

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Environmental Remediation

625 Broadway, 12th Floor, Albany, New York 12233-7011

P: (518) 402-9706 | F: (518) 402-9020

www.dec.ny.gov

June 22, 2021

Mr. George Meyers, Supervisor  
Town of New Windsor  
555 Union Avenue  
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well PFAS Sample Results  
Butterhill Wellfield, New Windsor (T), Orange County

Dear Supervisor Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the **June 4, 2021** sampling of the temporary granular activated carbon (GAC) water treatment system by DEC representatives that was installed at the Town of New Windsor (Town) Butterhill Wellfield located at 181 Forge Hill Road.

**No PFOS or PFOA was detected in the Butterhill temporary GAC-treated water. Effective August 26, 2021, the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.**

The samples were analyzed for polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the PFAS analysis has been attached.

During this event, sampling for PFAS was conducted at 27 locations.

- pre-treatment (raw untreated water), which has a "BH20210604PRE-GAC" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20210604-1North-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20210604-1North-50" identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20210604-1North-75" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20210604-2North-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20210604-2North-50" identifier in the Client Sample ID;

- 75 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20210604-2North-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20210604-3North-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20210604-3North-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20210604-3North-75” identifier in the Client Sample ID;
- Butterhill Well No.3 raw untreated water; which has a “BH20210604-3RAW” identifier in the Client Sample ID;
- Post-treatment (treated water after all GAC trains), which has a “BH20210604POST-GAC” identifier in the Client Sample ID.
- mid-treatment (after the first GAC canister in Pair Train No. 1 and prior to the second GAC canister in Pair Train No.1), which has a “BH20210604-1 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a “BH20210604-1 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 2 and prior to the second GAC canister in Pair Train No.2), which has a “BH20210604-2 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a “BH20210604-2 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 3 and prior to the second GAC canister in Pair Train No.3), which has a “BH20210604-3 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a “BH20210604-3 POST” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20210604-1S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20210604-1S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20210604-1S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20210604-2S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20210604-2S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20210604-2S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20210604-3S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20210604-3S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20210604-3S-75” identifier in the Client Sample ID;

The 27 locations sampled (and their associated identifiers) are depicted in Figure 1. Please also note the following:

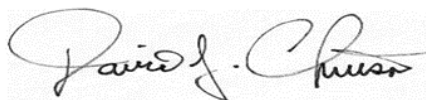
1. Two Pre-GAC (after filtration) samples were collected (one analyzed using certified method WS-LC-0025 Att1 and other analyzed by method 537 (modified). Only results using method WS-LC0025 Att 1 reported in the attached table.

2. Two Post-GAC samples were collected (one analyzed using certified method WS-LC-0025 Att 1 and other analyzed by method 537 (modified). Only results using method WS-LC0025 Att 1 reported in the attached table.

Please note that, with New York State Department of Health concurrence, GAC treatment system sample frequency moving forward has become quarterly. Therefore, the next sampling event will be scheduled around September 2021.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Dana Bryant, P.E., Arcadis (DEC's Project Engineer) at (518) 250-7347 or [dana.bryant@arcadis.com](mailto:dana.bryant@arcadis.com) . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Carl Aldrich of Aztech Environmental Services at (518) 470-3052 or Todd Rollend at (518) 365-3333. For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding, P.E., Ph.D of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: [steven.gladding@health.ny.gov](mailto:steven.gladding@health.ny.gov) .

Sincerely,



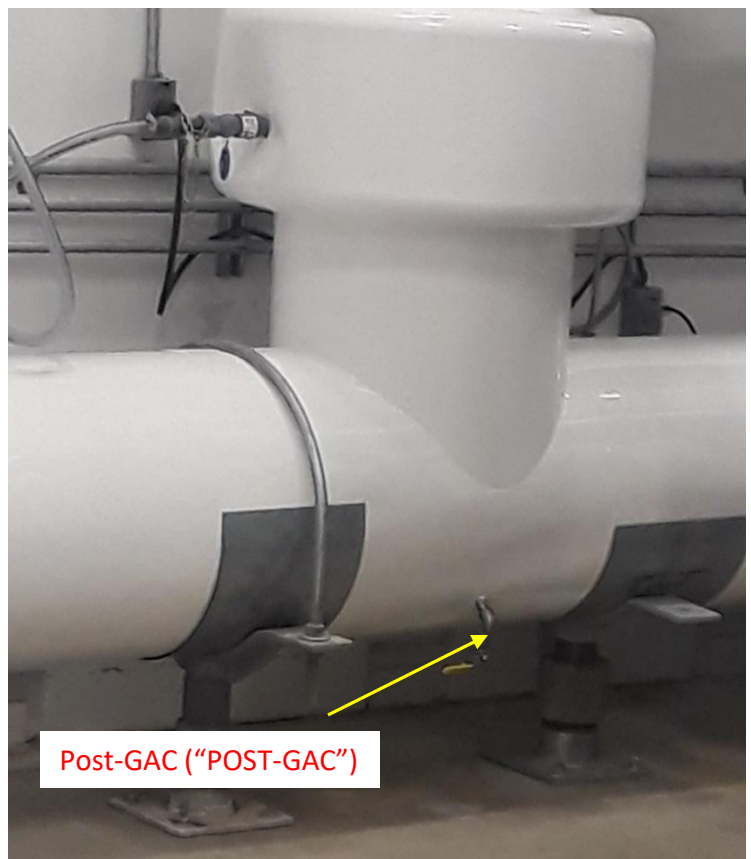
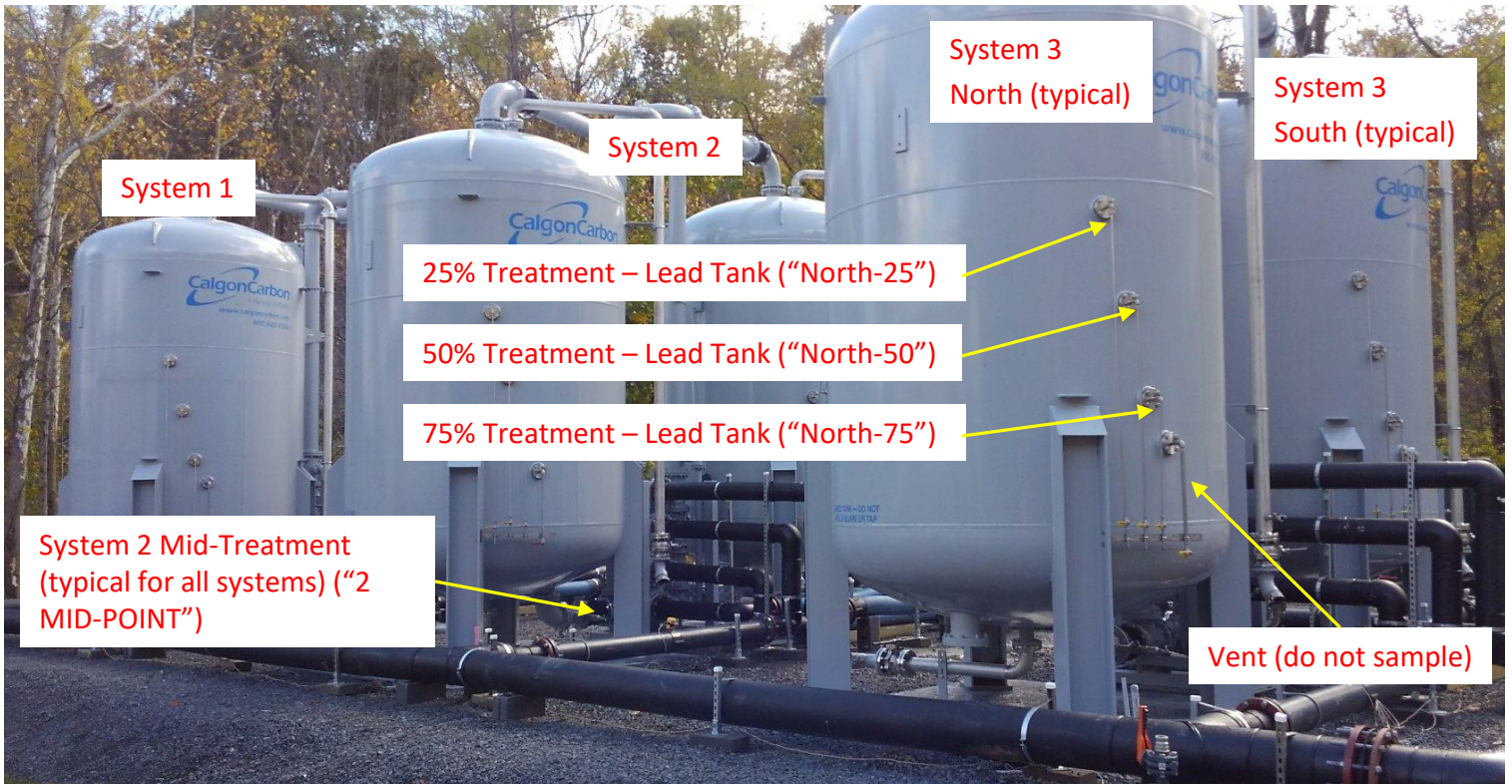
David J. Chiusano  
Environmental Engineer/Project Manager  
Remedial Section A, Remedial Bureau E  
Division of Environmental Remediation

#### Enclosures

ec: w/enclosures  
D. Zagon, Town of New Windsor  
J. Egitto, Town of New Windsor  
M. Weeks, MHE  
Dr. Kim, NYSDOH  
S. Gladding, NYSDOH  
S. Gagnon, OCDOH  
M. Andersen, OCDOH  
D. Bryant, Arcadis  
F. Fina, Aztech  
M. Cruden, NYSDEC  
D. Bendell, Region 3 RHWRE

**Figure 1**  
**Sampling Locations**

Butterhill Plant Temporary GAC Treatment System



- 25%, 50%, 75% Treatment sample locations repeated on the current Lag “South” Tanks.
- Post-treatment samples for each individual System can be collected after each Lag Tank, mirrored sample location to MID-POINT sample location on Lead Tanks.

**Town of New Windsor**  
**Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results \* (Parts Per Trillion (PPT))<sup>1</sup>**

Date	Analyte	Well 1 Raw Water	Well 2 Raw Water	Well 3 Raw Water	Pre GAC Raw Water (Combined)	GAC Pair 1 Lead 25%(North)	GAC Pair 1 Lead 50%(North)	GAC Pair 1 Lead 75%(North)	GAC Pair 2 Lead 25% (North)	GAC Pair 2 Lead 50%(North)	GAC Pair 2 Lead 75%(North)	GAC Pair 3 Lead 25%(North)	GAC Pair 3 Lead 50%(North)	GAC Pair 3 Lead 75%(North)	Post GAC Treated Effluent	NYS MCLs <sup>4</sup>
December 2019 (Well 3)	PFOA	2.6	3.5	5.0	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.7	2.4	8.9	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
January 2020 (Well 2)	PFOA	2.4	3.5	3.9	3.3	ND	ND	ND	2.2	ND	ND	1.8	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.3	2.4	7.7	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
February 2020 (Well 2)	PFOA	3.1	3.9	3.6	3.3	ND	ND	ND	2.7	ND	ND	2.3	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.6	2.7	6.0	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
March 2020 (Well 1)	PFOA	2.5	2.9	2.9	2.5	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.6	2.8	5.4	3.3	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
April 2020 (Well 1)	PFOA	3.0	3.1	2.8	2.8	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.4	2.2	4.5	3.0	ND	ND	ND	2.0	ND	ND	ND	ND	ND	ND	10 <sup>4</sup>
May 2020 (Well 3)	PFOA	3.3	NS	3.7	3.1	2.3	ND	ND	2.7	1.8	ND	2.4	ND	ND	ND	10 <sup>4</sup>
	PFOS	3.8	NS	5.9	5.0	2.9	ND	ND	3.5	1.9	ND	3.0	ND	ND	ND	10 <sup>4</sup>
August 2020 (Well 3)	PFOA	2.5	2.7	4.3	4.4	4.1	2.8	ND	3.9	3.1	1.8	4.1	2.6	ND	ND	10 <sup>4</sup>
	PFOS	3.2	2.2	8.1	8.5	6.1	3.0	ND	6.2	3.5	ND	6.6	2.7	ND	ND	10 <sup>4</sup>
December 2020 (Well 3)	PFOA	NS <sup>4</sup>	3.2	4.5	4.4	ND <sup>2</sup>	ND	ND	1.8	ND	ND	2.0	ND	ND	ND	10 <sup>4</sup>
	PFOS	NS <sup>4</sup>	2.5	8.5	7.5	ND <sup>2</sup>	ND	ND	1.8	ND	ND	2.1	ND	ND	ND	10 <sup>4</sup>
March 2021 (Well 3)	PFOA	NS <sup>4</sup>	NS <sup>4</sup>	2.9	3.1	5.6	ND	ND	3.6	2.1	ND	2.5	ND	ND	ND	10 <sup>4</sup>
	PFOS	NS <sup>4</sup>	NS <sup>4</sup>	5.3	5.0	12.0	ND	ND	6.6	2.2	ND	4.3	2.1	ND	ND	10 <sup>4</sup>
June 2021 (Well 3 <sup>**</sup> )	PFOA	NS <sup>4</sup>	NS <sup>4</sup>	3.1	2.6	2.4	1.9	ND	2.5	2.0	ND	2.4	1.9	ND	ND	10 <sup>4</sup>
	PFOS	NS <sup>4</sup>	NS <sup>4</sup>	5.3	3.8	3.5	2.2	ND	4.4	2.5	ND	4.9	2.6	ND	ND	10 <sup>4</sup>

Notes:

1. Lag Vessels (i.e. 25/50/75 sample locations)
2. Two Pre-GAC (after filtration) samples were collected (one analyzed using certified method WS-LC-0025 Att1 and other analyzed by method 537 (modified). Only results using method WS-LC0025 Att 1 reported in table.
3. Two Post-GAC (combined flow) samples were collected (one analyzed using certified method WS-LC-0025 Att1 and other analyzed by method 537 (modified). Only results using method WS-LC0025 Att 1 reported in table.

**Town of New Windsor**

**Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results \* (Parts Per Trillion (PPT))Continued**

Date	Analyte	GAC Pair 1 Mid-Point	GAC Pair 1 Post	GAC Pair 1 Lag 25%(South)	GAC Pair 1 Lag 50% (South)	GAC Pair 1 Lag 75%(South)	GAC Pair 2 Mid-Point	GAC Pair 2 Post	GAC Pair 2 Lag 25% (South)	GAC Pair 2 Lag 50%(South)	GAC Pair 2 Lag 75%(South)	GAC Pair 3 Mid-Point	GAC Pair 3 Post	GAC Pair 3 Lag 25%(South)	GAC Pair 3 Lag 50%(South)	GAC Pair 3 Lag 75%(South)	NYS MCLs <sup>3</sup>
February 2020 (Well 2)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
March 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
April 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
May 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
August 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
December 2020 (Well 3)	PFOA	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	10 <sup>3</sup>
	PFOS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	10 <sup>3</sup>
March 2021 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
June 2021 (Well 3**)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 <sup>3</sup>

**Notes:**

\* 21 PFAS List Analysis.

\*\* At time of sampling (06/04/2021) Production Well No. 3 was in operation.

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. "ND" means non-detect. The analyte was not detected in the sample.
3. The NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.
4. NS: Not Sampled

## How to Read Your Laboratory Reports

### PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or “non-detect” or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab’s specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or if the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.

- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.

## ANALYTICAL REPORT

Job Number: 320-74597-1

Job Description: Stewart ANGB - Butterhill #336089

Contract Number: C100700

For:

New York State D.E.C.

625 Broadway

12th Floor

Albany, NY 12233-7017

Attention: Mr. Dave Chiusano



Approved for release.  
Rebecca M Jones  
Project Management Assistant I  
6/17/2021 2:42 PM

---

Designee for  
Judy L Stone, Senior Project Manager  
10 Hazelwood Drive, Amherst, NY, 14228-2298  
(484)685-0868  
Judy.Stone@Eurofinset.com  
06/17/2021

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NYDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

**Eurofins TestAmerica, Sacramento**

880 Riverside Parkway, West Sacramento, CA 95605

Tel (916) 373-5600 Fax (916) 372-1059 [www.testamericainc.com](http://www.testamericainc.com)





# Table of Contents

Cover Title Page . . . . .	1
Data Summaries . . . . .	4
Report Narrative . . . . .	4
Sample Summary . . . . .	5
Detection Summary . . . . .	6
Method Summary . . . . .	10
Client Sample Results . . . . .	11
Isotope Dilution Summary . . . . .	36
QC Sample Results . . . . .	39
Definitions . . . . .	48
QC Association . . . . .	49
Chronicle . . . . .	52
Certification Summary . . . . .	57
Organic Sample Data . . . . .	58
LCMS . . . . .	58
Method PFAS DW . . . . .	58
Method PFAS DW QC Summary . . . . .	59
Method PFAS DW Sample Data . . . . .	64
Standards Data . . . . .	139
Method PFAS DW ICAL Data . . . . .	139
Method PFAS DW CCAL Data . . . . .	307
Raw QC Data . . . . .	371
Method PFAS DW Blank Data . . . . .	371
Method PFAS DW LCS/LCSD Data . . . . .	391
Method PFAS DW MS/MSD Data . . . . .	402
Method PFAS DW Run Logs . . . . .	424

# Table of Contents

Method PFAS DW Prep Data .....	428
Method PFC IDA .....	430
Method PFC IDA QC Summary .....	431
Method PFC IDA Sample Data .....	450
Standards Data .....	772
Method PFC IDA ICAL Data .....	772
Method PFC IDA CCAL Data .....	1055
Raw QC Data .....	1245
Method PFC IDA Blank Data .....	1245
Method PFC IDA LCS/LCSD Data .....	1312
Method PFC IDA Run Logs .....	1352
Method PFC IDA Prep Data .....	1355
Shipping and Receiving Documents .....	1361
Client Chain of Custody .....	1362
Sample Receipt Checklist .....	1366

**Job Narrative  
320-74597-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 6/5/2021 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.6° C and 2.6° C.

**Receipt Exceptions**

The COC lists sample ID BH20210604-1 POST, while 1 of the 2 containers for the sample list the ID as BH2021-1 POST. Logged and labeled according to the COC.BH20210604-1POST (320-74597-23).

**LCMS**

Method WS-LC-0025 Att1: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: BH20210604-POSTGAC (320-74597-28[MSD]) and (LCS 320-497181/2-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: BH20210604-2N-75 (320-74597-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Organic Prep**

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-496405.

Method 3535: The following samples were preserved with trizma: BH20210604-2N-25 (320-74597-1), BH20210604-2N-50 (320-74597-2), BH20210604-2N-75 (320-74597-3), BH20210604-2S-25 (320-74597-4), BH20210604-2S-50 (320-74597-5), BH20210604-2S-75 (320-74597-6), BH20210604-3N-25 (320-74597-7), BH20210604-3N-50 (320-74597-8), BH20210604-3N-75 (320-74597-9) and BH20210604-3S-25 (320-74597-10). Thus, the MB, LCS and LCSD also contain trizma.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-496408.

Method 3535: The following samples was/were preserved with trizma: BH20210604-3S-50 (320-74597-11), BH20210604-3RAW (320-74597-12), BH20210604-PREGAC (320-74597-13), BH20210604-POSTGAC (320-74597-14), BH20210604-1N-25 (320-74597-15), BH20210604-1N-50 (320-74597-16), BH20210604-1N-75 (320-74597-17), BH20210604-1S-25 (320-74597-18), BH20210604-1S-50 (320-74597-19), BH20210604-1S-75 (320-74597-20) and BH20210604-3S-75 (320-74597-30). Thus, the MB, LCS and LCSD also contain trizma.

Method 3535: The following sample was yellow prior to extraction: BH20210604-3N-25 (320-74597-7).

Method 3535: The following samples contained floating particulates in the sample bottle prior to extraction: BH20210604-2S-25 (320-74597-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74597-1	BH20210604-2N-25	Water	06/04/21 09:53	06/05/21 09:10	
320-74597-2	BH20210604-2N-50	Water	06/04/21 09:54	06/05/21 09:10	
320-74597-3	BH20210604-2N-75	Water	06/04/21 09:55	06/05/21 09:10	
320-74597-4	BH20210604-2S-25	Water	06/04/21 10:01	06/05/21 09:10	
320-74597-5	BH20210604-2S-50	Water	06/04/21 10:03	06/05/21 09:10	
320-74597-6	BH20210604-2S-75	Water	06/04/21 10:05	06/05/21 09:10	
320-74597-7	BH20210604-3N-25	Water	06/04/21 10:13	06/05/21 09:10	
320-74597-8	BH20210604-3N-50	Water	06/04/21 10:14	06/05/21 09:10	
320-74597-9	BH20210604-3N-75	Water	06/04/21 10:15	06/05/21 09:10	
320-74597-10	BH20210604-3S-25	Water	06/04/21 10:31	06/05/21 09:10	
320-74597-11	BH20210604-3S-50	Water	06/04/21 10:32	06/05/21 09:10	
320-74597-12	BH20210604-3RAW	Water	06/04/21 10:45	06/05/21 09:10	
320-74597-13	BH20210604-PREGAC	Water	06/04/21 09:18	06/05/21 09:10	
320-74597-14	BH20210604-POSTGAC	Water	06/04/21 09:11	06/05/21 09:10	
320-74597-15	BH20210604-1N-25	Water	06/04/21 09:30	06/05/21 09:10	
320-74597-16	BH20210604-1N-50	Water	06/04/21 09:31	06/05/21 09:10	
320-74597-17	BH20210604-1N-75	Water	06/04/21 09:32	06/05/21 09:10	
320-74597-18	BH20210604-1S-25	Water	06/04/21 09:39	06/05/21 09:10	
320-74597-19	BH20210604-1S-50	Water	06/04/21 09:40	06/05/21 09:10	
320-74597-20	BH20210604-1S-75	Water	06/04/21 09:41	06/05/21 09:10	
320-74597-21	BH20210604-PRE-GAC	Water	06/04/21 09:16	06/05/21 09:10	
320-74597-22	BH20210604-1MID	Water	06/04/21 09:35	06/05/21 09:10	
320-74597-23	BH20210604-1POST	Water	06/04/21 09:43	06/05/21 09:10	
320-74597-24	BH20210604-2MID	Water	06/04/21 09:57	06/05/21 09:10	
320-74597-25	BH20210604-2POST	Water	06/04/21 10:07	06/05/21 09:10	
320-74597-26	BH20210604-3MID	Water	06/04/21 10:17	06/05/21 09:10	
320-74597-27	BH20210604-3POST	Water	06/04/21 10:36	06/05/21 09:10	
320-74597-28	BH20210604-POSTGAC	Water	06/04/21 09:08	06/05/21 09:10	
320-74597-29	BH20210604-POSTGAC (DUP)	Water	06/04/21 09:12	06/05/21 09:10	
320-74597-30	BH20210604-3S-75	Water	06/04/21 10:34	06/05/21 09:10	

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-2N-25

## Lab Sample ID: 320-74597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2N-50

## Lab Sample ID: 320-74597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2N-75

## Lab Sample ID: 320-74597-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-25

## Lab Sample ID: 320-74597-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.2		2.0		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		2.0		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-50

## Lab Sample ID: 320-74597-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-75

## Lab Sample ID: 320-74597-6

No Detections.

## Client Sample ID: BH20210604-3N-25

## Lab Sample ID: 320-74597-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.8		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.9		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3N-50

## Lab Sample ID: 320-74597-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.6		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		1.9		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-3N-75

## Lab Sample ID: 320-74597-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.2		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3S-25

## Lab Sample ID: 320-74597-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.6		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3S-50

## Lab Sample ID: 320-74597-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.1		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3RAW

## Lab Sample ID: 320-74597-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-PREGAC

## Lab Sample ID: 320-74597-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-POSTGAC

## Lab Sample ID: 320-74597-14

No Detections.

## Client Sample ID: BH20210604-1N-25

## Lab Sample ID: 320-74597-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.0		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.5		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1N-50

## Lab Sample ID: 320-74597-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-1N-75

Lab Sample ID: 320-74597-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-25

Lab Sample ID: 320-74597-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.5		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-50

Lab Sample ID: 320-74597-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.9		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-75

Lab Sample ID: 320-74597-20

No Detections.

## Client Sample ID: BH20210604-PRE-GAC

Lab Sample ID: 320-74597-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.1		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA

## Client Sample ID: BH20210604-1MID

Lab Sample ID: 320-74597-22

No Detections.

## Client Sample ID: BH20210604-1POST

Lab Sample ID: 320-74597-23

No Detections.

## Client Sample ID: BH20210604-2MID

Lab Sample ID: 320-74597-24

No Detections.

## Client Sample ID: BH20210604-2POST

Lab Sample ID: 320-74597-25

No Detections.

## Client Sample ID: BH20210604-3MID

Lab Sample ID: 320-74597-26

No Detections.

## Client Sample ID: BH20210604-3POST

Lab Sample ID: 320-74597-27

No Detections.

## Client Sample ID: BH20210604-POSTGAC

Lab Sample ID: 320-74597-28

No Detections.

## Client Sample ID: BH20210604-POSTGAC (DUP)

Lab Sample ID: 320-74597-29

No Detections.

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

No Detections.

This Detection Summary does not include radiochemical test results.



# Method Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
WS-LC-0025 Att1	Fluorinated Alkyl Substances	TAL-SAC	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
PFAS Prep	Preparation, Direct Inject PFAS	TAL-SAC	TAL SAC

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**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

**Laboratory References:**

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-25**

**Lab Sample ID: 320-74597-1**

Date Collected: 06/04/21 09:53

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.5</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.6</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.4</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	93		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C5 PFPeA	101		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C2 PFHxA	105		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C4 PFHpA	109		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C4 PFOA	102		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C5 PFNA	109		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C2 PFDA	104		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C2 PFUnA	96		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C2 PFDoA	110		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C2 PFTeA	103		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C3 PFBS	105		25 - 150				06/08/21 04:41	06/10/21 05:15	1
18O2 PFHxS	113		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C4 PFOS	111		25 - 150				06/08/21 04:41	06/10/21 05:15	1
13C8 FOSA	116		25 - 150				06/08/21 04:41	06/10/21 05:15	1
d3-NMeFOSAA	119		25 - 150				06/08/21 04:41	06/10/21 05:15	1
d5-NEtFOSAA	121		25 - 150				06/08/21 04:41	06/10/21 05:15	1
M2-6:2 FTS	105		25 - 150				06/08/21 04:41	06/10/21 05:15	1
M2-8:2 FTS	108		25 - 150				06/08/21 04:41	06/10/21 05:15	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-50**

**Lab Sample ID: 320-74597-2**

Date Collected: 06/04/21 09:54

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.6</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.5</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	89		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C5 PFPeA	100		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C2 PFHxA	96		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C4 PFHpA	99		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C4 PFOA	97		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C5 PFNA	95		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C2 PFDA	94		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C2 PFUnA	87		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C2 PFDoA	100		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C2 PFTeA	90		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C3 PFBS	101		25 - 150				06/08/21 04:41	06/10/21 05:24	1
18O2 PFHxS	102		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C4 PFOS	104		25 - 150				06/08/21 04:41	06/10/21 05:24	1
13C8 FOSA	114		25 - 150				06/08/21 04:41	06/10/21 05:24	1
d3-NMeFOSAA	98		25 - 150				06/08/21 04:41	06/10/21 05:24	1
d5-NEtFOSAA	108		25 - 150				06/08/21 04:41	06/10/21 05:24	1
M2-6:2 FTS	104		25 - 150				06/08/21 04:41	06/10/21 05:24	1
M2-8:2 FTS	105		25 - 150				06/08/21 04:41	06/10/21 05:24	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-75**

**Lab Sample ID: 320-74597-3**

Date Collected: 06/04/21 09:55

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.3</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C5 PFPeA	92		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFHpA	100		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFOA	95		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C5 PFNA	102		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFDA	96		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFUnA	94		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFDoA	103		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFTeDA	90		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C3 PFBS	97		25 - 150	06/08/21 04:41	06/10/21 05:33	1
18O2 PFHxS	102		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFOS	99		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C8 FOSA	106		25 - 150	06/08/21 04:41	06/10/21 05:33	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:41	06/10/21 05:33	1
d5-NEtFOSAA	111		25 - 150	06/08/21 04:41	06/10/21 05:33	1
M2-6:2 FTS	154	*5+	25 - 150	06/08/21 04:41	06/10/21 05:33	1
M2-8:2 FTS	115		25 - 150	06/08/21 04:41	06/10/21 05:33	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-25**

**Lab Sample ID: 320-74597-4**

Date Collected: 06/04/21 10:01

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.2</b>		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.1</b>		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
6:2 FTS	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	101		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C5 PFPeA	102		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C2 PFHxA	97		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C4 PFHpA	106		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C4 PFOA	100		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C5 PFNA	102		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C2 PFDA	96		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C2 PFUnA	87		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C2 PFDoA	93		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C2 PFTeA	83		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C3 PFBS	107		25 - 150				06/08/21 04:41	06/10/21 05:42	1
18O2 PFHxS	105		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C4 PFOS	98		25 - 150				06/08/21 04:41	06/10/21 05:42	1
13C8 FOSA	106		25 - 150				06/08/21 04:41	06/10/21 05:42	1
d3-NMeFOSAA	95		25 - 150				06/08/21 04:41	06/10/21 05:42	1
d5-NEtFOSAA	104		25 - 150				06/08/21 04:41	06/10/21 05:42	1
M2-6:2 FTS	102		25 - 150				06/08/21 04:41	06/10/21 05:42	1
M2-8:2 FTS	100		25 - 150				06/08/21 04:41	06/10/21 05:42	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-50**

**Lab Sample ID: 320-74597-5**

Date Collected: 06/04/21 10:03

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.9</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	101		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C5 PFPeA	99		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C2 PFHxA	96		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C4 PFHpA	100		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C4 PFOA	95		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C5 PFNA	99		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C2 PFDA	94		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C2 PFUnA	93		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C2 PFDoA	101		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C2 PFTeA	89		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C3 PFBS	104		25 - 150				06/08/21 04:41	06/10/21 05:51	1
18O2 PFHxS	103		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C4 PFOS	100		25 - 150				06/08/21 04:41	06/10/21 05:51	1
13C8 FOSA	107		25 - 150				06/08/21 04:41	06/10/21 05:51	1
d3-NMeFOSAA	96		25 - 150				06/08/21 04:41	06/10/21 05:51	1
d5-NEtFOSAA	106		25 - 150				06/08/21 04:41	06/10/21 05:51	1
M2-6:2 FTS	88		25 - 150				06/08/21 04:41	06/10/21 05:51	1
M2-8:2 FTS	96		25 - 150				06/08/21 04:41	06/10/21 05:51	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-75**

**Lab Sample ID: 320-74597-6**

**Date Collected: 06/04/21 10:05**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	110		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C5 PFPeA	102		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C2 PFHxA	99		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C4 PFHpA	106		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C4 PFOA	104		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C5 PFNA	102		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C2 PFDA	103		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C2 PFUnA	98		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C2 PFDoA	113		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C2 PFTeDA	110		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C3 PFBS	104		25 - 150				06/08/21 04:41	06/10/21 06:00	1
18O2 PFHxS	103		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C4 PFOS	104		25 - 150				06/08/21 04:41	06/10/21 06:00	1
13C8 FOSA	111		25 - 150				06/08/21 04:41	06/10/21 06:00	1
d3-NMeFOSAA	105		25 - 150				06/08/21 04:41	06/10/21 06:00	1
d5-NEtFOSAA	110		25 - 150				06/08/21 04:41	06/10/21 06:00	1
M2-6:2 FTS	87		25 - 150				06/08/21 04:41	06/10/21 06:00	1
M2-8:2 FTS	100		25 - 150				06/08/21 04:41	06/10/21 06:00	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-25**

**Lab Sample ID: 320-74597-7**

Date Collected: 06/04/21 10:13

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.8</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.4</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
6:2 FTS	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	87		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C5 PFPeA	98		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C2 PFHxA	96		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C4 PFHpA	101		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C4 PFOA	100		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C5 PFNA	96		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C2 PFDA	94		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C2 PFUnA	91		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C2 PFDoA	99		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C2 PFTeA	87		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C3 PFBS	98		25 - 150				06/08/21 04:41	06/10/21 06:10	1
18O2 PFHxS	100		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C4 PFOS	98		25 - 150				06/08/21 04:41	06/10/21 06:10	1
13C8 FOSA	103		25 - 150				06/08/21 04:41	06/10/21 06:10	1
d3-NMeFOSAA	93		25 - 150				06/08/21 04:41	06/10/21 06:10	1
d5-NEtFOSAA	105		25 - 150				06/08/21 04:41	06/10/21 06:10	1
M2-6:2 FTS	96		25 - 150				06/08/21 04:41	06/10/21 06:10	1
M2-8:2 FTS	95		25 - 150				06/08/21 04:41	06/10/21 06:10	1



# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-50**

**Lab Sample ID: 320-74597-8**

**Date Collected: 06/04/21 10:14**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.8</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>1.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C5 PFPeA	102		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFHxA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFHpA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFOA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C5 PFNA	104		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFDA	96		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFUnA	92		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFDoA	94		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFTeDA	88		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C3 PFBS	106		25 - 150	06/08/21 04:41	06/10/21 06:37	1
18O2 PFHxS	112		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFOS	105		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C8 FOSA	107		25 - 150	06/08/21 04:41	06/10/21 06:37	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
d5-NEtFOSAA	108		25 - 150	06/08/21 04:41	06/10/21 06:37	1
M2-6:2 FTS	99		25 - 150	06/08/21 04:41	06/10/21 06:37	1
M2-8:2 FTS	96		25 - 150	06/08/21 04:41	06/10/21 06:37	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-75**

**Lab Sample ID: 320-74597-9**

**Date Collected: 06/04/21 10:15**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.2</b>		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C5 PFPeA	94		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFHxA	97		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFHpA	101		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFOA	96		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C5 PFNA	100		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFDA	91		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFUnA	96		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFDoA	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFTeDA	89		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C3 PFBS	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
18O2 PFHxS	98		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFOS	100		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C8 FOSA	104		25 - 150	06/08/21 04:41	06/10/21 06:46	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
d5-NEtFOSAA	111		25 - 150	06/08/21 04:41	06/10/21 06:46	1
M2-6:2 FTS	90		25 - 150	06/08/21 04:41	06/10/21 06:46	1
M2-8:2 FTS	93		25 - 150	06/08/21 04:41	06/10/21 06:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-25**

**Lab Sample ID: 320-74597-10**

Date Collected: 06/04/21 10:31

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	101		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C5 PFPeA	101		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C2 PFHxA	96		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C4 PFHpA	104		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C4 PFOA	103		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C5 PFNA	102		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C2 PFDA	91		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C2 PFUnA	97		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C2 PFDoA	104		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C2 PFTeDA	87		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C3 PFBS	105		25 - 150				06/08/21 04:41	06/10/21 06:55	1
18O2 PFHxS	108		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C4 PFOS	102		25 - 150				06/08/21 04:41	06/10/21 06:55	1
13C8 FOSA	107		25 - 150				06/08/21 04:41	06/10/21 06:55	1
d3-NMeFOSAA	100		25 - 150				06/08/21 04:41	06/10/21 06:55	1
d5-NEtFOSAA	116		25 - 150				06/08/21 04:41	06/10/21 06:55	1
M2-6:2 FTS	85		25 - 150				06/08/21 04:41	06/10/21 06:55	1
M2-8:2 FTS	95		25 - 150				06/08/21 04:41	06/10/21 06:55	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-50**

**Lab Sample ID: 320-74597-11**

Date Collected: 06/04/21 10:32

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C5 PFPeA	103		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFHxA	97		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFHpA	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFOA	98		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C5 PFNA	103		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFDA	95		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFUnA	96		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFDoA	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFTeDA	91		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C3 PFBS	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
18O2 PFHxS	106		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFOS	102		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C8 FOSA	105		25 - 150	06/08/21 04:52	06/10/21 07:59	1
d3-NMeFOSAA	97		25 - 150	06/08/21 04:52	06/10/21 07:59	1
d5-NEtFOSAA	110		25 - 150	06/08/21 04:52	06/10/21 07:59	1
M2-6:2 FTS	85		25 - 150	06/08/21 04:52	06/10/21 07:59	1
M2-8:2 FTS	91		25 - 150	06/08/21 04:52	06/10/21 07:59	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3RAW**

**Lab Sample ID: 320-74597-12**

Date Collected: 06/04/21 10:45

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.4</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.9</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>3.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>1.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.0</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.3</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C5 PFPeA	102		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFHxA	100		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFOA	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C5 PFNA	109		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFDA	105		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFUnA	88		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFDoA	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFTeDA	103		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C3 PFBS	105		25 - 150	06/08/21 04:52	06/10/21 08:08	1
18O2 PFHxS	111		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFOS	100		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C8 FOSA	106		25 - 150	06/08/21 04:52	06/10/21 08:08	1
d3-NMeFOSAA	95		25 - 150	06/08/21 04:52	06/10/21 08:08	1
d5-NEtFOSAA	103		25 - 150	06/08/21 04:52	06/10/21 08:08	1
M2-6:2 FTS	89		25 - 150	06/08/21 04:52	06/10/21 08:08	1
M2-8:2 FTS	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-PREGAC**

**Lab Sample ID: 320-74597-13**

Date Collected: 06/04/21 09:18

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.2</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.9</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.3</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	90		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C5 PFPeA	101		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C2 PFHxA	101		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C4 PFHpA	107		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C4 PFOA	100		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C5 PFNA	105		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C2 PFDA	103		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C2 PFUnA	100		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C2 PFDoA	109		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C2 PFTeA	100		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C3 PFBS	108		25 - 150				06/08/21 04:52	06/10/21 08:17	1
18O2 PFHxS	102		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C4 PFOS	107		25 - 150				06/08/21 04:52	06/10/21 08:17	1
13C8 FOSA	111		25 - 150				06/08/21 04:52	06/10/21 08:17	1
d3-NMeFOSAA	99		25 - 150				06/08/21 04:52	06/10/21 08:17	1
d5-NEtFOSAA	112		25 - 150				06/08/21 04:52	06/10/21 08:17	1
M2-6:2 FTS	94		25 - 150				06/08/21 04:52	06/10/21 08:17	1
M2-8:2 FTS	98		25 - 150				06/08/21 04:52	06/10/21 08:17	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-14**

**Date Collected: 06/04/21 09:11**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C5 PFPeA	102		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C2 PFHxA	99		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C4 PFHpA	106		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C4 PFOA	103		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C5 PFNA	105		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C2 PFDA	104		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C2 PFUnA	97		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C2 PFDoA	108		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C2 PFTeDA	94		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C3 PFBS	103		25 - 150				06/08/21 04:52	06/10/21 08:27	1
18O2 PFHxS	107		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C4 PFOS	105		25 - 150				06/08/21 04:52	06/10/21 08:27	1
13C8 FOSA	108		25 - 150				06/08/21 04:52	06/10/21 08:27	1
d3-NMeFOSAA	100		25 - 150				06/08/21 04:52	06/10/21 08:27	1
d5-NEtFOSAA	109		25 - 150				06/08/21 04:52	06/10/21 08:27	1
M2-6:2 FTS	86		25 - 150				06/08/21 04:52	06/10/21 08:27	1
M2-8:2 FTS	100		25 - 150				06/08/21 04:52	06/10/21 08:27	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-25**

**Lab Sample ID: 320-74597-15**

Date Collected: 06/04/21 09:30

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.0</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.1</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.4</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>3.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	89		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C5 PFPeA	102		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C2 PFHxA	99		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C4 PFHpA	104		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C4 PFOA	102		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C5 PFNA	102		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C2 PFDA	99		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C2 PFUnA	96		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C2 PFDoA	102		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C2 PFTeDA	102		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C3 PFBS	104		25 - 150				06/08/21 04:52	06/10/21 08:36	1
18O2 PFHxS	103		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C4 PFOS	103		25 - 150				06/08/21 04:52	06/10/21 08:36	1
13C8 FOSA	110		25 - 150				06/08/21 04:52	06/10/21 08:36	1
d3-NMeFOSAA	99		25 - 150				06/08/21 04:52	06/10/21 08:36	1
d5-NEtFOSAA	106		25 - 150				06/08/21 04:52	06/10/21 08:36	1
M2-6:2 FTS	89		25 - 150				06/08/21 04:52	06/10/21 08:36	1
M2-8:2 FTS	103		25 - 150				06/08/21 04:52	06/10/21 08:36	1



# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-50**

**Lab Sample ID: 320-74597-16**

**Date Collected: 06/04/21 09:31**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.1</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.9</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>1.9</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	98		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C5 PFPeA	102		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFHxA	100		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFHpA	108		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFOA	103		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C5 PFNA	103		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFDA	98		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFUnA	94		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFDoA	104		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFTeDA	97		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C3 PFBS	107		25 - 150				06/08/21 04:52	06/10/21 08:45	1
18O2 PFHxS	111		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFOS	110		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C8 FOSA	112		25 - 150				06/08/21 04:52	06/10/21 08:45	1
d3-NMeFOSAA	100		25 - 150				06/08/21 04:52	06/10/21 08:45	1
d5-NEtFOSAA	111		25 - 150				06/08/21 04:52	06/10/21 08:45	1
M2-6:2 FTS	84		25 - 150				06/08/21 04:52	06/10/21 08:45	1
M2-8:2 FTS	101		25 - 150				06/08/21 04:52	06/10/21 08:45	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-75**

**Lab Sample ID: 320-74597-17**

**Date Collected: 06/04/21 09:32**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.3</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C5 PFPeA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFHxA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFHpA	105		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFOA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C5 PFNA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFDA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFUnA	93		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFDoA	107		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFTeA	89		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C3 PFBS	102		25 - 150	06/08/21 04:52	06/10/21 08:54	1
18O2 PFHxS	109		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFOS	104		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C8 FOSA	110		25 - 150	06/08/21 04:52	06/10/21 08:54	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:52	06/10/21 08:54	1
d5-NEtFOSAA	110		25 - 150	06/08/21 04:52	06/10/21 08:54	1
M2-6:2 FTS	88		25 - 150	06/08/21 04:52	06/10/21 08:54	1
M2-8:2 FTS	94		25 - 150	06/08/21 04:52	06/10/21 08:54	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-25**

**Lab Sample ID: 320-74597-18**

Date Collected: 06/04/21 09:39

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	106		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C5 PFPeA	97		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C2 PFHxA	99		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C4 PFHpA	104		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C4 PFOA	102		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C5 PFNA	110		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C2 PFDA	95		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C2 PFUnA	95		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C2 PFDoA	106		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C2 PFTeA	100		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C3 PFBS	108		25 - 150				06/08/21 04:52	06/10/21 09:21	1
18O2 PFHxS	110		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C4 PFOS	105		25 - 150				06/08/21 04:52	06/10/21 09:21	1
13C8 FOSA	111		25 - 150				06/08/21 04:52	06/10/21 09:21	1
d3-NMeFOSAA	83		25 - 150				06/08/21 04:52	06/10/21 09:21	1
d5-NEtFOSAA	99		25 - 150				06/08/21 04:52	06/10/21 09:21	1
M2-6:2 FTS	89		25 - 150				06/08/21 04:52	06/10/21 09:21	1
M2-8:2 FTS	96		25 - 150				06/08/21 04:52	06/10/21 09:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-50**

**Lab Sample ID: 320-74597-19**

**Date Collected: 06/04/21 09:40**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.9</b>		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
6:2 FTS	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	103		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C5 PFPeA	100		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C2 PFHxA	98		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C4 PFHpA	105		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C4 PFOA	103		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C5 PFNA	104		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C2 PFDA	98		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C2 PFUnA	95		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C2 PFDoA	105		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C2 PFTeDA	100		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C3 PFBS	110		25 - 150				06/08/21 04:52	06/10/21 09:31	1
18O2 PFHxS	112		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C4 PFOS	105		25 - 150				06/08/21 04:52	06/10/21 09:31	1
13C8 FOSA	117		25 - 150				06/08/21 04:52	06/10/21 09:31	1
d3-NMeFOSAA	107		25 - 150				06/08/21 04:52	06/10/21 09:31	1
d5-NEtFOSAA	111		25 - 150				06/08/21 04:52	06/10/21 09:31	1
M2-6:2 FTS	91		25 - 150				06/08/21 04:52	06/10/21 09:31	1
M2-8:2 FTS	93		25 - 150				06/08/21 04:52	06/10/21 09:31	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-75**

**Lab Sample ID: 320-74597-20**

**Date Collected: 06/04/21 09:41**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	102		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C5 PFPeA	104		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C2 PFHxA	100		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C4 PFHpA	110		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C4 PFOA	105		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C5 PFNA	102		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C2 PFDA	104		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C2 PFUnA	96		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C2 PFDoA	108		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C2 PFTeA	89		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C3 PFBS	106		25 - 150				06/08/21 04:52	06/10/21 09:40	1
18O2 PFHxS	113		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C4 PFOS	109		25 - 150				06/08/21 04:52	06/10/21 09:40	1
13C8 FOSA	115		25 - 150				06/08/21 04:52	06/10/21 09:40	1
d3-NMeFOSAA	99		25 - 150				06/08/21 04:52	06/10/21 09:40	1
d5-NEtFOSAA	112		25 - 150				06/08/21 04:52	06/10/21 09:40	1
M2-6:2 FTS	90		25 - 150				06/08/21 04:52	06/10/21 09:40	1
M2-8:2 FTS	99		25 - 150				06/08/21 04:52	06/10/21 09:40	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-PRE-GAC**

**Lab Sample ID: 320-74597-21**

Date Collected: 06/04/21 09:16

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.1</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>3.8</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.6</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFHpA	116		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C5 PFNA	113		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C4 PFOA	113		70 - 130				06/09/21 19:29	06/10/21 10:33	1
13C4 PFOS	123		70 - 130				06/09/21 19:29	06/10/21 10:33	1
18O2 PFHxS	127		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C3 PFBS	97		25 - 150				06/09/21 19:29	06/10/21 10:33	1

**Client Sample ID: BH20210604-1MID**

**Lab Sample ID: 320-74597-22**

Date Collected: 06/04/21 09:35

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFHpA	119		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C5 PFNA	110		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C4 PFOA	117		70 - 130				06/09/21 19:29	06/10/21 10:52	1
13C4 PFOS	117		70 - 130				06/09/21 19:29	06/10/21 10:52	1
18O2 PFHxS	129		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C3 PFBS	103		25 - 150				06/09/21 19:29	06/10/21 10:52	1

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

Date Collected: 06/04/21 09:43

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFHpA	129		25 - 150				06/09/21 19:29	06/10/21 11:10	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

Date Collected: 06/04/21 09:43

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)**

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	114		25 - 150	06/09/21 19:29	06/10/21 11:10	1
13C4 PFOA	109		70 - 130	06/09/21 19:29	06/10/21 11:10	1
13C4 PFOS	123		70 - 130	06/09/21 19:29	06/10/21 11:10	1
18O2 PFHxS	131		25 - 150	06/09/21 19:29	06/10/21 11:10	1
13C3 PFBS	106		25 - 150	06/09/21 19:29	06/10/21 11:10	1

**Client Sample ID: BH20210604-2MID**

**Lab Sample ID: 320-74597-24**

Date Collected: 06/04/21 09:57

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	126		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C5 PFNA	116		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C4 PFOA	115		70 - 130	06/09/21 19:29	06/10/21 11:29	1
13C4 PFOS	120		70 - 130	06/09/21 19:29	06/10/21 11:29	1
18O2 PFHxS	129		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C3 PFBS	104		25 - 150	06/09/21 19:29	06/10/21 11:29	1

**Client Sample ID: BH20210604-2POST**

**Lab Sample ID: 320-74597-25**

Date Collected: 06/04/21 10:07

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	120		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C5 PFNA	115		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C4 PFOA	109		70 - 130	06/09/21 19:29	06/10/21 11:47	1
13C4 PFOS	119		70 - 130	06/09/21 19:29	06/10/21 11:47	1
18O2 PFHxS	125		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C3 PFBS	107		25 - 150	06/09/21 19:29	06/10/21 11:47	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3MID**

**Lab Sample ID: 320-74597-26**

Date Collected: 06/04/21 10:17

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	123		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C5 PFNA	116		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C4 PFOA	114		70 - 130				06/09/21 19:29	06/10/21 12:06	1
13C4 PFOS	130		70 - 130				06/09/21 19:29	06/10/21 12:06	1
18O2 PFHxS	127		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C3 PFBS	102		25 - 150				06/09/21 19:29	06/10/21 12:06	1

**Client Sample ID: BH20210604-3POST**

**Lab Sample ID: 320-74597-27**

Date Collected: 06/04/21 10:36

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	128		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C5 PFNA	123		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C4 PFOA	113		70 - 130				06/09/21 19:29	06/10/21 12:24	1
13C4 PFOS	124		70 - 130				06/09/21 19:29	06/10/21 12:24	1
18O2 PFHxS	124		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C3 PFBS	107		25 - 150				06/09/21 19:29	06/10/21 12:24	1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	125		25 - 150				06/09/21 19:29	06/10/21 13:01	1
13C5 PFNA	117		25 - 150				06/09/21 19:29	06/10/21 13:01	1
13C4 PFOA	117		70 - 130				06/09/21 19:29	06/10/21 13:01	1

Eurofins TestAmerica, Sacramento



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)**

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	124		70 - 130	06/09/21 19:29	06/10/21 13:01	1
18O2 PFHxS	127		25 - 150	06/09/21 19:29	06/10/21 13:01	1
13C3 PFBS	104		25 - 150	06/09/21 19:29	06/10/21 13:01	1

**Client Sample ID: BH20210604-POSTGAC (DUP)**

**Lab Sample ID: 320-74597-29**

Date Collected: 06/04/21 09:12

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	116		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C5 PFNA	116		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C4 PFOA	110		70 - 130	06/09/21 19:29	06/10/21 13:56	1
13C4 PFOS	121		70 - 130	06/09/21 19:29	06/10/21 13:56	1
18O2 PFHxS	124		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C3 PFBS	102		25 - 150	06/09/21 19:29	06/10/21 13:56	1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

Date Collected: 06/04/21 10:34

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

Date Collected: 06/04/21 10:34

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
6:2 FTS	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C5 PFPeA	103		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFHxA	95		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFHpA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFOA	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C5 PFNA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFDA	101		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFUnA	95		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFDoA	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFTeDA	89		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C3 PFBS	107		25 - 150				06/08/21 04:52	06/10/21 09:49	1
18O2 PFHxS	108		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFOS	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C8 FOSA	113		25 - 150				06/08/21 04:52	06/10/21 09:49	1
d3-NMeFOSAA	93		25 - 150				06/08/21 04:52	06/10/21 09:49	1
d5-NEtFOSAA	114		25 - 150				06/08/21 04:52	06/10/21 09:49	1
M2-6:2 FTS	78		25 - 150				06/08/21 04:52	06/10/21 09:49	1
M2-8:2 FTS	94		25 - 150				06/08/21 04:52	06/10/21 09:49	1

# Isotope Dilution Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-74597-1	BH20210604-2N-25	93	101	105	109	102	109	104	96
320-74597-2	BH20210604-2N-50	89	100	96	99	97	95	94	87
320-74597-3	BH20210604-2N-75	89	92	96	100	95	102	96	94
320-74597-4	BH20210604-2S-25	101	102	97	106	100	102	96	87
320-74597-5	BH20210604-2S-50	101	99	96	100	95	99	94	93
320-74597-6	BH20210604-2S-75	110	102	99	106	104	102	103	98
320-74597-7	BH20210604-3N-25	87	98	96	101	100	96	94	91
320-74597-8	BH20210604-3N-50	88	102	100	100	100	104	96	92
320-74597-9	BH20210604-3N-75	95	94	97	101	96	100	91	96
320-74597-10	BH20210604-3S-25	101	101	96	104	103	102	91	97
320-74597-11	BH20210604-3S-50	99	103	97	101	98	103	95	96
320-74597-12	BH20210604-3RAW	91	102	100	104	97	109	105	88
320-74597-13	BH20210604-PREGAC	90	101	101	107	100	105	103	100
320-74597-14	BH20210604-POSTGAC	101	102	99	106	103	105	104	97
320-74597-15	BH20210604-1N-25	89	102	99	104	102	102	99	96
320-74597-16	BH20210604-1N-50	98	102	100	108	103	103	98	94
320-74597-17	BH20210604-1N-75	98	101	98	105	101	101	98	93
320-74597-18	BH20210604-1S-25	106	97	99	104	102	110	95	95
320-74597-19	BH20210604-1S-50	103	100	98	105	103	104	98	95
320-74597-20	BH20210604-1S-75	102	104	100	110	105	102	104	96
320-74597-30	BH20210604-3S-75	99	103	95	99	104	99	101	95
LCS 320-496405/2-A	Lab Control Sample	103	100	102	107	100	101	103	88
LCS 320-496408/2-A	Lab Control Sample	98	95	92	98	94	95	92	89
LCSD 320-496405/3-A	Lab Control Sample Dup	100	102	100	106	99	103	100	84
LCSD 320-496408/3-A	Lab Control Sample Dup	100	99	95	99	98	102	92	94
MB 320-496405/1-A	Method Blank	95	99	94	101	96	99	97	94
MB 320-496408/1-A	Method Blank	103	101	92	104	99	101	100	102

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-74597-1	BH20210604-2N-25	110	103	105	113	111	116	119	121
320-74597-2	BH20210604-2N-50	100	90	101	102	104	114	98	108
320-74597-3	BH20210604-2N-75	103	90	97	102	99	106	100	111
320-74597-4	BH20210604-2S-25	93	83	107	105	98	106	95	104
320-74597-5	BH20210604-2S-50	101	89	104	103	100	107	96	106
320-74597-6	BH20210604-2S-75	113	110	104	103	104	111	105	110
320-74597-7	BH20210604-3N-25	99	87	98	100	98	103	93	105
320-74597-8	BH20210604-3N-50	94	88	106	112	105	107	100	108
320-74597-9	BH20210604-3N-75	99	89	99	98	100	104	99	111
320-74597-10	BH20210604-3S-25	104	87	105	108	102	107	100	116
320-74597-11	BH20210604-3S-50	101	91	101	106	102	105	97	110
320-74597-12	BH20210604-3RAW	97	103	105	111	100	106	95	103
320-74597-13	BH20210604-PREGAC	109	100	108	102	107	111	99	112
320-74597-14	BH20210604-POSTGAC	108	94	103	107	105	108	100	109
320-74597-15	BH20210604-1N-25	102	102	104	103	103	110	99	106
320-74597-16	BH20210604-1N-50	104	97	107	111	110	112	100	111
320-74597-17	BH20210604-1N-75	107	89	102	109	104	110	100	110
320-74597-18	BH20210604-1S-25	106	100	108	110	105	111	83	99
320-74597-19	BH20210604-1S-50	105	100	110	112	105	117	107	111

# Isotope Dilution Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFD <sub>o</sub> A (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFH <sub>x</sub> S (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-74597-20	BH20210604-1S-75	108	89	106	113	109	115	99	112
320-74597-30	BH20210604-3S-75	104	89	107	108	104	113	93	114
LCS 320-496405/2-A	Lab Control Sample	101	95	109	110	102	109	103	109
LCS 320-496408/2-A	Lab Control Sample	100	83	97	102	95	102	95	99
LCSD 320-496405/3-A	Lab Control Sample Dup	102	93	107	108	102	110	101	108
LCSD 320-496408/3-A	Lab Control Sample Dup	105	86	102	108	105	107	94	105
MB 320-496405/1-A	Method Blank	105	87	104	100	98	104	99	113
MB 320-496408/1-A	Method Blank	104	88	101	109	100	113	104	108

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS (25-150)	M282FTS (25-150)
320-74597-1	BH20210604-2N-25	105	108
320-74597-2	BH20210604-2N-50	104	105
320-74597-3	BH20210604-2N-75	154 *5+	115
320-74597-4	BH20210604-2S-25	102	100
320-74597-5	BH20210604-2S-50	88	96
320-74597-6	BH20210604-2S-75	87	100
320-74597-7	BH20210604-3N-25	96	95
320-74597-8	BH20210604-3N-50	99	96
320-74597-9	BH20210604-3N-75	90	93
320-74597-10	BH20210604-3S-25	85	95
320-74597-11	BH20210604-3S-50	85	91
320-74597-12	BH20210604-3RAW	89	97
320-74597-13	BH20210604-PREGAC	94	98
320-74597-14	BH20210604-POSTGAC	86	100
320-74597-15	BH20210604-1N-25	89	103
320-74597-16	BH20210604-1N-50	84	101
320-74597-17	BH20210604-1N-75	88	94
320-74597-18	BH20210604-1S-25	89	96
320-74597-19	BH20210604-1S-50	91	93
320-74597-20	BH20210604-1S-75	90	99
320-74597-30	BH20210604-3S-75	78	94
LCS 320-496405/2-A	Lab Control Sample	96	108
LCS 320-496408/2-A	Lab Control Sample	74	84
LCSD 320-496405/3-A	Lab Control Sample Dup	89	99
LCSD 320-496408/3-A	Lab Control Sample Dup	75	88
MB 320-496405/1-A	Method Blank	100	102
MB 320-496408/1-A	Method Blank	86	95

**Surrogate Legend**

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFD<sub>o</sub>A = 13C2 PFD<sub>o</sub>A
- PFTDA = 13C2 PFTeDA

# Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 320-74597-1

Project/Site: Stewart ANGB - Butterhill #336089

C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 PFOSA = 13C8 FOSA  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)					
		C4PFHA (25-150)	PFNA (25-150)	PFOA (70-130)	PFOS (70-130)	PFHxS (25-150)	C3PFBS (25-150)
320-74597-21	BH20210604-PRE-GAC	116	113	113	123	127	97
320-74597-22	BH20210604-1MID	119	110	117	117	129	103
320-74597-23	BH20210604-1POST	129	114	109	123	131	106
320-74597-24	BH20210604-2MID	126	116	115	120	129	104
320-74597-25	BH20210604-2POST	120	115	109	119	125	107
320-74597-26	BH20210604-3MID	123	116	114	130	127	102
320-74597-27	BH20210604-3POST	128	123	113	124	124	107
320-74597-28	BH20210604-POSTGAC	125	117	117	124	127	104
320-74597-28 MS	BH20210604-POSTGAC	124	119	119	128	127	102
320-74597-28 MSD	BH20210604-POSTGAC	122	123	114	131 *5+	127	112
320-74597-29	BH20210604-POSTGAC (DUP)	116	116	110	121	124	102
LCS 320-497181/2-A	Lab Control Sample	132	122	123	132 *5+	131	112
MB 320-497181/1-A	Method Blank	134	129	126	129	132	114

### Surrogate Legend

C4PFHA = 13C4 PFHpA  
 PFNA = 13C5 PFNA  
 PFOA = 13C4 PFOA  
 PFOS = 13C4 PFOS  
 PFHxS = 18O2 PFHxS  
 C3PFBS = 13C3 PFBS

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-496405/1-A

Matrix: Water

Analysis Batch: 497061

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 496405

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
6:2 FTS	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	95		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C5 PFPeA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFHxA	94		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFHpA	101		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFOA	96		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C5 PFNA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFDA	97		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFUnA	94		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFDoA	105		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFTeDA	87		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C3 PFBS	104		25 - 150	06/08/21 04:41	06/10/21 04:47	1
18O2 PFHxS	100		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFOS	98		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C8 FOSA	104		25 - 150	06/08/21 04:41	06/10/21 04:47	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
d5-NEtFOSAA	113		25 - 150	06/08/21 04:41	06/10/21 04:47	1
M2-6:2 FTS	100		25 - 150	06/08/21 04:41	06/10/21 04:47	1
M2-8:2 FTS	102		25 - 150	06/08/21 04:41	06/10/21 04:47	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496405/2-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.2		ng/L		103	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.5		ng/L		99	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.9		ng/L		102	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	44.1		ng/L		110	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.3		ng/L		108	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	36.3		ng/L		91	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	47.4		ng/L		118	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	39.1		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.3		ng/L		100	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.5		ng/L		95	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.5		ng/L		104	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	39.6		ng/L		107	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	38.5		ng/L		100	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	39.9		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.5		ng/L		96	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.7		ng/L		97	76 - 136
6:2 FTS	37.9	37.8		ng/L		100	59 - 175
8:2 FTS	38.3	42.5		ng/L		111	75 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	103		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	102		25 - 150
13C4 PFHpA	107		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	103		25 - 150
13C2 PFUnA	88		25 - 150
13C2 PFDoA	101		25 - 150
13C2 PFTeA	95		25 - 150
13C3 PFBS	109		25 - 150
18O2 PFHxS	110		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	109		25 - 150
d3-NMeFOSAA	103		25 - 150
d5-NEtFOSAA	109		25 - 150

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496405/2-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	96		25 - 150
M2-8:2 FTS	108		25 - 150

**Lab Sample ID: LCSD 320-496405/3-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Perfluorobutanoic acid (PFBA)	40.0	40.6		ng/L		102	76 - 136	1	30	
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	71 - 131	3	30	
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	73 - 133	1	30	
Perfluoroheptanoic acid (PFHpA)	40.0	40.5		ng/L		101	72 - 132	1	30	
Perfluorooctanoic acid (PFOA)	40.0	41.2		ng/L		103	70 - 130	7	30	
Perfluorononanoic acid (PFNA)	40.0	39.5		ng/L		99	75 - 135	9	30	
Perfluorodecanoic acid (PFDA)	40.0	35.7		ng/L		89	76 - 136	2	30	
Perfluoroundecanoic acid (PFUnA)	40.0	42.5		ng/L		106	68 - 128	4	30	
Perfluorododecanoic acid (PFDoA)	40.0	41.1		ng/L		103	71 - 131	1	30	
Perfluorotridecanoic acid (PFTriA)	40.0	39.3		ng/L		98	71 - 131	19	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	40.9		ng/L		102	70 - 130	5	30	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.8		ng/L		101	67 - 127	2	30	
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.5		ng/L		92	59 - 119	3	30	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.6		ng/L		104	76 - 136	0	30	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.9		ng/L		102	70 - 130	4	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	36.4		ng/L		94	71 - 131	6	30	
Perfluorooctanesulfonamide (FOSA)	40.0	37.7		ng/L		94	73 - 133	6	30	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	76 - 136	2	30	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.4		ng/L		96	76 - 136	1	30	
6:2 FTS	37.9	40.2		ng/L		106	59 - 175	6	30	
8:2 FTS	38.3	39.2		ng/L		102	75 - 135	8	30	

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	100		25 - 150
13C5 PFPeA	102		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	106		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	84		25 - 150
13C2 PFDoA	102		25 - 150



# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCSD 320-496405/3-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>LCSD Qualifier</i>	<i>Limits</i>
13C2 PFTeDA	93		25 - 150
13C3 PFBS	107		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	110		25 - 150
d3-NMeFOSAA	101		25 - 150
d5-NEtFOSAA	108		25 - 150
M2-6:2 FTS	89		25 - 150
M2-8:2 FTS	99		25 - 150

**Lab Sample ID: MB 320-496408/1-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
6:2 FTS	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	103		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C5 PFPeA	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFHxA	92		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFOA	99		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C5 PFNA	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFDA	100		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFUnA	102		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFDoA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: MB 320-496408/1-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFTeDA	88		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C3 PFBS	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
18O2 PFHxS	109		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFOS	100		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C8 FOSA	113		25 - 150	06/08/21 04:52	06/10/21 07:32	1
d3-NMeFOSAA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1
d5-NEtFOSAA	108		25 - 150	06/08/21 04:52	06/10/21 07:32	1
M2-6:2 FTS	86		25 - 150	06/08/21 04:52	06/10/21 07:32	1
M2-8:2 FTS	95		25 - 150	06/08/21 04:52	06/10/21 07:32	1

**Lab Sample ID: LCS 320-496408/2-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Perfluoropentanoic acid (PFPeA)	40.0	40.5		ng/L		101	71 - 131	
Perfluorohexanoic acid (PFHxA)	40.0	42.8		ng/L		107	73 - 133	
Perfluoroheptanoic acid (PFHpA)	40.0	41.5		ng/L		104	72 - 132	
Perfluorooctanoic acid (PFOA)	40.0	41.8		ng/L		105	70 - 130	
Perfluorononanoic acid (PFNA)	40.0	42.5		ng/L		106	75 - 135	
Perfluorodecanoic acid (PFDA)	40.0	38.1		ng/L		95	76 - 136	
Perfluoroundecanoic acid (PFUnA)	40.0	39.2		ng/L		98	68 - 128	
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		102	71 - 131	
Perfluorotridecanoic acid (PFTriA)	40.0	43.1		ng/L		108	71 - 131	
Perfluorotetradecanoic acid (PFTeA)	40.0	41.0		ng/L		103	70 - 130	
Perfluorobutanesulfonic acid (PFBS)	35.4	38.7		ng/L		109	67 - 127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.8		ng/L		98	59 - 119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	44.0		ng/L		115	76 - 136	
Perfluorooctanesulfonic acid (PFOS)	37.1	41.4		ng/L		112	70 - 130	
Perfluorodecanesulfonic acid (PFDS)	38.6	41.0		ng/L		106	71 - 131	
Perfluorooctanesulfonamide (FOSA)	40.0	40.1		ng/L		100	73 - 133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.8		ng/L		97	76 - 136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.3		ng/L		103	76 - 136	
6:2 FTS	37.9	38.3		ng/L		101	59 - 175	
8:2 FTS	38.3	42.0		ng/L		110	75 - 135	

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	98		25 - 150
13C5 PFPeA	95		25 - 150

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496408/2-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C2 PFHxA	92		25 - 150
13C4 PFHpA	98		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	100		25 - 150
13C2 PFTeDA	83		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	95		25 - 150
13C8 FOSA	102		25 - 150
d3-NMeFOSAA	95		25 - 150
d5-NEtFOSAA	99		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	84		25 - 150

**Lab Sample ID: LCSD 320-496408/3-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	Limits	Limit
Perfluorobutanoic acid (PFBA)	40.0	41.1		ng/L		103	76 - 136	1	30	
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131	2	30	
Perfluorohexanoic acid (PFHxA)	40.0	42.4		ng/L		106	73 - 133	1	30	
Perfluoroheptanoic acid (PFHpA)	40.0	43.9		ng/L		110	72 - 132	6	30	
Perfluorooctanoic acid (PFOA)	40.0	42.7		ng/L		107	70 - 130	2	30	
Perfluorononanoic acid (PFNA)	40.0	42.1		ng/L		105	75 - 135	1	30	
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		102	76 - 136	7	30	
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	68 - 128	0	30	
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	71 - 131	6	30	
Perfluorotridecanoic acid (PFTriA)	40.0	40.6		ng/L		101	71 - 131	6	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	42.5		ng/L		106	70 - 130	3	30	
Perfluorobutanesulfonic acid (PFBS)	35.4	37.1		ng/L		105	67 - 127	4	30	
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6		ng/L		95	59 - 119	3	30	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.9		ng/L		102	76 - 136	12	30	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.6		ng/L		101	70 - 130	10	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		95	71 - 131	11	30	
Perfluorooctanesulfonamide (FOSA)	40.0	39.0		ng/L		98	73 - 133	3	30	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.9		ng/L		95	76 - 136	2	30	

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCSD 320-496408/3-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-ethylperfluorooctanesulfonamide doacetic acid (NEtFOSAA)	40.0	38.9		ng/L		97	76 - 136	6	30
6:2 FTS	37.9	38.5		ng/L		101	59 - 175	0	30
8:2 FTS	38.3	42.1		ng/L		110	75 - 135	0	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	100		25 - 150
13C5 PFPeA	99		25 - 150
13C2 PFHxA	95		25 - 150
13C4 PFHpA	99		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	105		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	102		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	105		25 - 150
13C8 FOSA	107		25 - 150
d3-NMeFOSAA	94		25 - 150
d5-NEtFOSAA	105		25 - 150
M2-6:2 FTS	75		25 - 150
M2-8:2 FTS	88		25 - 150

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-497181/1-A**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	134		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C5 PFNA	129		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C4 PFOA	126		70 - 130	06/09/21 19:29	06/10/21 09:38	1
13C4 PFOS	129		70 - 130	06/09/21 19:29	06/10/21 09:38	1
18O2 PFHxS	132		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C3 PFBS	114		25 - 150	06/09/21 19:29	06/10/21 09:38	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-497181/2-A**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perfluorobutanesulfonic acid (PFBS)	17.7	15.9		ng/L		90	72 - 151		
Perfluoroheptanoic acid (PFHpA)	20.0	17.3		ng/L		87	71 - 138		
Perfluorohexanesulfonic acid (PFHxS)	18.2	16.6		ng/L		91	73 - 157		
Perfluorononanoic acid (PFNA)	20.0	17.6		ng/L		88	73 - 147		
Perfluorooctanesulfonic acid (PFOS)	18.6	14.9		ng/L		80	70 - 130		
Perfluorooctanoic acid (PFOA)	20.0	17.4		ng/L		87	70 - 130		
		<b>LCS</b>	<b>LCS</b>						
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
13C4 PFHpA	132		25 - 150						
13C5 PFNA	122		25 - 150						
13C4 PFOA	123		70 - 130						
13C4 PFOS	132	*5+	70 - 130						
18O2 PFHxS	131		25 - 150						
13C3 PFBS	112		25 - 150						

**Lab Sample ID: 320-74597-28 MS**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: BH20210604-POSTGAC**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Perfluorobutanesulfonic acid (PFBS)	ND		15.6	14.4		ng/L		93	72 - 151	
Perfluoroheptanoic acid (PFHpA)	ND		17.6	15.4		ng/L		87	71 - 138	
Perfluorohexanesulfonic acid (PFHxS)	ND		16.1	14.1		ng/L		88	73 - 157	
Perfluorononanoic acid (PFNA)	ND		17.6	16.4		ng/L		93	73 - 147	
Perfluorooctanesulfonic acid (PFOS)	ND		16.4	13.0		ng/L		79	70 - 130	
Perfluorooctanoic acid (PFOA)	ND		17.6	15.4		ng/L		87	70 - 130	
		<b>MS</b>	<b>MS</b>							
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
13C4 PFHpA	124		25 - 150							
13C5 PFNA	119		25 - 150							
13C4 PFOA	119		70 - 130							
13C4 PFOS	128		70 - 130							
18O2 PFHxS	127		25 - 150							
13C3 PFBS	102		25 - 150							

**Lab Sample ID: 320-74597-28 MSD**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: BH20210604-POSTGAC**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
											RPD	Limit
Perfluorobutanesulfonic acid (PFBS)	ND		15.3	14.0		ng/L		92	72 - 151	3	30	
Perfluoroheptanoic acid (PFHpA)	ND		17.3	16.0		ng/L		92	71 - 138	4	30	
Perfluorohexanesulfonic acid (PFHxS)	ND		15.8	13.9		ng/L		88	73 - 157	1	30	

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 320-74597-28 MSD

Matrix: Water

Analysis Batch: 496915

Client Sample ID: BH20210604-POSTGAC

Prep Type: Total/NA

Prep Batch: 497181

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
Perfluorononanoic acid (PFNA)	ND		17.3	14.9		ng/L		86	73 - 147	10	30
Perfluorooctanesulfonic acid (PFOS)	ND		16.1	12.2		ng/L		76	70 - 130	6	20
Perfluorooctanoic acid (PFOA)	ND		17.3	15.9		ng/L		92	70 - 130	3	20
		<b>MSD</b>	<b>MSD</b>								
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
13C4 PFHpA	122		25 - 150								
13C5 PFNA	123		25 - 150								
13C4 PFOA	114		70 - 130								
13C4 PFOS	131	*5+	70 - 130								
18O2 PFHxS	127		25 - 150								
13C3 PFBS	112		25 - 150								

# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS

### Prep Batch: 496405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-1	BH20210604-2N-25	Total/NA	Water	3535	
320-74597-2	BH20210604-2N-50	Total/NA	Water	3535	
320-74597-3	BH20210604-2N-75	Total/NA	Water	3535	
320-74597-4	BH20210604-2S-25	Total/NA	Water	3535	
320-74597-5	BH20210604-2S-50	Total/NA	Water	3535	
320-74597-6	BH20210604-2S-75	Total/NA	Water	3535	
320-74597-7	BH20210604-3N-25	Total/NA	Water	3535	
320-74597-8	BH20210604-3N-50	Total/NA	Water	3535	
320-74597-9	BH20210604-3N-75	Total/NA	Water	3535	
320-74597-10	BH20210604-3S-25	Total/NA	Water	3535	
MB 320-496405/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-496405/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-496405/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Prep Batch: 496408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-11	BH20210604-3S-50	Total/NA	Water	3535	
320-74597-12	BH20210604-3RAW	Total/NA	Water	3535	
320-74597-13	BH20210604-PREGAC	Total/NA	Water	3535	
320-74597-14	BH20210604-POSTGAC	Total/NA	Water	3535	
320-74597-15	BH20210604-1N-25	Total/NA	Water	3535	
320-74597-16	BH20210604-1N-50	Total/NA	Water	3535	
320-74597-17	BH20210604-1N-75	Total/NA	Water	3535	
320-74597-18	BH20210604-1S-25	Total/NA	Water	3535	
320-74597-19	BH20210604-1S-50	Total/NA	Water	3535	
320-74597-20	BH20210604-1S-75	Total/NA	Water	3535	
320-74597-30	BH20210604-3S-75	Total/NA	Water	3535	
MB 320-496408/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-496408/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-496408/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 496915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-21	BH20210604-PRE-GAC	Total/NA	Water	WS-LC-0025	497181
320-74597-22	BH20210604-1MID	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-23	BH20210604-1POST	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-24	BH20210604-2MID	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-25	BH20210604-2POST	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-26	BH20210604-3MID	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-27	BH20210604-3POST	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-28	BH20210604-POSTGAC	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-29	BH20210604-POSTGAC (DUP)	Total/NA	Water	WS-LC-0025 Att1	497181
MB 320-497181/1-A	Method Blank	Total/NA	Water	WS-LC-0025 Att1	497181



# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS (Continued)

### Analysis Batch: 496915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-497181/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-28 MS	BH20210604-POSTGAC	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-28 MSD	BH20210604-POSTGAC	Total/NA	Water	WS-LC-0025 Att1	497181

### Analysis Batch: 497061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-1	BH20210604-2N-25	Total/NA	Water	537 (modified)	496405
320-74597-2	BH20210604-2N-50	Total/NA	Water	537 (modified)	496405
320-74597-3	BH20210604-2N-75	Total/NA	Water	537 (modified)	496405
320-74597-4	BH20210604-2S-25	Total/NA	Water	537 (modified)	496405
320-74597-5	BH20210604-2S-50	Total/NA	Water	537 (modified)	496405
320-74597-6	BH20210604-2S-75	Total/NA	Water	537 (modified)	496405
320-74597-7	BH20210604-3N-25	Total/NA	Water	537 (modified)	496405
320-74597-8	BH20210604-3N-50	Total/NA	Water	537 (modified)	496405
320-74597-9	BH20210604-3N-75	Total/NA	Water	537 (modified)	496405
320-74597-10	BH20210604-3S-25	Total/NA	Water	537 (modified)	496405
MB 320-496405/1-A	Method Blank	Total/NA	Water	537 (modified)	496405
LCS 320-496405/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	496405
LCSD 320-496405/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	496405

### Analysis Batch: 497065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-11	BH20210604-3S-50	Total/NA	Water	537 (modified)	496408
320-74597-12	BH20210604-3RAW	Total/NA	Water	537 (modified)	496408
320-74597-13	BH20210604-PREGAC	Total/NA	Water	537 (modified)	496408
320-74597-14	BH20210604-POSTGAC	Total/NA	Water	537 (modified)	496408
320-74597-15	BH20210604-1N-25	Total/NA	Water	537 (modified)	496408
320-74597-16	BH20210604-1N-50	Total/NA	Water	537 (modified)	496408
320-74597-17	BH20210604-1N-75	Total/NA	Water	537 (modified)	496408
320-74597-18	BH20210604-1S-25	Total/NA	Water	537 (modified)	496408
320-74597-19	BH20210604-1S-50	Total/NA	Water	537 (modified)	496408
320-74597-20	BH20210604-1S-75	Total/NA	Water	537 (modified)	496408
320-74597-30	BH20210604-3S-75	Total/NA	Water	537 (modified)	496408
MB 320-496408/1-A	Method Blank	Total/NA	Water	537 (modified)	496408
LCS 320-496408/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	496408
LCSD 320-496408/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	496408

### Prep Batch: 497181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-21	BH20210604-PRE-GAC	Total/NA	Water	PFAS Prep	
320-74597-22	BH20210604-1MID	Total/NA	Water	PFAS Prep	
320-74597-23	BH20210604-1POST	Total/NA	Water	PFAS Prep	
320-74597-24	BH20210604-2MID	Total/NA	Water	PFAS Prep	
320-74597-25	BH20210604-2POST	Total/NA	Water	PFAS Prep	
320-74597-26	BH20210604-3MID	Total/NA	Water	PFAS Prep	
320-74597-27	BH20210604-3POST	Total/NA	Water	PFAS Prep	
320-74597-28	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	
320-74597-29	BH20210604-POSTGAC (DUP)	Total/NA	Water	PFAS Prep	
MB 320-497181/1-A	Method Blank	Total/NA	Water	PFAS Prep	

