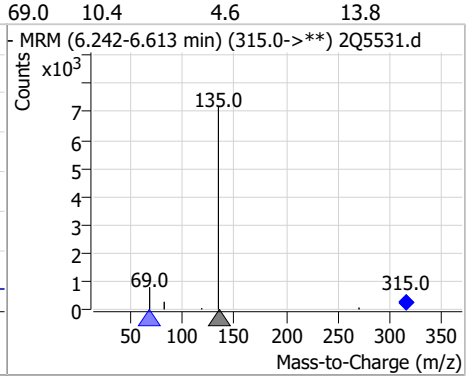




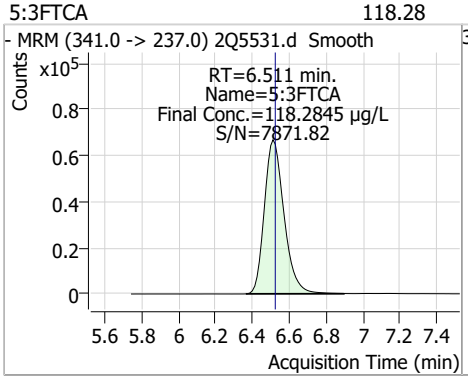
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	10.04	6.35	-0.01	164448	315.0 -> 69.0	10.4	4.6	13.8

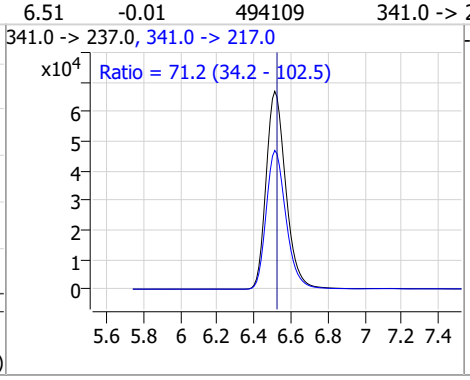


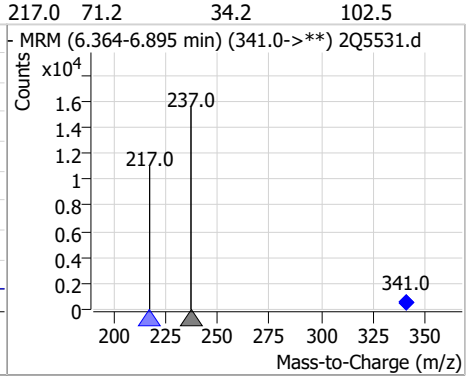




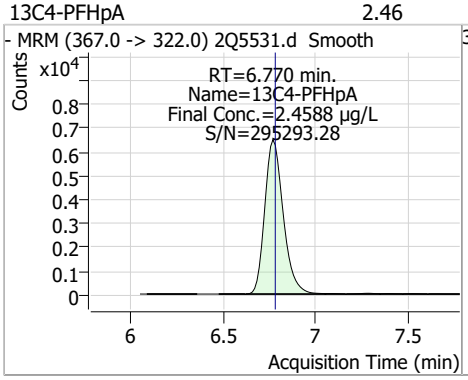
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	118.28	6.51	-0.01	494109	341.0 -> 217.0	71.2	34.2	102.5

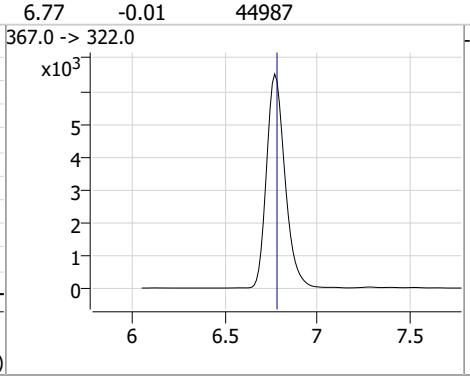


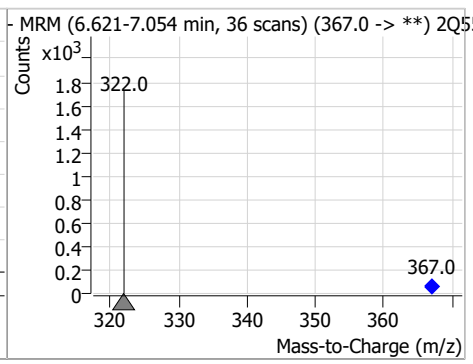




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.46	6.77	-0.01	44987				

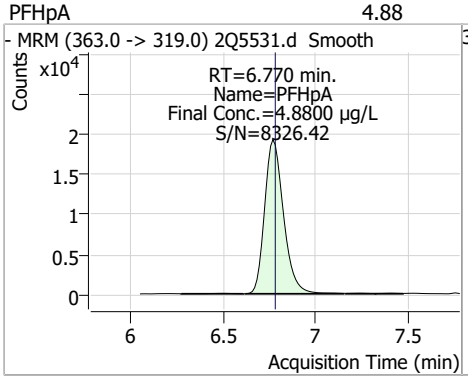


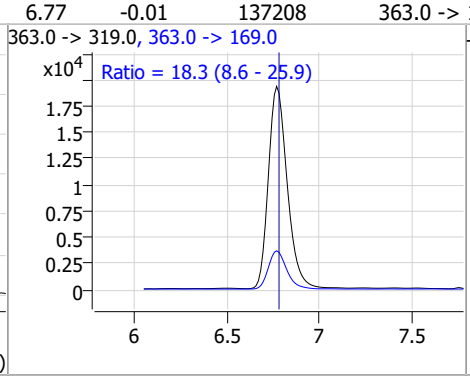


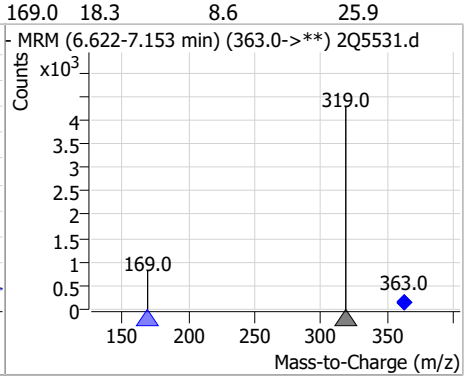


Perfluorinated Compounds by LC/MS/MS

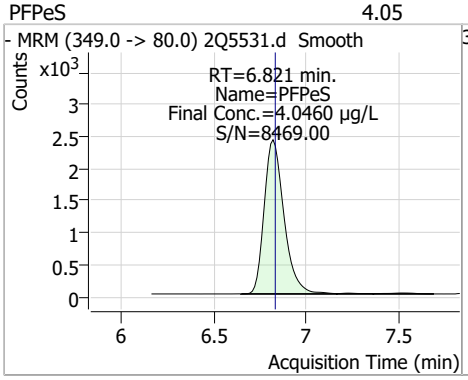
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	4.88	6.77	-0.01	137208	363.0 -> 169.0	18.3	8.6	25.9

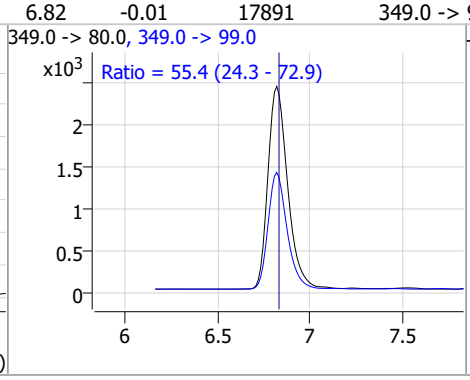


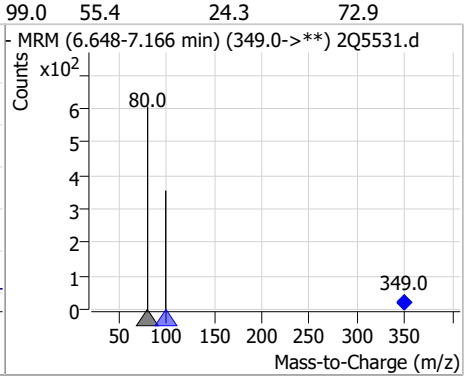




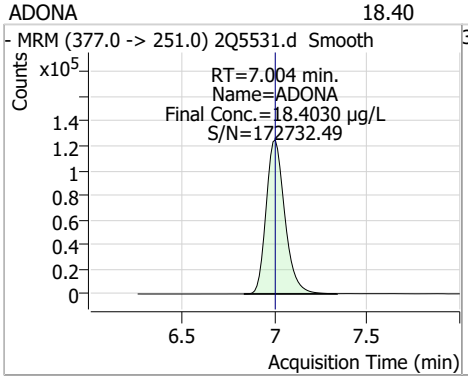
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	4.05	6.82	-0.01	17891	349.0 -> 99.0	55.4	24.3	72.9

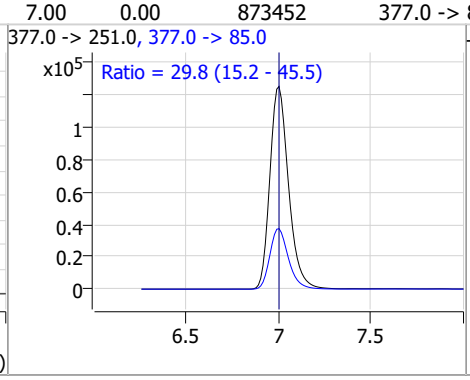


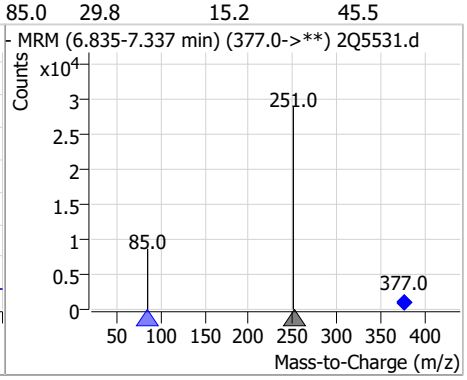




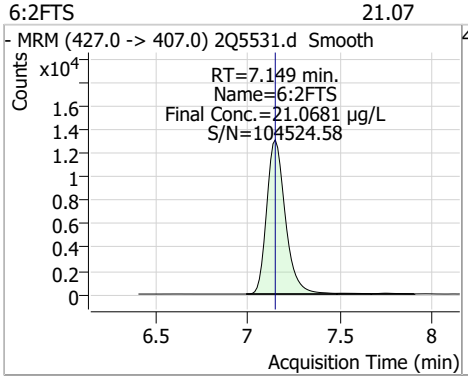
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	18.40	7.00	0.00	873452	377.0 -> 85.0	29.8	15.2	45.5

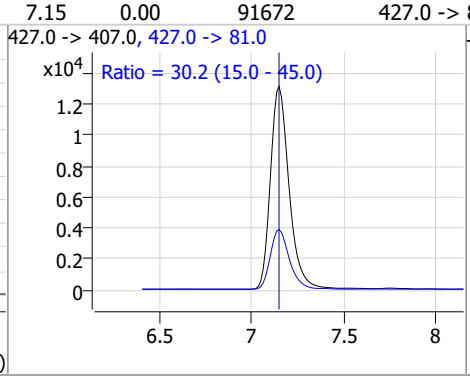


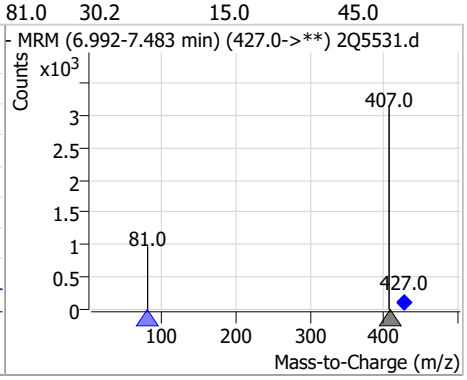




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	21.07	7.15	0.00	91672	427.0 -> 81.0	30.2	15.0	45.0

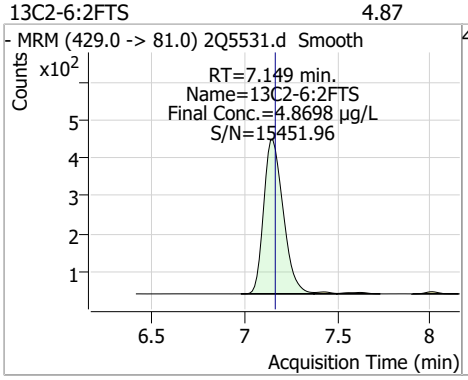


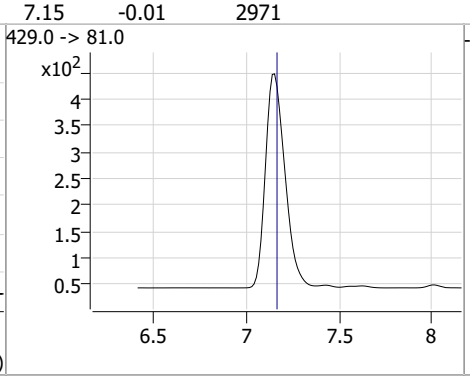


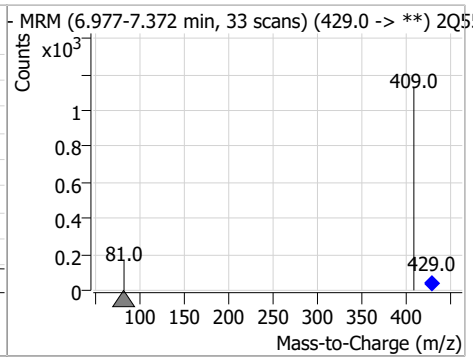


Perfluorinated Compounds by LC/MS/MS

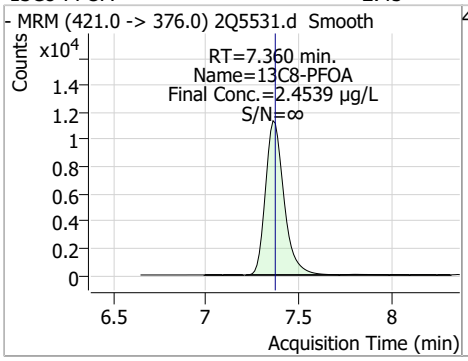
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.87	7.15	-0.01	2971				

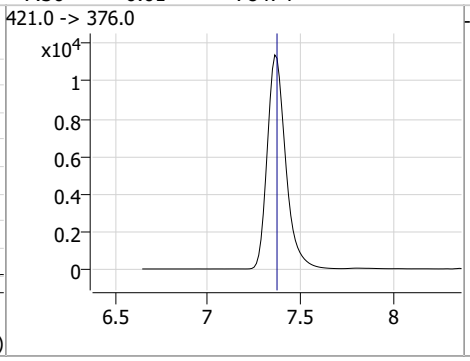


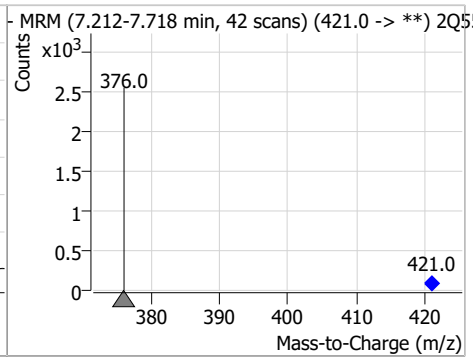




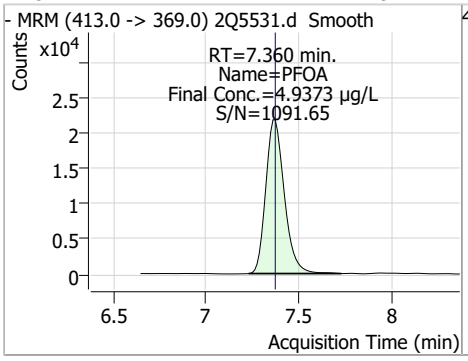
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.45	7.36	-0.01	78474				

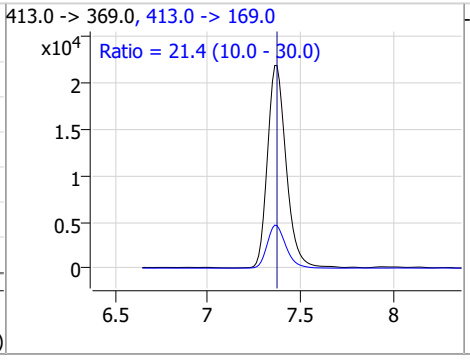


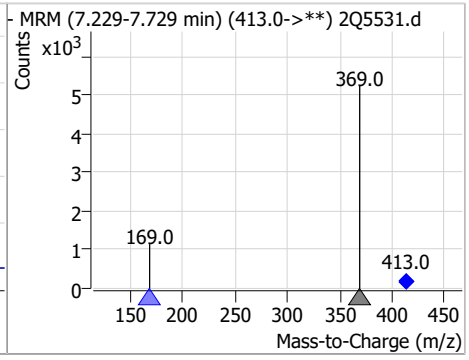




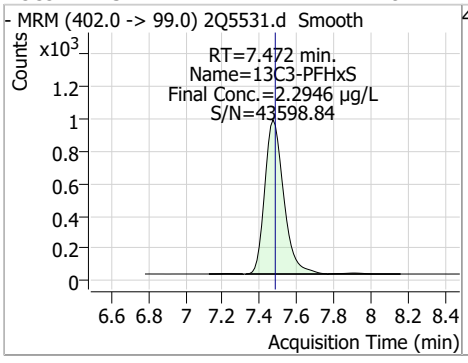
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	4.94	7.36	-0.01	151779	413.0 -> 169.0	21.4	10.0	30.0

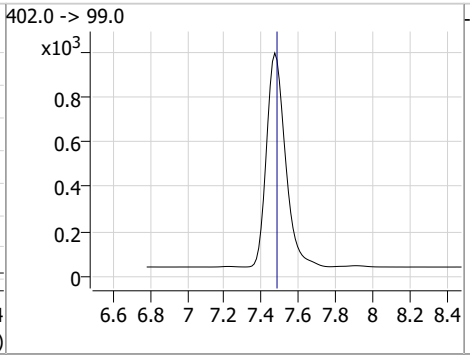


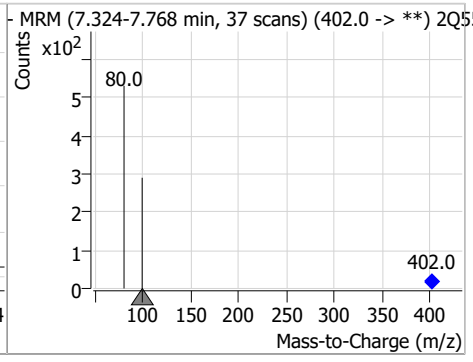




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.29	7.47	-0.01	6747				

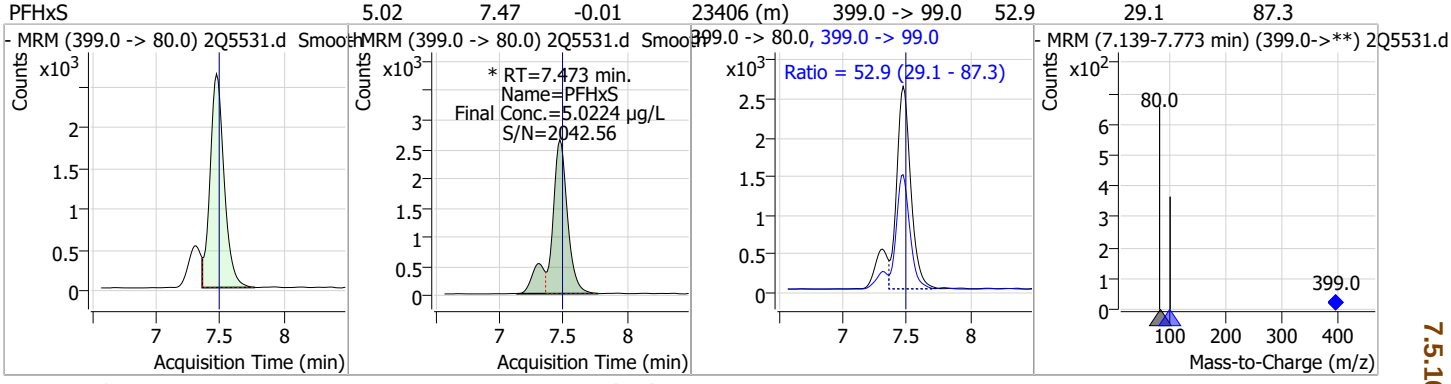




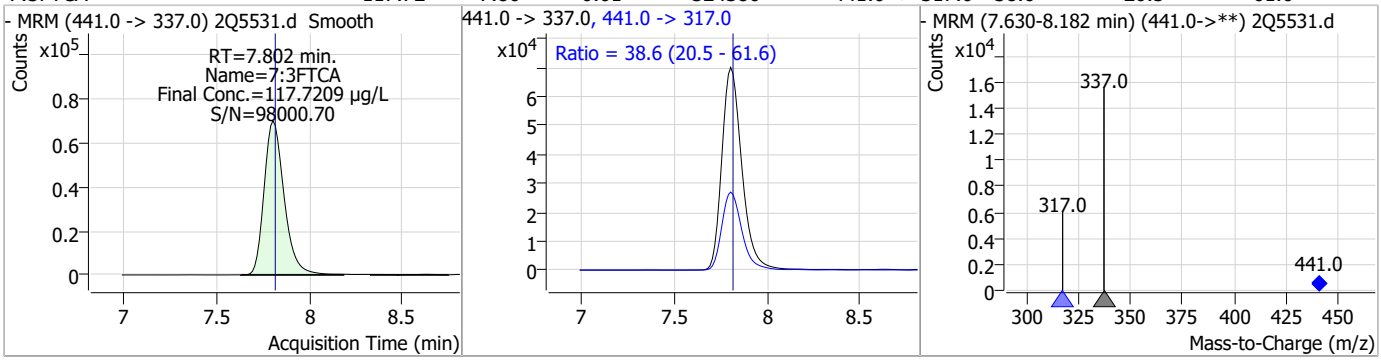


Perfluorinated Compounds by LC/MS/MS

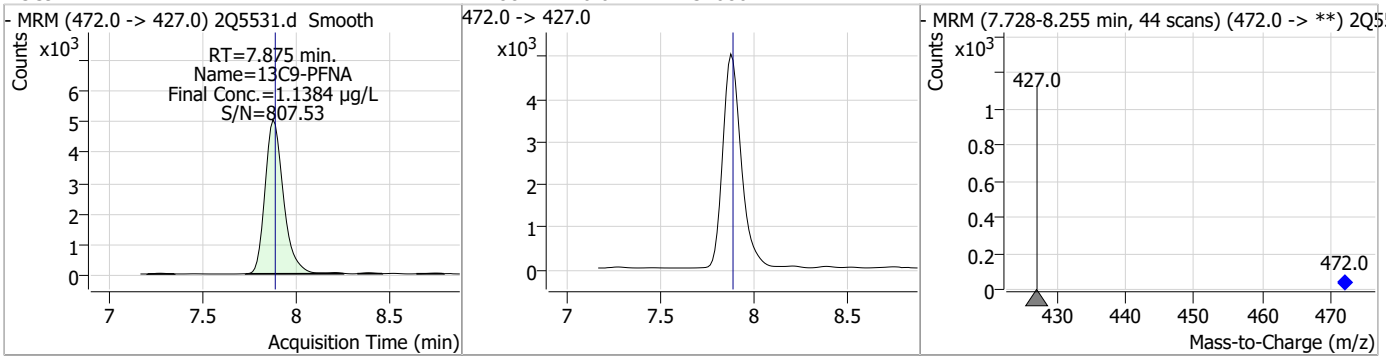
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	5.02	7.47	-0.01	23406 (m)	399.0 -> 99.0	52.9	29.1	87.3



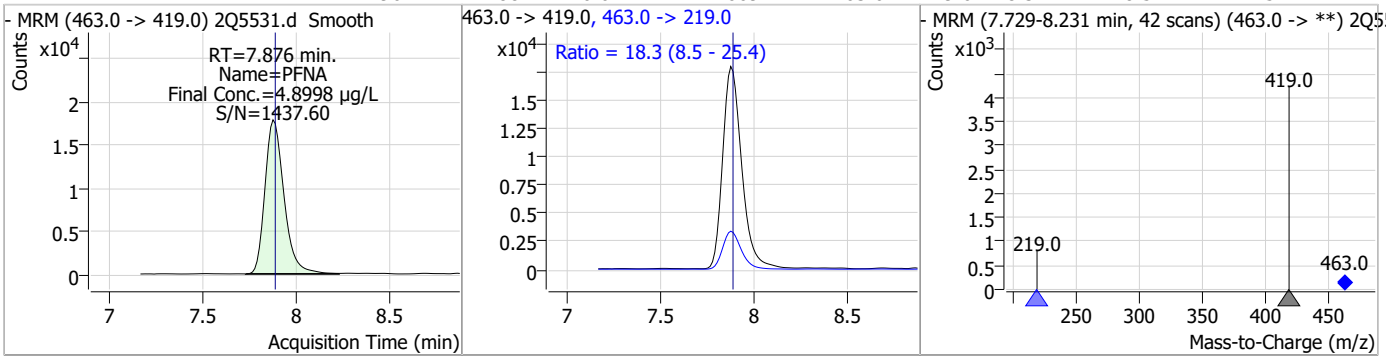
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	117.72	7.80	-0.01	524380	441.0 -> 317.0	38.6	20.5	61.6



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.88	-0.01	34680				

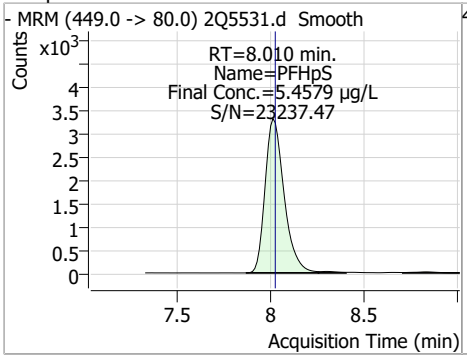


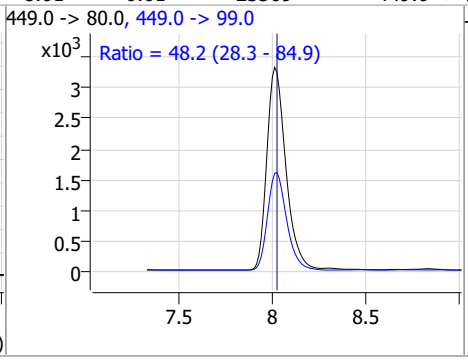
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	4.90	7.88	-0.01	127669	463.0 -> 219.0	18.3	8.5	25.4

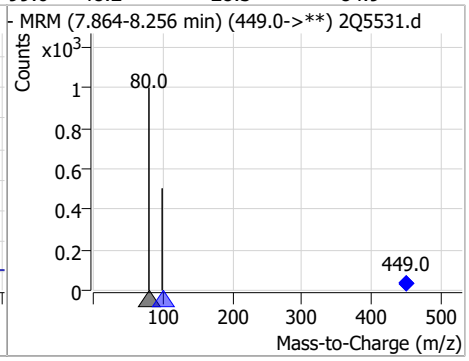


Perfluorinated Compounds by LC/MS/MS

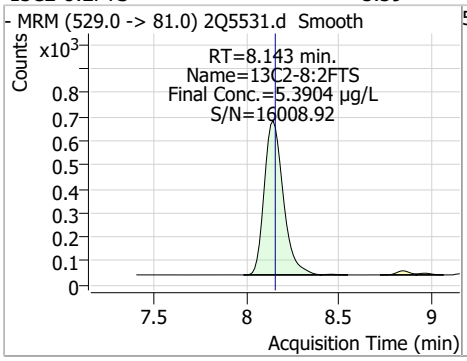
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	5.46	8.01	-0.01	23309	449.0 -> 99.0	48.2	28.3	84.9

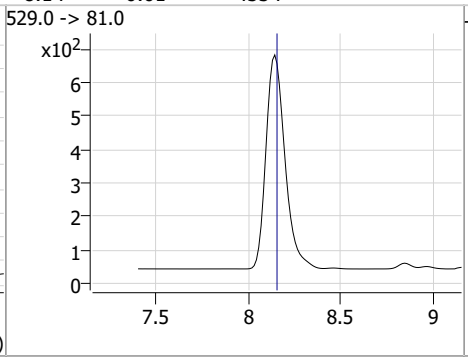


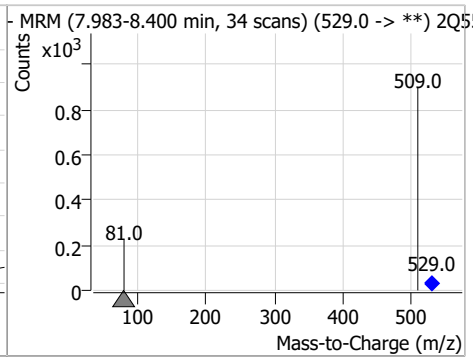




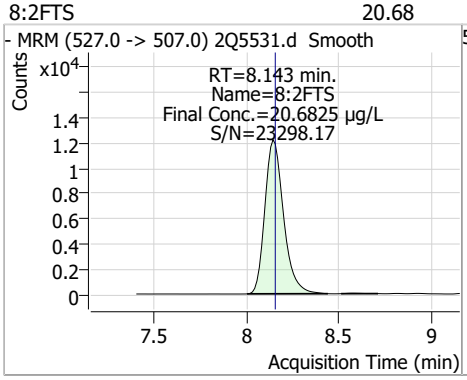
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.39	8.14	-0.01	4554				

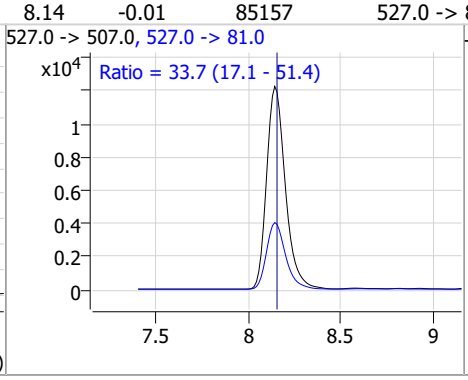


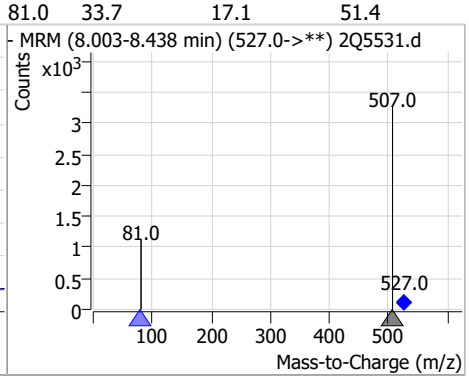




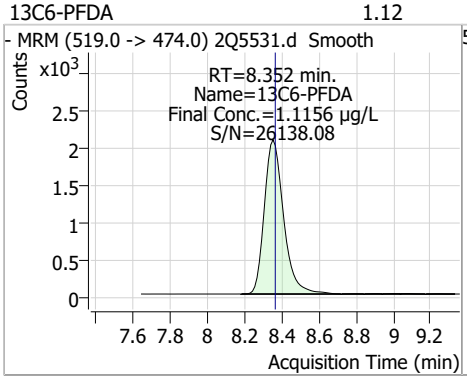
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	20.68	8.14	-0.01	85157	527.0 -> 81.0	33.7	17.1	51.4

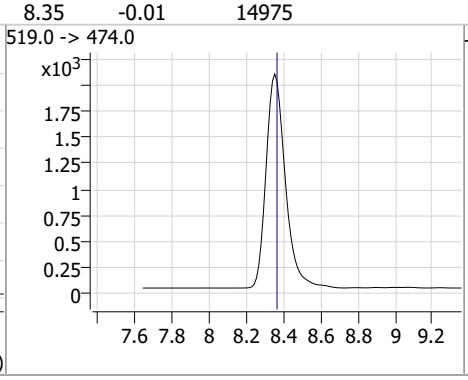


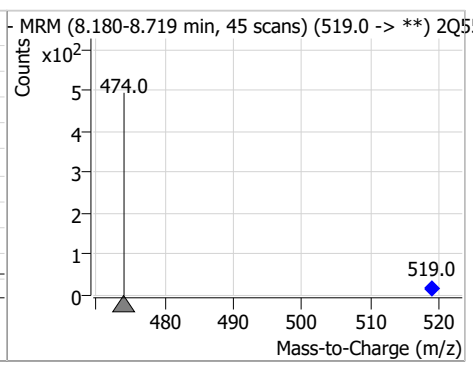




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.12	8.35	-0.01	14975				

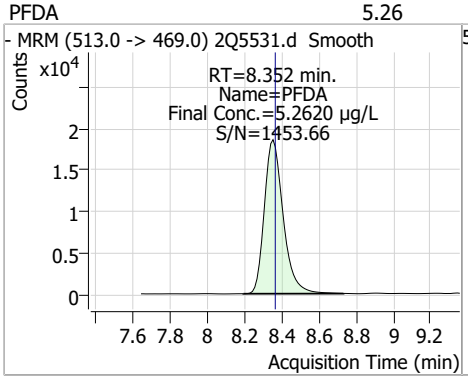


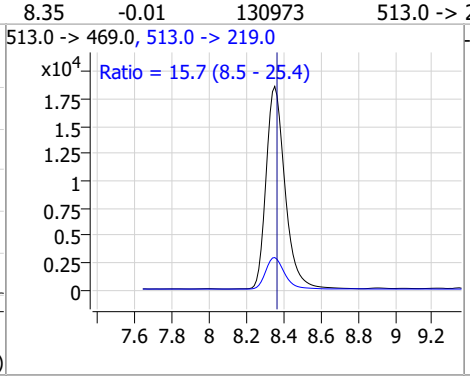


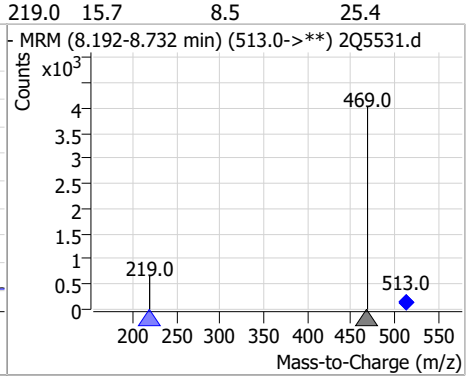


Perfluorinated Compounds by LC/MS/MS

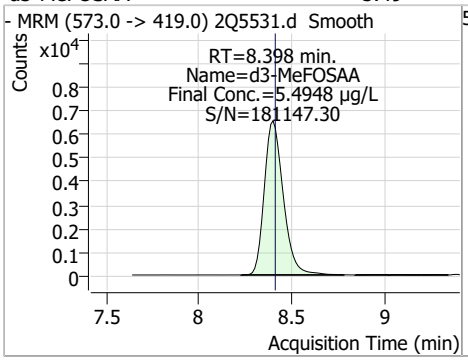
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	5.26	8.35	-0.01	130973	513.0 -> 219.0	15.7	8.5	25.4