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS (Continued)

### Prep Batch: 497181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-497181/2-A	Lab Control Sample	Total/NA	Water	PFAS Prep	
320-74597-28 MS	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	
320-74597-28 MSD	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-25**

**Lab Sample ID: 320-74597-1**

Date Collected: 06/04/21 09:53

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 05:15	K1S	TAL SAC

**Client Sample ID: BH20210604-2N-50**

**Lab Sample ID: 320-74597-2**

Date Collected: 06/04/21 09:54

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 05:24	K1S	TAL SAC

**Client Sample ID: BH20210604-2N-75**

**Lab Sample ID: 320-74597-3**

Date Collected: 06/04/21 09:55

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 05:33	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-25**

**Lab Sample ID: 320-74597-4**

Date Collected: 06/04/21 10:01

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 05:42	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-50**

**Lab Sample ID: 320-74597-5**

Date Collected: 06/04/21 10:03

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 05:51	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-75**

**Lab Sample ID: 320-74597-6**

Date Collected: 06/04/21 10:05

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 06:00	K1S	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-25**

**Lab Sample ID: 320-74597-7**

Date Collected: 06/04/21 10:13

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 06:10	K1S	TAL SAC

**Client Sample ID: BH20210604-3N-50**

**Lab Sample ID: 320-74597-8**

Date Collected: 06/04/21 10:14

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 06:37	K1S	TAL SAC

**Client Sample ID: BH20210604-3N-75**

**Lab Sample ID: 320-74597-9**

Date Collected: 06/04/21 10:15

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 06:46	K1S	TAL SAC

**Client Sample ID: BH20210604-3S-25**

**Lab Sample ID: 320-74597-10**

Date Collected: 06/04/21 10:31

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497061	06/10/21 06:55	K1S	TAL SAC

**Client Sample ID: BH20210604-3S-50**

**Lab Sample ID: 320-74597-11**

Date Collected: 06/04/21 10:32

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 07:59	K1S	TAL SAC

**Client Sample ID: BH20210604-3RAW**

**Lab Sample ID: 320-74597-12**

Date Collected: 06/04/21 10:45

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:08	K1S	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-PREGAC**

**Lab Sample ID: 320-74597-13**

Date Collected: 06/04/21 09:18

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:17	K1S	TAL SAC

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-14**

Date Collected: 06/04/21 09:11

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:27	K1S	TAL SAC

**Client Sample ID: BH20210604-1N-25**

**Lab Sample ID: 320-74597-15**

Date Collected: 06/04/21 09:30

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:36	K1S	TAL SAC

**Client Sample ID: BH20210604-1N-50**

**Lab Sample ID: 320-74597-16**

Date Collected: 06/04/21 09:31

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:45	K1S	TAL SAC

**Client Sample ID: BH20210604-1N-75**

**Lab Sample ID: 320-74597-17**

Date Collected: 06/04/21 09:32

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 08:54	K1S	TAL SAC

**Client Sample ID: BH20210604-1S-25**

**Lab Sample ID: 320-74597-18**

Date Collected: 06/04/21 09:39

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 09:21	K1S	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-50**

**Lab Sample ID: 320-74597-19**

Date Collected: 06/04/21 09:40

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 09:31	K1S	TAL SAC

**Client Sample ID: BH20210604-1S-75**

**Lab Sample ID: 320-74597-20**

Date Collected: 06/04/21 09:41

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 09:40	K1S	TAL SAC

**Client Sample ID: BH20210604-PRE-GAC**

**Lab Sample ID: 320-74597-21**

Date Collected: 06/04/21 09:16

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 10:33	D1R	TAL SAC

**Client Sample ID: BH20210604-1MID**

**Lab Sample ID: 320-74597-22**

Date Collected: 06/04/21 09:35

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 10:52	D1R	TAL SAC

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

Date Collected: 06/04/21 09:43

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 11:10	D1R	TAL SAC

**Client Sample ID: BH20210604-2MID**

**Lab Sample ID: 320-74597-24**

Date Collected: 06/04/21 09:57

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 11:29	D1R	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2POST**

**Lab Sample ID: 320-74597-25**

Date Collected: 06/04/21 10:07

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 11:47	D1R	TAL SAC

**Client Sample ID: BH20210604-3MID**

**Lab Sample ID: 320-74597-26**

Date Collected: 06/04/21 10:17

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 12:06	D1R	TAL SAC

**Client Sample ID: BH20210604-3POST**

**Lab Sample ID: 320-74597-27**

Date Collected: 06/04/21 10:36

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 12:24	D1R	TAL SAC

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 13:01	D1R	TAL SAC

**Client Sample ID: BH20210604-POSTGAC (DUP)**

**Lab Sample ID: 320-74597-29**

Date Collected: 06/04/21 09:12

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1	496915	06/10/21 13:56	D1R	TAL SAC

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

Date Collected: 06/04/21 10:34

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1	497065	06/10/21 09:49	K1S	TAL SAC

## Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

# Accreditation/Certification Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorobutanesulfonic acid (PFBS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluoroheptanoic acid (PFHpA)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorononanoic acid (PFNA)



# Method PFAS DW

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Fluorinated Alkyl Substances (DW) by  
Ws-LC-0025 Attach 1

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	C3PFBS #	C4PFHA #	PFHxS #	PFOA #	PFOS #	PFNA #
BH20210604-PRE-GAC	320-74597-21	97	116	127	113	123	113
BH20210604-1MID	320-74597-22	103	119	129	117	117	110
BH20210604-1POST	320-74597-23	106	129	131	109	123	114
BH20210604-2MID	320-74597-24	104	126	129	115	120	116
BH20210604-2POST	320-74597-25	107	120	125	109	119	115
BH20210604-3MID	320-74597-26	102	123	127	114	130	116
BH20210604-3POST	320-74597-27	107	128	124	113	124	123
BH20210604-POSTGAC	320-74597-28	104	125	127	117	124	117
BH20210604-POSTGAC (DUP)	320-74597-29	102	116	124	110	121	116
	MB 320-497181/1-A	114	134	132	126	129	129
	LCS 320-497181/2-A	112	132	131	123	132 *5+	122
BH20210604-POSTGAC MS	320-74597-28 MS	102	124	127	119	128	119
BH20210604-POSTGAC MSD	320-74597-28 MSD	112	122	127	114	131 *5+	123

C3PFBS = 13C3 PFBS	<u>QC LIMITS</u>
C4PFHA = 13C4 PFHpA	25-150
PFHxS = 1802 PFHxS	25-150
PFOA = 13C4 PFOA	70-130
PFOS = 13C4 PFOS	70-130
PFNA = 13C5 PFNA	25-150

# Column to be used to flag recovery values

FORM III  
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water      Level: Low      Lab File ID: 2021.06.10\_A10\_DI\_A\_002.d  
 Lab ID: LCS 320-497181/2-A      Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C4 PFHpA	83.0	110	132	25-150	
13C5 PFNA	83.0	101	122	25-150	
13C4 PFOA	83.0	102	123	70-130	
13C4 PFOS	79.3	105	132	70-130	*5+
18O2 PFHxS	78.5	103	131	25-150	
Perfluorobutanesulfonic acid (PFBS)	17.7	15.9	90	72-151	
Perfluoroheptanoic acid (PFHpA)	20.0	17.3	87	71-138	
Perfluorohexanesulfonic acid (PFHxS)	18.2	16.6	91	73-157	
Perfluorononanoic acid (PFNA)	20.0	17.6	88	73-147	
Perfluorooctanesulfonic acid (PFOS)	18.6	14.9	80	70-130	
Perfluorooctanoic acid (PFOA)	20.0	17.4	87	70-130	
13C3 PFBS	77.2	86.4	112	25-150	

# Column to be used to flag recovery and RPD values

FORM III  
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water      Level: Low      Lab File ID: 2021.06.10\_A10\_DI\_A\_013.d  
 Lab ID: 320-74597-28 MS      Client ID: BH20210604-POSTGAC MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
13C4 PFHpA	83.0	100	103	124	25-150	
13C5 PFNA	83.0	97	99.2	119	25-150	
13C4 PFOA	83.0	97	98.7	119	70-130	
13C4 PFOS	79.3	98	101	128	70-130	
18O2 PFHxS	78.5	100	100	127	25-150	
Perfluorobutanesulfonic acid (PFBS)	15.6	ND	14.4	93	72-151	
Perfluoroheptanoic acid (PFHpA)	17.6	ND	15.4	87	71-138	
Perfluorohexanesulfonic acid (PFHxS)	16.1	ND	14.1	88	73-157	
Perfluorononanoic acid (PFNA)	17.6	ND	16.4	93	73-147	
Perfluorooctanesulfonic acid (PFOS)	16.4	ND	13.0	79	70-130	
Perfluorooctanoic acid (PFOA)	17.6	ND	15.4	87	70-130	
13C3 PFBS	77.2	81	79.1	102	25-150	

# Column to be used to flag recovery and RPD values

FORM III  
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: 2021.06.10\_A10\_DI\_A\_014.d

Lab ID: 320-74597-28 MSD Client ID: BH20210604-POSTGAC MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
13C4 PFHpA	83.0	101	122			25-150	
13C5 PFNA	83.0	102	123			25-150	
13C4 PFOA	83.0	94.5	114			70-130	
13C4 PFOS	79.3	104	131			70-130	*5+
18O2 PFHxS	78.5	99.4	127			25-150	
Perfluorobutanesulfonic acid (PFBS)	15.3	14.0	92	3	30	72-151	
Perfluoroheptanoic acid (PFHpA)	17.3	16.0	92	4	30	71-138	
Perfluorohexanesulfonic acid (PFHxS)	15.8	13.9	88	1	30	73-157	
Perfluorononanoic acid (PFNA)	17.3	14.9	86	10	30	73-147	
Perfluorooctanesulfonic acid (PFOS)	16.1	12.2	76	6	20	70-130	
Perfluorooctanoic acid (PFOA)	17.3	15.9	92	3	20	70-130	
13C3 PFBS	77.2	86.2	112			25-150	

# Column to be used to flag recovery and RPD values

FORM IV  
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 2021.06.10\_A10\_DI\_A\_001.d      Lab Sample ID: MB 320-497181/1-A  
 Matrix: Water      Date Extracted: 06/09/2021 19:29  
 Instrument ID: A10      Date Analyzed: 06/10/2021 09:38  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-497181/2-A	2021.06.10_A10_DI_A_002.d	06/10/2021 09:56
BH20210604-PRE-GAC	320-74597-21	2021.06.10_A10_DI_A_004.d	06/10/2021 10:33
BH20210604-1MID	320-74597-22	2021.06.10_A10_DI_A_005.d	06/10/2021 10:52
BH20210604-1POST	320-74597-23	2021.06.10_A10_DI_A_006.d	06/10/2021 11:10
BH20210604-2MID	320-74597-24	2021.06.10_A10_DI_A_007.d	06/10/2021 11:29
BH20210604-2POST	320-74597-25	2021.06.10_A10_DI_A_008.d	06/10/2021 11:47
BH20210604-3MID	320-74597-26	2021.06.10_A10_DI_A_009.d	06/10/2021 12:06
BH20210604-3POST	320-74597-27	2021.06.10_A10_DI_A_010.d	06/10/2021 12:24
BH20210604-POSTGAC	320-74597-28	2021.06.10_A10_DI_A_012.d	06/10/2021 13:01
BH20210604-POSTGAC MS	320-74597-28 MS	2021.06.10_A10_DI_A_013.d	06/10/2021 13:19
BH20210604-POSTGAC MSD	320-74597-28 MSD	2021.06.10_A10_DI_A_014.d	06/10/2021 13:38
BH20210604-POSTGAC (DUP)	320-74597-29	2021.06.10_A10_DI_A_015.d	06/10/2021 13:56

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-PRE-GAC Lab Sample ID: 320-74597-21  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_004.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:16  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 10:33  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.1		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.8		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	2.6		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	116		25-150
STL00995	13C5 PFNA	113		25-150
STL00990	13C4 PFOA	113		70-130
STL00991	13C4 PFOS	123		70-130
STL00994	18O2 PFHxS	127		25-150
STL02337	13C3 PFBS	97		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_004.d  
 Lims ID: 320-74597-A-21-A  
 Client ID: BH20210604-PRE-GAC  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 10:33:45 ALS Bottle#: 4 Worklist Smp#: 51  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-21-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:54:17 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:54:17  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
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D 3 13C3 PFBS

301.90 > 80.00	6.288	6.297	-0.009		1293174	0.0451		97.1	2218	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.288	6.297	-0.009	1.000	34078	0.001062	Target=1.41		18.7	
298.90 > 99.00	6.288	6.297	-0.009	1.000	21947		1.55(0.70-2.11)		10.0	

D 15 18O2 PFHxS

403.00 > 84.00	7.226	7.248	-0.022		1667885	0.0599		127	15604	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.226	7.248	-0.022	1.000	76376	0.001886	Target=5.56		37.3	
399.00 > 99.00	7.226	7.248	-0.022	1.000	13096		5.83(2.78-8.33)		13.8	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.244	7.248	-0.004	1.003	48059	0.001046	Target=8.84		6.7	
363.00 > 169.00	7.226	7.248	-0.022	1.000	5782		8.31(4.42-13.25)		32.8	

D 17 13C4 PFHpA

367.00 > 322.00	7.226	7.248	-0.022		2241620	0.0580		116	9701	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	96160	0.001575	Target=1.59		21.1	
413.00 > 169.00	7.803	7.806	-0.003	1.000	70611		1.36(0.79-2.38)		116	

D 25 13C4 PFOA

417.00 > 372.00	7.803	7.806	-0.003		3224162	0.0566		113	16673	
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D 26 13C4 PFOS

503.00 > 80.00	8.359	8.367	-0.008		1141803	0.0588		123	3152	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.359	8.367	-0.008	1.000	59735	0.002267	Target=3.35		101	M
499.00 > 99.00	8.342	8.367	-0.025	0.998	18090		3.30(1.67-5.02)		50.5	M

D 28 13C5 PFNA

468.00 > 423.00	8.376	8.401	-0.025		2737460	0.0563		113	14139	
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Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
29 Perfluorononanoic acid										M
463.00 > 419.00	8.393	8.401	-0.008	1.002	10833	0.000218	Target=7.93		8.6	
463.00 > 169.00	8.393	8.401	-0.008	1.002	1437		7.54(3.96-11.89)		11.3	M

**QC Flag Legend**

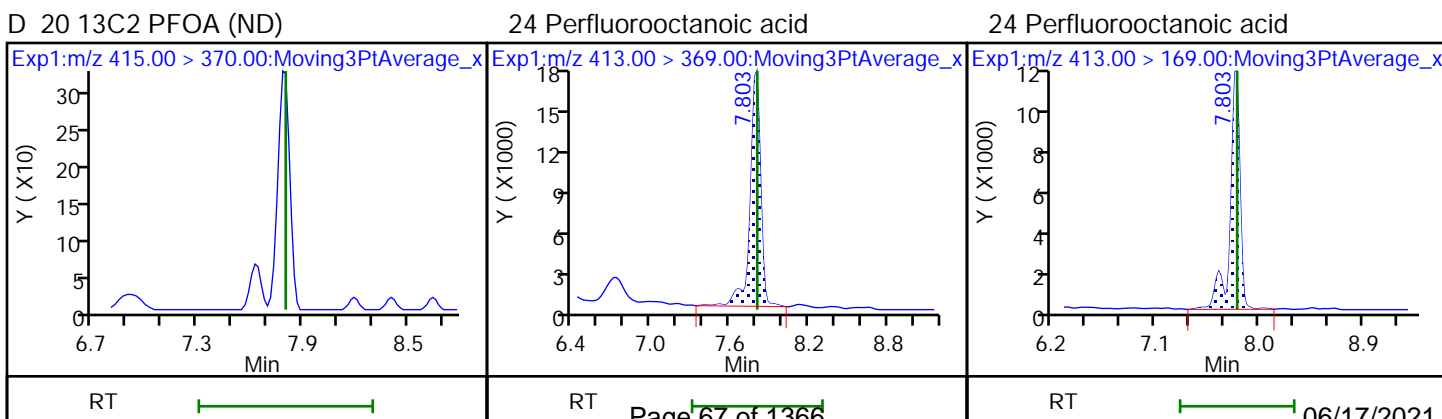
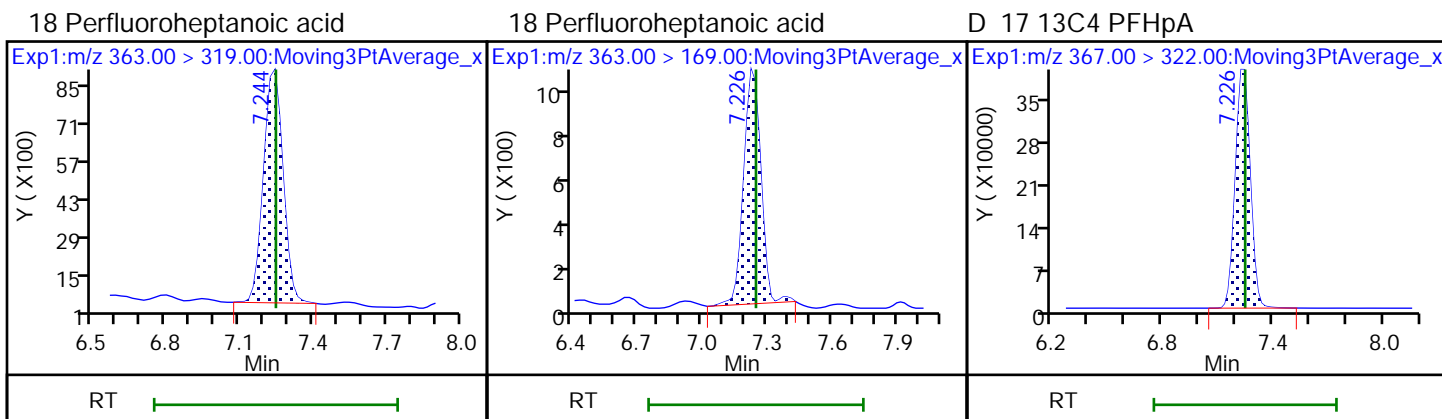
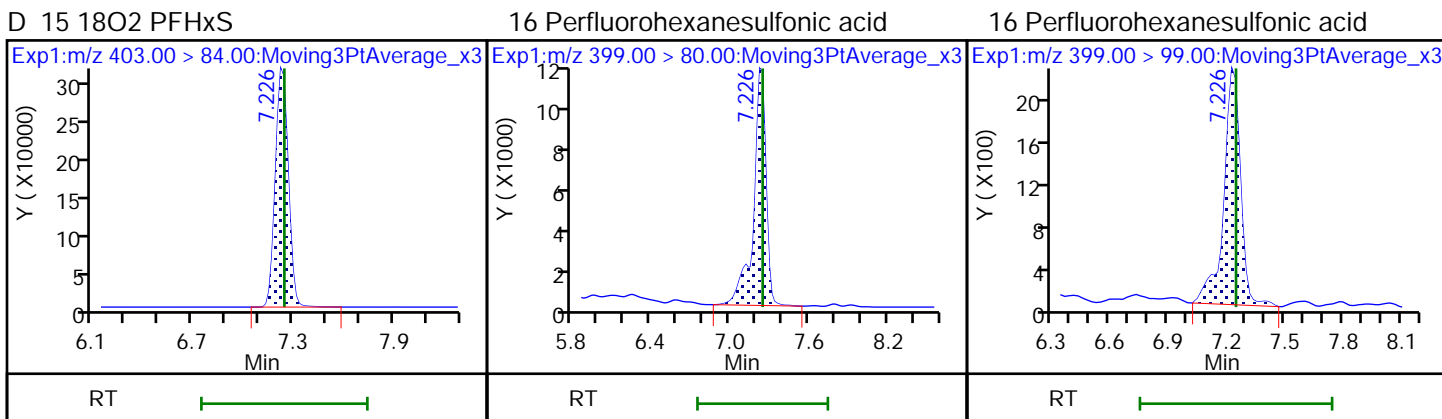
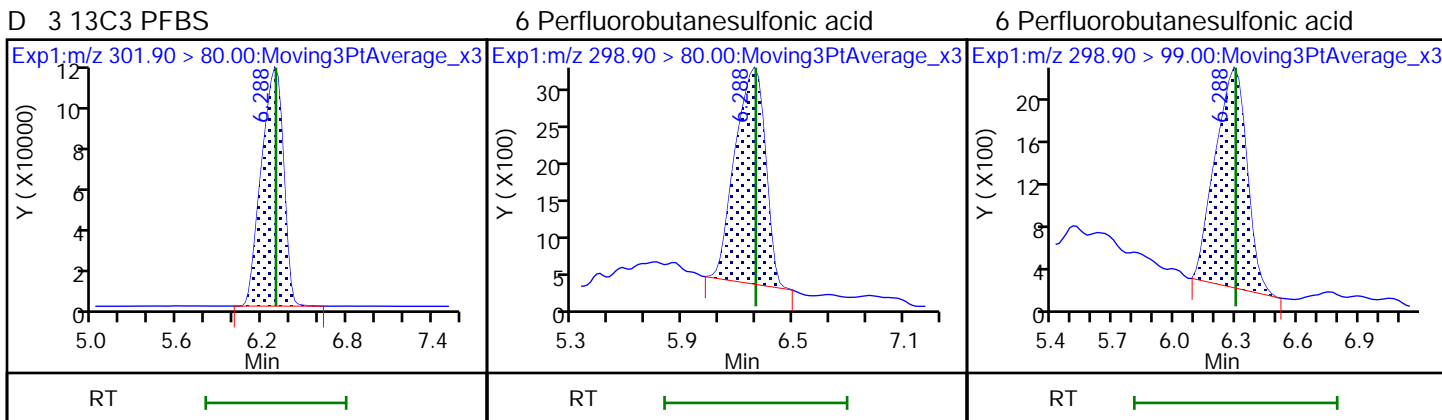
Processing Flags

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Sacramento

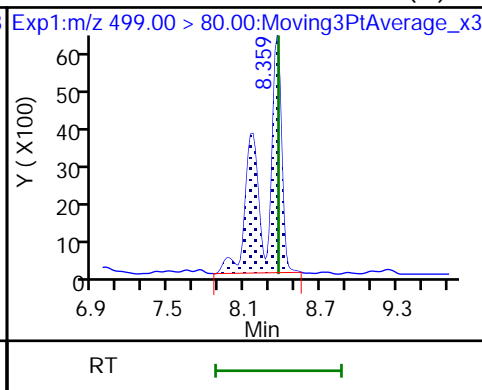
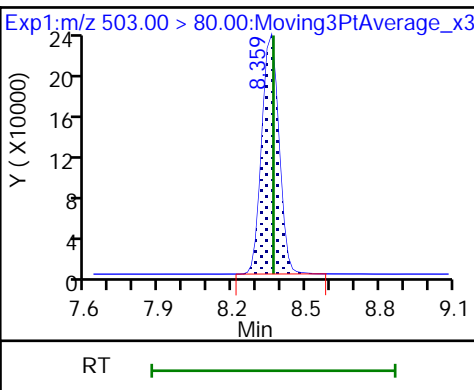
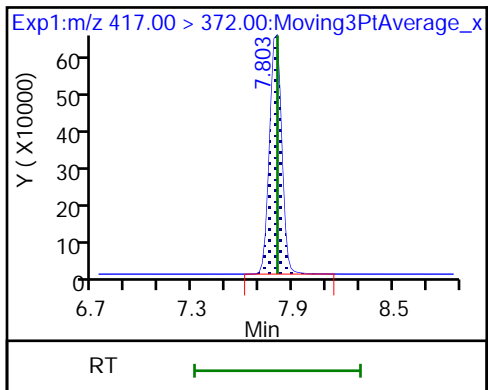
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Injection Date: 10-Jun-2021 10:33:45 Instrument ID: A10  
Lims ID: 320-74597-A-21-A Lab Sample ID: 320-74597-21  
Client ID: BH20210604-PRE-GAC  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 4 Worklist Smp#: 51  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL



D 25 13C4 PFOA

D 26 13C4 PFOS

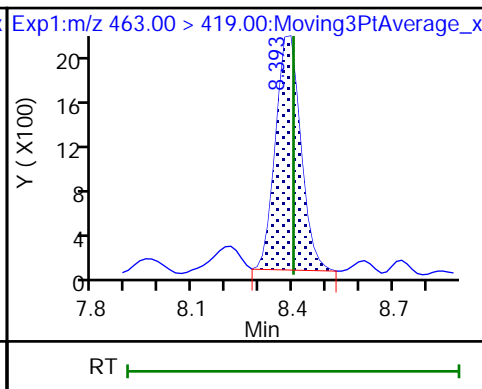
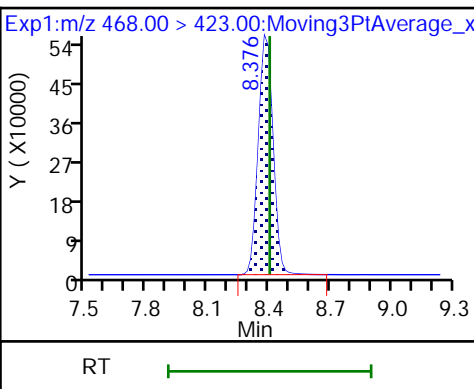
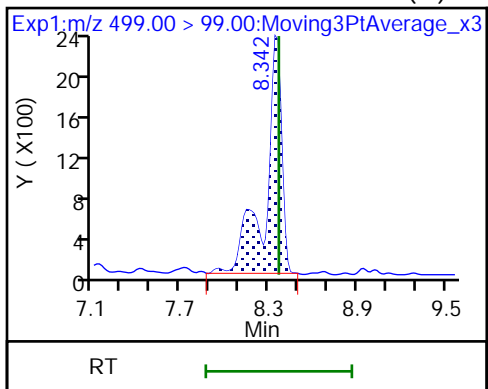
27 Perfluorooctanesulfonic acid (M)



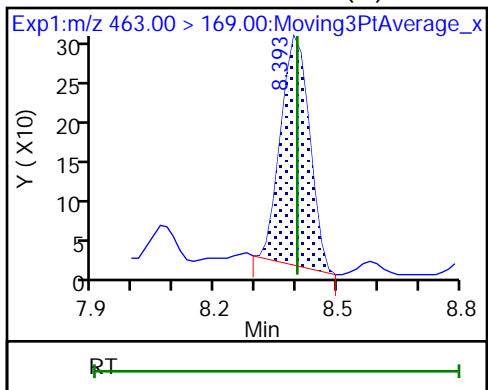
27 Perfluorooctanesulfonic acid (M)

D 28 13C5 PFNA

29 Perfluorononanoic acid



29 Perfluorononanoic acid (M)



Eurofins TestAmerica, Sacramento

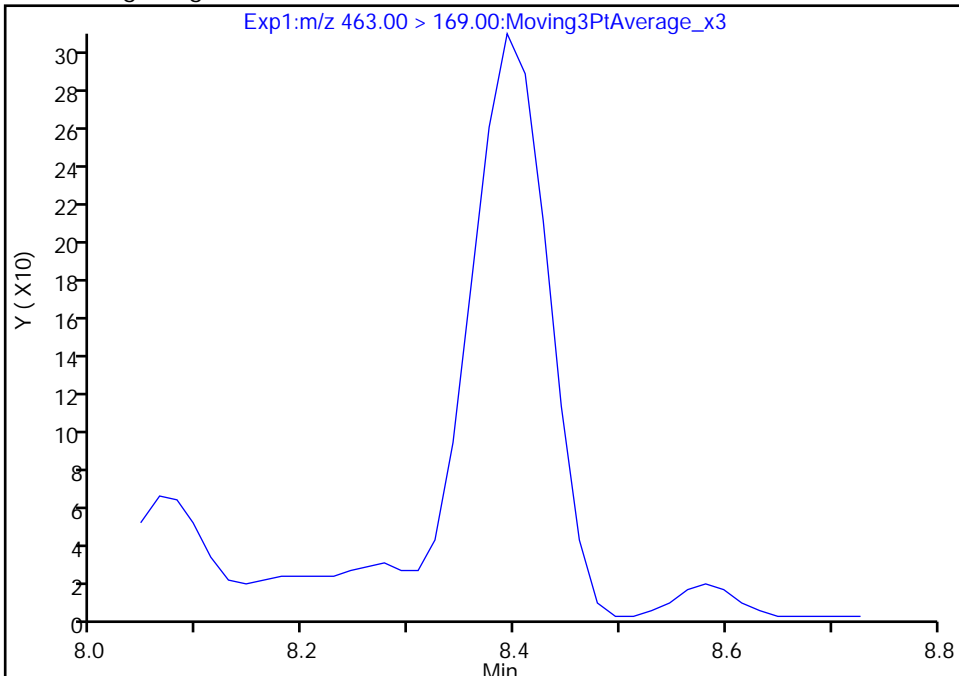
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Injection Date: 10-Jun-2021 10:33:45 Instrument ID: A10  
Lims ID: 320-74597-A-21-A Lab Sample ID: 320-74597-21  
Client ID: BH20210604-PRE-GAC  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 4 Worklist Smp#: 51  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

29 Perfluorononanoic acid, CAS: 375-95-1

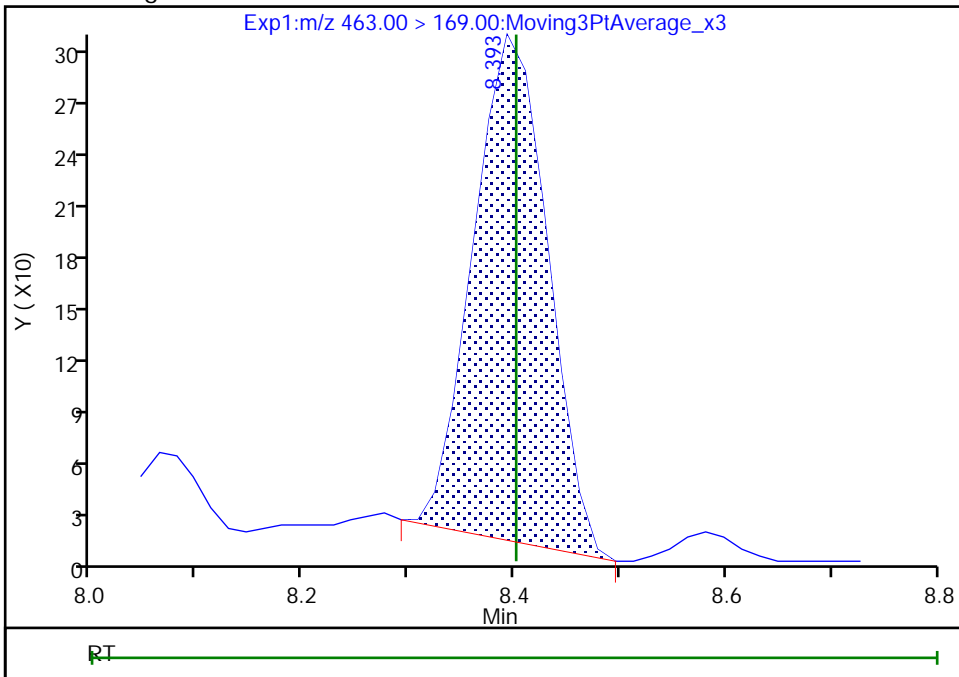
Signal: 2

Not Detected  
Expected RT: 8.40

Processing Integration Results



Manual Integration Results



RT: 8.39  
Area: 1437  
Amount: 0.000218  
Amount Units: ng/ml

Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:11  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

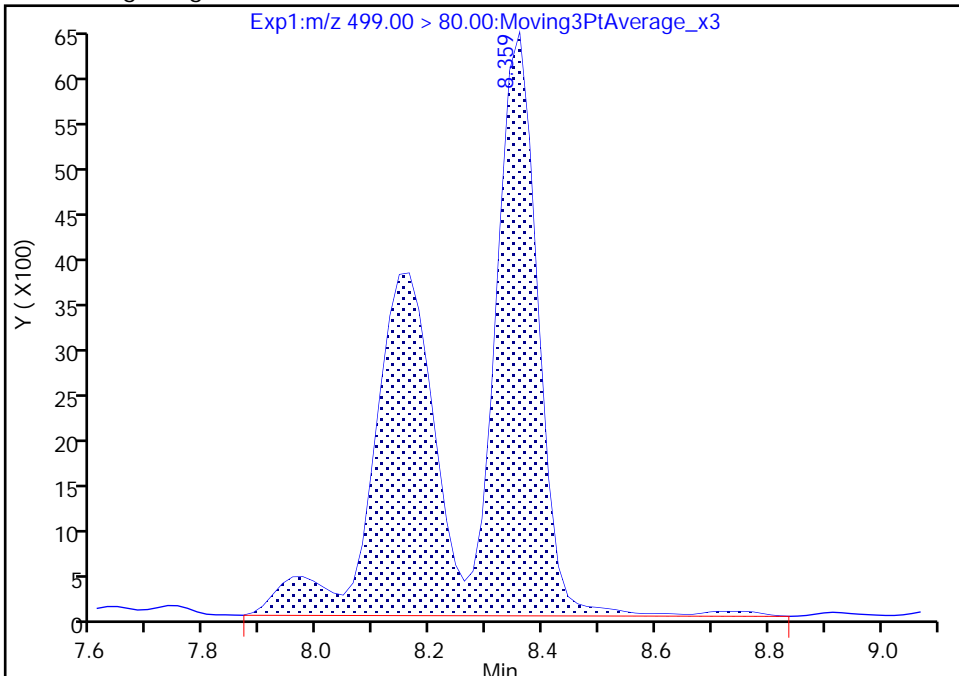
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Injection Date: 10-Jun-2021 10:33:45 Instrument ID: A10  
Lims ID: 320-74597-A-21-A Lab Sample ID: 320-74597-21  
Client ID: BH20210604-PRE-GAC  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 4 Worklist Smp#: 51  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

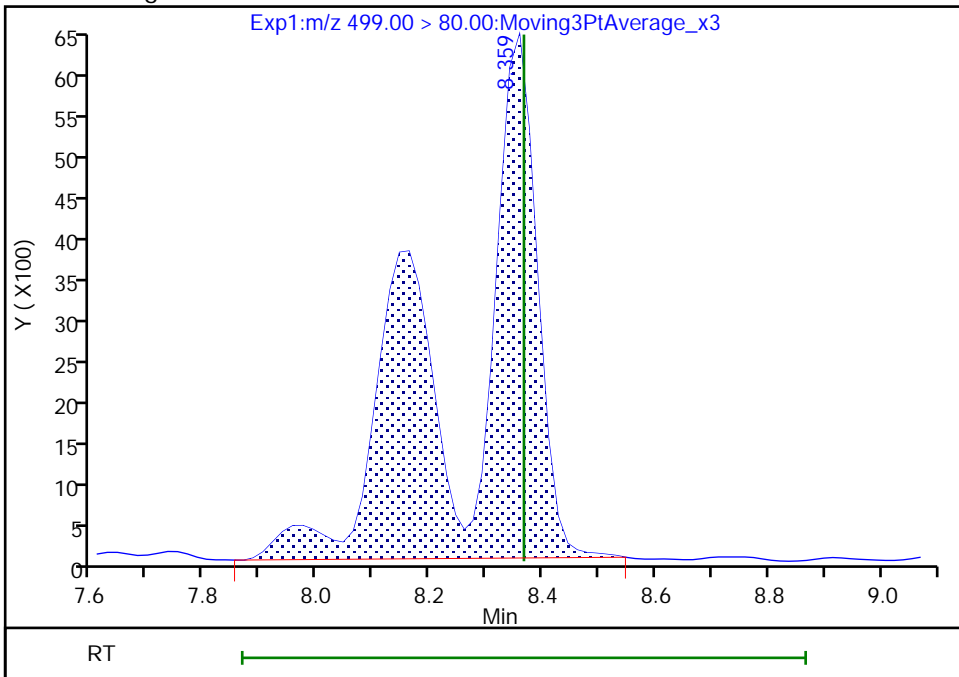
RT: 8.36  
Area: 61234  
Amount: 0.002324  
Amount Units: ng/ml

Processing Integration Results



RT: 8.36  
Area: 59735  
Amount: 0.002267  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:01  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

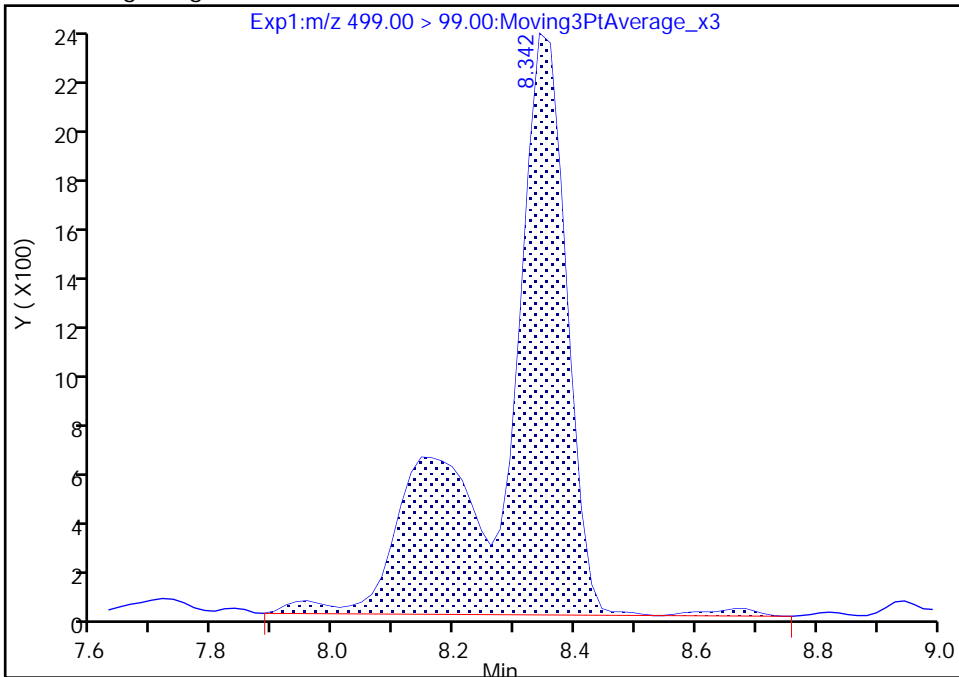
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Injection Date: 10-Jun-2021 10:33:45 Instrument ID: A10  
Lims ID: 320-74597-A-21-A Lab Sample ID: 320-74597-21  
Client ID: BH20210604-PRE-GAC  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 4 Worklist Smp#: 51  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

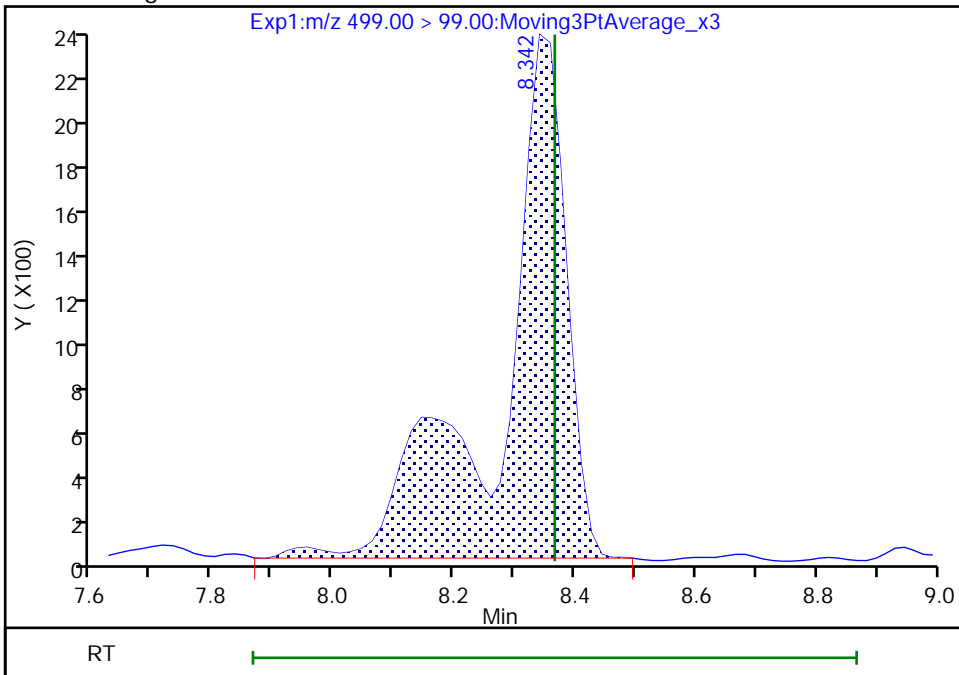
RT: 8.34  
Area: 18497  
Amount: 0.002324  
Amount Units: ng/ml

Processing Integration Results



RT: 8.34  
Area: 18090  
Amount: 0.002267  
Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1MID Lab Sample ID: 320-74597-22  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_005.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:35  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 10:52  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	119		25-150
STL00995	13C5 PFNA	110		25-150
STL00990	13C4 PFOA	117		70-130
STL00991	13C4 PFOS	117		70-130
STL00994	18O2 PFHxS	129		25-150
STL02337	13C3 PFBS	103		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_005.d  
 Lims ID: 320-74597-A-22-A  
 Client ID: BH20210604-1MID  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 10:52:14 ALS Bottle#: 5 Worklist Smp#: 52  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-22-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:55:03 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:55:03  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
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D 3 13C3 PFBS  
 301.90 > 80.00 6.310 6.297 0.013 1377791 0.0481 103 3216  
 6 Perfluorobutanesulfonic acid M  
 298.90 > 80.00 6.310 6.297 0.013 1.000 15112 0.000442 Target=1.41 14.6  
 298.90 > 99.00 6.288 6.297 -0.009 0.996 10639 1.42(0.70-2.11) 5.7 M

D 15 18O2 PFHxS  
 403.00 > 84.00 7.246 7.248 -0.002 1703964 0.0612 129 13802  
 16 Perfluorohexanesulfonic acid M  
 399.00 > 80.00 7.246 7.248 -0.002 1.000 22757 0.000550 Target=5.56 18.2 M  
 399.00 > 99.00 7.246 7.248 -0.002 1.000 3743 6.08(2.78-8.33) 5.3 M  
 18 Perfluoroheptanoic acid  
 363.00 > 319.00 7.246 7.248 -0.002 1.000 19637 0.000418 Target=8.84 4.4  
 363.00 > 169.00 7.246 7.248 -0.002 1.000 2383 8.24(4.42-13.25) 13.9

D 17 13C4 PFHpA  
 367.00 > 322.00 7.246 7.248 -0.002 2292541 0.0594 119 10058  
 24 Perfluorooctanoic acid M  
 413.00 > 369.00 7.804 7.806 -0.002 1.000 36227 0.000573 Target=1.59 11.8 M  
 413.00 > 169.00 7.804 7.806 -0.002 1.000 27912 1.30(0.79-2.38) 56.6

D 25 13C4 PFOA  
 417.00 > 372.00 7.804 7.806 -0.002 3335757 0.0585 117 20176

D 26 13C4 PFOS  
 503.00 > 80.00 8.359 8.367 -0.008 1087678 0.0560 117 5021  
 27 Perfluorooctanesulfonic acid M  
 499.00 > 80.00 8.359 8.367 -0.008 1.000 11297 0.000450 Target=3.35 28.6 M  
 499.00 > 99.00 8.342 8.367 -0.025 0.998 3282 3.44(1.67-5.02) 10.7 M

D 28 13C5 PFNA  
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[QC Flag Legend](#)

Processing Flags

Review Flags

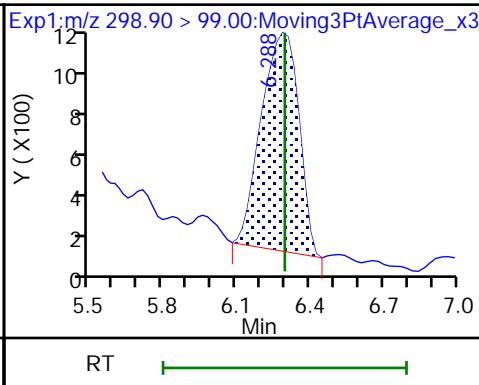
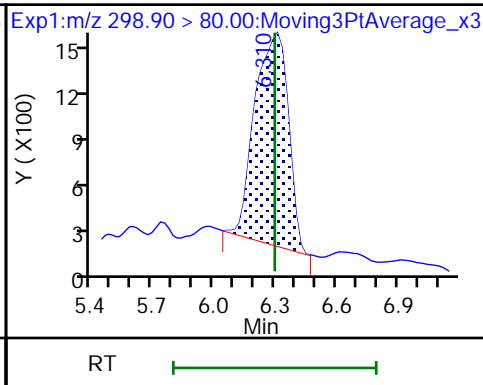
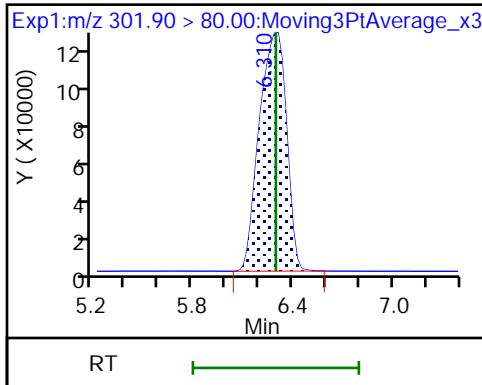
M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_005.d  
Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL

D 3 13C3 PFBS

6 Perfluorobutanesulfonic acid

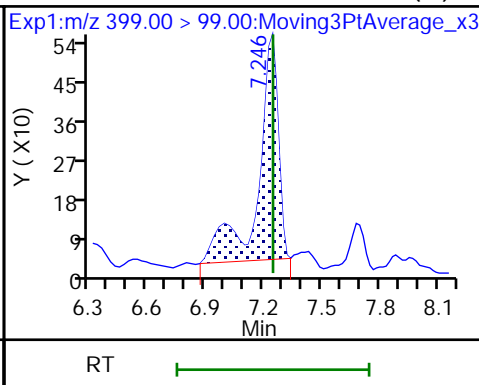
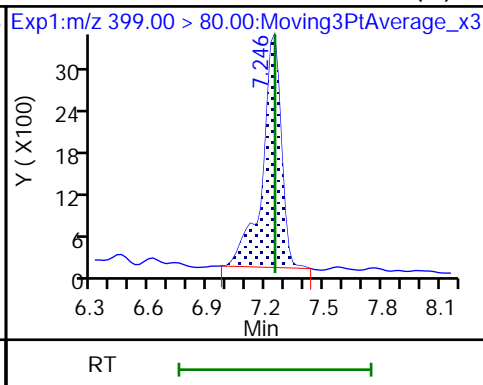
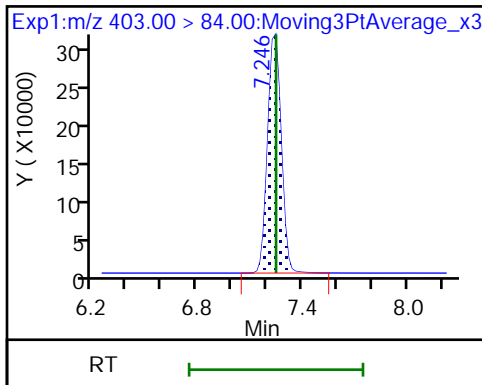
6 Perfluorobutanesulfonic acid (M)



D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid (M)

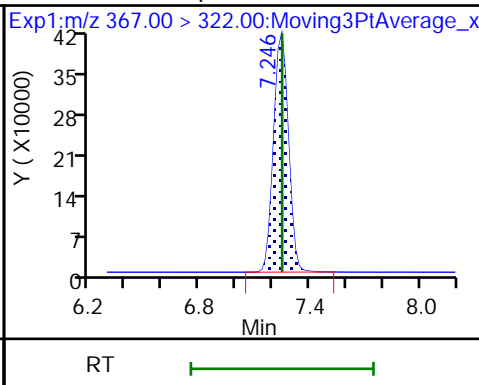
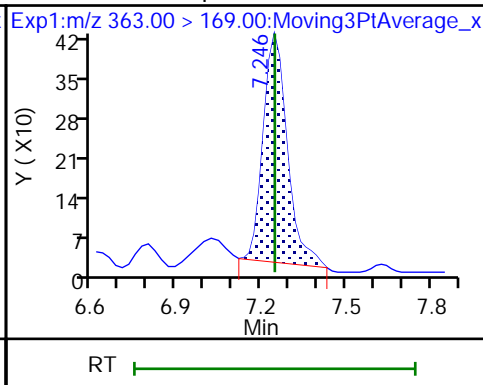
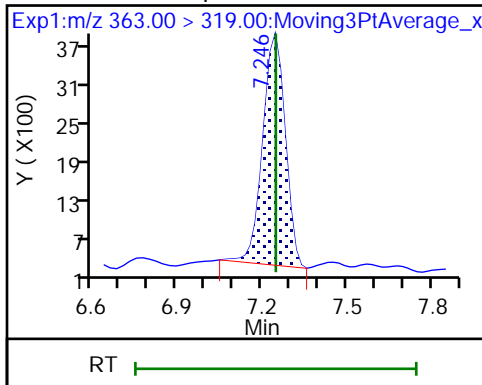
16 Perfluorohexanesulfonic acid (M)



18 Perfluoroheptanoic acid

18 Perfluoroheptanoic acid

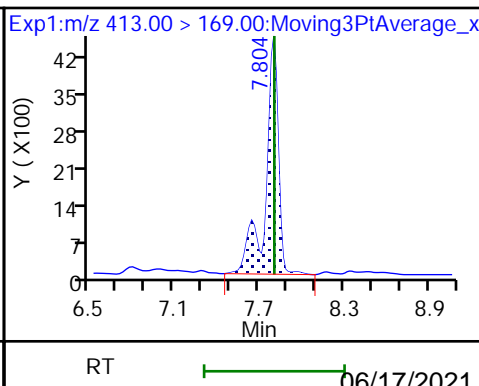
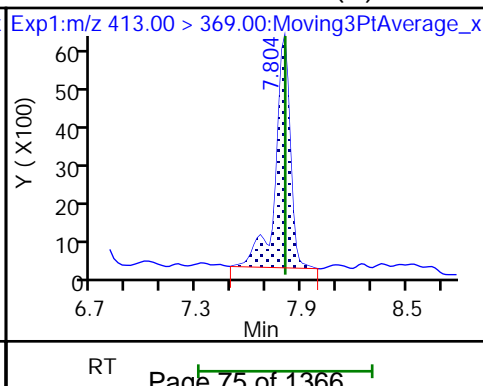
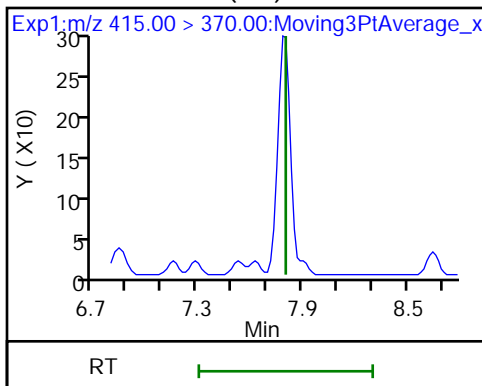
D 17 13C4 PFHpA



D 20 13C2 PFOA (ND)

24 Perfluorooctanoic acid (M)

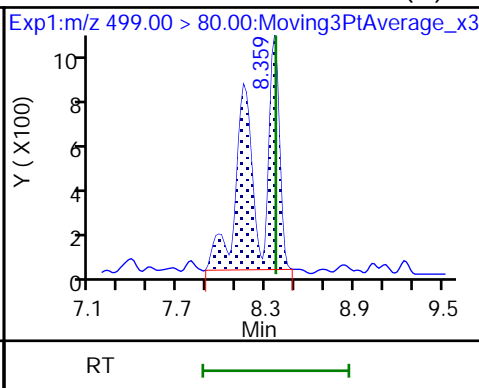
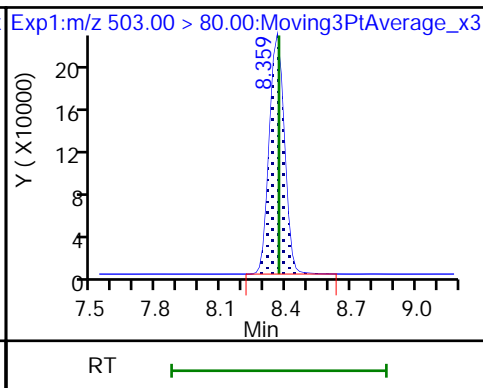
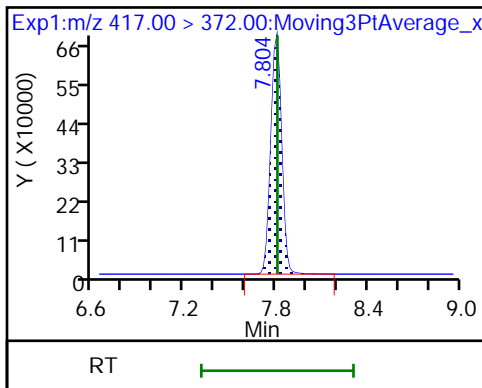
24 Perfluorooctanoic acid



D 25 13C4 PFOA

D 26 13C4 PFOS

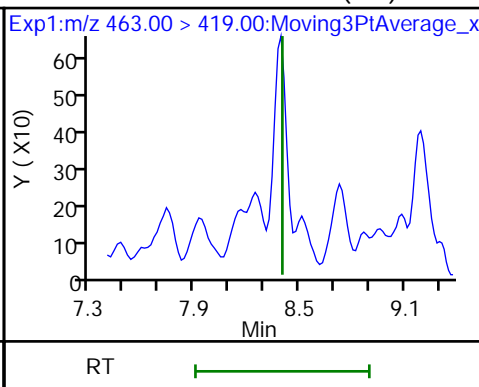
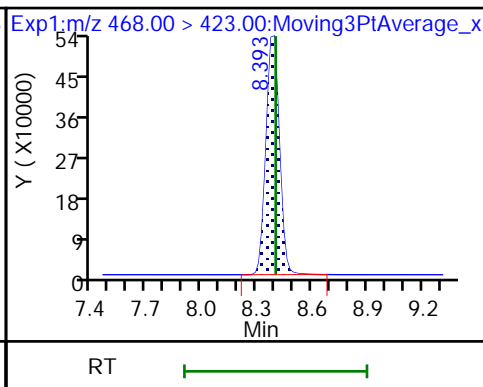
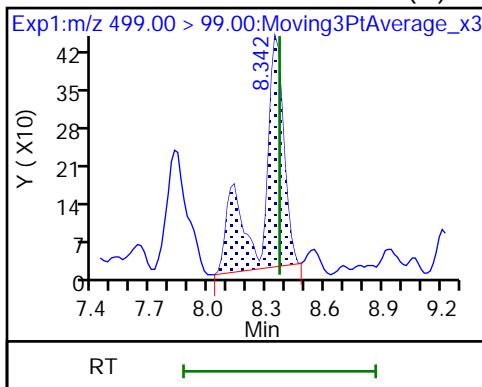
27 Perfluorooctanesulfonic acid (M)



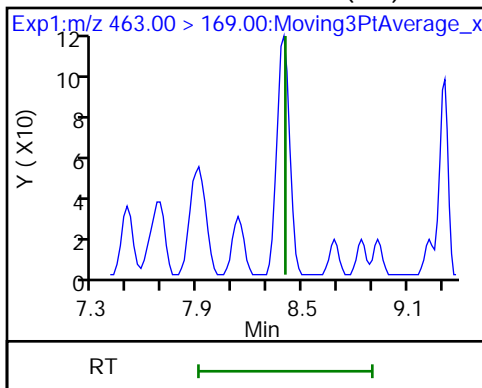
27 Perfluorooctanesulfonic acid (M)

D 28 13C5 PFNA

29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)



Eurofins TestAmerica, Sacramento

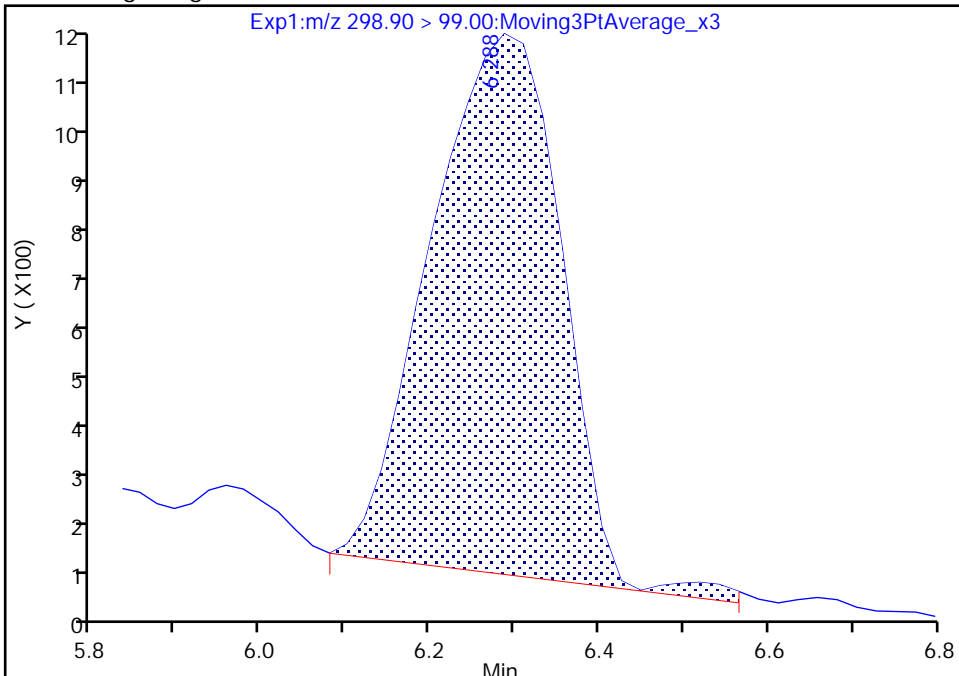
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Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

6 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

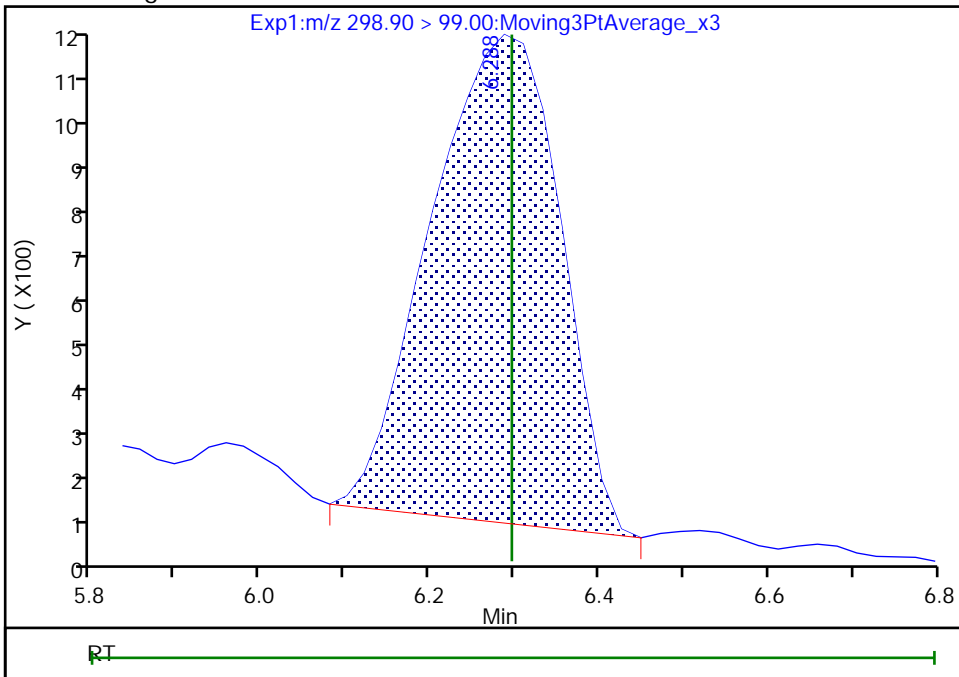
RT: 6.29  
Area: 10799  
Amount: 0.000442  
Amount Units: ng/ml

Processing Integration Results



RT: 6.29  
Area: 10639  
Amount: 0.000442  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:30  
Audit Action: Manually Integrated

Audit Reason: Baseline  
Page 77 of 1366

Eurofins TestAmerica, Sacramento

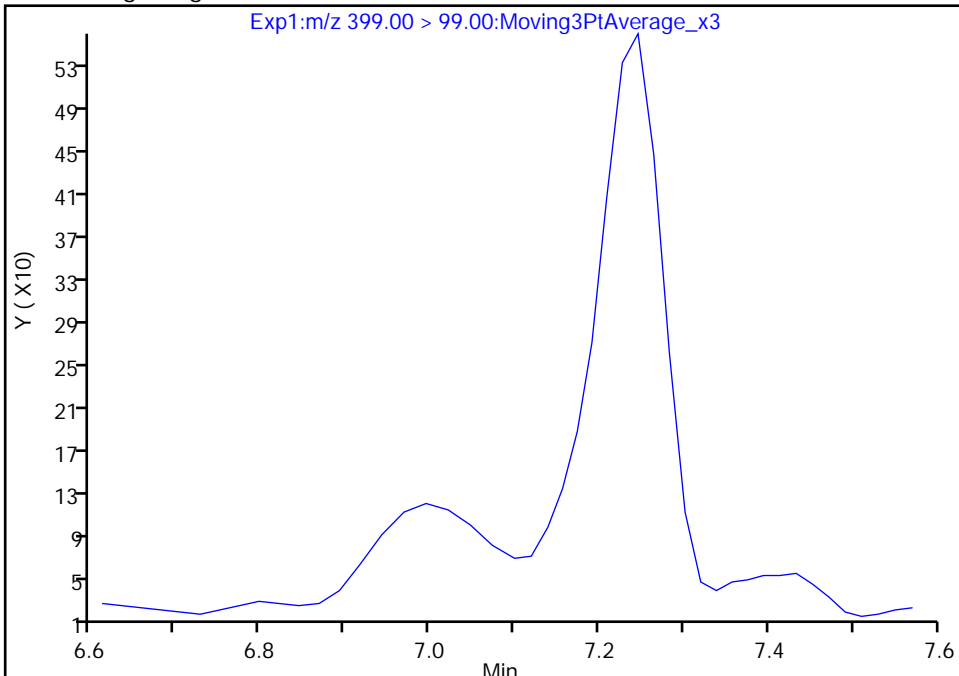
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Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

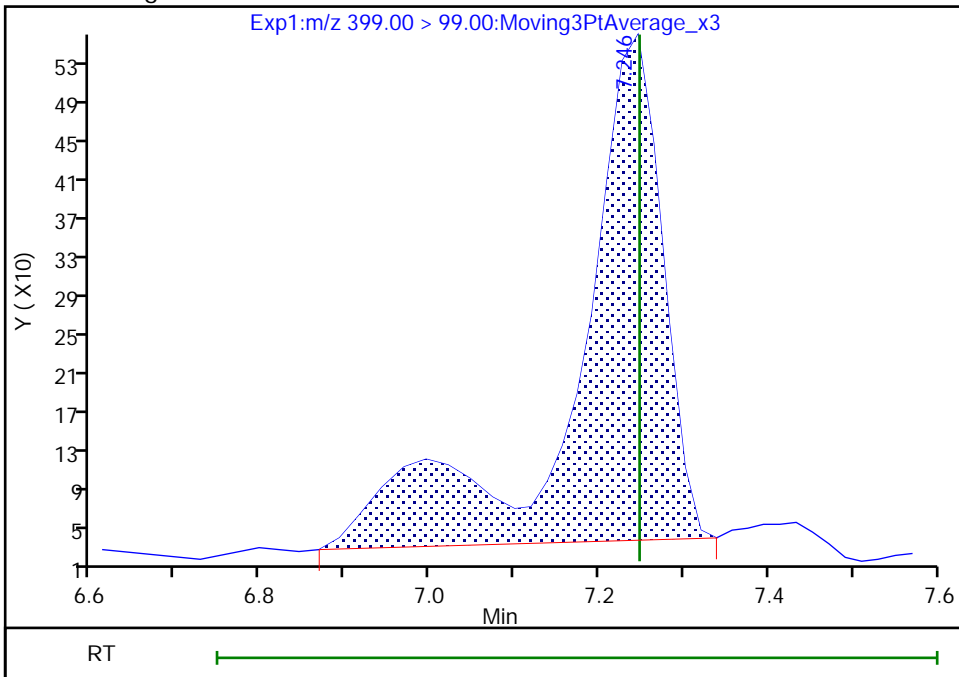
Signal: 2

Not Detected  
Expected RT: 7.25

Processing Integration Results



Manual Integration Results



RT: 7.25  
Area: 3743  
Amount: 0.000550  
Amount Units: ng/ml

Eurofins TestAmerica, Sacramento

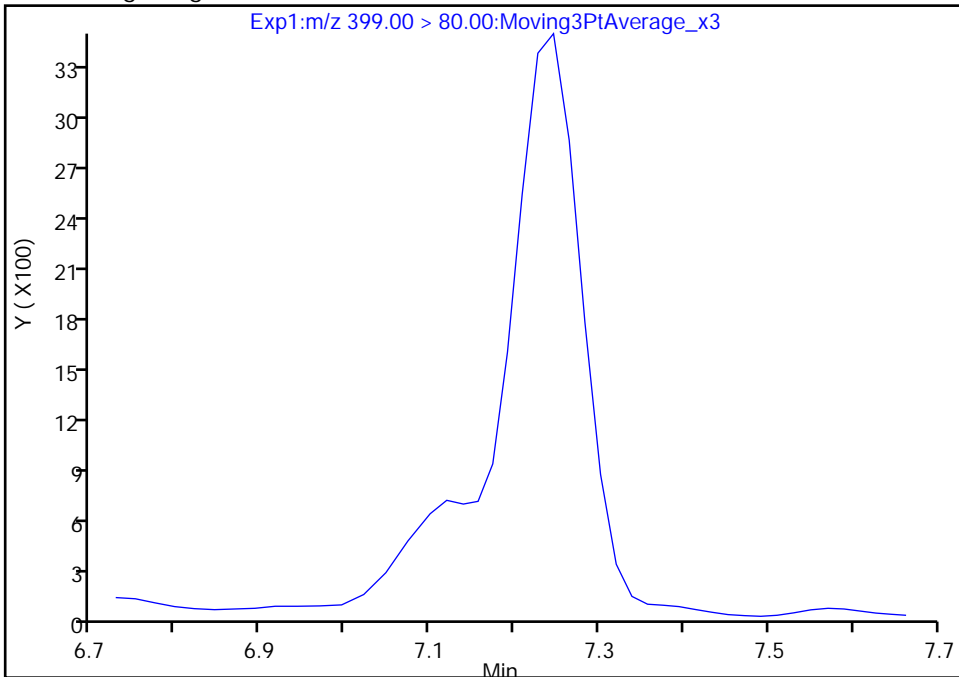
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Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

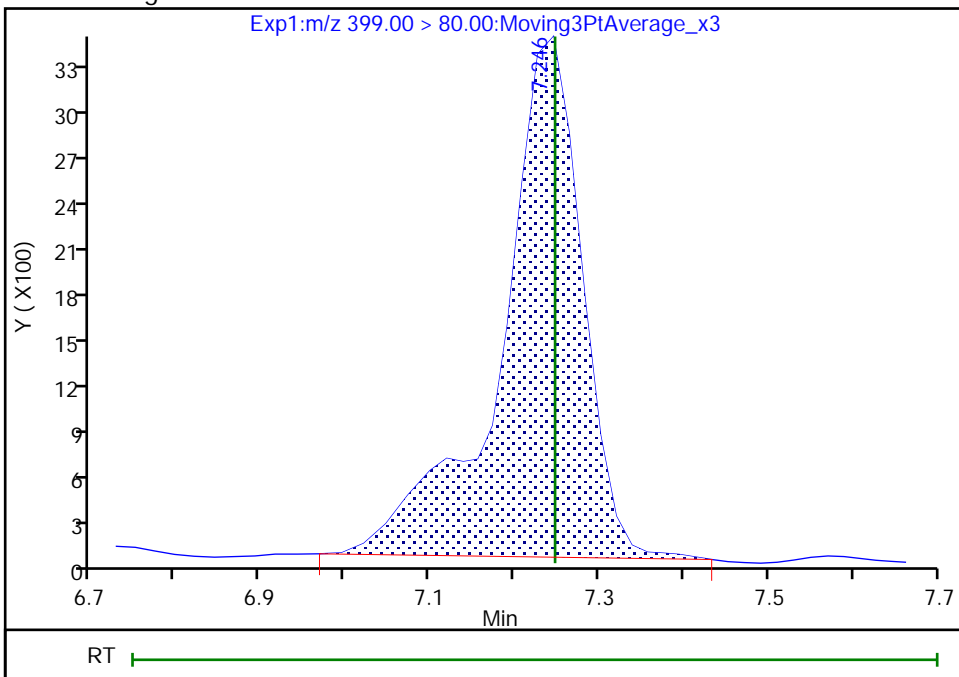
Not Detected  
Expected RT: 7.25

Processing Integration Results



Manual Integration Results

RT: 7.25  
Area: 22757  
Amount: 0.000550  
Amount Units: ng/ml



Eurofins TestAmerica, Sacramento

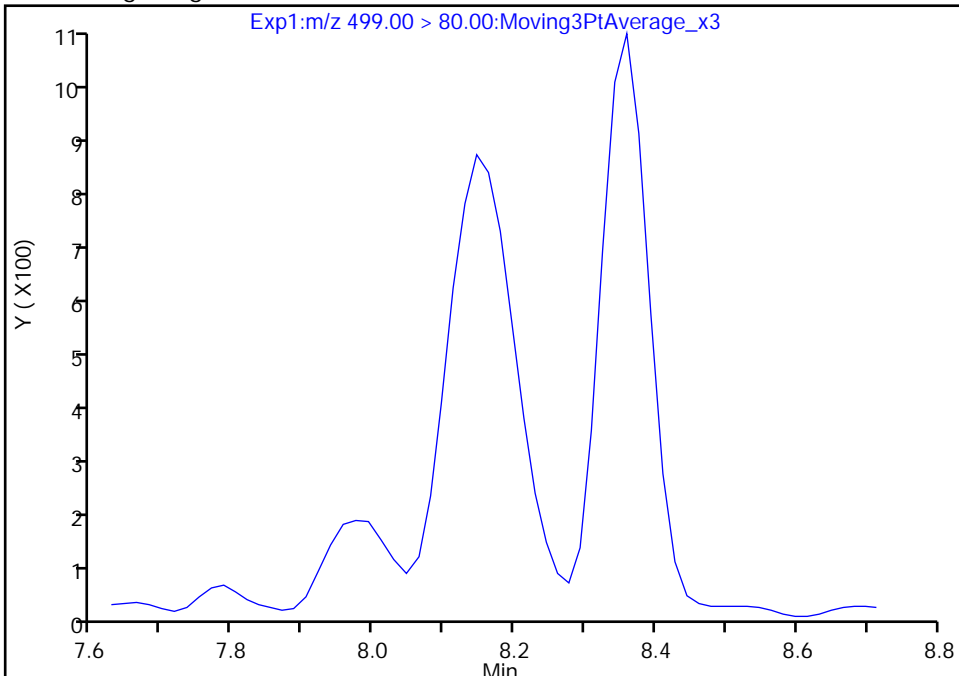
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Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

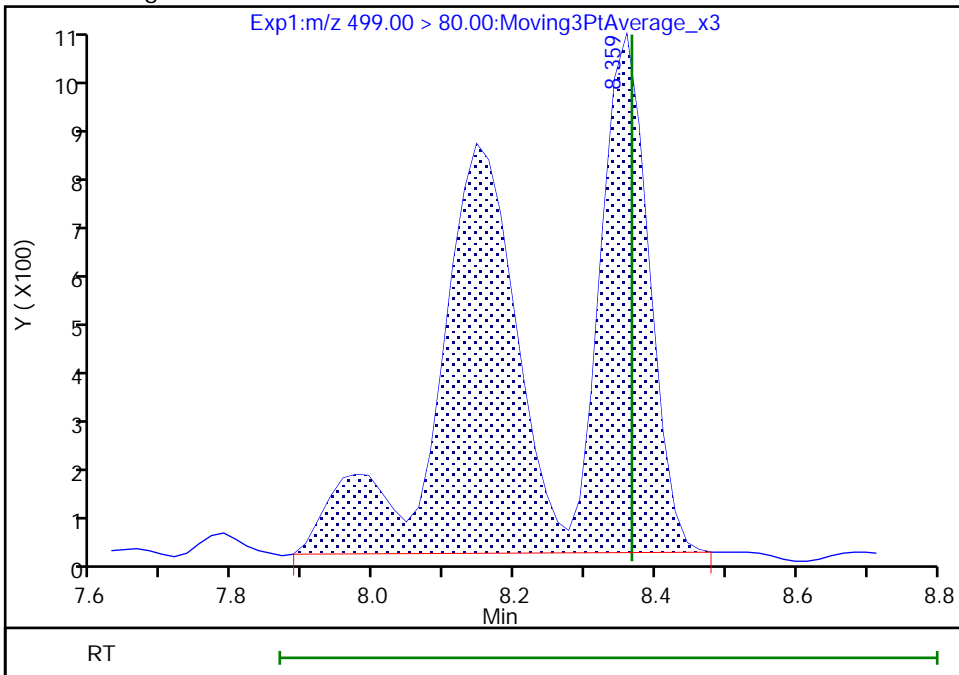
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.36  
Area: 11297  
Amount: 0.000450  
Amount Units: ng/ml



Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:53  
Audit Action: Manually Integrated

Audit Reason: Baseline  
Page 80 of 1366

Eurofins TestAmerica, Sacramento

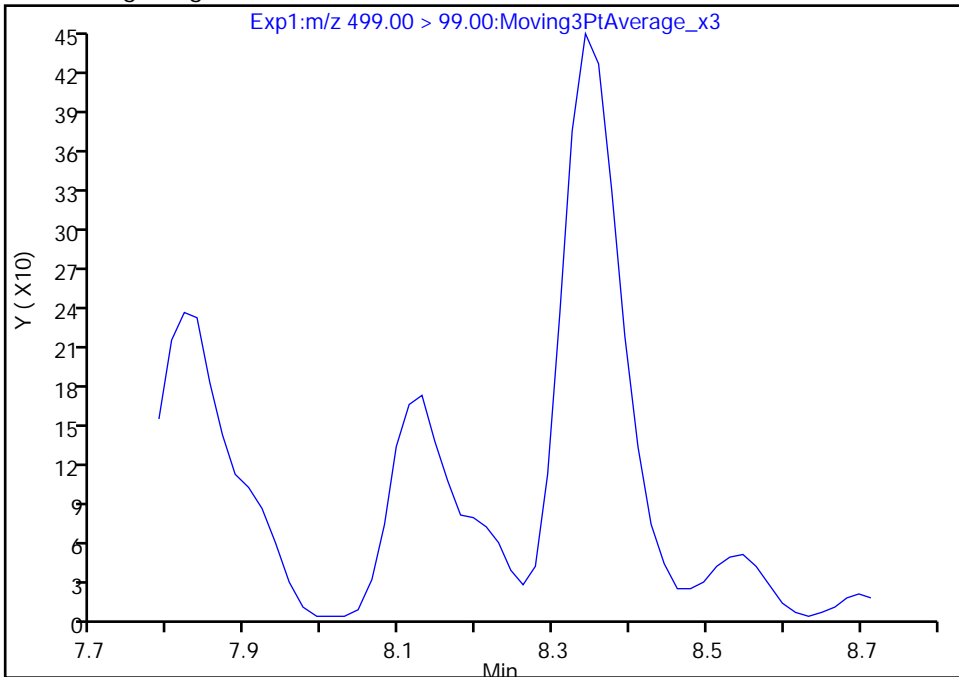
Data File:	\\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10_A10_DI_A_005.d		
Injection Date:	10-Jun-2021 10:52:14	Instrument ID:	A10
Lims ID:	320-74597-A-22-A	Lab Sample ID:	320-74597-22
Client ID:	BH20210604-1MID		
Operator ID:	Sac_inst_A10	ALS Bottle#:	5 Worklist Smp#: 52
Injection Vol:	950.0 ul	Dil. Factor:	1.0000
Method:	A10_In_Line_SPE	Limit Group:	LC PFAS_DW ICAL
Column:	Gemini C18 3um 3 x 100mm ( 3.00 mm ID)	Detector:	EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

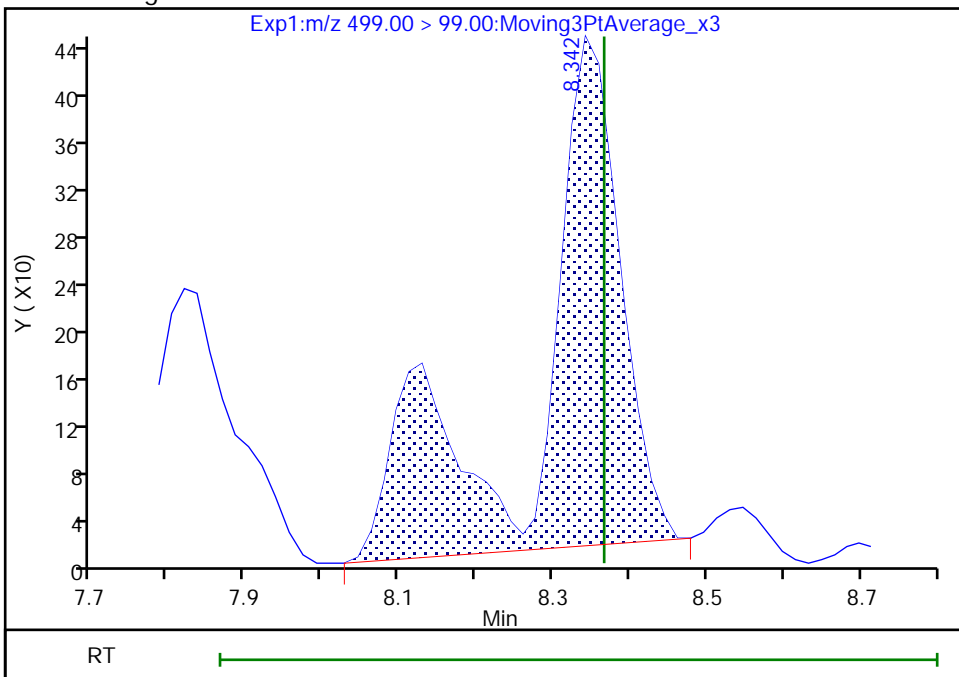
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.34  
 Area: 3282  
 Amount: 0.000450  
 Amount Units: ng/ml



Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:57

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

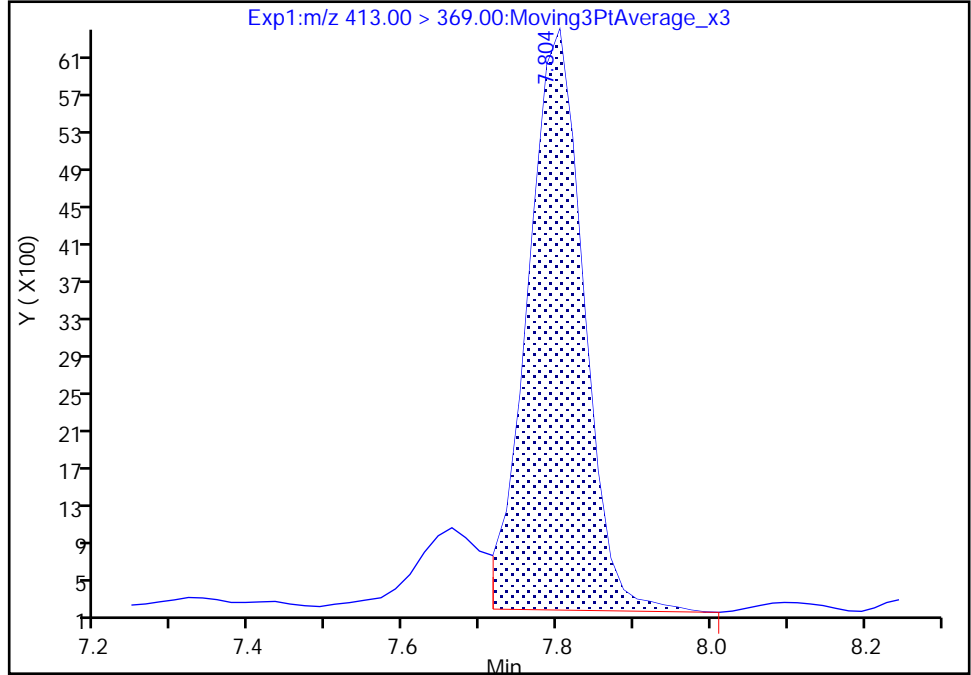
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Injection Date: 10-Jun-2021 10:52:14 Instrument ID: A10  
Lims ID: 320-74597-A-22-A Lab Sample ID: 320-74597-22  
Client ID: BH20210604-1MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 52  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

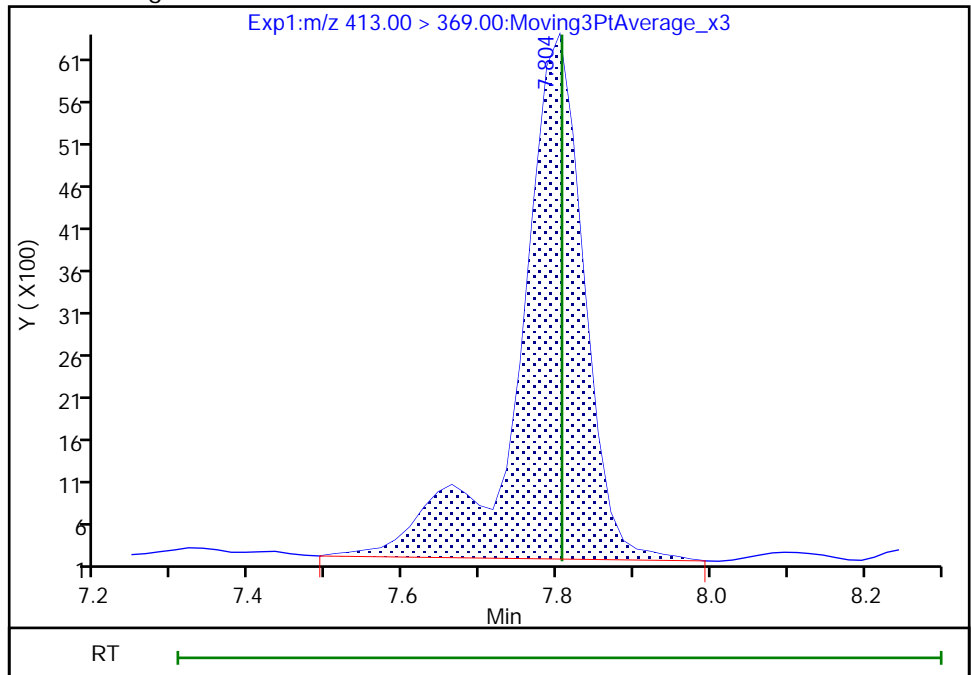
RT: 7.80  
Area: 31125  
Amount: 0.000493  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 36227  
Amount: 0.000573  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:54:46

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1POST Lab Sample ID: 320-74597-23  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_006.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:43  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 11:10  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	129		25-150
STL00995	13C5 PFNA	114		25-150
STL00990	13C4 PFOA	109		70-130
STL00991	13C4 PFOS	123		70-130
STL00994	18O2 PFHxS	131		25-150
STL02337	13C3 PFBS	106		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_006.d  
 Lims ID: 320-74597-A-23-A  
 Client ID: BH20210604-1POST  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 11:10:41 ALS Bottle#: 6 Worklist Smp#: 53  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-23-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:55:29 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:55:29  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.297	-0.004	1410257	0.0492		106	5870	
D 15 18O2 PFHxS	403.00 > 84.00	7.244	7.248	-0.004	1725941	0.0620		131	14497	
D 17 13C4 PFHpA	367.00 > 322.00	7.244	7.248	-0.004	2489848	0.0645		129	13247	
24 Perfluorooctanoic acid										M
413.00 > 369.00	7.803	7.806	-0.003	1.000	8022	0.000136	Target=1.59	4.3		M
413.00 > 169.00	7.803	7.806	-0.003	1.000	4250		1.89(0.79-2.38)	11.1		M
D 25 13C4 PFOA	417.00 > 372.00	7.803	7.806	-0.003	3107282	0.0545		109	17036	
D 26 13C4 PFOS	503.00 > 80.00	8.359	8.367	-0.008	1145692	0.0590		123	5709	
D 28 13C5 PFNA	468.00 > 423.00	8.376	8.401	-0.025	2765229	0.0569		114	18202	

**QC Flag Legend**

Processing Flags  
 Review Flags  
 M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_006.d

Injection Date: 10-Jun-2021 11:10:41

Instrument ID: A10

Lims ID: 320-74597-A-23-A

Lab Sample ID: 320-74597-23

Client ID: BH20210604-1POST

Operator ID: Sac\_inst\_A10

ALS Bottle#: 6

Worklist Smp#: 53

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

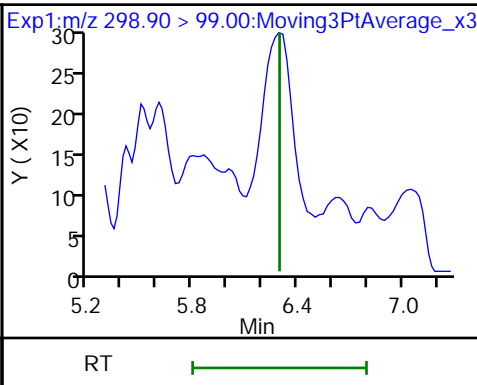
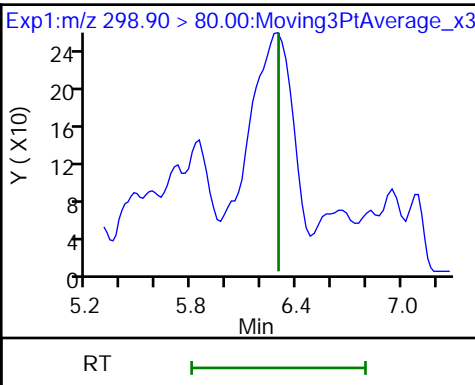
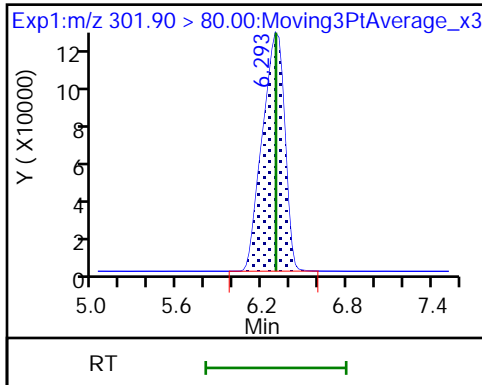
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 3 13C3 PFBS

6 Perfluorobutanesulfonic acid (ND)

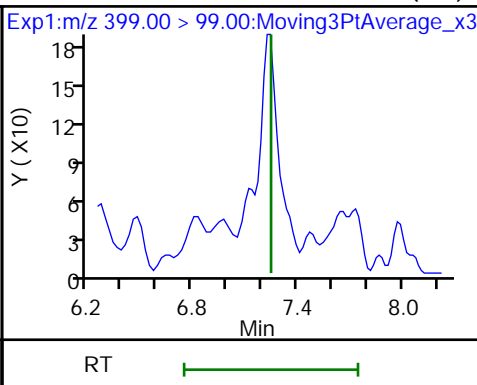
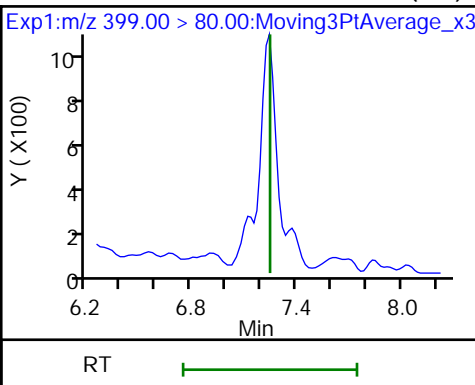
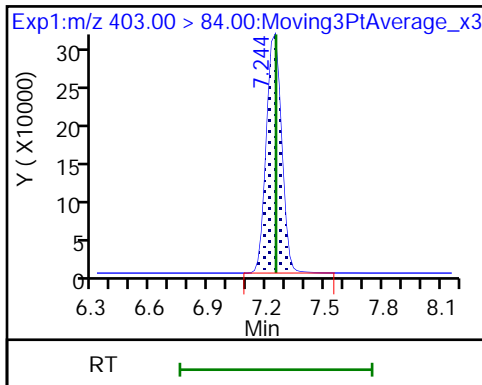
6 Perfluorobutanesulfonic acid (ND)



D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid (ND)

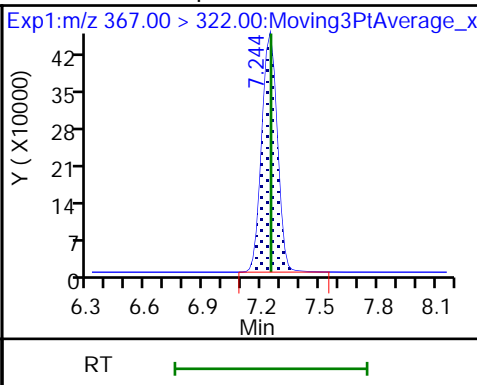
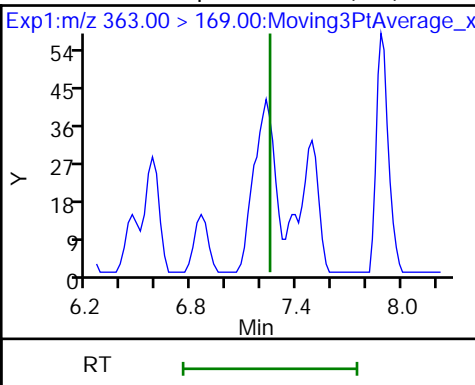
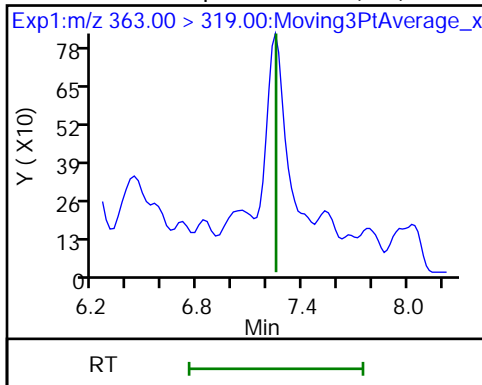
16 Perfluorohexanesulfonic acid (ND)



18 Perfluoroheptanoic acid (ND)

18 Perfluoroheptanoic acid (ND)

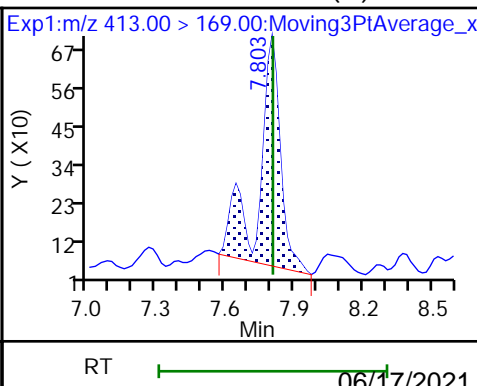
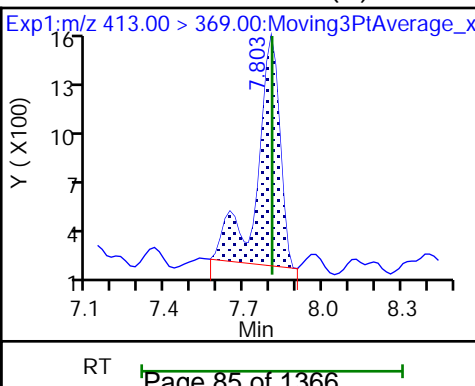
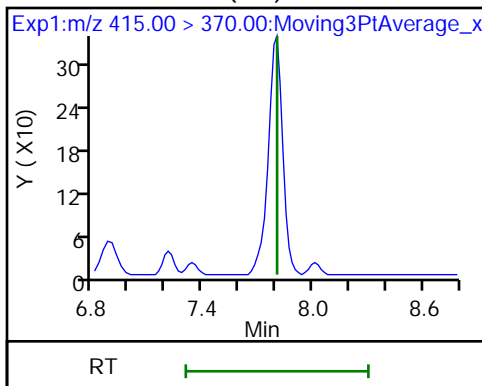
D 17 13C4 PFHpA



D 20 13C2 PFOA (ND)

24 Perfluorooctanoic acid (M)

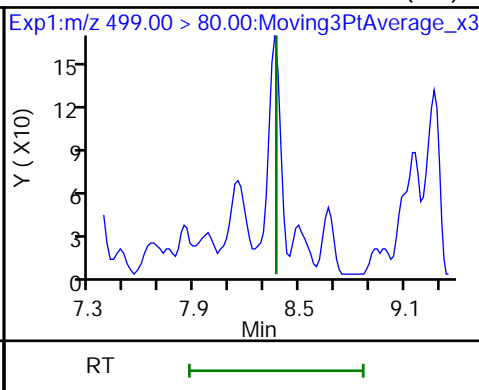
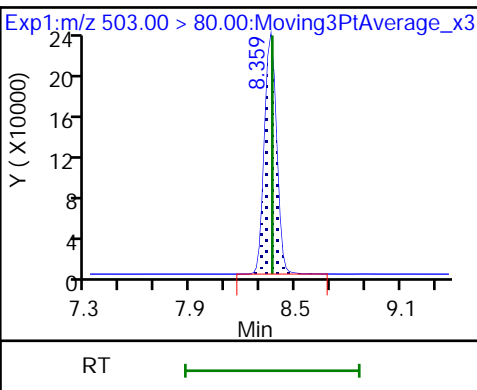
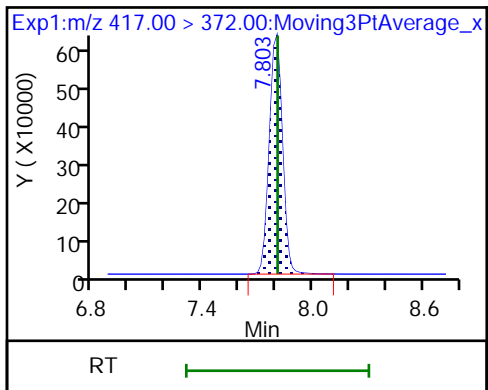
24 Perfluorooctanoic acid (M)



D 25 13C4 PFOA

D 26 13C4 PFOS

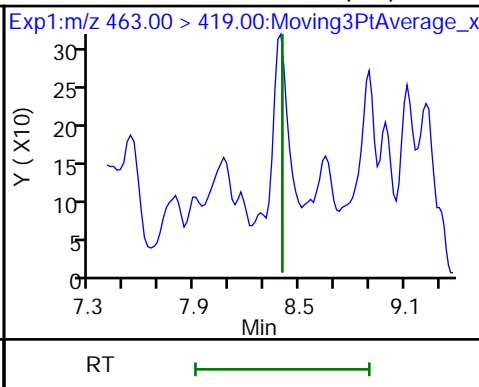
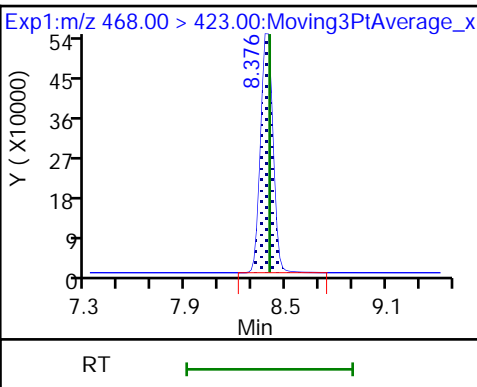
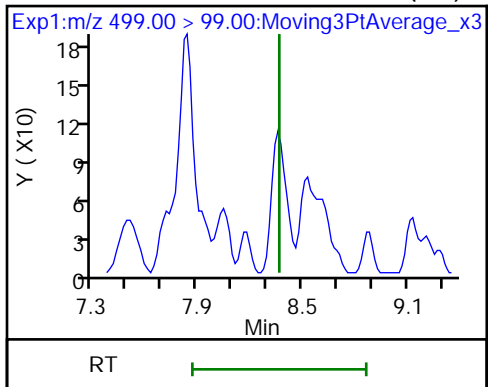
27 Perfluorooctanesulfonic acid (ND)



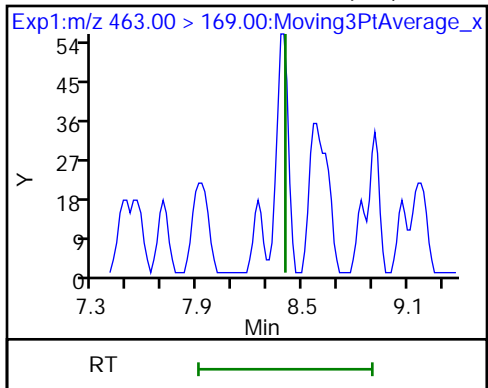
27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)



Eurofins TestAmerica, Sacramento

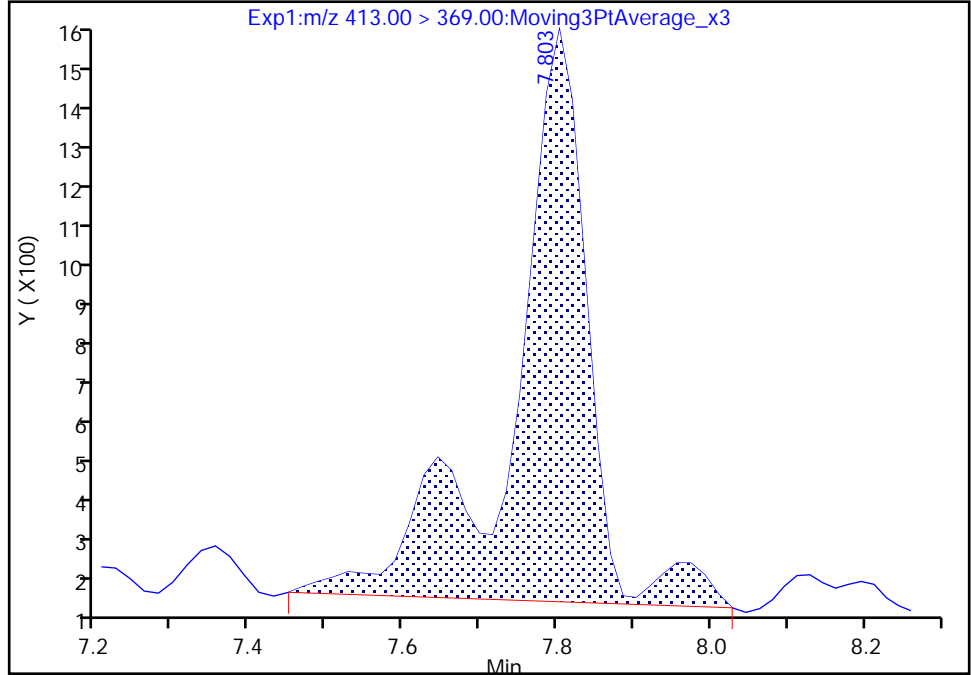
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Injection Date: 10-Jun-2021 11:10:41 Instrument ID: A10  
Lims ID: 320-74597-A-23-A Lab Sample ID: 320-74597-23  
Client ID: BH20210604-1POST  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 53  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

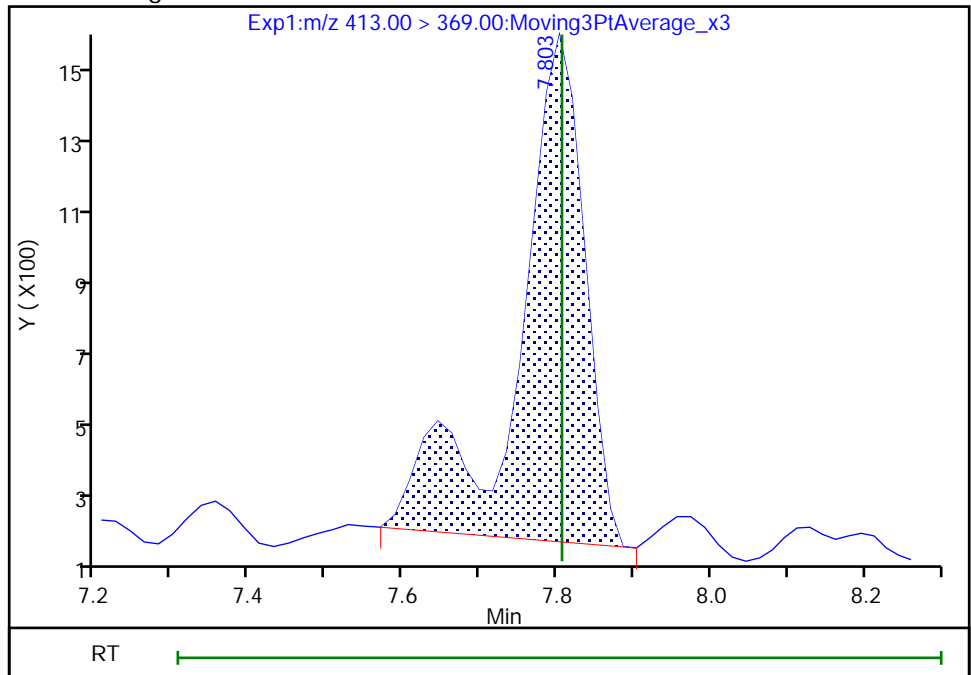
RT: 7.80  
Area: 9411  
Amount: 0.000160  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 8022  
Amount: 0.000136  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:55:19

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

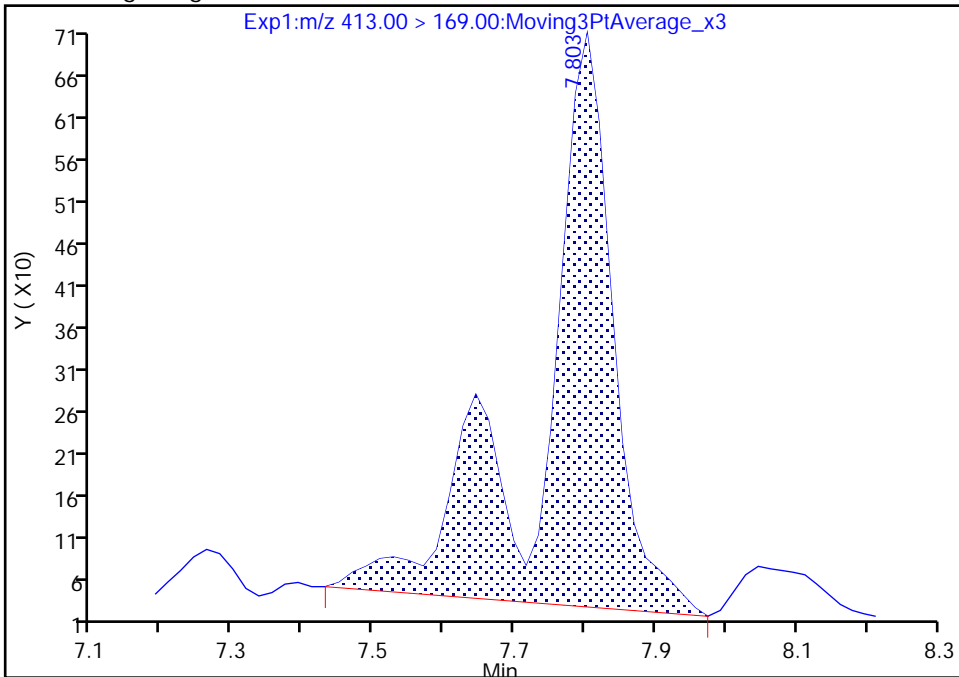
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Injection Date:	10-Jun-2021 11:10:41	Instrument ID:	A10
Lims ID:	320-74597-A-23-A	Lab Sample ID:	320-74597-23
Client ID:	BH20210604-1POST		
Operator ID:	Sac_inst_A10	ALS Bottle#:	6
Injection Vol:	950.0 ul	Dil. Factor:	1.0000
Method:	A10_In_Line_SPE	Limit Group:	LC PFAS_DW ICAL
Column:	Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector	EXP1	Worklist Smp#: 53

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

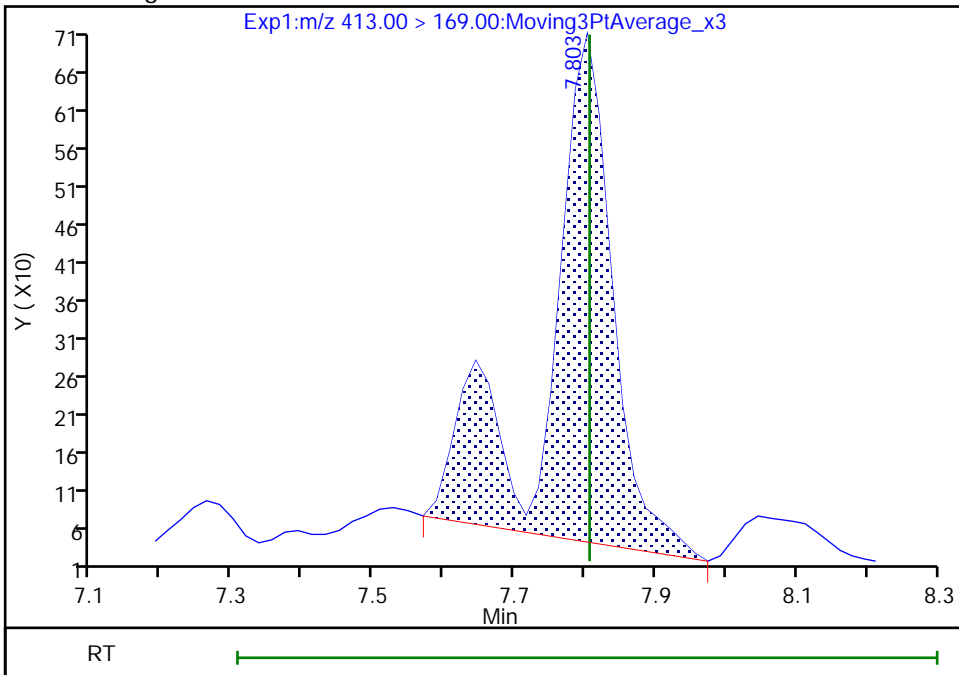
RT: 7.80  
 Area: 4875  
 Amount: 0.000160  
 Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
 Area: 4250  
 Amount: 0.000136  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2MID Lab Sample ID: 320-74597-24  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_007.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:57  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 11:29  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	126		25-150
STL00995	13C5 PFNA	116		25-150
STL00990	13C4 PFOA	115		70-130
STL00991	13C4 PFOS	120		70-130
STL00994	18O2 PFHxS	129		25-150
STL02337	13C3 PFBS	104		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
 Lims ID: 320-74597-A-24-A  
 Client ID: BH20210604-2MID  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 11:29:09 ALS Bottle#: 7 Worklist Smp#: 54  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-24-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:56:19 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:56:19  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
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D 3 13C3 PFBS										
301.90 > 80.00	6.310	6.297	0.013		1391869	0.0486		104	3257	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.288	6.297	-0.009	0.996	11650	0.000337	Target=1.41		11.1	
298.90 > 99.00	6.310	6.297	0.013	1.000	9586		1.22(0.70-2.11)		5.2	
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1693022	0.0608		129	19611	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	23652	0.000576	Target=5.56		16.7	M
399.00 > 99.00	7.246	7.248	-0.002	1.000	3580		6.61(2.78-8.33)		5.6	M
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.248	-0.002	1.000	20278	0.000408	Target=8.84		3.9	
363.00 > 169.00	7.246	7.248	-0.002	1.000	2138		9.48(4.42-13.25)		17.7	M
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.248	-0.002		2423720	0.0628		126	11570	
D 20 13C2 PFOA										
415.00 > 370.00	7.804	7.804	0.0		2429	NC		0.0	28.1	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.804	7.806	-0.002	1.000	34535	0.000559	Target=1.59		11.9	M
413.00 > 169.00	7.804	7.806	-0.002	1.000	27077		1.28(0.79-2.38)		44.5	
D 25 13C4 PFOA										
417.00 > 372.00	7.804	7.806	-0.002		3264606	0.0573		115	20178	
D 26 13C4 PFOS										
503.00 > 80.00	8.359	8.367	-0.008		1119070	0.0576		120	4500	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.163	8.367	-0.204	0.977	13975	0.000541	Target=3.35		29.8	M
499.00 > 99.00	8.359	8.367	-0.008	1.000	3198		4.37(1.67-5.02)		13.0	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 28 13C5 PFNA										
468.00 > 423.00	8.393	8.401	-0.008		2817059	0.0580		116	17290	
29 Perfluorononanoic acid										M
463.00 > 419.00	8.393	8.401	-0.008	1.000	3903	0.00007632	Target=7.93		5.3	
463.00 > 169.00	8.393	8.401	-0.008	1.000	845		4.62(3.96-11.89)		6.8	M

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d

Injection Date: 10-Jun-2021 11:29:09

Instrument ID: A10

Lims ID: 320-74597-A-24-A

Lab Sample ID: 320-74597-24

Client ID: BH20210604-2MID

Operator ID: Sac\_inst\_A10

ALS Bottle#: 7

Worklist Smp#: 54

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

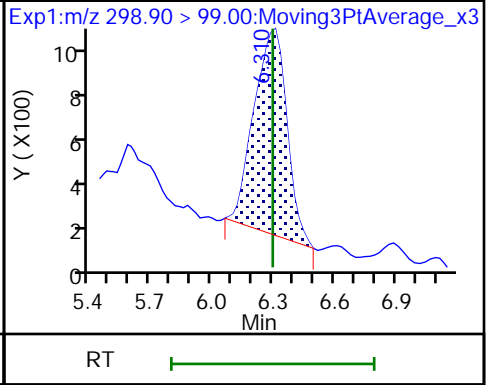
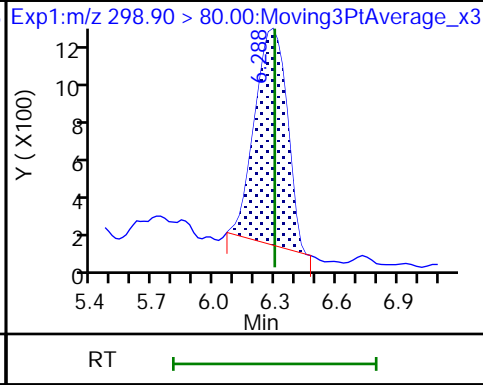
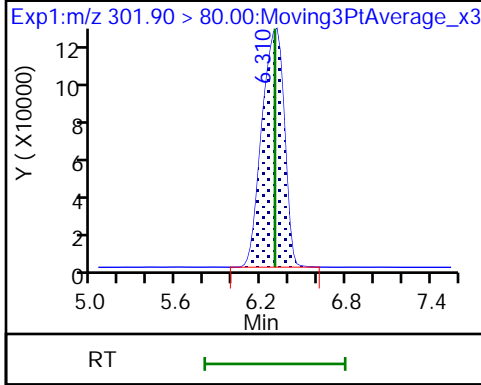
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 3 13C3 PFBS

6 Perfluorobutanesulfonic acid

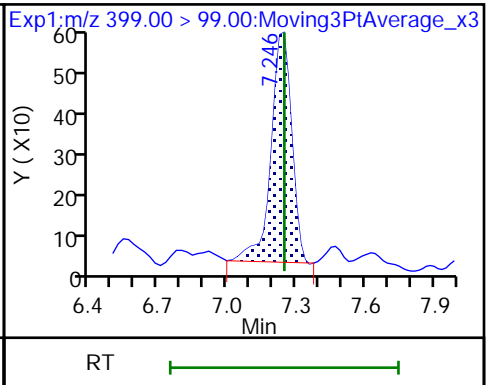
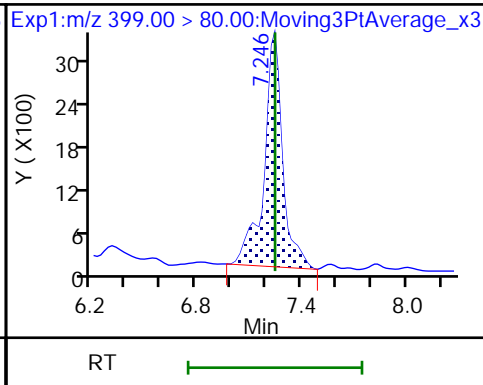
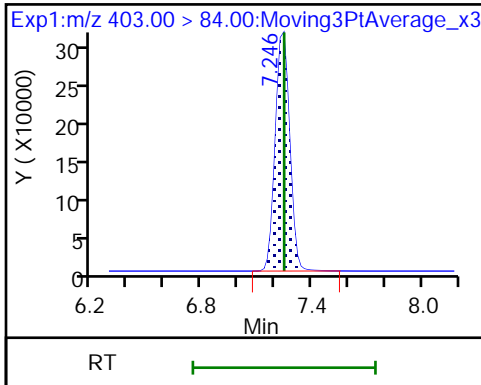
6 Perfluorobutanesulfonic acid



D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid (M)

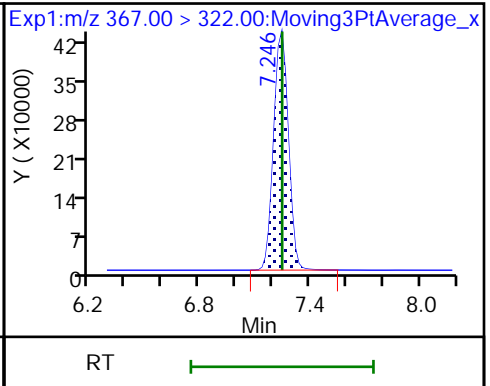
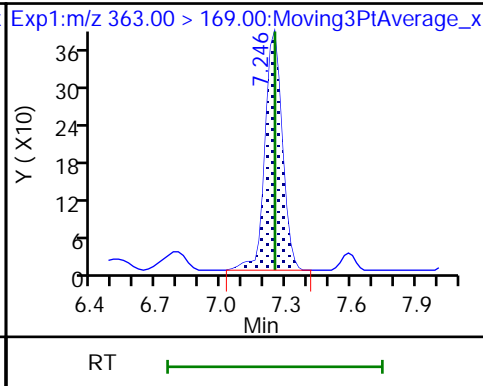
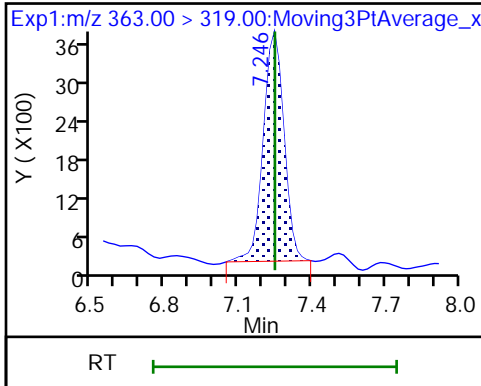
16 Perfluorohexanesulfonic acid (M)



18 Perfluoroheptanoic acid

18 Perfluoroheptanoic acid (M)

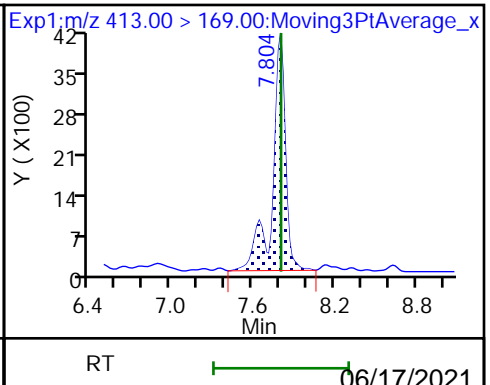
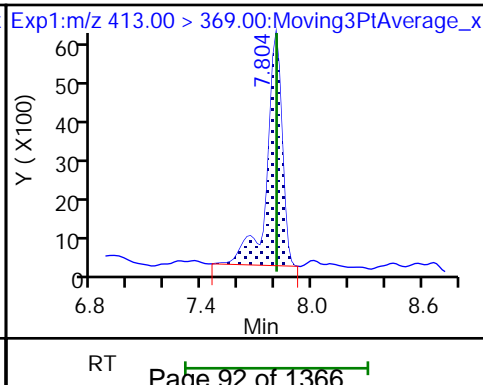
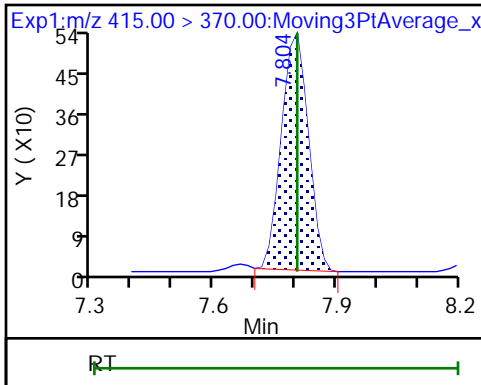
D 17 13C4 PFHpA



D 20 13C2 PFOA

24 Perfluorooctanoic acid (M)

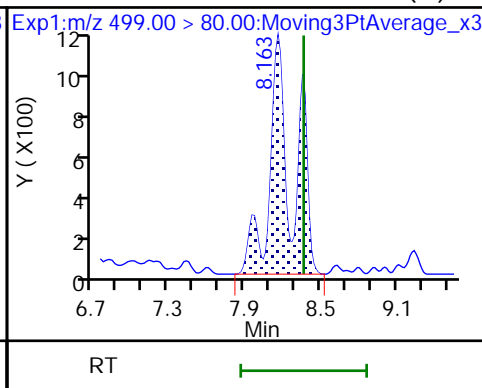
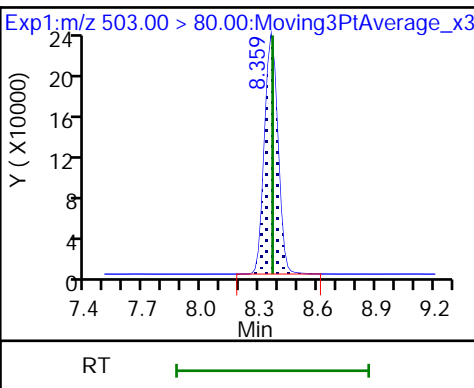
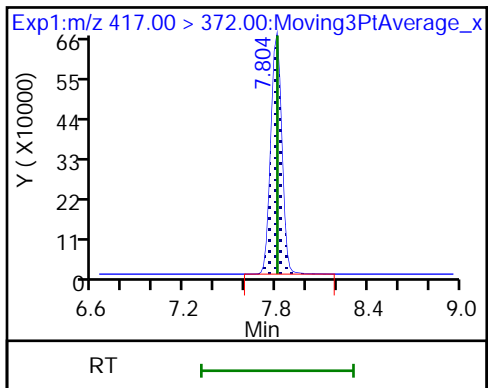
24 Perfluorooctanoic acid



D 25 13C4 PFOA

D 26 13C4 PFOS

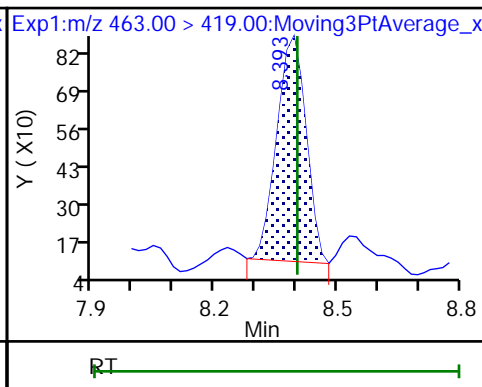
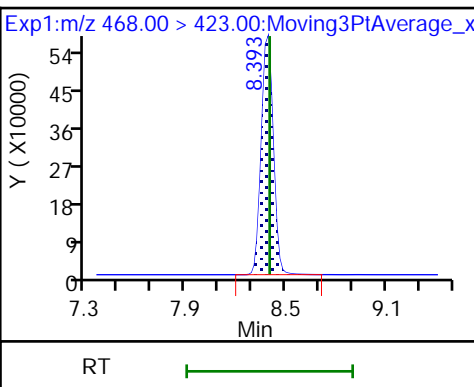
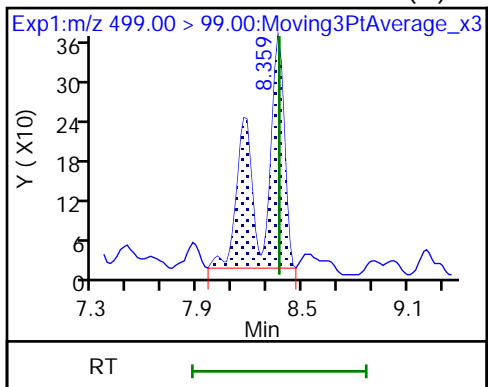
27 Perfluorooctanesulfonic acid (M)



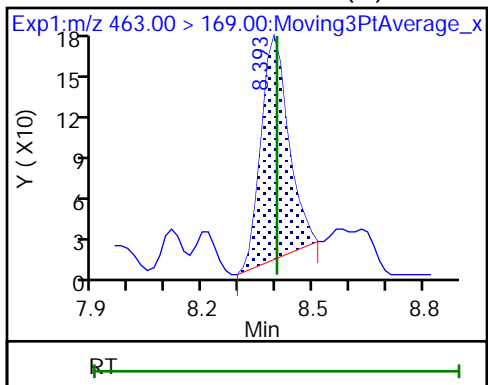
27 Perfluorooctanesulfonic acid (M)

D 28 13C5 PFNA

29 Perfluorononanoic acid



29 Perfluorononanoic acid (M)



Eurofins TestAmerica, Sacramento

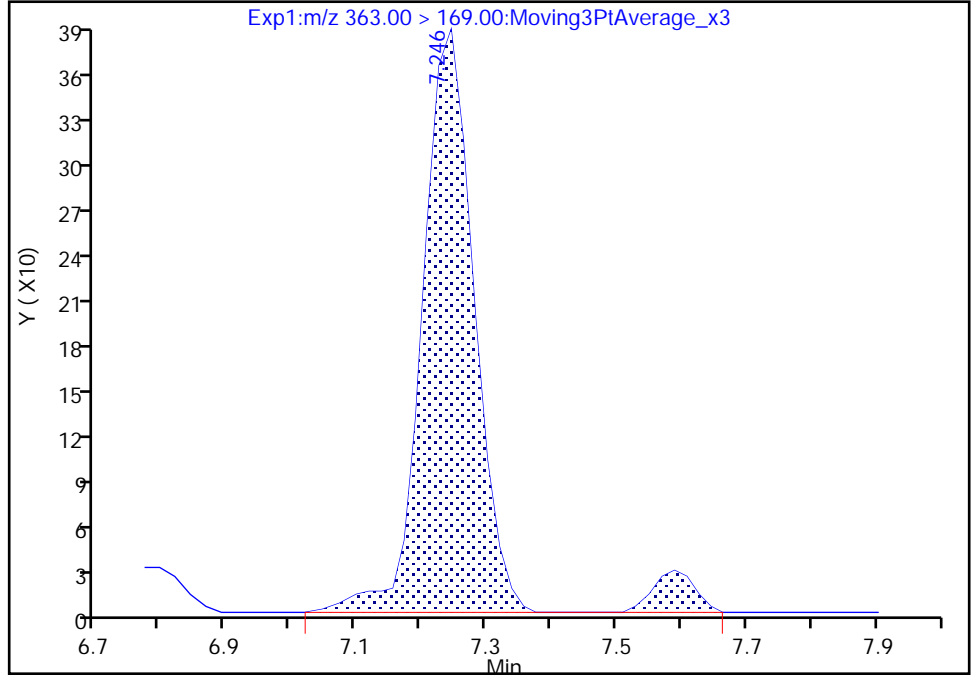
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

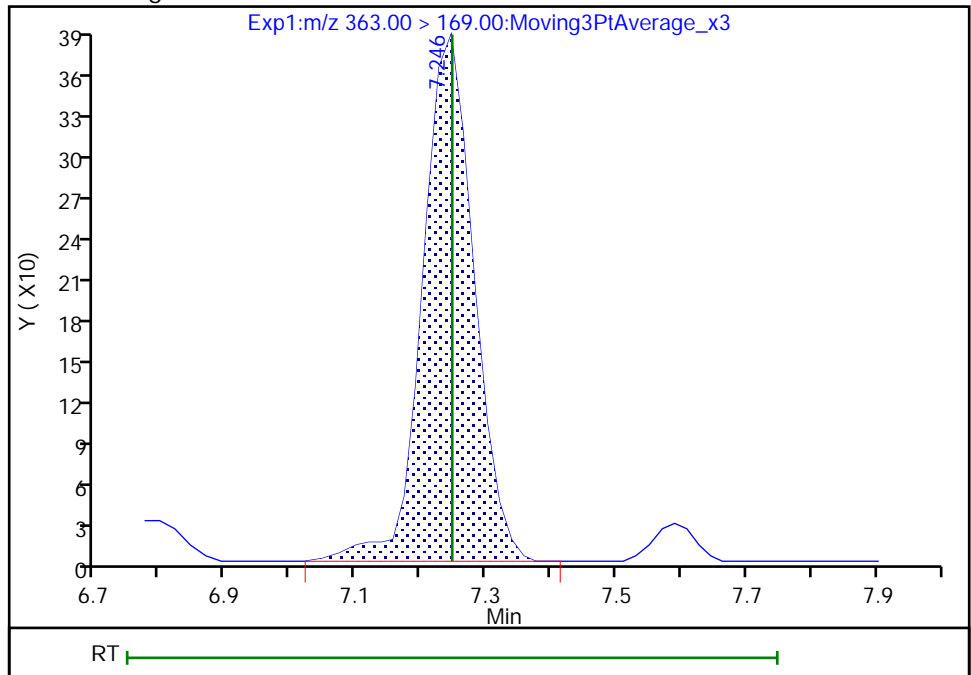
RT: 7.25  
Area: 2262  
Amount: 0.000408  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 2138  
Amount: 0.000408  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:55:53

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

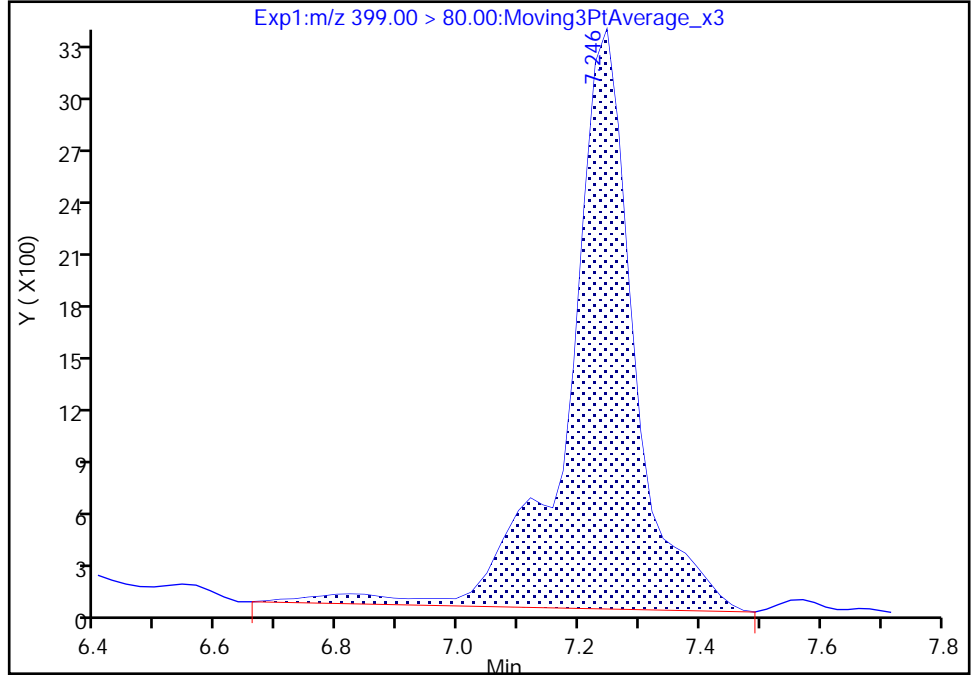
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

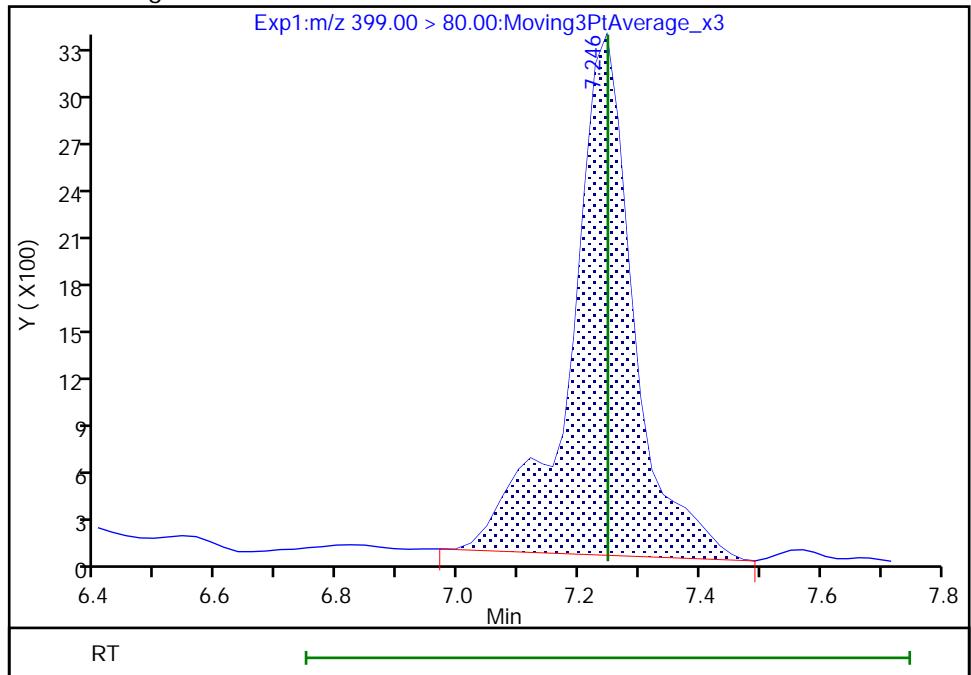
RT: 7.25  
Area: 24890  
Amount: 0.000606  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 23652  
Amount: 0.000576  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:55:44

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

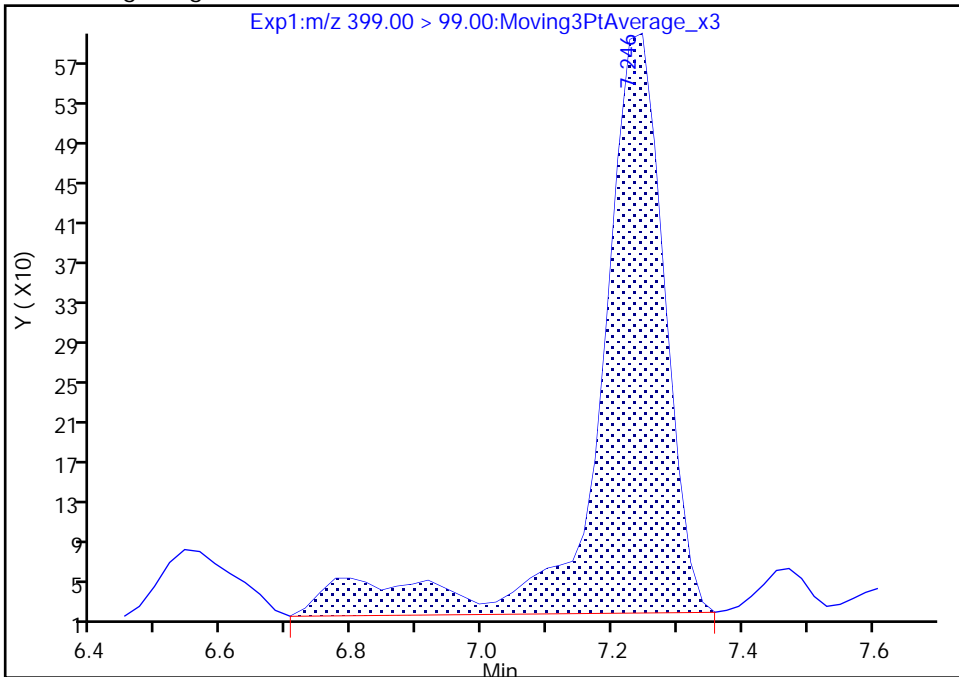
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
 Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
 Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
 Client ID: BH20210604-2MID  
 Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
 Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

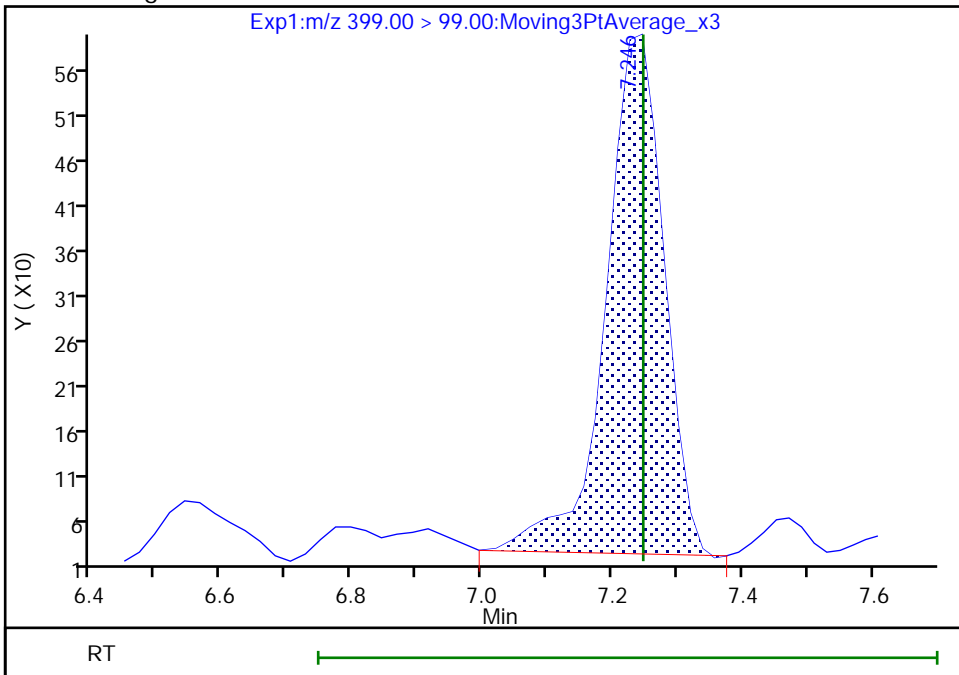
RT: 7.25  
 Area: 4166  
 Amount: 0.000606  
 Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
 Area: 3580  
 Amount: 0.000576  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:55:48

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

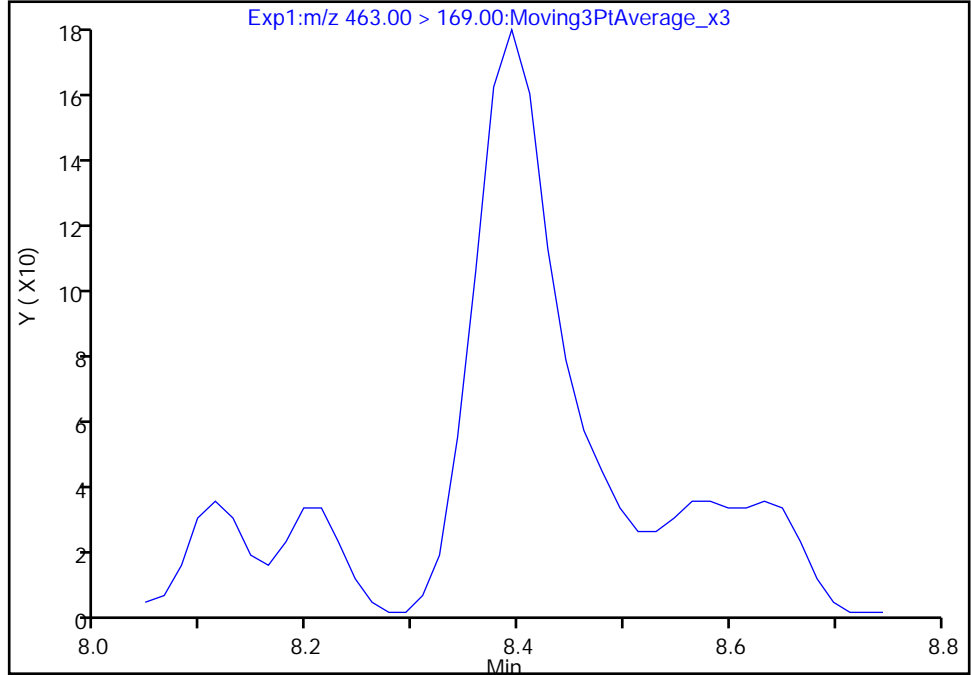
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

29 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

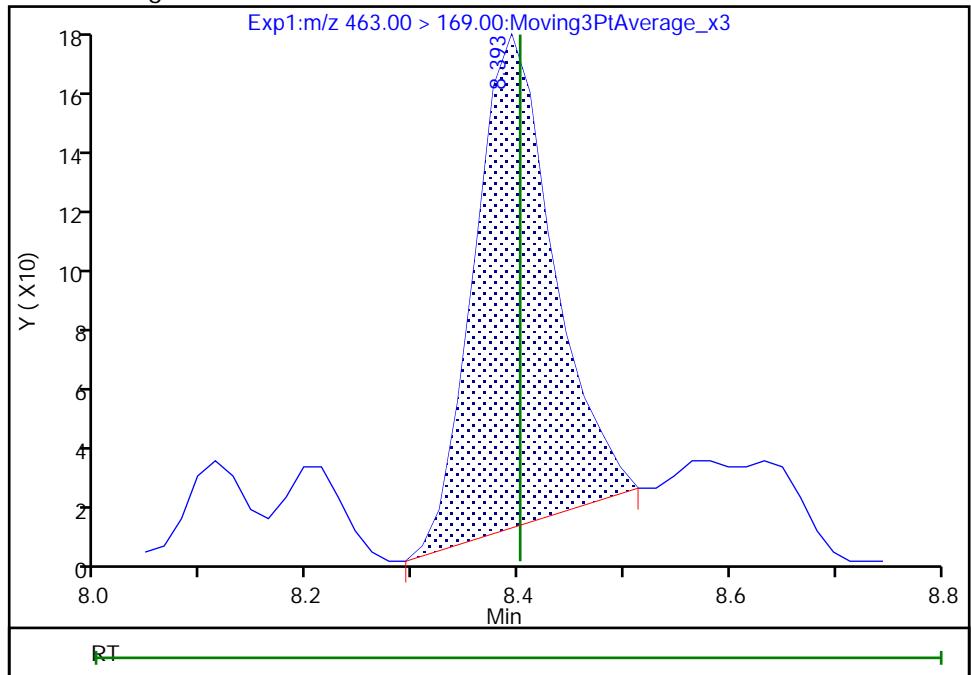
Not Detected  
Expected RT: 8.40

Processing Integration Results



Manual Integration Results

RT: 8.39  
Area: 845  
Amount: 0.000076  
Amount Units: ng/ml



Reviewer: ruangyotsakuld, 11-Jun-2021 07:56:14

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

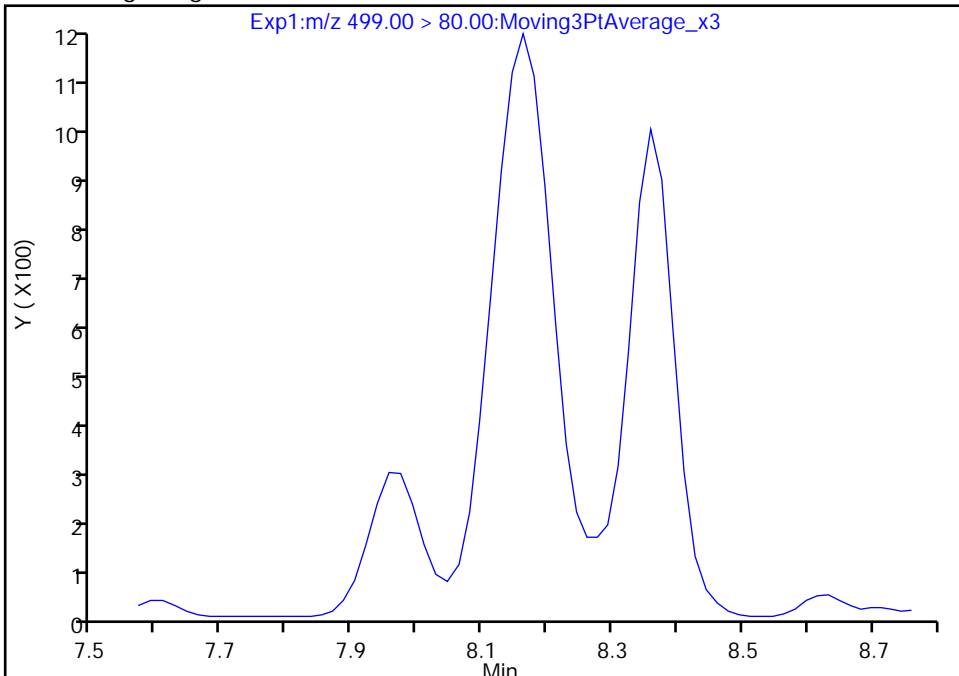
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

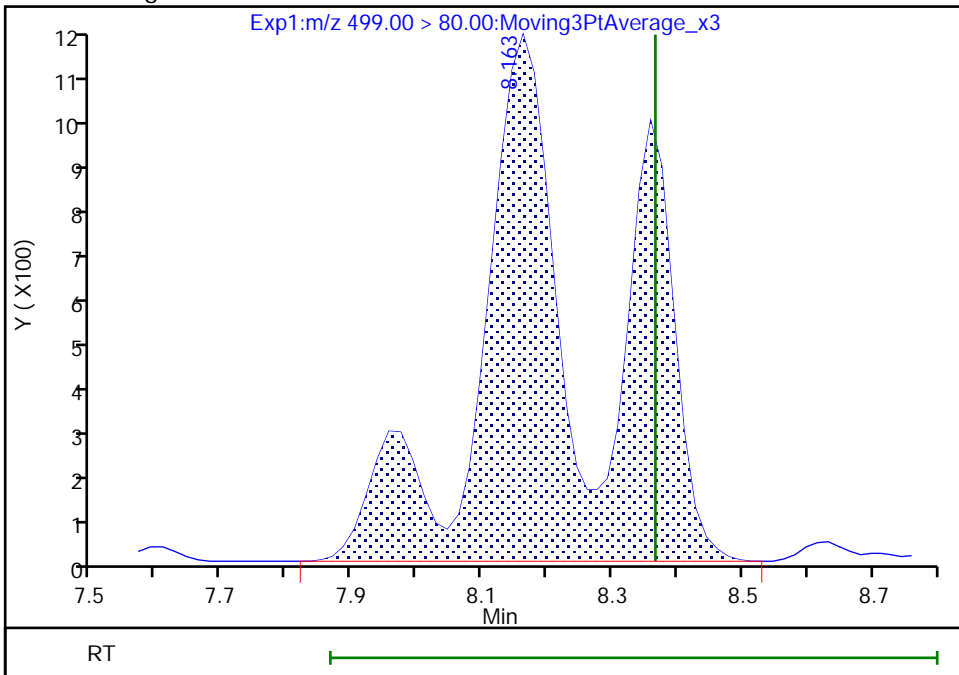
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.16  
Area: 13975  
Amount: 0.000541  
Amount Units: ng/ml



Eurofins TestAmerica, Sacramento

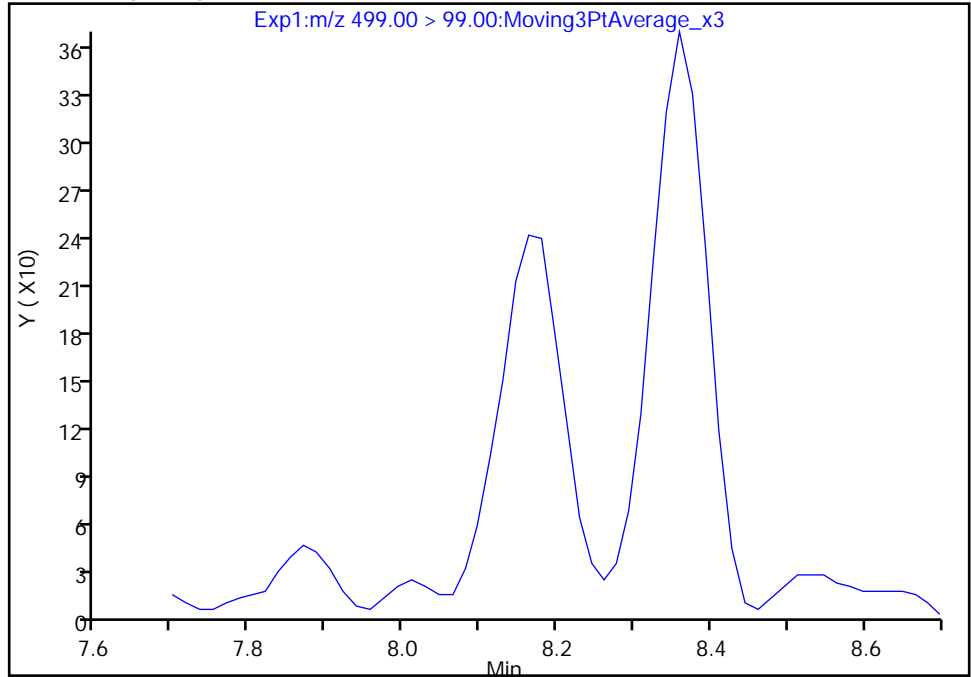
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

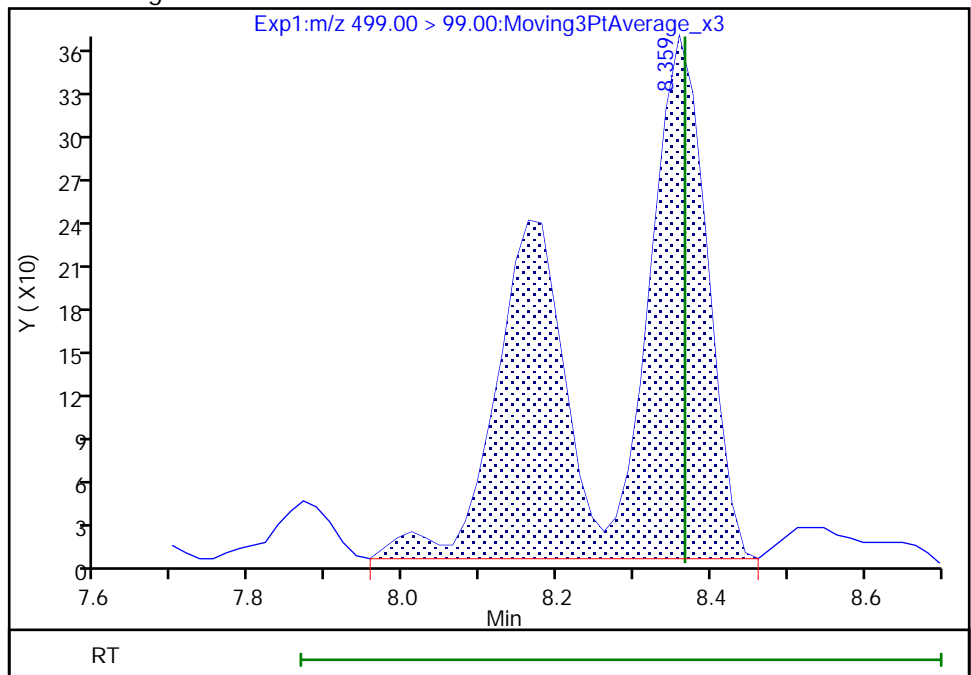
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.36  
Area: 3198  
Amount: 0.000541  
Amount Units: ng/ml



Eurofins TestAmerica, Sacramento

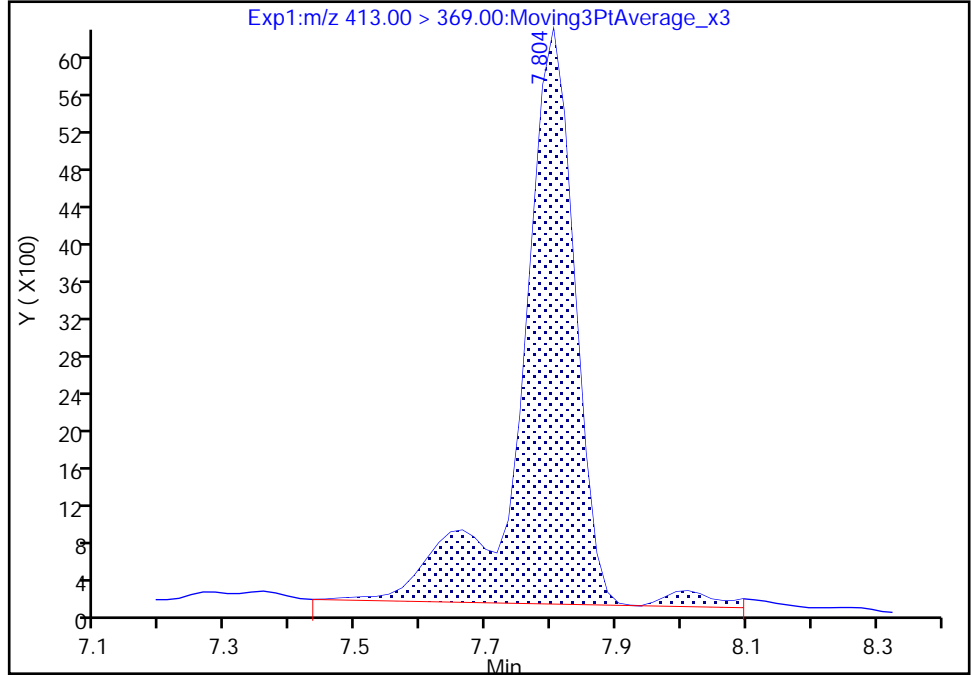
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_007.d  
Injection Date: 10-Jun-2021 11:29:09 Instrument ID: A10  
Lims ID: 320-74597-A-24-A Lab Sample ID: 320-74597-24  
Client ID: BH20210604-2MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 54  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

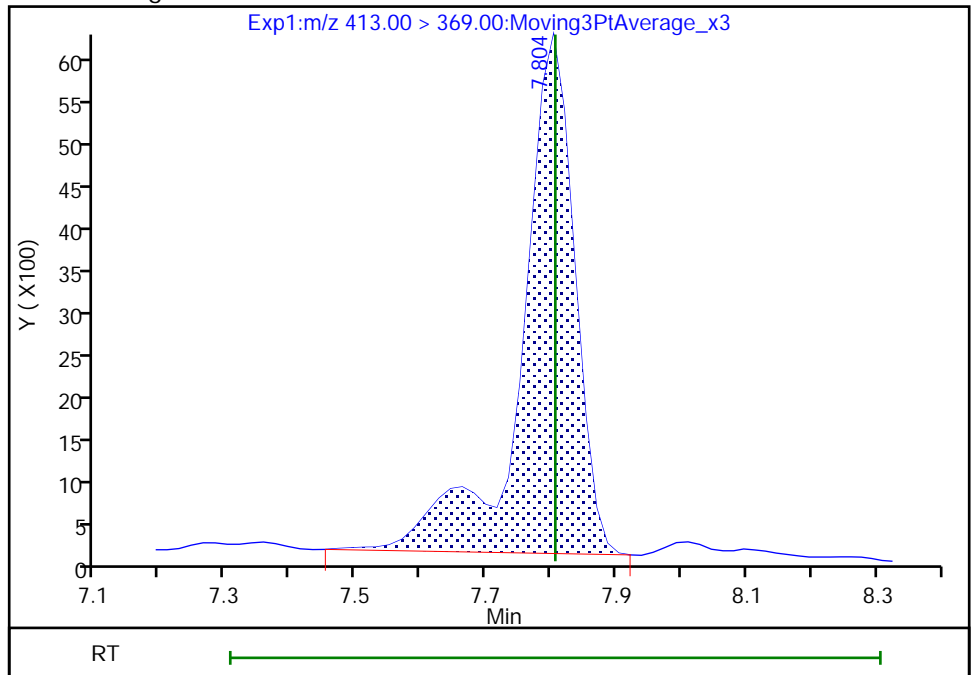
RT: 7.80  
Area: 35540  
Amount: 0.000575  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 34535  
Amount: 0.000559  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:55:57

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2POST Lab Sample ID: 320-74597-25  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_008.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 10:07  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 11:47  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	120		25-150
STL00995	13C5 PFNA	115		25-150
STL00990	13C4 PFOA	109		70-130
STL00991	13C4 PFOS	119		70-130
STL00994	18O2 PFHxS	125		25-150
STL02337	13C3 PFBS	107		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_008.d  
 Lims ID: 320-74597-A-25-A  
 Client ID: BH20210604-2POST  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 11:47:36 ALS Bottle#: 8 Worklist Smp#: 55  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-25-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:56:44 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:56:44  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C3 PFBS	301.90 > 80.00	6.308	6.297	0.011	1421403	0.0496		107	3937	
D 15 18O2 PFHxS	403.00 > 84.00	7.244	7.248	-0.004	1641925	0.0590		125	14753	
D 17 13C4 PFHpA	367.00 > 322.00	7.244	7.248	-0.004	2315466	0.0600		120	14759	
D 20 13C2 PFOA	415.00 > 370.00	7.803	7.804	-0.001	1658	NC		0.0	27.4	
24 Perfluorooctanoic acid										M
	413.00 > 369.00	7.820	7.806	0.014	10186	0.000173	Target=1.59		5.4	M
	413.00 > 169.00	7.803	7.806	-0.003	5048		2.02(0.79-2.38)		12.9	M
D 25 13C4 PFOA	417.00 > 372.00	7.803	7.806	-0.003	3112158	0.0546		109	22562	
D 26 13C4 PFOS	503.00 > 80.00	8.376	8.367	0.009	1109821	0.0571		119	5273	
D 28 13C5 PFNA	468.00 > 423.00	8.393	8.401	-0.008	2792274	0.0575		115	17101	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_008.d