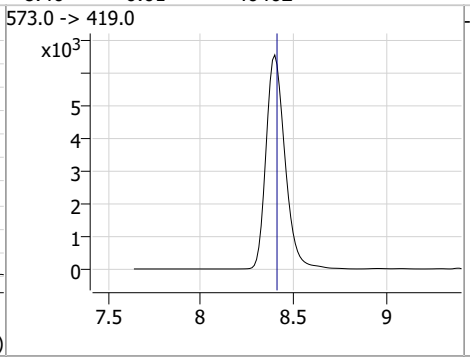


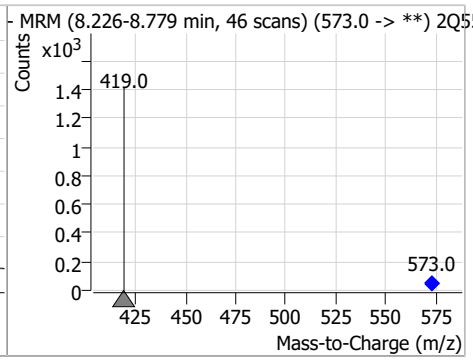




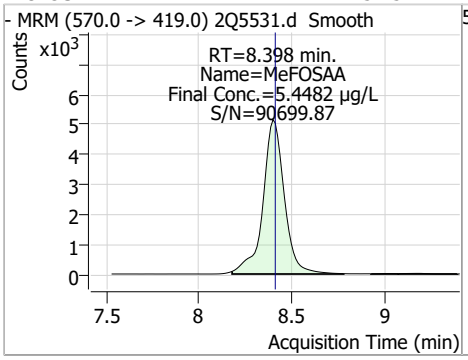
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.49	8.40	-0.01	46462				

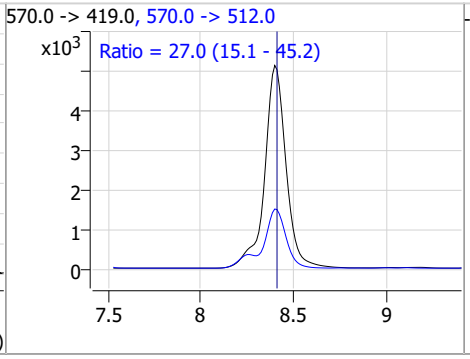


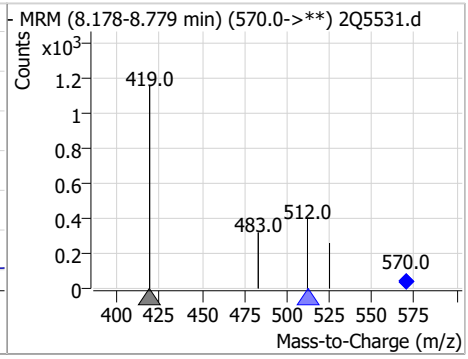




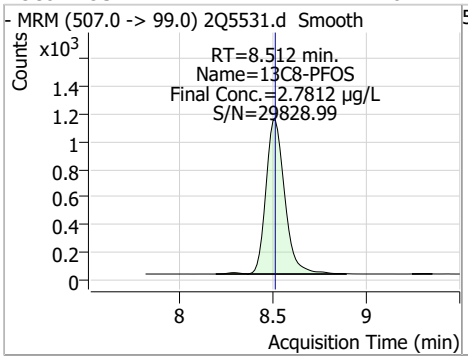
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	5.45	8.40	-0.01	41086	570.0 -> 512.0	27.0	15.1	45.2

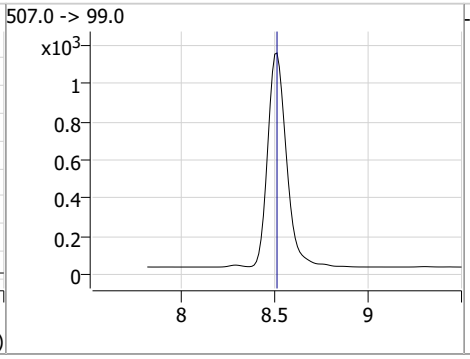


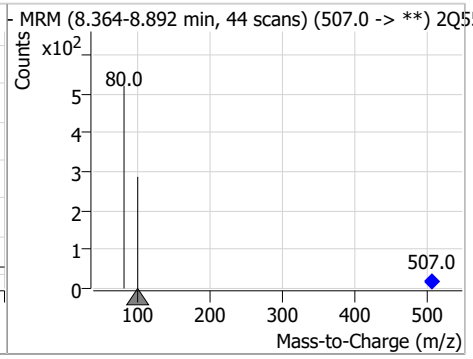




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.78	8.51	0.00	7868				

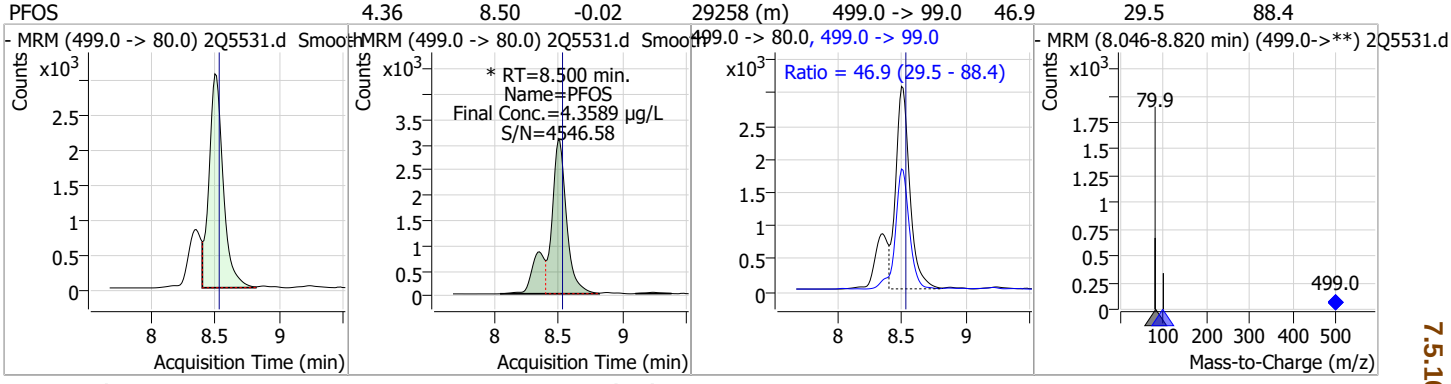




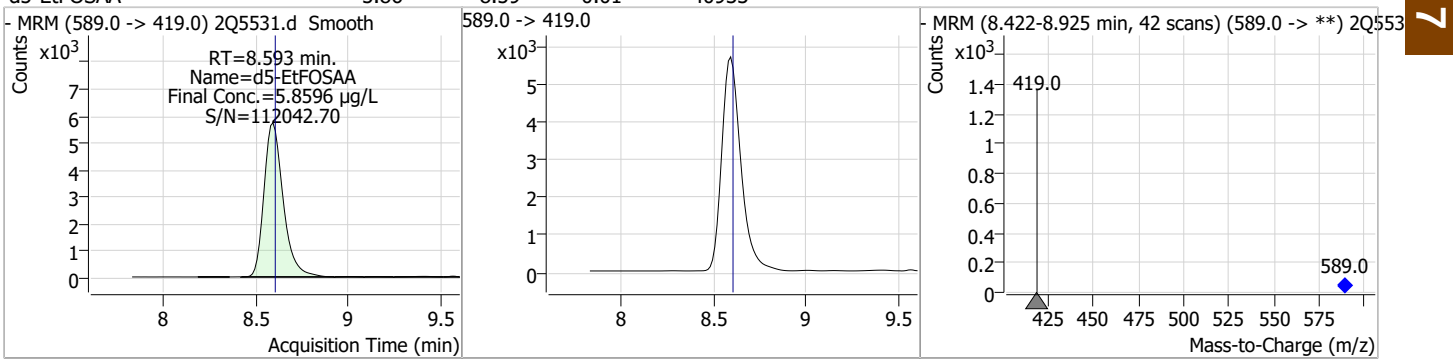


Perfluorinated Compounds by LC/MS/MS

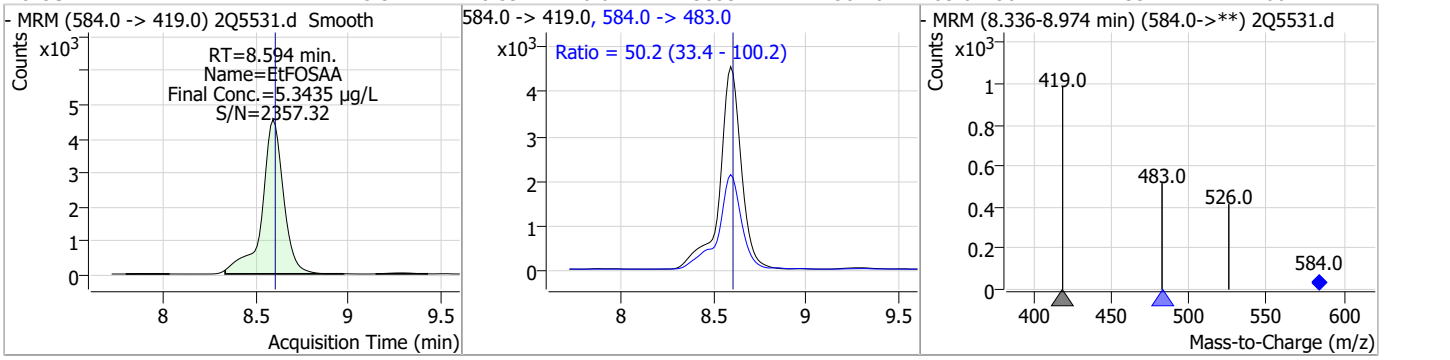
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	4.36	8.50	-0.02	29258 (m)	499.0 -> 99.0	46.9	29.5	88.4



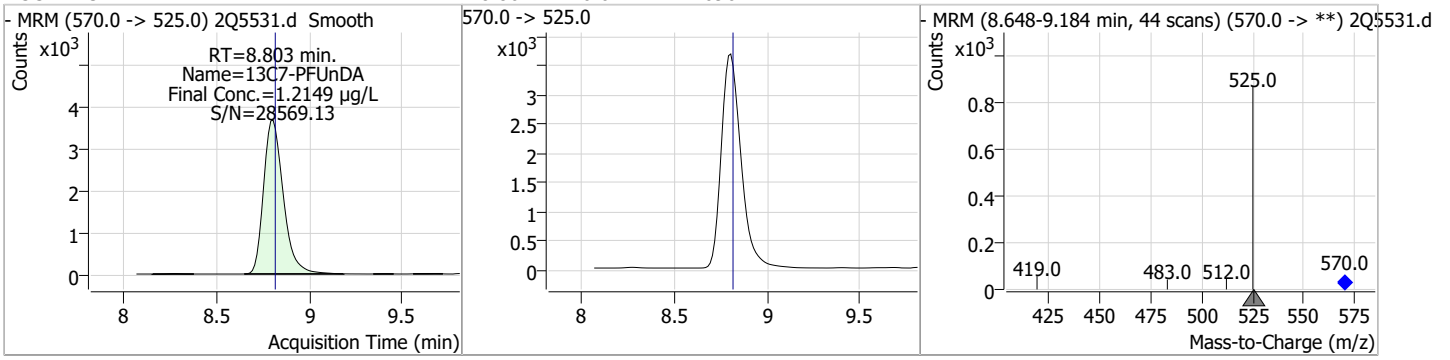
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.86	8.59	-0.01	40933				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	5.34	8.59	-0.01	36534	584.0 -> 483.0	50.2	33.4	100.2

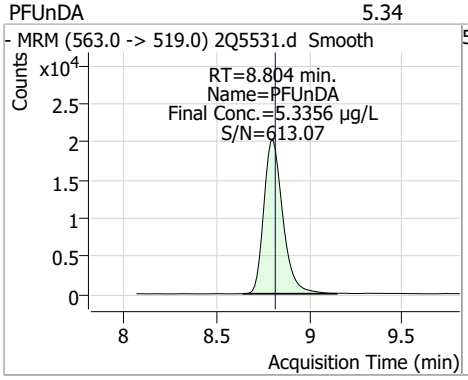


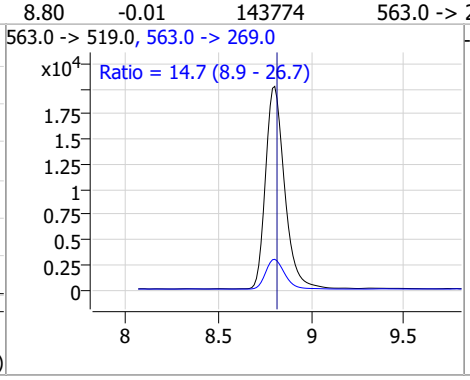
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.21	8.80	-0.01	26904				

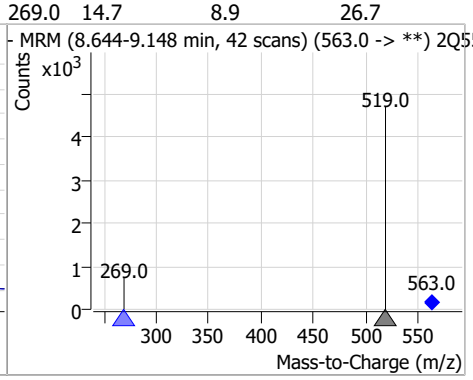


Perfluorinated Compounds by LC/MS/MS

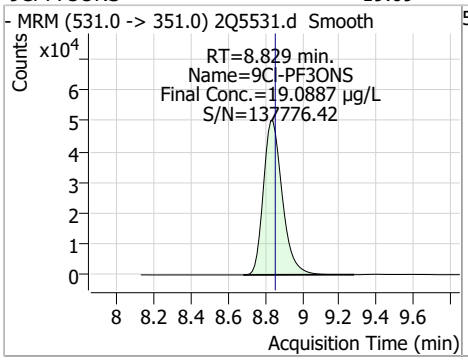
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	5.34	8.80	-0.01	143774	563.0 -> 269.0	14.7	8.9	26.7

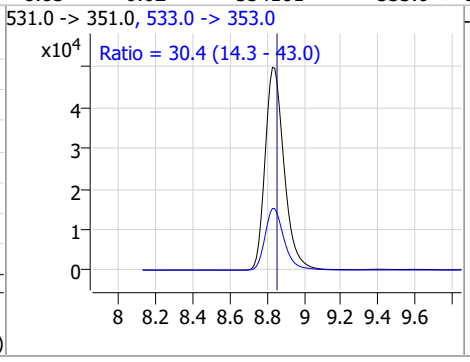


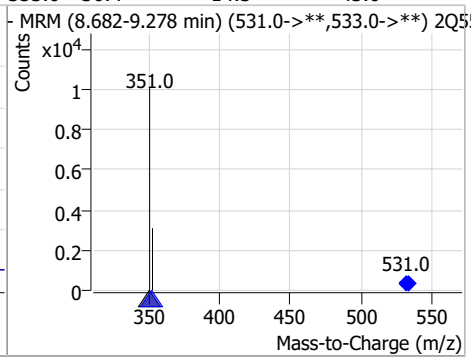




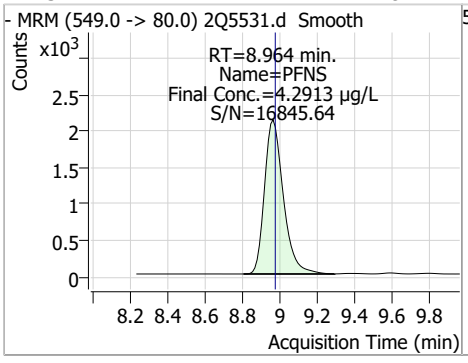
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	19.09	8.83	-0.02	354161	533.0 -> 353.0	30.4	14.3	43.0

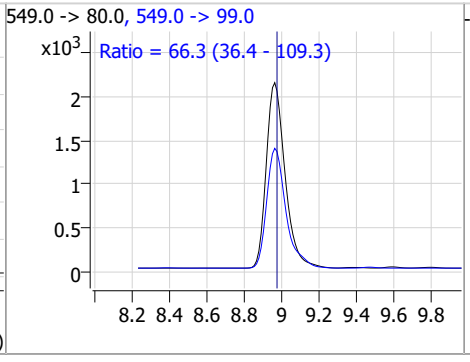


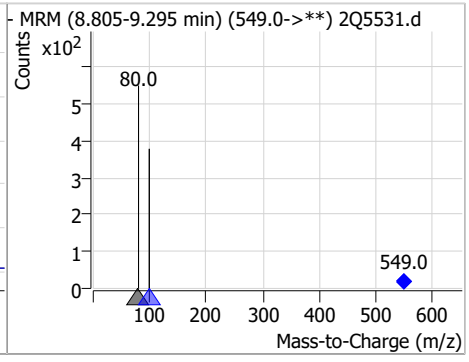




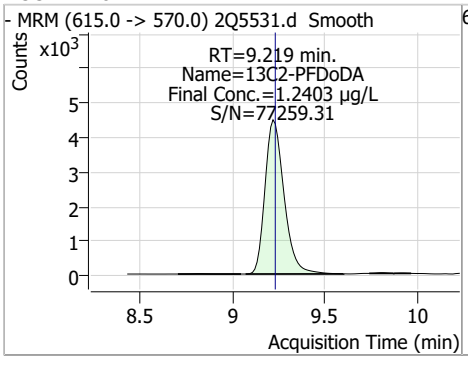
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	4.29	8.96	-0.01	14871	549.0 -> 99.0	66.3	36.4	109.3

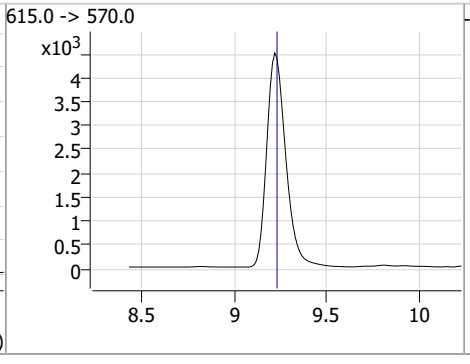


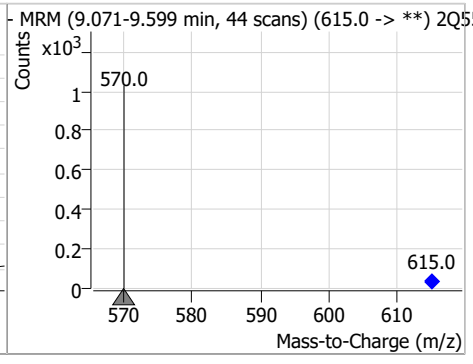




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.24	9.22	-0.01	31838				

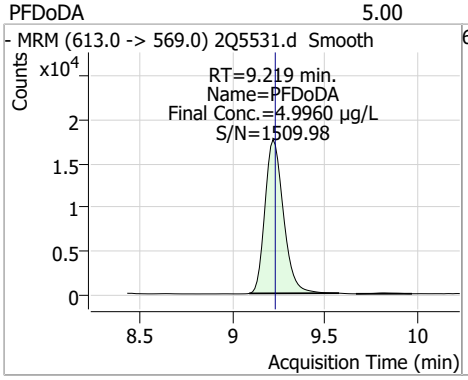


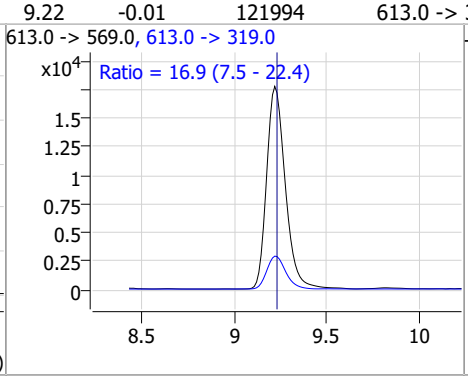


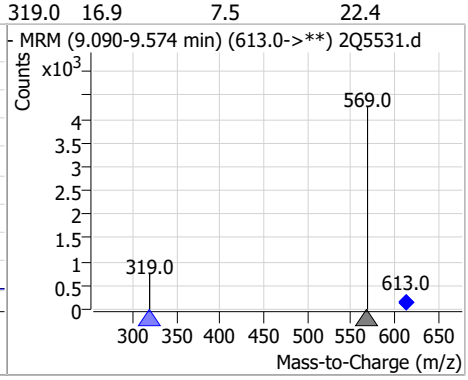


Perfluorinated Compounds by LC/MS/MS

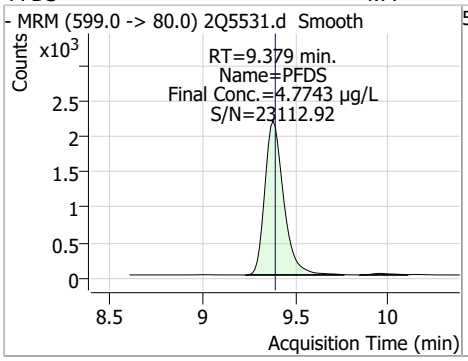
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	5.00	9.22	-0.01	121994	613.0 -> 319.0	16.9	7.5	22.4

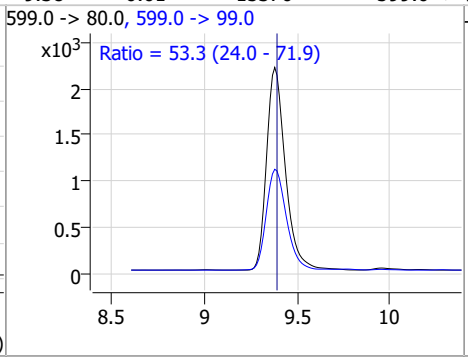


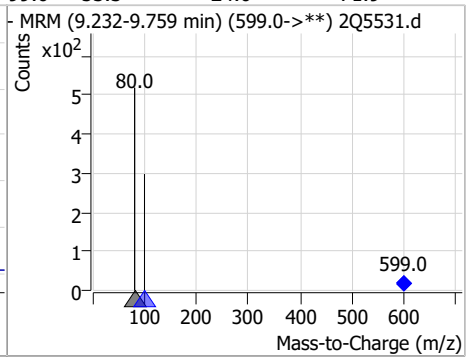




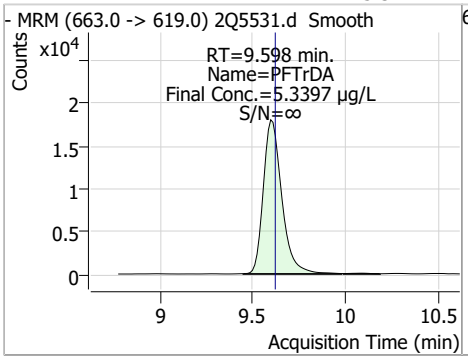
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	4.77	9.38	-0.01	15376	599.0 -> 99.0	53.3	24.0	71.9

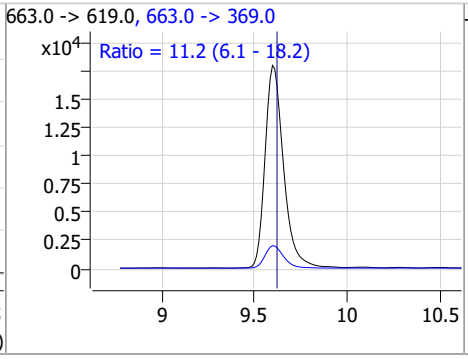


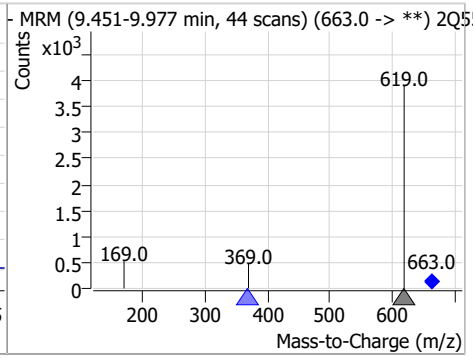




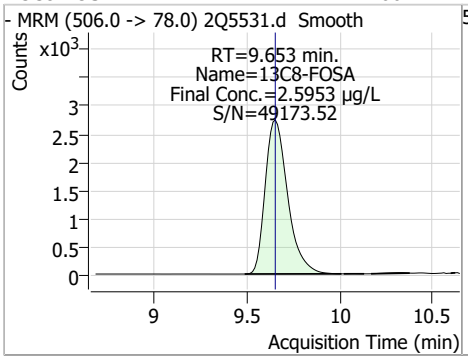
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	5.34	9.60	-0.02	124833	663.0 -> 369.0	11.2	6.1	18.2

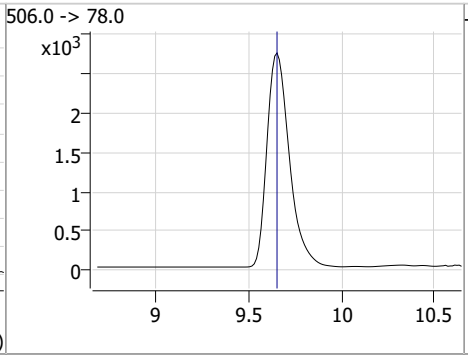


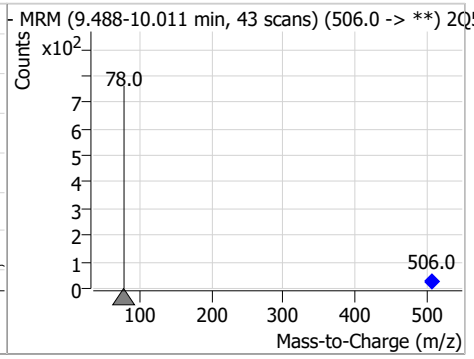




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.60	9.65	0.00	22831				

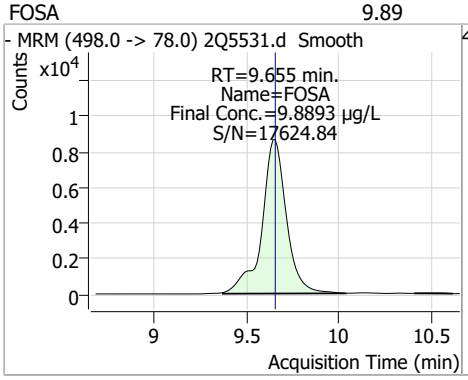


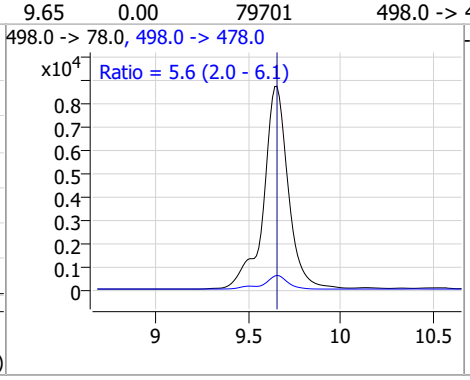


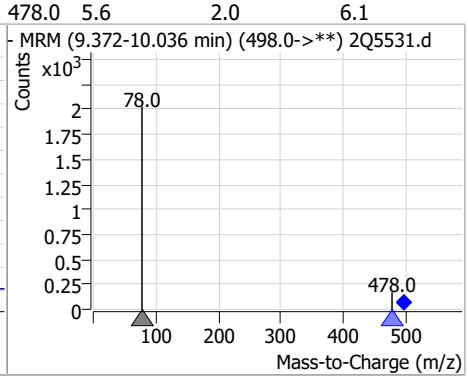


Perfluorinated Compounds by LC/MS/MS

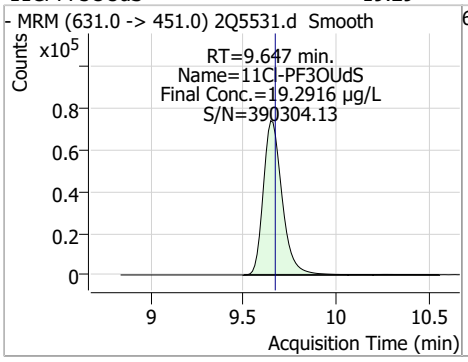
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	9.89	9.65	0.00	79701	498.0 -> 478.0	5.6	2.0	6.1

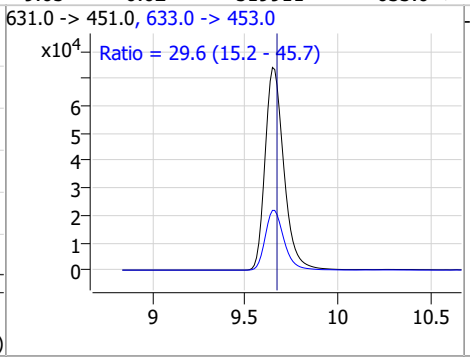


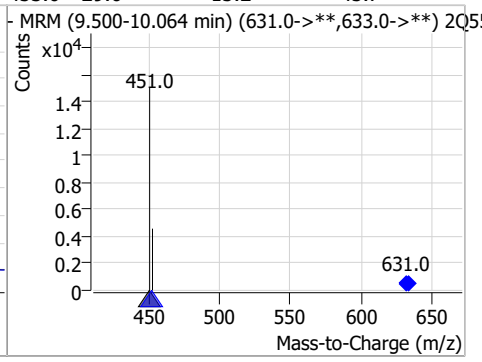




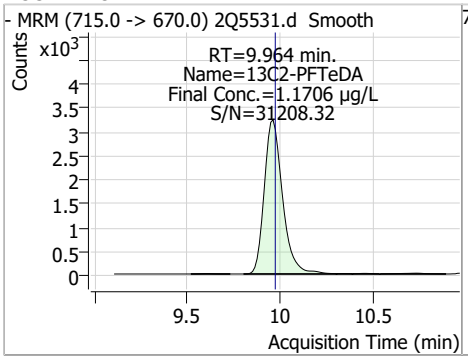
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	19.29	9.65	-0.02	519911	633.0 -> 453.0	29.6	15.2	45.7

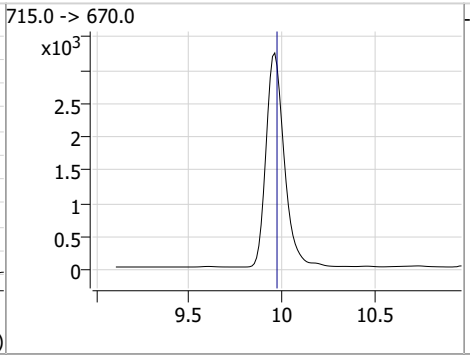


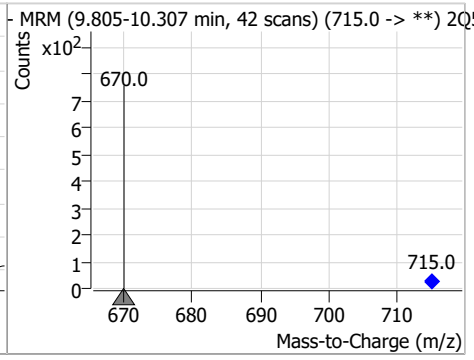




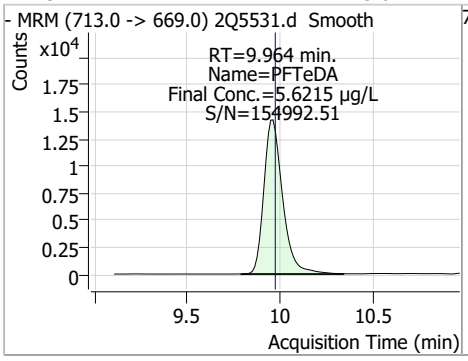
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.17	9.96	-0.01	22038				

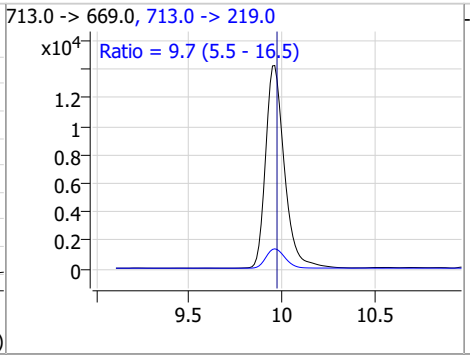


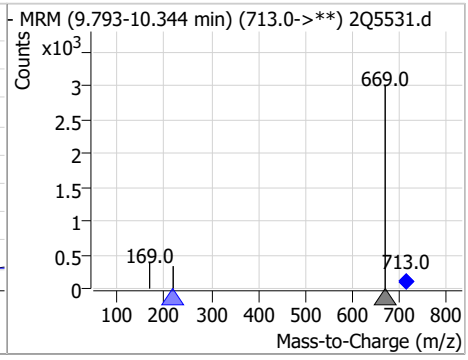




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	5.62	9.96	-0.01	100235	713.0 -> 219.0	9.7	5.5	16.5