Injection Date: 10-Jun-2021 11:47:36

Instrument ID: A10

Lims ID: 320-74597-A-25-A

Lab Sample ID: 320-74597-25

Client ID: BH20210604-2POST

Operator ID: Sac\_inst\_A10

ALS Bottle#: 8

Worklist Smp#: 55

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

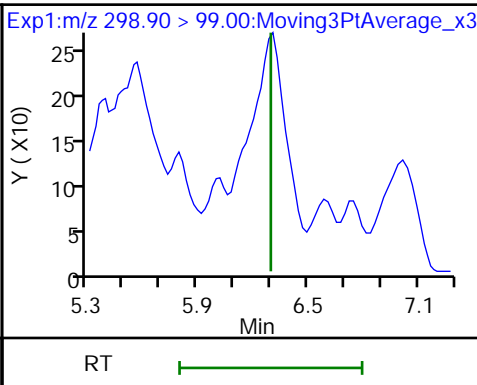
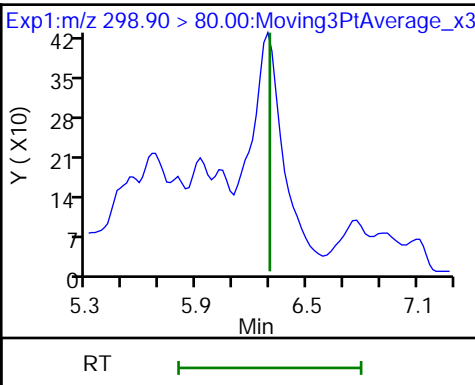
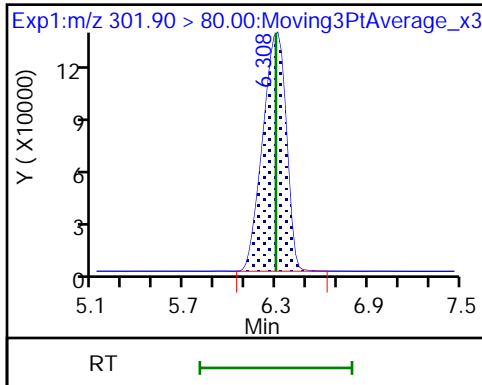
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 3 13C3 PFBS

6 Perfluorobutanesulfonic acid (ND)

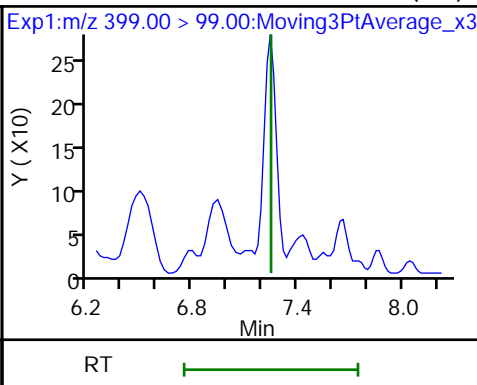
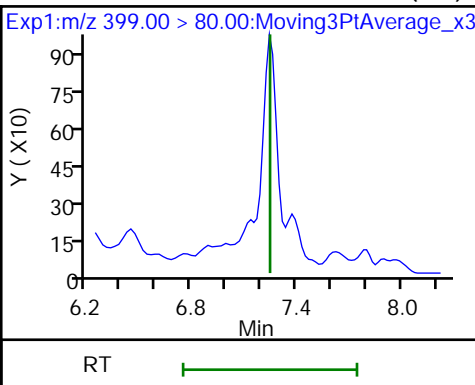
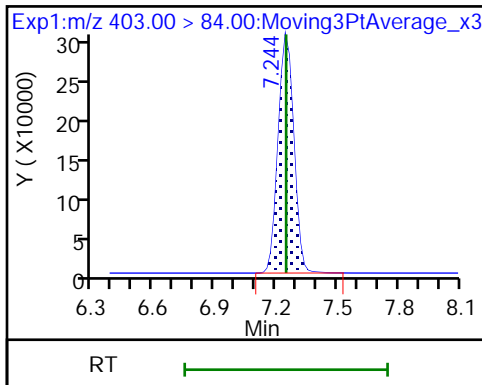
6 Perfluorobutanesulfonic acid (ND)



D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid (ND)

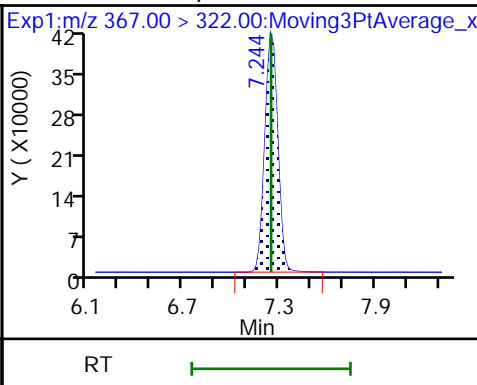
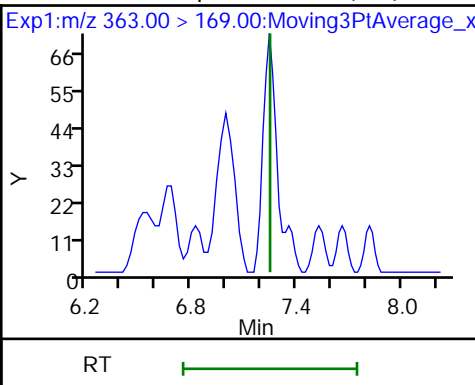
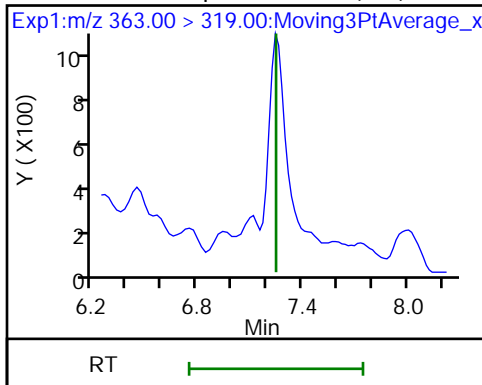
16 Perfluorohexanesulfonic acid (ND)



18 Perfluoroheptanoic acid (ND)

18 Perfluoroheptanoic acid (ND)

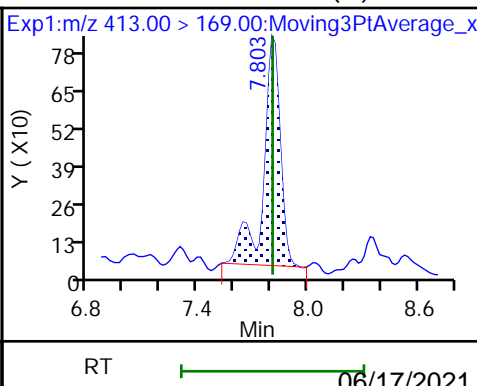
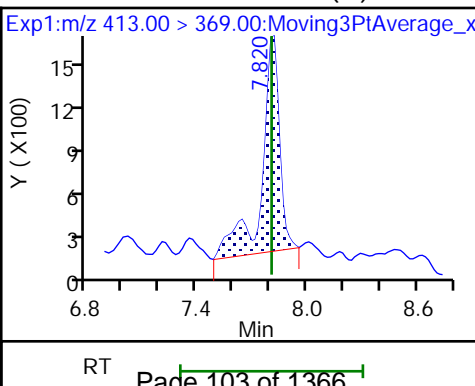
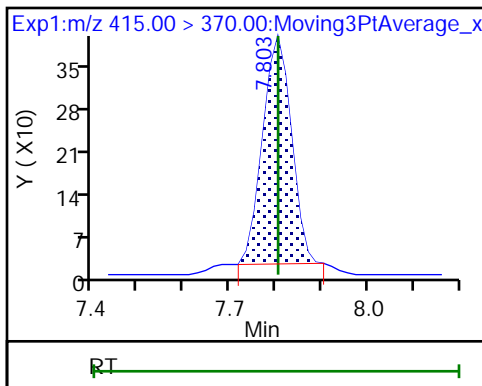
D 17 13C4 PFHpA



D 20 13C2 PFOA

24 Perfluorooctanoic acid (M)

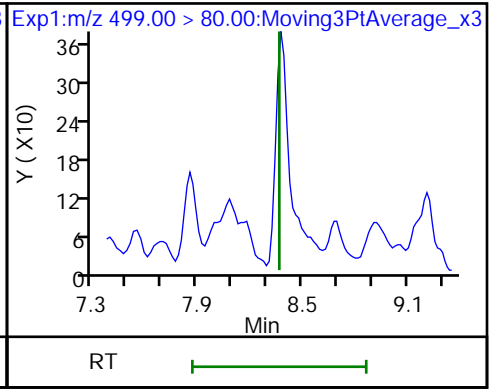
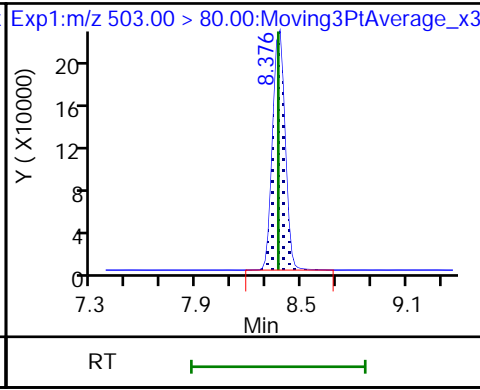
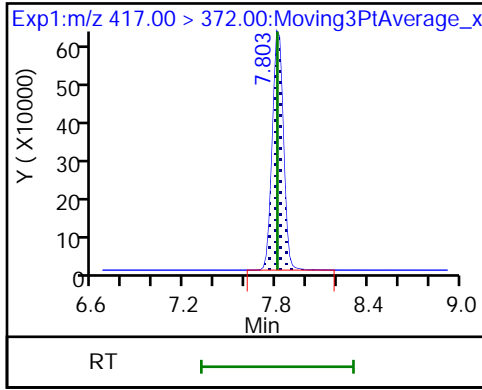
24 Perfluorooctanoic acid (M)



D 25 13C4 PFOA

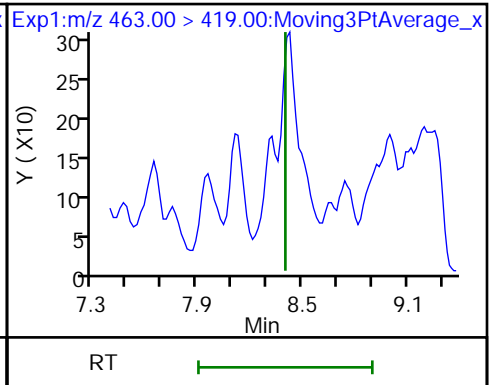
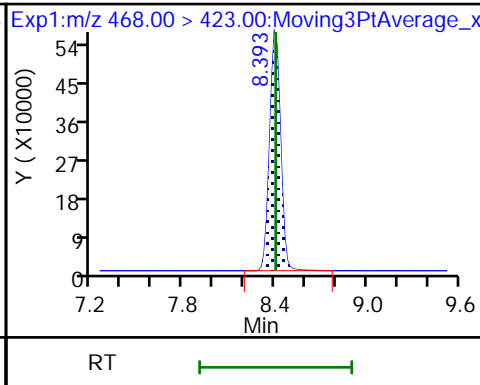
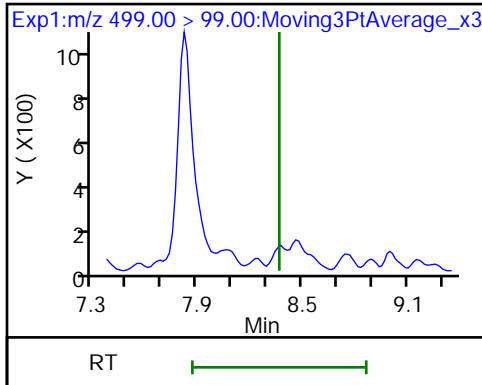
D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid (ND)

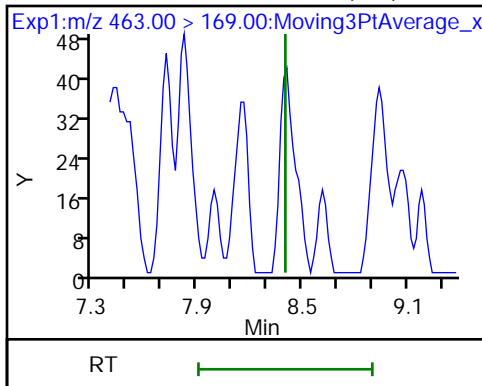


27 Perfluorooctanesulfonic acid (ND) D 28 13C5 PFNA

29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)



Eurofins TestAmerica, Sacramento

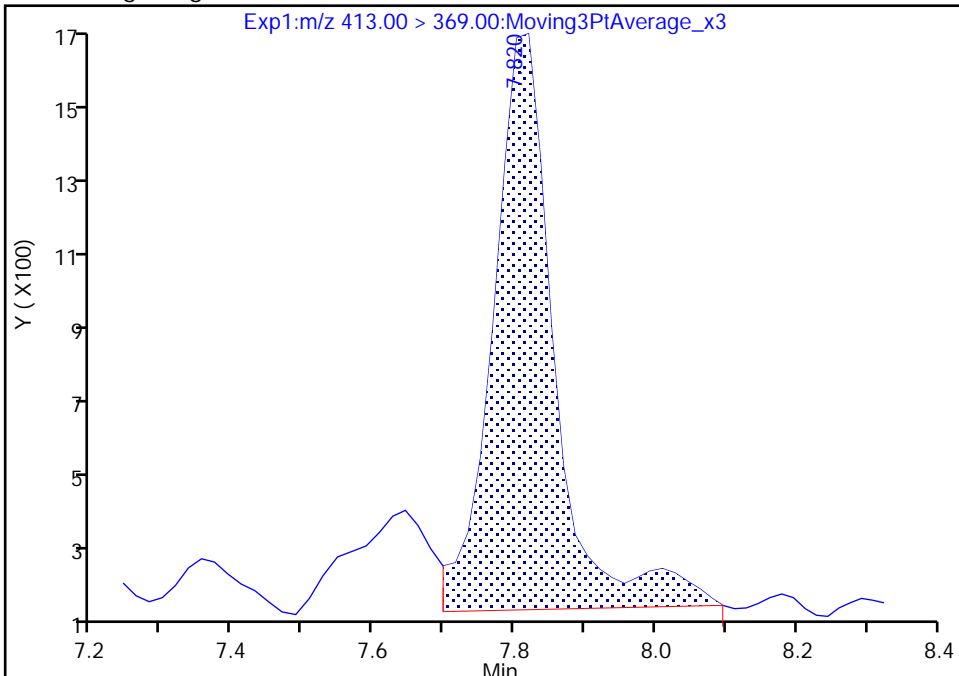
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Injection Date: 10-Jun-2021 11:47:36 Instrument ID: A10  
Lims ID: 320-74597-A-25-A Lab Sample ID: 320-74597-25  
Client ID: BH20210604-2POST  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 55  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

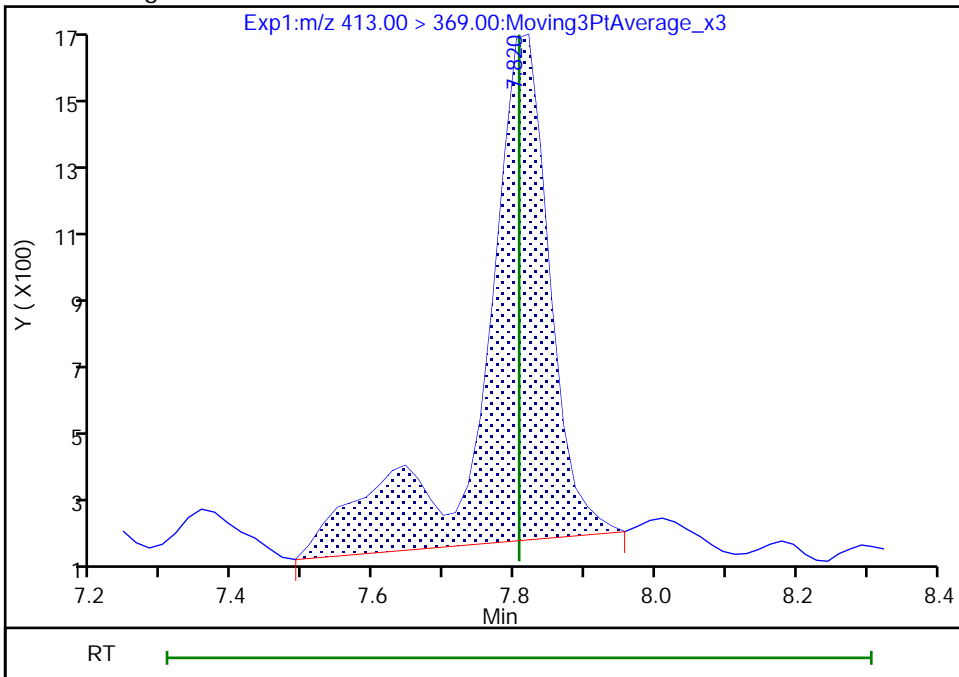
RT: 7.82  
Area: 9548  
Amount: 0.000162  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 10186  
Amount: 0.000173  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:56:35  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

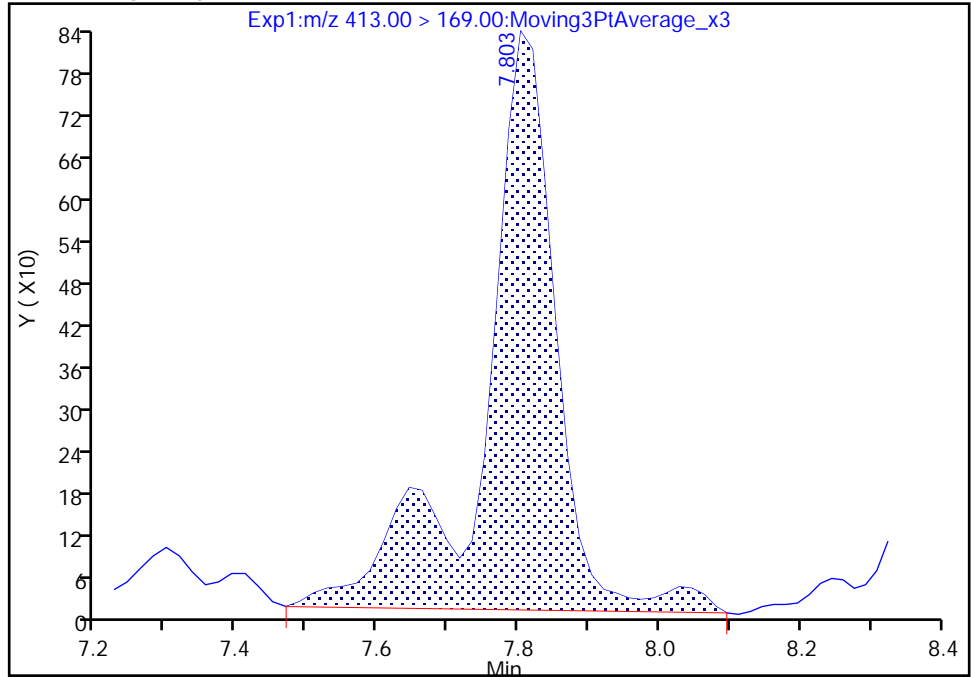
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Injection Date: 10-Jun-2021 11:47:36 Instrument ID: A10  
Lims ID: 320-74597-A-25-A Lab Sample ID: 320-74597-25  
Client ID: BH20210604-2POST  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 55  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

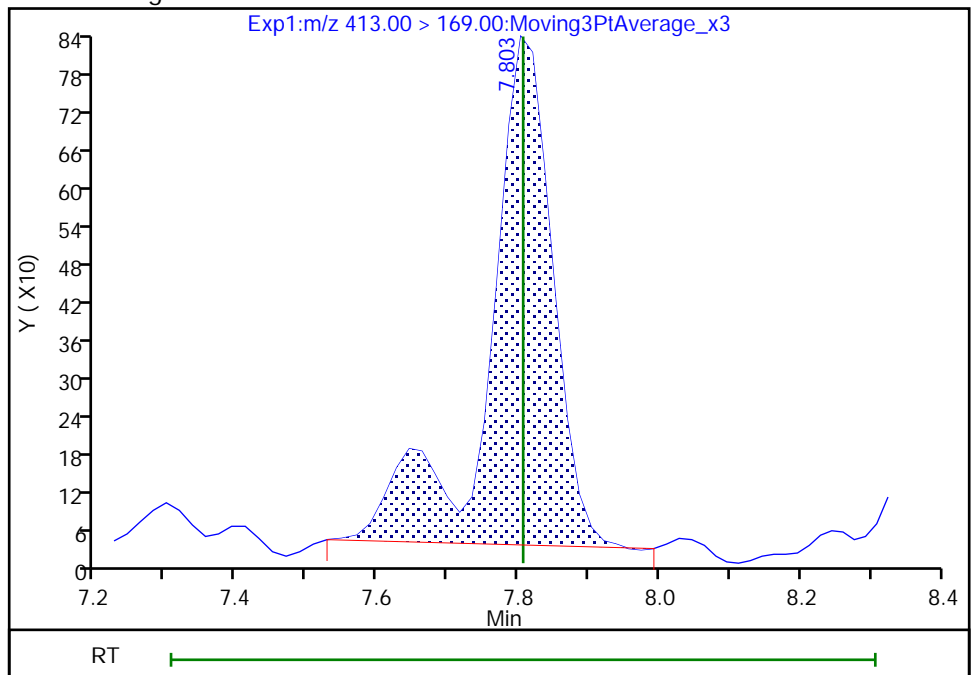
RT: 7.80  
Area: 5890  
Amount: 0.000162  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 5048  
Amount: 0.000173  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:56:38

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3MID Lab Sample ID: 320-74597-26  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_009.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 10:17  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 12:06  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	123		25-150
STL00995	13C5 PFNA	116		25-150
STL00990	13C4 PFOA	114		70-130
STL00991	13C4 PFOS	130		70-130
STL00994	18O2 PFHxS	127		25-150
STL02337	13C3 PFBS	102		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_009.d  
 Lims ID: 320-74597-A-26-A  
 Client ID: BH20210604-3MID  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 12:06:03 ALS Bottle#: 9 Worklist Smp#: 56  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-26-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:57:47 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:57:47  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C3 PFBS										
301.90 > 80.00	6.316	6.297	0.019		1361741	0.0475		102	3472	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.316	6.297	0.019	1.000	13420	0.000397	Target=1.41		10.6	
298.90 > 99.00	6.316	6.297	0.019	1.000	8953		1.50(0.70-2.11)		5.3	
D 15 18O2 PFHxS										
403.00 > 84.00	7.228	7.248	-0.020		1666639	0.0599		127	13390	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.003	22158	0.000548	Target=5.56		14.0	M
399.00 > 99.00	7.228	7.248	-0.020	1.000	3957		5.60(2.78-8.33)		5.8	M
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.248	-0.002	1.000	22884	0.000469	Target=8.84		4.9	M
363.00 > 169.00	7.246	7.248	-0.002	1.000	2009		11.39(4.42-13.25)		15.1	M
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.248	-0.002		2382303	0.0617		123	11776	
D 20 13C2 PFOA										
415.00 > 370.00	7.804	7.804	0.0		2841	NC		0.0	50.6	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.804	7.806	-0.002	1.000	34193	0.000555	Target=1.59		11.2	M
413.00 > 169.00	7.804	7.806	-0.002	1.000	25084		1.36(0.79-2.38)		45.4	
D 25 13C4 PFOA										
417.00 > 372.00	7.804	7.806	-0.002		3250707	0.0570		114	20944	
D 26 13C4 PFOS										
503.00 > 80.00	8.359	8.367	-0.008		1206938	0.0621		130	5146	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.146	8.367	-0.221	0.975	13469	0.000484	Target=3.35		28.5	M
499.00 > 99.00	8.342	8.367	-0.025	0.998	3169		4.25(1.67-5.02)		9.7	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
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D 28 13C5 PFNA

468.00 > 423.00 8.376 8.401 -0.025 2818125 0.0580 116 17827

29 Perfluorononanoic acid

M

463.00 > 419.00 8.393 8.401 -0.008 1.002 4416 0.00008632 Target=7.93

6.0

463.00 > 169.00 8.376 8.401 -0.025 1.000 651 6.78(3.96-11.89)

5.9

M

### QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

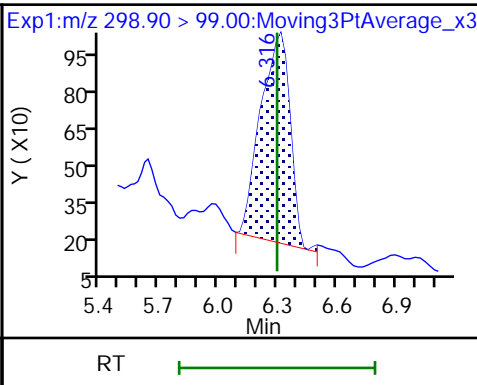
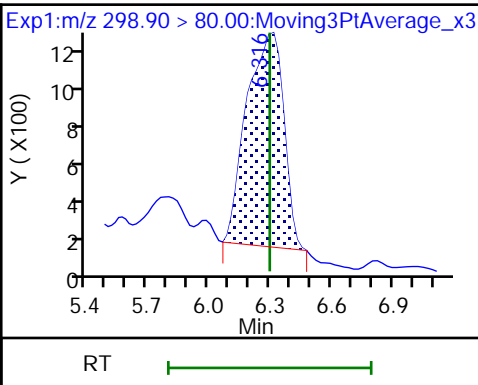
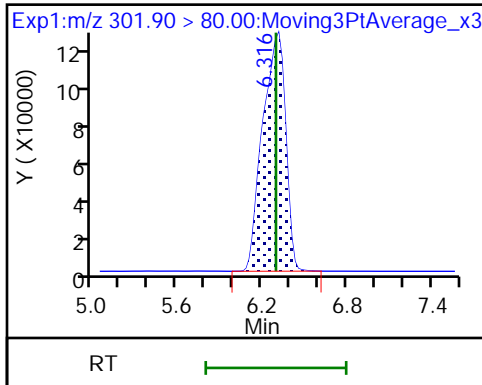
Eurofins TestAmerica, Sacramento

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 Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
 Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
 Client ID: BH20210604-3MID  
 Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL

D 3 13C3 PFBS

6 Perfluorobutanesulfonic acid

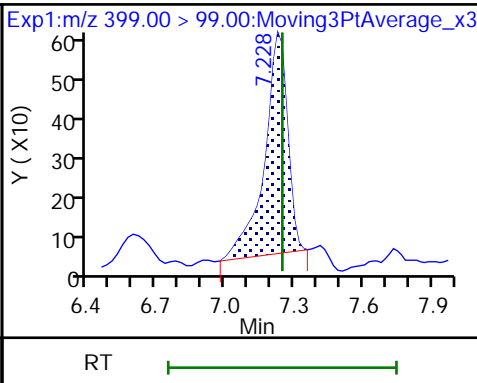
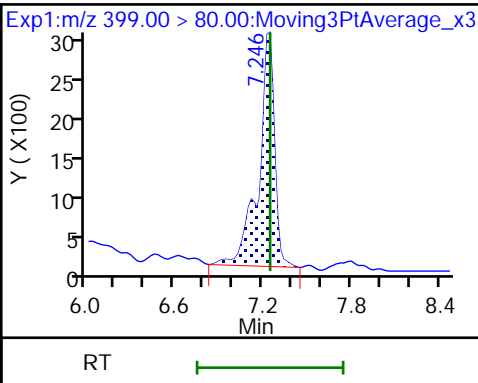
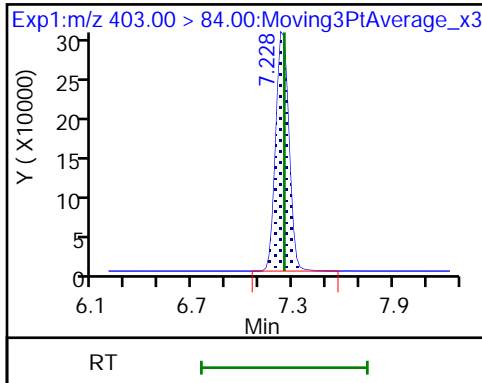
6 Perfluorobutanesulfonic acid



D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid

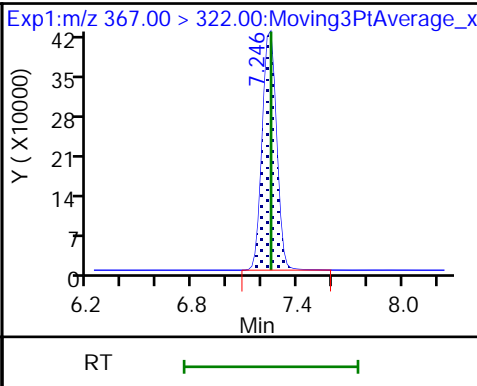
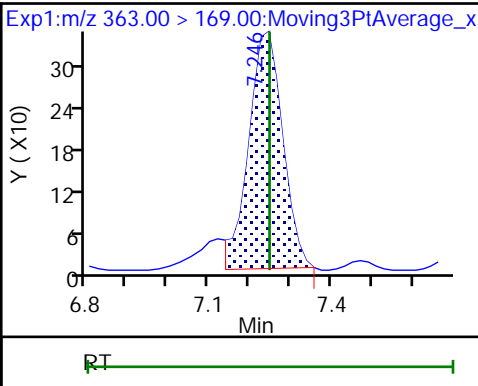
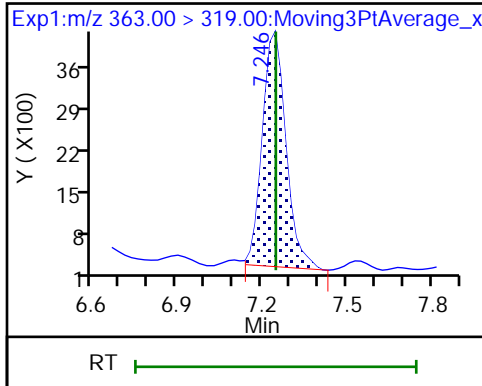
16 Perfluorohexanesulfonic acid (M)



18 Perfluoroheptanoic acid (M)

18 Perfluoroheptanoic acid (M)

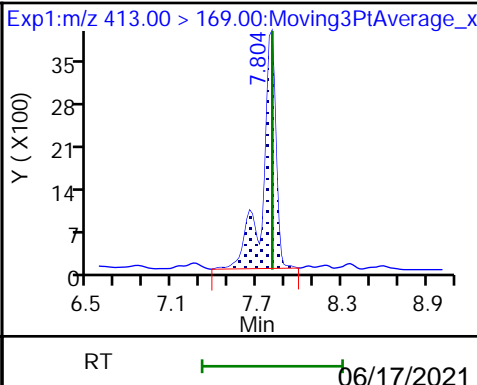
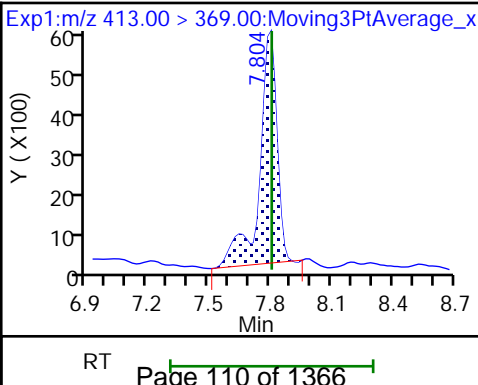
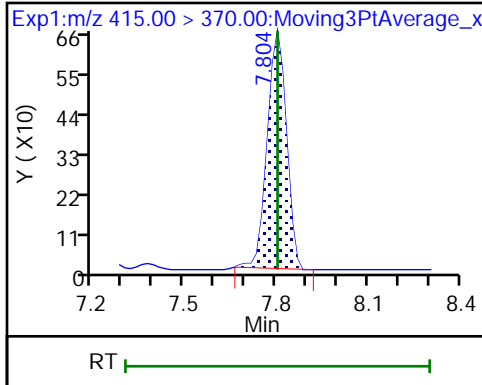
D 17 13C4 PFHpA



D 20 13C2 PFOA

24 Perfluorooctanoic acid (M)

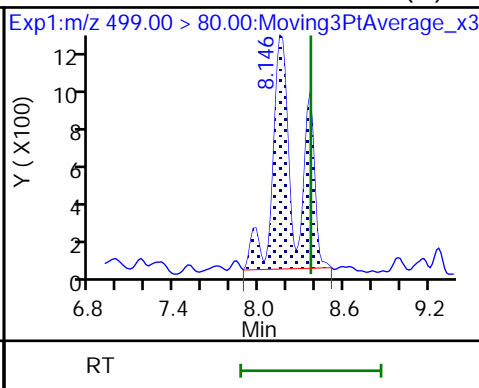
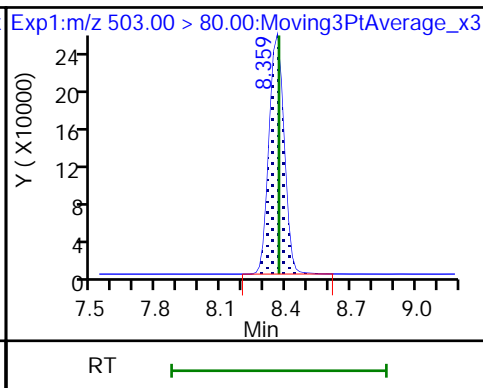
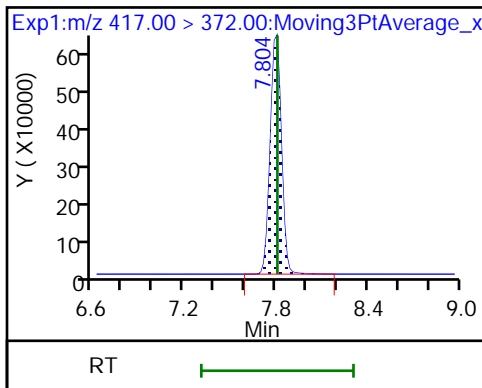
24 Perfluorooctanoic acid



D 25 13C4 PFOA

D 26 13C4 PFOS

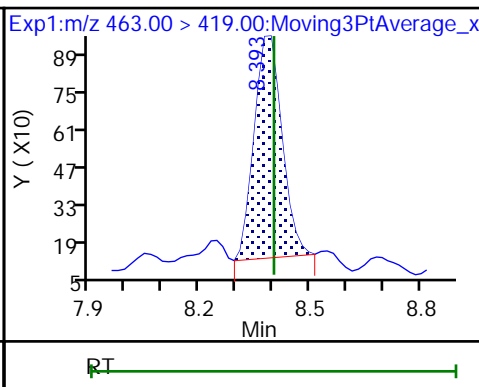
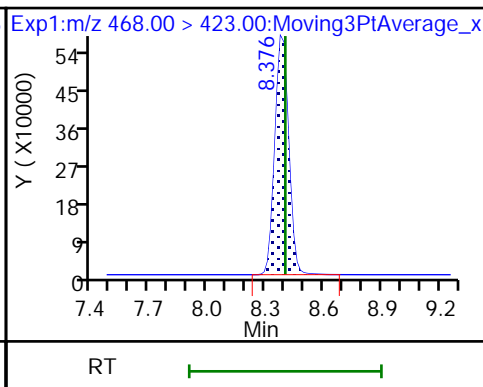
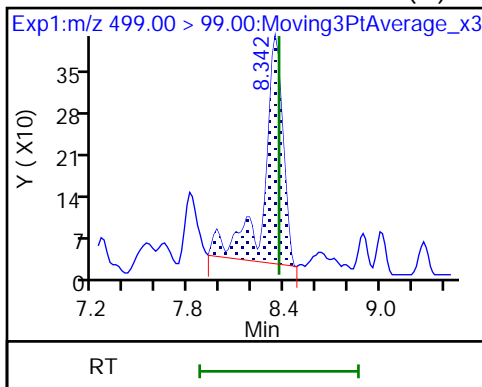
27 Perfluorooctanesulfonic acid (M)



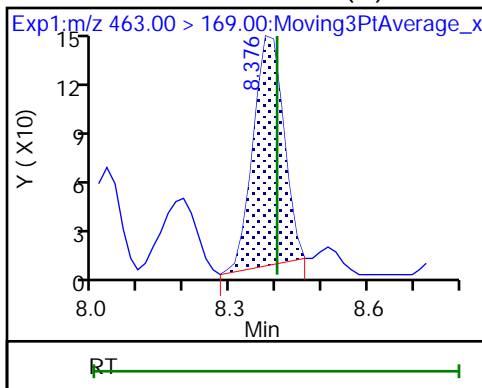
27 Perfluorooctanesulfonic acid (M)

D 28 13C5 PFNA

29 Perfluorononanoic acid



29 Perfluorononanoic acid (M)



Eurofins TestAmerica, Sacramento

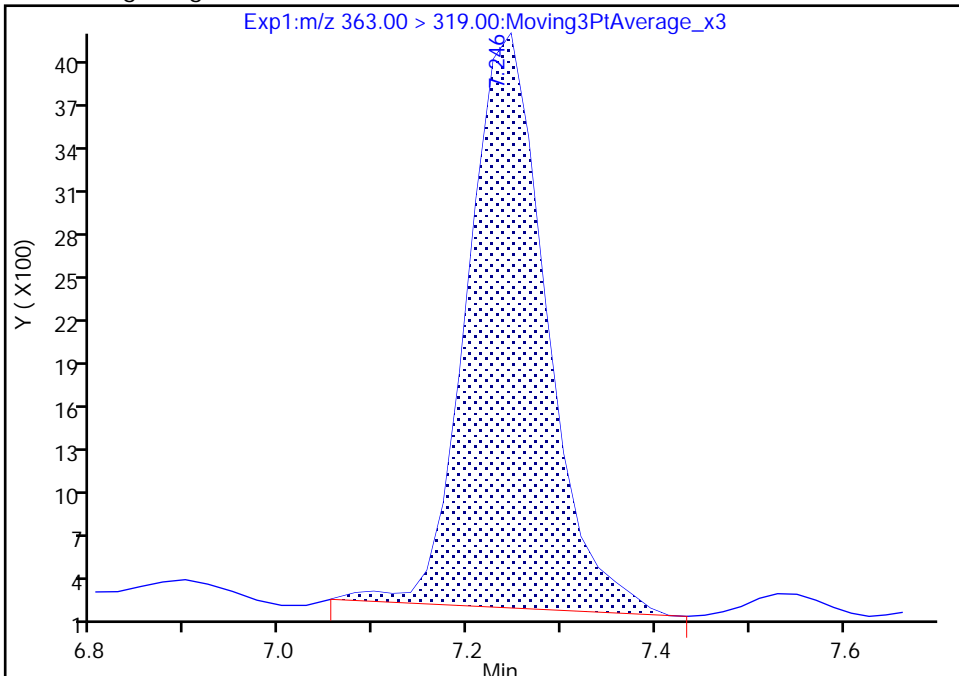
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

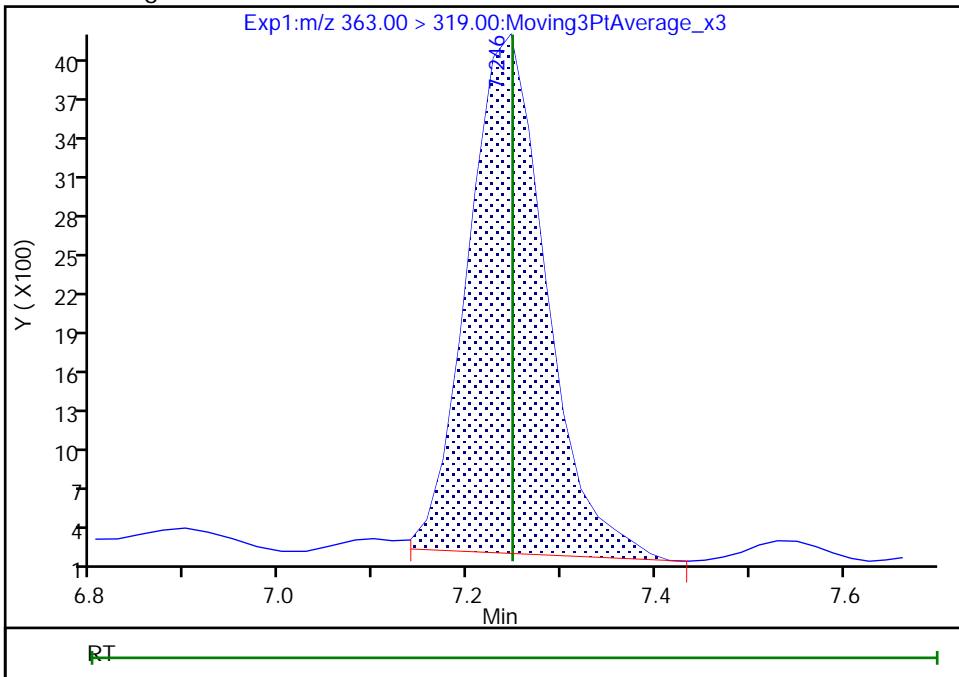
RT: 7.25  
Area: 23171  
Amount: 0.000474  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 22884  
Amount: 0.000469  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:10  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

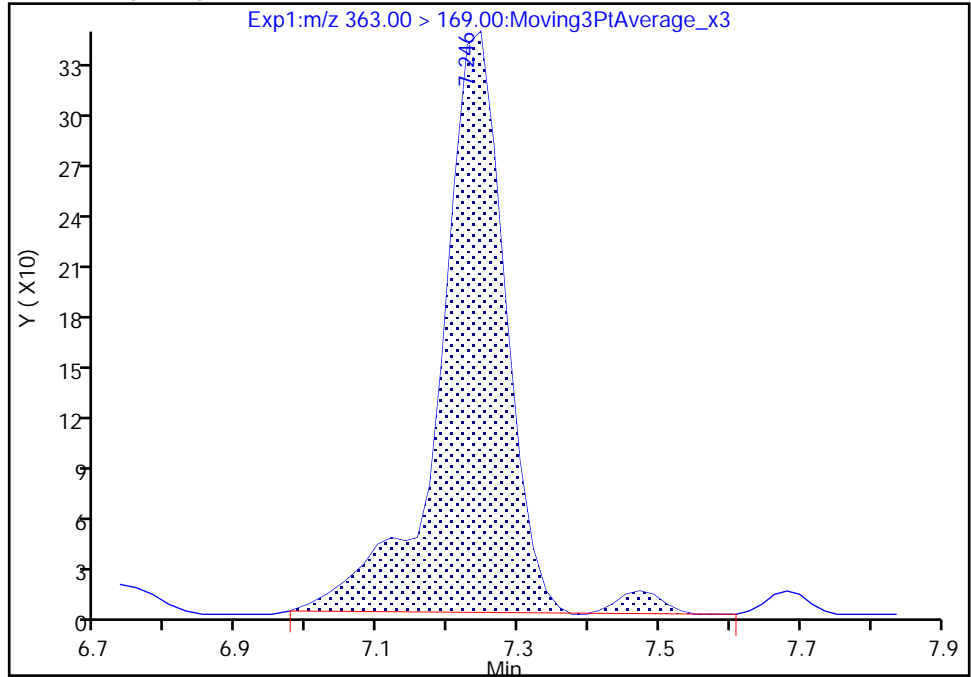
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

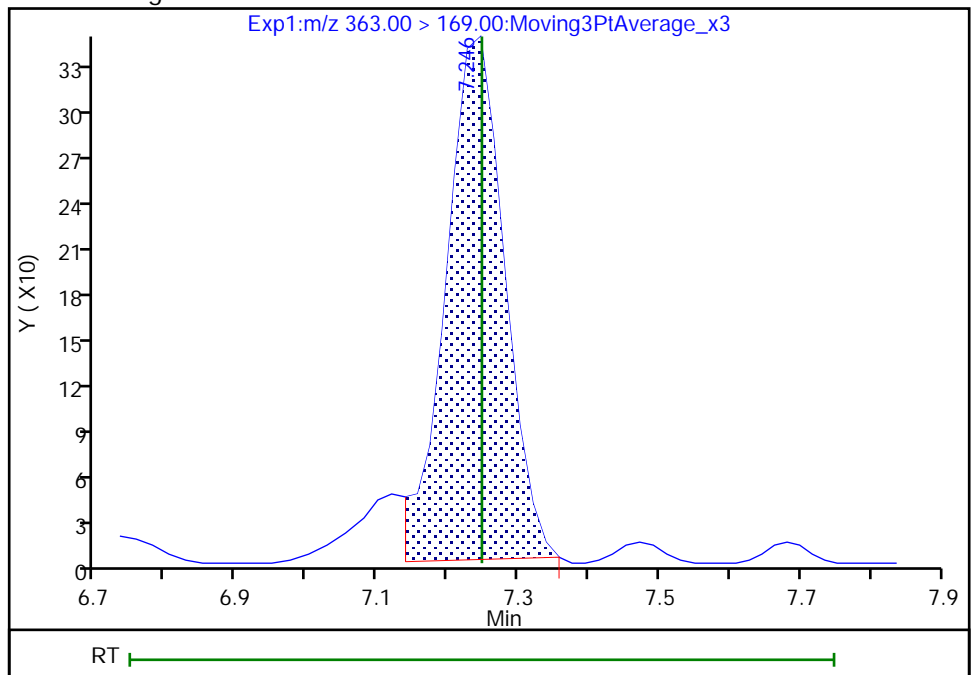
RT: 7.25  
Area: 2299  
Amount: 0.000474  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 2009  
Amount: 0.000469  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:13

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

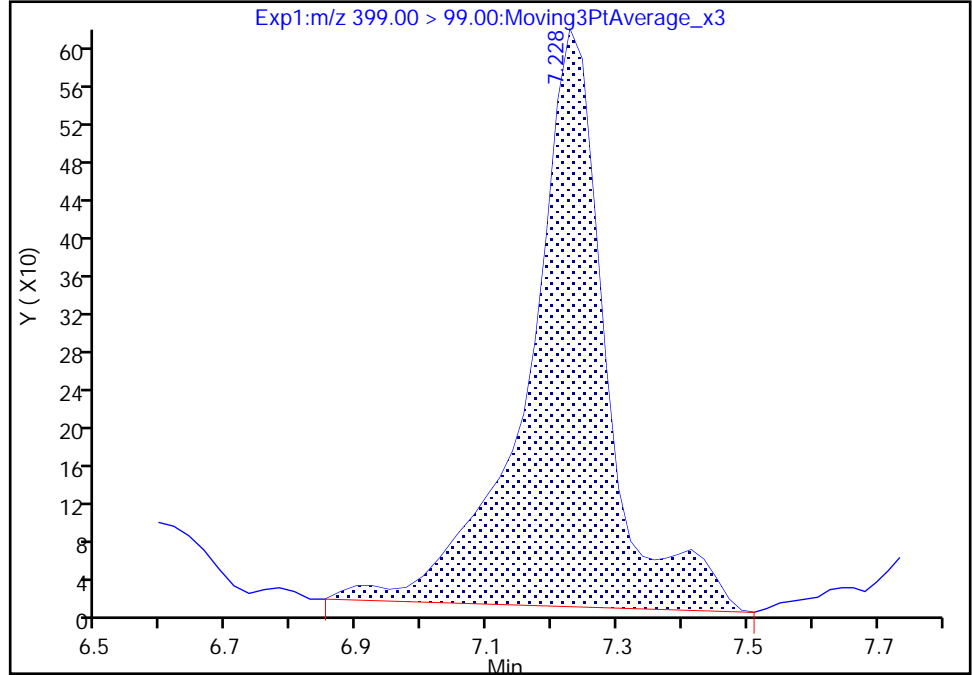
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

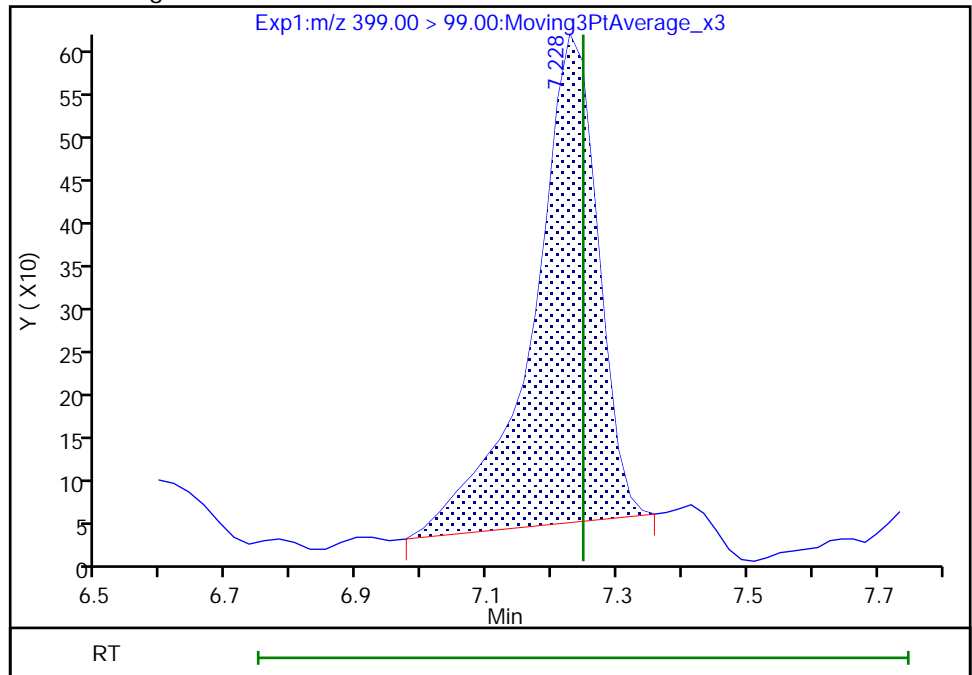
RT: 7.23  
Area: 5155  
Amount: 0.000548  
Amount Units: ng/ml

Processing Integration Results



RT: 7.23  
Area: 3957  
Amount: 0.000548  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:00

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

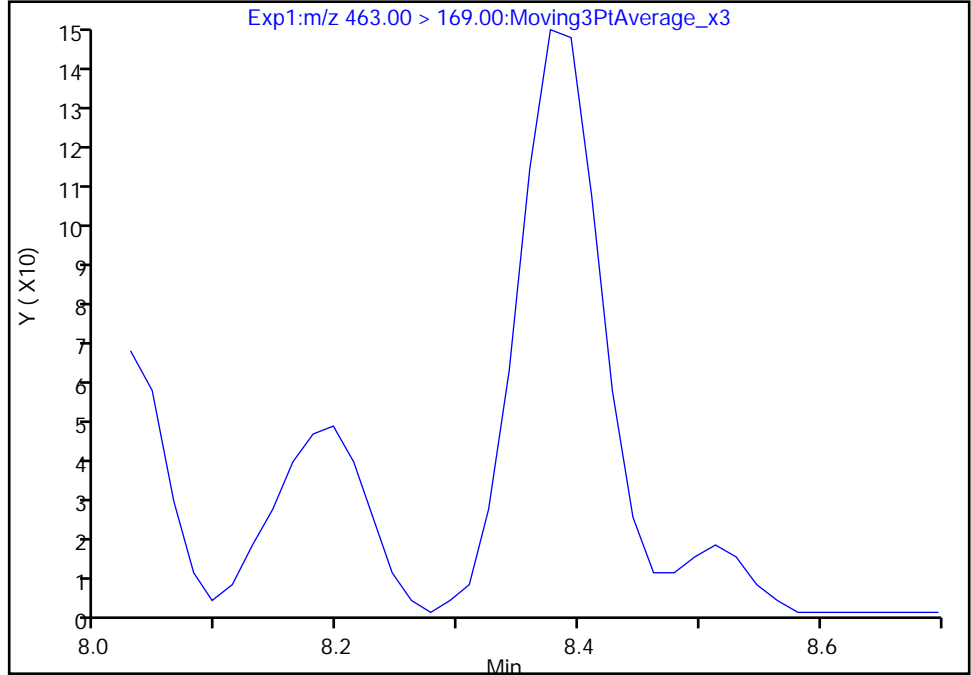
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

29 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

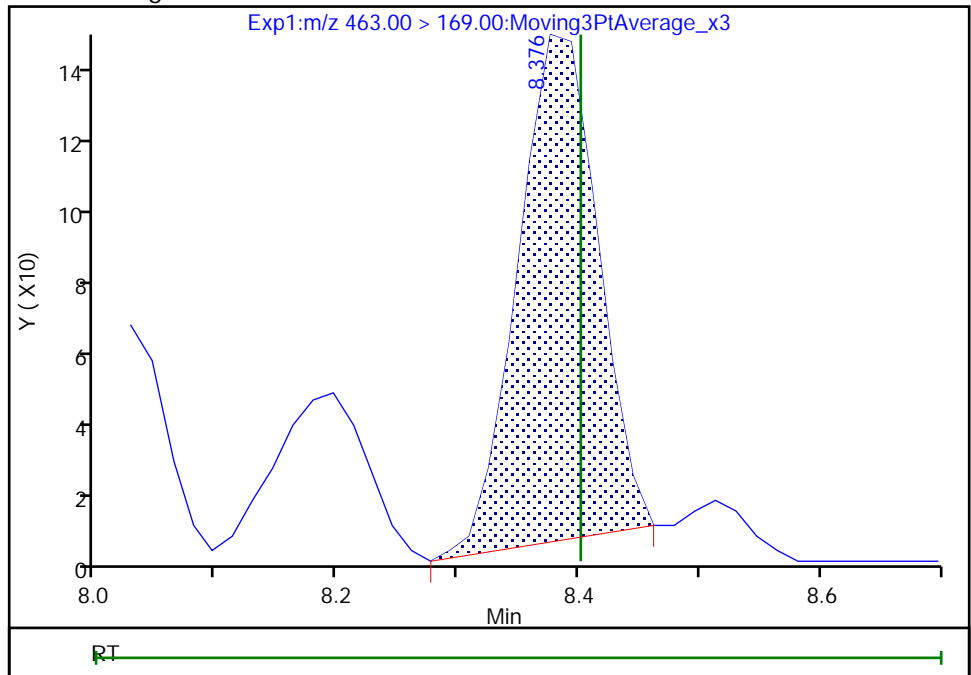
Not Detected  
Expected RT: 8.40

Processing Integration Results



RT: 8.38  
Area: 651  
Amount: 0.000086  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:28

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

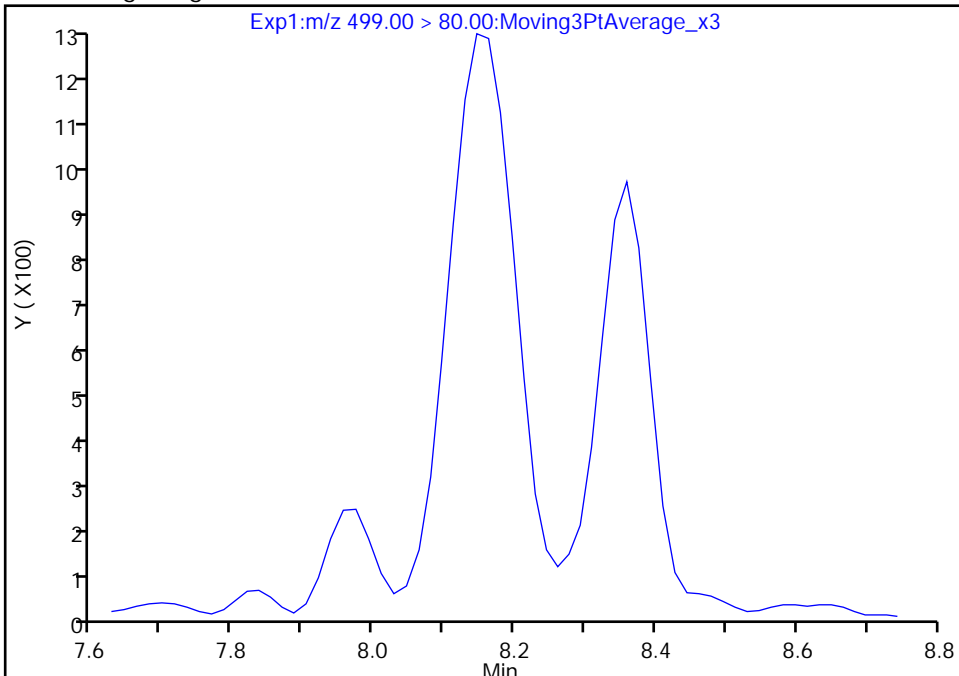
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_009.d  
Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

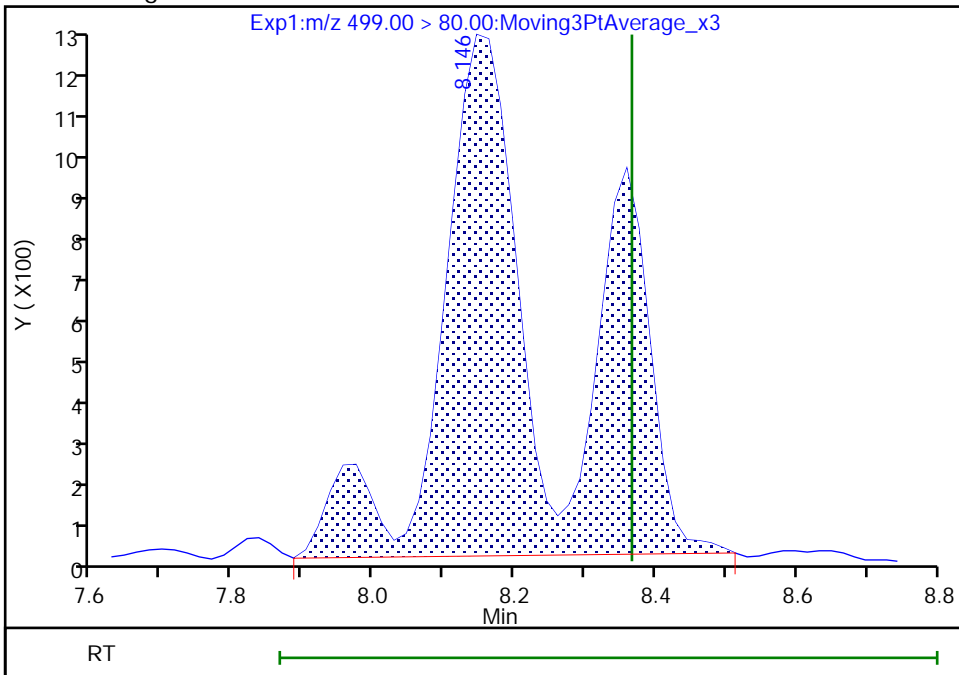
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.15  
Area: 13469  
Amount: 0.000484  
Amount Units: ng/ml



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:37

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

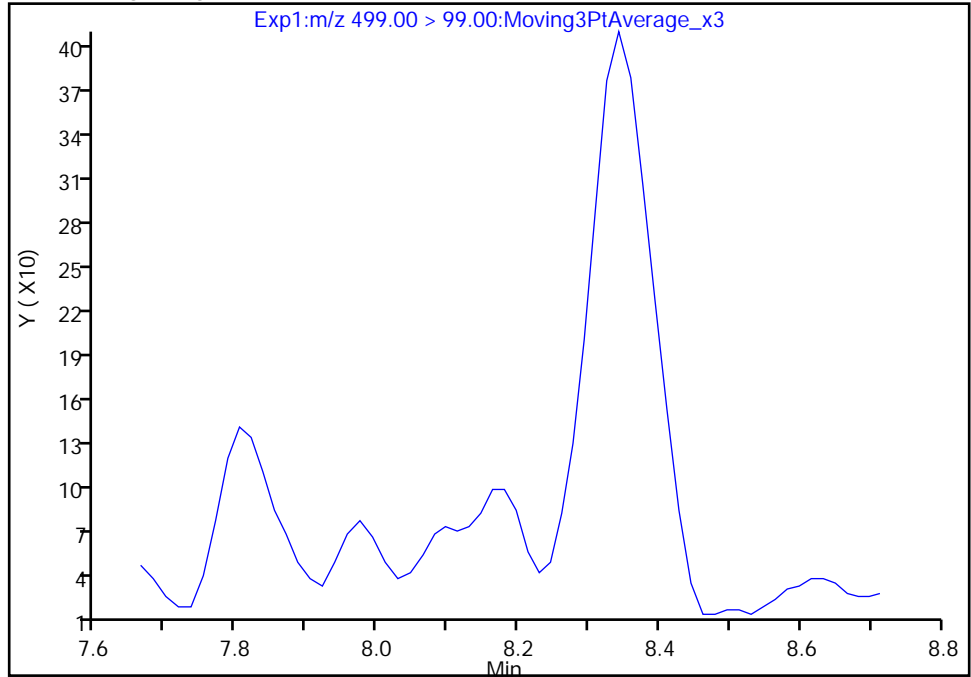
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

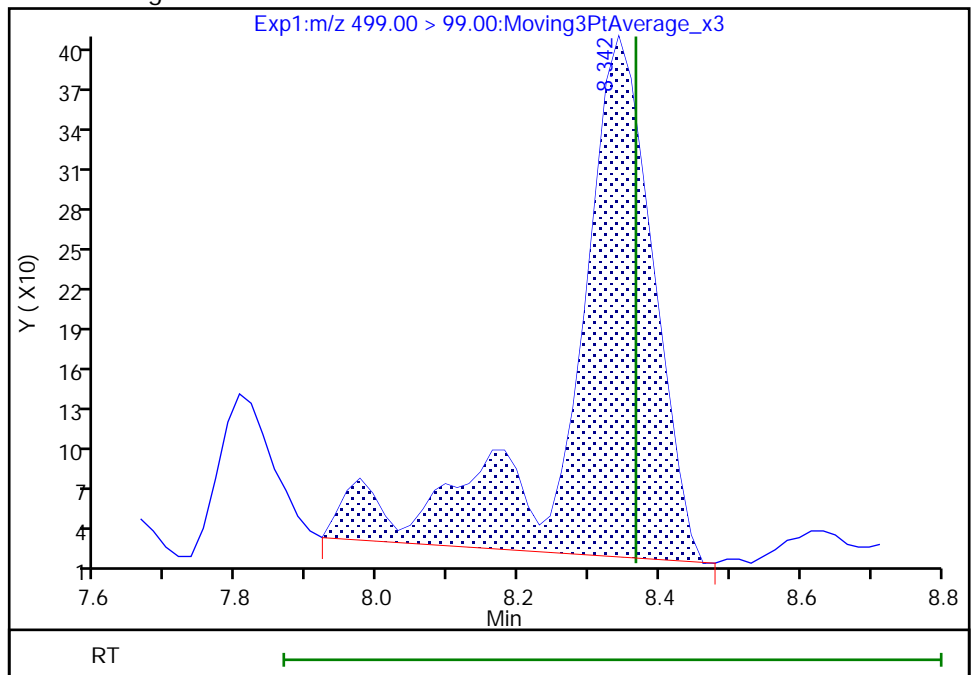
Not Detected  
Expected RT: 8.37

Processing Integration Results



Manual Integration Results

RT: 8.34  
Area: 3169  
Amount: 0.000484  
Amount Units: ng/ml



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:41

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

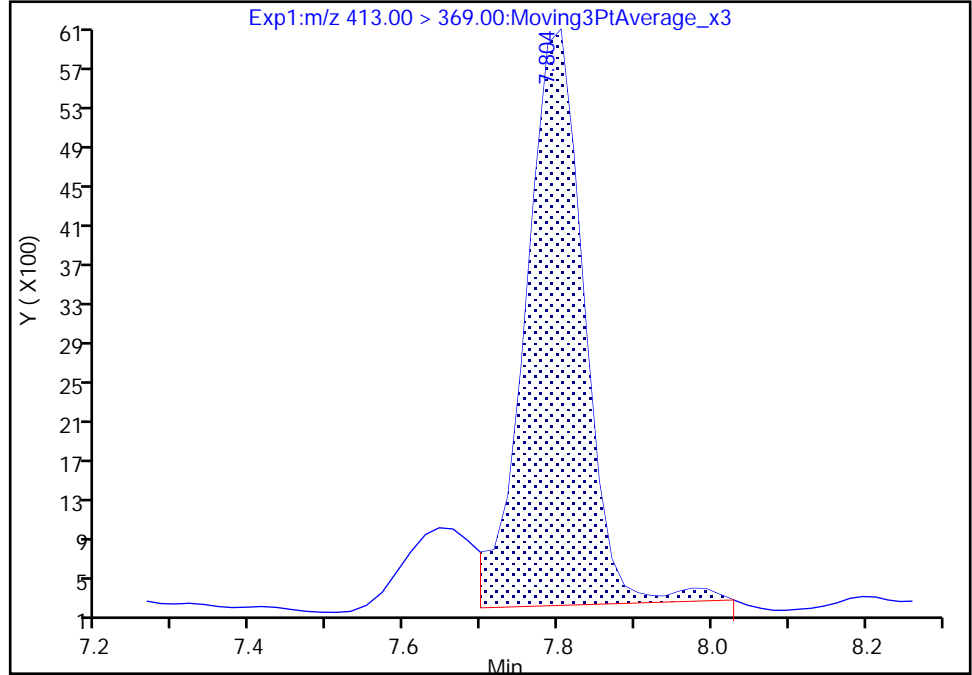
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Injection Date: 10-Jun-2021 12:06:03 Instrument ID: A10  
Lims ID: 320-74597-A-26-A Lab Sample ID: 320-74597-26  
Client ID: BH20210604-3MID  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 56  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

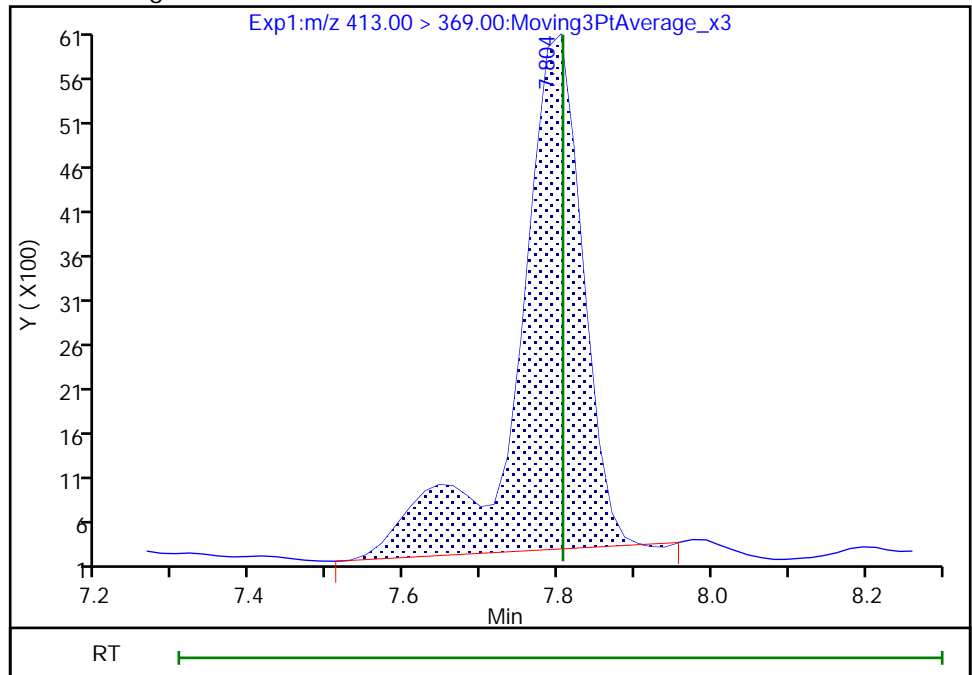
RT: 7.80  
Area: 30867  
Amount: 0.000501  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 34193  
Amount: 0.000555  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:57:20

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3POST Lab Sample ID: 320-74597-27  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_010.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 10:36  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 12:24  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	128		25-150
STL00995	13C5 PFNA	123		25-150
STL00990	13C4 PFOA	113		70-130
STL00991	13C4 PFOS	124		70-130
STL00994	18O2 PFHxS	124		25-150
STL02337	13C3 PFBS	107		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_010.d  
 Lims ID: 320-74597-A-27-A  
 Client ID: BH20210604-3POST  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 12:24:31 ALS Bottle#: 10 Worklist Smp#: 57  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-27-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:58:12 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:58:12  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C3 PFBS	301.90 > 80.00	6.296	6.297	-0.001	1420892	0.0496		107	5594	
D 15 18O2 PFHxS	403.00 > 84.00	7.247	7.248	-0.001	1631645	0.0586		124	17188	
D 17 13C4 PFHpA	367.00 > 322.00	7.247	7.248	-0.001	2475949	0.0641		128	13373	
D 20 13C2 PFOA	415.00 > 370.00	7.806	7.804	0.002	2244	NC		0.0	35.2	
24 Perfluorooctanoic acid										M
	413.00 > 369.00	7.806	7.806	0.0	8661	0.000142	Target=1.59	5.4		M
	413.00 > 169.00	7.806	7.806	0.0	6580		1.32(0.79-2.38)	18.1		M
D 25 13C4 PFOA	417.00 > 372.00	7.806	7.806	0.0	3215499	0.0564		113	16131	
D 26 13C4 PFOS	503.00 > 80.00	8.363	8.367	-0.004	1147506	0.0590		124	5610	
D 28 13C5 PFNA	468.00 > 423.00	8.397	8.401	-0.004	2983106	0.0614		123	13851	

QC Flag Legend

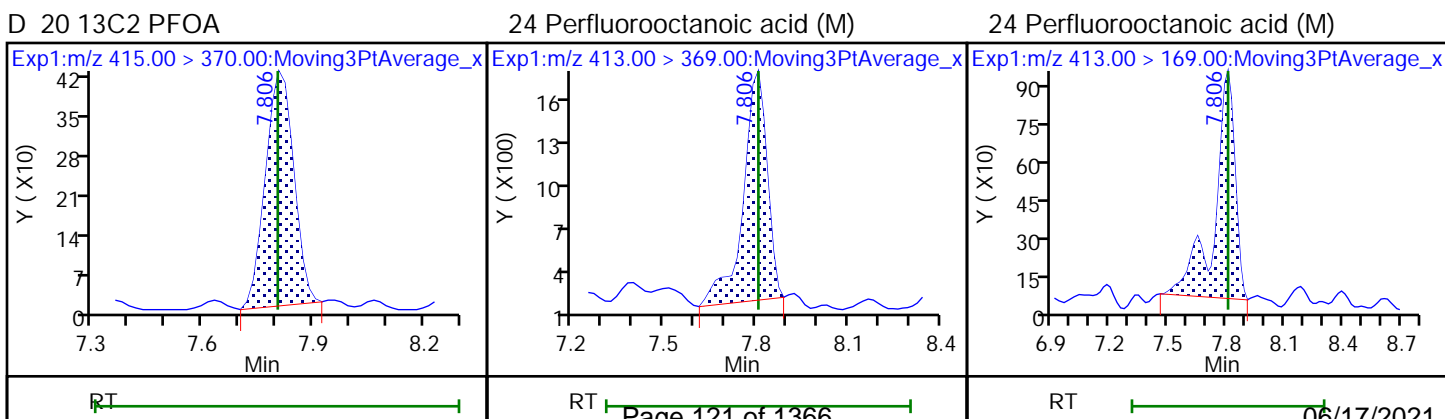
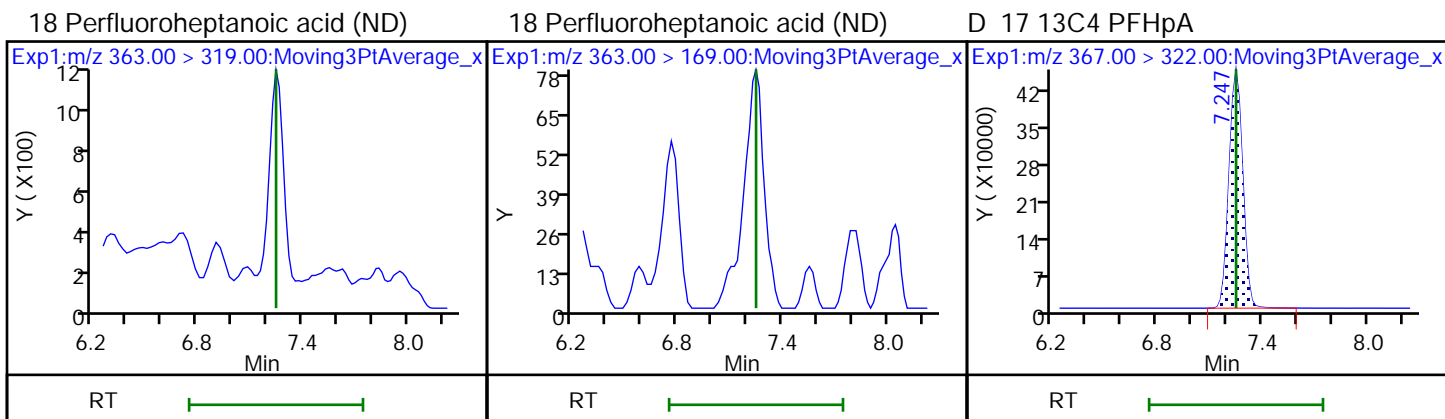
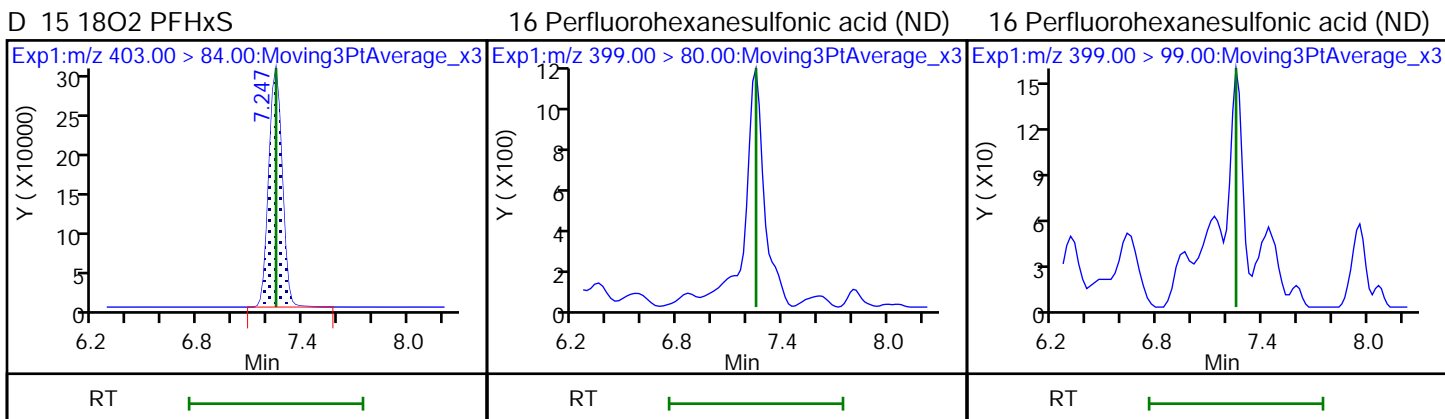
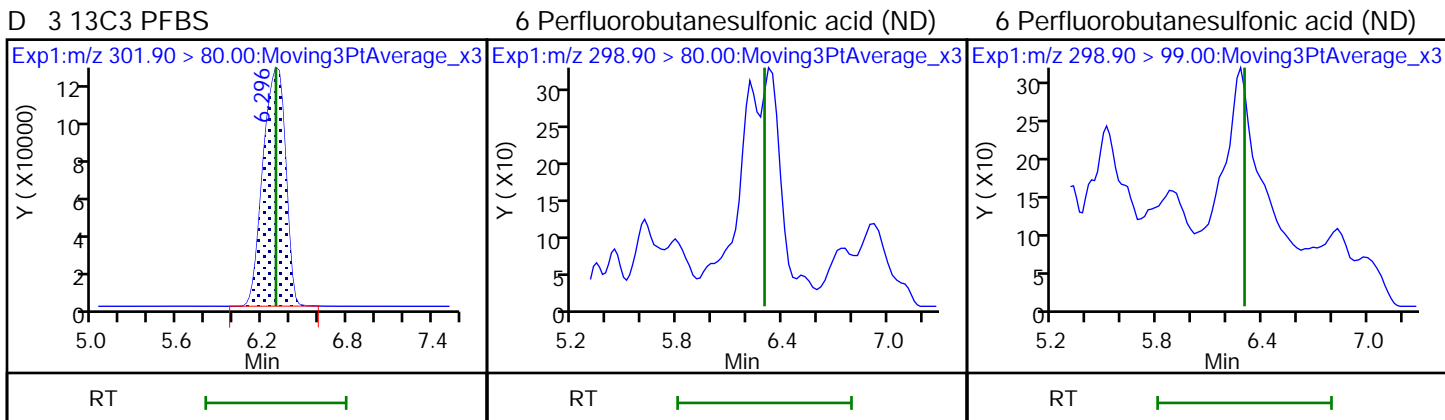
Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_010.d  
 Injection Date: 10-Jun-2021 12:24:31 Instrument ID: A10  
 Lims ID: 320-74597-A-27-A Lab Sample ID: 320-74597-27  
 Client ID: BH20210604-3POST  
 Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 57  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL

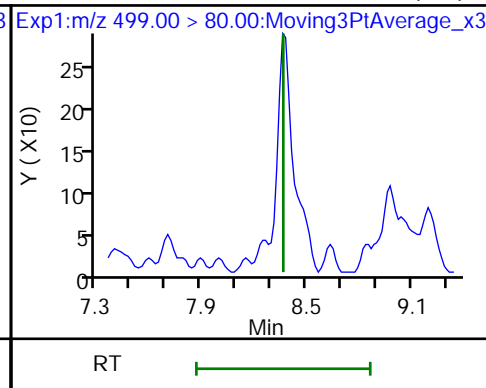
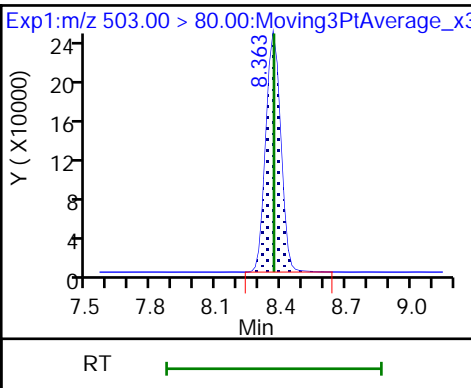
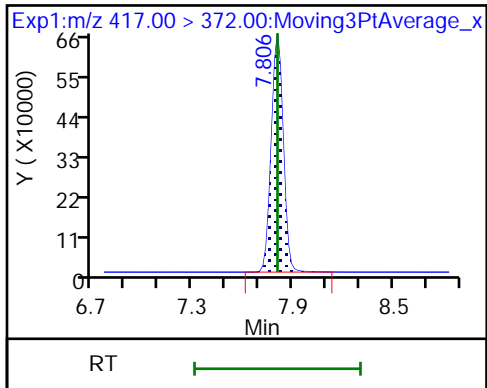




D 25 13C4 PFOA

D 26 13C4 PFOS

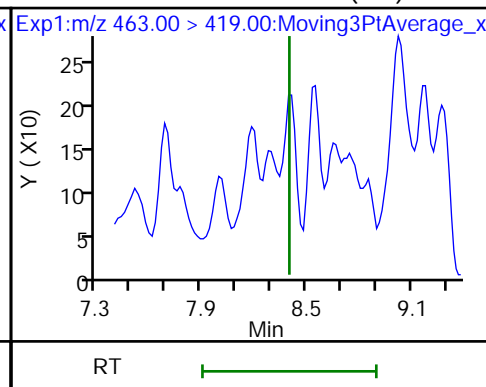
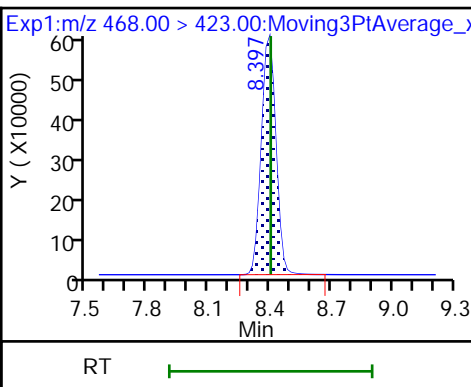
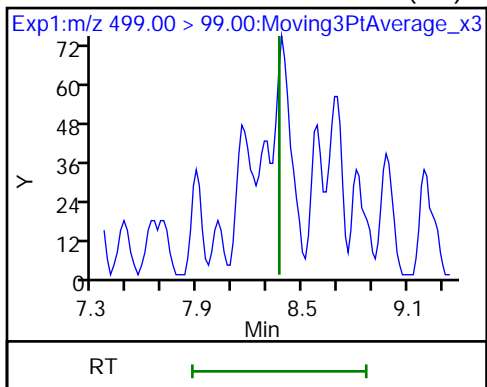
27 Perfluorooctanesulfonic acid (ND)



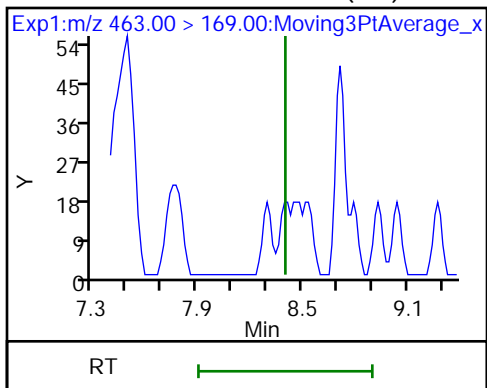
27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)



Eurofins TestAmerica, Sacramento

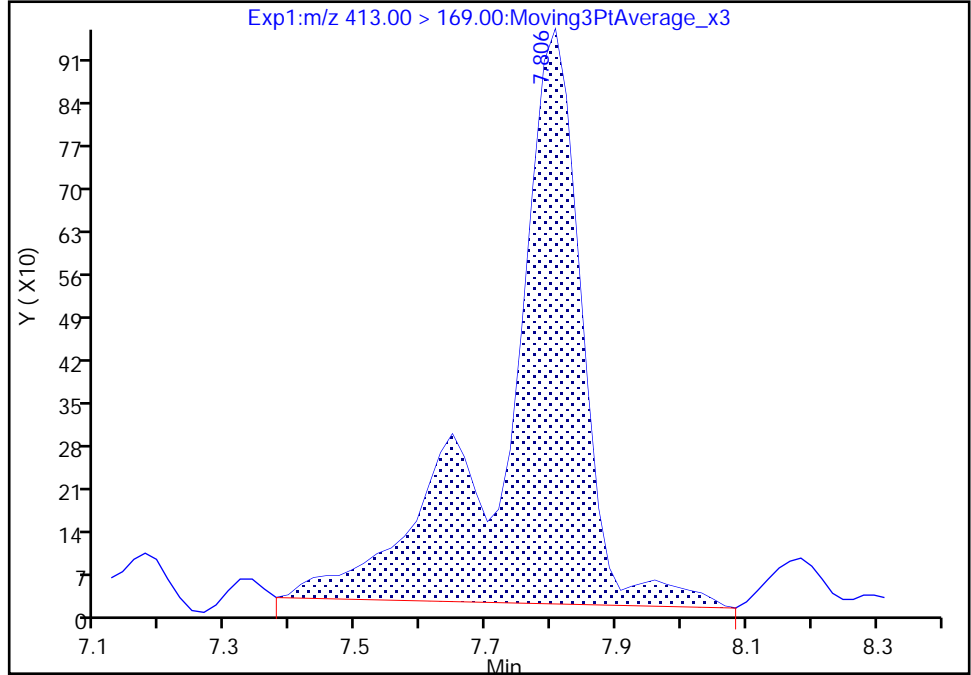
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Injection Date: 10-Jun-2021 12:24:31 Instrument ID: A10  
Lims ID: 320-74597-A-27-A Lab Sample ID: 320-74597-27  
Client ID: BH20210604-3POST  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 57  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

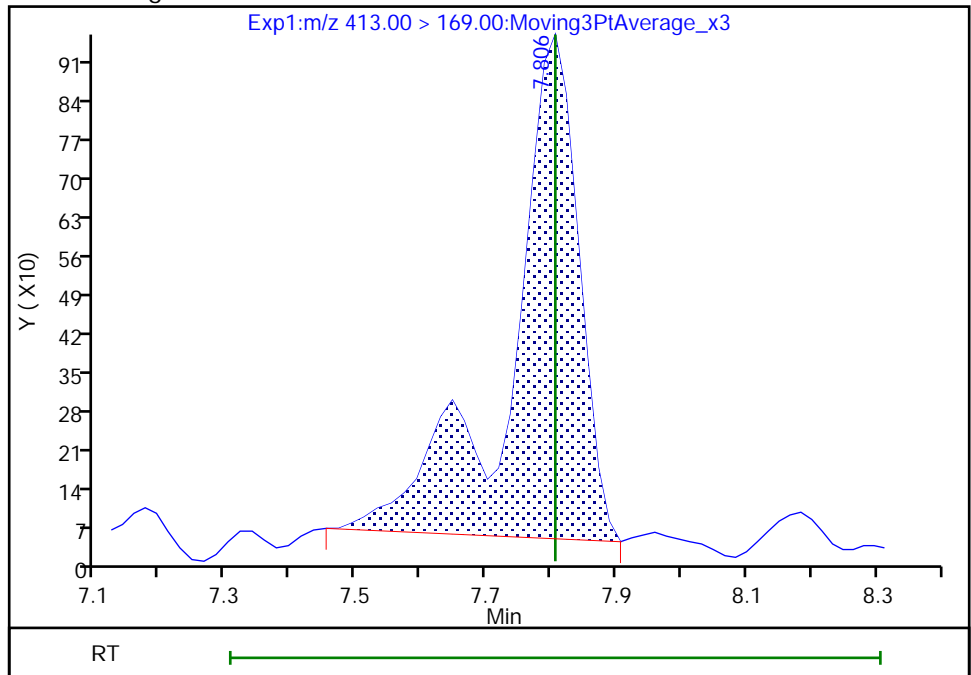
RT: 7.81  
Area: 7764  
Amount: 0.000158  
Amount Units: ng/ml

Processing Integration Results



RT: 7.81  
Area: 6580  
Amount: 0.000142  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:58:01

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

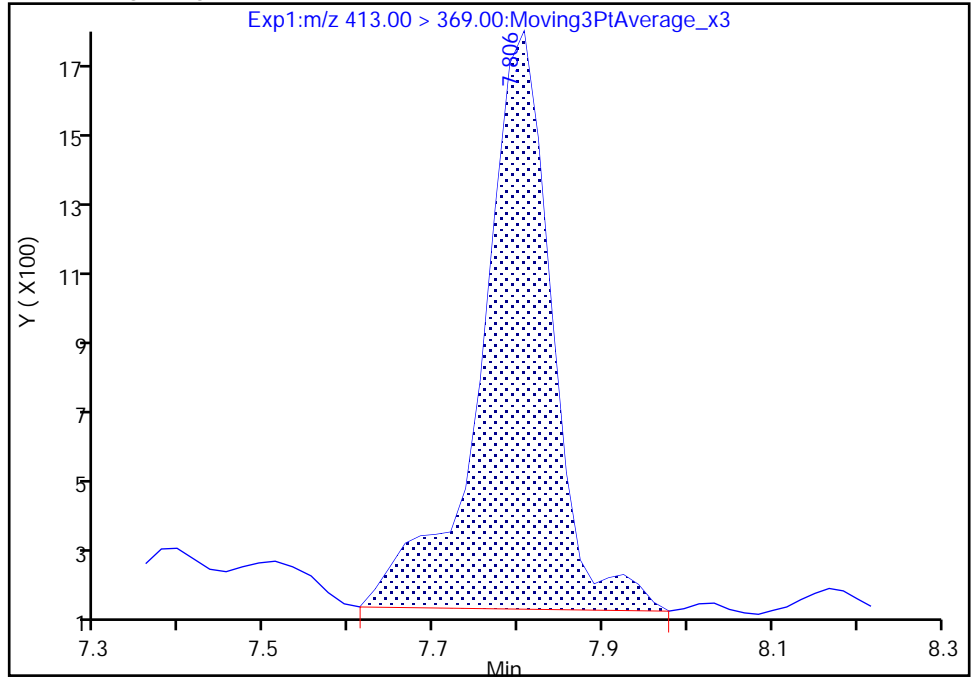
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Injection Date: 10-Jun-2021 12:24:31 Instrument ID: A10  
Lims ID: 320-74597-A-27-A Lab Sample ID: 320-74597-27  
Client ID: BH20210604-3POST  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 57  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

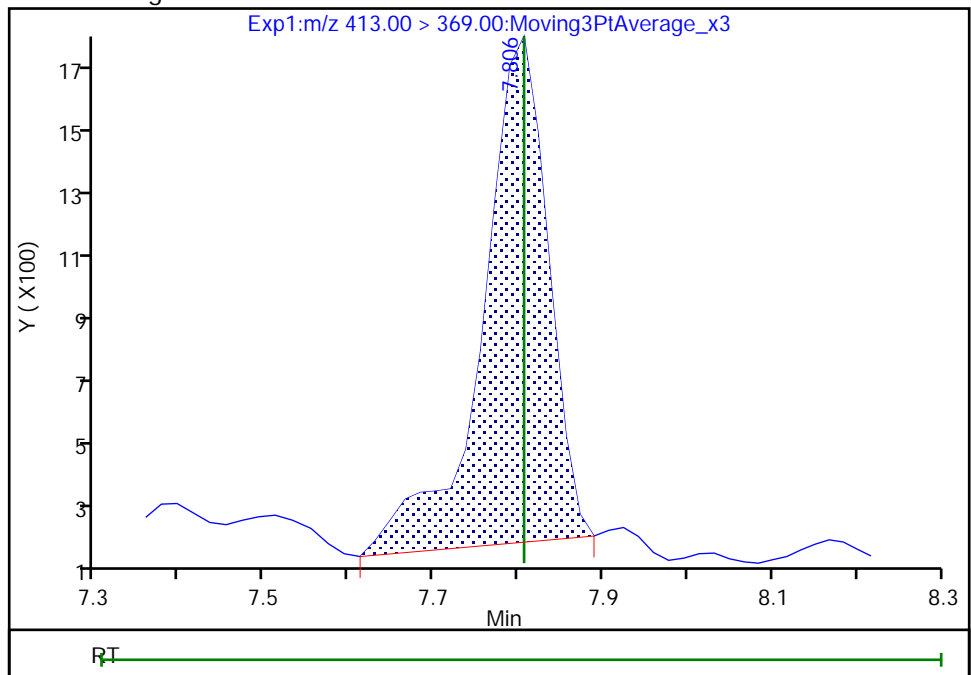
RT: 7.81  
Area: 9625  
Amount: 0.000158  
Amount Units: ng/ml

Processing Integration Results



RT: 7.81  
Area: 8661  
Amount: 0.000142  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:58:07

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC Lab Sample ID: 320-74597-28  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_012.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:08  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 13:01  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	125		25-150
STL00995	13C5 PFNA	117		25-150
STL00990	13C4 PFOA	117		70-130
STL00991	13C4 PFOS	124		70-130
STL00994	18O2 PFHxS	127		25-150
STL02337	13C3 PFBS	104		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_012.d  
 Lims ID: 320-74597-A-28-A  
 Client ID: BH20210604-POSTGAC  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 13:01:27 ALS Bottle#: 12 Worklist Smp#: 59  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-28-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:59:12 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:59:12  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_011.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.779	5.701	0.078	1827440	0.0510		102	125	
D 4 13C5 PFPeA	267.90 > 223.00	6.270	6.254	0.016	1936168	0.0565		113	4789	
5 Perfluoropentanoic acid	262.90 > 219.00	6.270	6.254	0.016	1.000	35264	0.000767		8.9	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.297	-0.004	1391066	0.0486		104	4659	
D 7 M2-4:2 FTS	329.00 > 81.00	6.664	6.668	-0.004	335001	NC			364	
D 9 13C2 PFHxA	315.00 > 270.00	6.711	6.715	-0.004	2028010	0.0623		125	7872	
D 12 13C3 HFPO-DA	332.10 > 287.00	6.875	6.879	-0.004	185625	NC			1780	
D 15 18O2 PFHxS	403.00 > 84.00	7.228	7.248	-0.020	1669060	0.0599		127	15919	
D 17 13C4 PFHpA	367.00 > 322.00	7.246	7.248	-0.002	2407585	0.0623		125	12725	
D 22 M2-6:2 FTS	429.00 > 81.00	7.770	7.772	-0.002	543231	0.0537		113	720	
D 20 13C2 PFOA	415.00 > 370.00	7.804	7.804	0.0	1771	NC		0.0	33.8	
24 Perfluorooctanoic acid	413.00 > 369.00	7.804	7.806	-0.002	1.000	8068	0.000128 Target=1.48		5.0	M
	413.00 > 169.00	7.787	7.806	-0.019	0.998	6398	1.26(0.74-2.22)		17.5	M
D 25 13C4 PFOA	417.00 > 372.00	7.804	7.806	-0.002	3332247	0.0585		117	16131	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 26 13C4 PFOS	503.00 > 80.00	8.359	8.367	-0.008		1152480	0.0593	124	4399	
D 28 13C5 PFNA	468.00 > 423.00	8.393	8.401	-0.008		2831319	0.0583	117	13226	
D 30 13C8 FOSA	506.00 > 78.00	8.916	8.931	-0.015		1445990	0.0628	126	5894	
31 Perfluorooctanesulfonamide	498.00 > 78.00	8.916	8.931	-0.015	1.000	1734	0.00005398		23.1	
D 33 13C2 PFDA	515.00 > 470.00	8.963	8.978	-0.015		2702191	0.0612	122	16393	
D 34 M2-8:2 FTS	529.00 > 81.00	8.963	8.978	-0.015		437944	0.0522	109	1412	
D 37 d3-NMeFOSAA	573.00 > 419.00	9.244	9.259	-0.015		985074	0.0617	123	3029	
D 42 13C2 PFUnA	565.00 > 520.00	9.512	9.528	-0.016		2300728	0.0586	117	18514	
D 40 d5-NEtFOSAA	589.00 > 419.00	9.528	9.528	0.0		960080	0.0604	121	4812	
D 45 13C2 PFDoA	615.00 > 570.00	10.056	10.055	0.001		2612082	0.0591	118	14312	
D 51 13C2 PFTeDA	715.00 > 670.00	11.027	11.044	-0.017		3053864	0.0831	166	13609	
D 52 13C2 PFHxDA	815.00 > 770.00	11.920	11.945	-0.025		2340856	0.0945	189	9506	

### QC Flag Legend

#### Processing Flags

NC - Not Calibrated

#### Review Flags

M - Manually Integrated

Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_012.d

Injection Date: 10-Jun-2021 13:01:27

Instrument ID: A10

Lims ID: 320-74597-A-28-A

Lab Sample ID: 320-74597-28

Client ID: BH20210604-POSTGAC

Operator ID: Sac\_inst\_A10

ALS Bottle#: 12

Worklist Smp#: 59

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

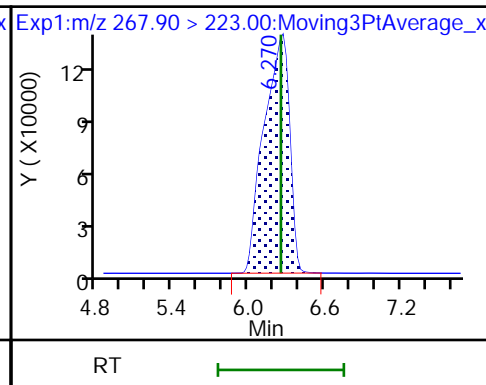
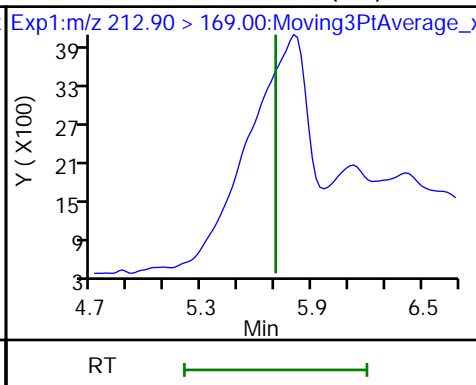
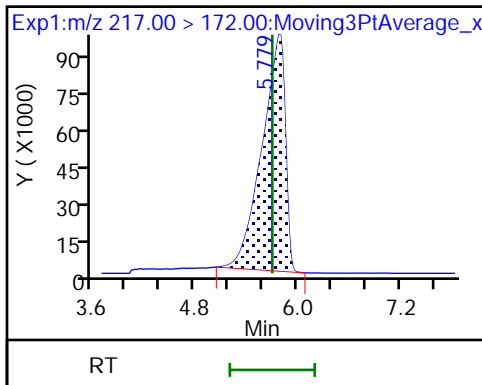
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid (ND)

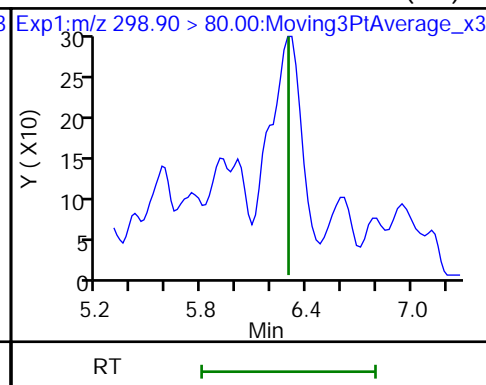
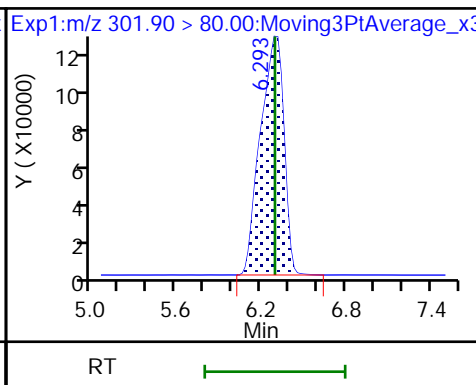
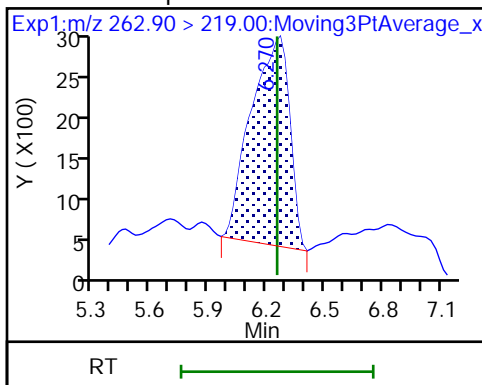
D 4 13C5 PFPeA



5 Perfluoropentanoic acid

D 3 13C3 PFBS

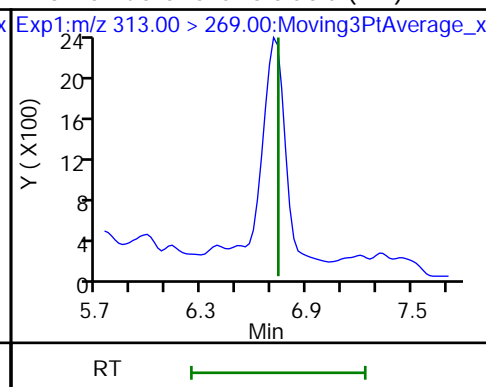
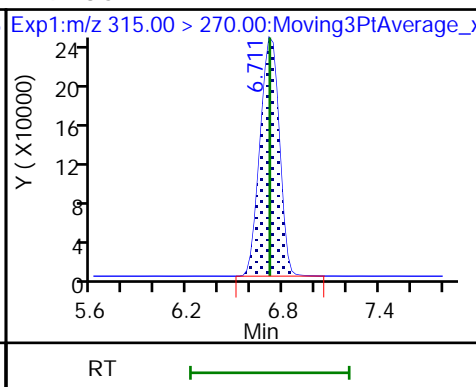
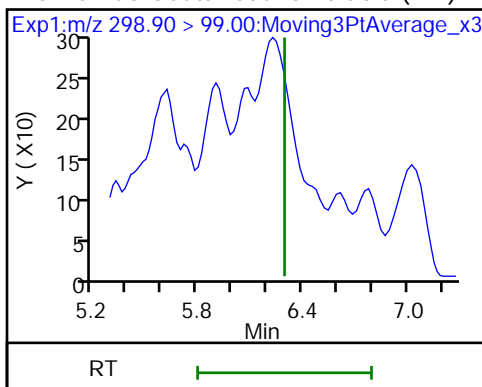
6 Perfluorobutanesulfonic acid (ND)



6 Perfluorobutanesulfonic acid (ND)

D 9 13C2 PFHxA

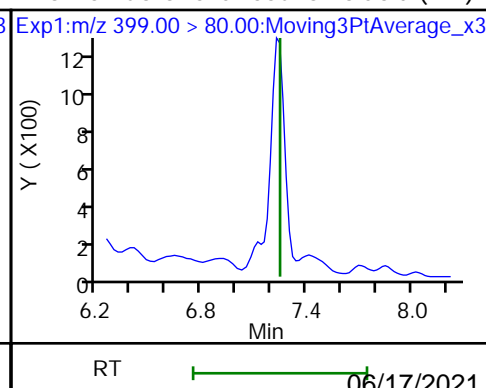
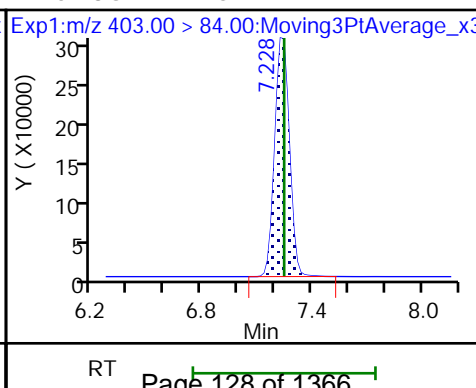
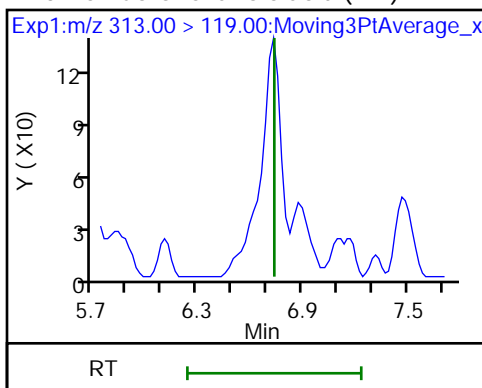
10 Perfluorohexanoic acid (ND)



10 Perfluorohexanoic acid (ND)

D 15 18O2 PFHxS

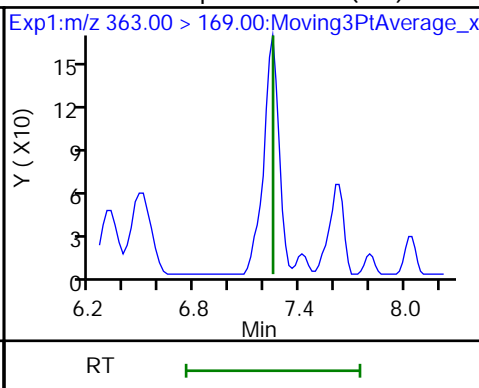
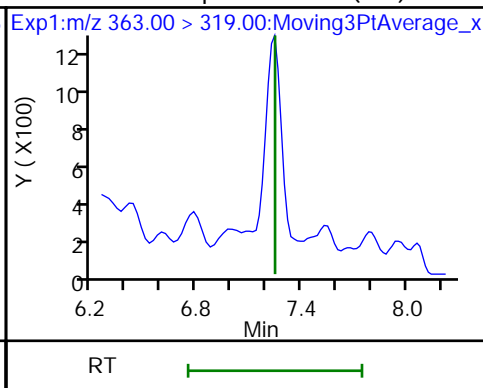
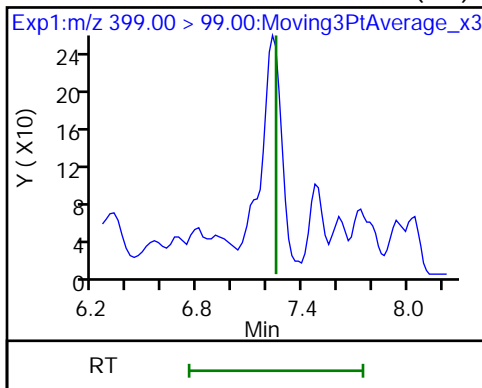
16 Perfluorohexanesulfonic acid (ND)



16 Perfluorohexanesulfonic acid (ND)

18 Perfluoroheptanoic acid (ND)

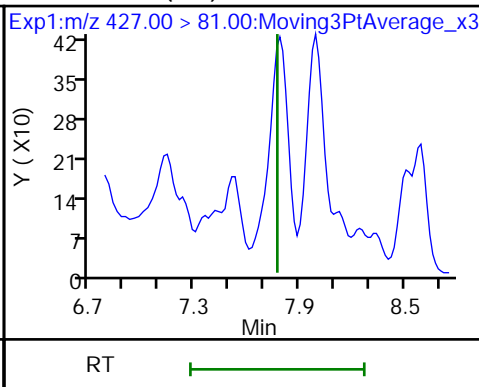
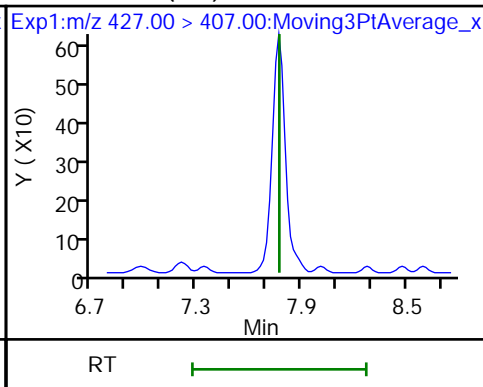
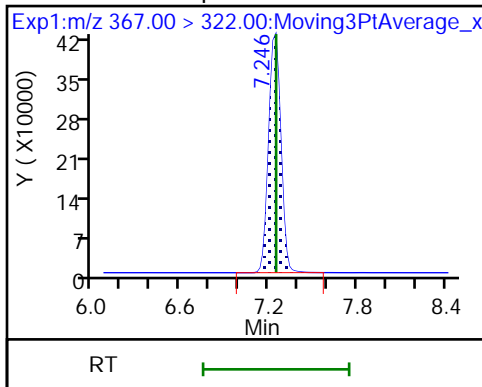
18 Perfluoroheptanoic acid (ND)



D 17 13C4 PFHpA

23 6:2 FTS (ND)

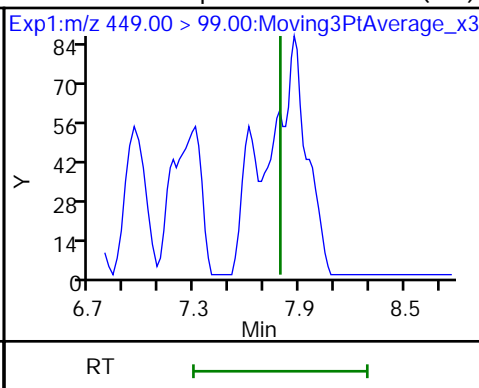
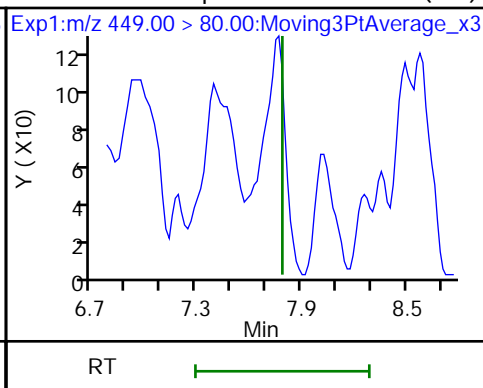
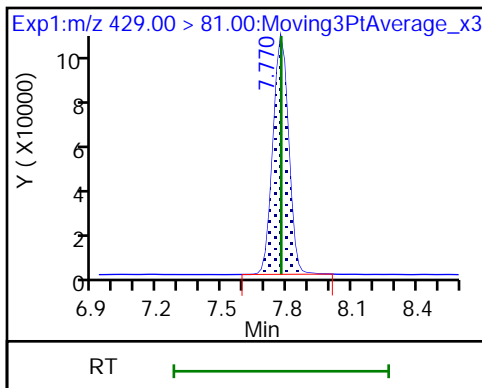
23 6:2 FTS (ND)



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid (ND)

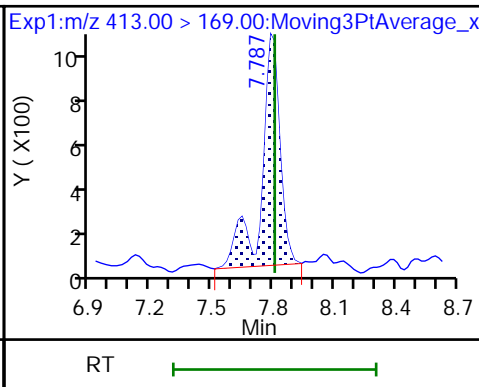
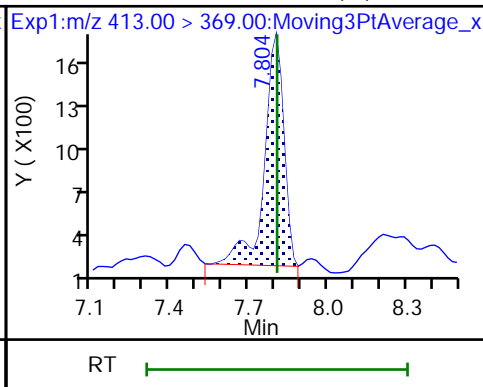
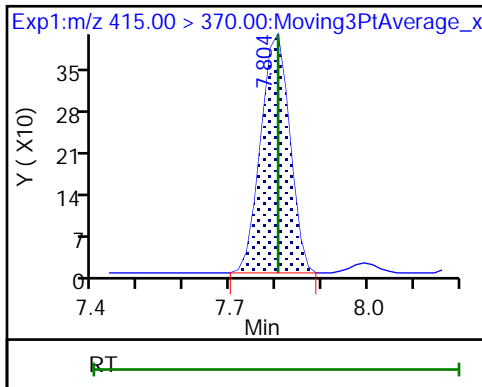
21 Perfluoroheptanesulfonic acid (ND)



D 20 13C2 PFOA

24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid

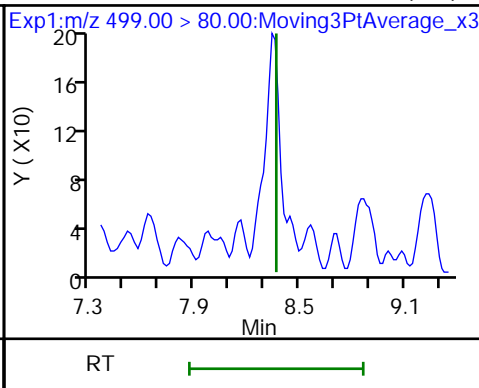
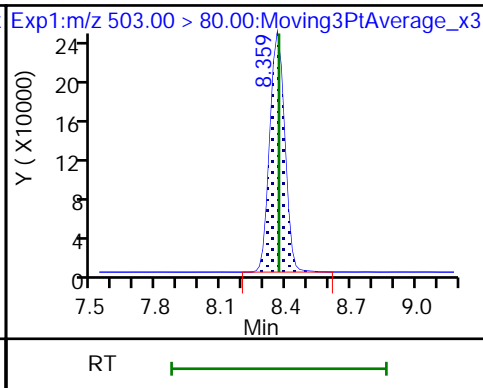
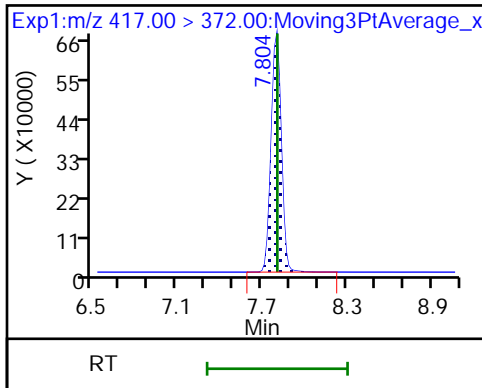




D 25 13C4 PFOA

D 26 13C4 PFOS

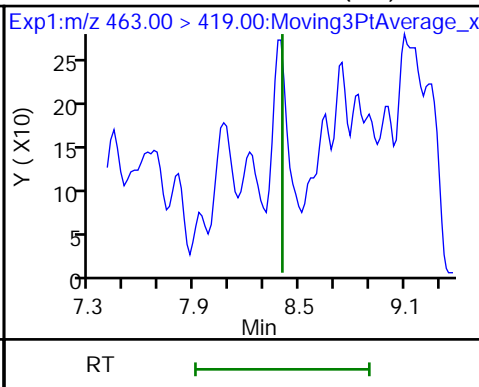
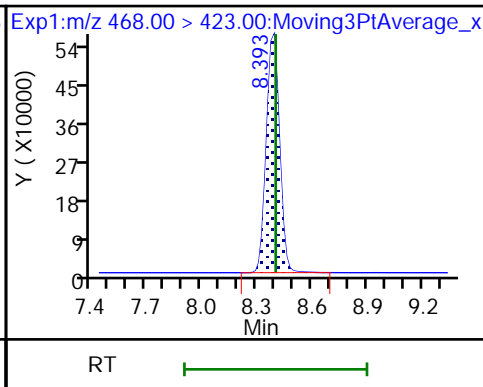
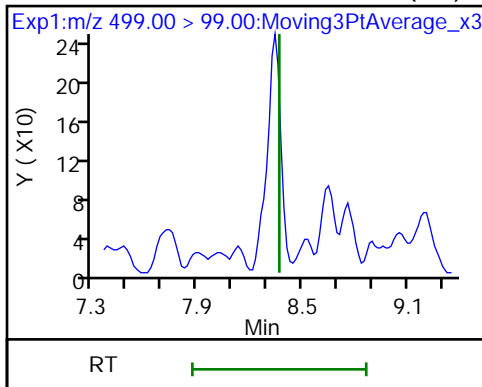
27 Perfluorooctanesulfonic acid (ND)



27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

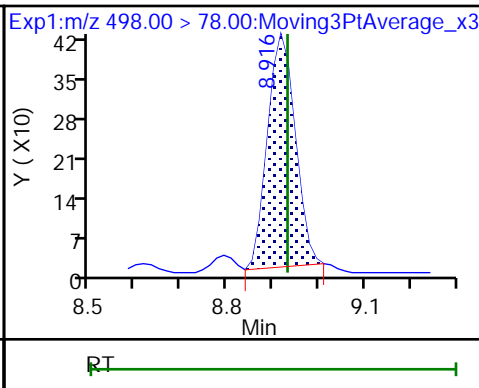
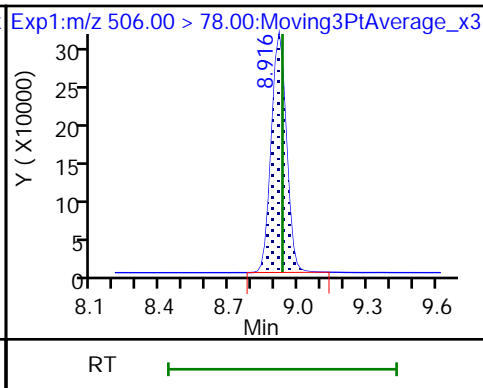
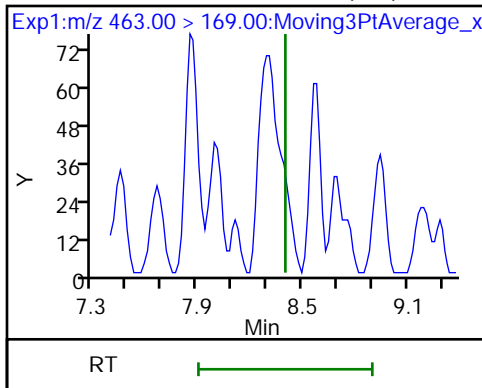
29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)

D 30 13C8 FOSA

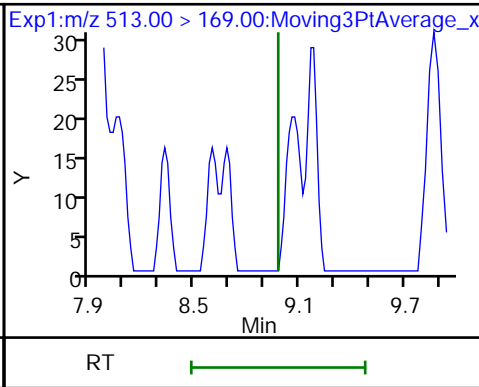
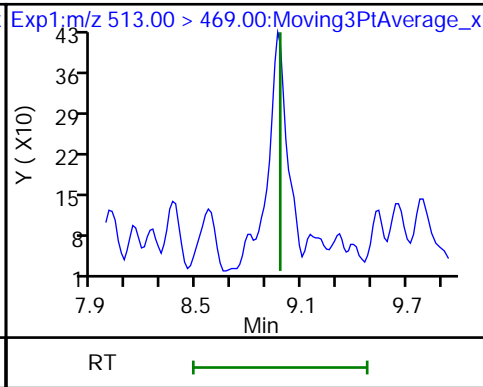
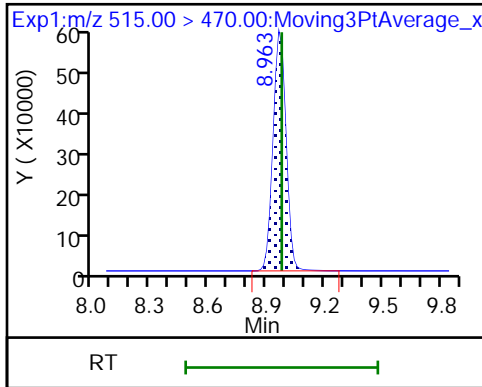
31 Perfluorooctanesulfonamide



D 33 13C2 PFDA

35 Perfluorodecanoic acid (ND)

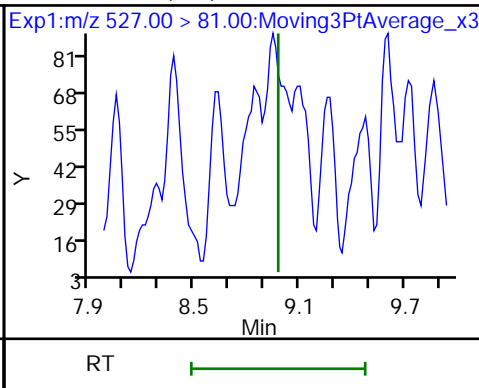
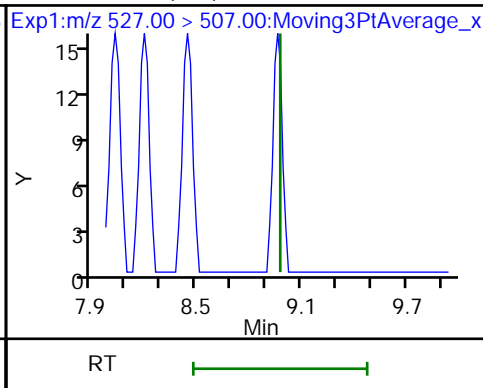
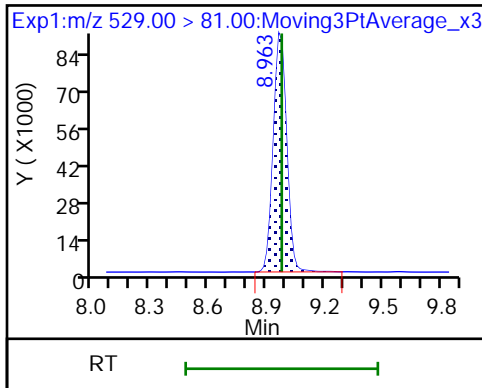
35 Perfluorodecanoic acid (ND)



D 34 M2-8:2 FTS

36 8:2 FTS (ND)

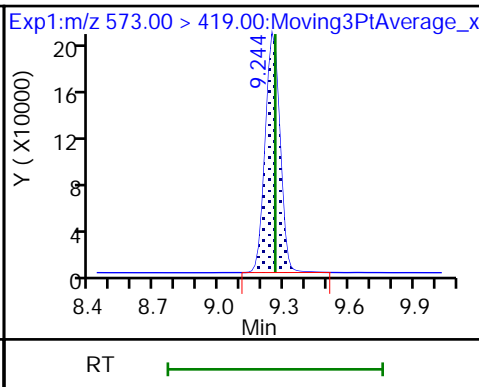
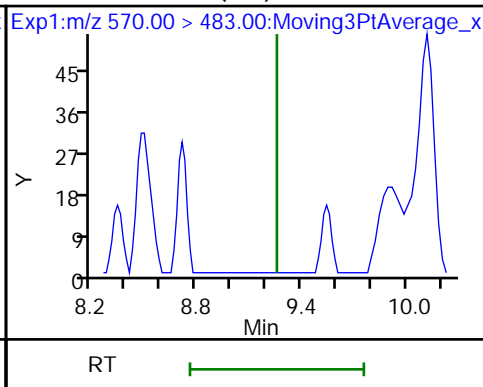
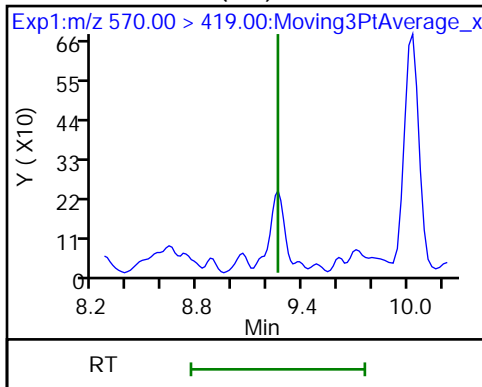
36 8:2 FTS (ND)



38 NMeFOSAA (ND)

38 NMeFOSAA (ND)

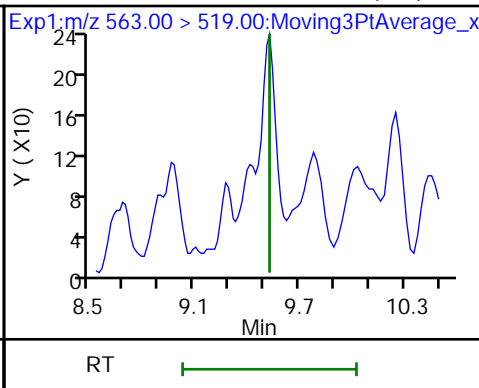
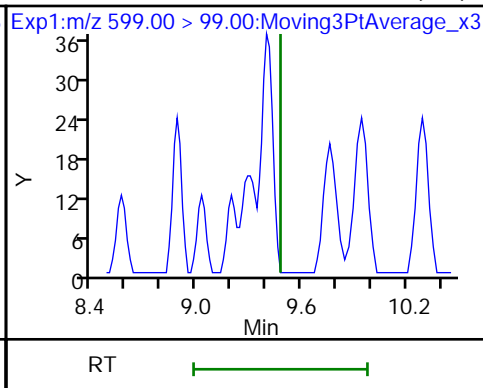
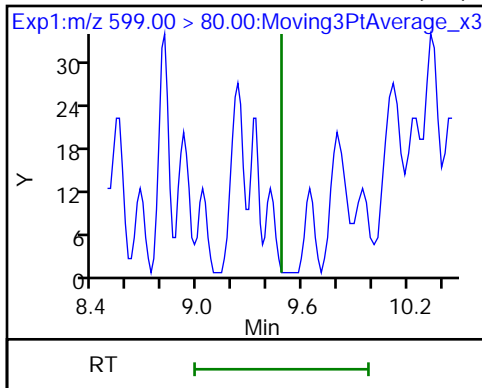
D 37 d3-NMeFOSAA



39 Perfluorodecanesulfonic acid (ND)

39 Perfluorodecanesulfonic acid (ND)

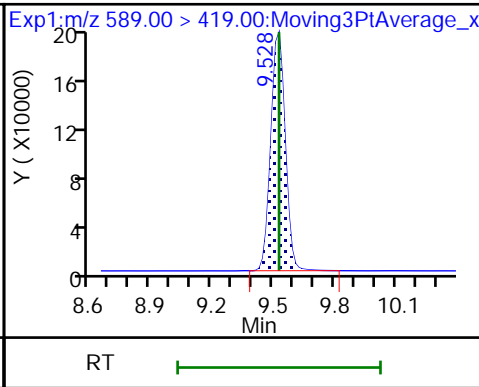
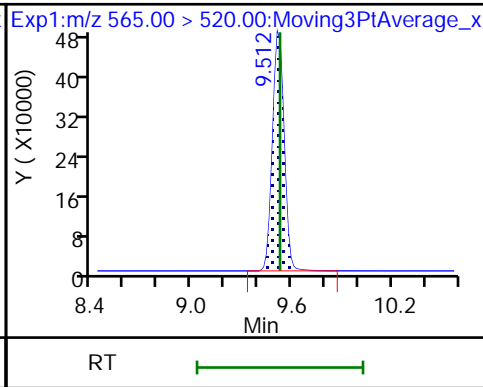
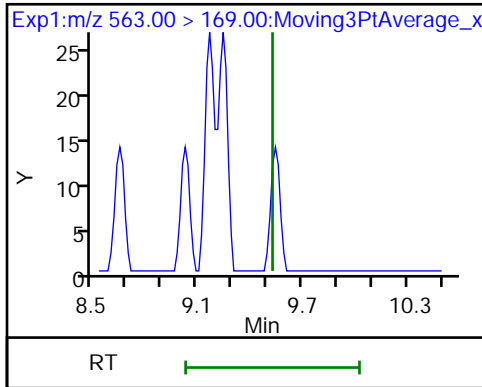
41 Perfluoroundecanoic acid (ND)

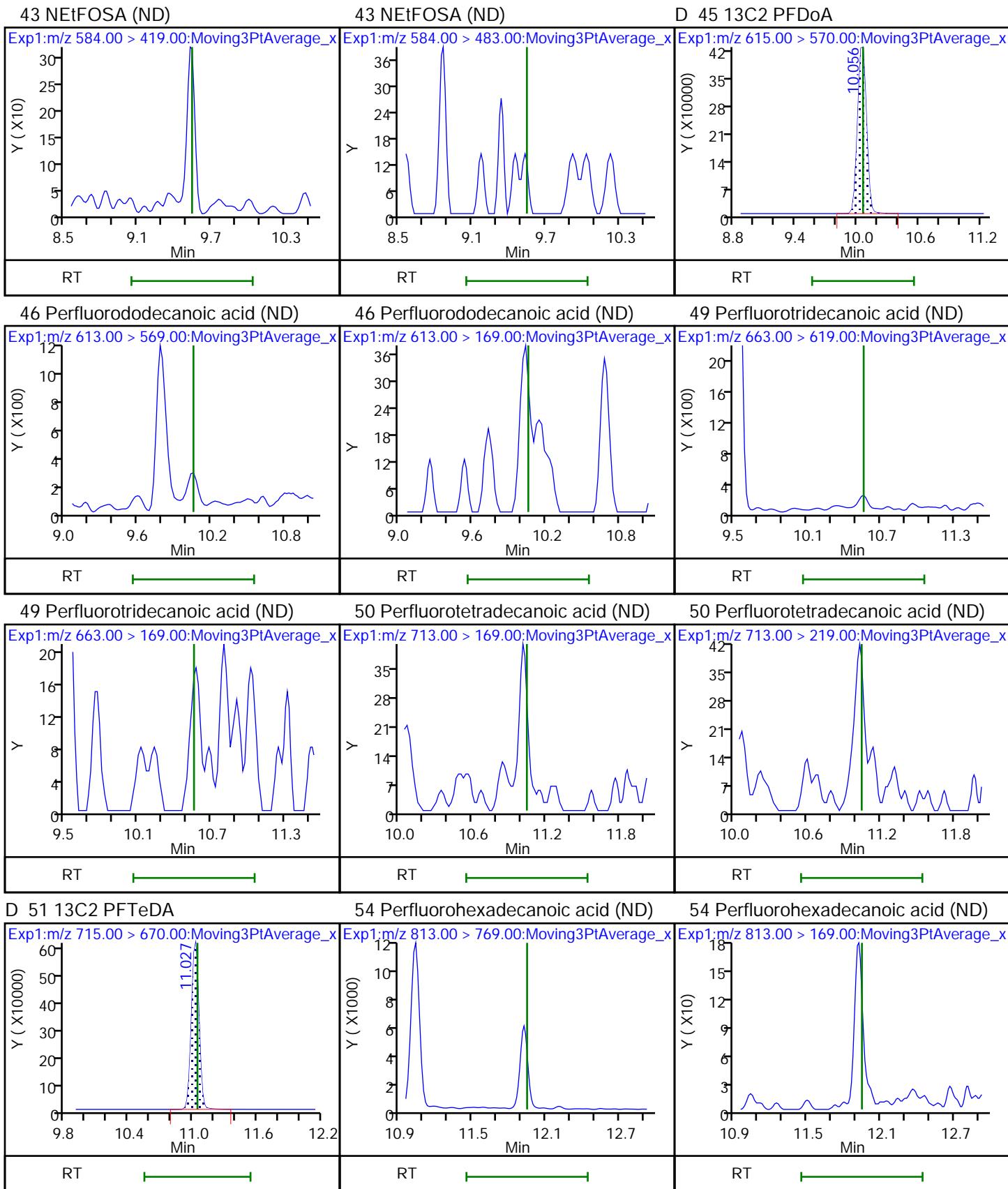


41 Perfluoroundecanoic acid (ND)

D 42 13C2 PFUnA

D 40 d5-NEtFOSAA

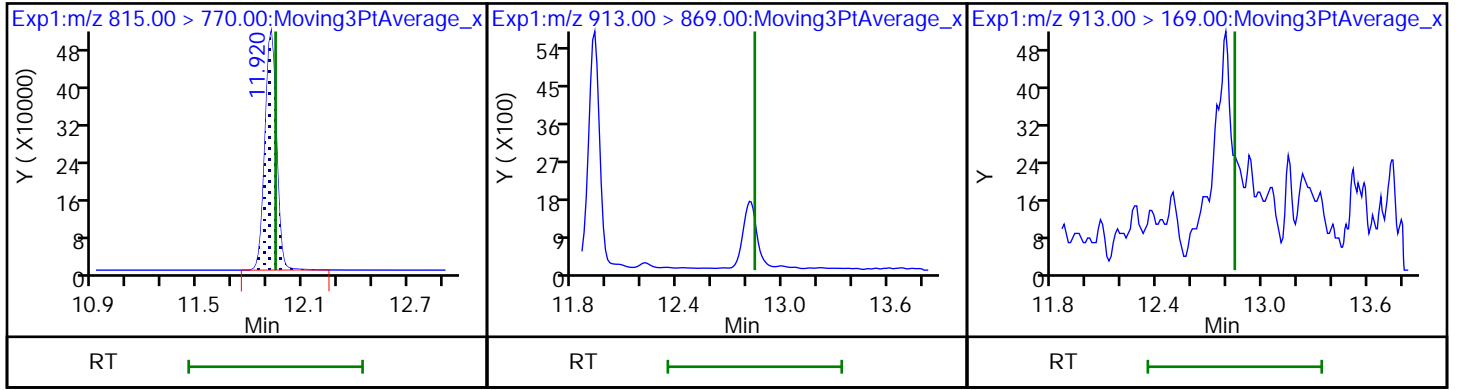




D 52 13C2 PFHxDA

53 Perfluorooctadecanoic acid (ND)

53 Perfluorooctadecanoic acid (ND)



Eurofins TestAmerica, Sacramento

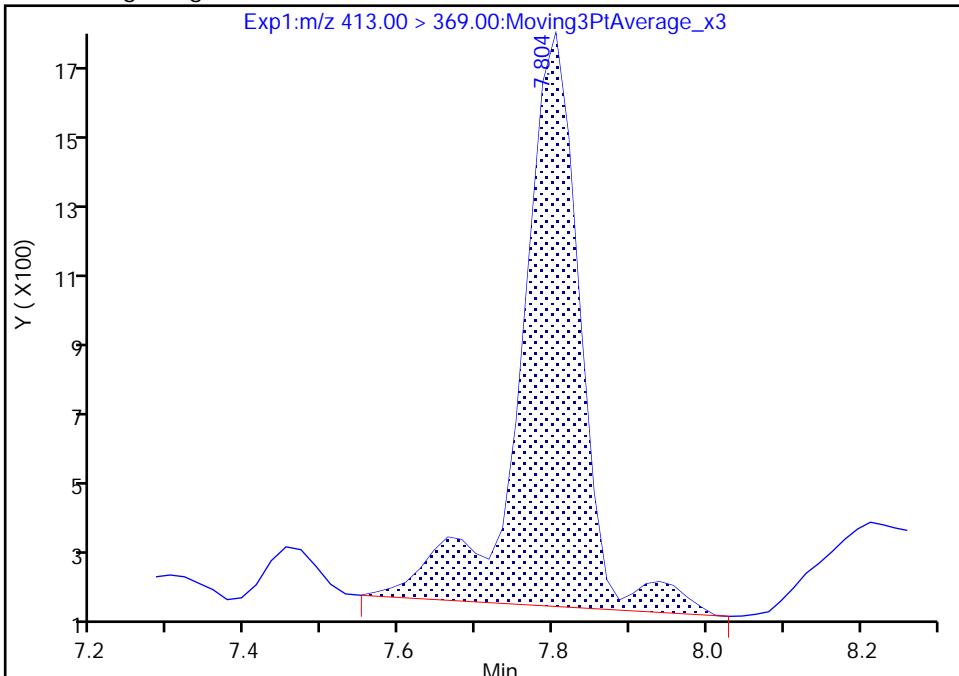
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_012.d  
Injection Date: 10-Jun-2021 13:01:27 Instrument ID: A10  
Lims ID: 320-74597-A-28-A Lab Sample ID: 320-74597-28  
Client ID: BH20210604-POSTGAC  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 12 Worklist Smp#: 59  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

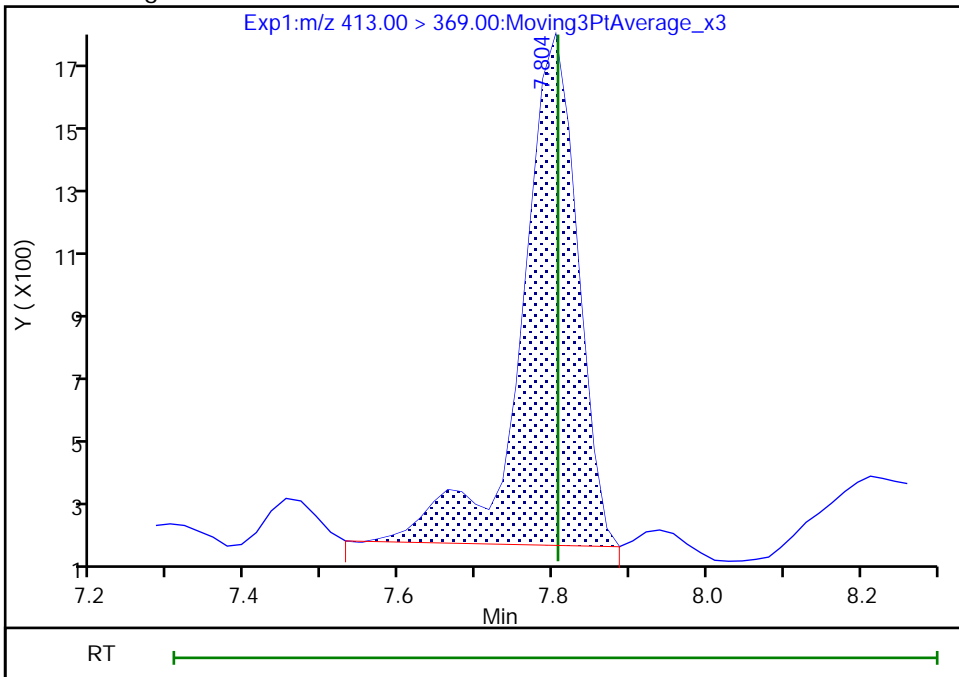
RT: 7.80  
Area: 8770  
Amount: 0.000139  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 8068  
Amount: 0.000128  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:59:04  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC (DUP) Lab Sample ID: 320-74597-29  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_015.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:12  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 13:56  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	116		25-150
STL00995	13C5 PFNA	116		25-150
STL00990	13C4 PFOA	110		70-130
STL00991	13C4 PFOS	121		70-130
STL00994	18O2 PFHxS	124		25-150
STL02337	13C3 PFBS	102		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_015.d  
 Lims ID: 320-74597-A-29-A  
 Client ID: BH20210604-POSTGAC (DUP)  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 13:56:51 ALS Bottle#: 15 Worklist Smp#: 62  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-29-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 08:00:19 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 08:00:19  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_011.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.297	0.019	1354439	0.0473		102	6437	
D 15 18O2 PFHxS	403.00 > 84.00	7.246	7.248	-0.002	1634814	0.0587		124	12295	
D 17 13C4 PFHpA	367.00 > 322.00	7.246	7.248	-0.002	2242344	0.0581		116	13300	
D 20 13C2 PFOA	415.00 > 370.00	7.787	7.804	-0.017	1666	NC		0.0	25.0	
24 Perfluorooctanoic acid	413.00 > 369.00	7.804	7.806	-0.002	1.000	7587	0.000128 Target=1.48		4.8	
	413.00 > 169.00	7.804	7.806	-0.002	1.000	5881	1.29(0.74-2.22)		16.3	
D 25 13C4 PFOA	417.00 > 372.00	7.804	7.806	-0.002	3132517	0.0550		110	15746	
D 26 13C4 PFOS	503.00 > 80.00	8.359	8.367	-0.008	1124052	0.0578		121	4903	
D 28 13C5 PFNA	468.00 > 423.00	8.393	8.401	-0.008	2806957	0.0578		116	17139	

QC Flag Legend

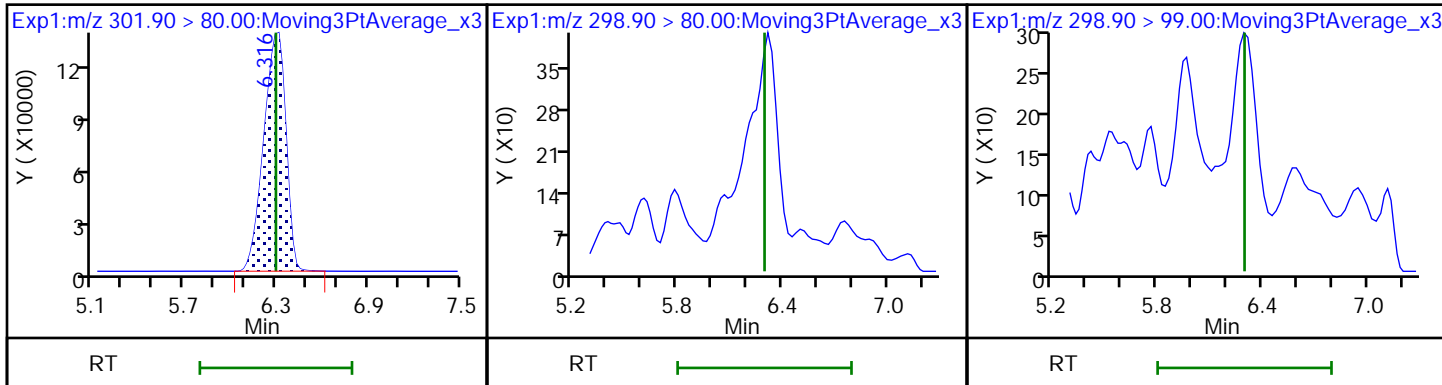
Processing Flags

NC - Not Calibrated

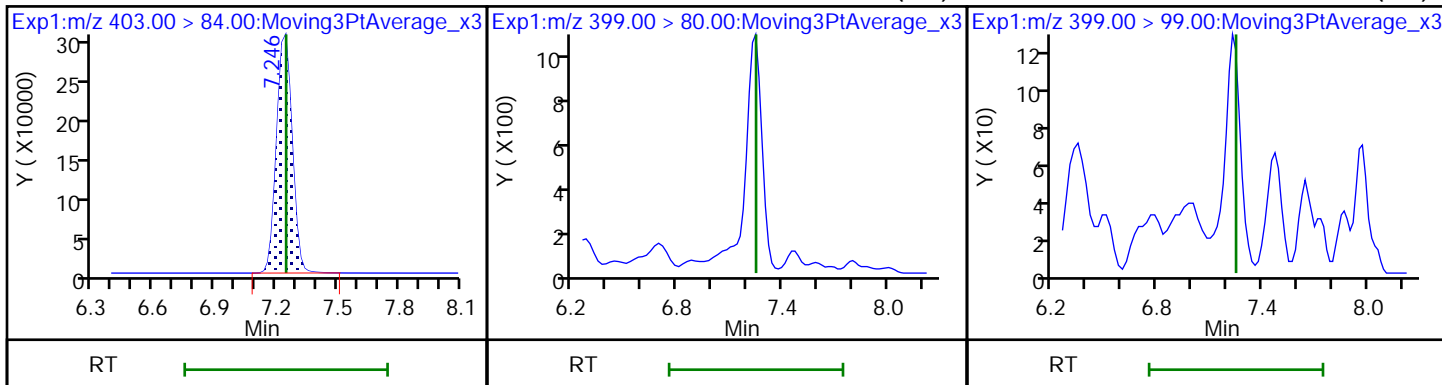
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_015.d  
Injection Date: 10-Jun-2021 13:56:51 Instrument ID: A10  
Lims ID: 320-74597-A-29-A Lab Sample ID: 320-74597-29  
Client ID: BH20210604-POSTGAC (DUP)  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 15 Worklist Smp#: 62  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL

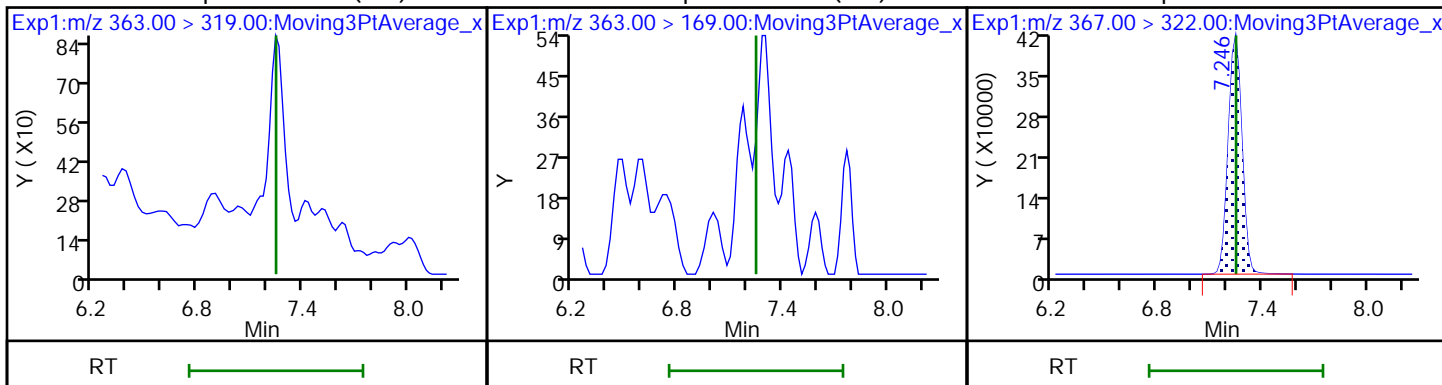
D 3 13C3 PFBS 6 Perfluorobutanesulfonic acid (ND) 6 Perfluorobutanesulfonic acid (ND)



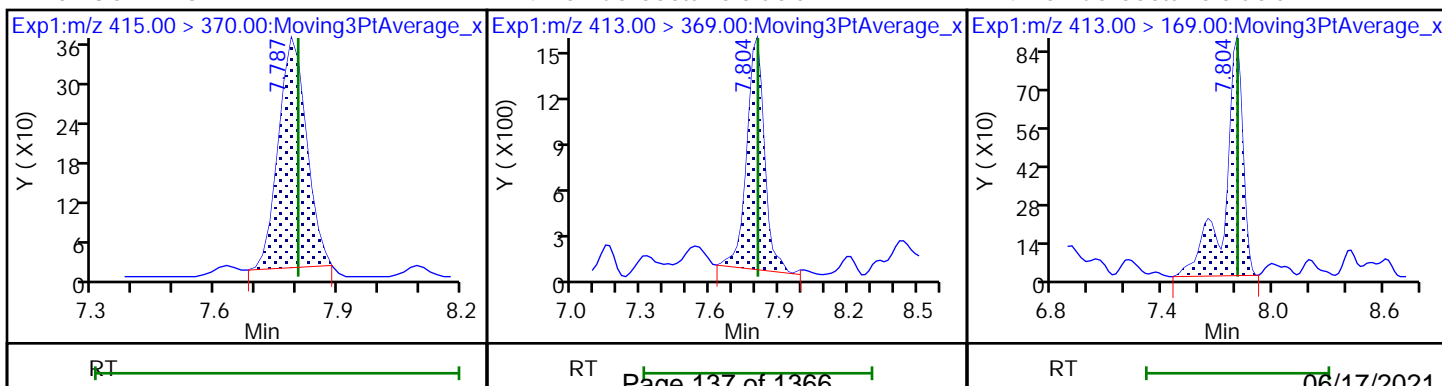
D 15 18O2 PFHxS 16 Perfluorohexanesulfonic acid (ND) 16 Perfluorohexanesulfonic acid (ND)



18 Perfluoroheptanoic acid (ND) 18 Perfluoroheptanoic acid (ND) D 17 13C4 PFHpA



D 20 13C2 PFOA 24 Perfluorooctanoic acid 24 Perfluorooctanoic acid

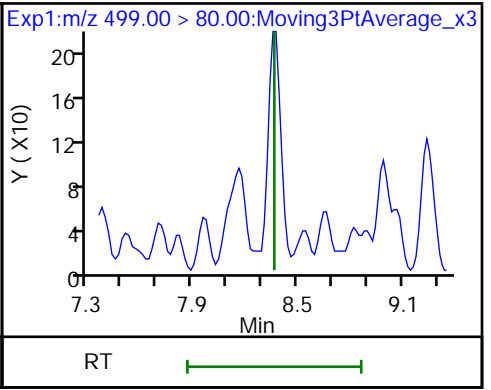
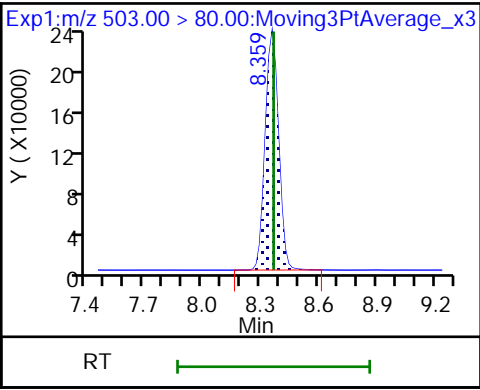
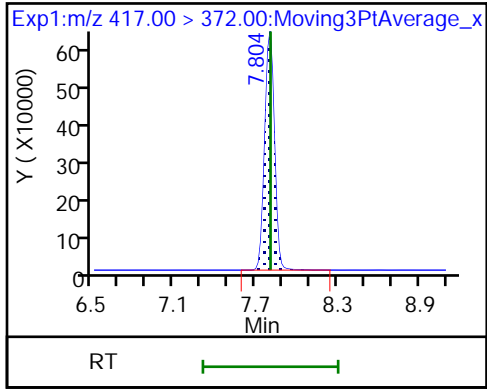




D 25 13C4 PFOA

D 26 13C4 PFOS

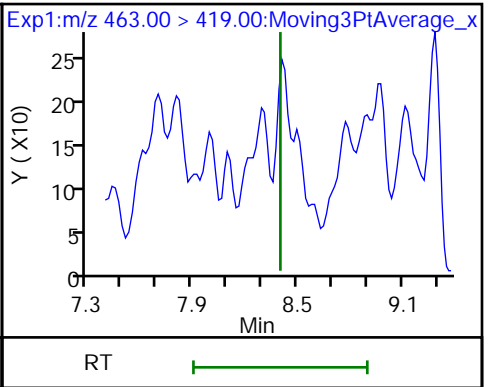
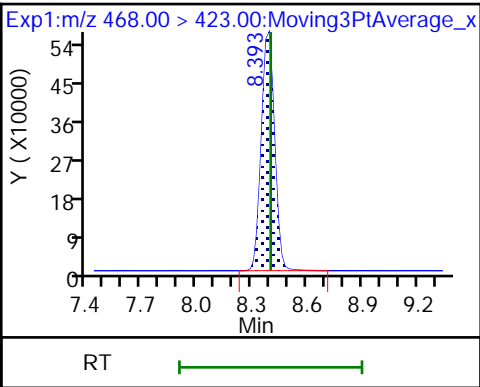
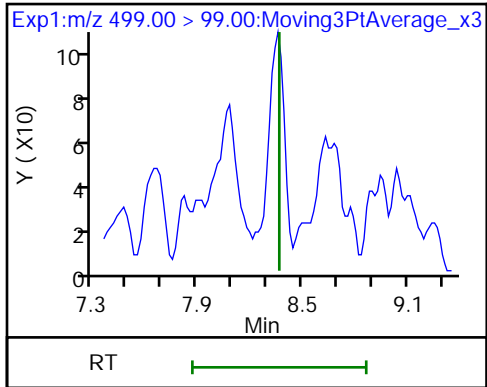
27 Perfluorooctanesulfonic acid (ND)



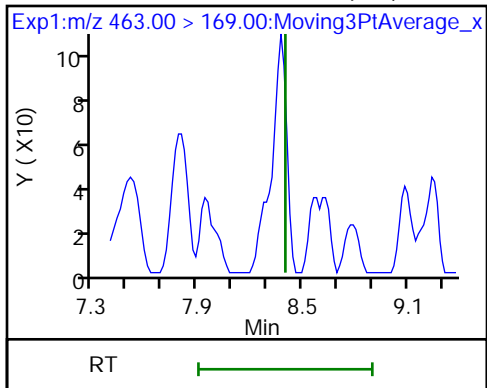
27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)



FORM VI  
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-496403/2	2021.06.07_A10_DI_ICAL_005.d
Level 2	IC 320-496403/3	2021.06.07_A10_DI_ICAL_006.d
Level 3	IC 320-496403/4	2021.06.07_A10_DI_ICAL_007.d
Level 4	IC 320-496403/5	2021.06.07_A10_DI_ICAL_008.d
Level 5	IC 320-496403/6	2021.06.07_A10_DI_ICAL_009.d
Level 6	IC 320-496403/7	2021.06.07_A10_DI_ICAL_010.d
Level 7	IC 320-496403/8	2021.06.07_A10_DI_ICAL_011.d
Level 8	IC 320-496403/9	2021.06.07_A10_DI_ICAL_012.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Perfluorobutanoic acid	5.569	5.551	5.657	5.569	5.638	5.586	5.621	5.569			5.095 - 6.095	5.595
Perfluoropentanoic acid	6.230	6.229	6.250	6.229	6.229	6.229	6.250	6.230			5.735 - 6.735	6.235
Perfluorobutanesulfonic acid (PFBS)	6.293	6.293	6.293	6.293	6.293	6.271	6.293	6.293			5.790 - 6.790	6.290
Perfluorohexanoic acid	6.734	6.734	6.734	6.734	6.711	6.711	6.735	6.734			6.228 - 7.228	6.728
Perfluorohexanesulfonic acid (PFHxS)	7.263	7.265	7.244	7.246	7.246	7.244	7.244	7.235			6.748 - 7.748	7.248
Perfluoroheptanoic acid (PFHpA)	7.263	7.265	7.263	7.246	7.246	7.244	7.244	7.257			6.754 - 7.754	7.254
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	7.803	7.804	7.803	7.787	7.787	7.787	7.787	7.789			7.293 - 8.293	7.793
Perfluoroheptanesulfonic acid	7.820	7.820	7.803	7.804	7.804	7.803	7.787	7.789			7.304 - 8.304	7.804
Perfluorooctanoic acid (PFOA)	7.836	7.837	7.820	7.820	7.820	7.820	7.804	7.808			7.321 - 8.321	7.821
Perfluorooctanesulfonic acid (PFOS)	8.410	8.411	8.393	8.376	8.380	8.380	8.373	8.365			7.886 - 8.886	8.386
Perfluorononanoic acid (PFNA)	8.444	8.428	8.427	8.410	8.415	8.414	8.391	8.403			7.917 - 8.917	8.417
Perfluorooctanesulfonamide	8.940	8.930	8.931	8.916	8.927	8.927	8.913	8.924			8.426 - 9.426	8.926
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.031	9.023	9.009	8.994	8.989	8.990	8.977	8.991			8.501 - 9.501	9.001
Perfluorodecanoic acid	9.031	9.023	9.009	8.994	8.989	8.990	8.977	8.991			8.501 - 9.501	9.001
N-methylperfluorooctanesulfonamidoacetic acid	9.318	9.317	9.290	9.275	9.286	9.286	9.264	9.274			8.789 - 9.789	9.289
Perfluorodecanesulfonic acid	9.544	9.524	9.512	9.497	9.505	9.505	9.489	9.491			9.008 - 10.008	9.508
Perfluoroundecanoic acid	9.592	9.572	9.561	9.545	9.553	9.537	9.538	9.541			9.055 - 10.055	9.555
N-ethylperfluorooctanesulfonamidoacetic acid	9.609	9.588	9.577	9.561	9.569	9.570	9.555	9.558			9.073 - 10.073	9.573
Perfluorododecanoic acid	10.122	10.118	10.100	10.079	10.071	10.072	10.058	10.056			9.584 - 10.584	10.085
Perfluorotridecanoic acid	10.648	10.627	10.613	10.596	10.589	10.589	10.568	10.580			10.101 - 11.101	10.601
Perfluorotetradecanoic acid	11.138	11.105	11.092	11.077	11.070	11.073	11.065	11.059			10.585 - 11.585	11.085
Perfluorohexadecanoic acid	12.068	12.040	12.019	11.995	11.990	11.985	11.970	11.961			11.504 - 12.504	12.004
Perfluorooctadecanoic acid	13.015	12.981	12.954	12.923	12.908	12.905	12.896	12.880			12.433 - 13.433	12.933
13C4 PFBA	5.552	5.551	5.657	5.569	5.621	5.586	5.621	5.569			5.091 - 6.091	5.591