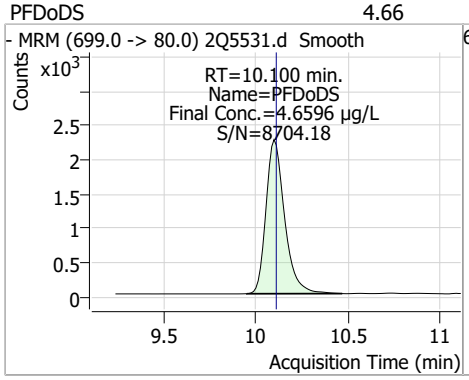


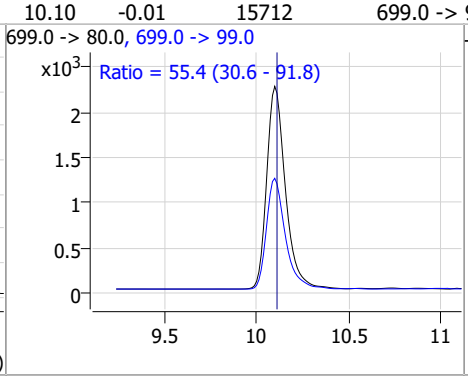


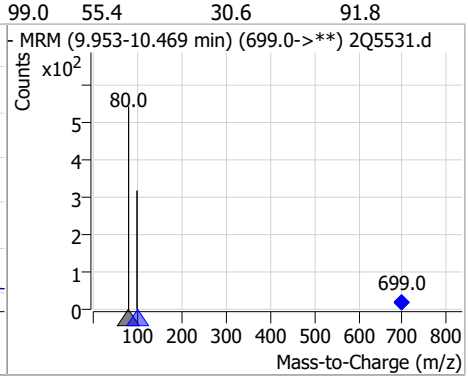


Perfluorinated Compounds by LC/MS/MS

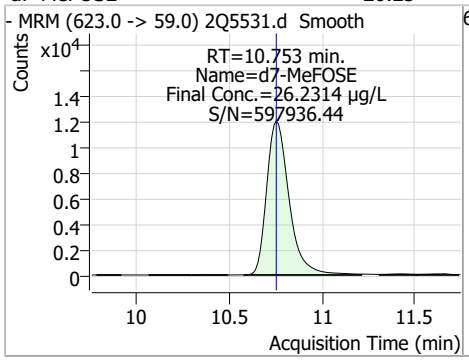
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	4.66	10.10	-0.01	15712	699.0 -> 99.0	55.4	30.6	91.8

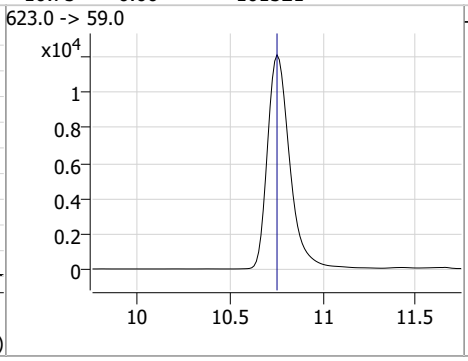


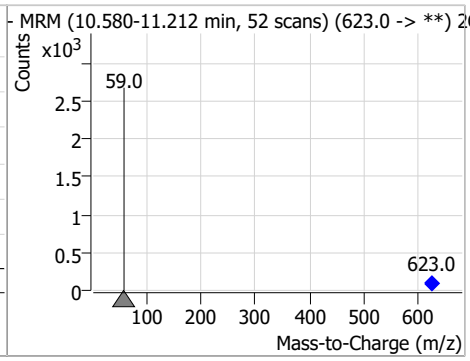




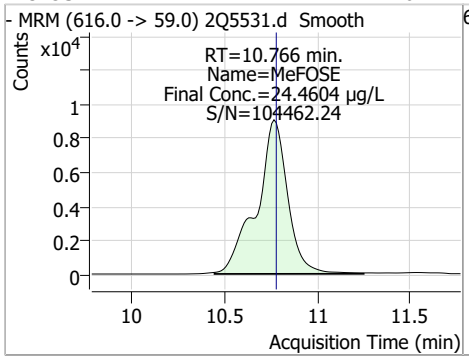
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	26.23	10.75	0.00	101521				

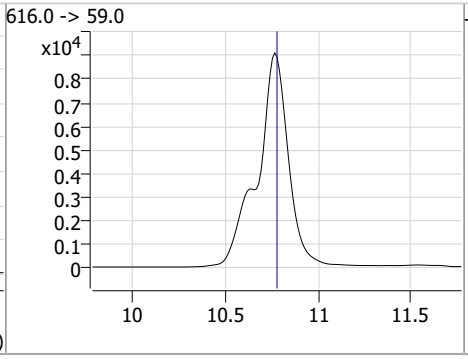


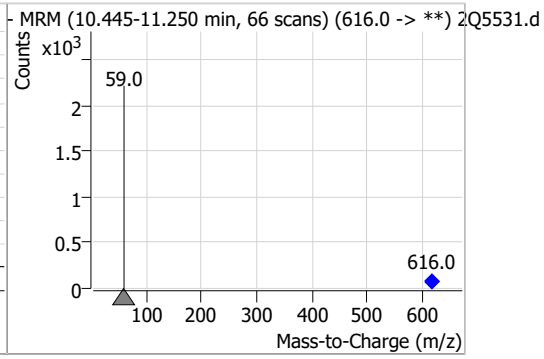




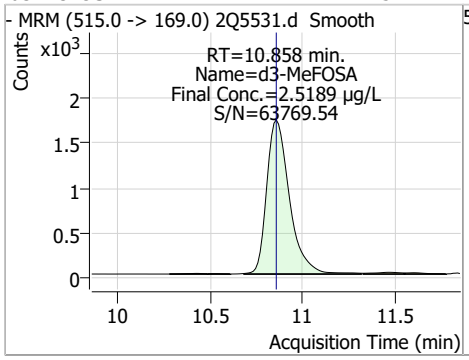
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	24.46	10.77	-0.01	106194				

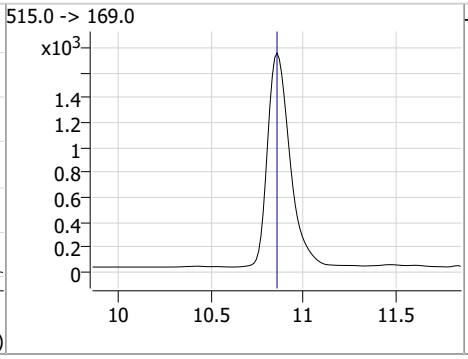


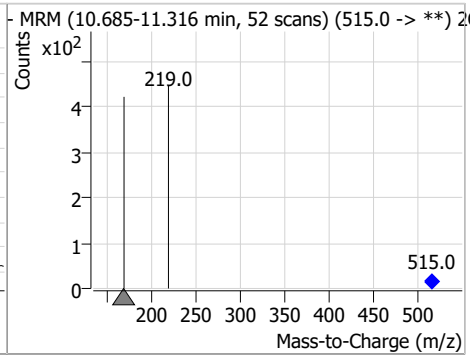




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.52	10.86	0.00	14659				

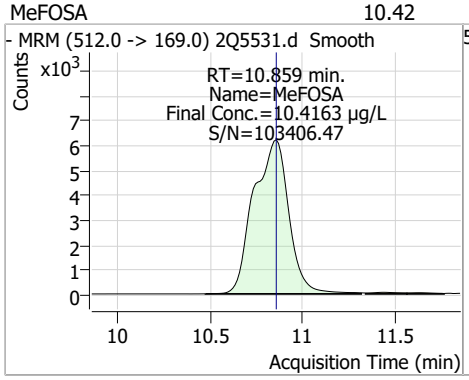


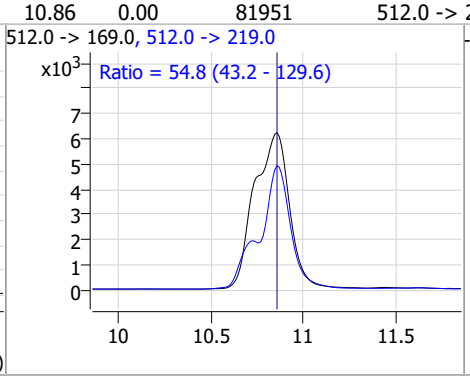


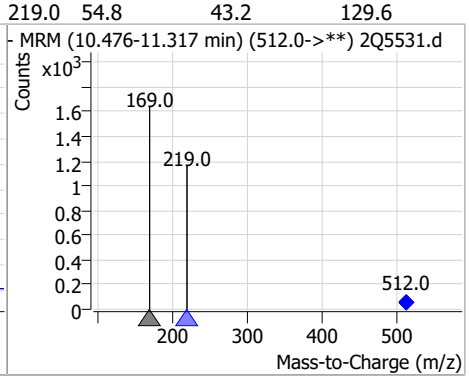


Perfluorinated Compounds by LC/MS/MS

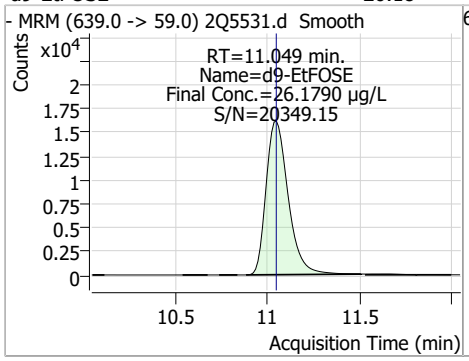
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	10.42	10.86	0.00	81951	512.0 -> 219.0	54.8	43.2	129.6

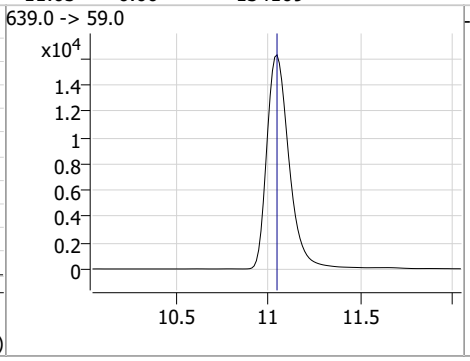


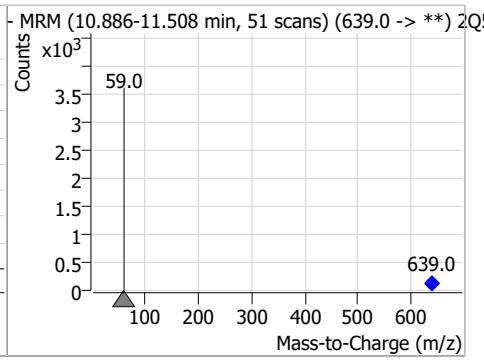




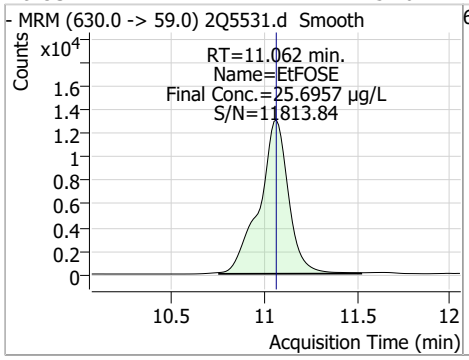
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	26.18	11.05	0.00	134169				

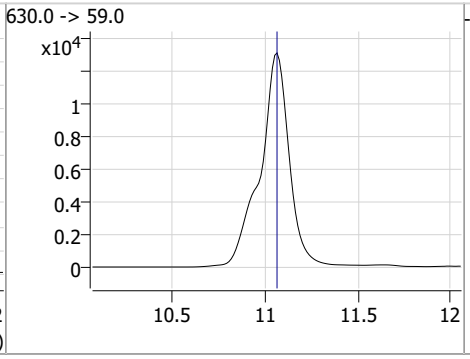


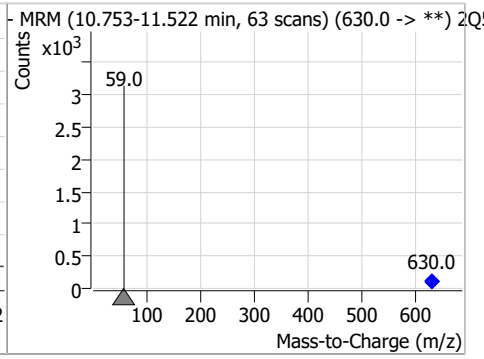




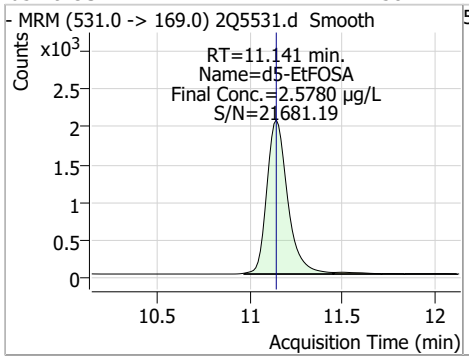
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	25.70	11.06	0.00	144128				

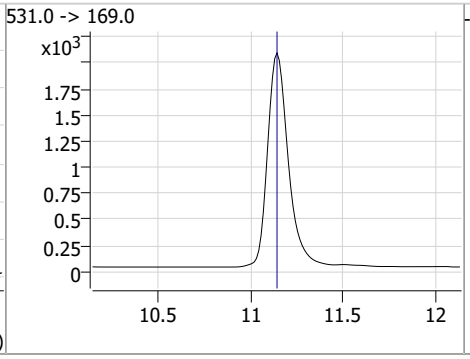


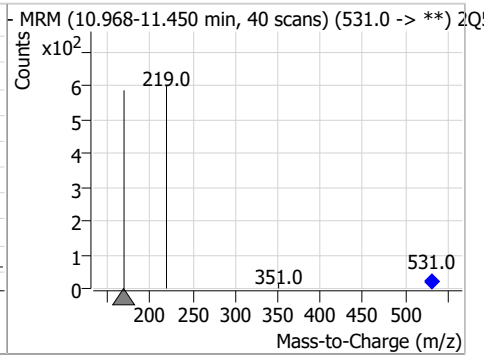




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.58	11.14	0.00	16085				

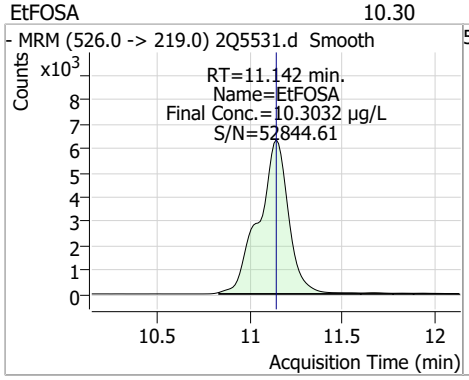


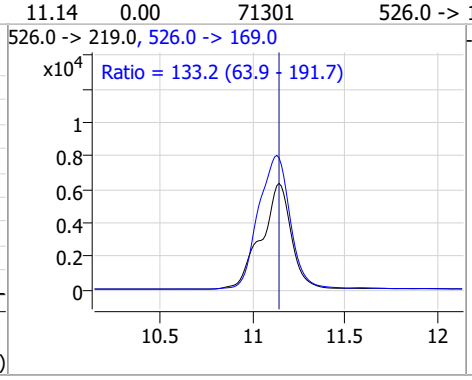


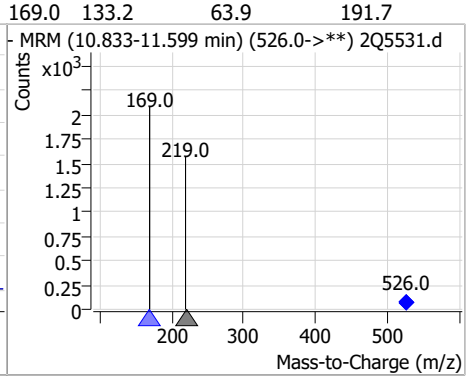


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	10.30	11.14	0.00	71301	526.0 -> 169.0	133.2	63.9	191.7







Manual Integration Approval Summary

Sample Number: T2Q97-CC96
Lab FileID: 2Q5531.D
Injection Time: 12/05/23 18:32
Method: EPA DRAFT 1633
Analyst approved: 12/06/23 17:45 Paul Czajak
Supervisor approved: 12/06/23 18:14 Raj Kamal Singh

Parameter	CAS	Sig#	R.T. (min.)	Reason
Perfluorohexanesulfonic acid	355-46-4		7.47	Split peak
Perfluorooctanesulfonic acid	1763-23-1		8.50	Split peak

Perfluorinated Compounds by LC/MS/MS

Data File	:	2Q5547.d
Operator	:	paulc2
Acq. Method	:	1633_aquisition.m
Acq. Date-Time	:	12/5/2023 10:36:13 PM
Sample Name	:	cc96-4
Vial	:	P1-A5
DA Method File	:	T2Q96.batch.bin
Batch Name	:	T2Q97.batch.bin
Sample Information	:	OP50890,T2Q97,500,,,5,1,water

Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
Internal Standards						
M4-PFBA	3.339	217.0 -> 172.0	178923	10.00	µg/L	0.012
M5-PFPeA	4.798	268.0 -> 223.0	109945	5.00	µg/L	0.000
M5-PFHxA	5.930	318.0 -> 273.0	57597	1.25	µg/L	-0.012
M4-PFHpA	6.770	367.0 -> 322.0	47703	2.50	µg/L	-0.013
M8-PFOA	7.360	421.0 -> 376.0	80275	2.50	µg/L	-0.012
M9-PFNA	7.875	472.0 -> 427.0	37192	1.25	µg/L	-0.012
M6-PFDA	8.352	519.0 -> 474.0	14402	1.25	µg/L	-0.012
M7-PFUnDA	8.791	570.0 -> 525.0	28859	1.25	µg/L	-0.024
M2-PFDoDA	9.219	615.0 -> 570.0	30593	1.25	µg/L	-0.012
M2-PFTeDA	9.952	715.0 -> 670.0	21783	1.25	µg/L	-0.024
M8-FOSA	9.653	506.0 -> 78.0	22724	2.50	µg/L	0.000
M3-PFBS	5.846	302.0 -> 99.0	7137	2.50	µg/L	-0.012
		302.0 -> 80.0	16957			
M3-PFHxS	7.484	402.0 -> 99.0	6772	2.50	µg/L	0.000
M8-PFOS	8.499	507.0 -> 99.0	6780	2.50	µg/L	-0.012
M2-4:2FTS	5.619	329.0 -> 81.0	1572	5.00	µg/L	-0.012
M2-6:2FTS	7.149	429.0 -> 81.0	3044	5.00	µg/L	-0.013
M2-8:2FTS	8.143	529.0 -> 81.0	4978	5.00	µg/L	-0.012
M3-MeFOSAA	8.398	573.0 -> 419.0	48037	5.00	µg/L	-0.012
M3-HFPO-DA	6.270	287.0 -> 169.0	30229	10.00	µg/L	-0.012
M5-EtFOSAA	8.593	589.0 -> 419.0	40757	5.00	µg/L	-0.013
M7-MeFOSE	10.753	623.0 -> 59.0	98951	25.00	µg/L	0.000
M9-EtFOSE	11.049	639.0 -> 59.0	131720	25.00	µg/L	0.000
M5-EtFOSA	11.141	531.0 -> 169.0	16555	2.50	µg/L	0.000
M3-MeFOSA	10.858	515.0 -> 169.0	14234	2.50	µg/L	0.000
13C4-PFOS	8.500	503.0 -> 80.0	13414	2.50	µg/L	-0.012
13C3-PFBA	3.330	216.0 -> 172.0	79495	5.00	µg/L	0.000
18O2-PFHxS	7.472	403.0 -> 84.0	7666	2.50	µg/L	-0.012
13C4-PFOA	7.372	417.0 -> 372.0	78863	2.50	µg/L	0.000
13C2-PFDA	8.352	515.0 -> 470.0	31792	1.25	µg/L	-0.012
13C5-PFNA	7.875	468.0 -> 423.0	41793	1.25	µg/L	-0.012
13C2-PFHxA	5.930	315.0 -> 270.0	57466	2.50	µg/L	-0.012
System Monitoring Compounds						
13C2-4:2FTS	5.619	329.0 -> 81.0	1572	5.61	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 112.3%		
13C2-6:2FTS	7.149	429.0 -> 81.0	3044	4.91	µg/L	-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 98.1%		
13C2-8:2FTS	8.143	529.0 -> 81.0	4978	5.79	µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 115.9%		
13C2-PFDoDA	9.219	615.0 -> 570.0	30593	1.21	µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 96.4%		
13C2-PFTeDA	9.952	715.0 -> 670.0	21783	1.17	µg/L	-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 93.6%		
13C3-PFBS	5.846	302.0 -> 99.0	7137	2.50	µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.2%		

Perfluorinated Compounds by LC/MS/MS

Compound	RT	Transition	Response	Conc. Units	Dev(Min)
13C3-PFHxS	7.484	402.0 -> 99.0	6772	2.26 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 90.6%	
13C4-PFBA	3.339	217.0 -> 172.0	178923	10.00 µg/L	0.012
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 100.0%	
13C4-PFHpA	6.770	367.0 -> 322.0	47703	2.55 µg/L	-0.013
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.2%	
13C5-PFHxA	5.930	318.0 -> 273.0	57597	2.41 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 96.5%	
13C5-PFPeA	4.798	268.0 -> 223.0	109945	5.10 µg/L	0.000
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 102.1%	
13C6-PFDA	8.352	519.0 -> 474.0	14402	1.09 µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 86.8%	
13C7-PFUnDA	8.791	570.0 -> 525.0	28859	1.32 µg/L	-0.024
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 105.5%	
13C8-FOSA	9.653	506.0 -> 78.0	22724	2.50 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 100.1%	
13C8-PFOA	7.360	421.0 -> 376.0	80275	2.46 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 98.3%	
13C8-PFOS	8.499	507.0 -> 99.0	6780	2.32 µg/L	-0.012
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 92.8%	
13C9-PFNA	7.875	472.0 -> 427.0	37192	1.14 µg/L	-0.012
Spiked Amount: 1.25	Range: 70.0 - 130.0%			Recovery = 91.0%	
d3-MeFOSAA	8.398	573.0 -> 419.0	48037	5.50 µg/L	-0.012
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 110.0%	
13C3-HFPO-DA	6.270	287.0 -> 169.0	30229	11.09 µg/L	-0.012
Spiked Amount: 10.00	Range: 70.0 - 130.0%			Recovery = 110.9%	
d3-MeFOSA	10.858	515.0 -> 169.0	14234	2.37 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 94.7%	
d5-EtFOSAA	8.593	589.0 -> 419.0	40757	5.65 µg/L	-0.013
Spiked Amount: 5.00	Range: 70.0 - 130.0%			Recovery = 113.0%	
d7-MeFOSE	10.753	623.0 -> 59.0	98951	24.76 µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 99.0%	
d9-EtFOSE	11.049	639.0 -> 59.0	131720	24.89 µg/L	0.000
Spiked Amount: 25.00	Range: 70.0 - 130.0%			Recovery = 99.6%	
d5-EtFOSA	11.141	531.0 -> 169.0	16555	2.57 µg/L	0.000
Spiked Amount: 2.50	Range: 70.0 - 130.0%			Recovery = 102.8%	
Target Compounds					QValue
4:2FTS	5.619	327.0 -> 307.0	23801	9.10 µg/L	93
		327.0 -> 81.0	12968		
6:2FTS	7.149	427.0 -> 407.0	43851	9.84 µg/L	99
		427.0 -> 81.0	13509		
8:2FTS	8.143	527.0 -> 507.0	43145	9.59 µg/L	96
		527.0 -> 81.0	13739		
EtFOSAA	8.594	584.0 -> 419.0	17472	2.57 µg/L	72
		584.0 -> 483.0	7746		
FOSA	9.643	498.0 -> 78.0	35867	4.47 µg/L	96
		498.0 -> 478.0	1987		
MeFOSAA	8.398	570.0 -> 419.0	21032	2.73 µg/L	99
		570.0 -> 512.0	6253		
PFBA	3.333	213.0 -> 169.0	44432	9.89 µg/L	100
PFBS	5.847	299.0 -> 80.0	16910	2.27 µg/L	96
		299.0 -> 99.0	7416		
PFDA	8.352	513.0 -> 469.0	64572	2.71 µg/L	96
		513.0 -> 219.0	9756		
PFDoDA	9.219	613.0 -> 569.0	59635	2.54 µg/L	95
		613.0 -> 319.0	10177		

Perfluorinated Compounds by LC/MS/MS

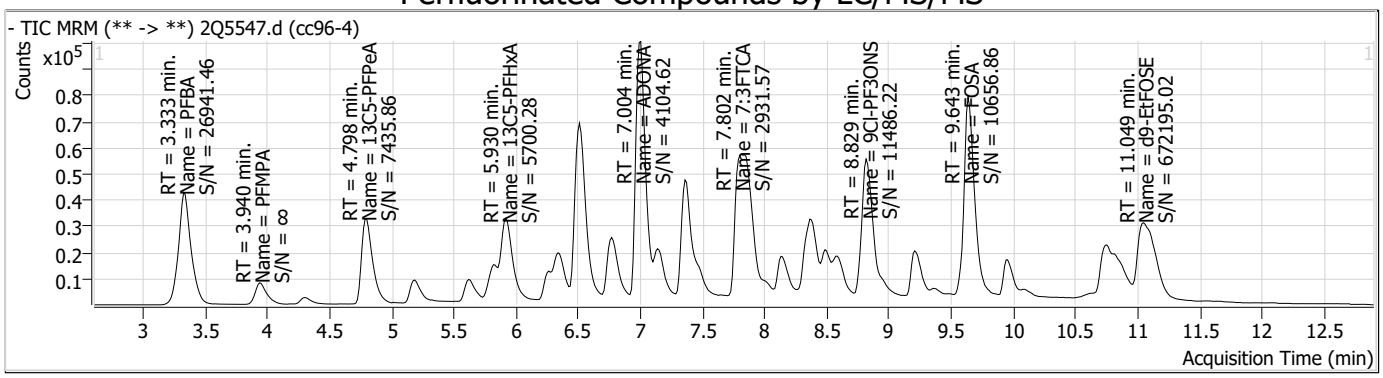
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)
PFDS	9.379	599.0 -> 80.0	8583	2.48	µg/L	90
		599.0 -> 99.0	3548			
PFHpA	6.770	363.0 -> 319.0	67431	2.29	µg/L	99
		363.0 -> 169.0	11815			
PFHpS	8.023	449.0 -> 80.0	11262	2.63	µg/L	97
		449.0 -> 99.0	6105			
PFHxA	5.932	313.0 -> 269.0	56229	2.47	µg/L	99
		313.0 -> 119.0	1864			
PFHxS	7.473	399.0 -> 80.0	11079	2.37	µg/L	78
		399.0 -> 99.0	4644			
PFNA	7.876	463.0 -> 419.0	73748	2.64	µg/L	98
		463.0 -> 219.0	11890			
PFNS	8.964	549.0 -> 80.0	8714	2.92	µg/L	76
		549.0 -> 99.0	4592			
PFOA	7.373	413.0 -> 369.0	72983	2.32	µg/L	97
		413.0 -> 169.0	15496			
PFOS	8.500	499.0 -> 80.0	13153	2.27	µg/L	90
		499.0 -> 99.0	6752			
PFPeA	4.799	263.0 -> 219.0	95244	4.81	µg/L	100
PFPeS	6.821	349.0 -> 80.0	9309	2.18	µg/L	98
		349.0 -> 99.0	4656			
PFTeDA	9.952	713.0 -> 669.0	45324	2.57	µg/L	97
		713.0 -> 219.0	4511			
PFTrDA	9.598	663.0 -> 619.0	55933	2.49	µg/L	100
		663.0 -> 369.0	6729			
PFUnDA	8.792	563.0 -> 519.0	66791	2.31	µg/L	97
		563.0 -> 269.0	11112			
11Cl-PF3OUdS	9.647	631.0 -> 451.0	252823	9.29	µg/L	99
		633.0 -> 453.0	76227			
9Cl-PF3ONS	8.829	531.0 -> 351.0	174051	9.29	µg/L	100
		533.0 -> 353.0	49910			
ADONA	7.004	377.0 -> 251.0	431080	9.00	µg/L	97
		377.0 -> 85.0	123388			
HFPO-DA	6.271	285.0 -> 169.0	30234	9.28	µg/L	93
		285.0 -> 185.0	2408			
3:3FTCA	4.301	241.0 -> 177.0	13927	11.34	µg/L	98
		241.0 -> 117.0	1185			
5:3FTCA	6.511	341.0 -> 237.0	238527	59.88	µg/L	94
		341.0 -> 217.0	173819			
7:3FTCA	7.802	441.0 -> 337.0	248210	58.43	µg/L	95
		441.0 -> 317.0	93953			
EtFOSA	11.142	526.0 -> 219.0	35500	4.98	µg/L	98
		526.0 -> 169.0	46155			
EtFOSE	11.062	630.0 -> 59.0	70212	12.75	µg/L	100
MeFOSA	10.859	512.0 -> 169.0	39520	5.17	µg/L	65
		512.0 -> 219.0	21450			
MeFOSE	10.766	616.0 -> 59.0	42386	10.02	µg/L	100
PFDoDS	10.100	699.0 -> 80.0	8219	2.83	µg/L	78
		699.0 -> 99.0	3673			
NFDHA	5.823	295.0 -> 201.0	8353	5.97	µg/L	93
		201.0 -> 85.0	39814			
		295.0 -> 85.0	2007			
PFMBA	5.188	279.0 -> 85.0	54866	5.13	µg/L	100
PFMPA	3.940	229.0 -> 85.0	53825	4.80	µg/L	100
PFEESA	6.353	315.0 -> 135.0	83973	5.38	µg/L	99
		315.0 -> 69.0	7557			

Perfluorinated Compounds by LC/MS/MS

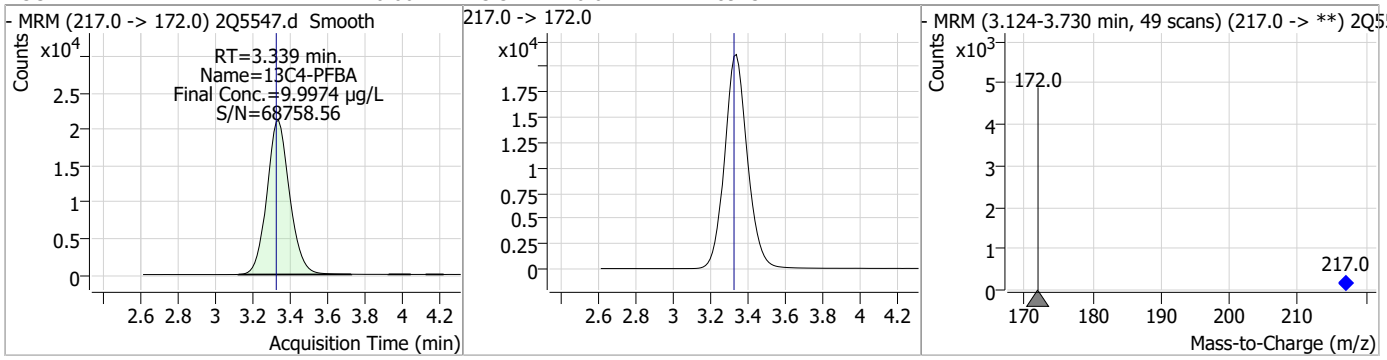
Compound	RT	Transition	Response	Conc.	Units	Dev(Min)

= Qualifier out of range, m = manually integrated, + = Area summed

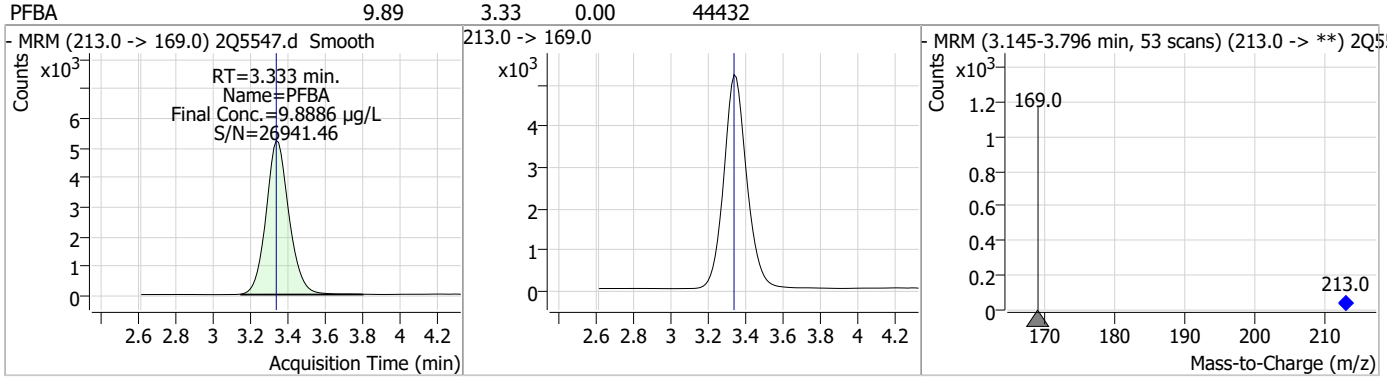
Perfluorinated Compounds by LC/MS/MS



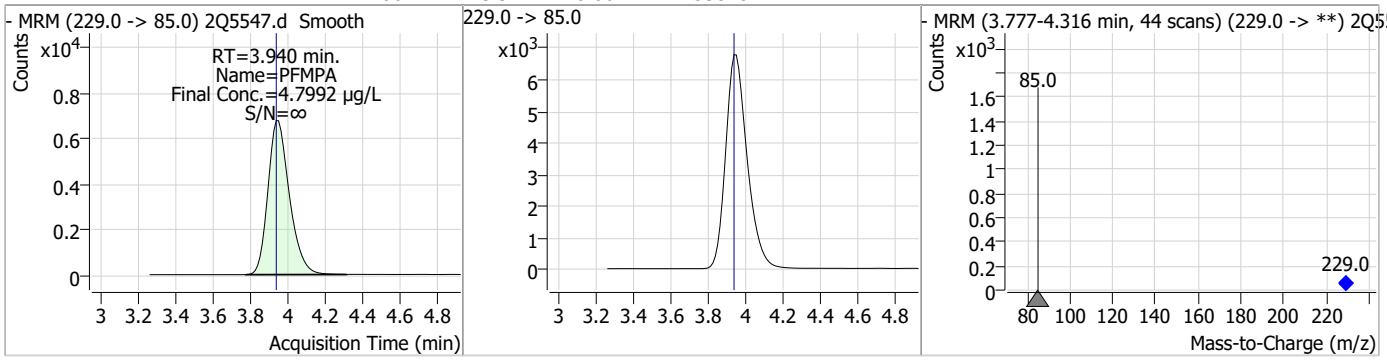
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFBA	10.00	3.34	0.01	178923				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBA	9.89	3.33	0.00	44432				