FORM VI  
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
13C5 PFPeA	6.230	6.229	6.250	6.229	6.229	6.229	6.250	6.230			5.735 - 6.735	6.235
13C3 PFBS	6.293	6.293	6.293	6.293	6.271	6.271	6.293	6.293			5.787 - 6.787	6.288
13C2 PFHxA	6.734	6.734	6.734	6.734	6.711	6.711	6.735	6.734			6.228 - 7.228	6.728
18O2 PFHxS	7.263	7.265	7.244	7.246	7.246	7.244	7.244	7.235			6.748 - 7.748	7.248
13C4 PFHpA	7.263	7.265	7.263	7.246	7.246	7.244	7.244	7.257			6.754 - 7.754	7.254
M2-6:2 FTS	7.820	7.804	7.803	7.787	7.787	7.787	7.787	7.789			7.295 - 8.295	7.796
13C4 PFOA	7.836	7.837	7.820	7.820	7.820	7.820	7.804	7.808			7.321 - 8.321	7.821
13C4 PFOS	8.410	8.411	8.393	8.376	8.380	8.380	8.373	8.365			7.886 - 8.886	8.386
13C5 PFNA	8.444	8.428	8.427	8.410	8.415	8.414	8.391	8.403			7.917 - 8.917	8.417
13C8 FOSA	8.940	8.930	8.931	8.916	8.927	8.927	8.913	8.924			8.426 - 9.426	8.926
13C2 PFDA	9.031	9.023	9.009	8.994	8.989	8.990	8.977	8.974			8.499 - 9.499	8.998
M2-8:2 FTS	9.031	9.023	9.009	8.994	8.989	8.990	8.977	8.991			8.501 - 9.501	9.001
d3-NMeFOSAA	9.318	9.303	9.290	9.275	9.270	9.270	9.264	9.257			8.781 - 9.781	9.281
13C2 PFUnA	9.592	9.572	9.561	9.545	9.553	9.537	9.538	9.541			9.055 - 10.055	9.555
d5-NEtFOSAA	9.592	9.588	9.561	9.561	9.553	9.553	9.538	9.541			9.061 - 10.061	9.561
13C2 PFDoA	10.122	10.118	10.100	10.079	10.071	10.072	10.058	10.056			9.584 - 10.584	10.085
13C2 PFTeDA	11.138	11.105	11.092	11.077	11.070	11.073	11.065	11.059			10.585 - 11.585	11.085
13C2 PFHxDA	12.068	12.040	12.007	11.995	11.990	11.985	11.970	11.961			11.502 - 12.502	12.002

FORM VI  
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-496403/2	2021.06.07_A10_DI_ICAL_005.d
Level 2	IC 320-496403/3	2021.06.07_A10_DI_ICAL_006.d
Level 3	IC 320-496403/4	2021.06.07_A10_DI_ICAL_007.d
Level 4	IC 320-496403/5	2021.06.07_A10_DI_ICAL_008.d
Level 5	IC 320-496403/6	2021.06.07_A10_DI_ICAL_009.d
Level 6	IC 320-496403/7	2021.06.07_A10_DI_ICAL_010.d
Level 7	IC 320-496403/8	2021.06.07_A10_DI_ICAL_011.d
Level 8	IC 320-496403/9	2021.06.07_A10_DI_ICAL_012.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
13C4 PFBA	19175080 55251020	18152240 51279220	52434660 50380120	20520560	Ave		35846400. 0			49.4		50.0				
13C5 PFPeA	34311060 38849140	35302840 34971380	33055240 31354840	33170260 33182440	Ave		34274650. 0			6.5		50.0				
13C3 PFBS	26778774 35003914	26468387 31954409	26058237 26720946	26197011 29986280	Ave		28645994. 6			11.6		50.0				
13C2 PFHxA	31772400 34015900	33999920 32999820	32544580 31389740	31842760 32015740	Ave		32572607. 5			3.1		50.0				
18O2 PFHxS	26158520 29040803	27516512 29191290	28589281 26397780	28414905 27427146	Ave		27842029. 6			4.1		50.0				
13C4 PFHpA	36467060 36571940	38851820 38528300	43139340 36438020	41314660 37623340	Ave		38616810. 0			6.4		50.0				
M2-6:2 FTS	10925979 10845874	10703684 10185726	11473684 8567221	10248884 7976147	Ave		10115900. 0			12.0		50.0				
13C4 PFOA	58325620 58093100	58974880 59848560	59837940 51663540	56558920 52734100	Ave		57004582. 5			5.5		50.0				
13C4 PFOS	18439226 20879393	18637824 21412050	19188556 19651904	17794079 19464623	Ave		19433457. 1			6.3		50.0				
13C5 PFNA	47497840 52257360	49497900 51478780	49935980 45213440	46085980 46830920	Ave		48599775. 0			5.3		50.0				
13C8 FOSA	24924240 20747960	28174580 26332860	21301200 20153640	22779660 19851280	Ave		23033177. 5			13.5		50.0				
13C2 PFDA	42527640 47148660	44917280 45898720	44895520 42145280	42588260 42997480	Ave		44139855. 0			4.2		50.0				
M2-8:2 FTS	8806075 9175929	8872985 8279812	9079958 7473424	8045010 7358706	Ave		8386487.4 7			8.5		50.0				

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
d3-NMeFOSAA	15343900 15709600	15512140 16453420	16748500 15936700	16011900 16041900	Ave		15969757. 5			2.9		50.0				
13C2 PFUnA	39196280 39688520	38958220 42063360	40534540 37410080	37510400 38757080	Ave		39264810. 0			3.9		50.0				
d5-NEtFOSAA	15780240 16566800	16033500 16950800	16321560 14635940	15426480 15408300	Ave		15890452. 5			4.6		50.0				
13C2 PFDoA	43282620 39452600	53679720 46496180	39741440 44311880	38728000 47903660	Ave		44199512. 5			11.5		50.0				
13C2 PFTeDA	41208320 23851560	68147040 46213200	25745020 31027280	26195420 31739580	Ave		36765927. 5			40.5		50.0				
13C2 PFHxDA	22687760 20358100	51959620 35283960	15781040 18504140	11730340 21881780	Ave		24773342. 5			52.2	*	50.0				

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Perfluorobutanoic acid	0.4418 0.8763	0.9379 0.8905	0.9562 0.9535	2.3478	0.8864	AveI D		1.036 3			53.7	*	35.0				
Perfluoropentanoic acid	1.2079 1.1021	1.2305 1.1836	1.3023 1.1567	1.2131	1.1000	AveI D		1.187 0			5.7		35.0				
Perfluorobutanesulfonic acid (PFBS)	1.1667 0.9942	1.2204 1.1418	1.3328 1.1006	1.2284	1.0494	AveI D		1.154 3			9.4		35.0				
Perfluorohexanoic acid	1.1386 0.9927	1.0614 1.0089	1.1250 1.0245	1.0743	1.0494	AveI D		1.059 4			4.9		35.0				
Perfluorohexanesulfonic acid (PFHxS)	1.2202 1.0611	1.1232 1.1351	1.2339 1.1240	1.1999	1.0879	AveI D		1.148 2			5.5		35.0				
Perfluoroheptanoic acid (PFHpA)	0.9935 1.0391	1.0191 1.0195	1.0714 0.9579	1.0506	1.0497	AveI D		1.025 1			3.5		35.0				
1H,1H,2H,2H-perfluorooctanesulfoni c acid (6:2)	3.3134 2.8307	3.0458 2.8371	3.1961 2.9958	3.1936	3.0301	AveI D		3.055 3			5.6		35.0				
Perfluoroheptanesulfonic acid	1.2040 1.2837	1.3353 1.2858	1.4568 1.2815	1.4155	1.2888	AveI D		1.318 9			6.2		50.0				
Perfluorooctanoic acid (PFOA)	0.9840 0.9154	0.9248 0.9472	0.9880 0.9261	0.9320	0.9573	AveI D		0.946 9			2.9		35.0				
Perfluorooctanesulfonic acid (PFOS)	1.0815 1.0144	1.1287 1.0732	1.2043 1.1217	1.1349	1.0661	AveI D		1.103 1			5.2		35.0				
Perfluorononanoic acid (PFNA)	0.9046 0.8435	0.8743 0.9284	0.9115 0.8981	0.9745	0.9263	AveI D		0.907 7			4.3		35.0				
Perfluorooctanesulfonamide	1.0161 1.0547	1.1055 1.1624	1.2347 1.0786	1.1361	1.0973	AveI D		1.110 7			6.1		35.0				
1H,1H,2H,2H-perfluorodecanesulfoni c acid (8:2)	2.2710 2.3056	2.3911 2.4889	2.5893 2.3704	2.5936	2.2995	AveI D		2.413 7			5.3		35.0				
Perfluorodecanoic acid	0.8608 0.8849	0.8658 0.9276	0.9922 0.9361	0.9496	0.8905	AveI D		0.913 4			5.0		35.0				
N-methylperfluorooctanesulfonamido acetic acid	0.9275 0.8500	0.8670 0.8882	0.9162 0.8512	0.8783	0.9157	AveI D		0.886 8			3.4		35.0				
Perfluorodecanesulfonic acid	0.6169 0.6025	0.6865 0.6188	0.6916 0.6490	0.6669	0.6143	AveI D		0.643 3			5.4		50.0				
Perfluoroundecanoic acid	0.8222 0.9484	1.0401 0.9969	1.0915 0.9913	0.9840	0.9914	AveI D		0.983 2			7.9		35.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
N-ethylperfluorooctanesulfonamidoacetic acid	0.8819 0.8536	0.8640 0.9561	1.0021 0.9079	0.9539	0.9210	AveI D	0.917 5				5.6		35.0				
Perfluorododecanoic acid	0.9766 0.8432	0.9136 0.9583	0.9967 0.8699	0.9646	0.9139	AveI D	0.929 6				5.8		35.0				
Perfluorotridecanoic acid	1.2755 1.3263	1.3293 1.0957	1.1813 1.0006	1.1885	1.0788	AveI D	1.184 5				10.2		50.0				
Perfluorotetradecanoic acid	0.0426 0.0421	0.0431 0.0431	0.0485 0.0438	0.0445	0.0434	AveI D	0.043 9				4.5		35.0				
Perfluorohexadecanoic acid	1.3847 0.9676	1.1947 1.0196	1.1449 1.0011	1.0235	0.9744	AveI D	1.088 8				13.3		50.0				
Perfluorooctadecanoic acid	0.4568 0.2424	0.2553 0.5920	0.3686 0.4625	0.5137	0.4434	AveI D	0.416 8				29.1		50.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-496403/2	2021.06.07_A10_DI_ICAL_005.d
Level 2	IC 320-496403/3	2021.06.07_A10_DI_ICAL_006.d
Level 3	IC 320-496403/4	2021.06.07_A10_DI_ICAL_007.d
Level 4	IC 320-496403/5	2021.06.07_A10_DI_ICAL_008.d
Level 5	IC 320-496403/6	2021.06.07_A10_DI_ICAL_009.d
Level 6	IC 320-496403/7	2021.06.07_A10_DI_ICAL_010.d
Level 7	IC 320-496403/8	2021.06.07_A10_DI_ICAL_011.d
Level 8	IC 320-496403/9	2021.06.07_A10_DI_ICAL_012.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
13C4 PFBA	Ave	958754 2563961	907612 2519006	2621733 978915	1026028	2762551	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C5 PFPeA	Ave	1715553 1748569	1765142 1567742	1652762 1659122	1658513	1942457	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C3 PFBS	Ave	1245213 1485880	1230780 1242524	1211708 1394362	1218161	1627682	0.0465 0.0465	0.0465 0.0465	0.0465 0.0465	0.0465	0.0465
13C2 PFHxA	Ave	1588620 1649991	1699996 1569487	1627229 1600787	1592138	1700795	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
18O2 PFHxS	Ave	1237298 1380748	1301531 1248615	1352273 1297304	1344025	1373630	0.0473 0.0473	0.0473 0.0473	0.0473 0.0473	0.0473	0.0473
13C4 PFHpA	Ave	1823353 1926415	1942591 1821901	2156967 1881167	2065733	1828597	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
M2-6:2 FTS	Ave	518984 483822	508425 406943	545000 378867	486822	515179	0.0475 0.0475	0.0475 0.0475	0.0475 0.0475	0.0475	0.0475
13C4 PFOA	Ave	2916281 2992428	2948744 2583177	2991897 2636705	2827946	2904655	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C4 PFOS	Ave	881395 1023496	890888 939361	917213 930409	850557	998035	0.0478 0.0478	0.0478 0.0478	0.0478 0.0478	0.0478	0.0478
13C5 PFNA	Ave	2374892 2573939	2474895 2260672	2496799 2341546	2304299	2612868	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C8 FOSA	Ave	1246212 1316643	1408729 1007682	1065060 992564	1138983	1037398	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C2 PFDA	Ave	2126382 2294936	2245864 2107264	2244776 2149874	2129413	2357433	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
M2-8:2 FTS	Ave	421811 396603	425016 357977	434930 352482	385356	439527	0.0479 0.0479	0.0479 0.0479	0.0479 0.0479	0.0479	0.0479



FORM VI  
 LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
 RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
d3-NMeFOSAA	Ave	767195 822671	775607 796835	837425 802095	800595	785480	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C2 PFUnA	Ave	1959814 2103168	1947911 1870504	2026727 1937854	1875520	1984426	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
d5-NEtFOSAA	Ave	789012 847540	801675 731797	816078 770415	771324	828340	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C2 PFDaA	Ave	2164131 2324809	2683986 2215594	1987072 2395183	1936400	1972630	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C2 PFTeDA	Ave	2060416 2310660	3407352 1551364	1287251 1586979	1309771	1192578	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500
13C2 PFHxDA	Ave	1134388 1764198	2597981 925207	789052 1094089	586517	1017905	0.0500 0.0500	0.0500 0.0500	0.0500 0.0500	0.0500	0.0500

Curve Type Legend

Ave = Average

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-496403/2	2021.06.07_A10_DI_ICAL_005.d
Level 2	IC 320-496403/3	2021.06.07_A10_DI_ICAL_006.d
Level 3	IC 320-496403/4	2021.06.07_A10_DI_ICAL_007.d
Level 4	IC 320-496403/5	2021.06.07_A10_DI_ICAL_008.d
Level 5	IC 320-496403/6	2021.06.07_A10_DI_ICAL_009.d
Level 6	IC 320-496403/7	2021.06.07_A10_DI_ICAL_010.d
Level 7	IC 320-496403/8	2021.06.07_A10_DI_ICAL_011.d
Level 8	IC 320-496403/9	2021.06.07_A10_DI_ICAL_012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Perfluorobutanoic acid		AveI D	8472	34049	250683	481783	979450	0.00100	0.00200	0.00500	0.0100	0.0200
			2246856	4486232	3733701			0.0500	0.100	0.200		
Perfluoropentanoic acid		AveI D	41443	86880	215231	402375	854651	0.00100	0.00200	0.00500	0.0100	0.0200
			1927112	3711218	7676559			0.0500	0.100	0.200		
Perfluorobutanesulfonic acid (PFBS)		AveI D	27619	57111	153513	284480	649413	0.000884	0.00177	0.00442	0.00884	0.0177
			1404209	2697108	5835009			0.0442	0.0884	0.177		
Perfluorohexanoic acid		AveI D	36176	72174	183058	342085	713919	0.00100	0.00200	0.00500	0.0100	0.0200
			1637981	3166954	6560332			0.0500	0.100	0.200		
Perfluorohexanesulfonic acid (PFHxS)		AveI D	29047	56251	160511	310276	575014	0.000910	0.00182	0.00455	0.00910	0.0182
			1409309	2726714	5610693			0.0455	0.0910	0.182		
Perfluoroheptanoic acid (PFHpA)		AveI D	36229	79190	231093	434056	767807	0.00100	0.00200	0.00500	0.0100	0.0200
			2001654	3714767	7207555			0.0500	0.100	0.200		
1H,1H,2H,2H-perfluorooctanesulfo nic acid (6:2)		AveI D	34320	61813	173823	310285	623103	0.000948	0.00190	0.00474	0.00948	0.0190
			1366652	2304200	4530434			0.0474	0.0948	0.190		
Perfluoroheptanesulfonic acid		AveI D	21135	47384	133057	239781	512341	0.000952	0.00190	0.00476	0.00952	0.0190
			1308317	2405619	4749193			0.0476	0.0952	0.190		
Perfluorooctanoic acid (PFOA)		AveI D	57394	109085	295595	527119	1112272	0.00100	0.00200	0.00500	0.0100	0.0200

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			2739240	4893423	9767366			0.0500	0.100	0.200		
Perfluorooctanesulfonic acid (PFOS)	AveI D		18506	39045	107226	187403	413128	0.000928	0.00186	0.00464	0.00928	0.0186
			1007782	1957223	4052190			0.0464	0.0928	0.186		
Perfluorononanoic acid (PFNA)	AveI D		42966	86555	227591	449107	968132	0.00100	0.00200	0.00500	0.0100	0.0200
			2171015	4197748	8411516			0.0500	0.100	0.200		
Perfluorooctanesulfonamide	AveI D		25325	62292	131501	258799	455353	0.00100	0.00200	0.00500	0.0100	0.0200
			1388711	2342680	4282389			0.0500	0.100	0.200		
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveI D		19159	40651	112617	199893	404275	0.000958	0.00192	0.00479	0.00958	0.0192
			914420	1781906	3342049			0.0479	0.0958	0.192		
Perfluorodecanoic acid	AveI D		36609	77779	222719	404414	839702	0.00100	0.00200	0.00500	0.0100	0.0200
			2030780	3909441	8050258			0.0500	0.100	0.200		
N-methylperfluorooctanesulfonamidoacetic acid	AveI D		14232	26897	76723	140625	287708	0.00100	0.00200	0.00500	0.0100	0.0200
			699274	1415538	2731107			0.0500	0.100	0.200		
Perfluorodecanesulfonic acid	AveI D		10965	24670	63961	114400	247309	0.000964	0.00193	0.00482	0.00964	0.0193
			621846	1172336	2435734			0.0482	0.0964	0.193		
Perfluoroundecanoic acid	AveI D		32227	81040	221217	369084	786916	0.00100	0.00200	0.00500	0.0100	0.0200
			1994639	3729343	7684125			0.0500	0.100	0.200		
N-ethylperfluorooctanesulfonamidoacetic acid	AveI D		13916	27706	81780	147154	305153	0.00100	0.00200	0.00500	0.0100	0.0200
			723463	1399303	2797717			0.0500	0.100	0.200		
Perfluorododecanoic acid	AveI D		42268	98086	198059	373564	721118	0.00100	0.00200	0.00500	0.0100	0.0200
			1960194	4246512	8334519			0.0500	0.100	0.200		
Perfluorotridecanoic acid	AveI D		55209	142714	234730	460293	851210	0.00100	0.00200	0.00500	0.0100	0.0200
			3083355	4855162	9586490			0.0500	0.100	0.200		
Perfluorotetradecanoic acid	AveI D		1755	5875	6239	11662	20683	0.00100	0.00200	0.00500	0.0100	0.0200

FORM VI  
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
 RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 496403

SDG No.: \_\_\_\_\_

Instrument ID: A10 GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2021 14:46 Calibration End Date: 06/07/2021 16:55 Calibration ID: 55564

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			97368	133634	277982			0.0500	0.100	0.200		
Perfluorohexadecanoic acid		AveI D	31416	124149	90339	120056	396755	0.00100	0.00200	0.00500	0.0100	0.0200
			1707074	1886692	4380968			0.0500	0.100	0.200		
Perfluorooctadecanoic acid		AveI D	10364	26526	29086	60258	180517	0.00100	0.00200	0.00500	0.0100	0.0200
			427564	1095454	2024283			0.0500	0.100	0.200		

Curve Type Legend

AveID = Average isotope dilution

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
 Lims ID: IC STD 1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 07-Jun-2021 14:46:39 ALS Bottle#: 5 Worklist Smp#: 2  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 1 (28)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:08 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d

Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 04:39:49

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA										
217.00 > 172.00	5.552	5.591	-0.039		958754	0.0267		53.5	73.3	
1 Perfluorobutanoic acid										
212.90 > 169.00	5.569	5.595	-0.026	1.003	8472	0.000426		42.6	4.7	
D 4 13C5 PFPeA										
267.90 > 223.00	6.230	6.235	-0.005		1715553	0.0501		100	6512	
5 Perfluoropentanoic acid										
262.90 > 219.00	6.230	6.235	-0.005	1.000	41443	0.001018		102	8.7	
D 3 13C3 PFBS										
301.90 > 80.00	6.293	6.287	0.006		1245213	0.0435		93.5	3457	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.293	6.290	0.003	1.000	27619	0.000894	Target=1.41	101	78.9	
298.90 > 99.00	6.293	6.290	0.003	1.000	17984		1.54(0.71-2.12)	101	30.0	
8 4:2 FTS										
327.00 > 307.00	6.688	6.676	0.012	1.000	23263	NC	Target=2.69		293	
327.00 > 81.00	6.688	6.676	0.012	1.000	7813		2.98(1.34-4.03)		23.6	
D 7 M2-4:2 FTS										
329.00 > 81.00	6.688	6.676	0.012		362229	NC			1008	
D 9 13C2 PFHxA										
315.00 > 270.00	6.734	6.728	0.006		1588620	0.0488		97.5	9562	
10 Perfluorohexanoic acid										
313.00 > 269.00	6.734	6.728	0.006	1.000	36176	0.001075	Target=19.50	107	32.5	
313.00 > 119.00	6.734	6.728	0.006	1.000	2585		13.99(9.75-29.25)	107	32.3	
11 Perfluoropentanesulfonic acid										
349.00 > 80.00	6.757	6.749	0.008	0.930	23740	NC	Target=1.44		47.8	
349.00 > 99.00	6.757	6.749	0.008	0.930	17068		1.39(0.72-2.17)		56.2	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.876	6.876	0.0	1.000	9148	NC			11.0	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.876	0.0		172560	NC			819	
14 9CIFOS										M
531.00 > 351.00	7.120	7.109	0.011	0.847	338	NC			2.2	M
16 Perfluorohexanesulfonic acid										M
399.00 > 80.00	7.263	7.248	0.015	1.000	29047	0.000967	Target=5.60	106	75.6	M
399.00 > 99.00	7.263	7.248	0.015	1.000	5026		5.78(2.80-8.40)	106	24.7	M
D 15 18O2 PFHxS										
403.00 > 84.00	7.263	7.248	0.015		1237298	0.0444		94.0	12799	
18 Perfluoroheptanoic acid										M
363.00 > 319.00	7.263	7.254	0.009	1.000	36229	0.000969	Target=9.21	96.9	24.4	
363.00 > 169.00	7.281	7.254	0.027	1.003	3588		10.10(4.61-13.82)	96.9	54.5	M
D 17 13C4 PFHpA										
367.00 > 322.00	7.263	7.254	0.009		1823353	0.0472		94.4	8958	
19 DONA										
377.00 > 251.00	7.318	7.308	0.010	0.870	149142	NC	Target=2.84		448	
377.00 > 85.00	7.318	7.308	0.010	0.870	51044		2.92(1.42-4.26)		298	
23 6:2 FTS										
427.00 > 407.00	7.803	7.793	0.010	0.998	34320	0.001028	Target=2.57	108	413	
427.00 > 81.00	7.820	7.793	0.027	1.000	13963		2.46(1.29-3.86)	108	39.6	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.820	7.795	0.025		518984	0.0513		108	1823	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.820	7.804	0.016	0.930	21135	0.000869	Target=6.98	91.3	66.6	
449.00 > 99.00	7.820	7.804	0.016	0.930	3704		5.71(3.49-10.48)	91.3	19.8	
24 Perfluorooctanoic acid										M
413.00 > 369.00	7.836	7.821	0.015	1.000	57394	0.001039	Target=1.54	104	11.6	M
413.00 > 169.00	7.836	7.821	0.015	1.000	35814		1.60(0.77-2.31)	104	152	M
D 25 13C4 PFOA										
417.00 > 372.00	7.836	7.821	0.015		2916281	0.0512		102	10823	
D 26 13C4 PFOS										
503.00 > 80.00	8.410	8.386	0.024		881395	0.0454		94.9	2917	
27 Perfluorooctanesulfonic acid										M
499.00 > 80.00	8.410	8.386	0.024	1.000	18506	0.000910	Target=3.65	98.0	87.3	
499.00 > 99.00	8.410	8.386	0.024	1.000	5462		3.39(1.83-5.48)	98.0	24.6	M
D 28 13C5 PFNA										
468.00 > 423.00	8.444	8.417	0.027		2374892	0.0489		97.7	10977	
29 Perfluorononanoic acid										M
463.00 > 419.00	8.444	8.417	0.027	1.000	42966	0.000997	Target=7.83	99.7	30.3	M
463.00 > 169.00	8.444	8.417	0.027	1.000	4884		8.80(3.92-11.75)	99.7	52.4	
D 30 13C8 FOSA										
506.00 > 78.00	8.940	8.926	0.014		1246212	0.0541		108	6085	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.940	8.926	0.014	1.000	25325	0.000915		91.5	258	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.986	8.961	0.025	1.068	14866	NC	Target=6.10		130	
549.00 > 99.00	9.001	8.961	0.040	1.070	2083		7.14(3.05-9.15)		16.6	
D 33 13C2 PFDA										
515.00 > 470.00	9.031	8.999	0.032		2126382	0.0482		96.3	12857	
35 Perfluorodecanoic acid										
513.00 > 469.00	9.031	9.001	0.030	1.000	36609	0.000942	Target=16.47	94.2	44.6	
513.00 > 169.00	9.031	9.001	0.030	1.000	2198		16.66(8.23-24.70)	94.2	21.7	
D 34 M2-8:2 FTS										
529.00 > 81.00	9.031	9.001	0.030		421811	0.0503		105	2622	
36 8:2 FTS										
527.00 > 507.00	9.031	9.001	0.030	1.000	19159	0.000901	Target=2.29	94.1	285	
527.00 > 81.00	9.031	9.001	0.030	1.000	8182		2.34(1.15-3.44)	94.1	67.0	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.318	9.281	0.037		767195	0.0480		96.1	4840	
38 NMeFOSAA										
570.00 > 419.00	9.318	9.289	0.029	1.000	14232	0.001046	Target=13.24	105	94.5	M
570.00 > 483.00	9.318	9.289	0.029	1.000	1234		11.53(6.62-19.86)	105	26.7	M
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.544	9.508	0.036	1.135	10965	0.000924	Target=2.43	95.9	155	
599.00 > 99.00	9.544	9.508	0.036	1.135	4642		2.36(1.22-3.65)	95.9	102	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.592	9.555	0.037	1.000	32227	0.000836	Target=21.30	83.6	50.5	M
563.00 > 169.00	9.592	9.555	0.037	1.000	1761		18.30(10.65-31.95)	83.6	30.9	M
D 42 13C2 PFUnA										
565.00 > 520.00	9.592	9.555	0.037		1959814	0.0499		99.8	14047	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.592	9.561	0.031		789012	0.0497		99.3	3904	
43 NEtFOSA										
584.00 > 419.00	9.609	9.573	0.036	1.002	13916	0.000961	Target=16.50	96.1	173	M
584.00 > 483.00	9.609	9.573	0.036	1.002	612		22.74(8.25-24.74)	96.1	10.0	M
44 11C1FOS										
631.00 > 451.00	9.824	9.790	0.034	1.168	81616	NC			316	
D 45 13C2 PFDoA										
615.00 > 570.00	10.122	10.084	0.038		2164131	0.0490		97.9	10953	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.122	10.084	0.038	1.000	42268	0.001051	Target=15.78	105	24.6	
613.00 > 169.00	10.122	10.084	0.038	1.000	2497		16.93(7.89-23.66)	105	28.4	
47 10:2 FTS										
627.00 > 607.00	10.144	10.115	0.029	1.123	23406	NC	Target=34.02		221	M
627.00 > 81.00	10.144	10.115	0.029	1.123	691		33.87(17.01-51.03)		16.7	M
48 PFDoS										
699.00 > 80.00	10.577	10.532	0.045	1.258	4500	NC	Target=0.50		42.0	
699.00 > 99.00	10.577	10.532	0.045	1.258	9740		0.46(0.25-0.74)		88.7	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.648	10.601	0.047	1.052	55209	0.001077	Target=20.25	108	29.8	
663.00 > 169.00	10.648	10.601	0.047	1.052	2067		26.71(10.13-30.38)	108	38.5	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.138	11.085	0.053	1.000	1755	0.000971	Target=1.26	97.1	26.5	M
713.00 > 219.00	11.123	11.085	0.038	0.999	1470		1.19(0.63-1.89)	97.1	27.7	M
D 51 13C2 PFTeDA										
715.00 > 670.00	11.138	11.085	0.053		2060416	0.0560		112	7534	
D 52 13C2 PFHxDA										
815.00 > 770.00	12.068	12.002	0.066		1134388	0.0458		91.6	5399	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	12.068	12.004	0.064	1.000	31416	0.001272	Target=28.54	127	28.6	M
813.00 > 169.00	12.068	12.004	0.064	1.000	1296		24.24(14.27-42.81)	127	13.0	M
53 Perfluorooctadecanoic acid										
913.00 > 869.00	13.015	12.933	0.082	1.078	10364	0.001096	Target=35.98	110	17.9	M
913.00 > 169.00	12.995	12.933	0.062	1.077	350		29.61(17.99-53.97)	110	7.1	M

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L1\_00028

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d

Injection Date: 07-Jun-2021 14:46:39

Instrument ID: A10

Lims ID: IC STD 1

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 5

Worklist Smp#: 2

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

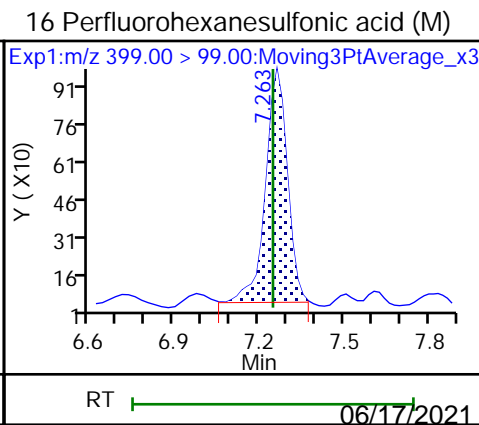
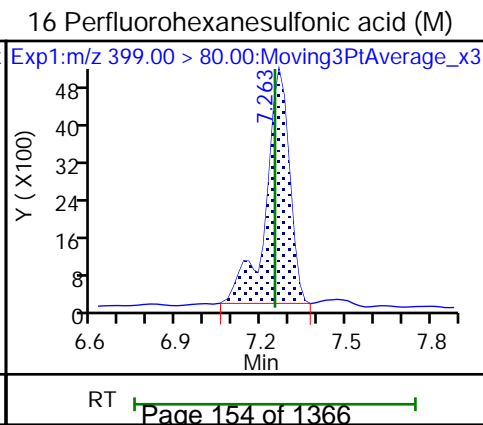
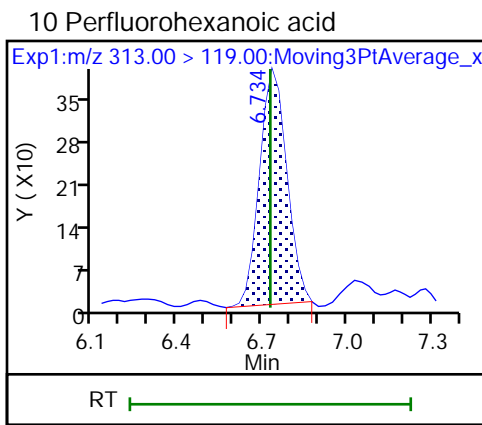
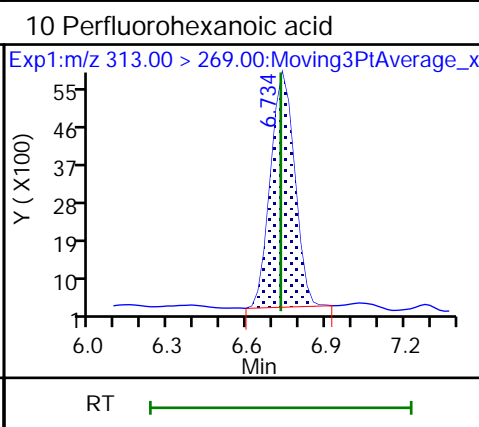
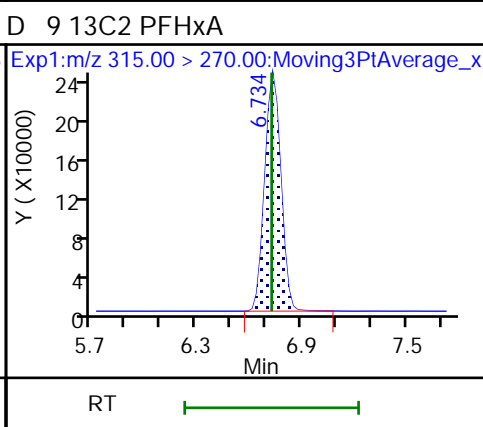
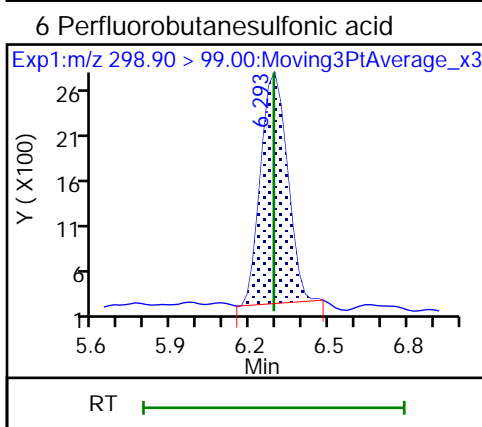
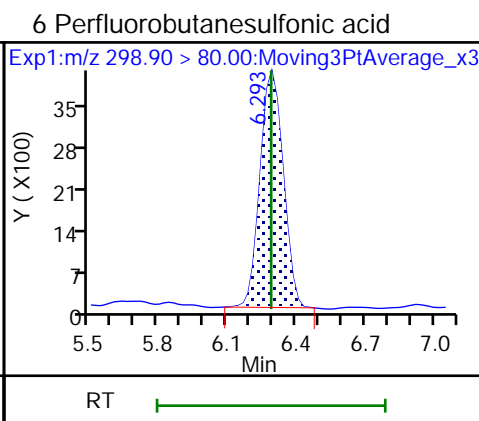
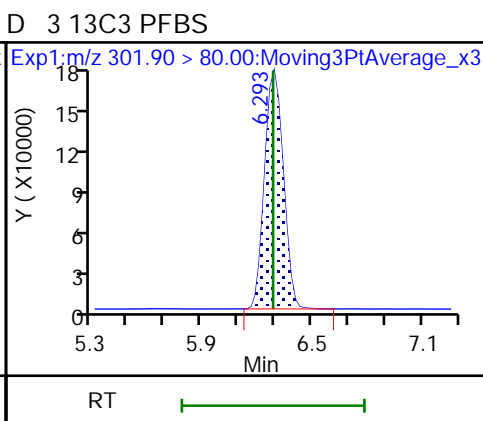
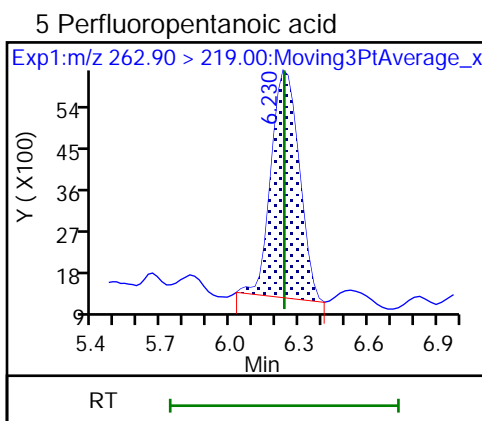
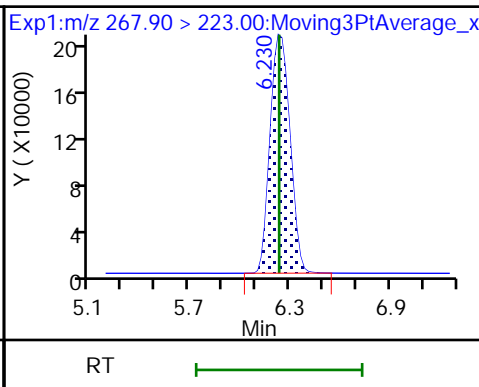
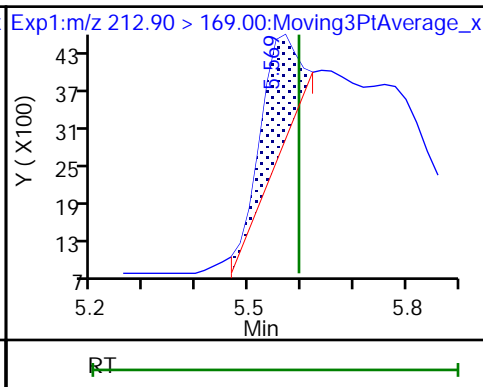
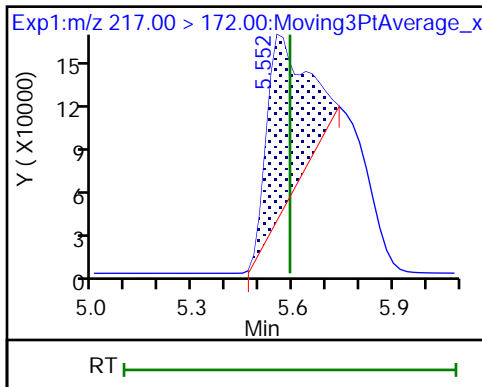
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

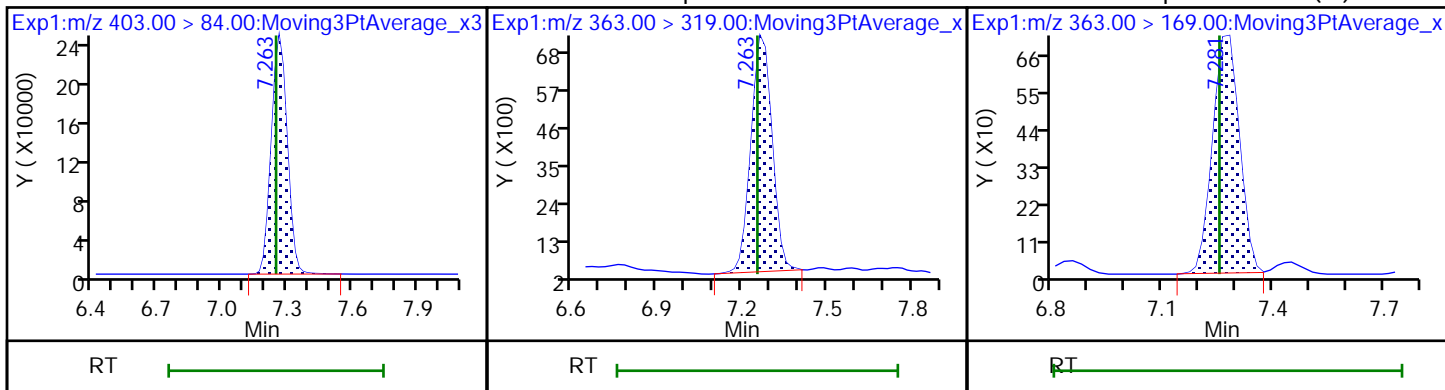
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

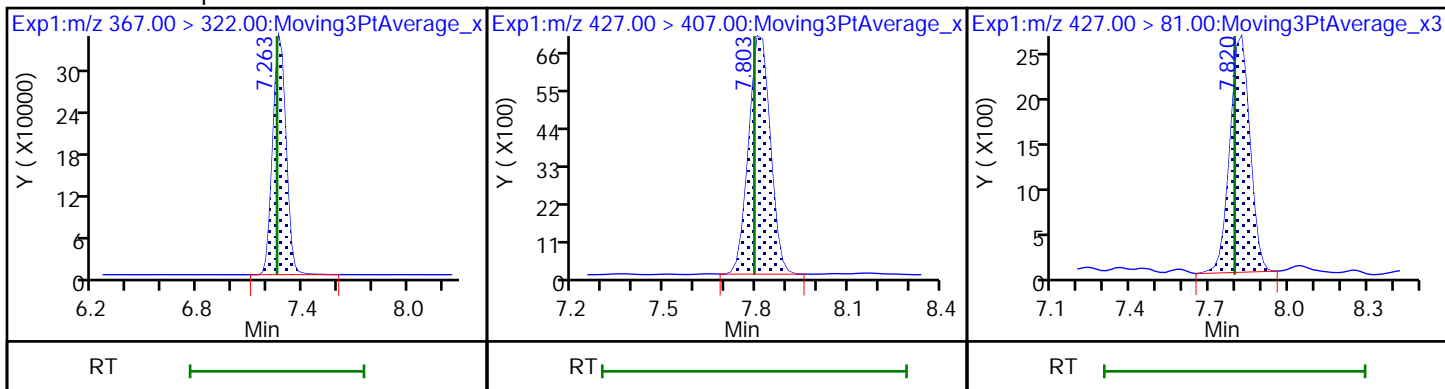
18 Perfluoroheptanoic acid (M)



D 17 13C4 PFHpA

23 6:2 FTS

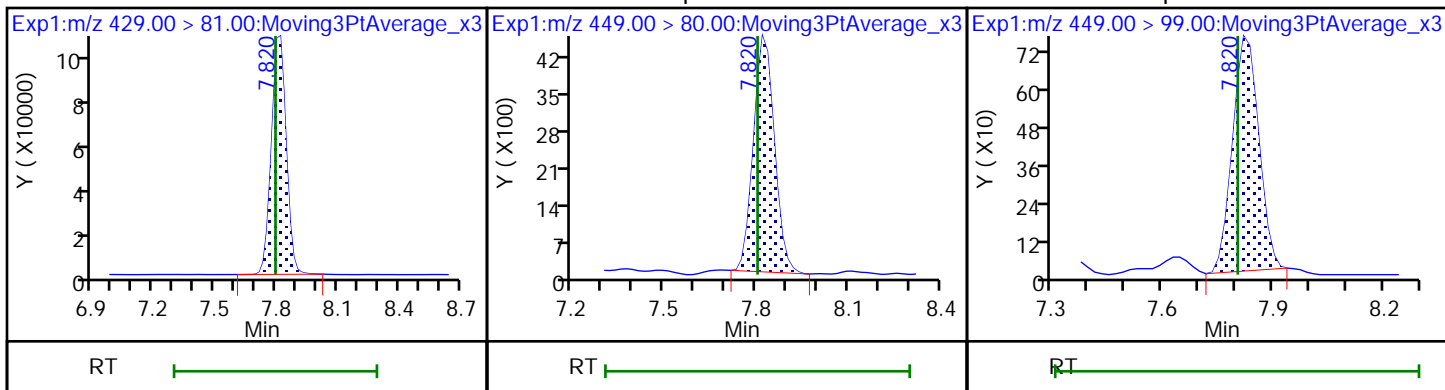
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

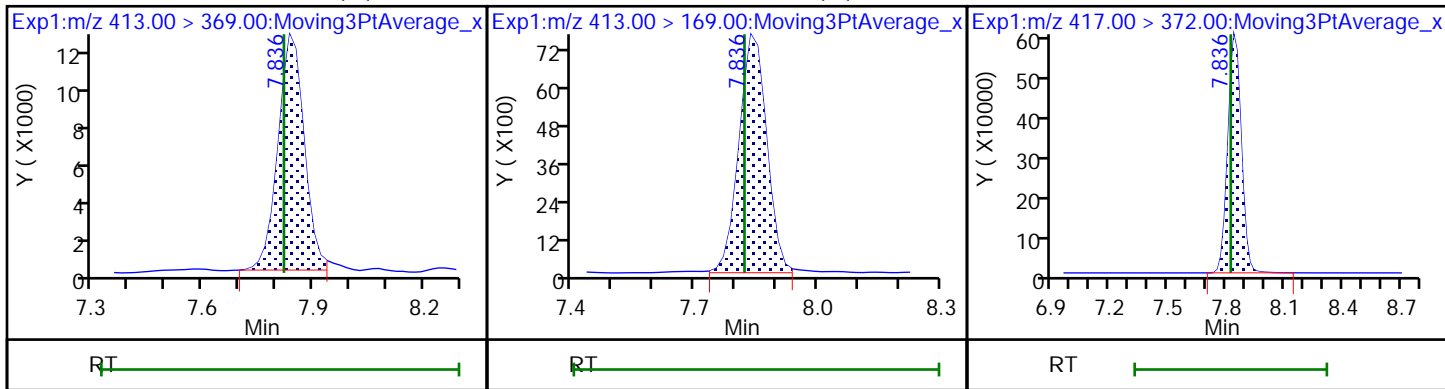
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

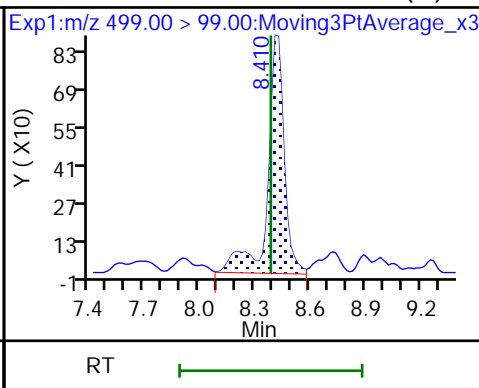
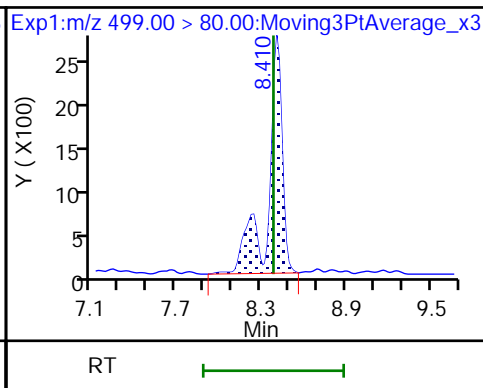
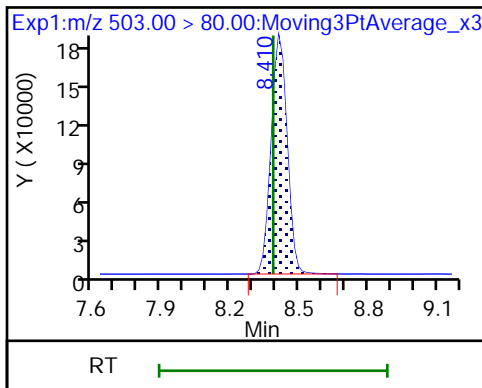
D 25 13C4 PFOA



D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

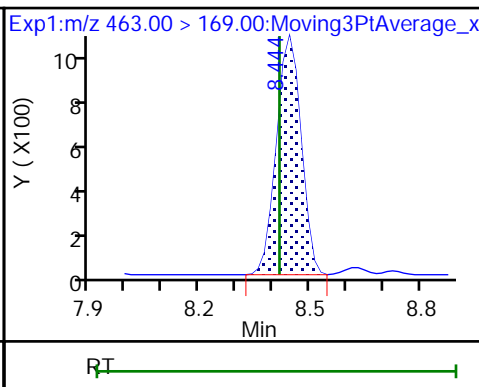
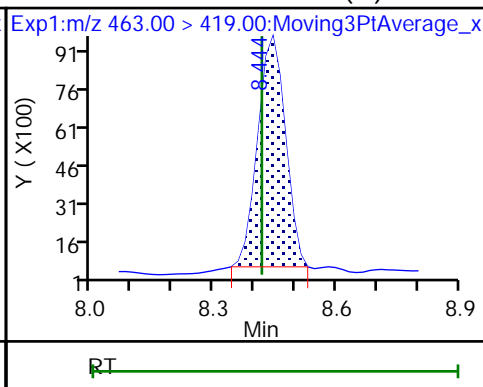
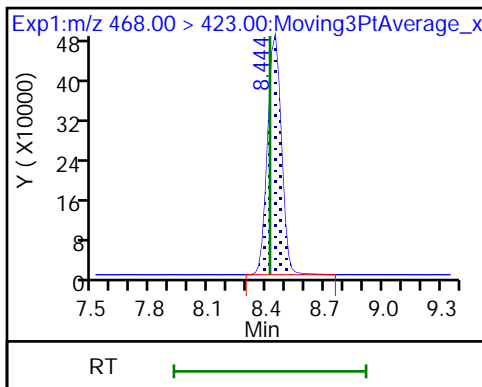
27 Perfluorooctanesulfonic acid (M)



D 28 13C5 PFNA

29 Perfluorononanoic acid (M)

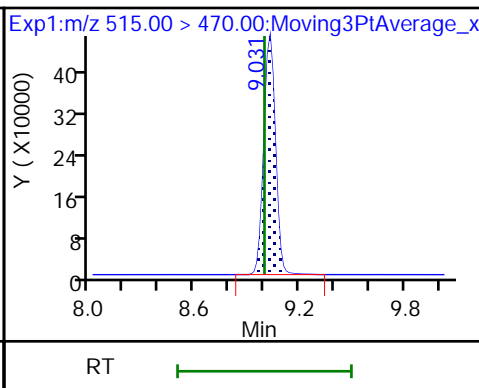
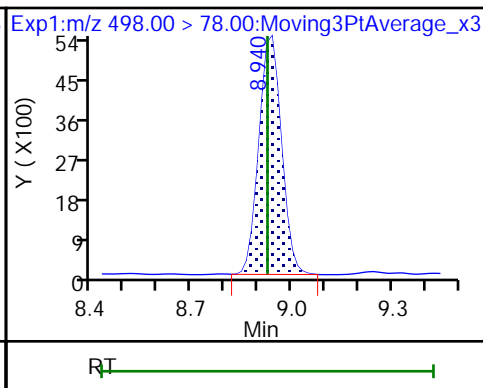
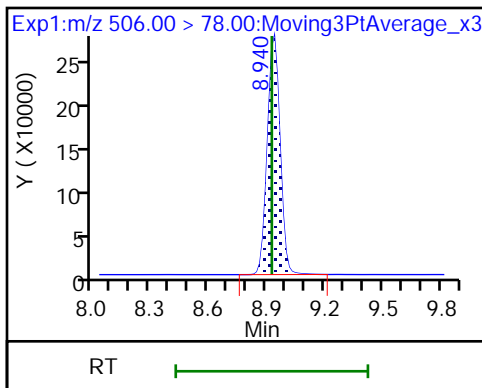
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

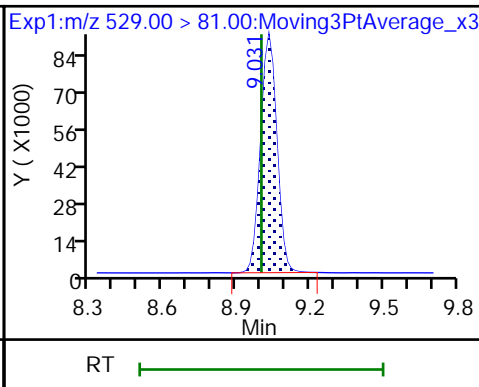
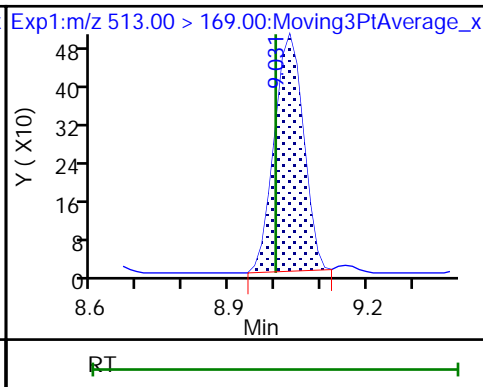
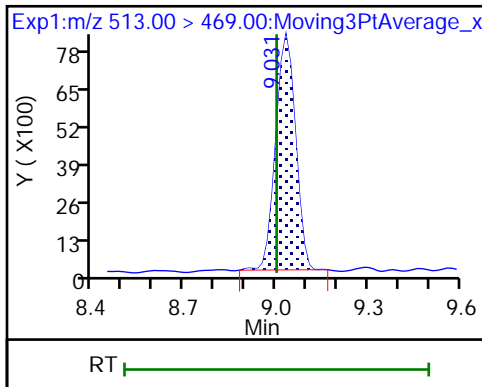
D 33 13C2 PFDA

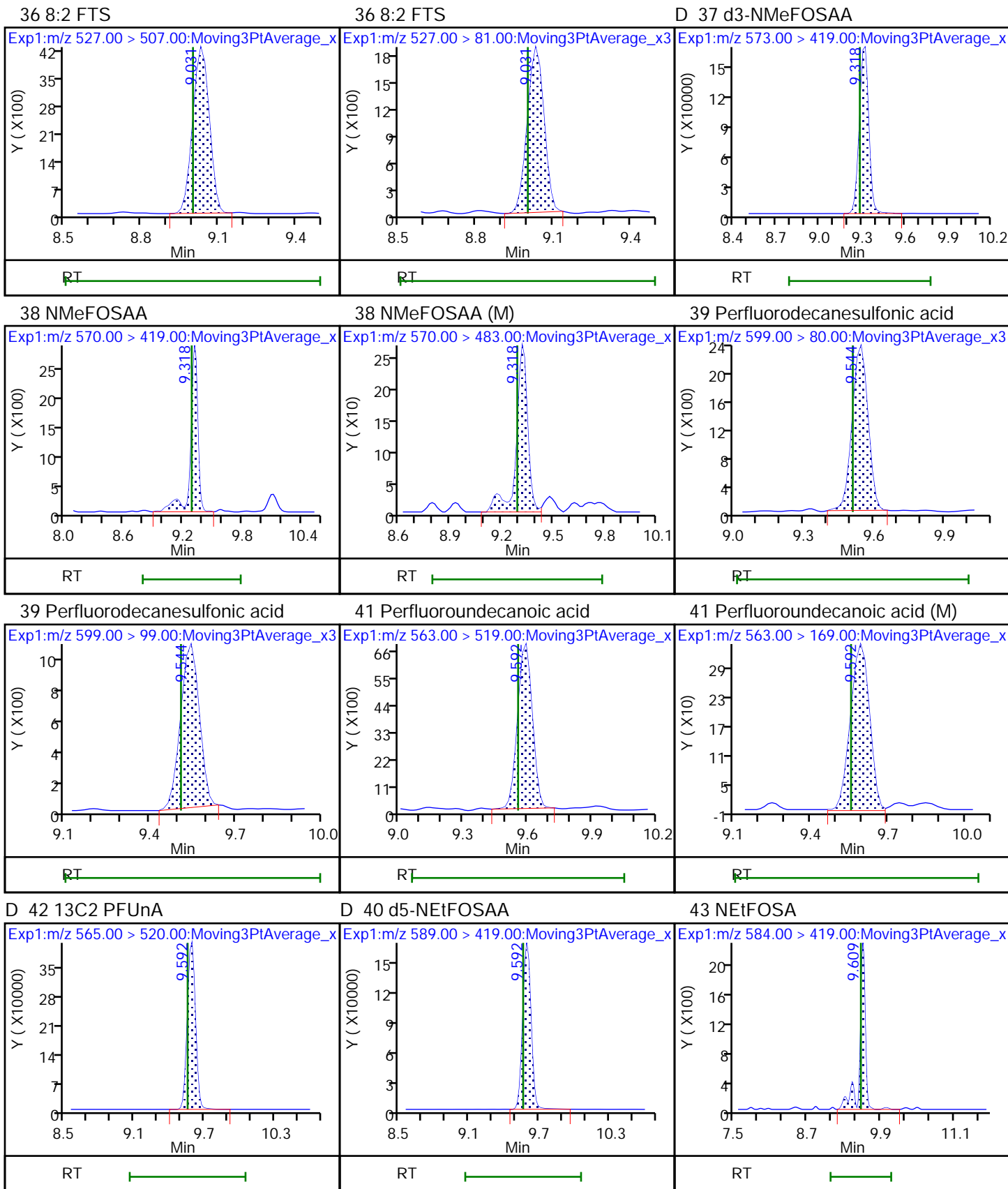


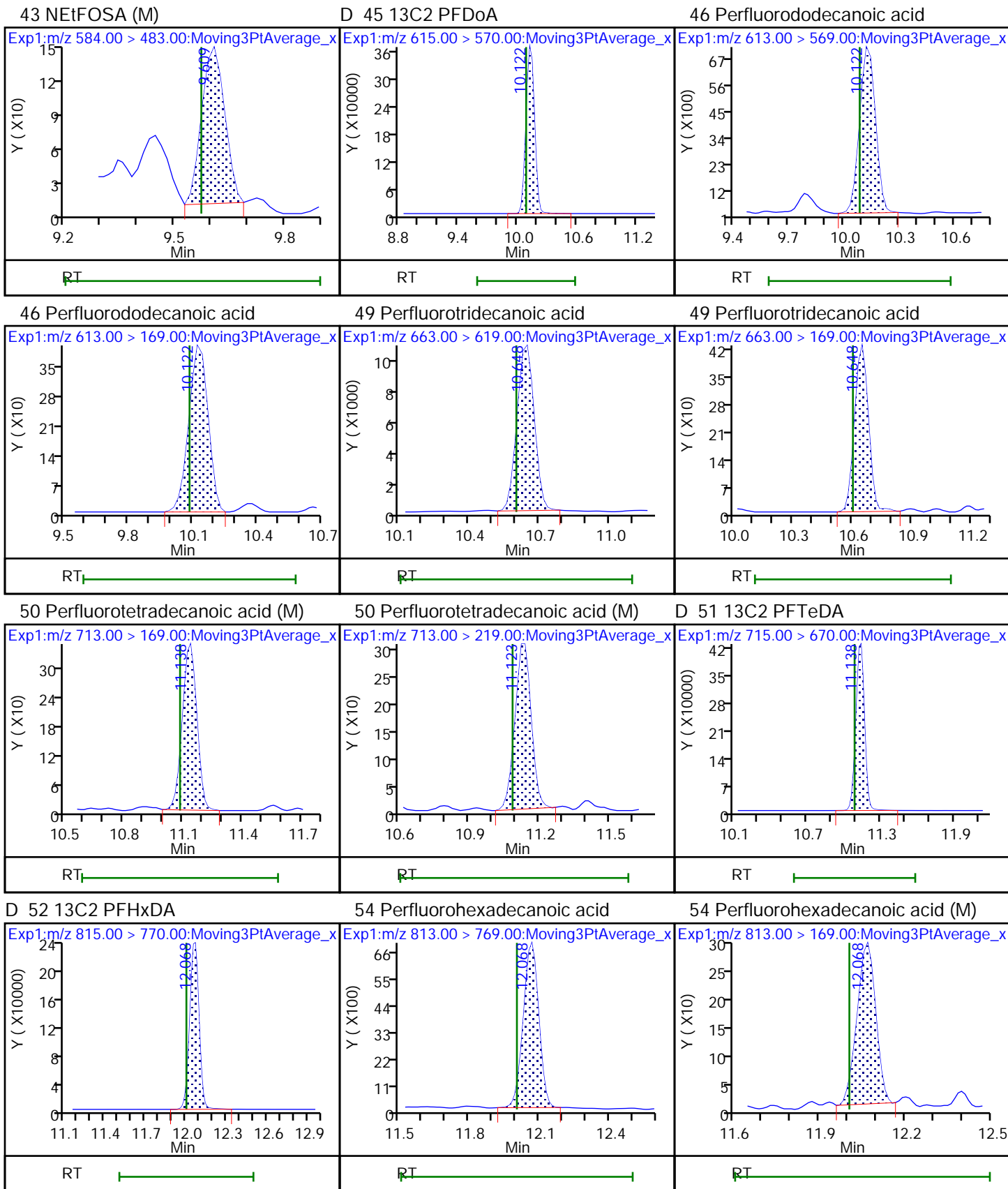
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

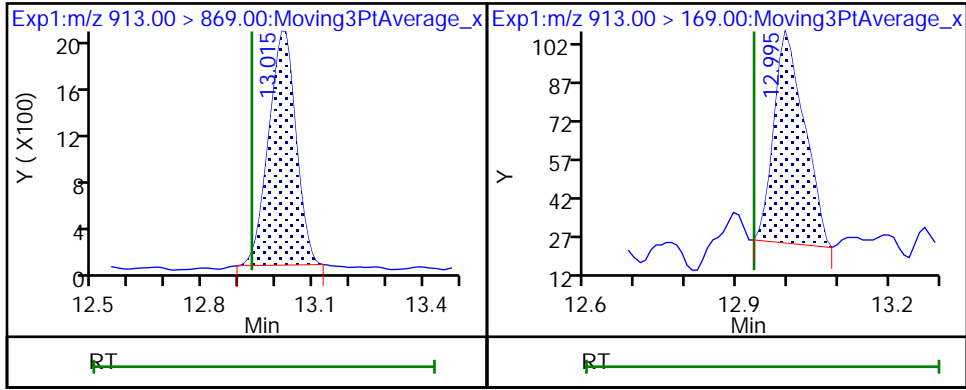






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Sacramento

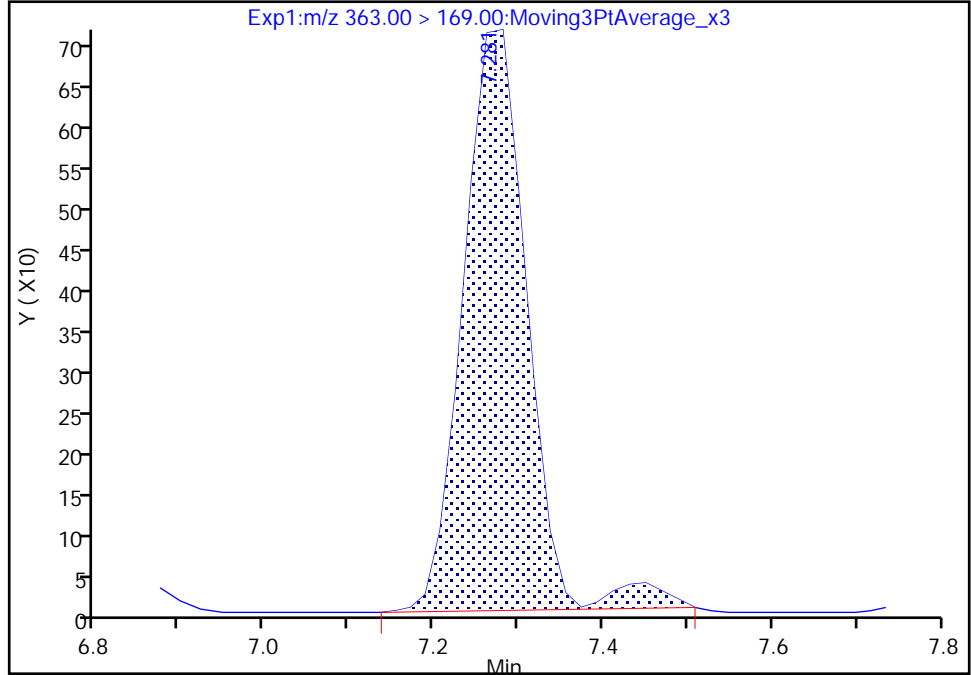
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Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

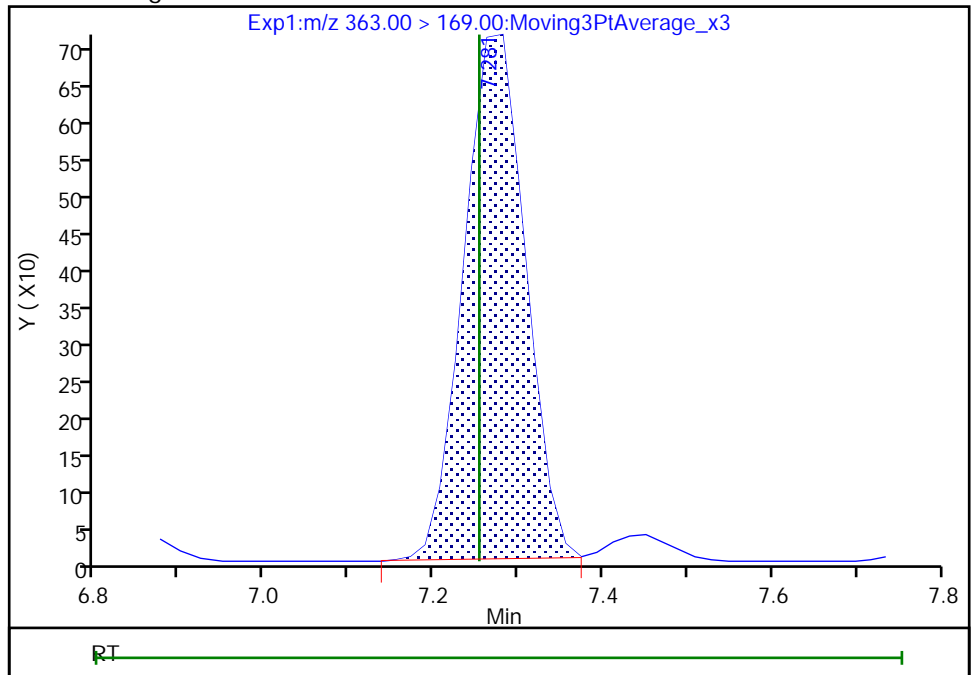
RT: 7.28  
Area: 3744  
Amount: 0.001000  
Amount Units: ng/ml

Processing Integration Results



RT: 7.28  
Area: 3588  
Amount: 0.000969  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 04:38:55  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

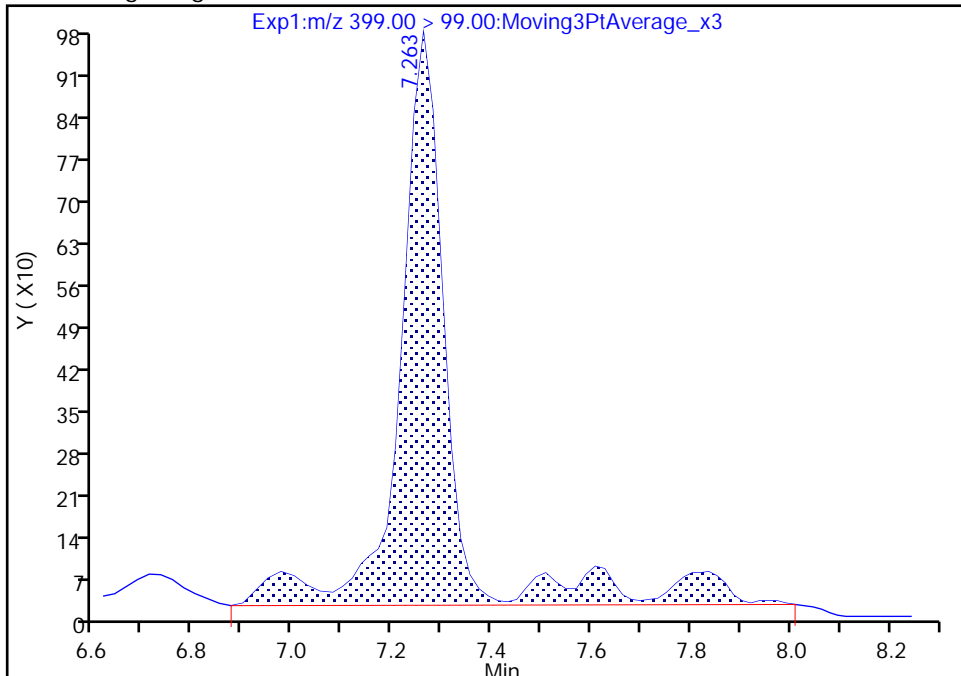
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Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

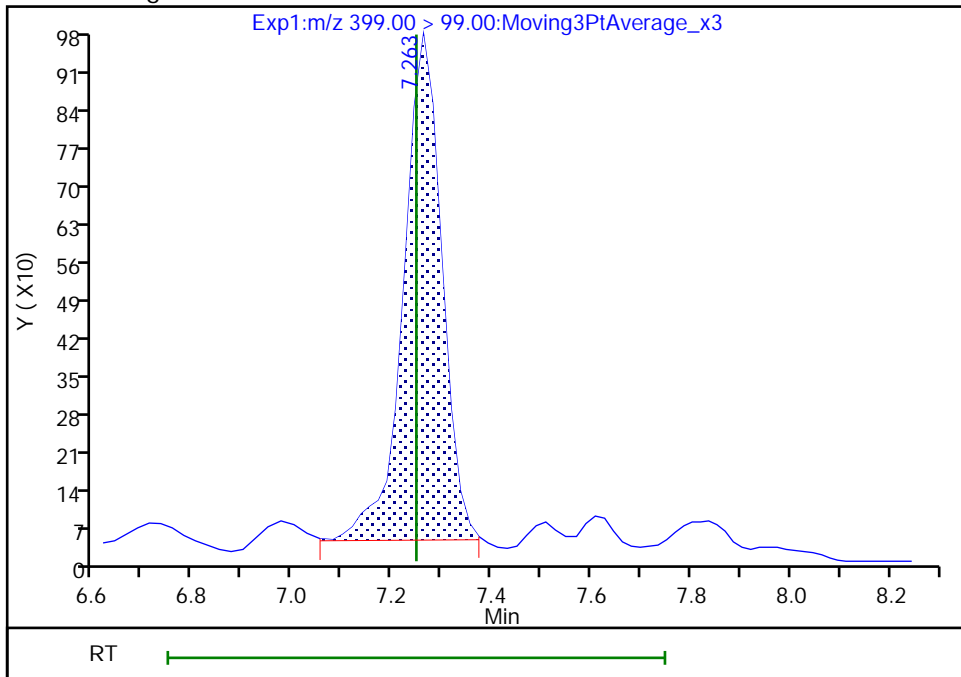
RT: 7.26  
Area: 6779  
Amount: 0.000910  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 5026  
Amount: 0.000967  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 04:38:36  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

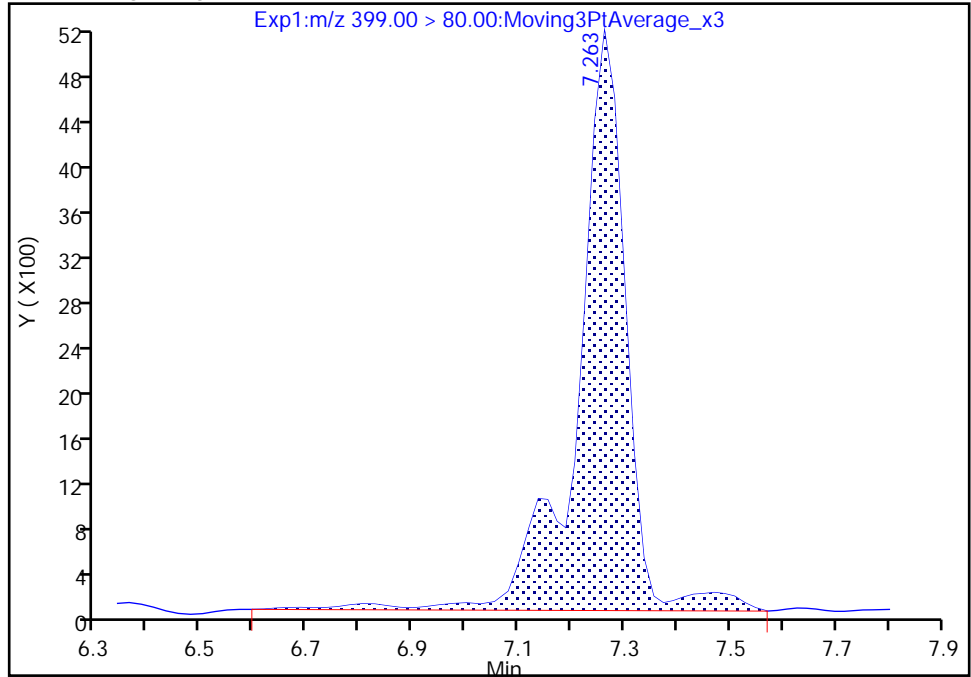
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Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

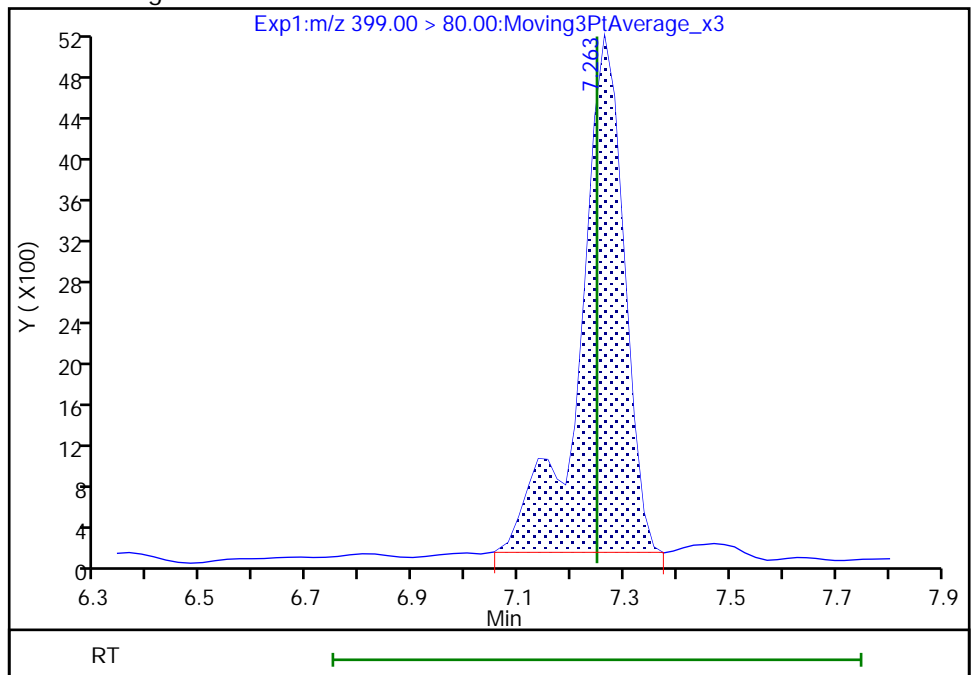
RT: 7.26  
Area: 32542  
Amount: 0.000910  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 29047  
Amount: 0.000967  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 04:38:47

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

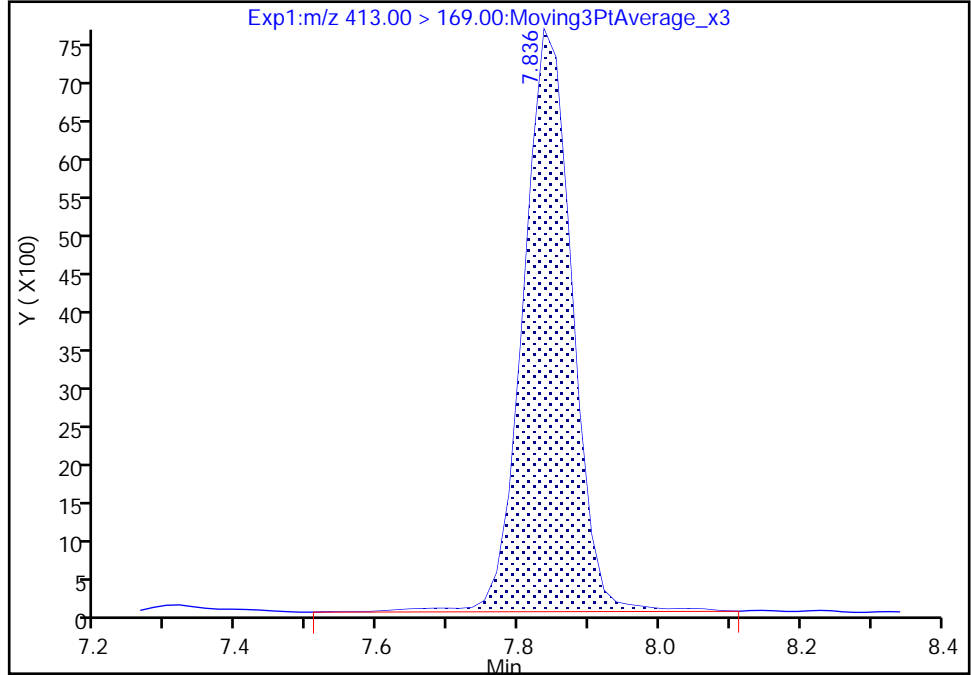
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
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Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