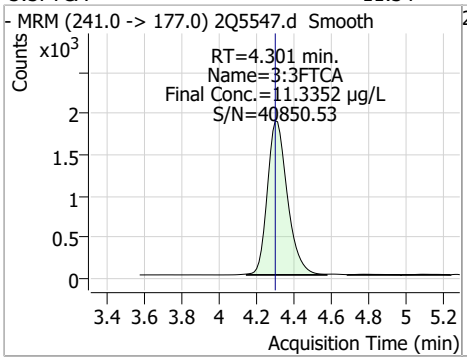


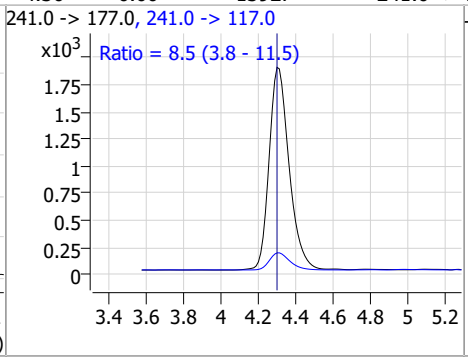
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMPA	4.80	3.94	0.00	53825				

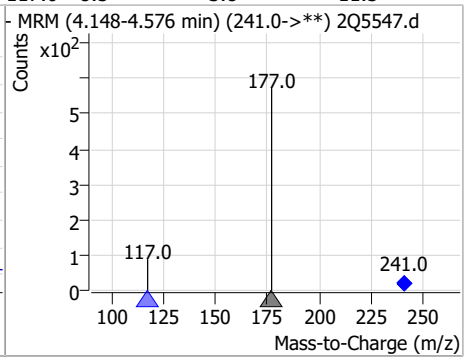


Perfluorinated Compounds by LC/MS/MS

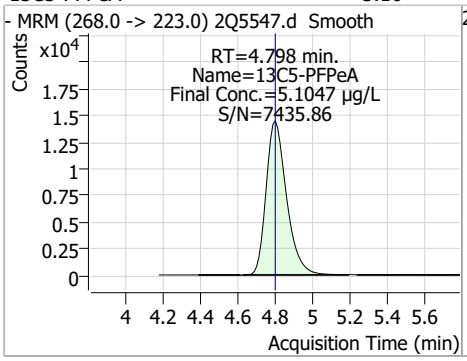
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
3:3FTCA	11.34	4.30	0.00	13927	241.0 -> 117.0	8.5	3.8	11.5

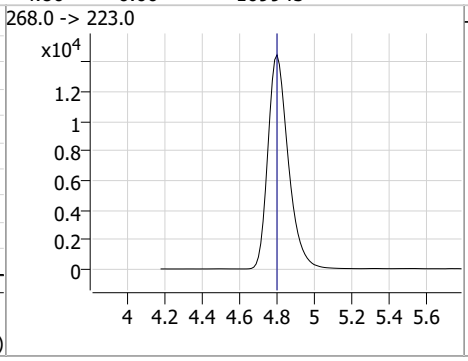


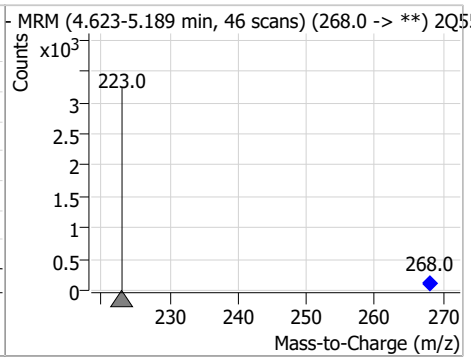




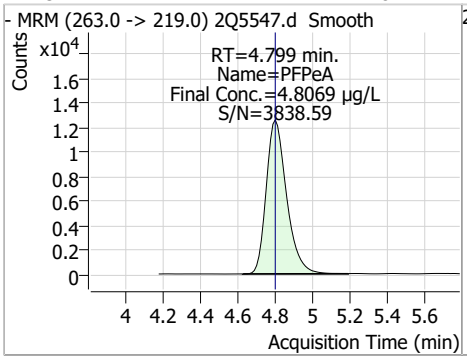
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFPeA	5.10	4.80	0.00	109945				

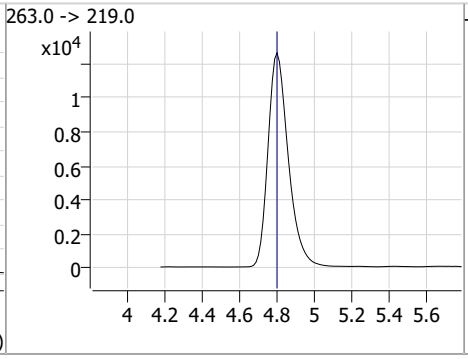


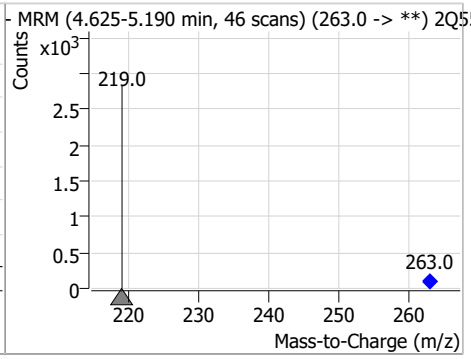




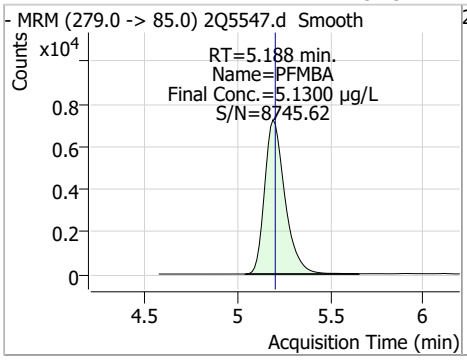
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeA	4.81	4.80	0.00	95244				

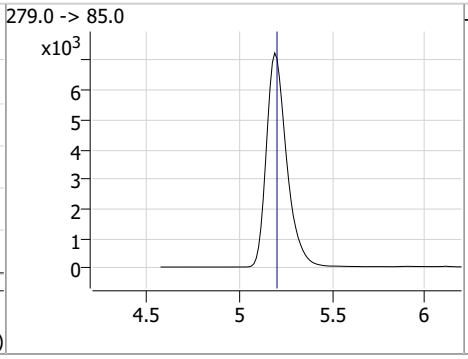


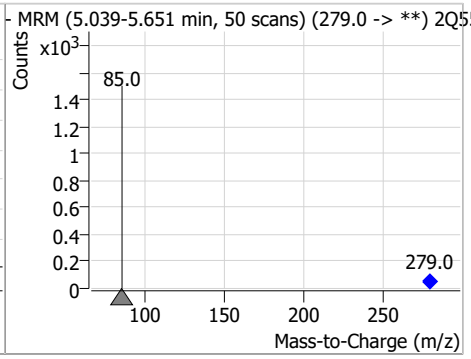




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFMBA	5.13	5.19	-0.01	54866				

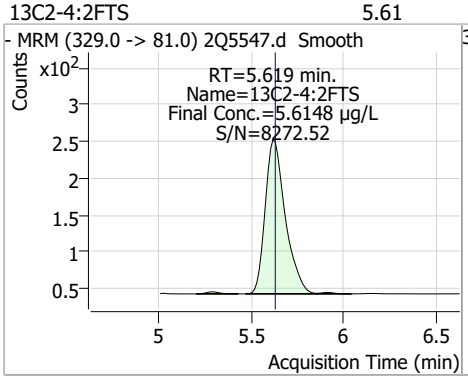


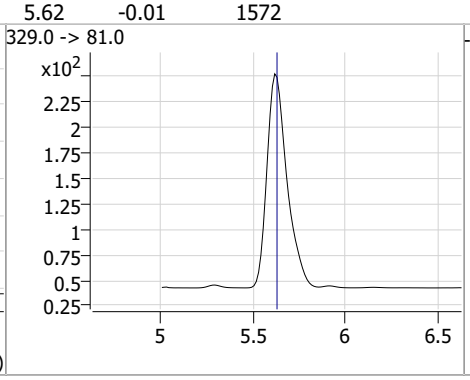


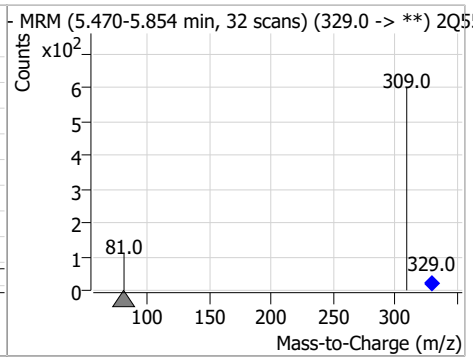


Perfluorinated Compounds by LC/MS/MS

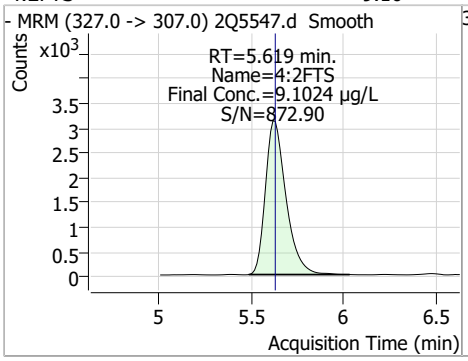
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-4:2FTS	5.61	5.62	-0.01	1572				

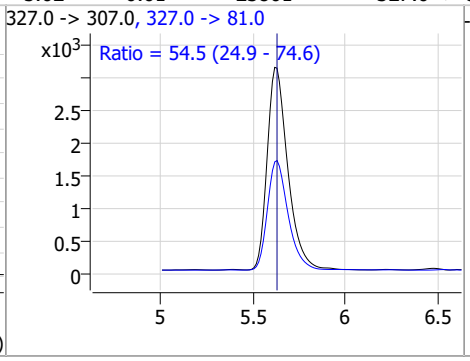


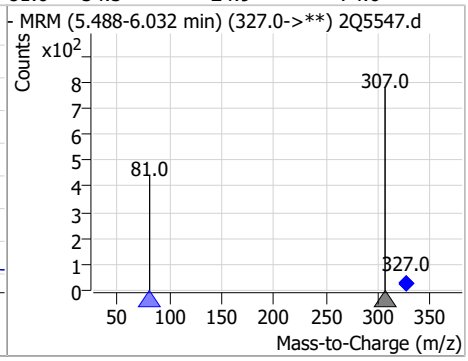




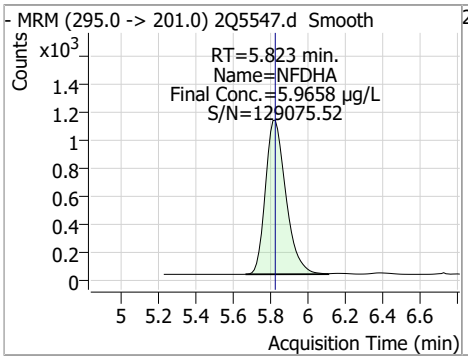
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
4:2FTS	9.10	5.62	-0.01	23801	327.0 -> 81.0	54.5	24.9	74.6

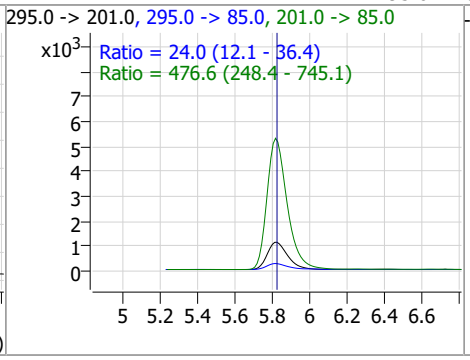


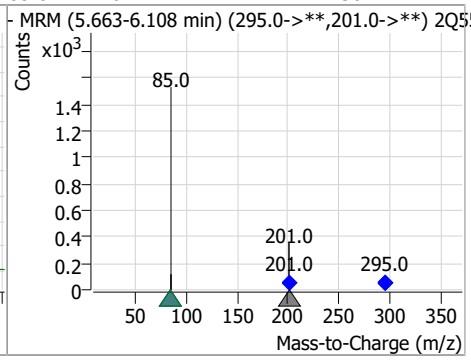




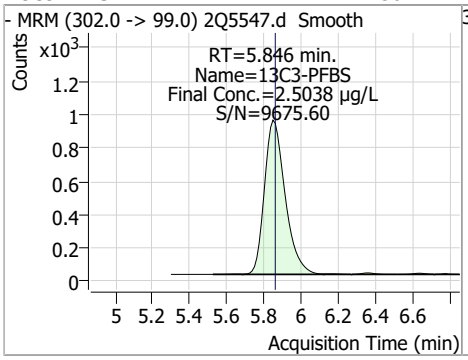
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
NFDHA	5.97	5.82	0.00	8353	201.0 -> 85.0	476.6	248.4	745.1
					295.0 -> 85.0	24.0	12.1	36.4

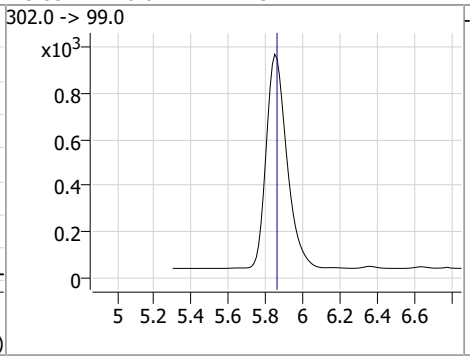


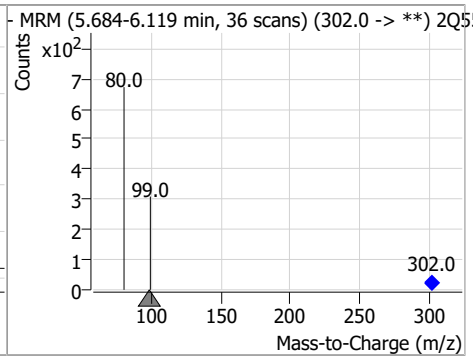




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFBS	2.50	5.85	-0.01	7137				

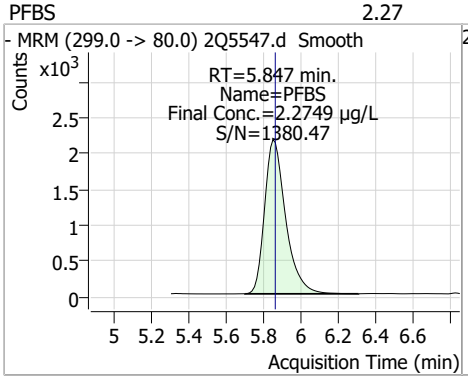


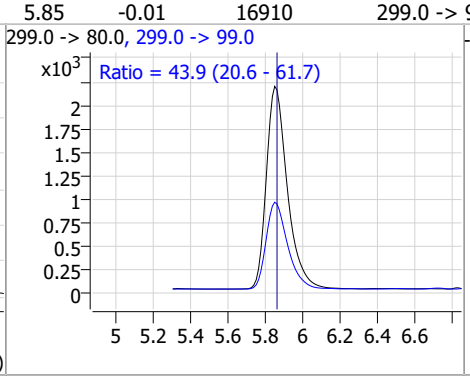


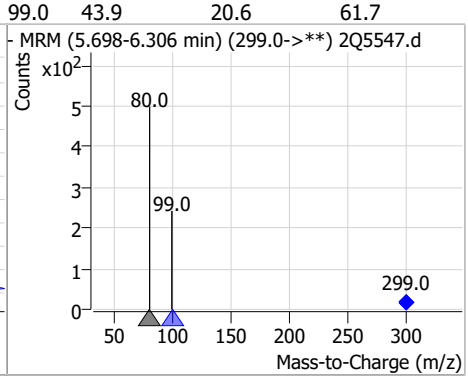


Perfluorinated Compounds by LC/MS/MS

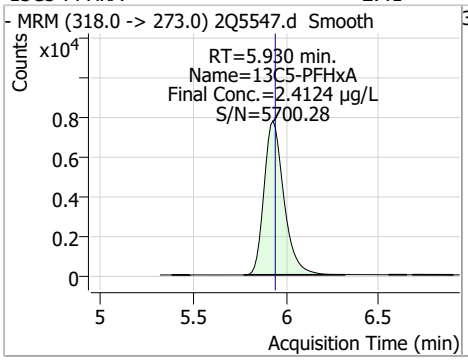
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFBS	2.27	5.85	-0.01	16910	299.0 -> 99.0	43.9	20.6	61.7

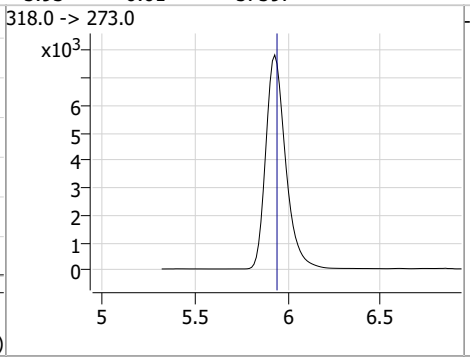


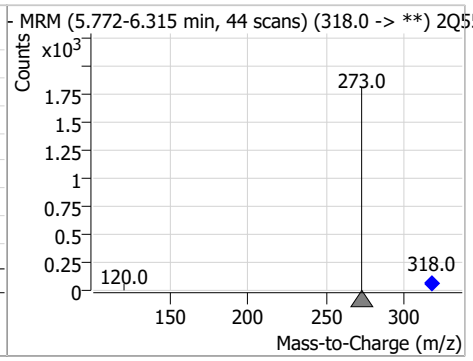




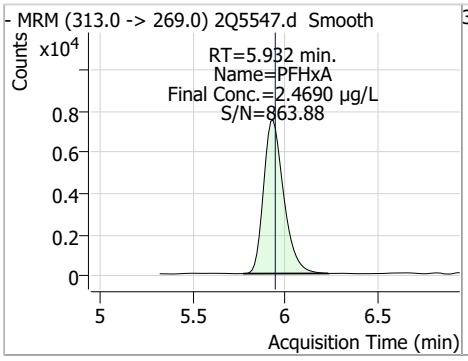
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C5-PFHxA	2.41	5.93	-0.01	57597				

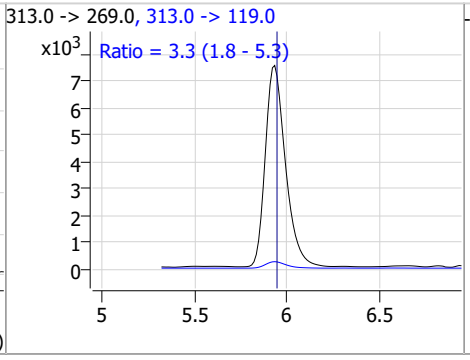


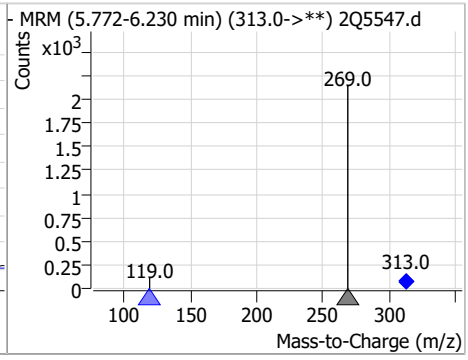




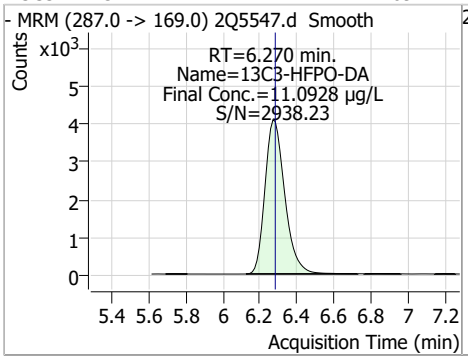
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxA	2.47	5.93	-0.01	56229	313.0 -> 119.0	3.3	1.8	5.3

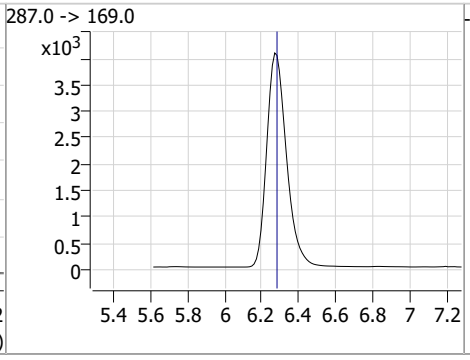


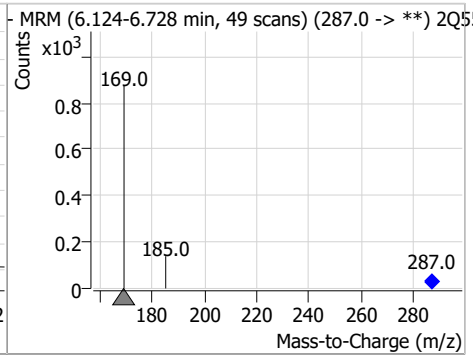




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-HFPO-DA	11.09	6.27	-0.01	30229				

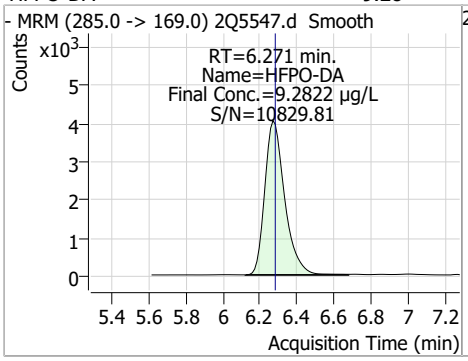


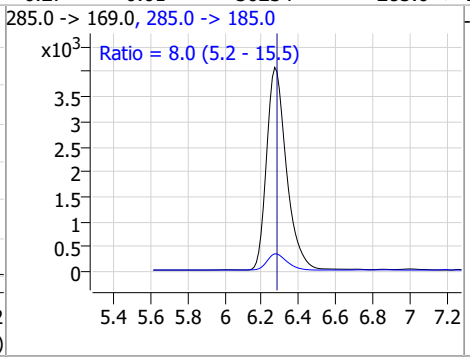


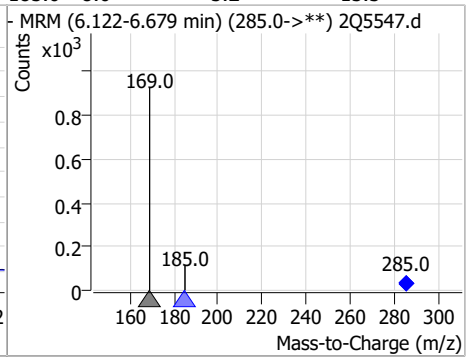


Perfluorinated Compounds by LC/MS/MS

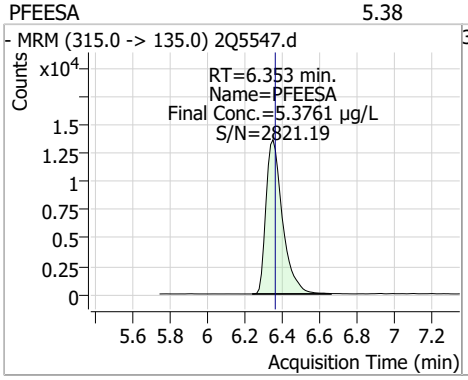
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
HFPO-DA	9.28	6.27	-0.01	30234	285.0 -> 185.0	8.0	5.2	15.5

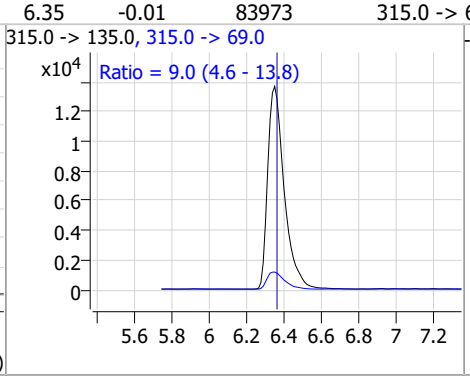


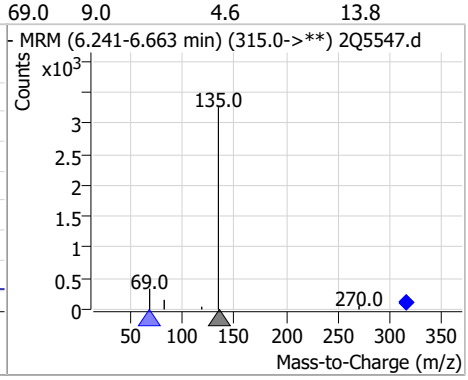




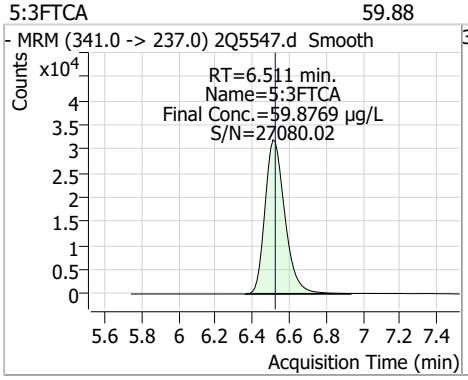
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFEESA	5.38	6.35	-0.01	83973	315.0 -> 69.0	9.0	4.6	13.8

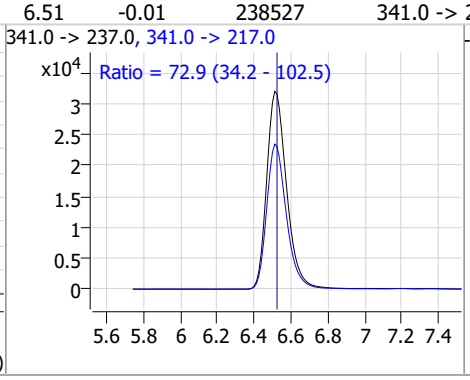


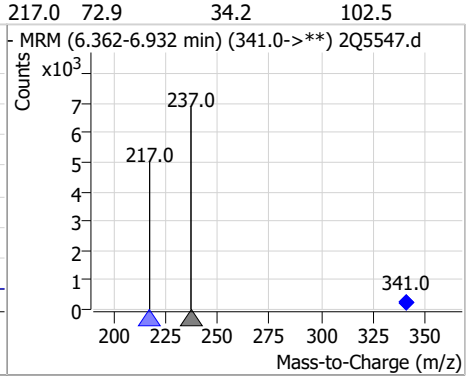




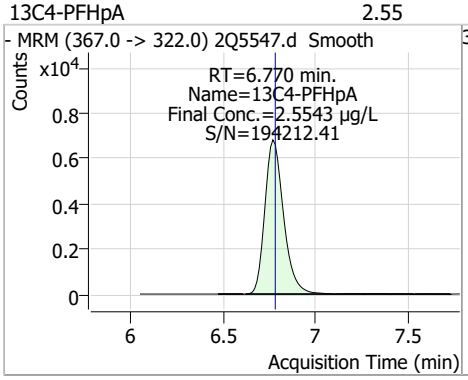
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
5:3FTCA	59.88	6.51	-0.01	238527	341.0 -> 217.0	72.9	34.2	102.5

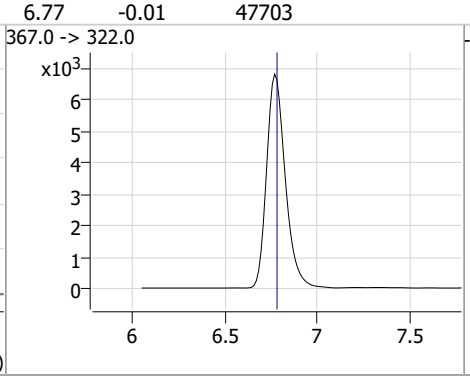


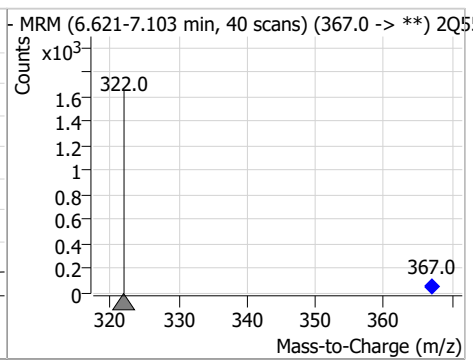




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C4-PFHpA	2.55	6.77	-0.01	47703				

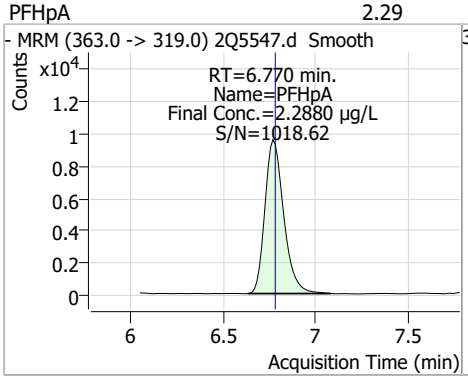


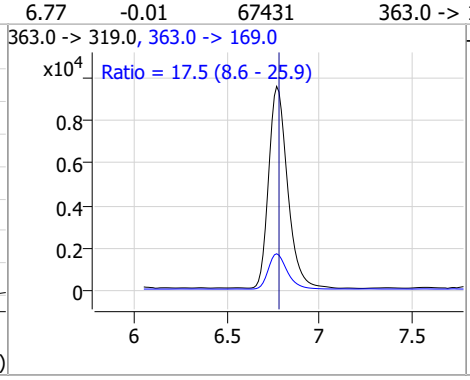


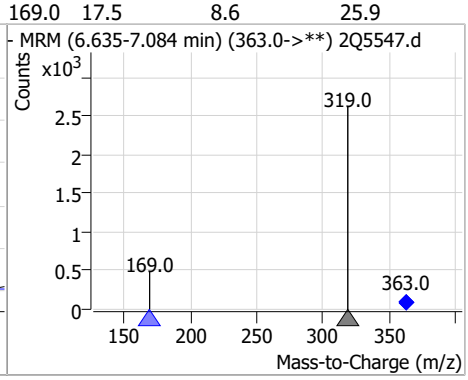


Perfluorinated Compounds by LC/MS/MS

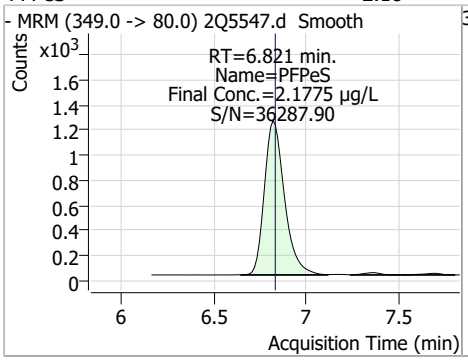
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpA	2.29	6.77	-0.01	67431	363.0 -> 169.0	17.5	8.6	25.9

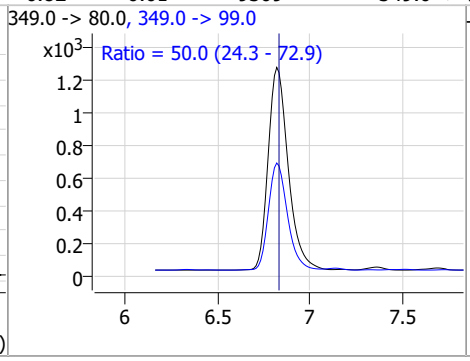


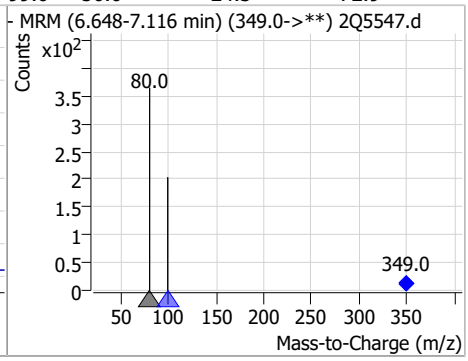




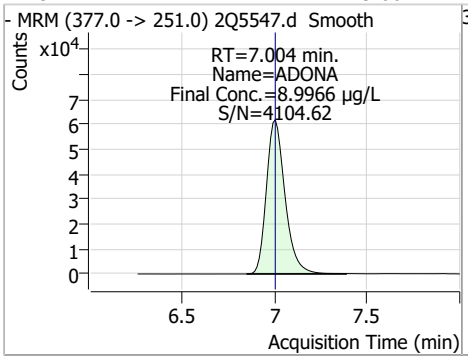
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFPeS	2.18	6.82	-0.01	9309	349.0 -> 99.0	50.0	24.3	72.9

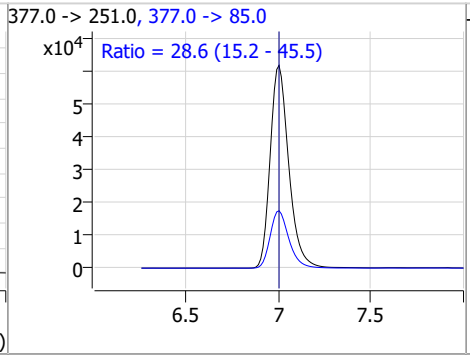


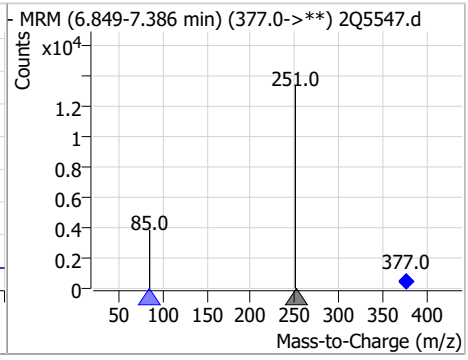




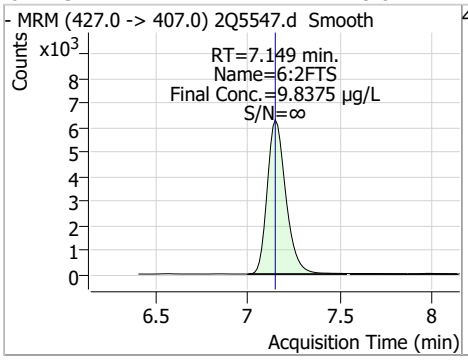
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
ADONA	9.00	7.00	0.00	431080	377.0 -> 85.0	28.6	15.2	45.5

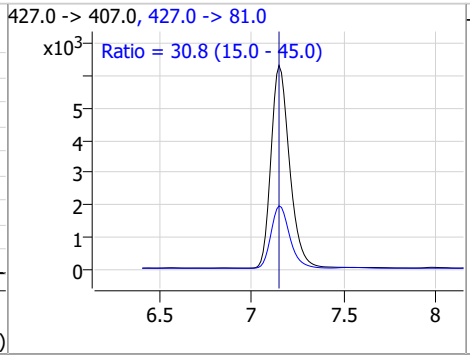


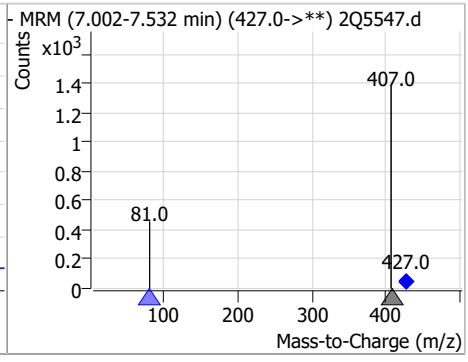




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
6:2FTS	9.84	7.15	0.00	43851	427.0 -> 81.0	30.8	15.0	45.0

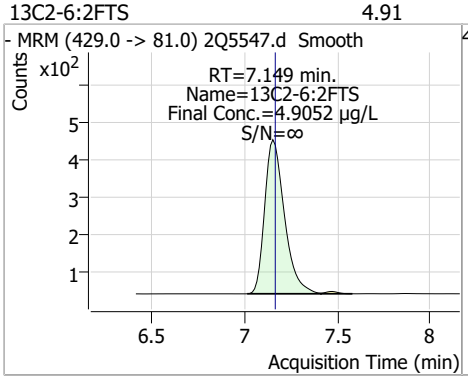


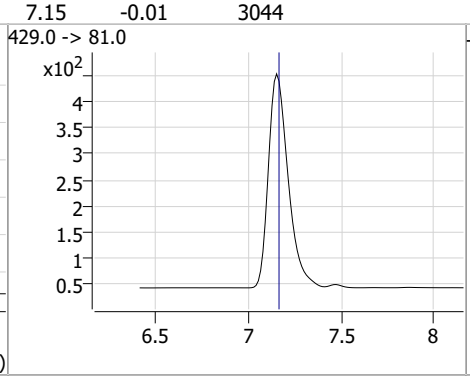


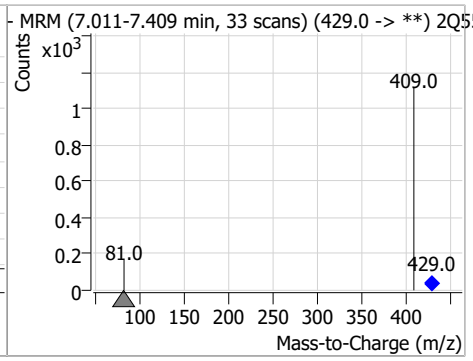


Perfluorinated Compounds by LC/MS/MS

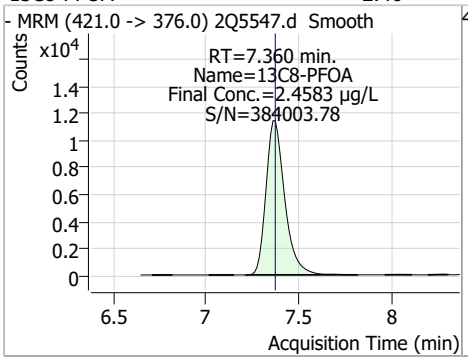
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-6:2FTS	4.91	7.15	-0.01	3044				

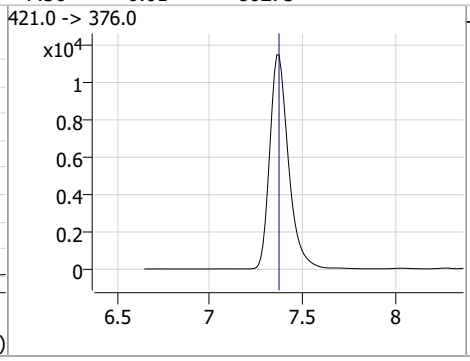


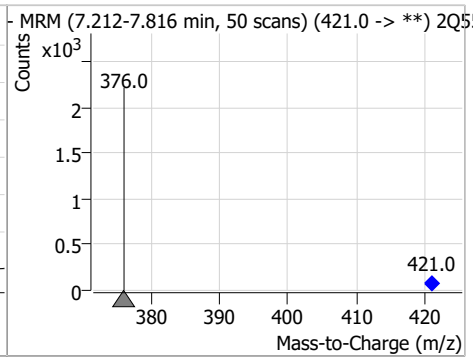




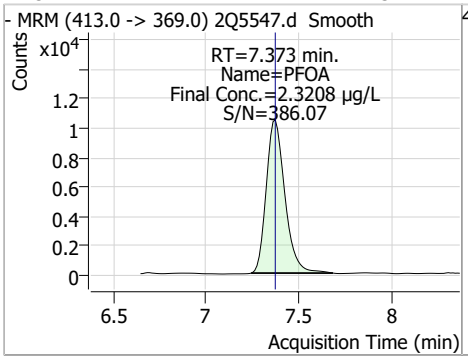
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOA	2.46	7.36	-0.01	80275				

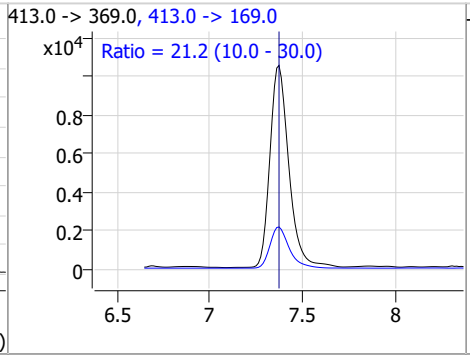


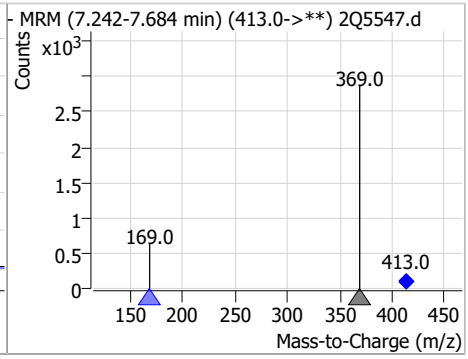




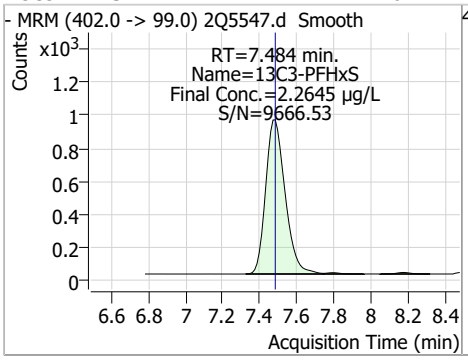
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOA	2.32	7.37	0.00	72983	413.0 -> 169.0	21.2	10.0	30.0

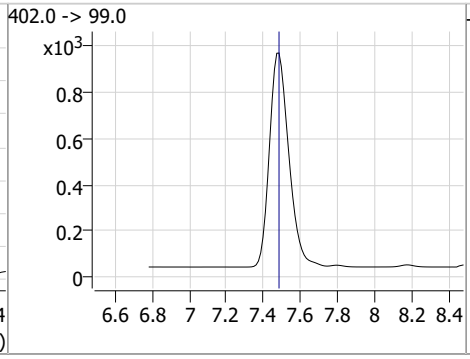


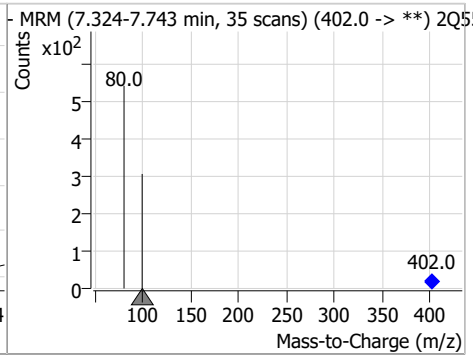




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C3-PFHxS	2.26	7.48	0.00	6772				

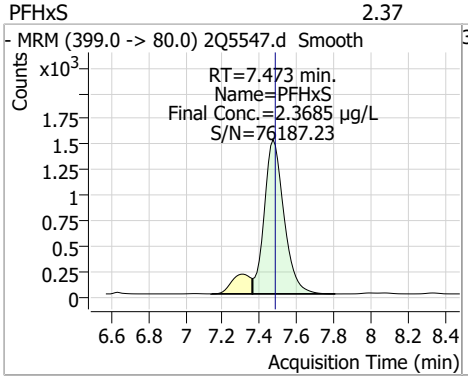


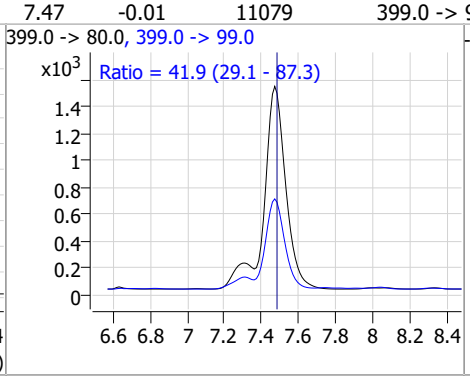


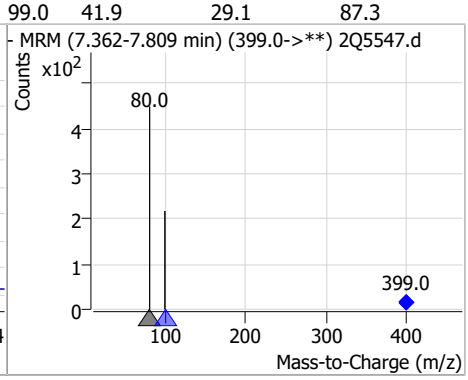


Perfluorinated Compounds by LC/MS/MS

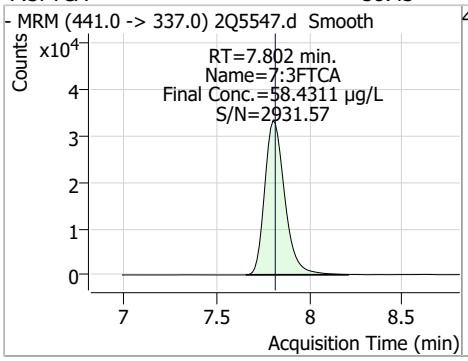
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHxS	2.37	7.47	-0.01	11079	399.0 -> 99.0	41.9	29.1	87.3

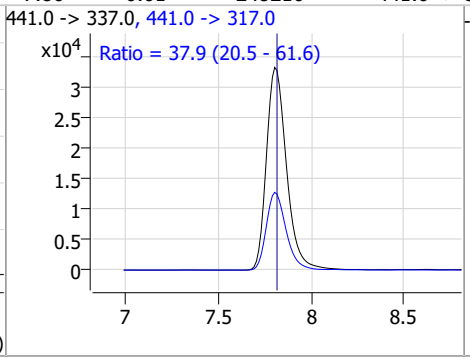


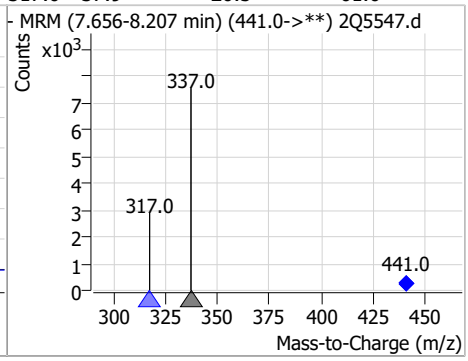




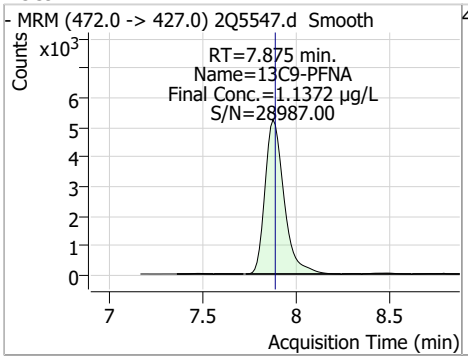
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
7:3FTCA	58.43	7.80	-0.01	248210	441.0 -> 317.0	37.9	20.5	61.6

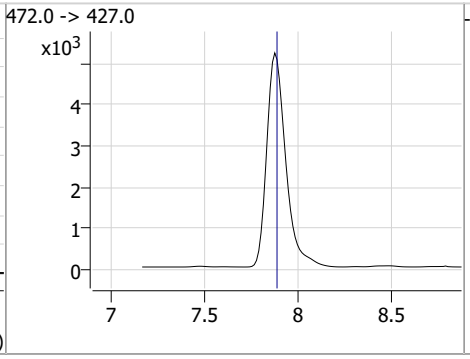


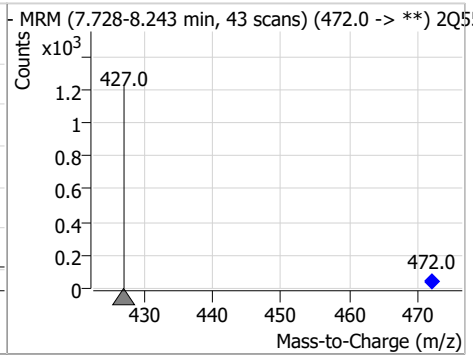




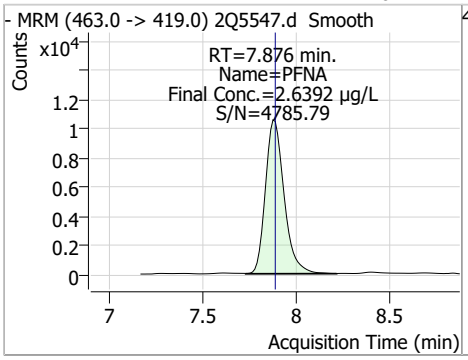
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C9-PFNA	1.14	7.88	-0.01	37192				

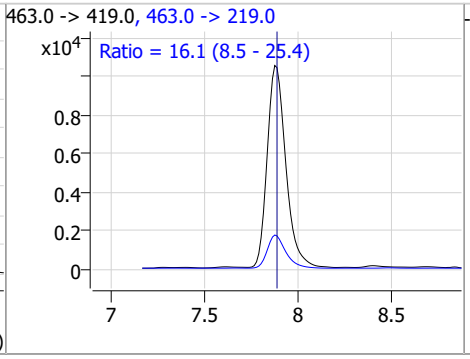


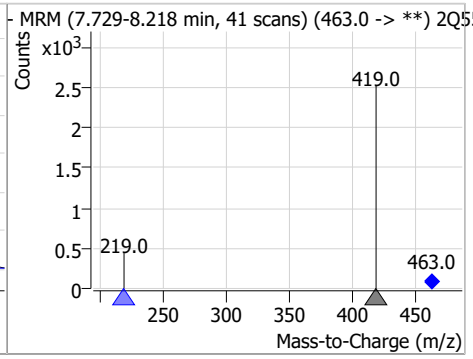




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNA	2.64	7.88	-0.01	73748	463.0 -> 219.0	16.1	8.5	25.4

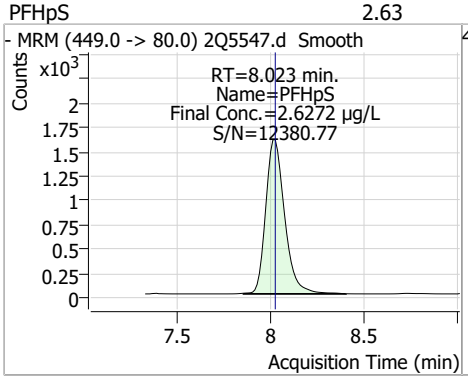


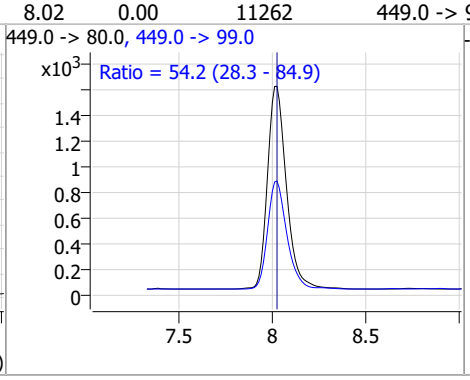


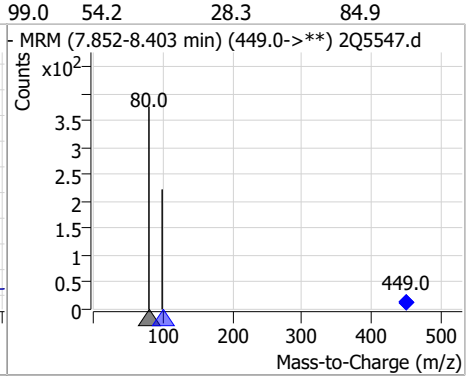


Perfluorinated Compounds by LC/MS/MS

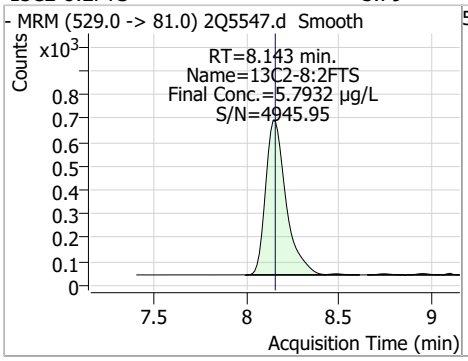
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFHpS	2.63	8.02	0.00	11262	449.0 -> 99.0	54.2	28.3	84.9

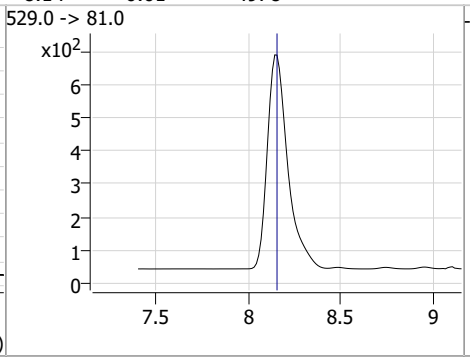


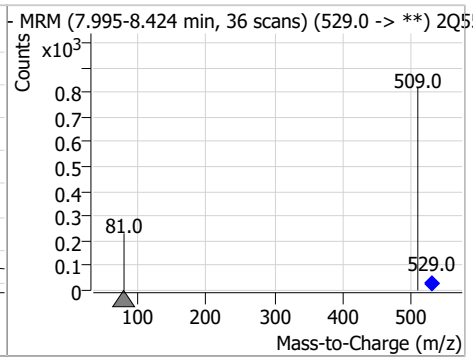




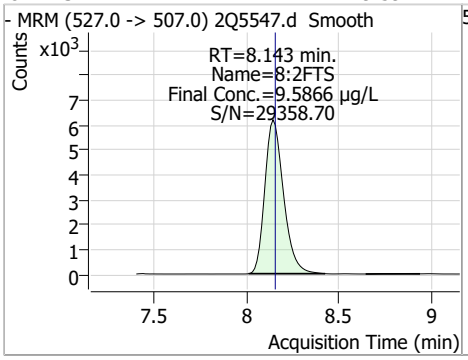
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-8:2FTS	5.79	8.14	-0.01	4978				

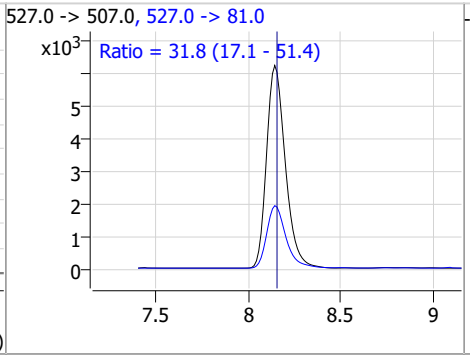


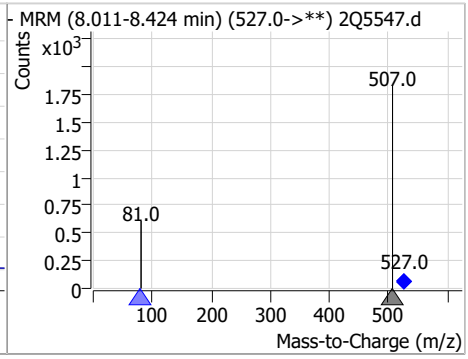




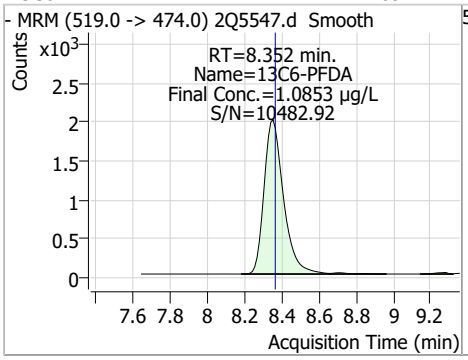
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
8:2FTS	9.59	8.14	-0.01	43145	527.0 -> 81.0	31.8	17.1	51.4

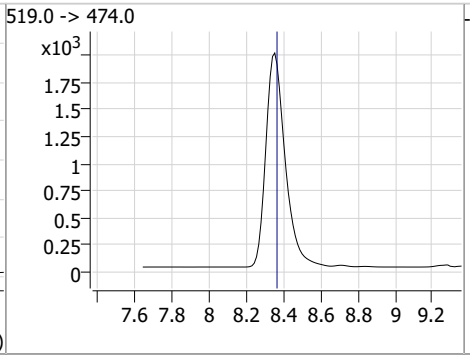


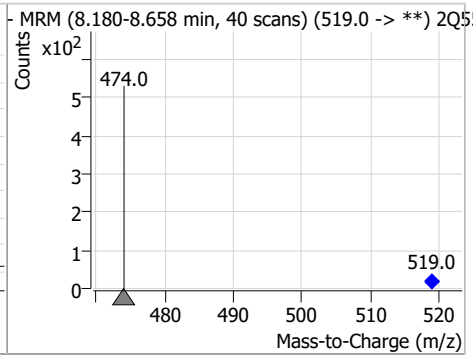




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C6-PFDA	1.09	8.35	-0.01	14402				

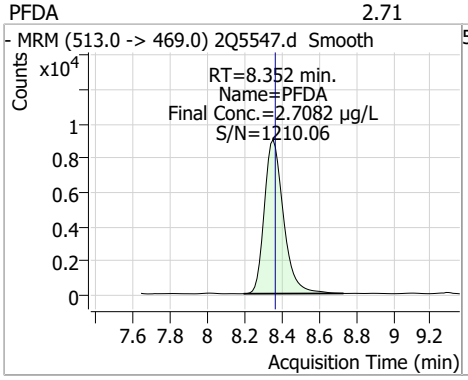


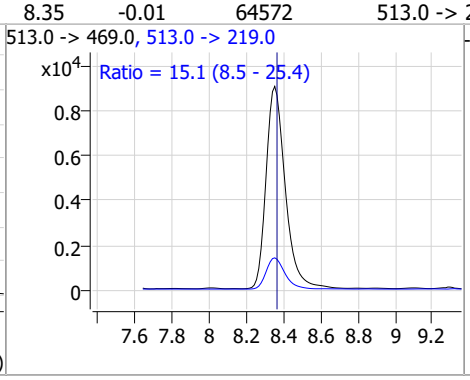


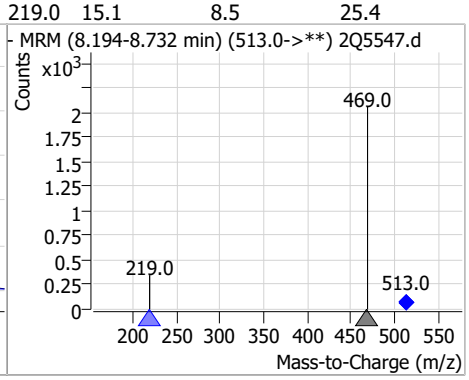


Perfluorinated Compounds by LC/MS/MS

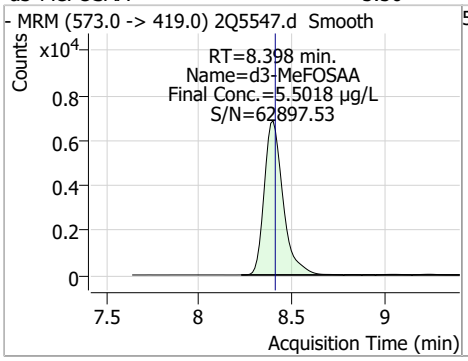
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDA	2.71	8.35	-0.01	64572	513.0 -> 219.0	15.1	8.5	25.4

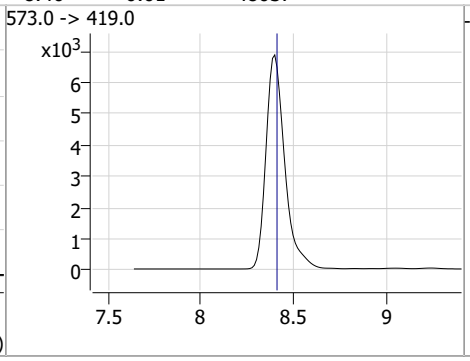


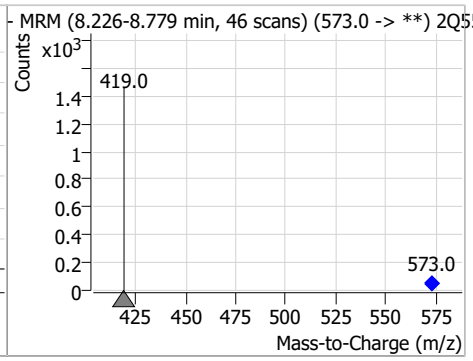




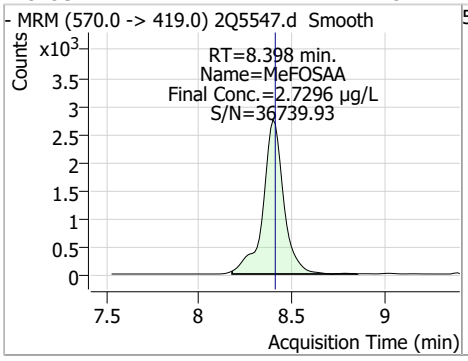
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSAA	5.50	8.40	-0.01	48037				

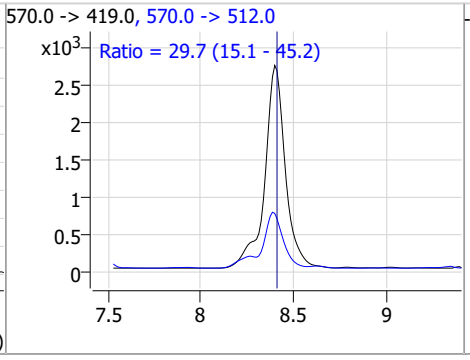


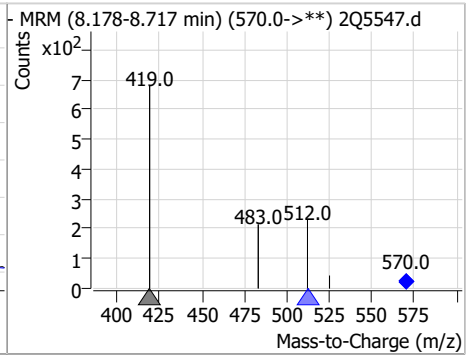




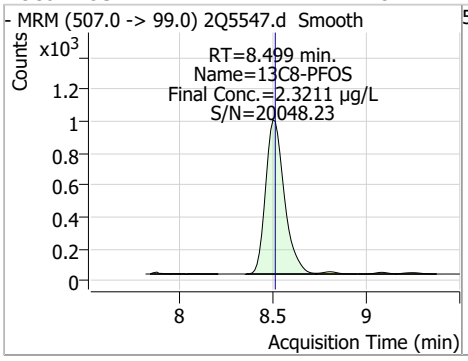
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSAA	2.73	8.40	-0.01	21032	570.0 -> 512.0	29.7	15.1	45.2

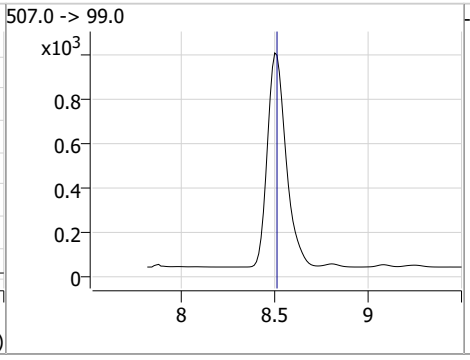


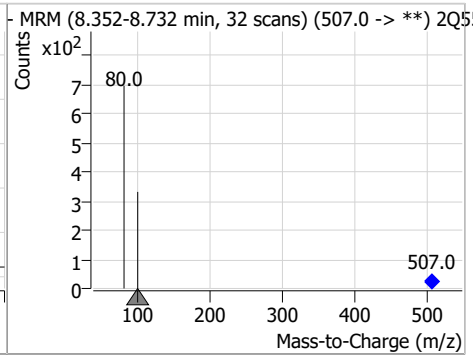




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-PFOS	2.32	8.50	-0.01	6780				

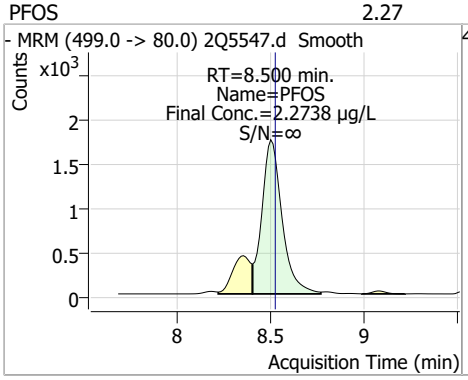


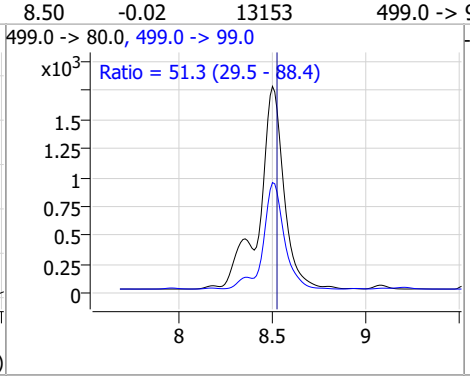


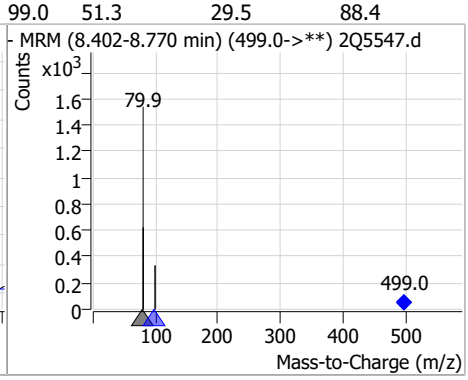


Perfluorinated Compounds by LC/MS/MS

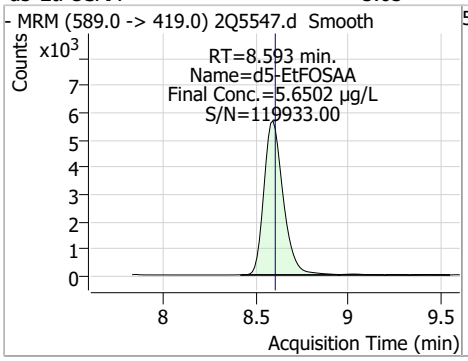
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFOS	2.27	8.50	-0.02	13153	499.0 -> 99.0	51.3	29.5	88.4

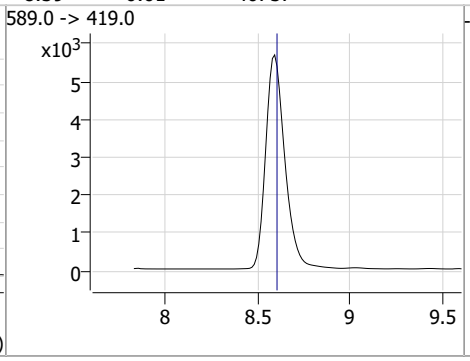


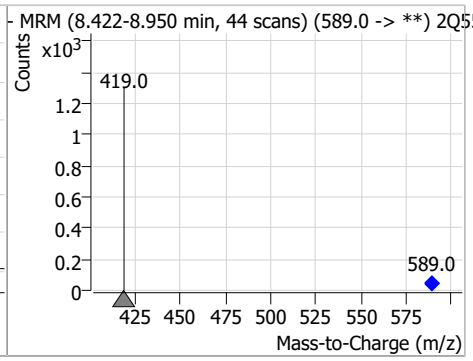




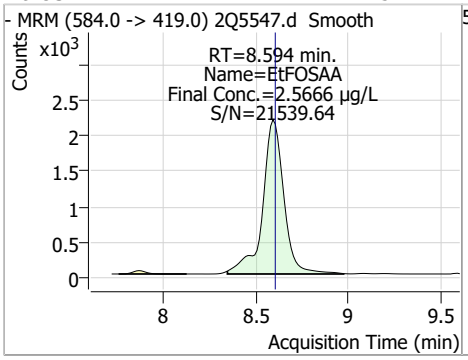
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSAA	5.65	8.59	-0.01	40757				