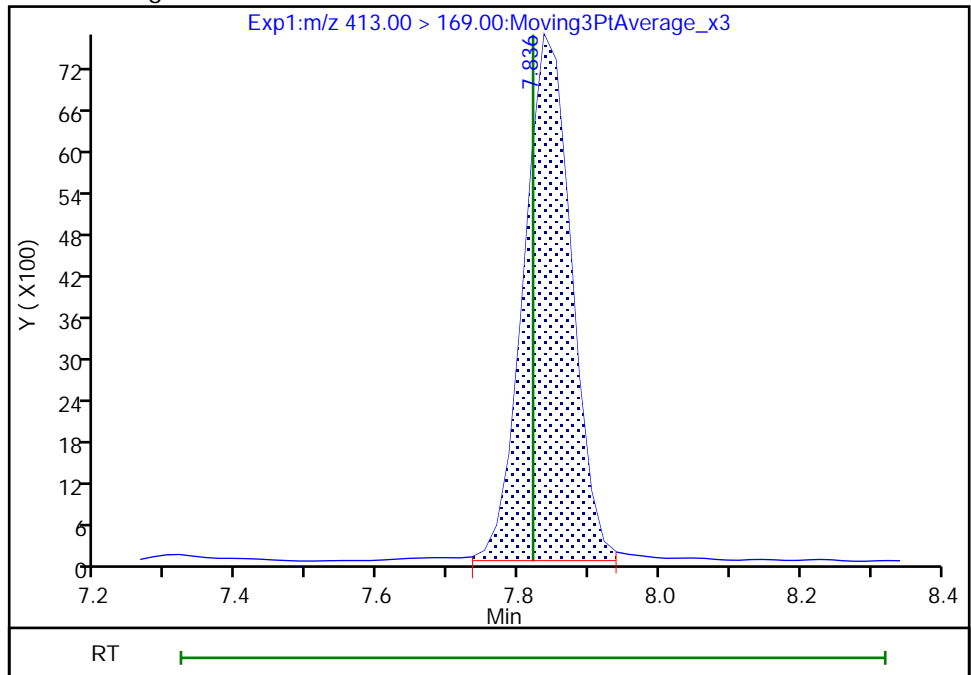
RT: 7.84  
Area: 36571  
Amount: 0.001000  
Amount Units: ng/ml

Processing Integration Results



RT: 7.84  
Area: 35814  
Amount: 0.001039  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 04:39:07  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

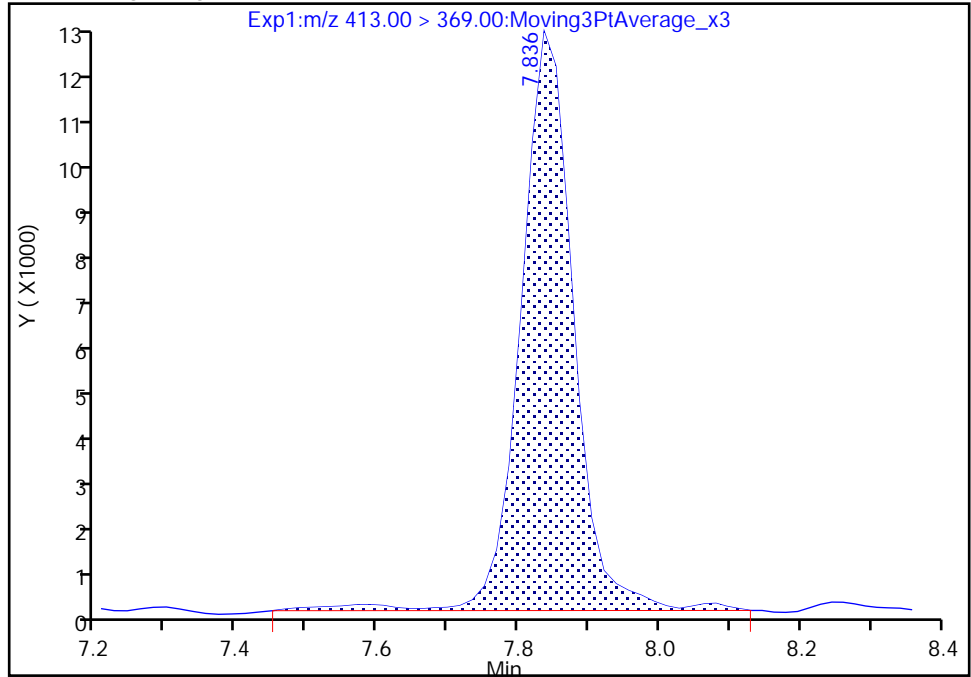
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

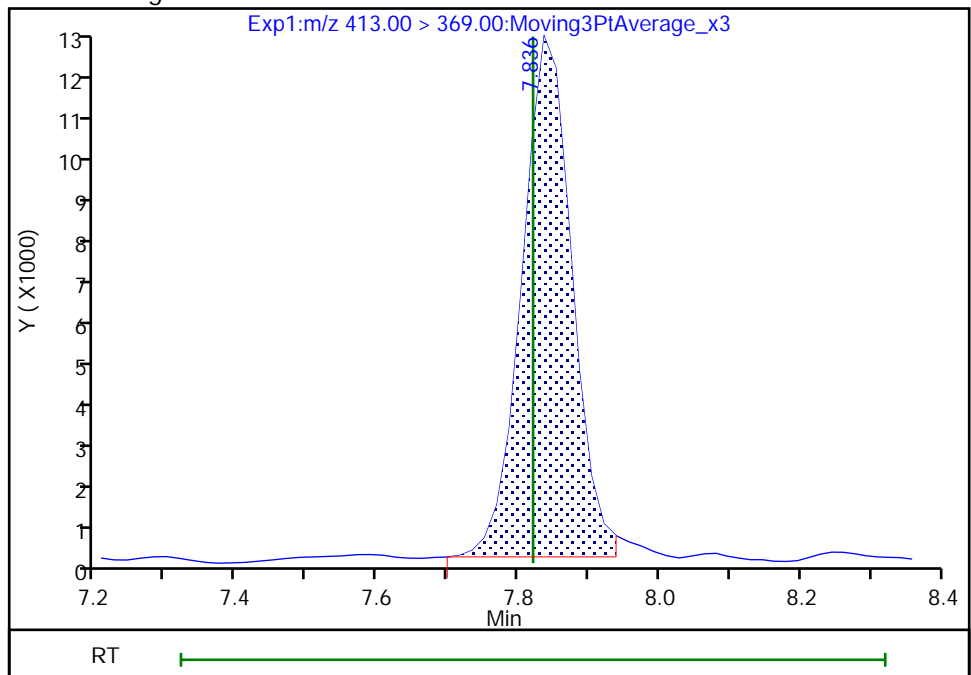
RT: 7.84  
Area: 61219  
Amount: 0.001000  
Amount Units: ng/ml

Processing Integration Results



RT: 7.84  
Area: 57394  
Amount: 0.001039  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:37:32

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

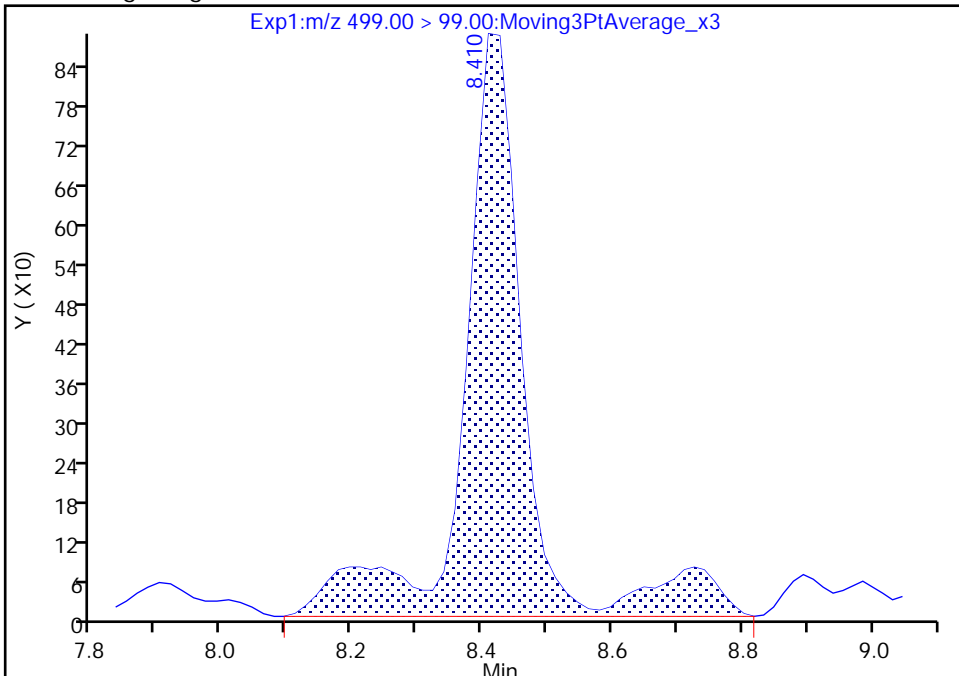
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Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

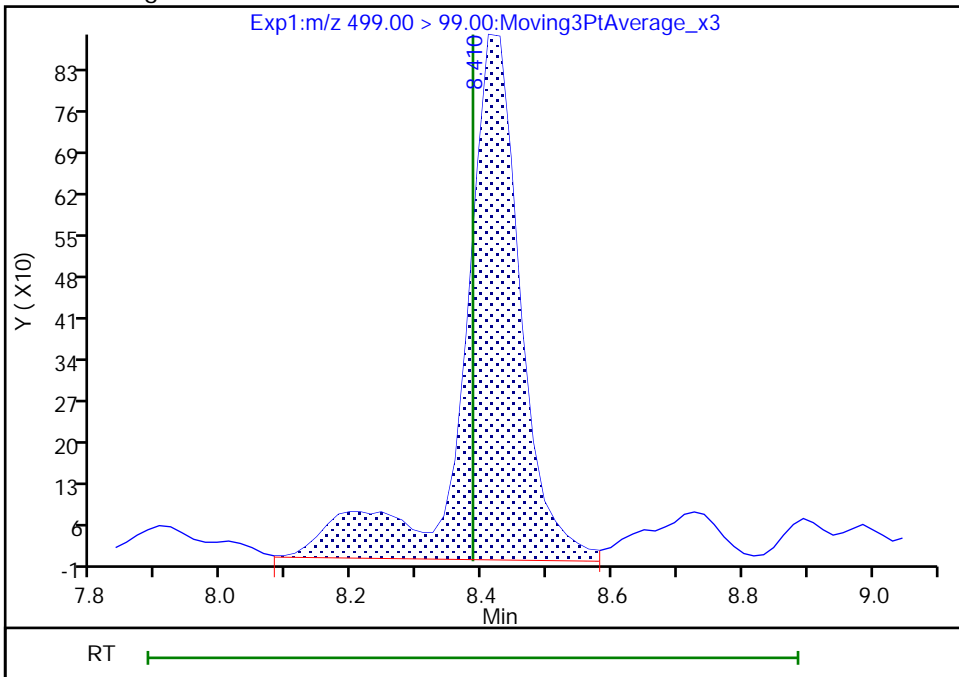
RT: 8.41  
Area: 5853  
Amount: 0.000928  
Amount Units: ng/ml

Processing Integration Results



RT: 8.41  
Area: 5462  
Amount: 0.000910  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 04:39:17  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

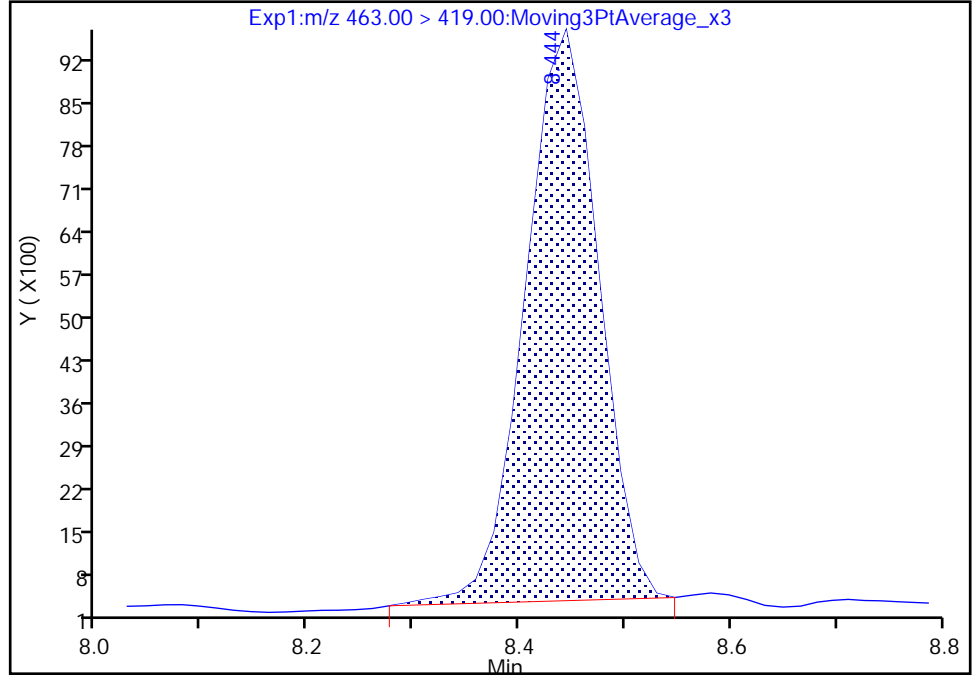
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Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

29 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

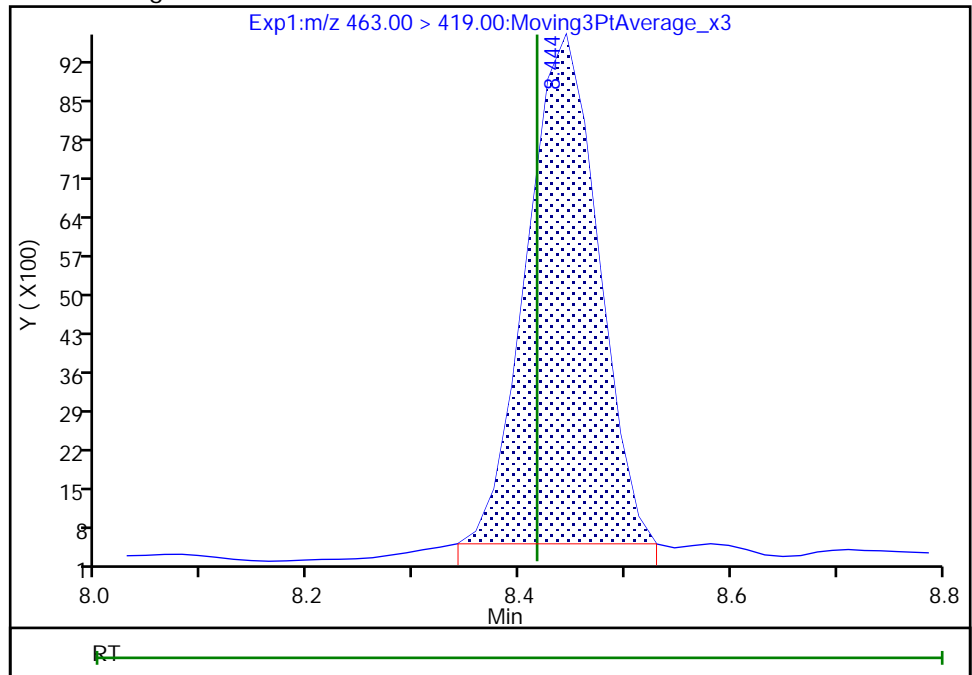
RT: 8.44  
Area: 44766  
Amount: 0.001033  
Amount Units: ng/ml

Processing Integration Results



RT: 8.44  
Area: 42966  
Amount: 0.000997  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:37:45  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

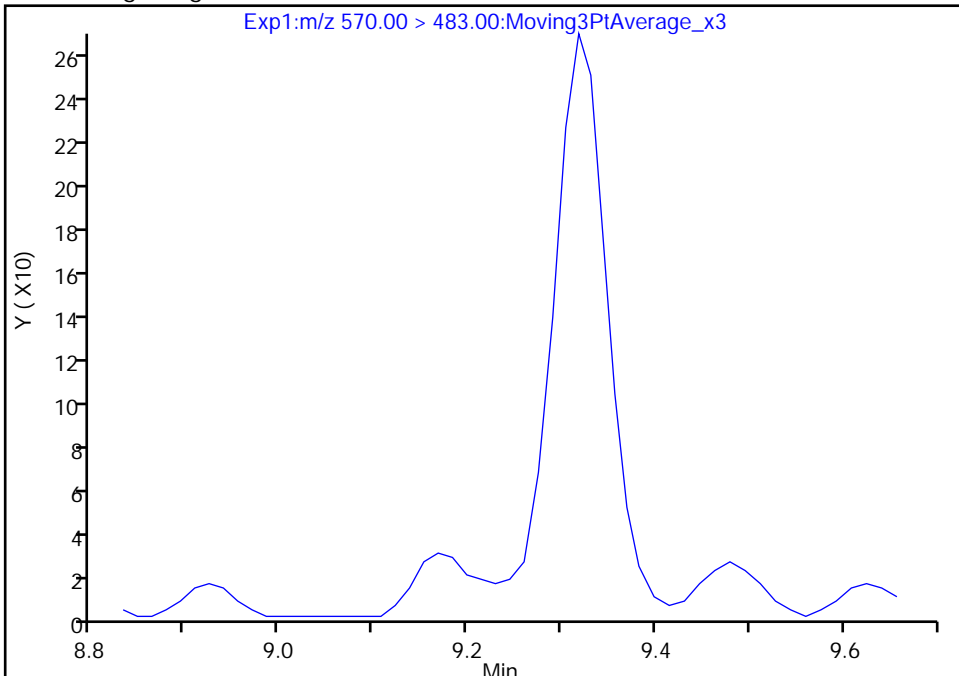
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

38 NMeFOSAA, CAS: 2355-31-9

Signal: 2

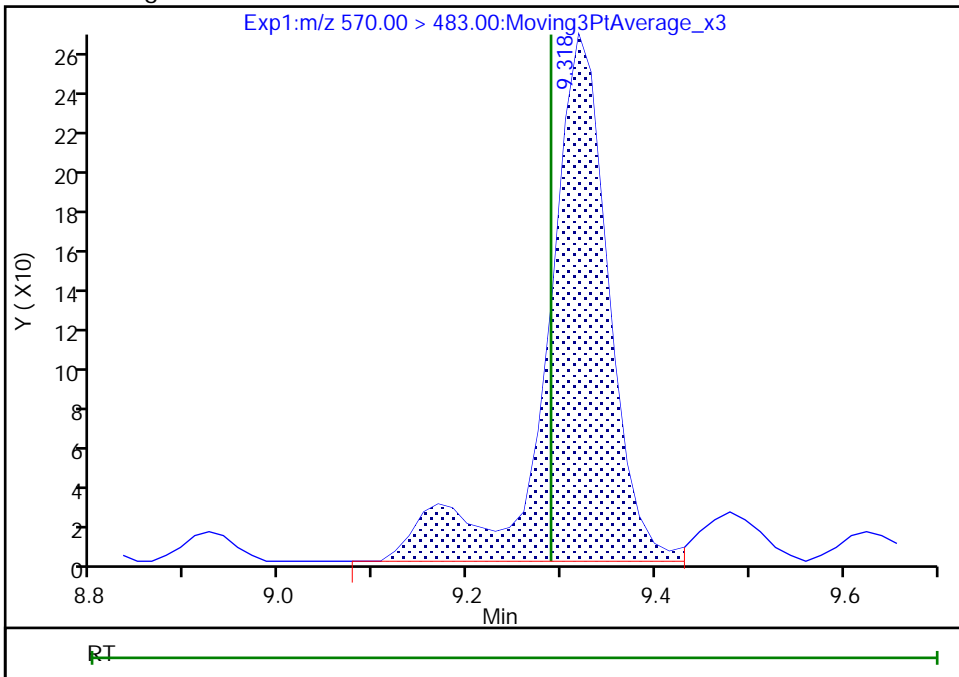
Not Detected  
Expected RT: 9.29

Processing Integration Results



Manual Integration Results

RT: 9.32  
Area: 1234  
Amount: 0.001046  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:37:58  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

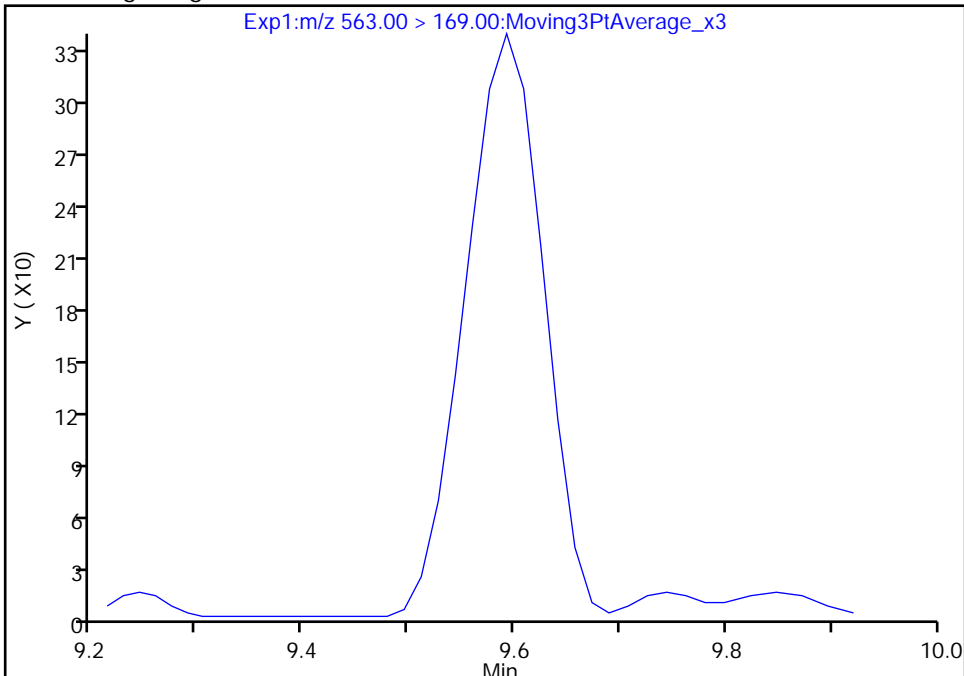
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

41 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

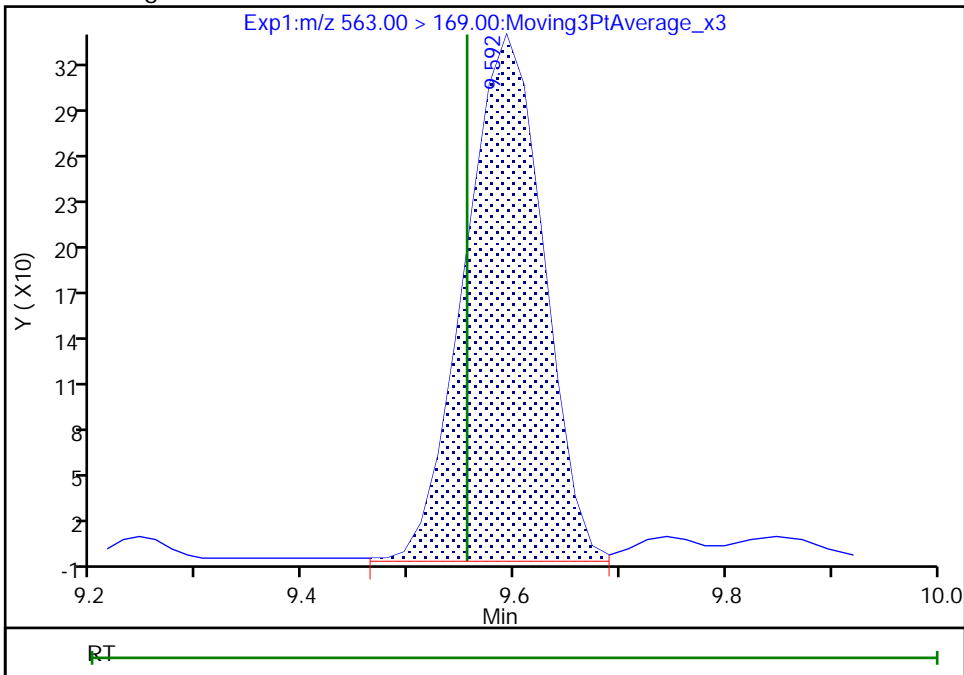
Not Detected  
Expected RT: 9.56

Processing Integration Results



Manual Integration Results

RT: 9.59  
Area: 1761  
Amount: 0.000836  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:38:05  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

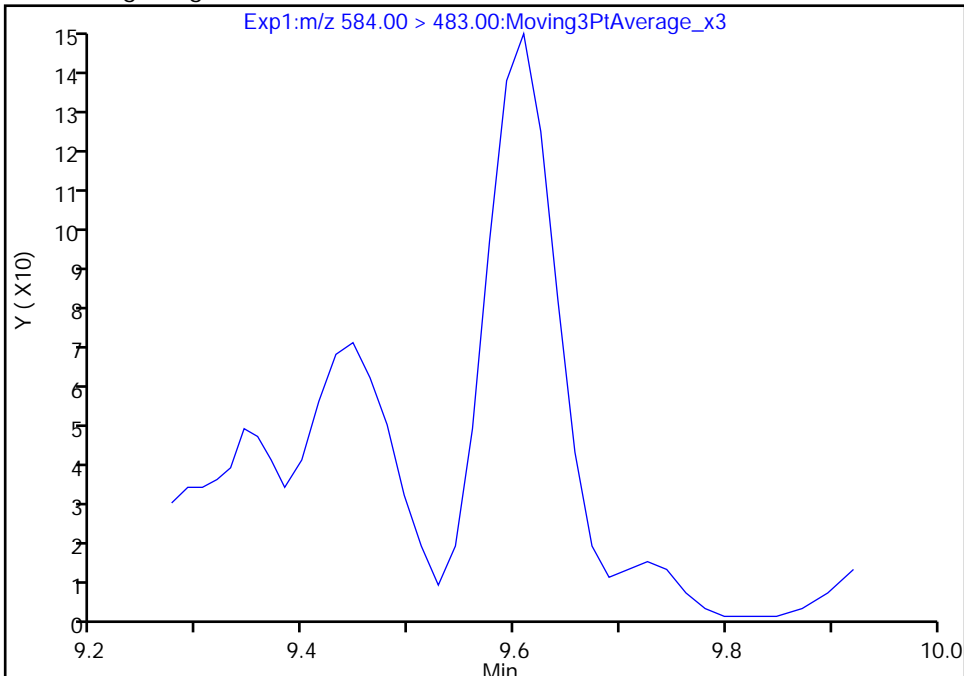
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

43 NEtFOSA, CAS: 2991-50-6

Signal: 2

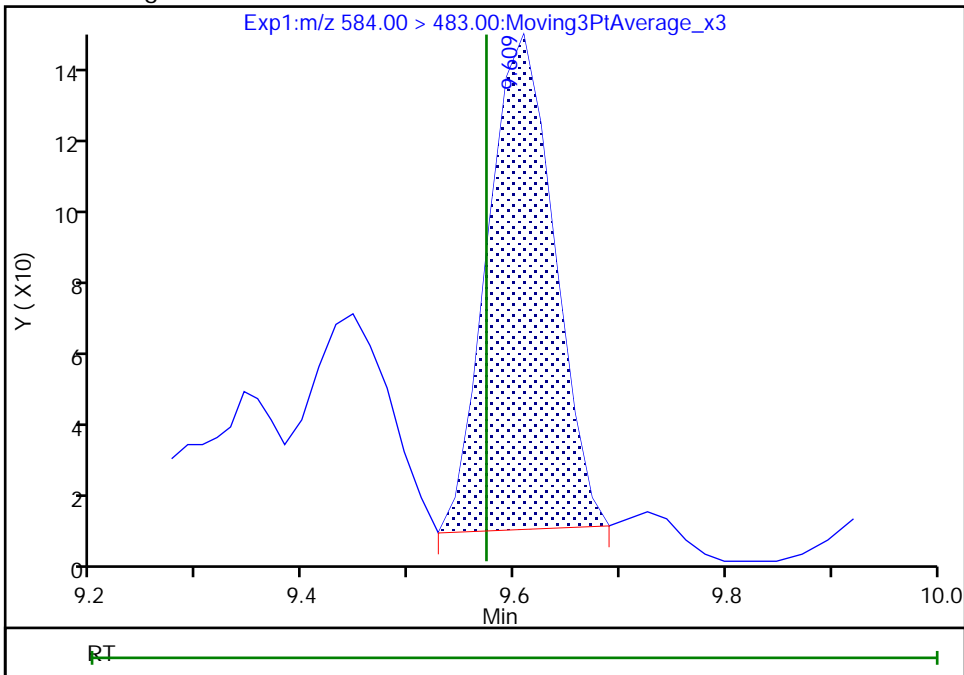
Not Detected  
Expected RT: 9.57

Processing Integration Results



Manual Integration Results

RT: 9.61  
Area: 612  
Amount: 0.000961  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:38:12  
Audit Action: Manually Integrated

Audit Reason: Assign Peak



Eurofins TestAmerica, Sacramento

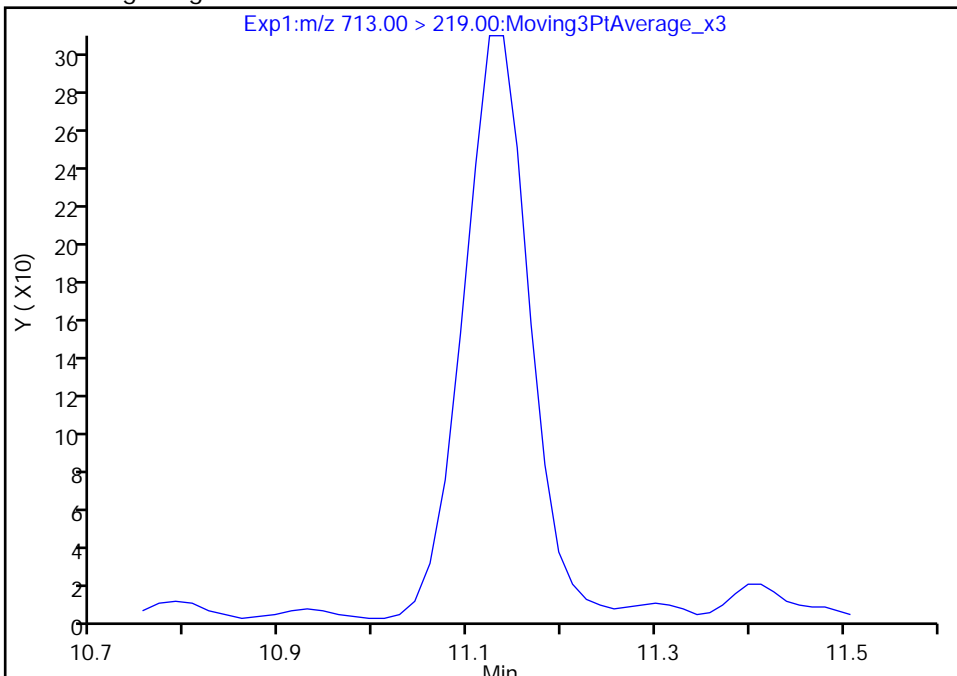
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

50 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

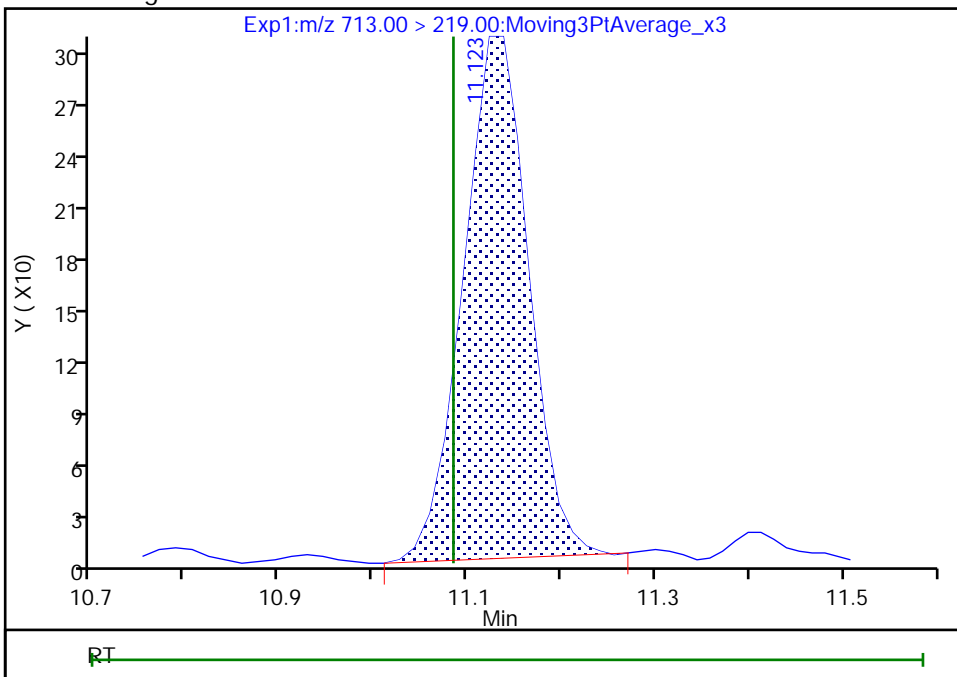
Not Detected  
Expected RT: 11.08

Processing Integration Results



Manual Integration Results

RT: 11.12  
Area: 1470  
Amount: 0.000971  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:38:29  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

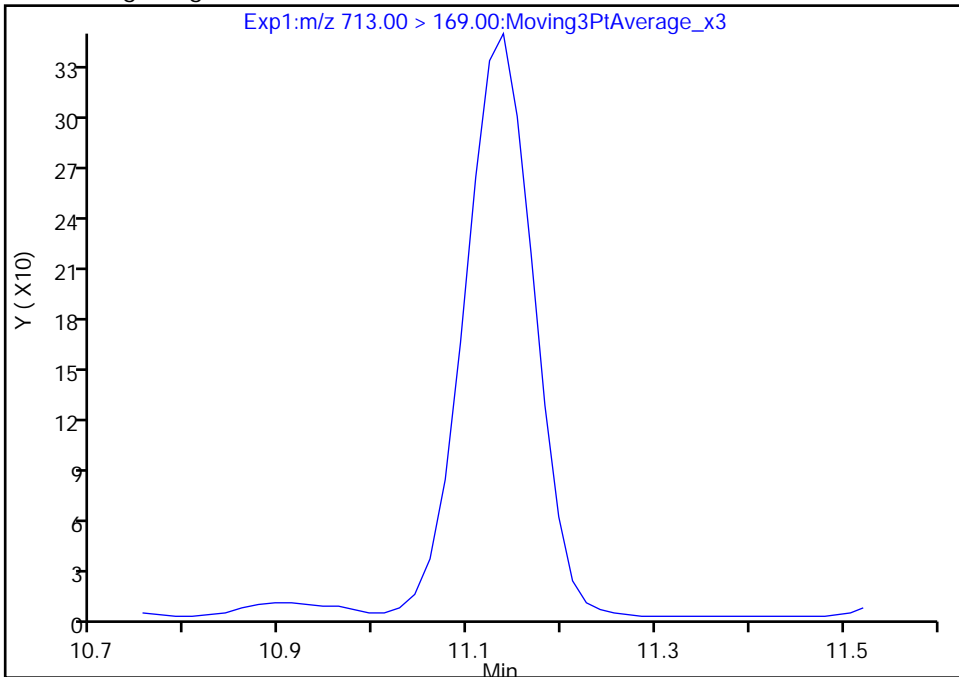
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

50 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

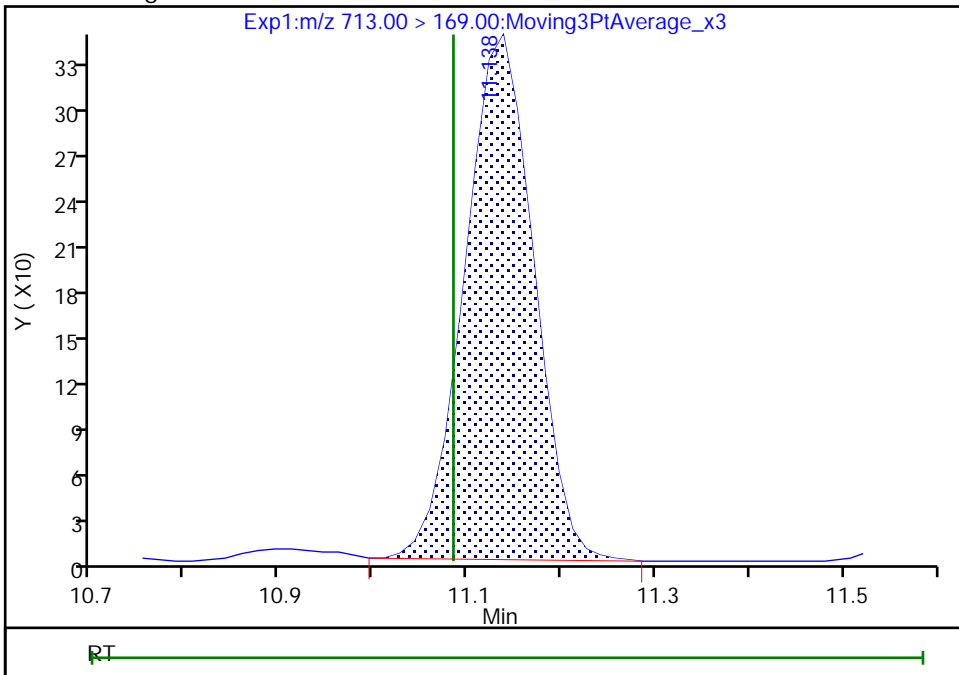
Not Detected  
Expected RT: 11.08

Processing Integration Results



Manual Integration Results

RT: 11.14  
Area: 1755  
Amount: 0.000971  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:38:33

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

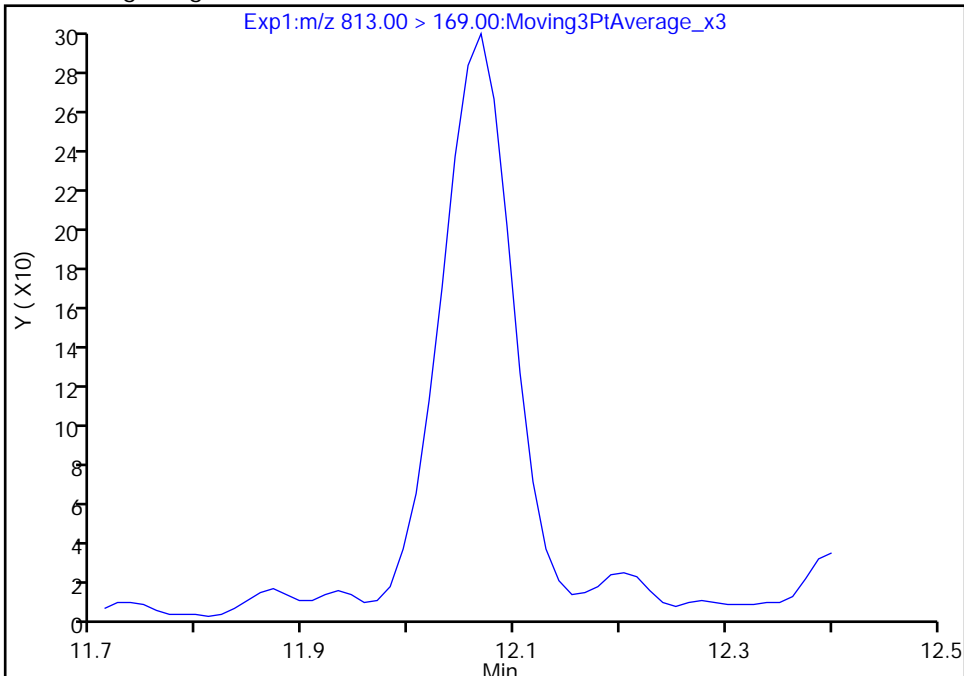
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

54 Perfluorohexadecanoic acid, CAS: 67905-19-5

Signal: 2

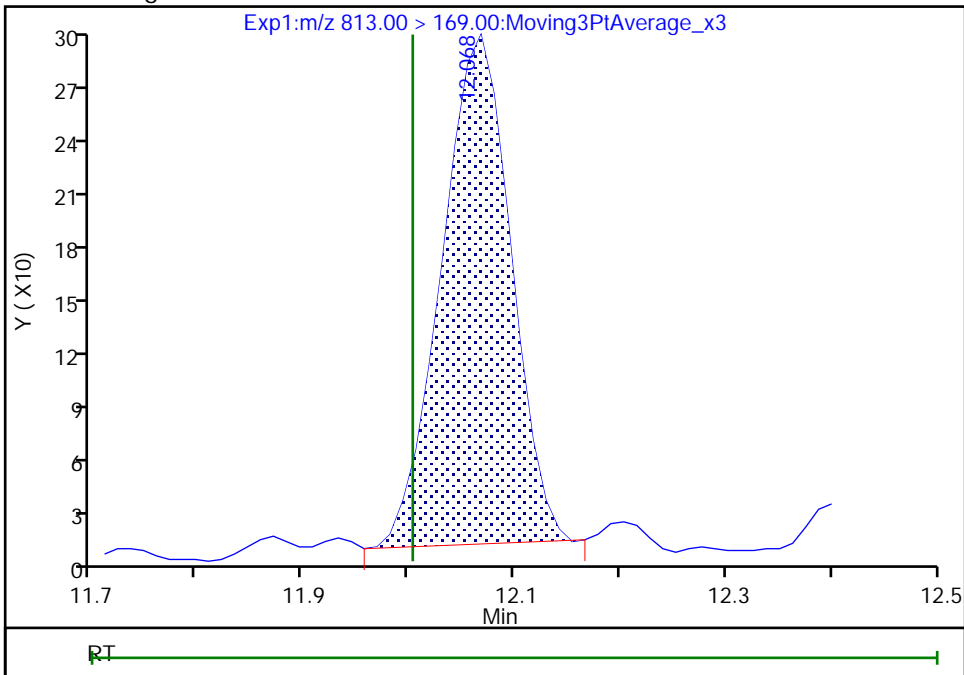
Not Detected  
Expected RT: 12.00

Processing Integration Results



Manual Integration Results

RT: 12.07  
Area: 1296  
Amount: 0.001272  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 11:38:38  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

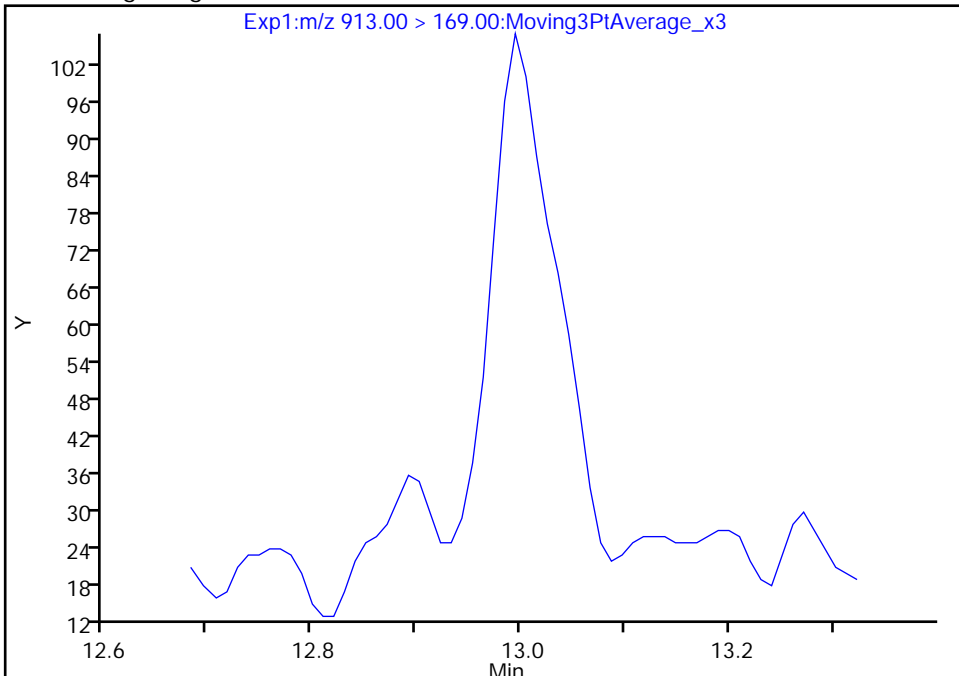
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_005.d  
Injection Date: 07-Jun-2021 14:46:39 Instrument ID: A10  
Lims ID: IC STD 1  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 5 Worklist Smp#: 2  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

53 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

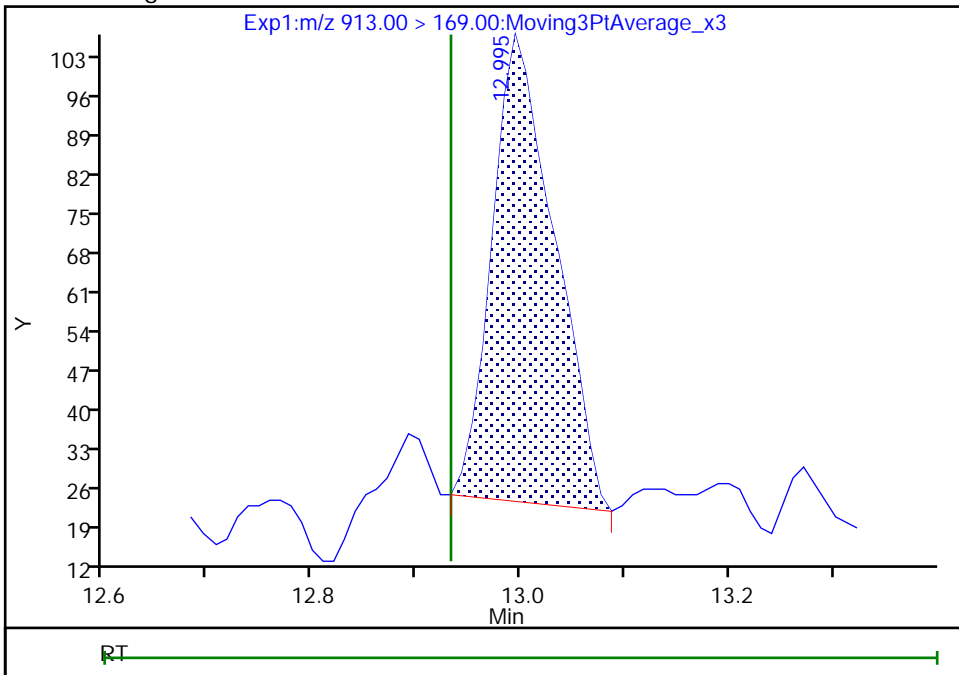
Not Detected  
Expected RT: 12.93

Processing Integration Results



RT: 12.99  
Area: 350  
Amount: 0.001096  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:38:44  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
 Lims ID: IC STD 2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 07-Jun-2021 15:05:08 ALS Bottle#: 6 Worklist Smp#: 3  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 2 (31)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:16 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 11:40:27

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.551	5.591	-0.040	907612	0.0253		50.6	32.2	
1 Perfluorobutanoic acid	212.90 > 169.00	5.551	5.595	-0.044	1.000	34049	0.001810	90.5	13.0	
D 4 13C5 PFPeA	267.90 > 223.00	6.229	6.235	-0.006	1765142	0.0515		103	6104	
5 Perfluoropentanoic acid	262.90 > 219.00	6.229	6.235	-0.006	1.000	86880	0.002073	104	19.2	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.287	0.006	1230780	0.0430		92.4	3655	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.293	6.290	0.003	1.000	57111	0.001869	Target=1.41	106	160
	298.90 > 99.00	6.293	6.290	0.003	1.000	38812	1.47(0.71-2.12)	106	63.2	
8 4:2 FTS	327.00 > 307.00	6.687	6.676	0.011	1.000	42858	NC	Target=2.69		733
	327.00 > 81.00	6.687	6.676	0.011	1.000	16440	2.61(1.34-4.03)			45.0
D 7 M2-4:2 FTS	329.00 > 81.00	6.687	6.676	0.011	367931	NC				1046
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.728	0.006	1699996	0.0522		104	8333	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.728	0.006	1.000	72174	0.002004	Target=19.50	100	63.9
	313.00 > 119.00	6.734	6.728	0.006	1.000	3447	20.94(9.75-29.25)	100	68.1	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.757	6.749	0.008	0.930	52660	NC	Target=1.44		145
	349.00 > 99.00	6.757	6.749	0.008	0.930	35823	1.47(0.72-2.17)			91.9

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.876	-0.001		174424	NC			811	
13 HPFO-DA										
329.10 > 285.00	6.875	6.876	-0.001	1.000	18661	NC			21.0	
14 9CIFOS										
531.00 > 351.00	7.054	7.109	-0.055	0.839	217	NC			1.3	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.265	7.248	0.017	1.000	56251	0.001780	Target=5.60	97.8	150	M
399.00 > 99.00	7.265	7.248	0.017	1.000	11036		5.10(2.80-8.40)	97.8	51.5	M
D 15 18O2 PFHxS										
403.00 > 84.00	7.265	7.248	0.017		1301531	0.0467		98.8	21166	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.265	7.254	0.011	1.000	79190	0.001988	Target=9.21	99.4	53.6	
363.00 > 169.00	7.265	7.254	0.011	1.000	8614		9.19(4.61-13.82)	99.4	121	M
D 17 13C4 PFHpA										
367.00 > 322.00	7.265	7.254	0.011		1942591	0.0503		101	8961	
19 DONA										
377.00 > 251.00	7.320	7.308	0.012	0.870	301518	NC	Target=2.84		816	
377.00 > 85.00	7.320	7.308	0.012	0.870	107028		2.82(1.42-4.26)		578	
23 6:2 FTS										
427.00 > 407.00	7.804	7.793	0.011	1.000	61813	0.001890	Target=2.57	99.7	639	
427.00 > 81.00	7.804	7.793	0.011	1.000	25937		2.38(1.29-3.86)	99.7	86.2	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.804	7.795	0.009		508425	0.0503		106	2100	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.820	7.804	0.016	0.930	47384	0.001928	Target=6.98	101	184	
449.00 > 99.00	7.820	7.804	0.016	0.930	6399		7.40(3.49-10.48)	101	42.9	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.837	7.821	0.016	1.000	109085	0.001954	Target=1.54	97.7	21.5	
413.00 > 169.00	7.837	7.821	0.016	1.000	73622		1.48(0.77-2.31)	97.7	332	
D 25 13C4 PFOA										
417.00 > 372.00	7.837	7.821	0.016		2948744	0.0517		103	10811	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.411	8.386	0.025	1.000	39045	0.001899	Target=3.65	102	183	
499.00 > 99.00	8.411	8.386	0.025	1.000	9593		4.07(1.83-5.48)	102	62.5	
D 26 13C4 PFOS										
503.00 > 80.00	8.411	8.386	0.025		890888	0.0458		95.9	3960	
D 28 13C5 PFNA										
468.00 > 423.00	8.428	8.417	0.011		2474895	0.0509		102	9439	
29 Perfluorononanoic acid										
463.00 > 419.00	8.428	8.417	0.011	1.000	86555	0.001927	Target=7.83	96.3	46.2	
463.00 > 169.00	8.428	8.417	0.011	1.000	12267		7.06(3.92-11.75)	96.3	102	
D 30 13C8 FOSA										
506.00 > 78.00	8.930	8.926	0.004		1408729	0.0612		122	5257	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.930	8.926	0.004	1.000	62292	0.001991		99.5	714	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.976	8.961	0.015	1.067	32256	NC	Target=6.10		277	
549.00 > 99.00	8.976	8.961	0.015	1.067	5753		5.61(3.05-9.15)		58.3	
D 33 13C2 PFDA										
515.00 > 470.00	9.023	8.999	0.024		2245864	0.0509			102	13465
35 Perfluorodecanoic acid										
513.00 > 469.00	9.023	9.001	0.022	1.000	77779	0.001896	Target=16.47	94.8	90.4	
513.00 > 169.00	9.023	9.001	0.022	1.000	4901		15.87(8.23-24.70)	94.8	77.0	
D 34 M2-8:2 FTS										
529.00 > 81.00	9.023	9.001	0.022		425016	0.0507			106	3493
36 8:2 FTS										
527.00 > 507.00	9.023	9.001	0.022	1.000	40651	0.001898	Target=2.29	99.1	580	
527.00 > 81.00	9.023	9.001	0.022	1.000	18995		2.14(1.15-3.44)	99.1	147	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.303	9.281	0.022		775607	0.0486			97.1	3912
38 NMeFOSAA										
570.00 > 419.00	9.317	9.289	0.028	1.002	26897	0.001955	Target=13.24	97.8	116	M
570.00 > 483.00	9.288	9.289	-0.001	0.998	2181		12.33(6.62-19.86)	97.8	24.8	M
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.524	9.508	0.016	1.132	24670	0.002058	Target=2.43	107	393	
599.00 > 99.00	9.524	9.508	0.016	1.132	10666		2.31(1.22-3.65)	107	224	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.572	9.555	0.017	1.000	81040	0.002116	Target=21.30	106	130	
563.00 > 169.00	9.572	9.555	0.017	1.000	3543		22.87(10.65-31.95)	106	68.9	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.588	9.561	0.027		801675	0.0505			101	3886
D 42 13C2 PFUnA										
565.00 > 520.00	9.572	9.555	0.017		1947911	0.0496			99.2	12312
43 NEtFOSA										
584.00 > 419.00	9.588	9.573	0.015	1.000	27706	0.001883	Target=16.50	94.2	388	M
584.00 > 483.00	9.588	9.573	0.015	1.000	1452		19.08(8.25-24.74)	94.2	13.7	M
44 11C1FOS										
631.00 > 451.00	9.819	9.790	0.029	1.168	180377	NC			731	
D 45 13C2 PFDoA										
615.00 > 570.00	10.118	10.084	0.034		2683986	0.0607			121	15872
46 Perfluorododecanoic acid										
613.00 > 569.00	10.118	10.084	0.034	1.000	98086	0.001966	Target=15.78	98.3	59.1	
613.00 > 169.00	10.118	10.084	0.034	1.000	6120		16.03(7.89-23.66)	98.3	69.8	
47 10:2 FTS										
627.00 > 607.00	10.140	10.115	0.025	1.124	59519	NC	Target=34.02		832	M
627.00 > 81.00	10.140	10.115	0.025	1.124	1761		33.80(17.01-51.03)		41.0	M
48 PFDoS										
699.00 > 80.00	10.556	10.532	0.024	1.255	12494	NC	Target=0.50		124	
699.00 > 99.00	10.556	10.532	0.024	1.255	26812		0.47(0.25-0.74)		253	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.627	10.601	0.026	1.050	142714	0.002245	Target=20.25	112	76.0	
663.00 > 169.00	10.627	10.601	0.026	1.050	6641		21.49(10.13-30.38)	112	131	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.105	11.085	0.020	1.000	5875	0.001965	Target=1.26	98.2	114	
713.00 > 219.00	11.105	11.085	0.020	1.000	4438		1.32(0.63-1.89)	98.2	82.2	
D 51 13C2 PFTeDA										
715.00 > 670.00	11.105	11.085	0.020		3407352	0.0927		185	10046	
D 52 13C2 PFHxDA										
815.00 > 770.00	12.040	12.002	0.038		2597981	0.1049		210	9468	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	12.040	12.004	0.036	1.000	124149	0.002194	Target=28.54	110	84.1	
813.00 > 169.00	12.040	12.004	0.036	1.000	4559		27.23(14.27-42.81)	110	50.3	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.981	12.933	0.048	1.078	26526	0.001225	Target=35.98	61.2	31.6	M
913.00 > 169.00	12.981	12.933	0.048	1.078	774		34.27(17.99-53.97)	61.2	13.4	M

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L2\_00031

Amount Added: 1.00

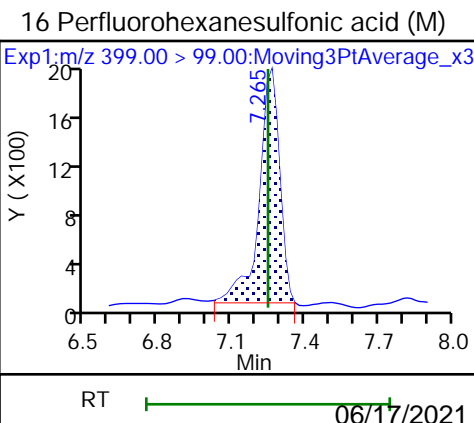
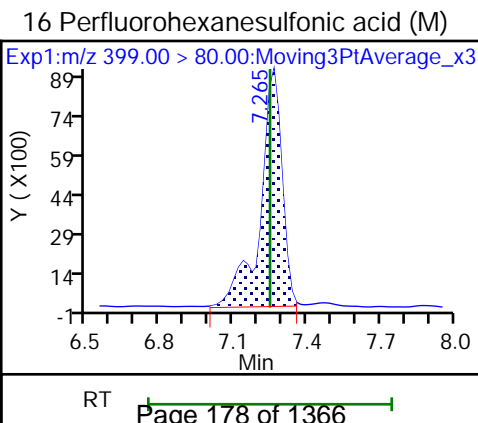
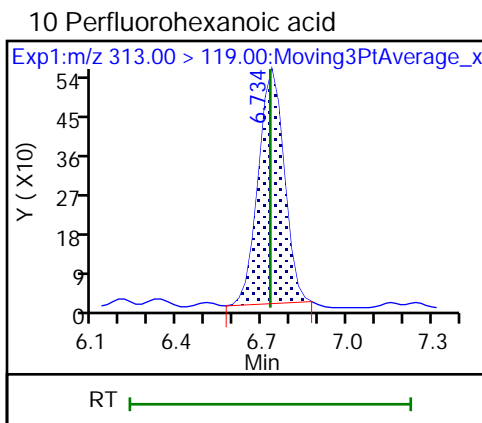
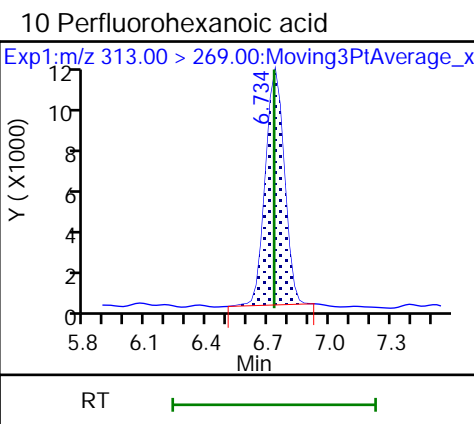
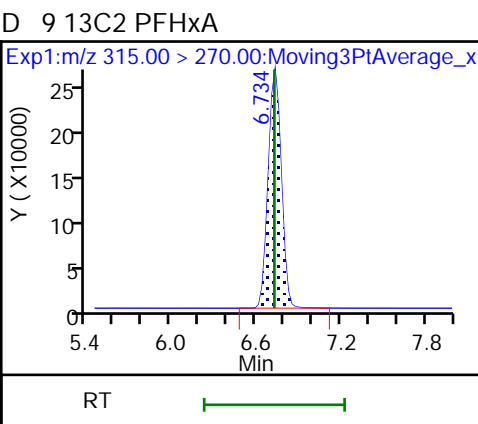
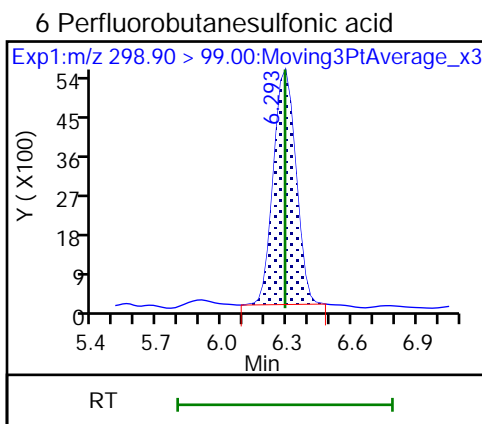
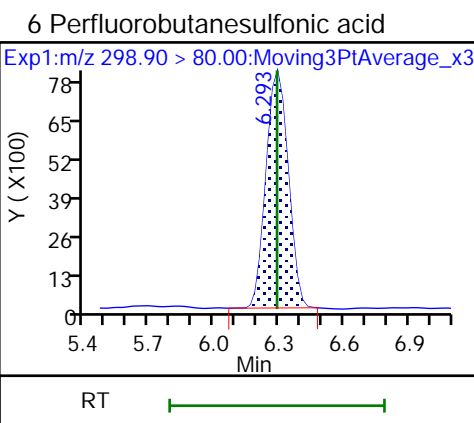
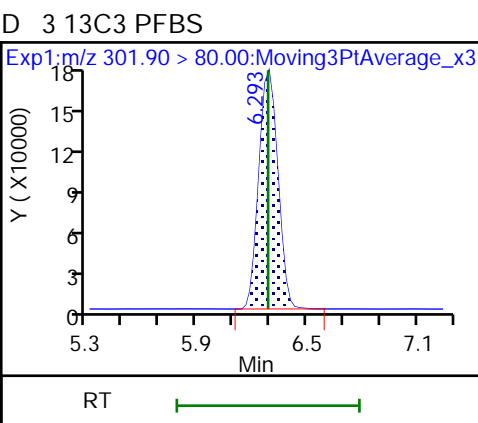
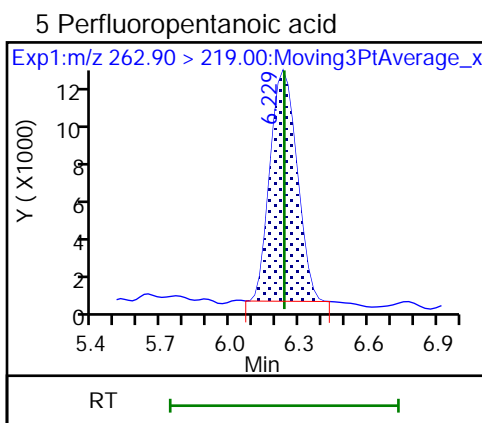
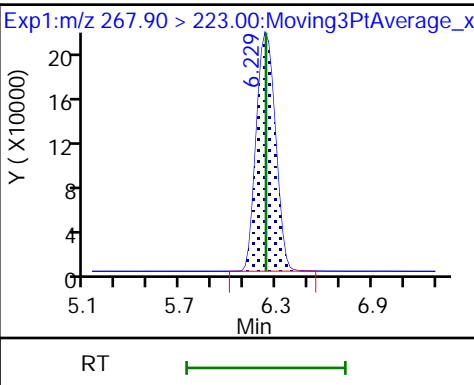
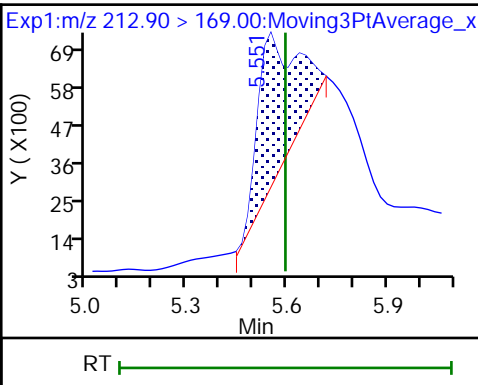
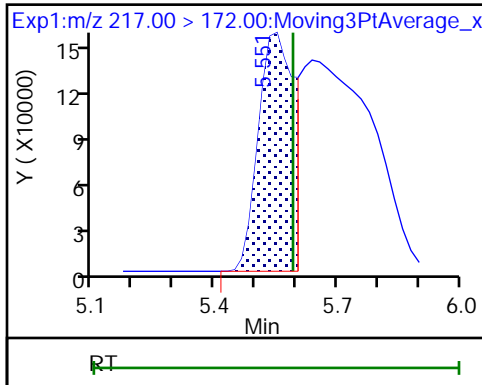
Units: mL



D 2 13C4 PFBA

1 Perfluorobutanoic acid

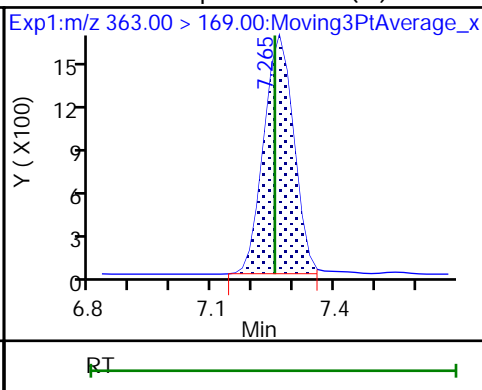
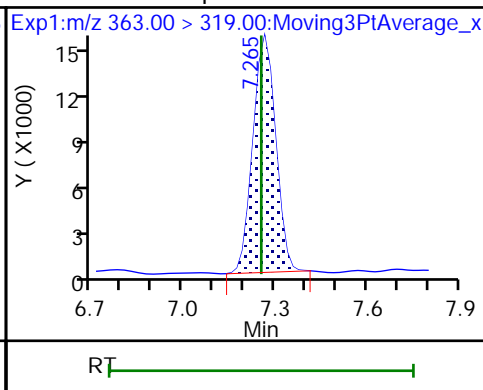
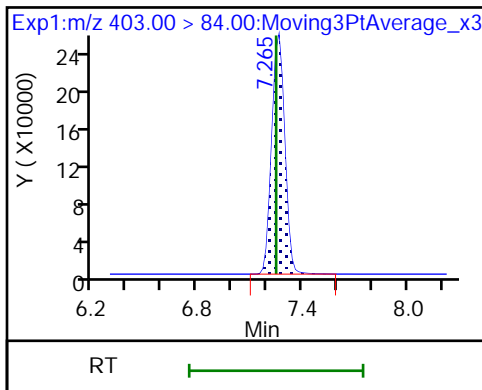
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

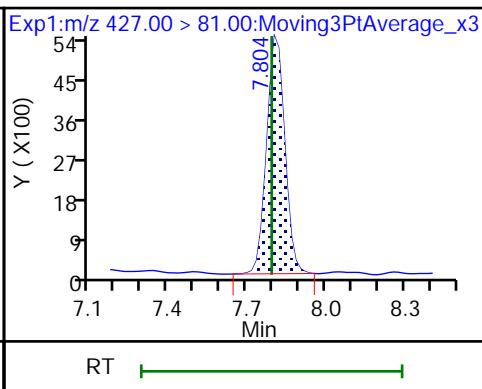
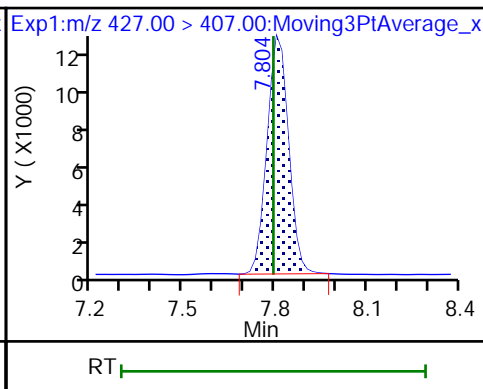
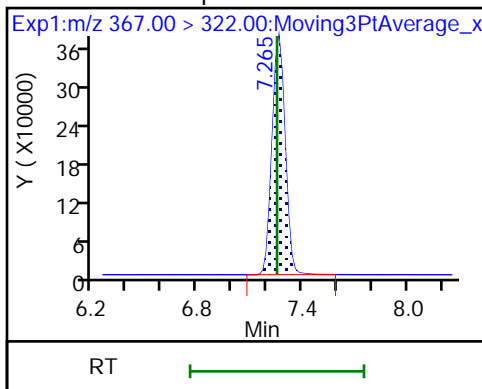
18 Perfluoroheptanoic acid (M)



D 17 13C4 PFHpA

23 6:2 FTS

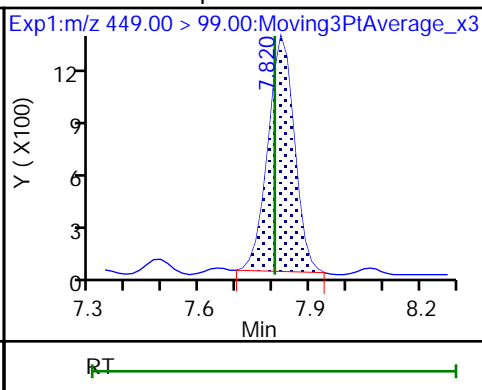
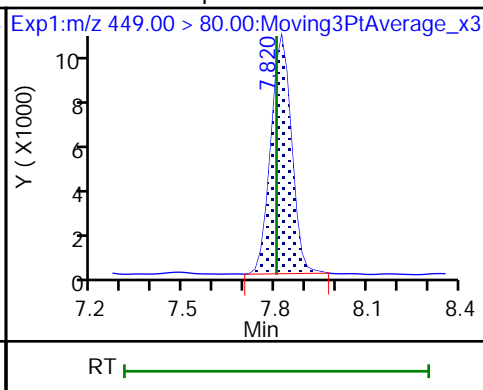
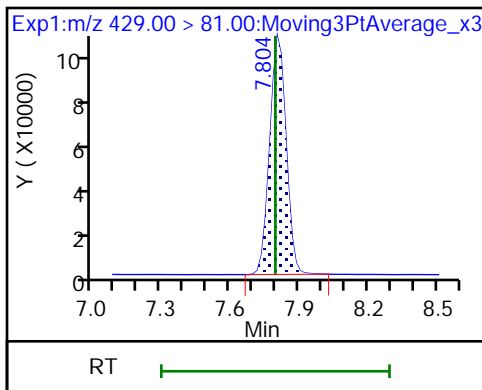
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

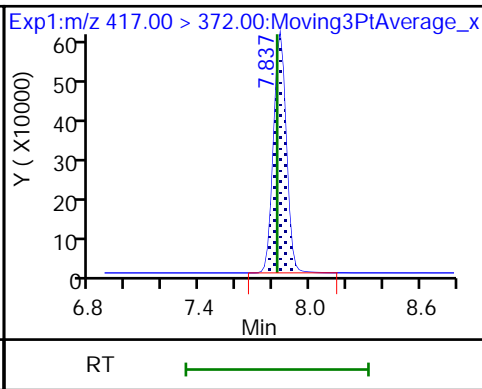
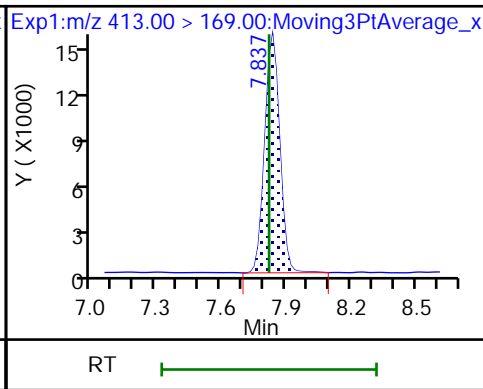
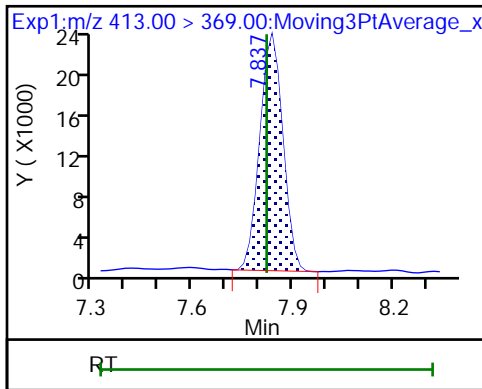
21 Perfluoroheptanesulfonic acid