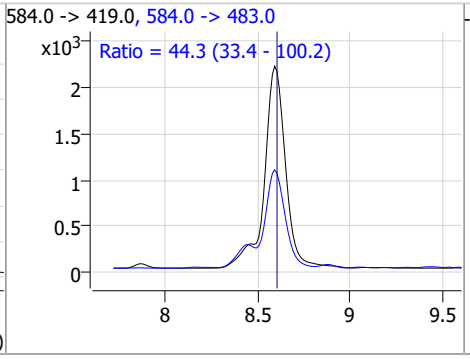


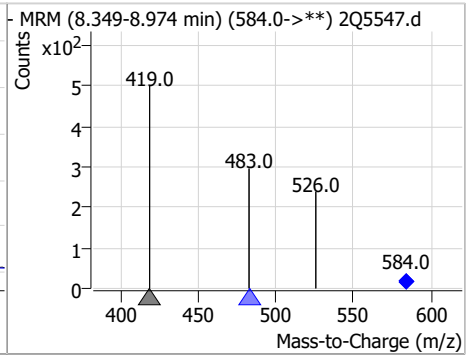




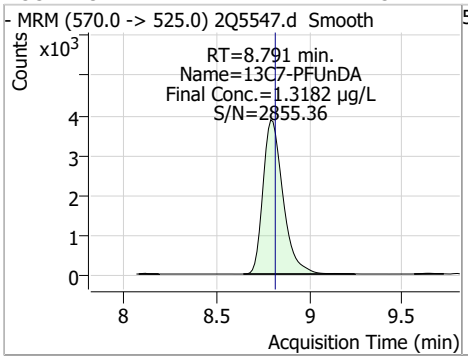
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSAA	2.57	8.59	-0.01	17472	584.0 -> 483.0	44.3	33.4	100.2

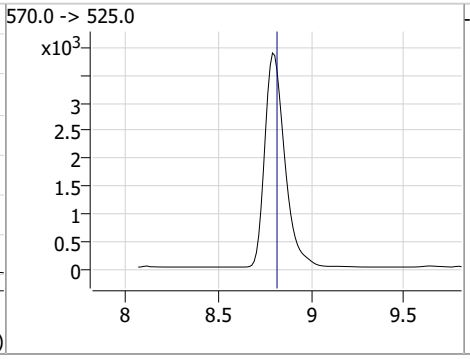


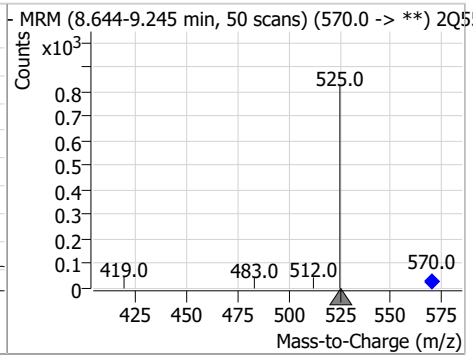




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C7-PFUnDA	1.32	8.79	-0.02	28859				

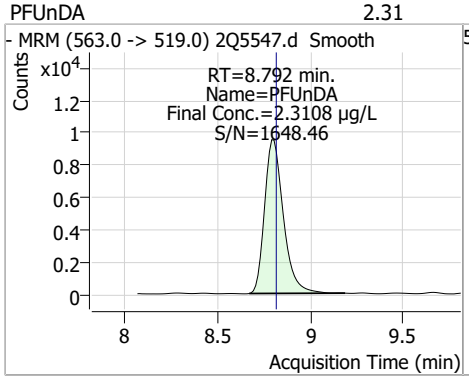


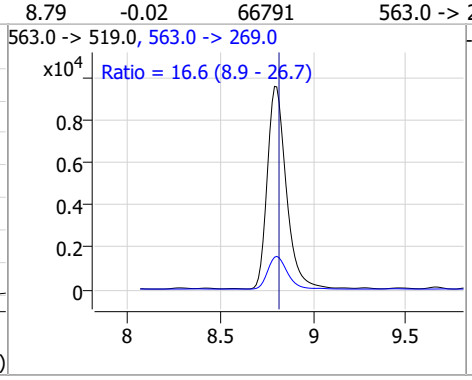


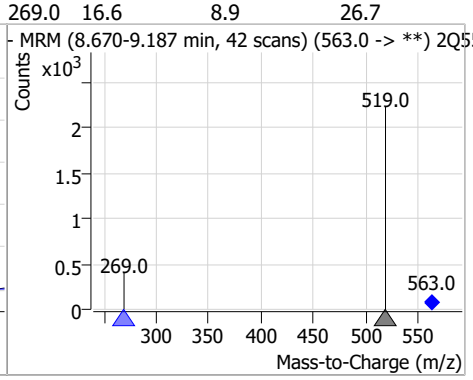


Perfluorinated Compounds by LC/MS/MS

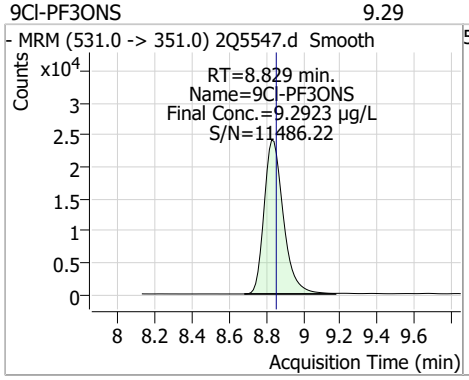
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFUnDA	2.31	8.79	-0.02	66791	563.0 -> 269.0	16.6	8.9	26.7

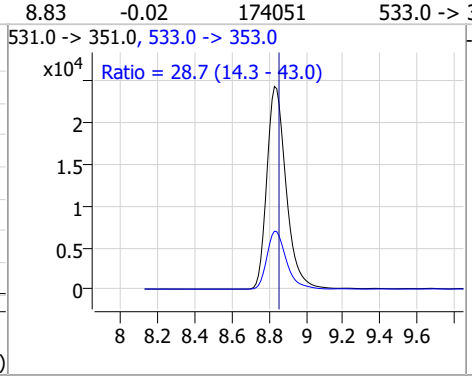


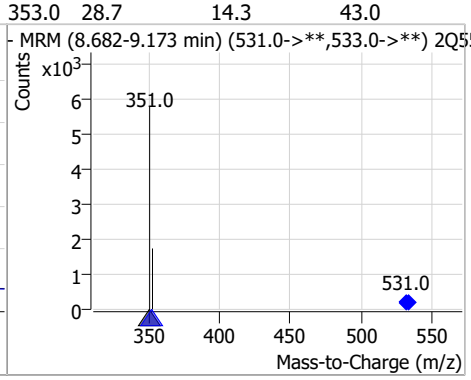




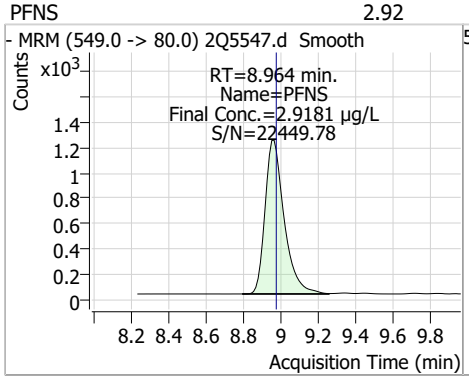
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
9Cl-PF3ONS	9.29	8.83	-0.02	174051	533.0 -> 353.0	28.7	14.3	43.0

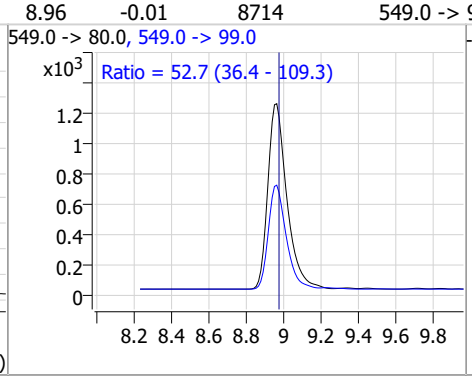


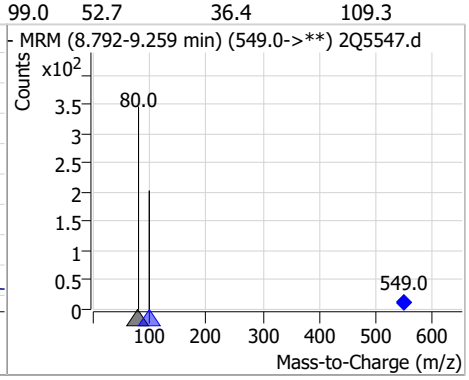




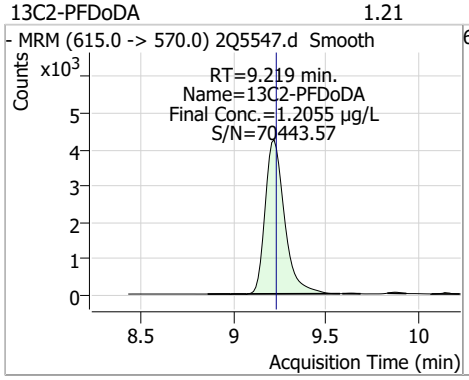
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFNS	2.92	8.96	-0.01	8714	549.0 -> 99.0	52.7	36.4	109.3

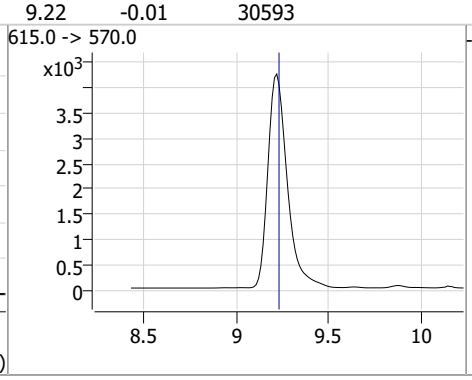


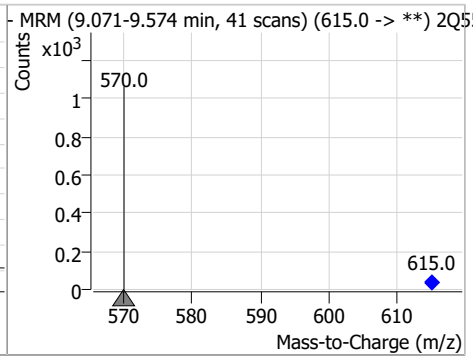




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFDoDA	1.21	9.22	-0.01	30593				

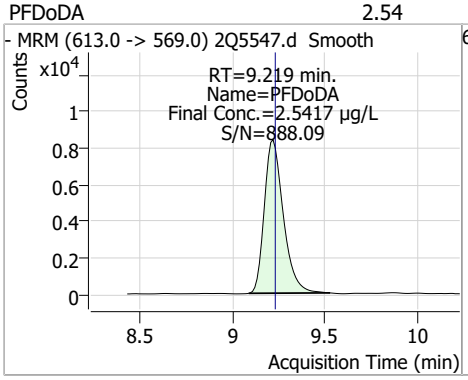


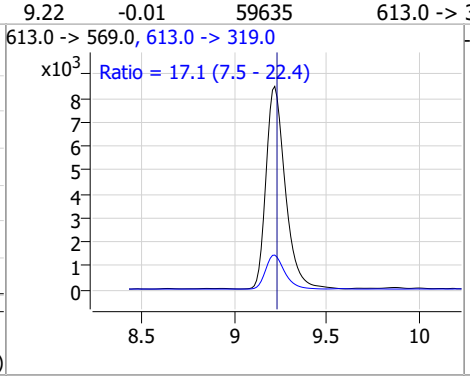


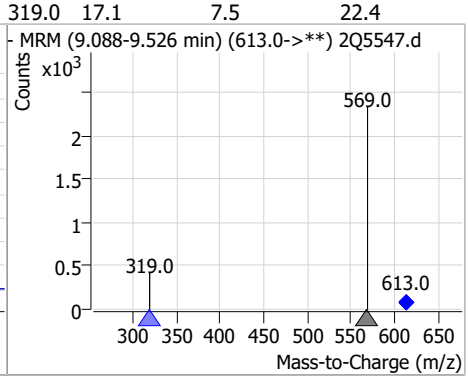


Perfluorinated Compounds by LC/MS/MS

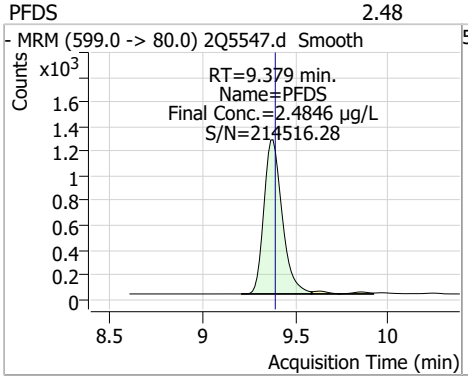
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDA	2.54	9.22	-0.01	59635	613.0 -> 319.0	17.1	7.5	22.4

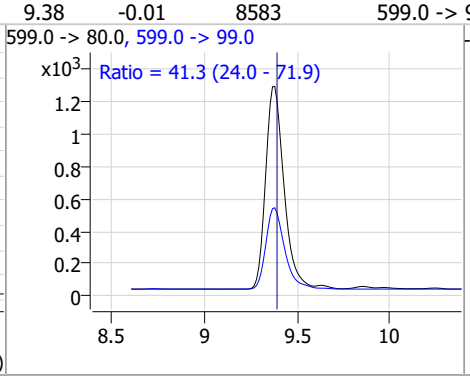


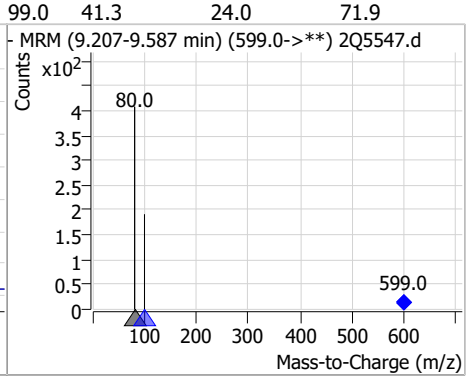




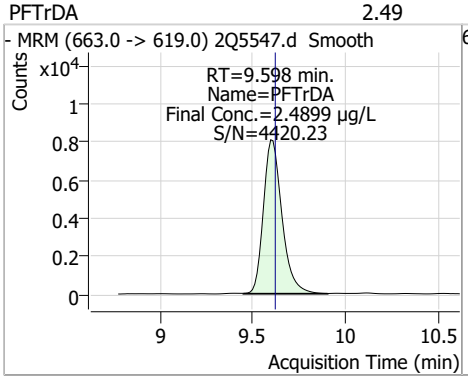
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDS	2.48	9.38	-0.01	8583	599.0 -> 99.0	41.3	24.0	71.9

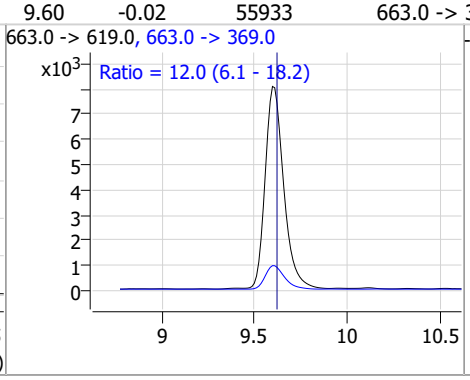


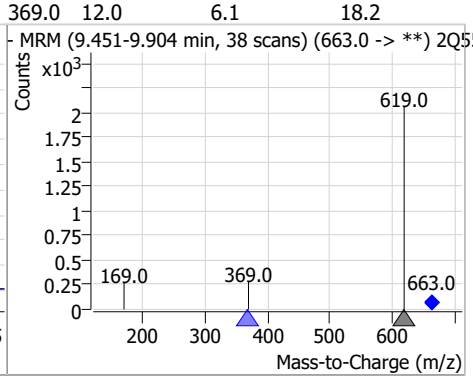




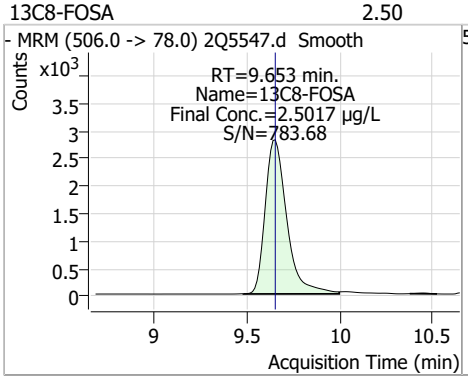
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTrDA	2.49	9.60	-0.02	55933	663.0 -> 369.0	12.0	6.1	18.2

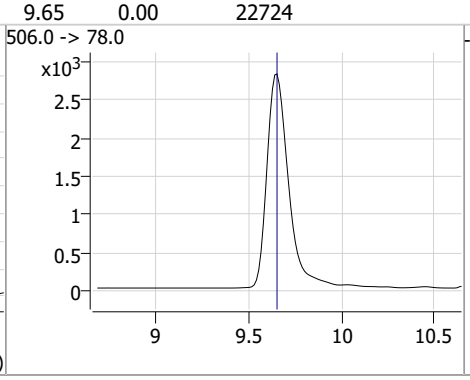


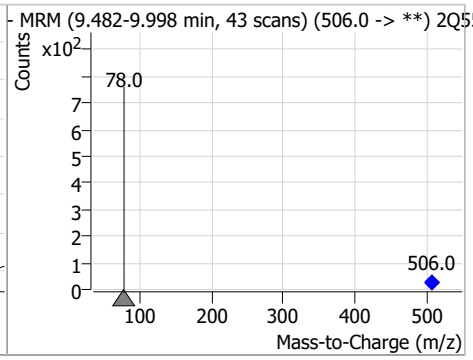




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C8-FOSA	2.50	9.65	0.00	22724				

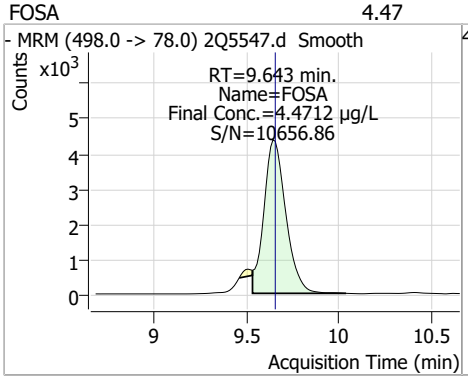


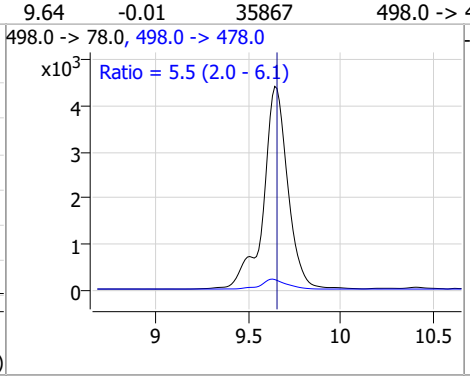


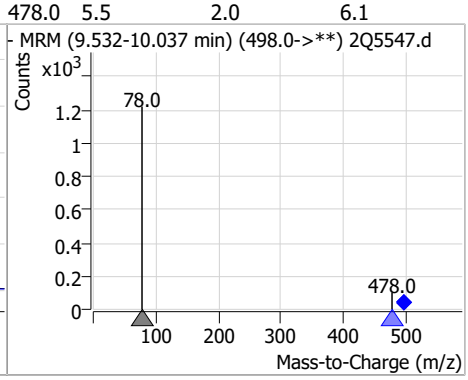


Perfluorinated Compounds by LC/MS/MS

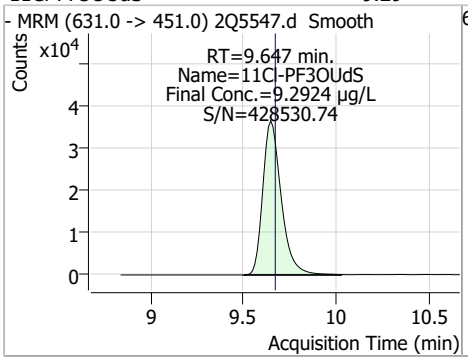
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
FOSA	4.47	9.64	-0.01	35867	498.0 -> 478.0	5.5	2.0	6.1

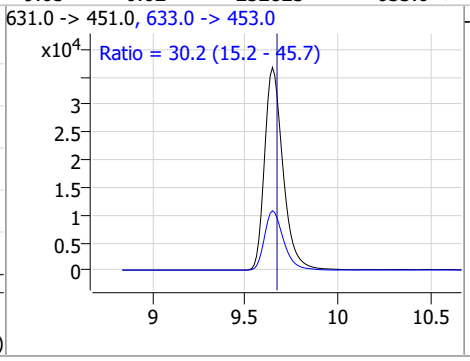


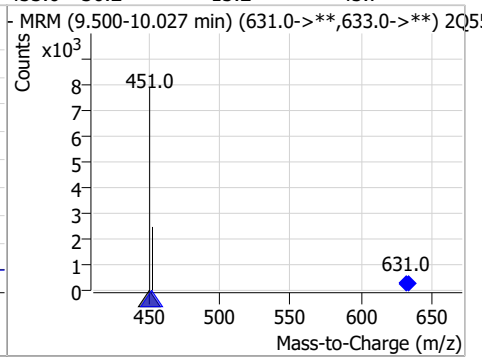




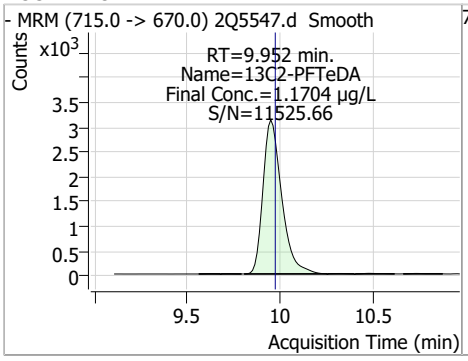
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
11Cl-PF3OUdS	9.29	9.65	-0.02	252823	633.0 -> 453.0	30.2	15.2	45.7

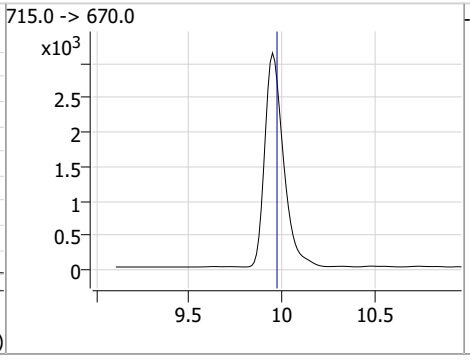


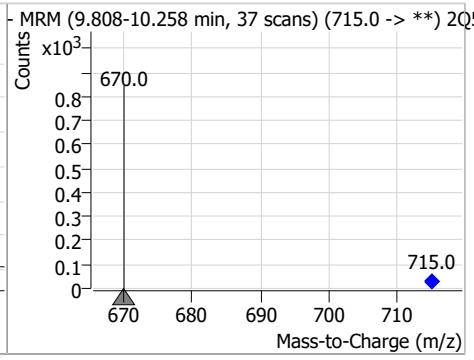




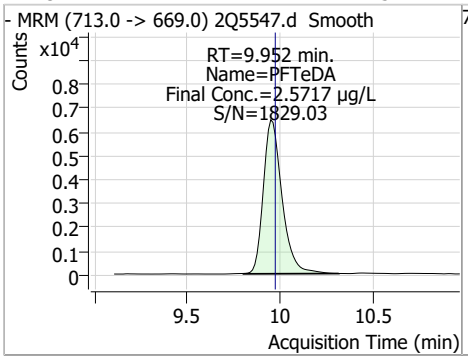
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
13C2-PFTeDA	1.17	9.95	-0.02	21783				

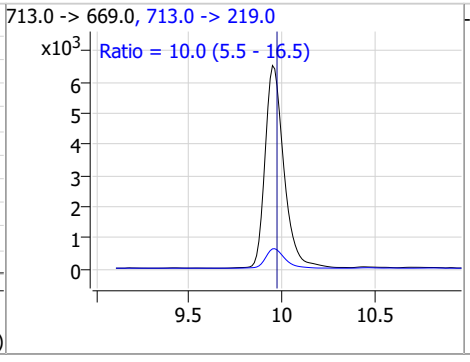


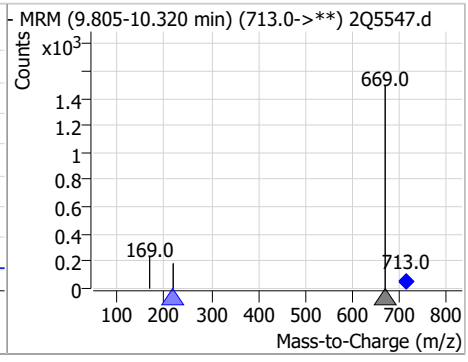




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFTeDA	2.57	9.95	-0.02	45324	713.0 -> 219.0	10.0	5.5	16.5

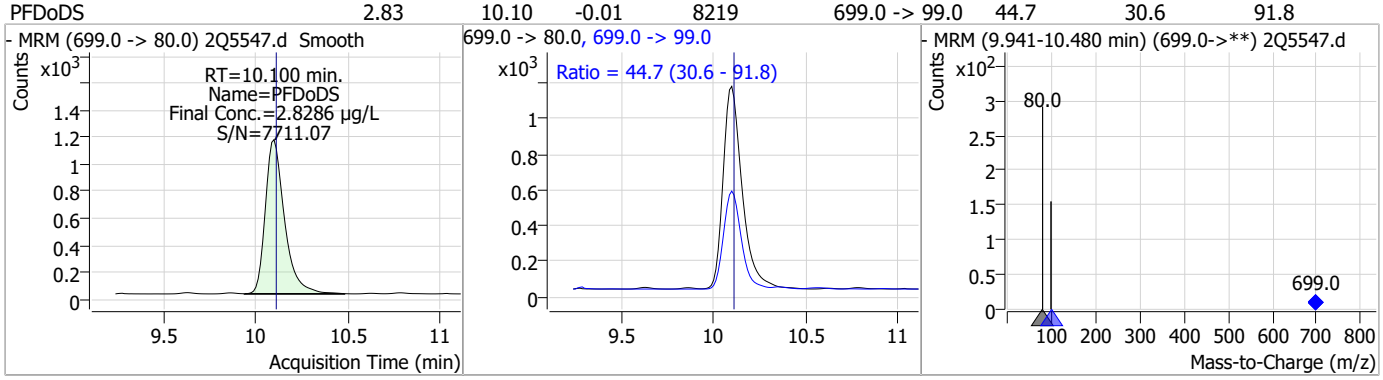




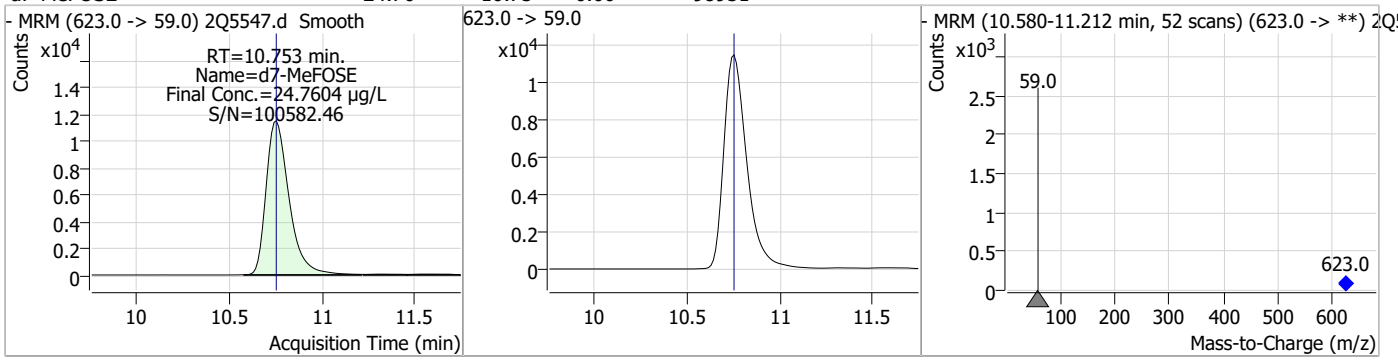


Perfluorinated Compounds by LC/MS/MS

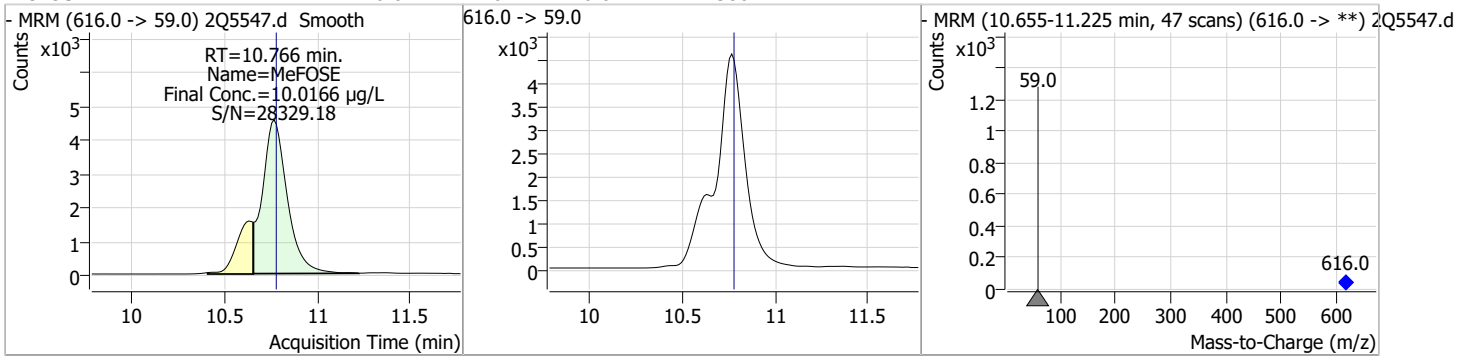
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
PFDoDS	2.83	10.10	-0.01	8219	699.0 -> 99.0	44.7	30.6	91.8



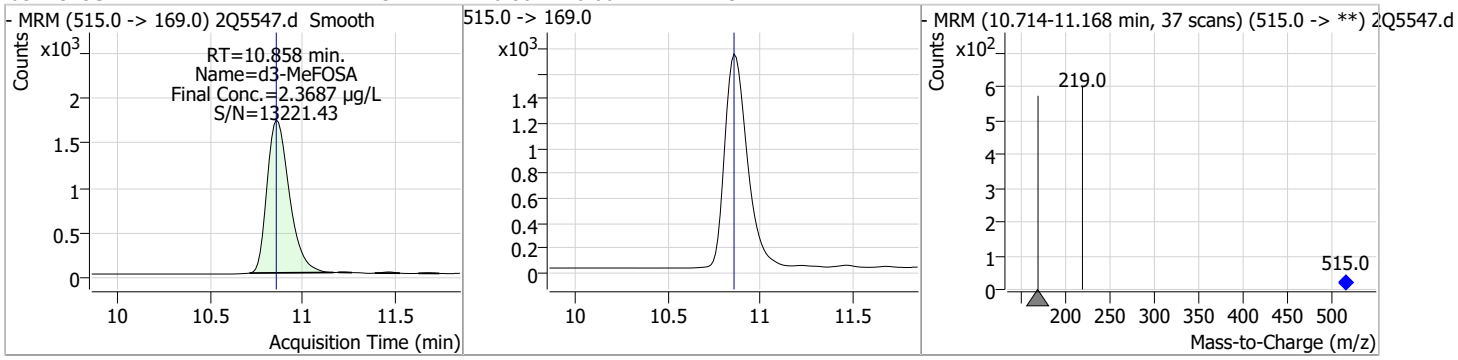
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d7-MeFOSE	24.76	10.75	0.00	98951				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSE	10.02	10.77	-0.01	42386				

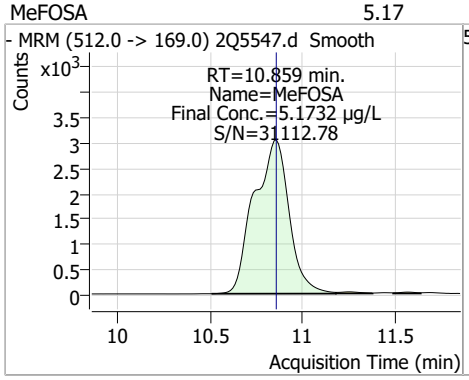


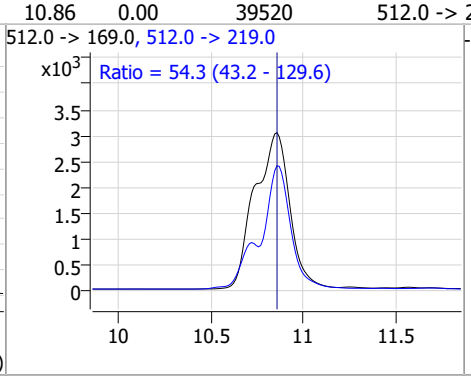
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d3-MeFOSA	2.37	10.86	0.00	14234				

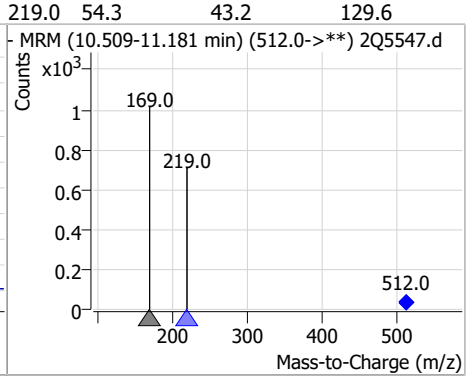


Perfluorinated Compounds by LC/MS/MS

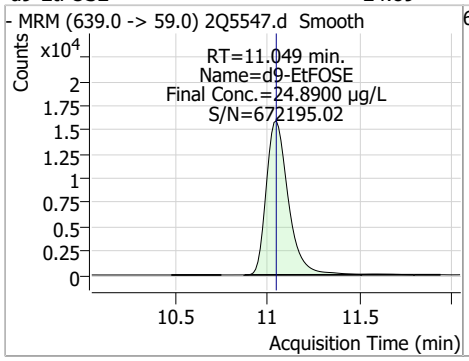
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
MeFOSA	5.17	10.86	0.00	39520	512.0 -> 219.0	54.3	43.2	129.6

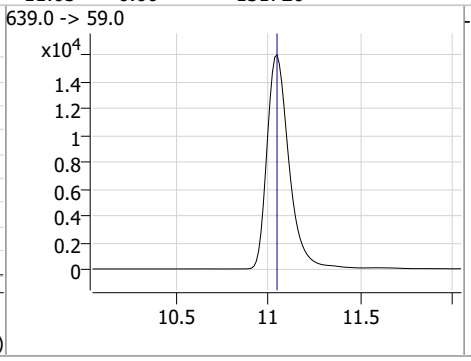


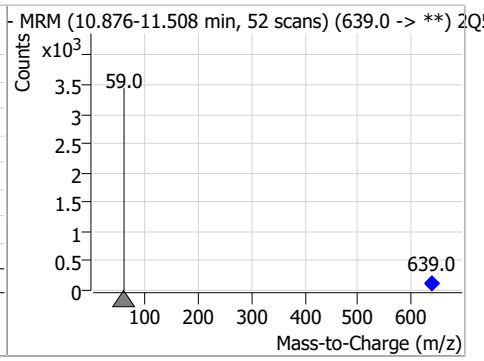




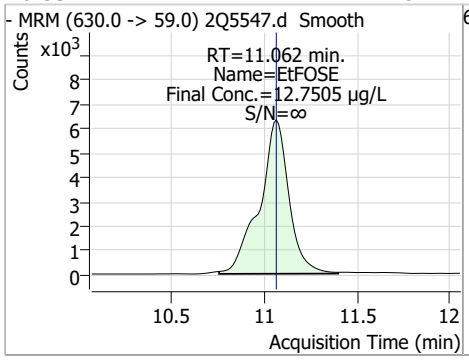
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d9-EtFOSE	24.89	11.05	0.00	131720				

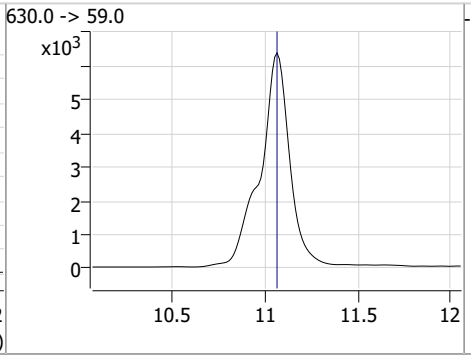


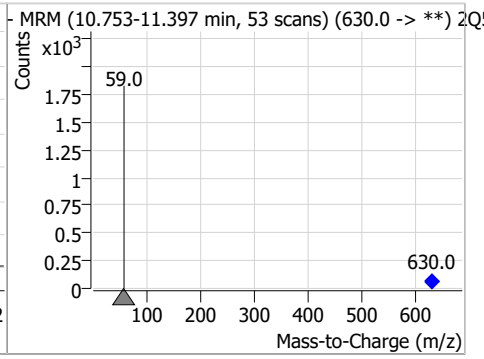




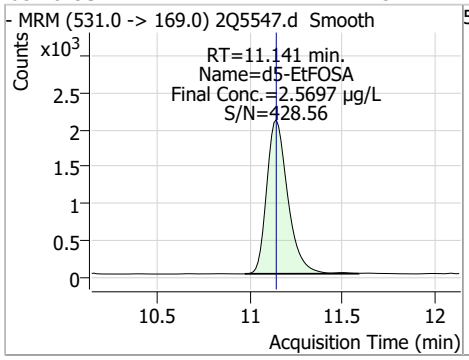
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSE	12.75	11.06	0.00	70212				

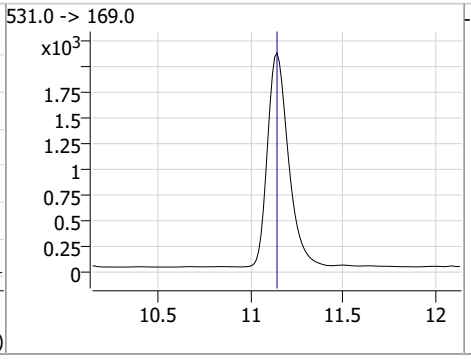


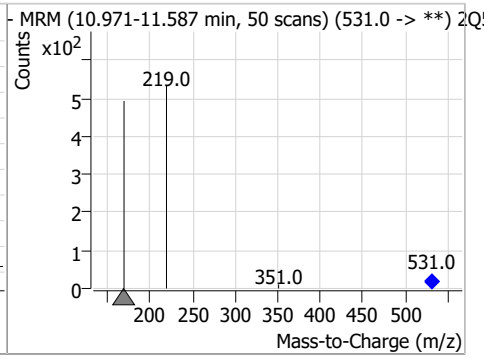




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
d5-EtFOSA	2.57	11.14	0.00	16555				

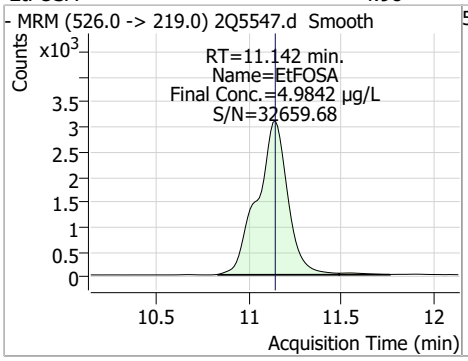


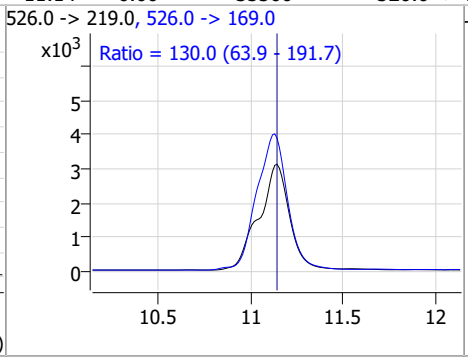


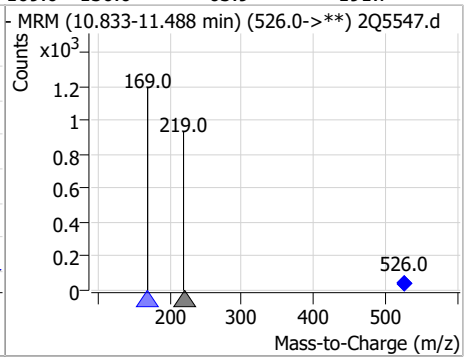


Perfluorinated Compounds by LC/MS/MS

Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Min.	Max.
EtFOSA	4.98	11.14	0.00	35500	526.0 -> 169.0	130.0	63.9	191.7







Worklist Report
T2Q96

Instrument Name: PFAS 2 **Worklist Path:** D:\MassHunter\Data\1633\T2Q96\T2Q96.wkl

Operator Name: paulc2
Run Type: Standard Start
Part of Method to Execution of Acquisition-DA: Both Acquisition and DA Synchronous
Acquisition Method Path: D:\MassHunter\Data\1633\T2Q96
DA Method Path: D:\MassHunter\Data\1633\T2Q96
Data File Path: D:\MassHunter\Data\1633\T2Q96\

Method: 1633
injection Vol: 4uL
Column Agilent Infinity Poroshell 120 EC-c18 2.1x200 2.7 micron snUSCGC18298
Initial Cal stock SV32-2955-49 T2Q96
RT TDCA lot# sv23-3003-18
RT br-In Lot# FCo52A-Cal/01 #3
Mobile phase A lot# SV23-2955-035
Mobile phase B 100% Acetonitrile

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment	Info.
1	condition	P1-B5	D:\1633_aquisition.m	2Q5260.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
2	condition	P1-B5	D:\1633_aquisition.m	2Q5261.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
3	iccb	P1-A1	D:\1633_aquisition.m	2Q5262.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
4	ic96-1	P1-A2	D:\1633_aquisition.m	2Q5263.d	Calibration	1	As Method		OP50767,T2Q96,500,,,5,1,water
5	ic96-2	P1-A3	D:\1633_aquisition.m	2Q5264.d	Calibration	2	As Method		OP50767,T2Q96,500,,,5,1,water
6	ic96-3	P1-A4	D:\1633_aquisition.m	2Q5265.d	Calibration	3	As Method		OP50767,T2Q96,500,,,5,1,water
7	icc63-4	P1-A5	D:\1633_aquisition.m	2Q5266.d	Calibration	4	As Method		OP50767,T2Q96,500,,,5,1,water
8	ic96-5	P1-A6	D:\1633_aquisition.m	2Q5267.d	Calibration	5	As Method		OP50767,T2Q96,500,,,5,1,water
9	ic96-6	P1-A7	D:\1633_aquisition.m	2Q5268.d	Calibration	6	As Method		OP50767,T2Q96,500,,,5,1,water
10	ic96-7	P1-A8	D:\1633_aquisition.m	2Q5269.d	Calibration	7	As Method		OP50767,T2Q96,500,,,5,1,water
11	ic96-8	P1-A9	D:\1633_aquisition.m	2Q5270.d	Calibration	8	As Method		OP50767,T2Q96,500,,,5,1,water
12	IBLK	P1-A1	D:\1633_aquisition.m	2Q5271.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
13	ic96-0		D:\1633_aquisition.m	2Q5272.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
15	icv96-5	P1-B3	D:\1633_aquisition.m	2Q5274.d	QC	5	As Method		OP50767,T2Q96,500,,,5,1,water
16	iccb	P1-A1	D:\1633_aquisition.m	2Q5275.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
17	cc96-1.0LL	P1-B1	D:\1633_aquisition.m	2Q5276.d	QC	1	As Method		OP50767,T2Q96,500,,,5,1,water
19	RT TDCA	P1-B4	D:\1633_aquisition.m	2Q5278.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
20	iccb	P1-A1	D:\1633_aquisition.m	2Q5279.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
22	ccv96-5	P1-A6	D:\1633_aquisition.m	2Q5281.d	QC	5	As Method		OP50767,T2Q96,500,,,5,1,water
23	iccb	P1-A1	D:\1633_aquisition.m	2Q5282.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
24	OP50767-MB	P1-B5	D:\1633_aquisition.m	2Q5283.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
25	OP50767-LLBS:2	P1-B6	D:\1633_aquisition.m	2Q5284.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
26	OP50767-BS	P1-B7	D:\1633_aquisition.m	2Q5285.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water

D:\\MassHunter\\Data\\1633\\T2Q96\\T2Q96.wkl
Report generation date: 04-Dec-2023 11:17:04 AM

Worklist Report
T2Q96

27	OP50767-MS	P1-B8	D:\1633_aquisition.m	2Q5286.d	Sample		As Method		OP50767,T2Q96,508,,,5,1,water
28	OP50767-MSD	P1-B9	D:\1633_aquisition.m	2Q5287.d	Sample		As Method		OP50767,T2Q96,504,,,5,1,water
29	JD77742-10	P1-C1	D:\1633_aquisition.m	2Q5288.d	Sample		As Method		OP50767,T2Q96,548,,,5,1,water
30	JD77742-30	P1-C2	D:\1633_aquisition.m	2Q5289.d	Sample		As Method		OP50767,T2Q96,533,,,5,1,water
31	JD77753-1	P1-C3	D:\1633_aquisition.m	2Q5290.d	Sample		As Method		OP50767,T2Q96,523,,,5,1,water
32	JD77753-2	P1-C4	D:\1633_aquisition.m	2Q5291.d	Sample		As Method		OP50767,T2Q96,526,,,5,1,water
33	JD77753-3	P1-C5	D:\1633_aquisition.m	2Q5292.d	Sample		As Method		OP50767,T2Q96,512,,,5,1,water
34	JD77753-4	P1-C6	D:\1633_aquisition.m	2Q5293.d	Sample		As Method		OP50767,T2Q96,530,,,5,1,water
35	JD77753-5	P1-C7	D:\1633_aquisition.m	2Q5294.d	Sample		As Method		OP50767,T2Q96,557,,,5,1,water
36	JD77753-6	P1-C8	D:\1633_aquisition.m	2Q5295.d	Sample		As Method		OP50767,T2Q96,564,,,5,1,water
37	JD77753-7	P1-C9	D:\1633_aquisition.m	2Q5296.d	Sample		As Method		OP50767,T2Q96,503,,,5,1,water
38	JD77753-8	P1-D1	D:\1633_aquisition.m	2Q5297.d	Sample		As Method		OP50767,T2Q96,550,,,5,1,water
40	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5299.d	QC	5	As Method		OP50767,T2Q96,500,,,5,1,water
41	iccb	P1-A1	D:\1633_aquisition.m	2Q5300.d	Sample		As Method		OP50767,T2Q96,500,,,5,1,water
42	JD77753-9	P1-D2	D:\1633_aquisition.m	2Q5301.d	Sample		As Method		OP50767,T2Q96,506,,,5,1,water
43	JD77753-10	P1-D3	D:\1633_aquisition.m	2Q5302.d	Sample		As Method		OP50767,T2Q96,542,,,5,1,water
44	JD77753-11	P1-D4	D:\1633_aquisition.m	2Q5303.d	Sample		As Method		OP50767,T2Q96,471,,,5,1,water
45	JD77753-12	P1-D5	D:\1633_aquisition.m	2Q5304.d	Sample		As Method		OP50767,T2Q96,509,,,5,1,water
46	OP50781-MB	P1-D6	D:\1633_aquisition.m	2Q5305.d	Sample		As Method		OP50781,T2Q96,500,,,5,1,water
47	OP50781-LLBS:2	P1-D7	D:\1633_aquisition.m	2Q5306.d	Sample		As Method		OP50781,T2Q96,500,,,5,1,water
48	OP50781-BS	P1-D8	D:\1633_aquisition.m	2Q5307.d	Sample		As Method		OP50781,T2Q96,500,,,5,1,water
49	OP50781-BSD	P1-D9	D:\1633_aquisition.m	2Q5308.d	Sample		As Method		OP50781,T2Q96,500,,,5,1,water
50	OP50781-MS	P1-E1	D:\1633_aquisition.m	2Q5309.d	Sample		As Method		OP50781,T2Q96,396,,,5,1,water
51	JD77754-1	P1-E2	D:\1633_aquisition.m	2Q5310.d	Sample		As Method		OP50781,T2Q96,410,,,5,1,water
52	JD77754-2	P1-E3	D:\1633_aquisition.m	2Q5311.d	Sample		As Method		OP50781,T2Q96,449,,,5,1,water
53	JD77754-3	P1-E4	D:\1633_aquisition.m	2Q5312.d	Sample		As Method		OP50781,T2Q96,464,,,5,1,water
54	JD77754-4	P1-E5	D:\1633_aquisition.m	2Q5313.d	Sample		As Method		OP50781,T2Q96,468,,,5,1,water
55	JD77754-5	P1-E6	D:\1633_aquisition.m	2Q5314.d	Sample		As Method		OP50781,T2Q96,411,,,5,1,water
56	JD77754-6	P1-E7	D:\1633_aquisition.m	2Q5315.d	Sample		As Method		OP50781,T2Q96,446,,,5,1,water
58	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5317.d	QC	5	As Method		OP50781,T2Q96,500,,,5,1,water
59	iccb	P1-A1	D:\1633_aquisition.m	2Q5318.d	Sample		As Method		OP50781,T2Q96,500,,,5,1,water
60	JD77754-7	P1-E8	D:\1633_aquisition.m	2Q5319.d	Sample		As Method		OP50781,T2Q96493,,,5,1,water
61	JD77755-1	P1-E9	D:\1633_aquisition.m	2Q5320.d	Sample		As Method		OP50781,T2Q96,483,,,5,1,water
62	JD77755-1	P1-F1	D:\1633_aquisition.m	2Q5321.d	Sample		As Method		OP50781,T2Q96,483,,,5,1,water
63	JD77755-2	P1-F2	D:\1633_aquisition.m	2Q5322.d	Sample		As Method		OP50781,T2Q96,383,,,5,1,water
64	JD77755-3	P1-F3	D:\1633_aquisition.m	2Q5323.d	Sample		As Method		OP50781,T2Q96,449,,,5,1,water
65	JD77755-4	P1-F4	D:\1633_aquisition.m	2Q5324.d	Sample		As Method		OP50781,T2Q96,446,,,5,1,water
66	JD77755-5	P1-F5	D:\1633_aquisition.m	2Q5325.d	Sample		As Method		OP50781,T2Q96,559,,,5,1,water
67	JD77755-6	P1-F6	D:\1633_aquisition.m	2Q5326.d	Sample		As Method		OP50781,T2Q96,537,,,5,1,water
68	JD77755-7	P1-F7	D:\1633_aquisition.m	2Q5327.d	Sample		As Method		OP50781,T2Q96,555,,,5,1,water
69	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5328.d	Sample		As Method		OP50781,T2Q96,544,,,5,1,water

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Worklist Report
T2Q96

71	iccb	P1-A1	D:\1633_aquisition.m	2Q5330.d	QC	5	As Method		OP50781,T2Q96,500,,,5,1,water
72	JD77755-8	P1-F8	D:\1633_aquisition.m	2Q5331.d	Sample		As Method		OP50781,T2Q96,528,,,5,1,water
73	OP50766-MB	P1-F9	D:\1633_aquisition.m	2Q5332.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
74	OP50766-LLBS:2	P2-A1	D:\1633_aquisition.m	2Q5333.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
75	OP50766-BS	P2-A2	D:\1633_aquisition.m	2Q5334.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
76	OP50766-MS	P2-A3	D:\1633_aquisition.m	2Q5335.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
77	OP50766-MSD	P2-A4	D:\1633_aquisition.m	2Q5336.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
78	JD77742-2	P2-A5	D:\1633_aquisition.m	2Q5337.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
79	JD77742-3	P2-A6	D:\1633_aquisition.m	2Q5338.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
80	JD77742-4	P2-A7	D:\1633_aquisition.m	2Q5339.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
81	JD77742-5	P2-A8	D:\1633_aquisition.m	2Q5340.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
82	JD77742-6	P2-A9	D:\1633_aquisition.m	2Q5341.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
83	swab 1	P2-C6	D:\1633_aquisition.m	2Q5342.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
84	swab 2	P2-C7	D:\1633_aquisition.m	2Q5343.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
85	JD77742-7	P2-B1	D:\1633_aquisition.m	2Q5344.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
86	JD77742-8	P2-B2	D:\1633_aquisition.m	2Q5345.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
87	JD77742-9	P2-B3	D:\1633_aquisition.m	2Q5346.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
88	JD77742-11	P2-B4	D:\1633_aquisition.m	2Q5347.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
90	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5349.d	QC	5	As Method		OP50766,T2Q96,5.0,,,5,1,soil
91	iccb	P1-A1	D:\1633_aquisition.m	2Q5350.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
92	JD77742-12	P2-B5	D:\1633_aquisition.m	2Q5351.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
93	JD77742-13	P2-B6	D:\1633_aquisition.m	2Q5352.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
94	JD77742-14	P2-B7	D:\1633_aquisition.m	2Q5353.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
95	JD77742-15	P2-B8	D:\1633_aquisition.m	2Q5354.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
96	JD77742-16	P2-B9	D:\1633_aquisition.m	2Q5355.d	Sample		As Method		OP50766,T2Q96,5.0,,,5,1,soil
97	JD77742-17	P2-C1	D:\1633_aquisition.m	2Q5356.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
98	JD77742-18	P2-C2	D:\1633_aquisition.m	2Q5357.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
99	JD77742-19	P2-C3	D:\1633_aquisition.m	2Q5358.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
100	OP59745-MB	P2-C4	D:\1633_aquisition.m	2Q5359.d	Sample		As Method		OP50745,T2Q96,500,,,5,1,water
101	JD77742-1	P2-C5	D:\1633_aquisition.m	2Q5360.d	Sample		As Method		OP50766,T2Q96,5.1,,,5,1,soil
103	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5362.d	QC	5	As Method		OP50766,T2Q96,5.0,,,5,1,soil
104	OP50765-MB	P2-C6	D:\1633_aquisition.m	2Q5363.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,0,soil
105	OP50765-LLBS:2	P2-C7	D:\1633_aquisition.m	2Q5364.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,0,soil
106	OP50765-BS	P2-C8	D:\1633_aquisition.m	2Q5365.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,0,soil
107	OP50765-MS	P2-C9	D:\1633_aquisition.m	2Q5366.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil
108	OP50765-MSD	P2-D1	D:\1633_aquisition.m	2Q5367.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil
109	JD77742-20	P2-D2	D:\1633_aquisition.m	2Q5368.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil
110	JD77742-21	P2-D3	D:\1633_aquisition.m	2Q5369.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,0,soil
111	JD77742-22	P2-D4	D:\1633_aquisition.m	2Q5370.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil
112	JD77742-23	P2-D5	D:\1633_aquisition.m	2Q5371.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
113	JD77742-24	P2-D6	D:\1633_aquisition.m	2Q5372.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil

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114	JD77742-25	P2-D7	D:\1633_aquisition.m	2Q5373.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
115	JD77742-26	P2-D8	D:\1633_aquisition.m	2Q5374.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
116	JD77742-27	P2-D9	D:\1633_aquisition.m	2Q5375.d	Sample		As Method		OP50765,T2Q96,5.0,,,5,1,soil
117	JD77742-28	P2-E1	D:\1633_aquisition.m	2Q5376.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
118	JD77742-29	P2-E2	D:\1633_aquisition.m	2Q5377.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
120	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5379.d	QC	5	As Method		OP50765,T2Q96,5.0,,,5,1,soil
121	iccb	P1-A1	D:\1633_aquisition.m	2Q5380.d	Sample		As Method		OP50765,T2Q96,5.1,,,5,1,soil
122	JD77753-6	P2-E3	D:\1633_aquisition.m	2Q5381.d	Sample		As Method	10x	OP50767,T2Q96,564,,,5,10,water
123	JD77754-8	P2-E4	D:\1633_aquisition.m	2Q5382.d	Sample		As Method	10x	OP50781,T2Q96,483,,,5,10,water
124	JD77755-2	P2-E5	D:\1633_aquisition.m	2Q5383.d	Sample		As Method	10x	OP50781,T2Q96,383,,,5,10,water
125	JD77755-6	P2-E6	D:\1633_aquisition.m	2Q5384.d	Sample		As Method	10x	OP50781,T2Q96,537,,,5,10,water
126	JD77755-7	P2-E7	D:\1633_aquisition.m	2Q5385.d	Sample		As Method	10x	OP50781,T2Q96,555,,,5,10,water
127	JD77755-8	P2-E8	D:\1633_aquisition.m	2Q5386.d	Sample		As Method	10x	OP50781,T2Q96,528,,,5,10,water
128	OP50811-MB	P2-E9	D:\1633_aquisition.m	2Q5387.d	Sample		As Method		OP50811,T2Q96,500,,,5,1,water
129	OP50811-LLBS:2	P2-F1	D:\1633_aquisition.m	2Q5388.d	Sample		As Method		OP50811,T2Q96,500,,,5,1,water
130	OP50811-BS	P2-F2	D:\1633_aquisition.m	2Q5389.d	Sample		As Method		OP50811,T2Q96,500,,,5,1,water
131	OP50811-MS	P2-F3	D:\1633_aquisition.m	2Q5390.d	Sample		As Method		OP50811,T2Q96,549,,,5,1,water
132	OP50811-MSD	P2-F4	D:\1633_aquisition.m	2Q5391.d	Sample		As Method		OP50811,T2Q96,514,,,5,1,water
133	JD77804-1	P2-F5	D:\1633_aquisition.m	2Q5392.d	Sample		As Method		OP50811,T2Q96,544,,,5,1,water
134	JD77804-2	P2-F6	D:\1633_aquisition.m	2Q5393.d	Sample		As Method		OP50811,T2Q96,526,,,5,1,water
135	JD77804-3	P2-F7	D:\1633_aquisition.m	2Q5394.d	Sample		As Method		OP50811,T2Q96,524,,,5,1,water
136	JD77804-4	P2-F8	D:\1633_aquisition.m	2Q5395.d	Sample		As Method		OP50811,T2Q96,514,,,5,1,water
138	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5397.d	QC	5	As Method		OP50811,T2Q96,514,,,5,1,water
139	iccb	P1-A1	D:\1633_aquisition.m	2Q5398.d	Sample		As Method		OP50811,T2Q96,514,,,5,1,water
140	JD77804-5	P2-F9	D:\1633_aquisition.m	2Q5399.d	Sample		As Method		OP50811,T2Q96,516,,,5,1,water
141	JD77804-6	P3-A1	D:\1633_aquisition.m	2Q5400.d	Sample		As Method		OP50811,T2Q96,526,,,5,1,water
142	JD77804-7	P3-A2	D:\1633_aquisition.m	2Q5401.d	Sample		As Method		OP50811,T2Q96,520,,,5,1,water
143	JD77804-8	P3-A3	D:\1633_aquisition.m	2Q5402.d	Sample		As Method		OP50811,T2Q96,492,,,5,1,water
144	JD77804-9	P3-A4	D:\1633_aquisition.m	2Q5403.d	Sample		As Method		OP50811,T2Q96,530,,,5,1,water
145	JD77804-10	P3-A5	D:\1633_aquisition.m	2Q5404.d	Sample		As Method		OP50811,T2Q96,518,,,5,1,water
146	JD77804-11	P3-A6	D:\1633_aquisition.m	2Q5405.d	Sample		As Method		OP50811,T2Q96,475,,,5,1,water
147	JD77804-12	P3-A7	D:\1633_aquisition.m	2Q5406.d	Sample		As Method		OP50811,T2Q96,513,,,5,1,water
148	JD77804-13	P3-A8	D:\1633_aquisition.m	2Q5407.d	Sample		As Method		OP50811,T2Q96,512,,,5,1,water
149	JD77804-14	P3-A9	D:\1633_aquisition.m	2Q5408.d	Sample		As Method		OP50811,T2Q96,522,,,5,1,water
150	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5409.d	QC	4	As Method		OP50811,T2Q96,522,,,5,1,water
152	iccb	P1-A1	D:\1633_aquisition.m	2Q5411.d	Sample		As Method		OP50811,T2Q96,522,,,5,1,water
153	JD77804-15	P3-B1	D:\1633_aquisition.m	2Q5412.d	Sample		As Method		OP50811,T2Q96,537,,,5,1,water
154	JD77804-16	P3-B2	D:\1633_aquisition.m	2Q5413.d	Sample		As Method		OP50811,T2Q96,534,,,5,1,water
155	JD77804-17	P3-B3	D:\1633_aquisition.m	2Q5414.d	Sample		As Method		OP50811,T2Q96,468,,,5,1,water
156	JD77804-18	P3-B4	D:\1633_aquisition.m	2Q5415.d	Sample		As Method		OP50811,T2Q96,493,,,5,1,water
157	JD77804-19	P3-B5	D:\1633_aquisition.m	2Q5416.d	Sample		As Method		OP50811,T2Q96,555,,,5,1,water

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158	JD77804-20	P3-B6	D:\1633_aquisition.m	2Q5417.d	Sample		As Method		OP50811,T2Q96,512,,,5,1,water
160	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5419.d	QC	5	As Method		OP50811,T2Q96,500,,,5,1,water

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Worklist Report
T2Q97

Instrument PFAS 2 **Worklist Path:** D:\MassHunter\Data\1633\T2Q97\T2Q97.wkl

Operator Name: paulc2
Run Type: Standard Start
Part of Method to Execution of Acquisition-DA: Both Acquisition and DA Synchronous
Acquisition Method Path: D:\MassHunter\Data\1633\T2Q97
DA Method Path: D:\MassHunter\Data\1633\T2Q97
Data File Path: D:\MassHunter\Data\1633\T2Q97\

Method: 1633
injection Vol: 4uL
Column Agilent Infinity Poroshell 120 EC-c18 2.1x200 2.7 micron snUSCGC18298
Initial Cal stock SV32-2955-49 T2Q96
RT TDCA lot# sv23-3003-18
Mobile phase A lot# SV23-2955-073
Mobile phase B 100% Acetonitrile

Worklist

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Method Type	Dilution	Comment	Info.
1	condition	P1-B5	D:\1633_aquisition.m	2Q5420.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
2	condition	P1-B5	D:\1633_aquisition.m	2Q5421.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
3	lccb	P1-A1	D:\1633_aquisition.m	2Q5422.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
4	cc96-1.0LL	P1-B1	D:\1633_aquisition.m	2Q5423.d	QC	1	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
5	cc96-1.0LL	P1-A2	D:\1633_aquisition.m	2Q5424.d	QC	1	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
6	RT TDCA	P1-B4	D:\1633_aquisition.m	2Q5425.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
7	ccv96-4	P1-A5	D:\1633_aquisition.m	2Q5426.d	QC	4	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
8	ccv96-5	P1-A6	D:\1633_aquisition.m	2Q5427.d	QC	5	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
9	Stock 2955-074	P2-F9	D:\1633_aquisition.m	2Q5428.d	QC	4	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
10	lccb	P1-A1	D:\1633_aquisition.m	2Q5429.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
11	OP50851-MB	P1-B5	D:\1633_aquisition.m	2Q5430.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
12	OP50851-LLBS:2	P1-B6	D:\1633_aquisition.m	2Q5431.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
13	OP50851-BS	P1-B7	D:\1633_aquisition.m	2Q5432.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
14	OP50851-BSD	P1-B8	D:\1633_aquisition.m	2Q5433.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
15	OP50851-MS	P1-B9	D:\1633_aquisition.m	2Q5434.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,528,,,5,1,water
16	JD77972-1	P1-C1	D:\1633_aquisition.m	2Q5435.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,565,,,5,1,water
17	JD77972-2	P1-C2	D:\1633_aquisition.m	2Q5436.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,544,,,5,1,water
18	JD77972-3	P1-C3	D:\1633_aquisition.m	2Q5437.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,513,,,5,1,water
19	JD77972-4	P1-C4	D:\1633_aquisition.m	2Q5438.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,531,,,5,1,water
20	JD77972-5	P1-C5	D:\1633_aquisition.m	2Q5439.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,515,,,5,1,water
21	JD77972-6	P1-C6	D:\1633_aquisition.m	2Q5440.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,547,,,5,1,water
22	JD77972-7	P1-C7	D:\1633_aquisition.m	2Q5441.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,524,,,5,1,water
23	JD77972-8	P1-C8	D:\1633_aquisition.m	2Q5442.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,528,,,5,1,water
24	JD77972-8	P1-C9	D:\1633_aquisition.m	2Q5443.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,523,,,5,1,water
25	JD77972-10	P1-D1	D:\1633_aquisition.m	2Q5444.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,520,,,5,1,water

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26	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5445.d	QC	4	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
27	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5446.d	QC	5	Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
28	iccb	P1-A1	D:\1633_aquisition.m	2Q5447.d	Sample		Both Acquisition and DA	1		OP50851,T2Q97,500,,,5,1,water
29	OP50852-MB	P1-D2	D:\1633_aquisition.m	2Q5448.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
30	OP50852-LLBS:2	P1-D3	D:\1633_aquisition.m	2Q5449.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
31	OP50852-BS	P1-D4	D:\1633_aquisition.m	2Q5450.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
32	OP50852-BSD	P1-D5	D:\1633_aquisition.m	2Q5451.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
33	OP50852-MS	P1-D6	D:\1633_aquisition.m	2Q5452.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,501,,,5,1,water
34	JD77883-20	P1-D7	D:\1633_aquisition.m	2Q5453.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,472,,,5,1,water
35	JD77883-40	P1-D8	D:\1633_aquisition.m	2Q5454.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,541,,,5,1,water
36	JD77966-6	P1-D9	D:\1633_aquisition.m	2Q5455.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,556,,,5,1,water
37	JD77966-7	P1-E1	D:\1633_aquisition.m	2Q5456.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,513,,,5,1,water
38	JD77966-8	P1-E2	D:\1633_aquisition.m	2Q5457.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,481,,,5,1,water
39	JD77966-9	P1-E3	D:\1633_aquisition.m	2Q5458.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,522,,,5,1,water
40	JD77966-10	P1-E4	D:\1633_aquisition.m	2Q5459.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,543,,,5,1,water
41	JD77966-11	P1-E5	D:\1633_aquisition.m	2Q5460.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,485,,,5,1,water
42	JD77966-14	P1-E6	D:\1633_aquisition.m	2Q5461.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,527,,,5,1,water
43	JD77966-15	P1-E7	D:\1633_aquisition.m	2Q5462.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,467,,,5,1,water
44	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5463.d	QC	4	Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
45	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5464.d	QC	5	Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
46	iccb	P1-A1	D:\1633_aquisition.m	2Q5465.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,500,,,5,1,water
47	JD77966-16	P1-E8	D:\1633_aquisition.m	2Q5466.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,511,,,5,1,water
48	JD77966-17	P1-E9	D:\1633_aquisition.m	2Q5467.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,462,,,5,1,water
49	JD77966-19	P1-F1	D:\1633_aquisition.m	2Q5468.d	Sample		Both Acquisition and DA	1		OP50852,T2Q97,504,,,5,1,water
50	OP50850-MB	P1-F2	D:\1633_aquisition.m	2Q5469.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
51	OP50850-LLBS:2	P1-F3	D:\1633_aquisition.m	2Q5470.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
52	OP50850-BS	P1-F4	D:\1633_aquisition.m	2Q5471.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
53	OP50850-MS	P1-F5	D:\1633_aquisition.m	2Q5472.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
54	OP50850-MSD	P1-F6	D:\1633_aquisition.m	2Q5473.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
55	JD77883-17	P1-F7	D:\1633_aquisition.m	2Q5474.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
56	JD77883-18	P1-F8	D:\1633_aquisition.m	2Q5478.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
57	JD77883-19	P1-F9	D:\1633_aquisition.m	2Q5479.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
58	JD77883-21	P2-A1	D:\1633_aquisition.m	2Q5480.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
59	JD77883-22	P2-A2	D:\1633_aquisition.m	2Q5481.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
60	JD77883-23	P2-A3	D:\1633_aquisition.m	2Q5482.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
61	JD77883-24	P2-A4	D:\1633_aquisition.m	2Q5483.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
62	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5484.d	QC	4	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
63	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5485.d	QC	5	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
64	iccb	P1-A1	D:\1633_aquisition.m	2Q5486.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
65	JD77883-25	P2-A5	D:\1633_aquisition.m	2Q5487.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
66	JD77883-26	P2-A6	D:\1633_aquisition.m	2Q5488.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil

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Worklist Report
T2Q97

67	JD77883-27	P2-A7	D:\1633_aquisition.m	2Q5489.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
68	JD77883-28	P2-A8	D:\1633_aquisition.m	2Q5490.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
69	JD77883-29	P2-A9	D:\1633_aquisition.m	2Q5491.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
70	JD77883-30	P2-B1	D:\1633_aquisition.m	2Q5492.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
71	JD77883-31	P2-B2	D:\1633_aquisition.m	2Q5493.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
72	JD77883-32	P2-B3	D:\1633_aquisition.m	2Q5494.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
73	JD77883-33	P2-B4	D:\1633_aquisition.m	2Q5495.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
74	JD77883-34	P2-B5	D:\1633_aquisition.m	2Q5496.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
75	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5497.d	QC	4	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
76	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5498.d	QC	5	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
77	iccb	P1-A1	D:\1633_aquisition.m	2Q5499.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
78	JD77883-35	P2-B6	D:\1633_aquisition.m	2Q5500.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
79	JD77883-36	P2-B7	D:\1633_aquisition.m	2Q5501.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
80	OP50866-MB	P2-B8	D:\1633_aquisition.m	2Q5504.d	Sample		Both Acquisition and DA	1		OP50866,T2Q97,5.0,,,5,1,soil
81	OP50866-LLBS:2	P2-B9	D:\1633_aquisition.m	2Q5505.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
82	OP50866-BS	P2-C1	D:\1633_aquisition.m	2Q5506.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
83	OP50866-MS	P2-C2	D:\1633_aquisition.m	2Q5507.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
84	OP50866-MSD	P2-C3	D:\1633_aquisition.m	2Q5508.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
85	JD77828-1A	P2-C4	D:\1633_aquisition.m	2Q5509.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
86	JD77828-2	P2-C5	D:\1633_aquisition.m	2Q5510.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
87	JD77828-3A	P2-C6	D:\1633_aquisition.m	2Q5511.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
88	JD77883-1	P2-C7	D:\1633_aquisition.m	2Q5512.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
89	JD77883-2	P2-C8	D:\1633_aquisition.m	2Q5513.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
90	JD77883-3	P2-C9	D:\1633_aquisition.m	2Q5514.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
91	JD77883-4	P2-D1	D:\1633_aquisition.m	2Q5515.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
92	JD77883-5	P2-D2	D:\1633_aquisition.m	2Q5516.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
93	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5517.d	QC	4	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
94	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5518.d	QC	5	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
95	iccb	P1-A1	D:\1633_aquisition.m	2Q5519.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
96	JD77883-6	P2-D3	D:\1633_aquisition.m	2Q5520.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
97	JD77883-7	P2-D4	D:\1633_aquisition.m	2Q5521.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
98	JD77883-8	P2-D5	D:\1633_aquisition.m	2Q5522.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
99	JD77883-9	P2-D6	D:\1633_aquisition.m	2Q5523.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
100	JD77883-10	P2-D7	D:\1633_aquisition.m	2Q5524.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
101	JD77883-11	P2-D8	D:\1633_aquisition.m	2Q5525.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
102	JD77883-12	P2-D9	D:\1633_aquisition.m	2Q5526.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
103	JD77883-13	P2-E1	D:\1633_aquisition.m	2Q5527.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
104	JD77883-14	P2-E2	D:\1633_aquisition.m	2Q5528.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
105	JD77883-15	P2-E3	D:\1633_aquisition.m	2Q5529.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.1,,,5,1,soil
106	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5530.d	QC	4	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
107	cc96-4	P1-A6	D:\1633_aquisition.m	2Q5531.d	QC	5	Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil

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Worklist Report
T2Q97

108	iccb	P1-A1	D:\1633_aquisition.m	2Q5532.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5.0,,,5,1,soil
109	OP50781-MB	P2-F7	D:\1633_aquisition.m	2Q5533.d	Sample		Both Acquisition and DA	1		OP50781,T2Q96,500,,,5,1,water
110	JD77883-16	P2-E4	D:\1633_aquisition.m	2Q5534.d	Sample		Both Acquisition and DA	1		OP50850,T2Q97,5,1,,,5,1,soil
111	OP50890-MB	P2-E5	D:\1633_aquisition.m	2Q5535.d	Sample		Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water
112	OP50890-LLBS:2	P2-E6	D:\1633_aquisition.m	2Q5536.d	Sample		Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water
113	OP50890-BS	P2-E7	D:\1633_aquisition.m	2Q5537.d	Sample		Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water
114	OP50890-BSD	P2-E8	D:\1633_aquisition.m	2Q5538.d	Sample		Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water
115	JD77753-4	P2-E9	D:\1633_aquisition.m	2Q5539.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
116	JD77753-5	P2-F1	D:\1633_aquisition.m	2Q5540.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
117	JD77753-11	P2-F2	D:\1633_aquisition.m	2Q5541.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
118	JD77753-12	P2-F3	D:\1633_aquisition.m	2Q5542.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
119	JD77754-3	P2-F4	D:\1633_aquisition.m	2Q5543.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
120	JD77754-4	P2-F5	D:\1633_aquisition.m	2Q5544.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
121	JD77754-7	P2-F6	D:\1633_aquisition.m	2Q5545.d	Sample		Both Acquisition and DA	1	re-extraction	OP50890,T2Q97,1,,,5,1,water
122	JD77804-12	P2-F8	D:\1633_aquisition.m	2Q5546.d	Sample		Both Acquisition and DA	1		OP50811,T2Q96,513,,,5,1,water
123	cc96-4	P1-A5	D:\1633_aquisition.m	2Q5547.d	QC	4	Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water
124	cc96-5	P1-A6	D:\1633_aquisition.m	2Q5548.d	QC	5	Both Acquisition and DA	1		OP50890,T2Q97,500,,,5,1,water

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Report generation date: 06-Dec-2023 12:18:27 PM

PFAS Extraction Logbook

Date Started:_____ 1-Dec-23
Date Finished: ___ 1-Dec-23

Time Started:___9:00am_____
Time Finished:__3:51pm_____

Extract Method (CHECK OFF "x" /DO NOT CIRCLE):
SW846 3512_____ EPA 1633___x___
533_____ 537.1 _____ ASTM D7968 _____

water___x___ Soil_____

BATCH # LCMSMS	OP50811		RACK#
Set-up by:	JA		
Reviewed by:	PC	Date:	04Dec23

Sample #	Bottle #	Sample Vol (mL)	initial pH	adjusted pH	Surrogate (EIS) amount (ul)	Spike amount (ul)	Final Extraction vol (mL)	NIS amount (ul)	Weight of Bottle Before(g)	Weight of Bottle After (g)	Observations
MB		500	7	na	50	na	5	50			
BS		500	7	na	50	200	5	50			
LLBS		500	7	na	50	32	5	50			
MS	JD77804-5	549	7	na	50	200	5	50	590	41	
MSD	JD77804-5	514	7	na	50	200	5	50	555	41	
JD77804-1		544	7	na	50	na	5	50	585	41	2 SPE'S
JD77804-2		526	7	na	50	na	5	50	567	41	
JD77804-3		524	7	na	50	na	5	50	565	41	
JD77804-4		514	7	na	50	na	5	50	558	44	
JD77804-5		516	7	na	50	na	5	50	557	41	
JD77804-6		526	7	na	50	na	5	50	567	41	
JD77804-7		520	7	na	50	na	5	50	562	42	
JD77804-8		492	7	na	50	na	5	50	534	42	2 SPE'S
JD77804-9		530	7	na	50	na	5	50	571	41	
JD77804-10		518	7	na	50	na	5	50	559	41	
JD77804-11		475	7	na	50	na	5	50	518	43	3 SPE'S
JD77804-12		513	7	na	50	na	5	50	554	41	
JD77804-13		512	7	na	50	na	5	50	553	41	
JD77804-14		522	7	na	50	na	5	50	564	42	
JD77804-15		537	7	na	50	na	5	50	578	41	
JD77804-16		534	7	na	50	na	5	50	575	41	
JD77804-17		468	7	na	50	na	5	50	509	41	
JD77804-18		493	7	na	50	na	5	50	534	41	
JD77804-19		555	7	na	50	na	5	50	597	42	
JD77804-20		512	7	na	50	na	5	50	554	42	

Materials	LOT #	expiration date	source
0.3% Ammonium Hydroxide MEOH	na	na	na
1% Ammonium Hydroxide MEOH	sv23-2955-21	2-Jan-24	inhouse
0.1M Formic 1:1 MEOH	sv23-2955-47	4-Nov-24	inhouse
3% Ammonium Hydroxide in water	na	na	na
3% Formic Acid in water	sv23-2955-46	2/31/2024	in house
Nylon Syringe Filters	211570103	na	agilent
pH strips		15-Sep-25	FISHER
SPE Cartridge	6736233-03	na	AGILENT
Glass Wool	A0435105	NA	THERMOSCIENTFIC
Ammonium Hydroxide	na	na	na
Acetic Acid	220429	6-Oct-24	FISHER
Formic Acid	R11I030	11-Nov-24	THERMOSCIENTFIC
Methanol	222340	17-Aug-25	FISHER
Carbon	161965	14-Sep-24	sigma-aldrich
NIS	sv23-2955-65	29-Feb-24	INHOUSE
EIS	sv23-2955-66	29-Feb-24	INHOUSE
Filters	na	na	na
Ottawa Sand	na	na	na
0.1M Phosphate	na	na	na
1g/L Ammonium Acetate in water	na	na	na
80% Methanol in water	na	na	na
Target Spike Sol	SV23-2955-49	20-Feb-24	INHOUSE
96% Methanol in water	na	na	na

Appendix D

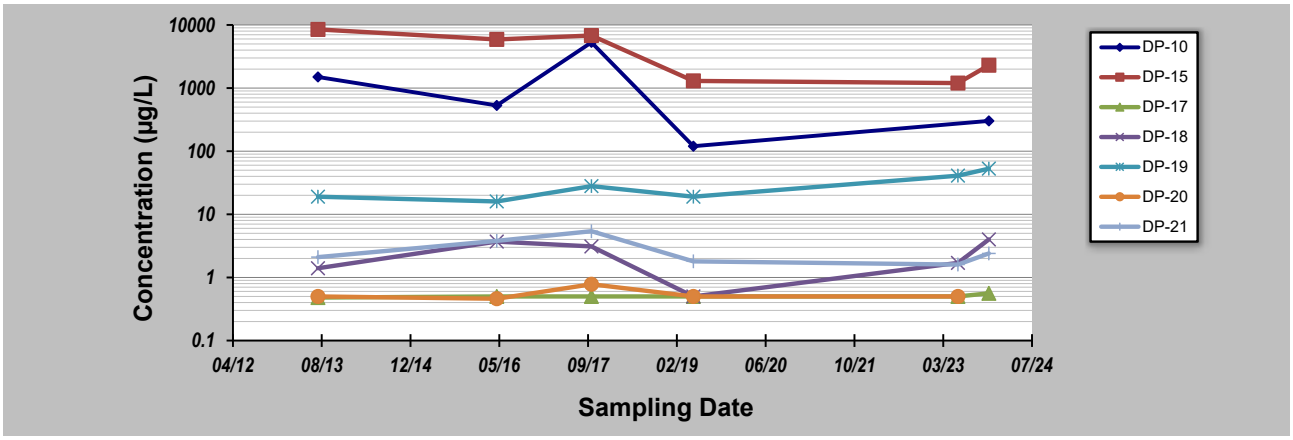
Trend Evaluation Graphs

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	PCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	DP-10	DP-15	DP-17	DP-18	DP-19	DP-20	DP-21
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	24-Jul-13	1500	8500	0.48	1.4	19	0.5	2.1
2	26-Apr-16	530	5900	0.5	3.7	16	0.46	3.8
3	11-Oct-17	5300	6800	0.5	3.1	28	0.78	5.4
4	8-May-19	120	1300	0.5	0.5	19	0.5	1.8
5	6-Jun-23		1200	0.5	1.7	41	0.5	1.6
6	27-Nov-23	302	2300	0.56	4.0	53		2.4
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.39	0.72	0.05	0.58	0.50	0.24	0.52
Mann-Kendall Statistic (S):		-4	-9	9	3	10	1	-3
Confidence Factor:		75.8%	93.2%	93.2%	64.0%	95.2%	50.0%	64.0%
Concentration Trend:		No Trend	Prob. Decreasing	Prob. Increasing	No Trend	Increasing	No Trend	Stable



Notes:

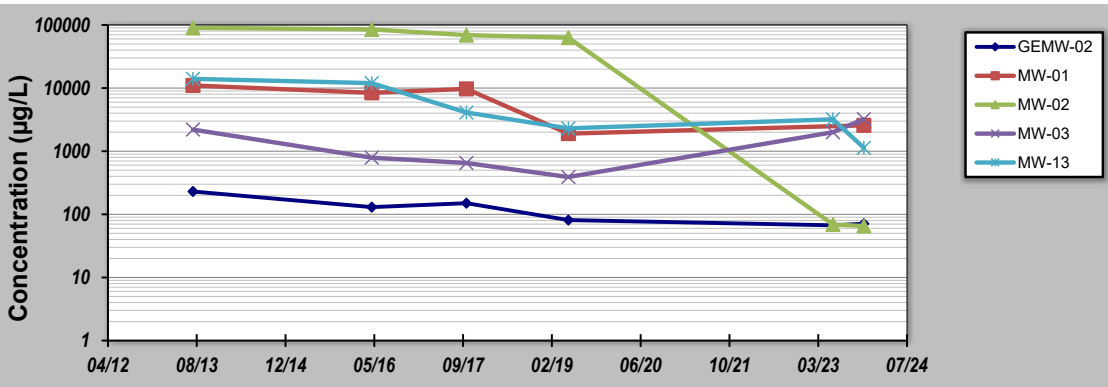
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	PCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	GEMW-02	MW-01	MW-02	MW-03	MW-13		
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	24-Jul-13	230	11000	90000	2200	14000		
2	26-Apr-16	130	8400	85000	790	12000		
3	11-Oct-17	150	9700	69000	650	4100		
4	8-May-19	81	1900	63000	390	2300		
5	6-Jun-23	67		69	2000	3200		
6	27-Nov-23	71	2570	65.2	3220	1130		
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Coefficient of Variation:		0.52	0.63	0.80	0.72	0.89		
Mann-Kendall Statistic (S):		-11	-6	-15	1	-13		
Confidence Factor:		97.2%	88.3%	99.9%	50.0%	99.2%		
Concentration Trend:		Decreasing	Stable	Decreasing	No Trend	Decreasing		



Notes:

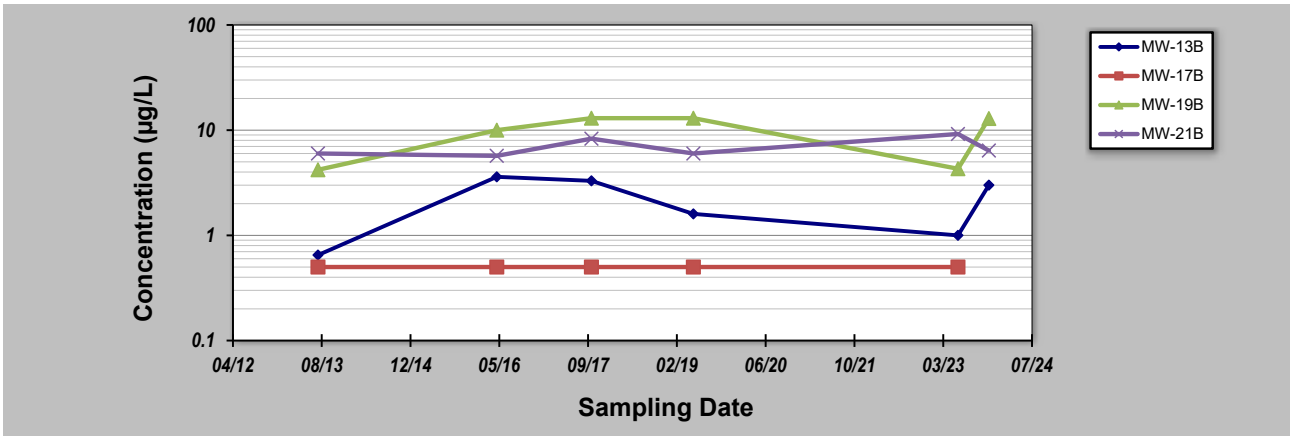
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	PCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	MW-13B	MW-17B	MW-19B	MW-21B			
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	24-Jul-13	0.65	0.5	4.2	6			
2	26-Apr-16	3.6	0.5	10	5.7			
3	11-Oct-17	3.3	0.5	13	8.3			
4	8-May-19	1.6	0.5	13	6			
5	6-Jun-23	1	0.5	4.3	9.2			
6	27-Nov-23	3		12.9	6.4			
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Coefficient of Variation:		0.58	0.00	0.45	0.21			
Mann-Kendall Statistic (S):		-1	0	4	6			
Confidence Factor:		50.0%	40.8%	70.3%	81.5%			
Concentration Trend:		Stable	Stable	No Trend	No Trend			



Notes:

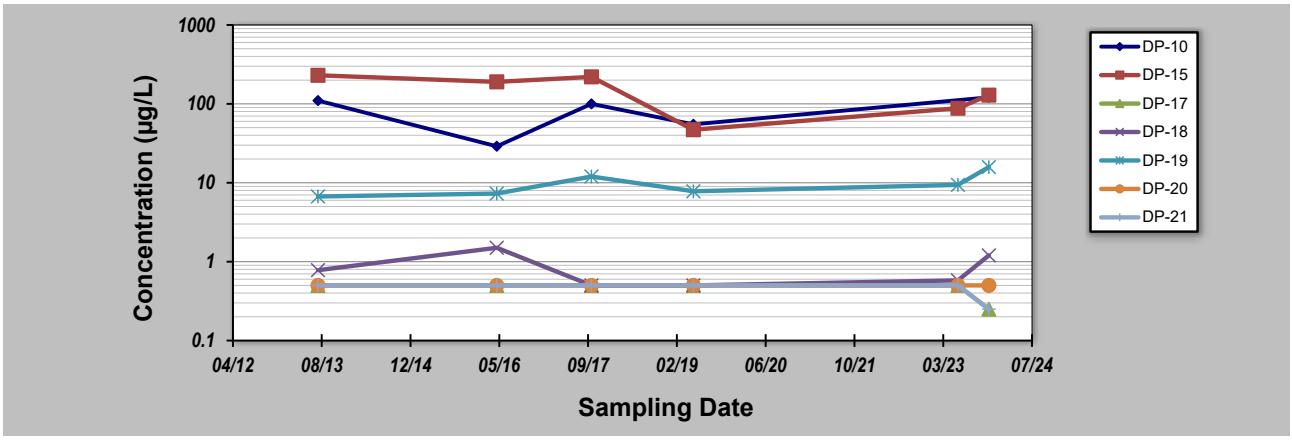
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	cis-1,2-DCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	DP-10	DP-15	DP-17	DP-18	DP-19	DP-20	DP-21
Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	24-Jul-13	110	230	0.5	0.78	6.7	0.5	0.5
2	26-Apr-16	29	190	0.5	1.5	7.3	0.5	0.5
3	11-Oct-17	100	220	0.5	0.5	12	0.5	0.5
4	8-May-19	55	47	0.5	0.5	7.8	0.5	0.5
5	6-Jun-23		88	0.5	0.58	9.4	0.5	0.5
6	27-Nov-23	121	129	0.25	1.2	15.8	0.5	0.25
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Coefficient of Variation:		0.47	0.49	0.22	0.49	0.35	0.00	0.22
Mann-Kendall Statistic (S):		2	-7	-5	0	11	0	-5
Confidence Factor:		59.2%	86.4%	76.5%	39.3%	97.2%	39.3%	76.5%
Concentration Trend:		No Trend	Stable	Stable	Stable	Increasing	Stable	Stable



Notes:

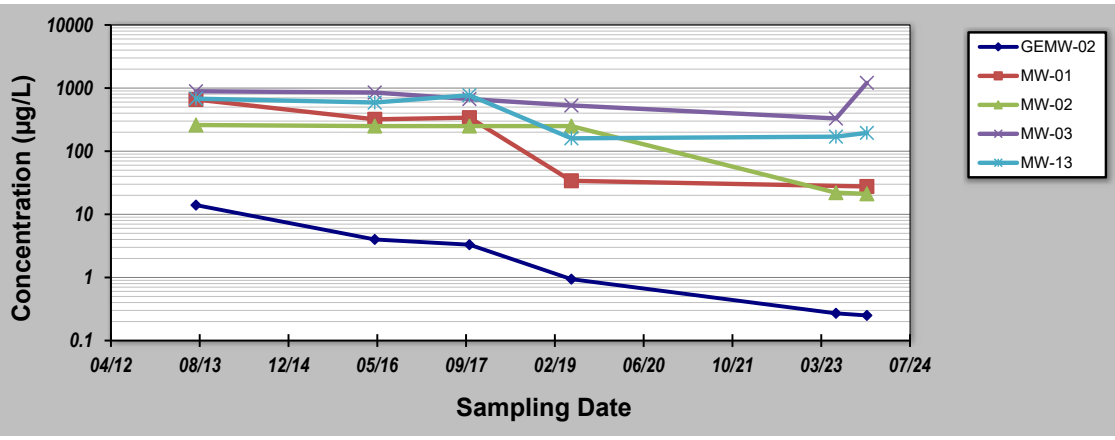
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	cis-1,2-DCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	GEMW-02	MW-01	MW-02	MW-03	MW-13		
Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	24-Jul-13	14	660	260	890	680		
2	26-Apr-16	4	320	250	850	590		
3	11-Oct-17	3.3	340	250	670	770		
4	8-May-19	0.94	34	250	530	160		
5	6-Jun-23	0.27		22	330	170		
6	27-Nov-23	0.25	27.6	21.1	1210	195		
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Coefficient of Variation:		1.38	0.95	0.68	0.41	0.66		
Mann-Kendall Statistic (S):		-15	-8	-12	-5	-5		
Confidence Factor:		99.9%	95.8%	98.2%	76.5%	76.5%		
Concentration Trend:		Decreasing	Decreasing	Decreasing	Stable	Stable		



Notes:

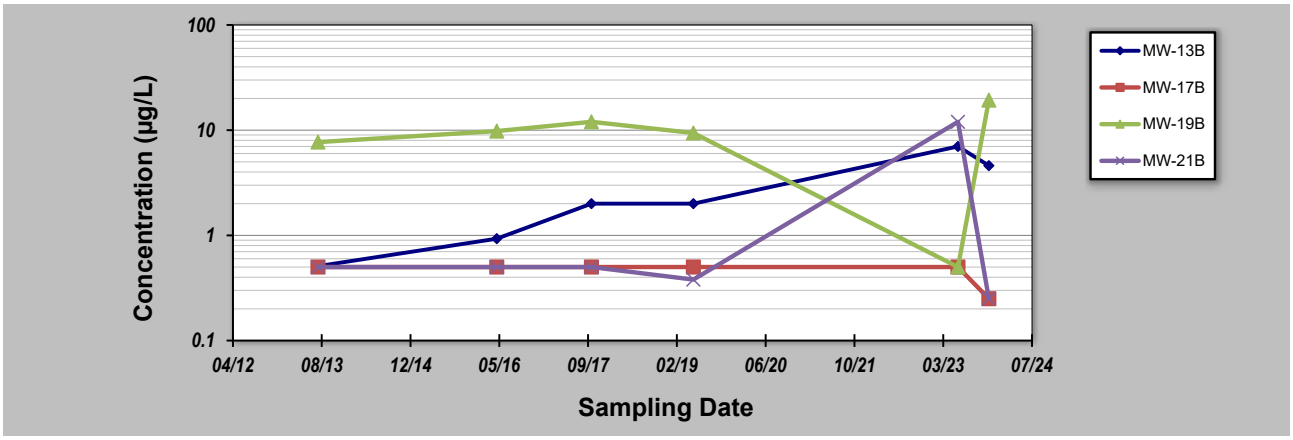
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for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	cis-1,2-DCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	MW-13B	MW-17B	MW-19B	MW-21B			
Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	24-Jul-13	0.51	0.5	7.7	0.5			
2	26-Apr-16	0.93	0.5	9.8	0.5			
3	11-Oct-17	2	0.5	12	0.5			
4	8-May-19	2	0.5	9.4	0.38			
5	6-Jun-23	7	0.5	0.5	12.0			
6	27-Nov-23	4.6	0.3	19.3	0.3			
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Coefficient of Variation:		0.88	0.22	0.62	2.01			
Mann-Kendall Statistic (S):		12	-5	3	-4			
Confidence Factor:		98.2%	76.5%	64.0%	70.3%			
Concentration Trend:		Increasing	Stable	No Trend	No Trend			



Notes:

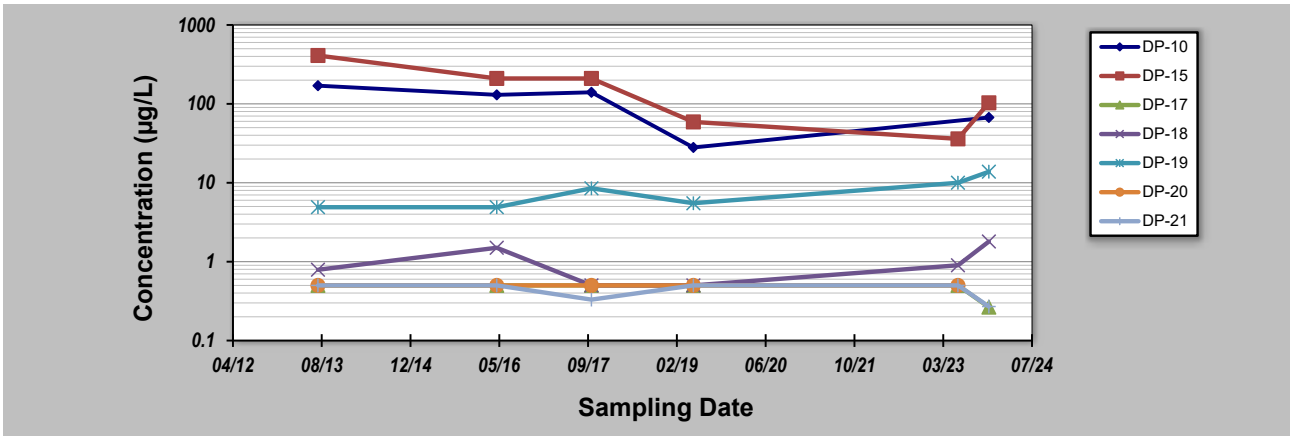
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for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	TCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	DP-10	DP-15	DP-17	DP-18	DP-19	DP-20	DP-21
Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)						
1	24-Jul-13	170	410	0.5	0.79	4.9	0.5	0.5
2	26-Apr-16	130	210	0.5	1.5	4.9	0.5	0.5
3	11-Oct-17	140	210	0.5	0.5	8.5	0.5	0.33
4	8-May-19	28	59	0.5	0.5	5.5	0.5	0.5
5	6-Jun-23		36	0.5	0.9	10.0	0.5	0.5
6	27-Nov-23	67.2	103	0.27	1.8	13.8		0.27
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Coefficient of Variation:		0.54	0.81	0.21	0.54	0.45	0.00	0.24
Mann-Kendall Statistic (S):		-6	-10	-5	4	12	0	-5
Confidence Factor:		88.3%	95.2%	76.5%	70.3%	98.2%	40.8%	76.5%
Concentration Trend:		Stable	Decreasing	Stable	No Trend	Increasing	Stable	Stable



Notes:

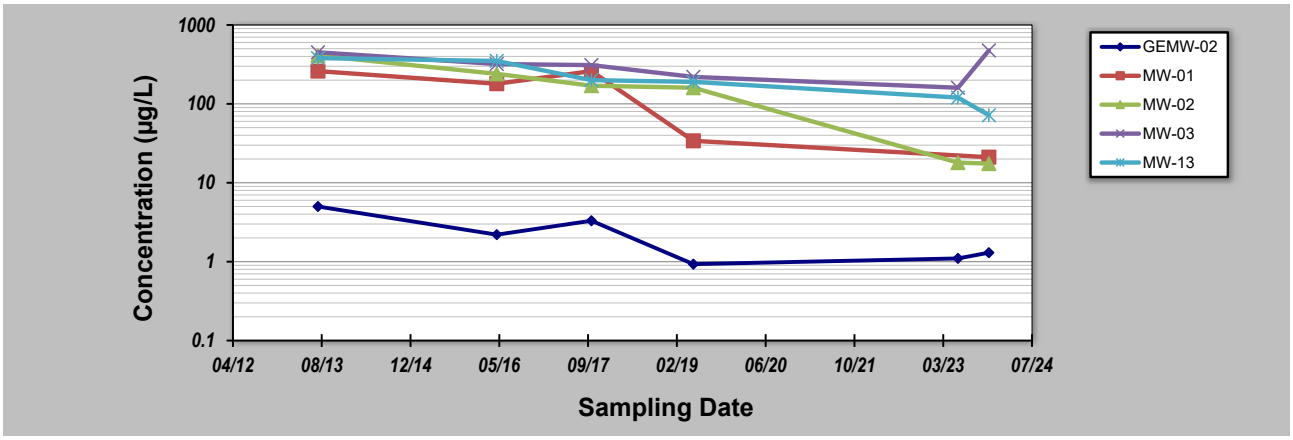
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	TCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	GEMW-02	MW-01	MW-02	MW-03	MW-13		
Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)						
1	24-Jul-13	5	260	410	450	380		
2	26-Apr-16	2.2	180	240	320	350		
3	11-Oct-17	3.3	260	170	310	200		
4	8-May-19	0.93	34	160	220	190		
5	6-Jun-23	1.1		18	160	120		
6	27-Nov-23	1.3	21	18	475	71.8		
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Coefficient of Variation:		0.69	0.78	0.87	0.38	0.56		
Mann-Kendall Statistic (S):		-7	-7	-15	-5	-15		
Confidence Factor:		86.4%	92.1%	99.9%	76.5%	99.9%		
Concentration Trend:		Stable	Prob. Decreasing	Decreasing	Stable	Decreasing		



Notes:

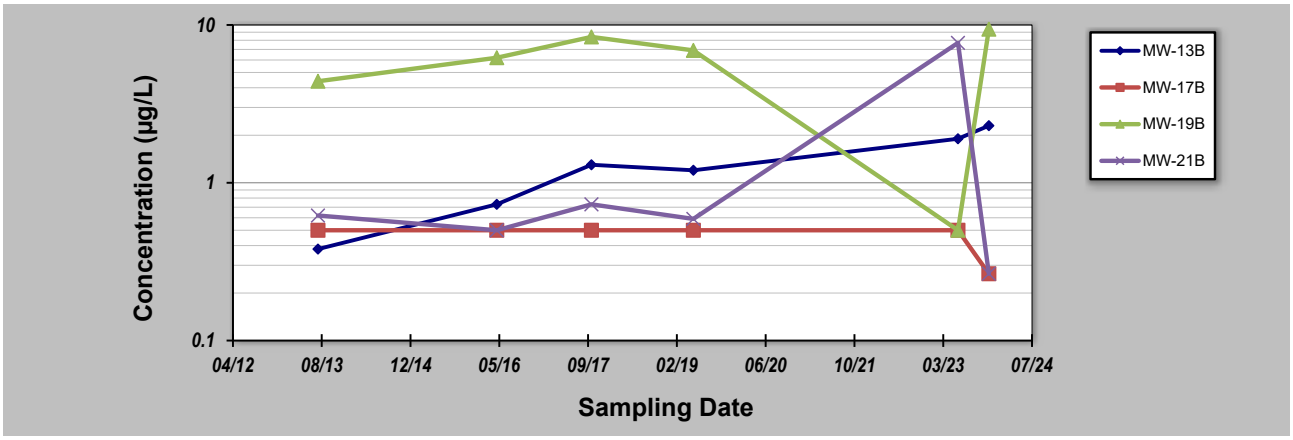
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Evaluation Date:	February-24	Job ID:	1602534.0020
Facility Name:	Town and Country Cleaners Site	Constituent:	TCE
Conducted By:	EA Engineering, Science, and Technology	Concentration Units:	µg/L

Sampling Point ID:	MW-13B	MW-17B	MW-19B	MW-21B			
Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)						
1	24-Jul-13	0.38	0.5	4.4	0.62			
2	26-Apr-16	0.73	0.5	6.2	0.5			
3	11-Oct-17	1.3	0.5	8.4	0.73			
4	8-May-19	1.2	0.5	6.9	0.59			
5	6-Jun-23	1.9	0.5	0.5	7.7			
6	27-Nov-23	2.3	0.3	9.4	0.3			
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Coefficient of Variation:		0.55	0.21	0.54	1.69			
Mann-Kendall Statistic (S):		13	-5	5	-1			
Confidence Factor:		99.2%	76.5%	76.5%	50.0%			
Concentration Trend:		Increasing	Stable	No Trend	No Trend			



Notes:

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