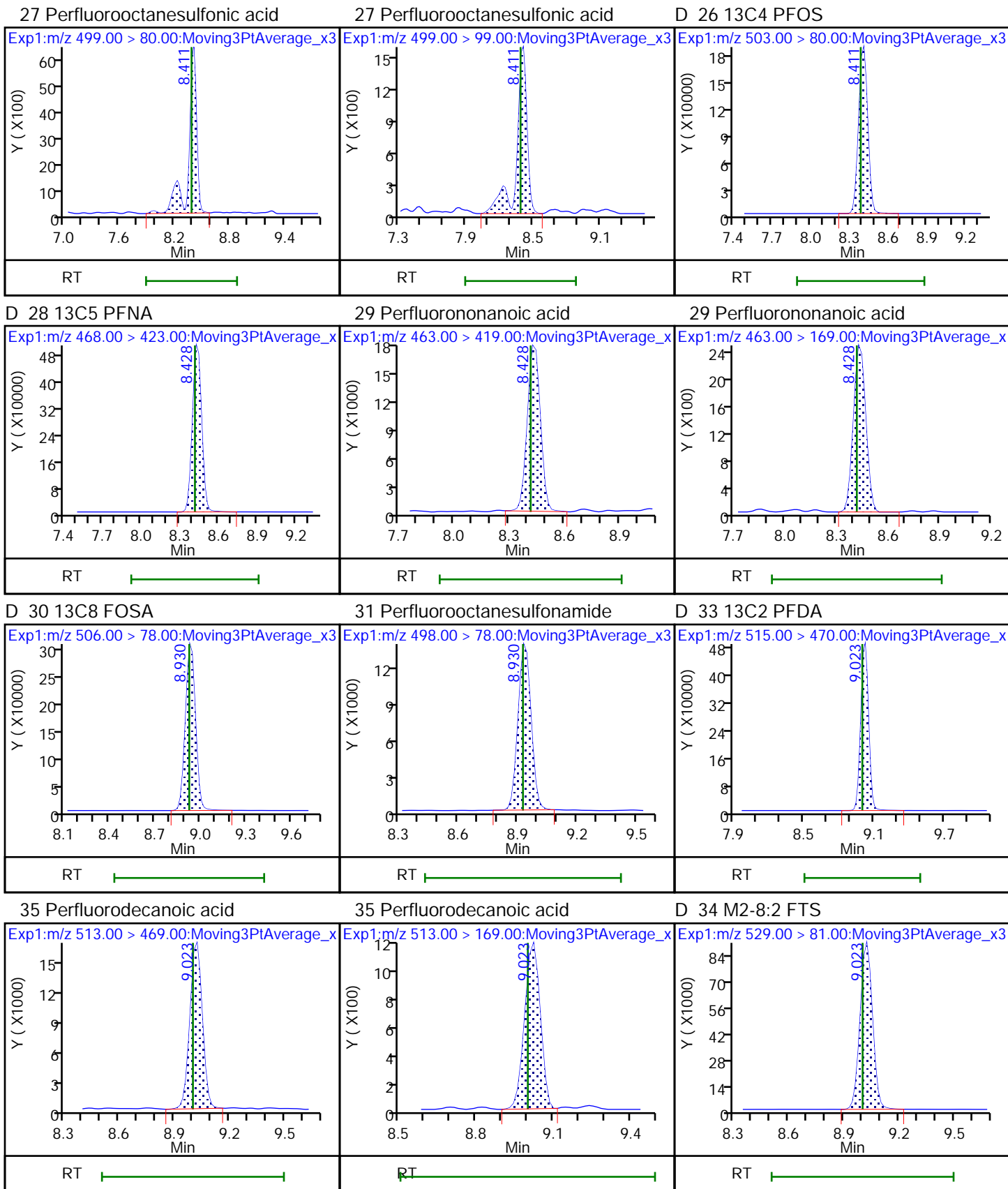


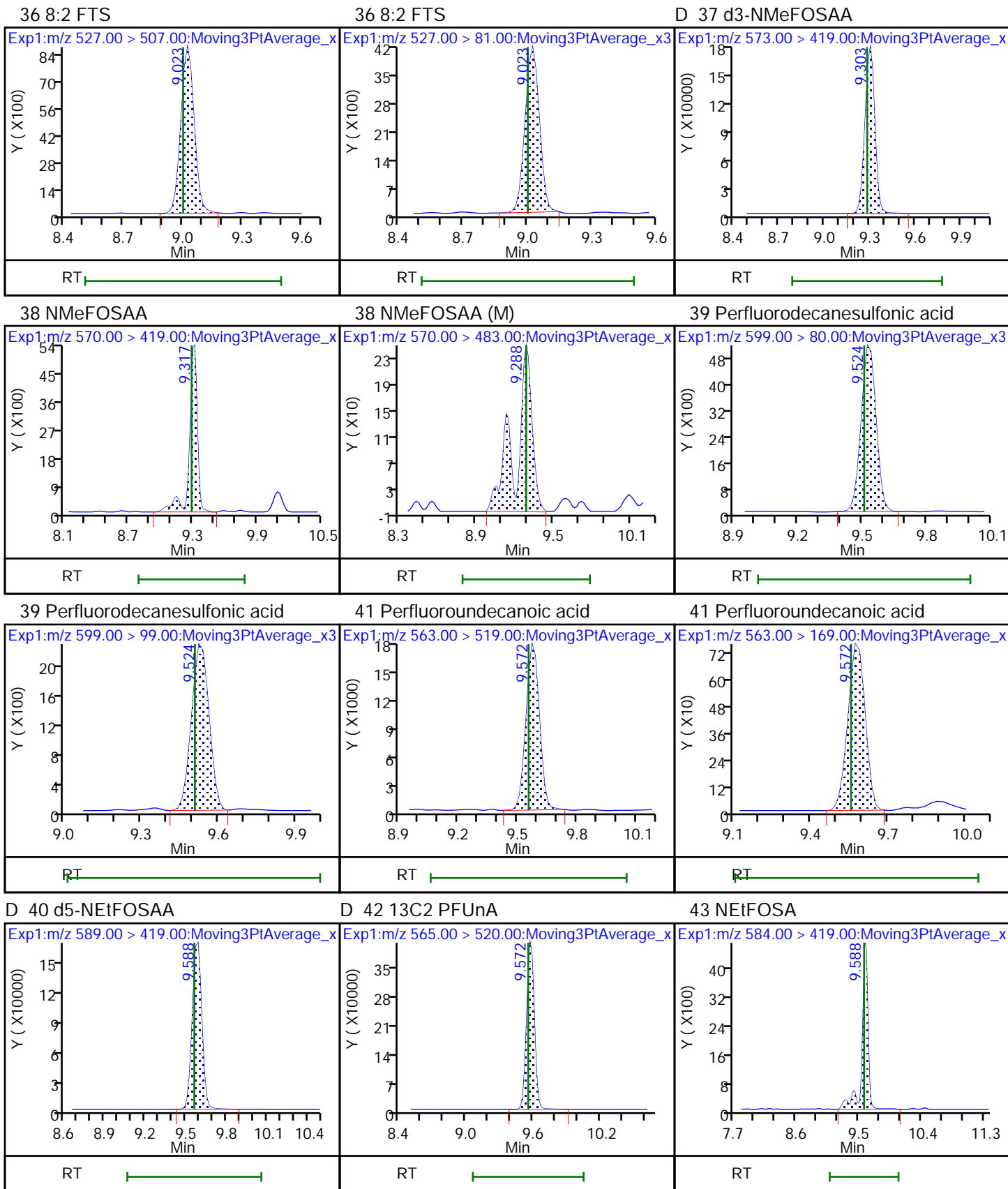
24 Perfluorooctanoic acid

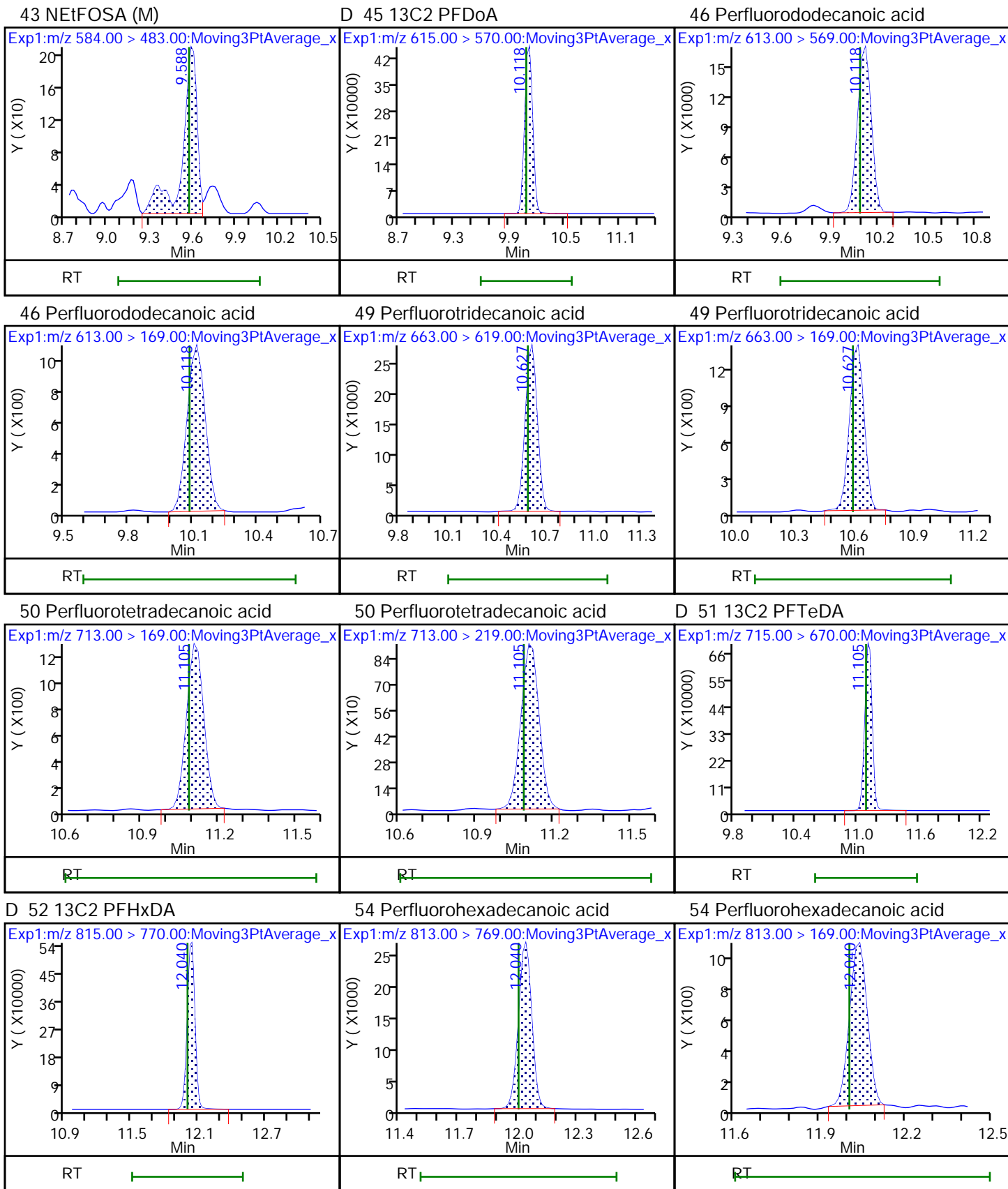
24 Perfluorooctanoic acid

D 25 13C4 PFOA



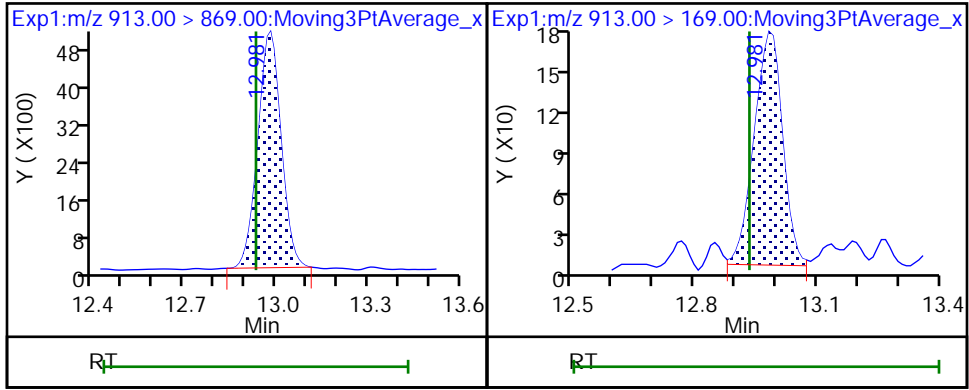






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Sacramento

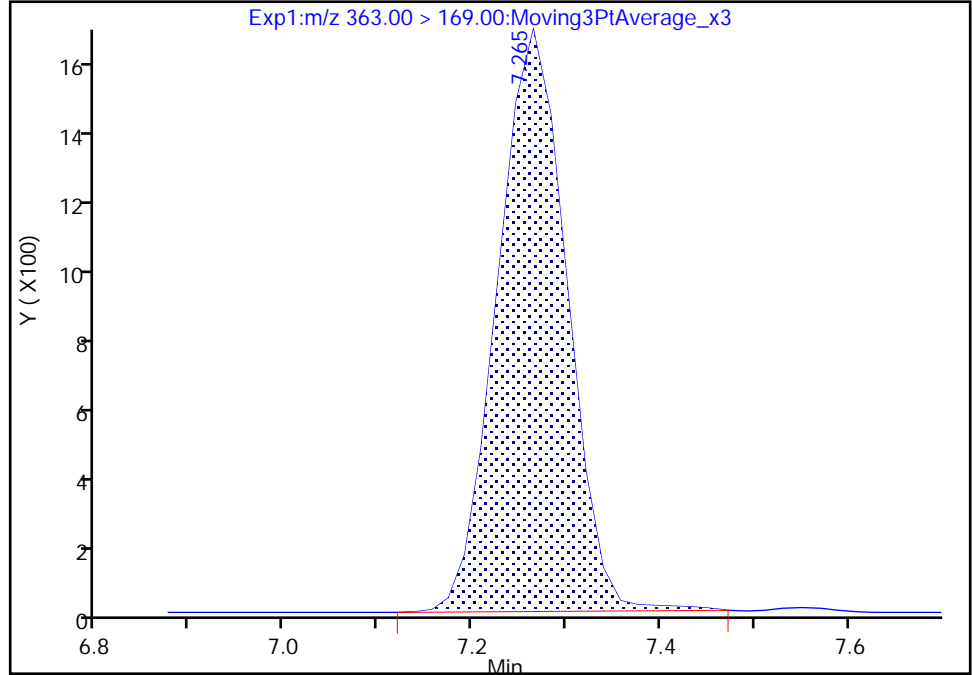
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

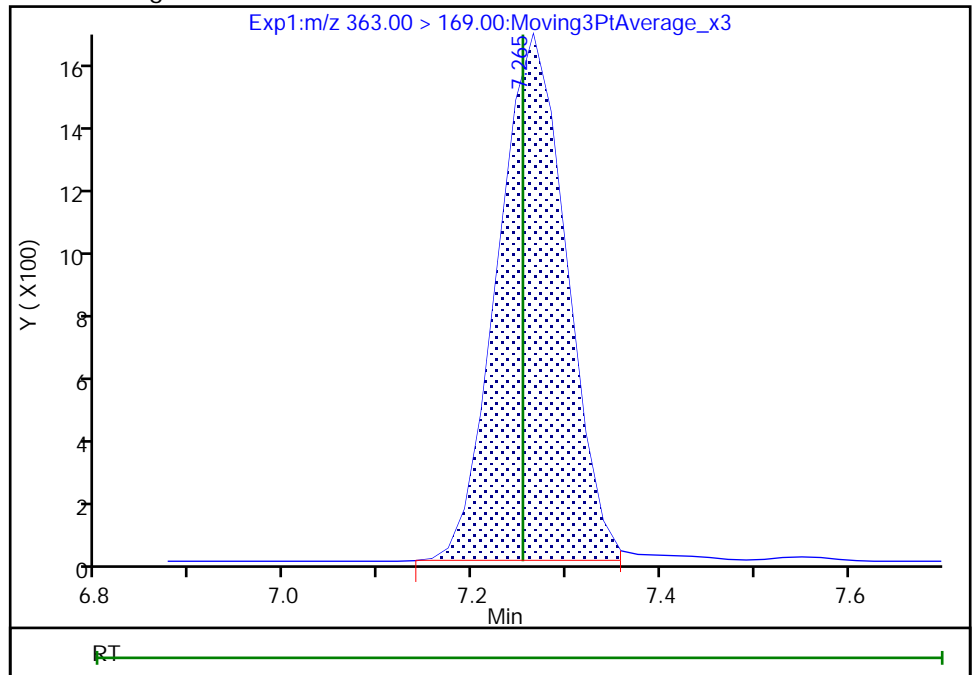
RT: 7.26  
Area: 8714  
Amount: 0.001986  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 8614  
Amount: 0.001988  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:39:35  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

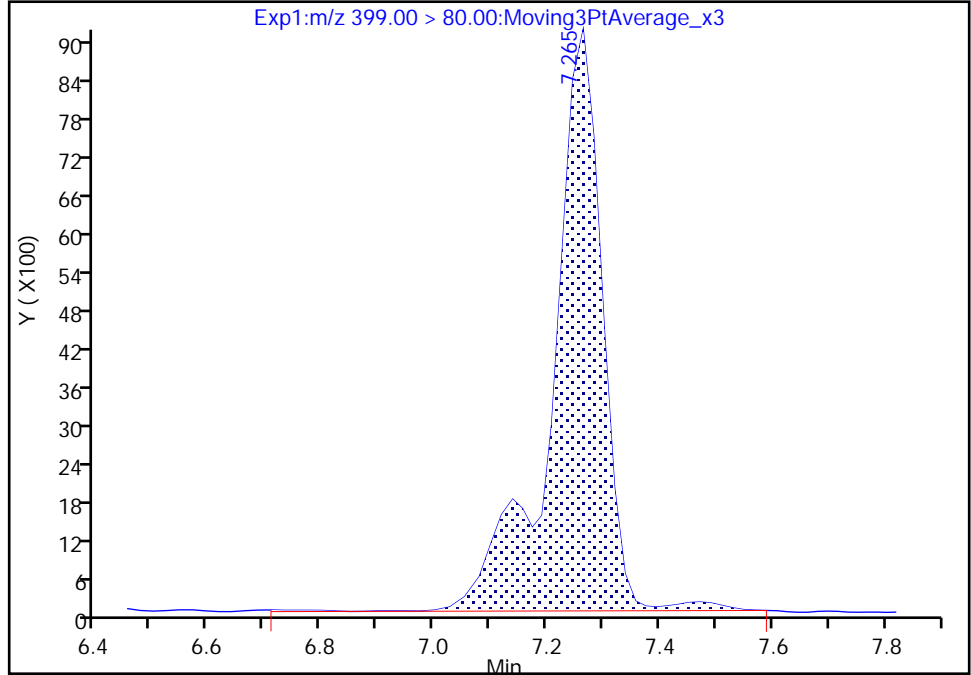
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

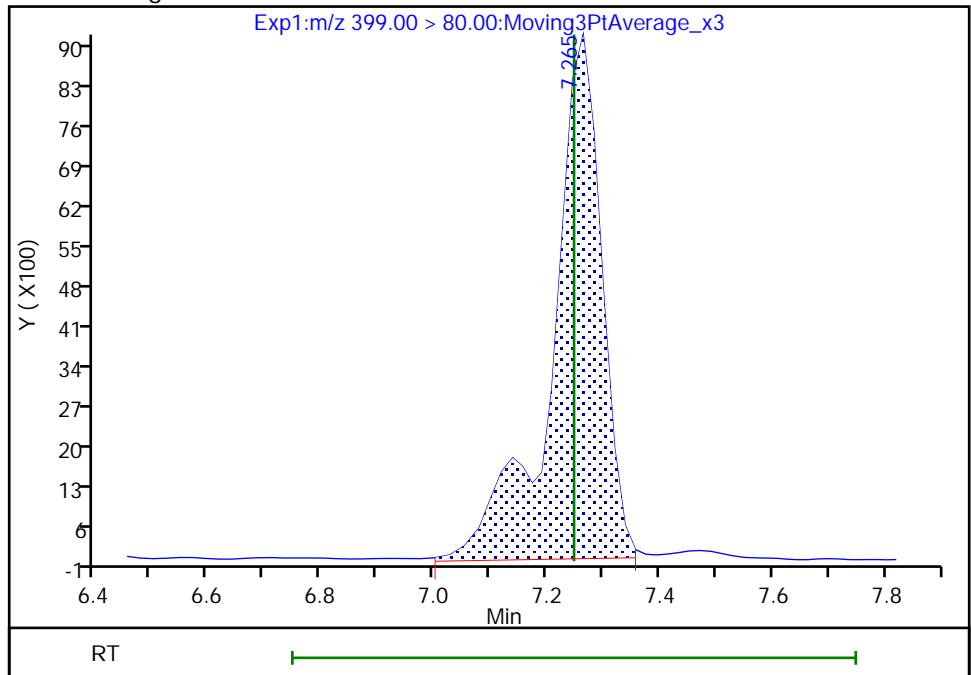
RT: 7.26  
Area: 57119  
Amount: 0.001794  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 56251  
Amount: 0.001780  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:39:19  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

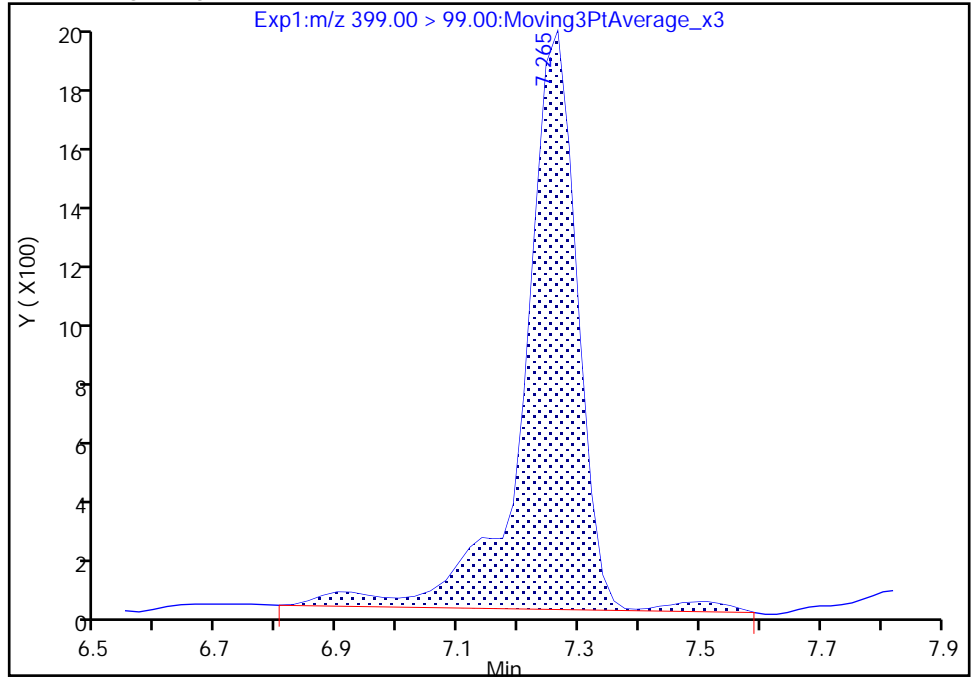
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

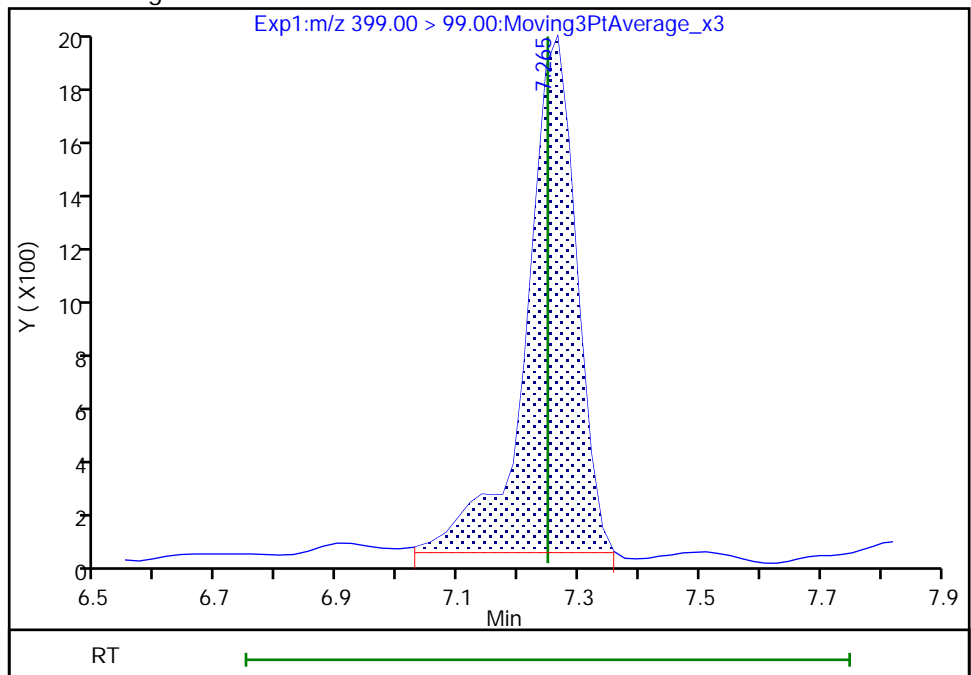
RT: 7.26  
Area: 12096  
Amount: 0.001794  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 11036  
Amount: 0.001780  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:39:26

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

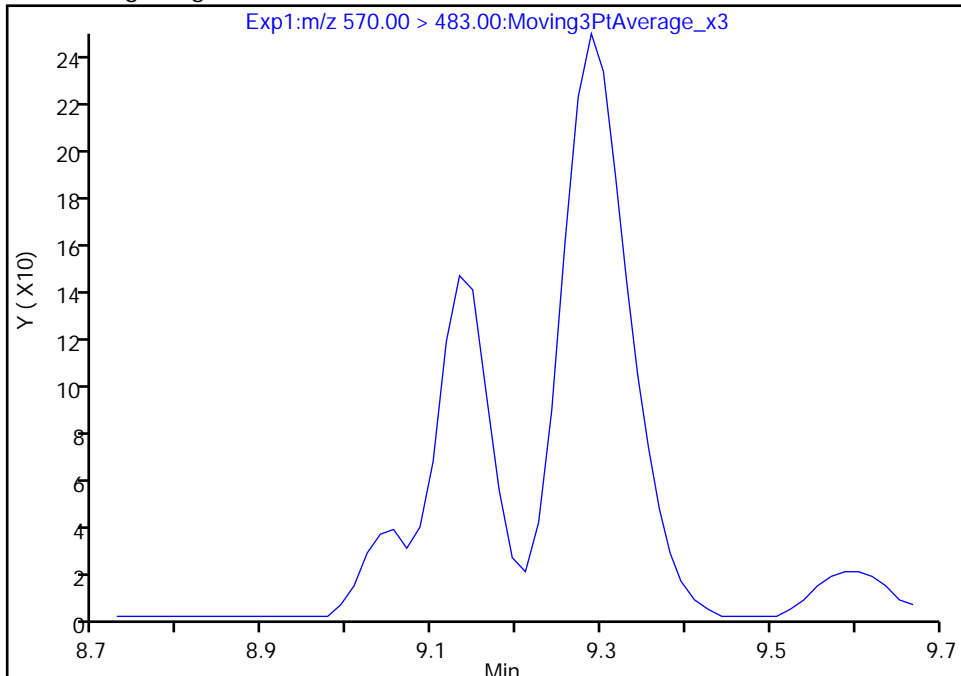
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

38 NMeFOSAA, CAS: 2355-31-9

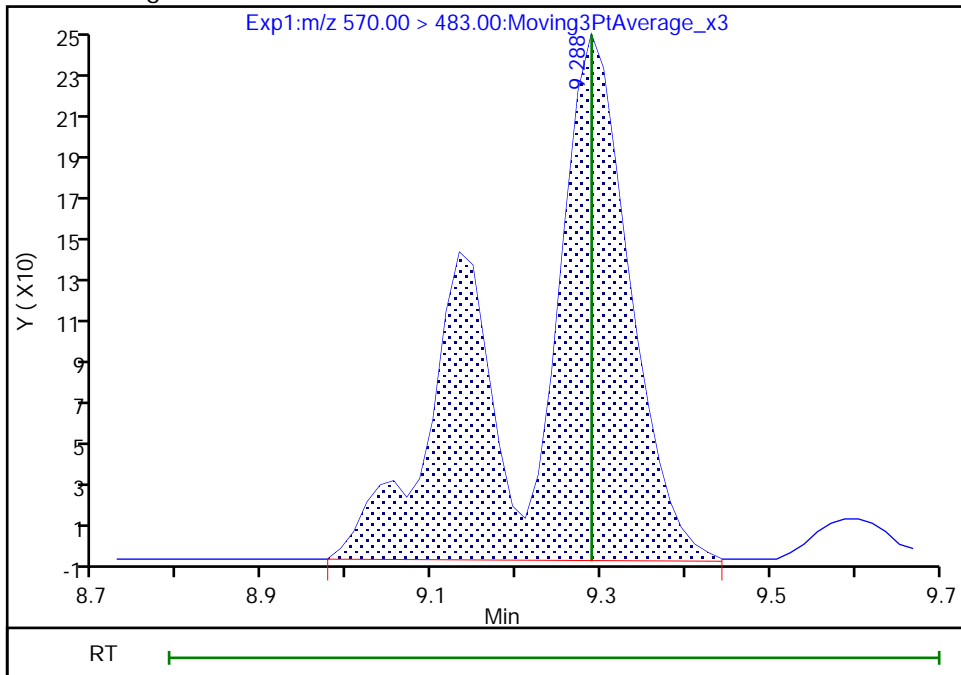
Signal: 2

Not Detected  
Expected RT: 9.29

Processing Integration Results



Manual Integration Results



RT: 9.29  
Area: 2181  
Amount: 0.001955  
Amount Units: ng/ml

Reviewer: vangmy, 08-Jun-2021 12:43:45  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

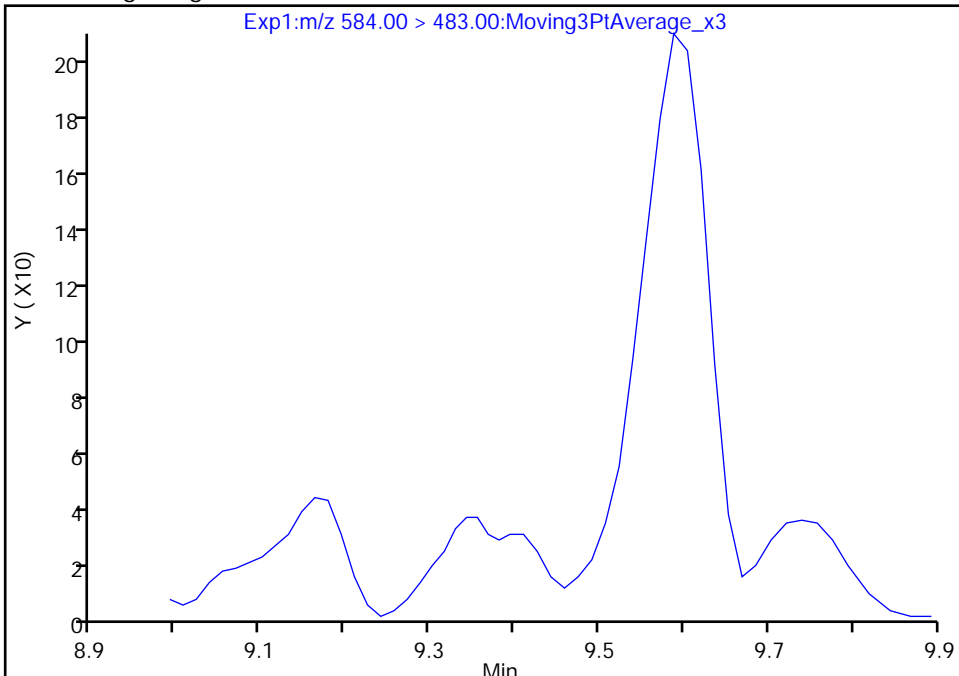
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

43 NEtFOSA, CAS: 2991-50-6

Signal: 2

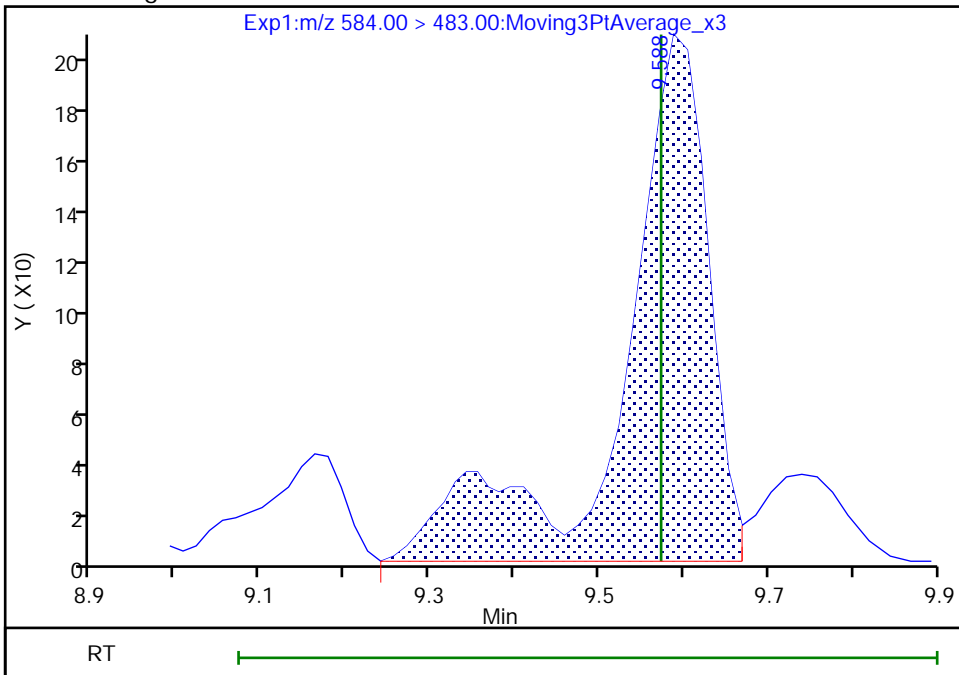
Not Detected  
Expected RT: 9.57

Processing Integration Results



RT: 9.59  
Area: 1452  
Amount: 0.001883  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:43:50  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

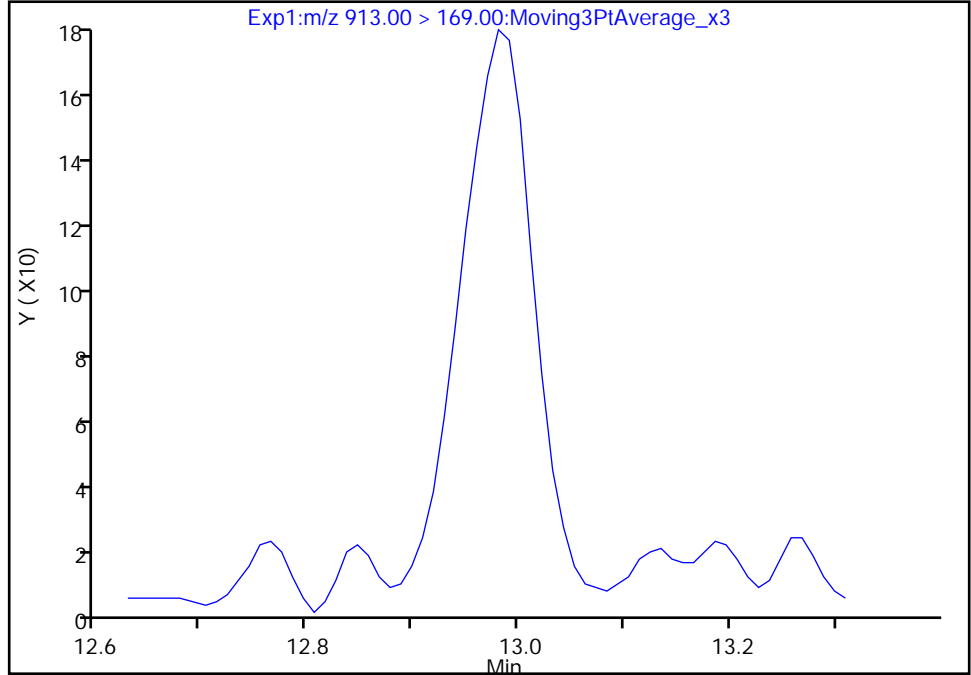
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_006.d  
Injection Date: 07-Jun-2021 15:05:08 Instrument ID: A10  
Lims ID: IC STD 2  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 6 Worklist Smp#: 3  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

53 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

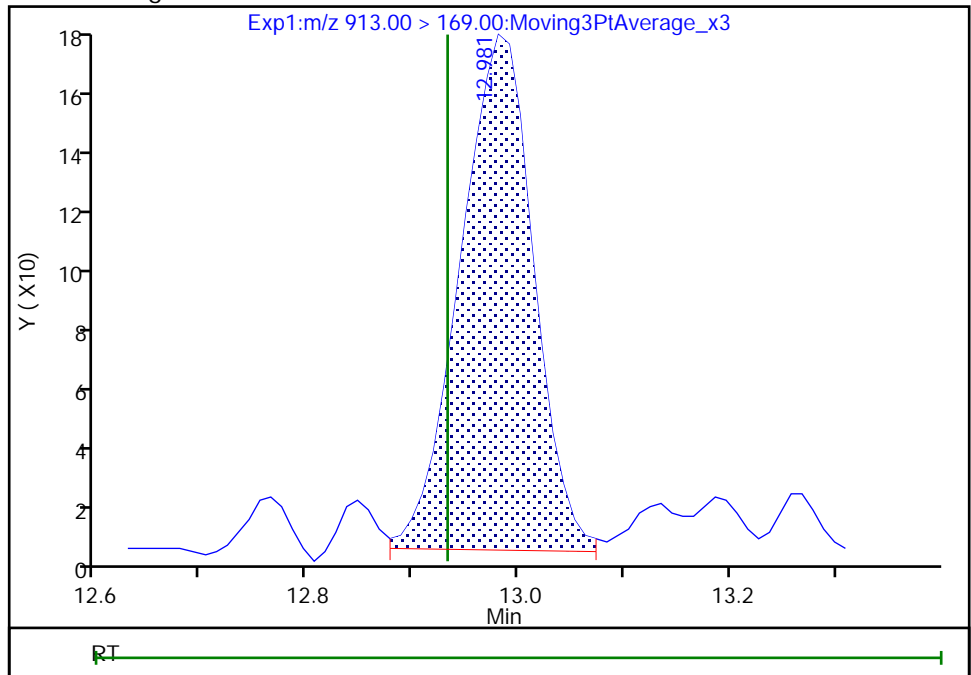
Not Detected  
Expected RT: 12.93

Processing Integration Results



Manual Integration Results

RT: 12.98  
Area: 774  
Amount: 0.001225  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 12:44:01  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_007.d  
 Lims ID: IC STD 3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 07-Jun-2021 15:23:35 ALS Bottle#: 7 Worklist Smp#: 4  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 3 (23)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:25 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d

Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:15:10

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.657	5.591	0.066	2621733	0.0731		146	7700	
1 Perfluorobutanoic acid	212.90 > 169.00	5.657	5.595	0.062	1.000	250683	0.004613	92.3	75.1	
D 4 13C5 PFPeA	267.90 > 223.00	6.250	6.235	0.015	1652762	0.0482		96.4	6810	
5 Perfluoropentanoic acid	262.90 > 219.00	6.250	6.235	0.015	1.000	215231	0.005485	110	67.8	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.287	0.006	1211708	0.0423		91.0	4003	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.293	6.290	0.003	1.000	153513	0.005104 Target=1.41	115	427	
	298.90 > 99.00	6.293	6.290	0.003	1.000	102874	1.49(0.71-2.12)	115	196	
8 4:2 FTS	327.00 > 307.00	6.688	6.676	0.012	1.000	113102	NC Target=2.69		2011	
	327.00 > 81.00	6.688	6.676	0.012	1.000	47427	2.38(1.34-4.03)		113	
D 7 M2-4:2 FTS	329.00 > 81.00	6.688	6.676	0.012	362421	NC			851	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.728	0.006	1627229	0.0500		99.9	8315	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.728	0.006	1.000	183058	0.005310 Target=19.50	106	162	
	313.00 > 119.00	6.734	6.728	0.006	1.000	8741	20.94(9.75-29.25)	106	86.3	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.757	6.749	0.008	0.933	142135	NC Target=1.44		183	
	349.00 > 99.00	6.757	6.749	0.008	0.933	98176	1.45(0.72-2.17)		300	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.876	6.876	0.0	1.000	45280	NC			55.5	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.876	0.0		149262	NC			639	
14 9CIFOS										
531.00 > 351.00	7.120	7.109	0.011	0.848	555	NC			3.1	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.244	7.248	-0.004	1.000	160511	0.004890	Target=5.60	107	267	M
399.00 > 99.00	7.244	7.248	-0.004	1.000	28573		5.62(2.80-8.40)	107	116	M
D 15 18O2 PFHxS										
403.00 > 84.00	7.244	7.248	-0.004		1352273	0.0486		103	13882	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.263	7.254	0.009	1.000	231093	0.005226	Target=9.21	105	139	M
363.00 > 169.00	7.263	7.254	0.009	1.000	27057		8.54(4.61-13.82)	105	116	M
D 17 13C4 PFHpA										
367.00 > 322.00	7.263	7.254	0.009		2156967	0.0559		112	9078	
19 DONA										
377.00 > 251.00	7.318	7.308	0.010	0.872	919994	NC	Target=2.84		2515	
377.00 > 85.00	7.318	7.308	0.010	0.872	319755		2.88(1.42-4.26)		1770	
23 6:2 FTS										
427.00 > 407.00	7.803	7.793	0.010	1.000	173823	0.004958	Target=2.57	105	1965	
427.00 > 81.00	7.803	7.793	0.010	1.000	69953		2.48(1.29-3.86)	105	160	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.803	7.795	0.008		545000	0.0539		113	1408	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.803	7.804	-0.001	0.930	133057	0.005258	Target=6.98	110	333	
449.00 > 99.00	7.803	7.804	-0.001	0.930	19131		6.96(3.49-10.48)	110	120	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.820	7.821	-0.001	1.000	295595	0.005217	Target=1.54	104	62.2	M
413.00 > 169.00	7.820	7.821	-0.001	1.000	189919		1.56(0.77-2.31)	104	754	M
D 25 13C4 PFOA										
417.00 > 372.00	7.820	7.821	-0.001		2991897	0.0525		105	10256	
D 26 13C4 PFOS										
503.00 > 80.00	8.393	8.386	0.007		917213	0.0472		98.7	2729	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.393	8.386	0.007	1.000	107226	0.005066	Target=3.65	109	410	M
499.00 > 99.00	8.393	8.386	0.007	1.000	28691		3.74(1.83-5.48)	109	143	M
D 28 13C5 PFNA										
468.00 > 423.00	8.427	8.417	0.010		2496799	0.0514		103	10576	
29 Perfluorononanoic acid										
463.00 > 419.00	8.427	8.417	0.010	1.000	227591	0.005021	Target=7.83	100	131	
463.00 > 169.00	8.427	8.417	0.010	1.000	28285		8.05(3.92-11.75)	100	179	
D 30 13C8 FOSA										
506.00 > 78.00	8.931	8.926	0.005		1065060	0.0462		92.5	4805	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.931	8.926	0.005	1.000	131501	0.005558		111	1025	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.963	8.961	0.002	1.068	89011	NC	Target=6.10		747	
549.00 > 99.00	8.963	8.961	0.002	1.068	14198		6.27(3.05-9.15)		114	
D 33 13C2 PFDA										
515.00 > 470.00	9.009	8.999	0.010		2244776	0.0509		102	12276	
35 Perfluorodecanoic acid										
513.00 > 469.00	9.009	9.001	0.008	1.000	222719	0.005431	Target=16.47	109	231	
513.00 > 169.00	9.009	9.001	0.008	1.000	12374		18.00(8.23-24.70)	109	102	
D 34 M2-8:2 FTS										
529.00 > 81.00	9.009	9.001	0.008		434930	0.0519		108	2611	
36 8:2 FTS										
527.00 > 507.00	9.009	9.001	0.008	1.000	112617	0.005139	Target=2.29	107	1262	
527.00 > 81.00	9.009	9.001	0.008	1.000	47671		2.36(1.15-3.44)	107	304	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.290	9.281	0.009		837425	0.0524		105	4271	
38 NMeFOSAA										
570.00 > 419.00	9.290	9.289	0.001	1.000	76723	0.005166	Target=13.24	103	170	
570.00 > 483.00	9.290	9.289	0.001	1.000	5898		13.01(6.62-19.86)	103	94.8	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.512	9.508	0.004	1.133	63961	0.005181	Target=2.43	107	841	
599.00 > 99.00	9.512	9.508	0.004	1.133	27734		2.31(1.22-3.65)	107	496	
D 42 13C2 PFUnA										
565.00 > 520.00	9.561	9.555	0.006		2026727	0.0516		103	15338	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.561	9.555	0.006	1.000	221217	0.005551	Target=21.30	111	332	
563.00 > 169.00	9.561	9.555	0.006	1.000	9776		22.63(10.65-31.95)	111	179	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.561	9.561	0.0		816078	0.0514		103	4114	
43 NEtFOSA										
584.00 > 419.00	9.577	9.573	0.004	1.002	81780	0.005461	Target=16.50	109	958	M
584.00 > 483.00	9.577	9.573	0.004	1.002	5542		14.76(8.25-24.74)	109	68.5	M
44 11C1FOS										
631.00 > 451.00	9.799	9.790	0.009	1.168	473325	NC			2017	
D 45 13C2 PFDoA										
615.00 > 570.00	10.100	10.084	0.016		1987072	0.0450		89.9	9182	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.100	10.084	0.016	1.000	198059	0.005361	Target=15.78	107	106	
613.00 > 169.00	10.100	10.084	0.016	1.000	13145		15.07(7.89-23.66)	107	138	
47 10:2 FTS										
627.00 > 607.00	10.122	10.115	0.007	1.124	139129	NC	Target=34.02		2135	
627.00 > 81.00	10.122	10.115	0.007	1.124	4082		34.08(17.01-51.03)		95.9	
48 PFDoS										
699.00 > 80.00	10.541	10.532	0.009	1.256	19864	NC	Target=0.50		164	
699.00 > 99.00	10.541	10.532	0.009	1.256	40373		0.49(0.25-0.74)		423	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.613	10.601	0.012	1.051	234730	0.004986	Target=20.25	99.7	125	
663.00 > 169.00	10.613	10.601	0.012	1.051	12257		19.15(10.13-30.38)	99.7	292	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.092	11.085	0.007		1287251	0.0350		70.0	4851	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.092	11.085	0.007	1.000	6239	0.005523	Target=1.26	110	128	
713.00 > 219.00	11.092	11.085	0.007	1.000	5100		1.22(0.63-1.89)	110	96.9	
D 52 13C2 PFHxDA										
815.00 > 770.00	12.007	12.002	0.005		789052	0.0319		63.7	3591	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	12.019	12.004	0.015	1.001	90339	0.005258	Target=28.54	105	101	
813.00 > 169.00	12.007	12.004	0.003	1.000	3276		27.58(14.27-42.81)	105	39.6	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.954	12.933	0.021	1.079	29086	0.004422	Target=35.98	88.4	53.1	M
913.00 > 169.00	12.943	12.933	0.010	1.078	736		39.52(17.99-53.97)	88.4	11.8	M

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L3\_00023

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_007.d

Injection Date: 07-Jun-2021 15:23:35

Instrument ID: A10

Lims ID: IC STD 3

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 7

Worklist Smp#: 4

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

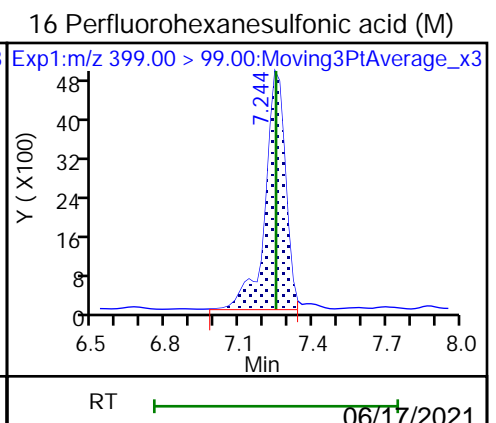
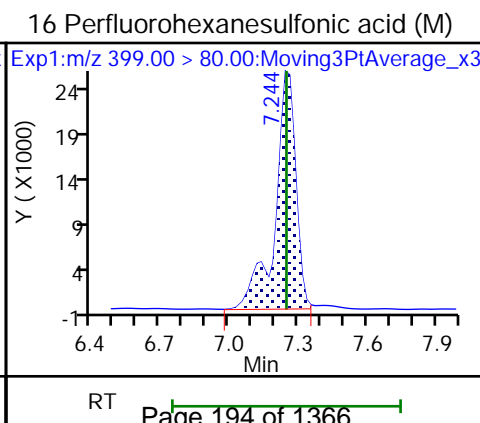
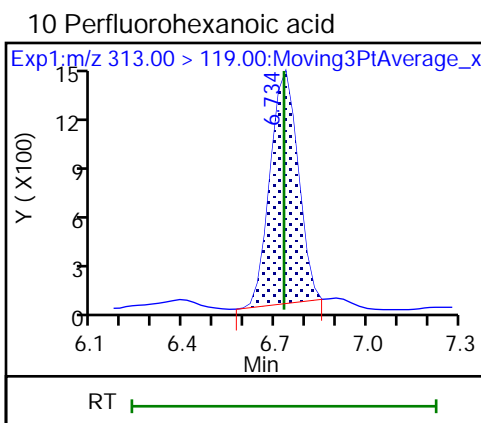
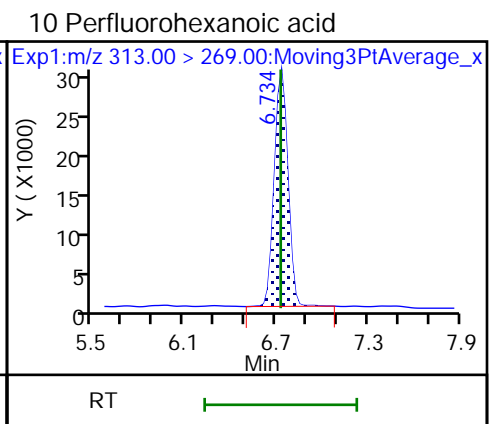
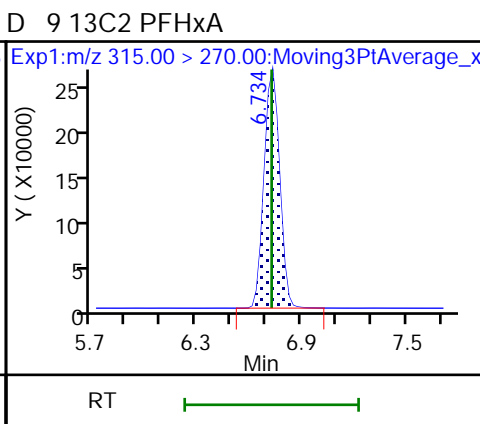
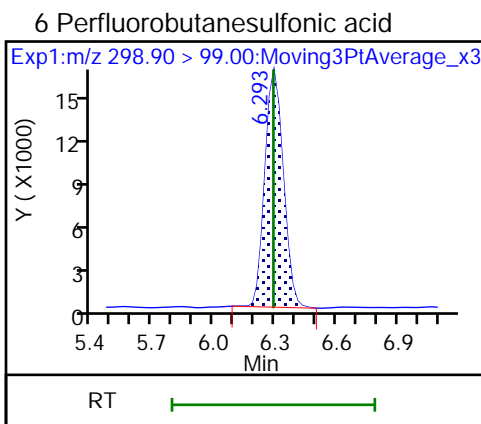
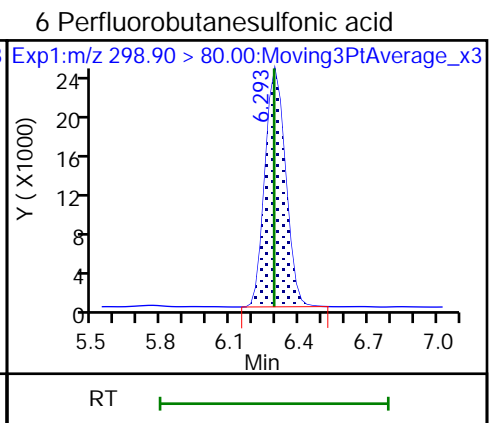
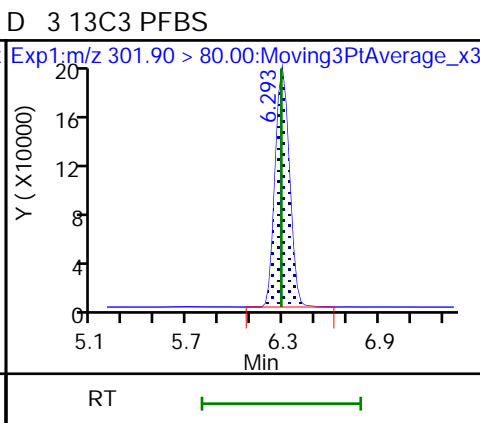
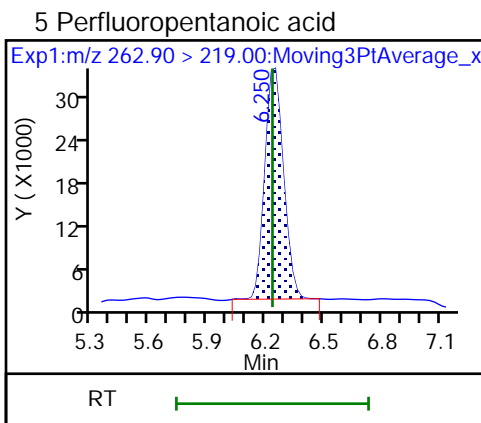
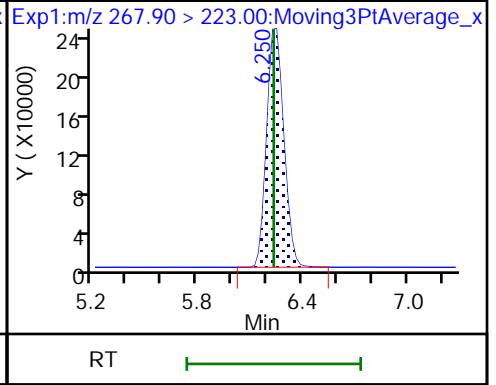
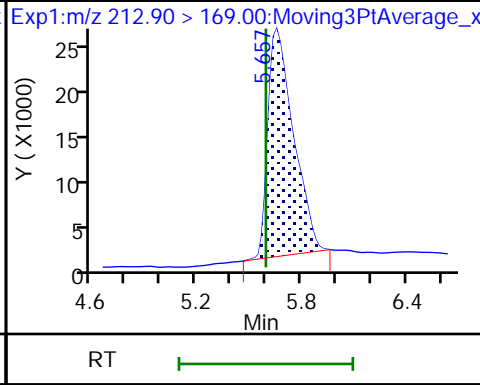
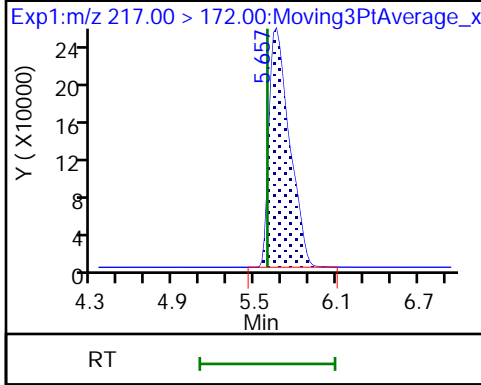
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

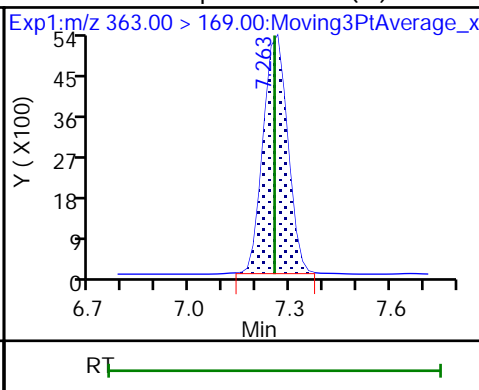
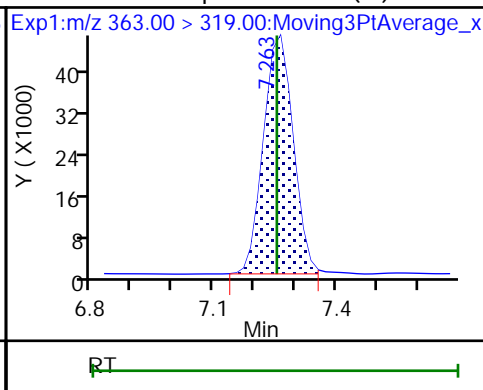
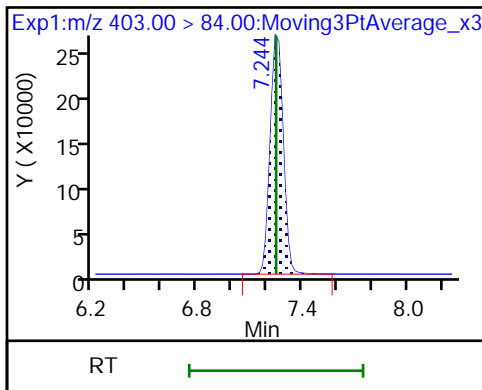
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid (M)

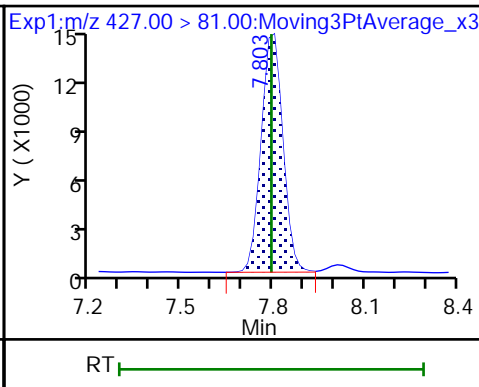
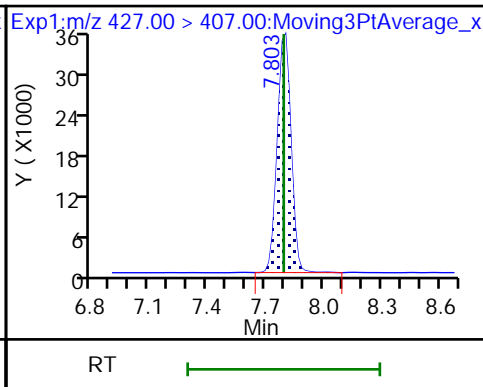
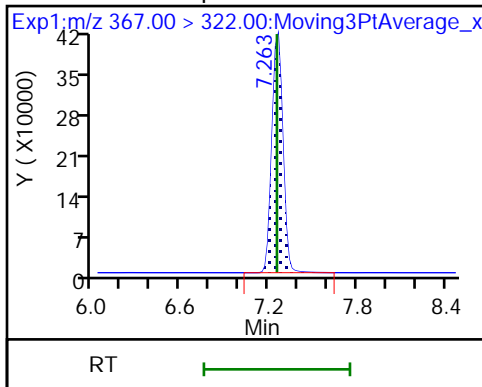
18 Perfluoroheptanoic acid (M)



D 17 13C4 PFHpA

23 6:2 FTS

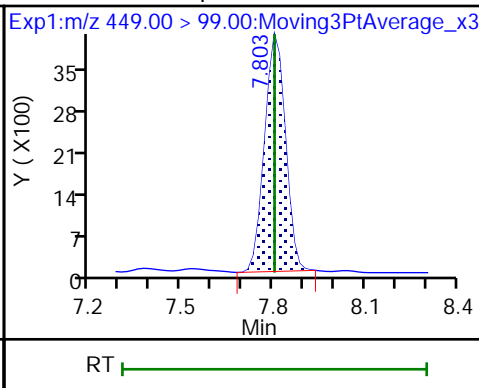
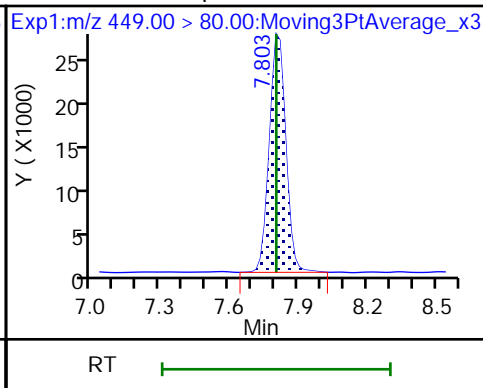
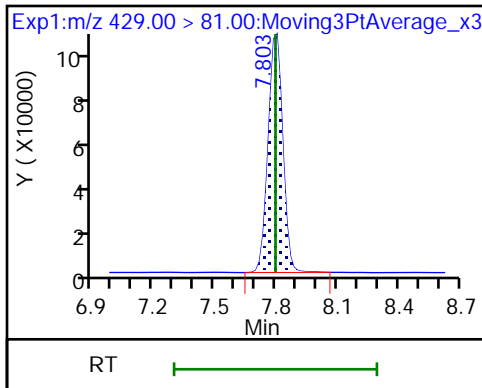
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

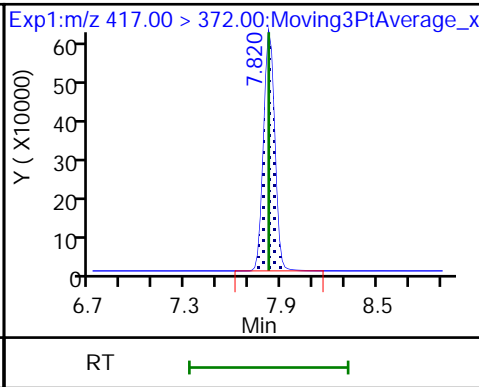
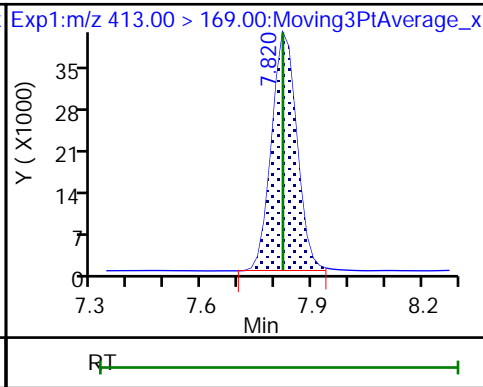
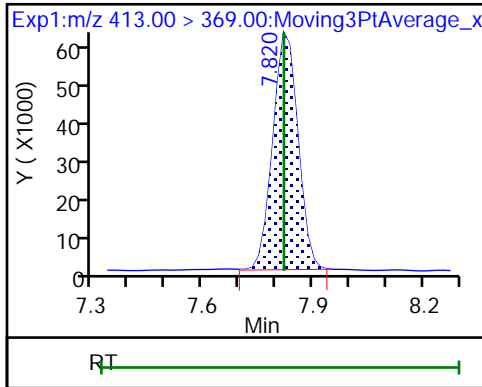
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

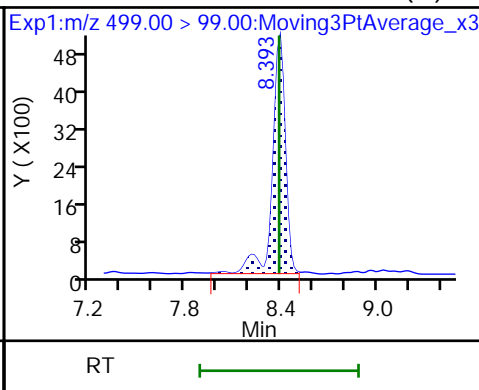
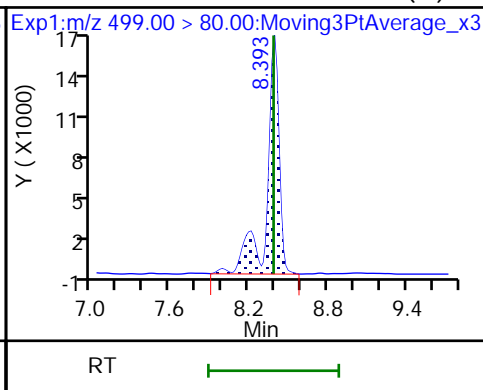
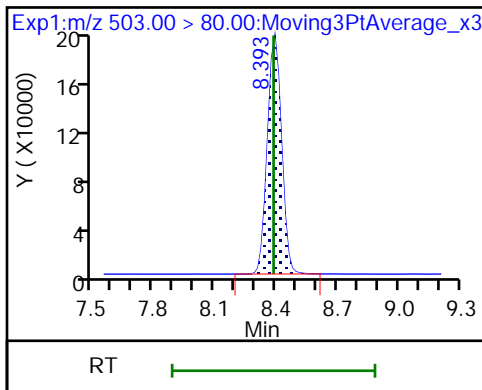
D 25 13C4 PFOA



D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid (M)

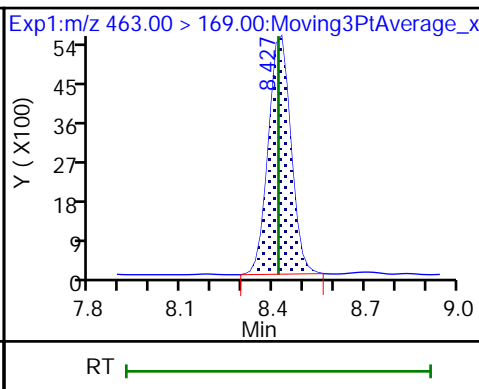
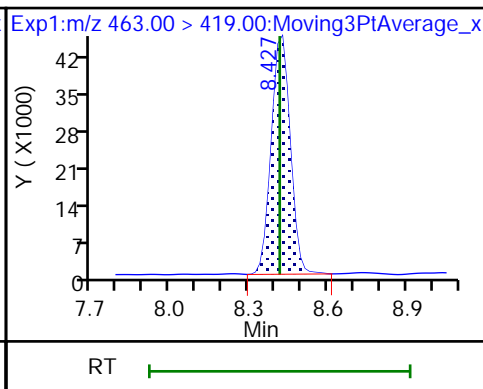
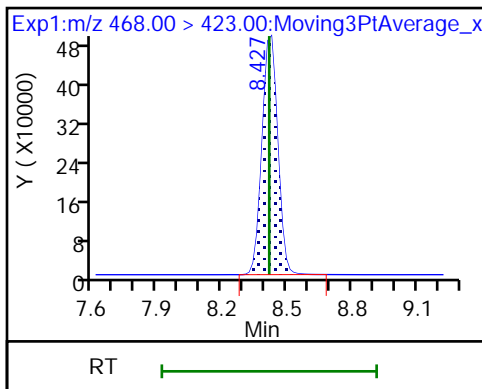
27 Perfluorooctanesulfonic acid (M)



D 28 13C5 PFNA

29 Perfluorononanoic acid

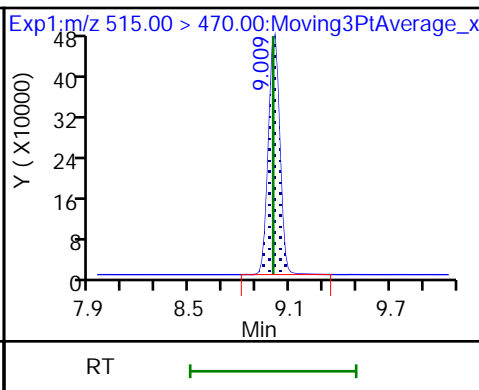
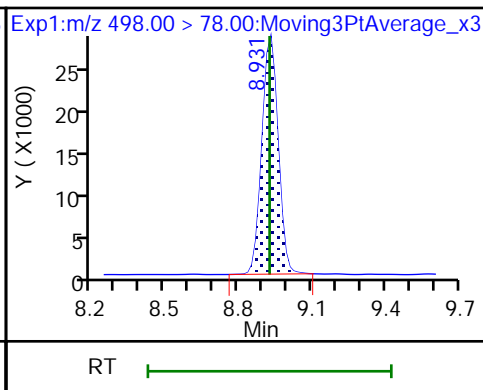
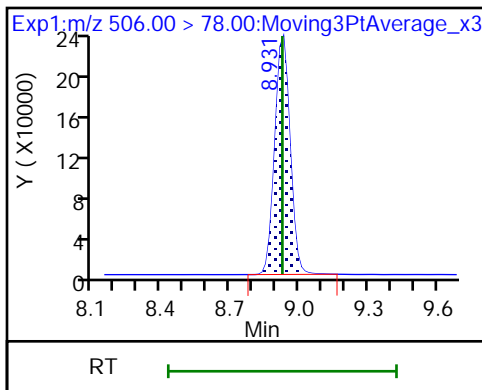
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

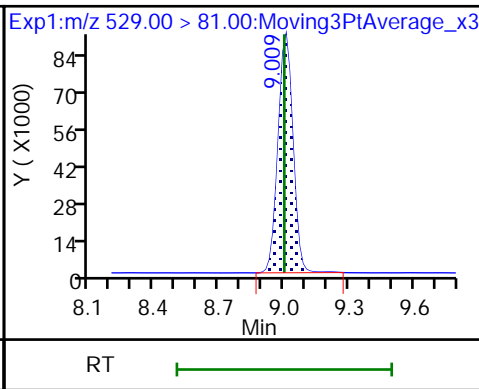
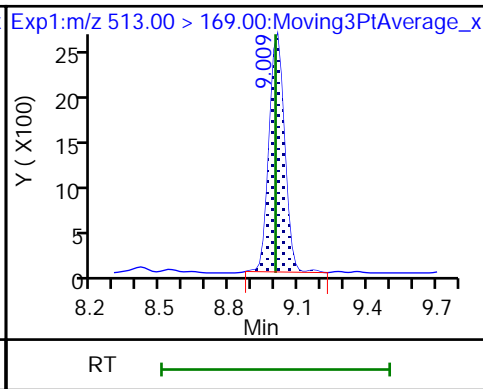
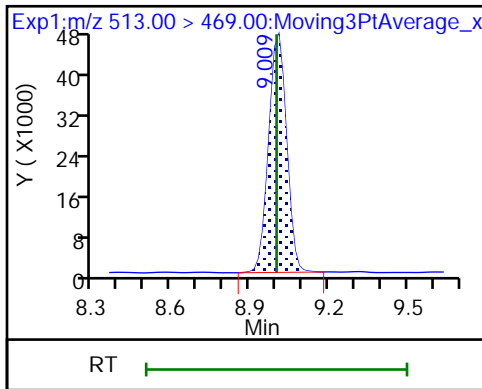
D 33 13C2 PFDA

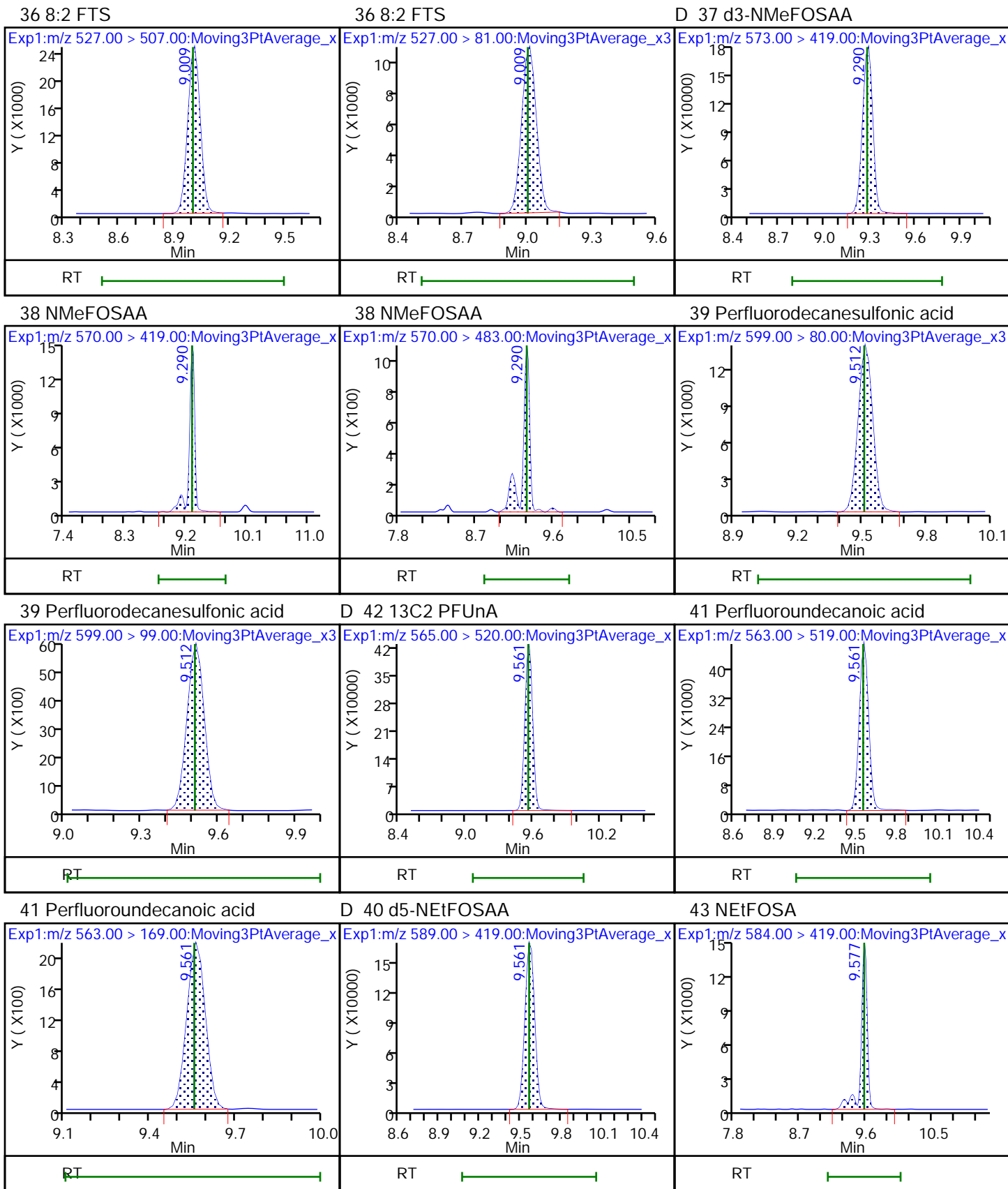


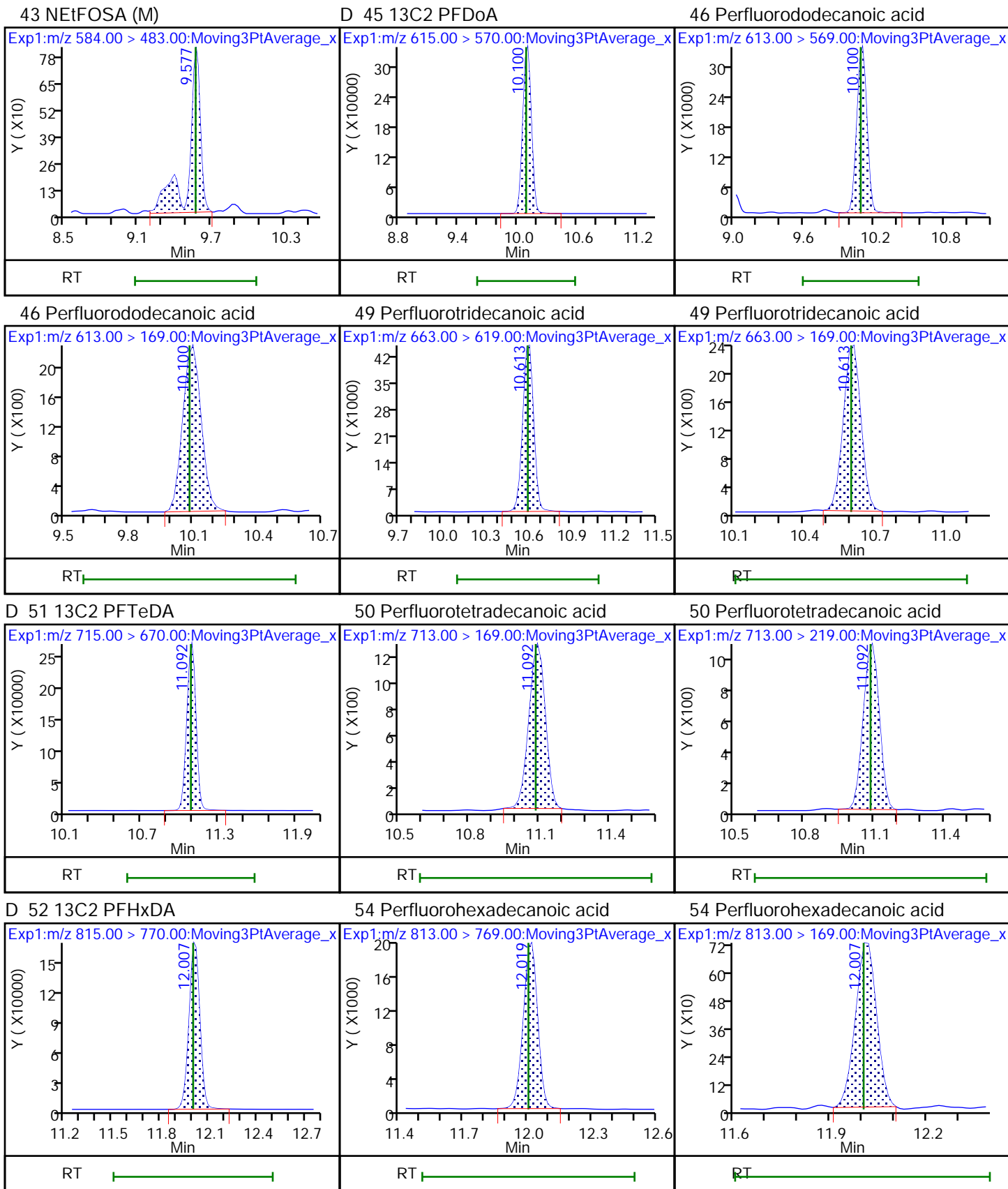
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

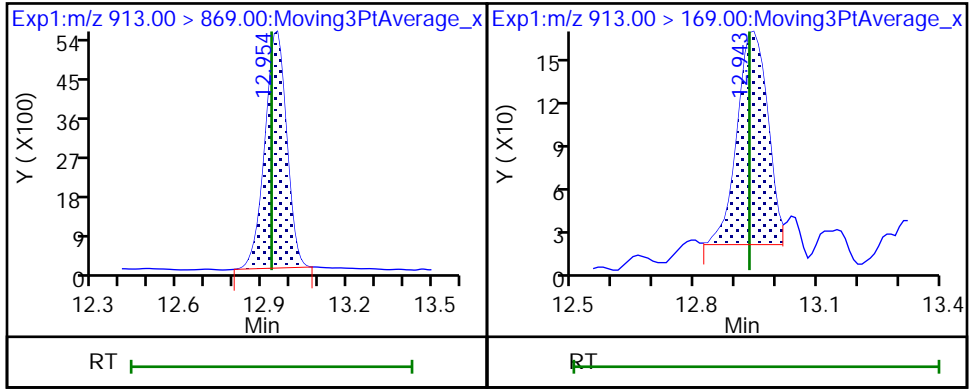






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Sacramento

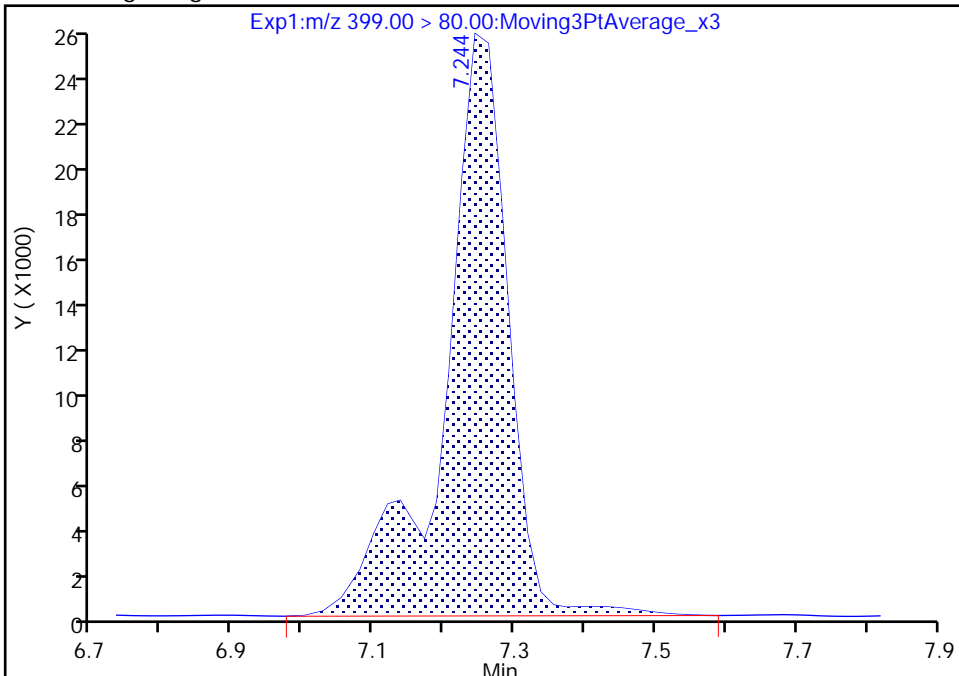
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

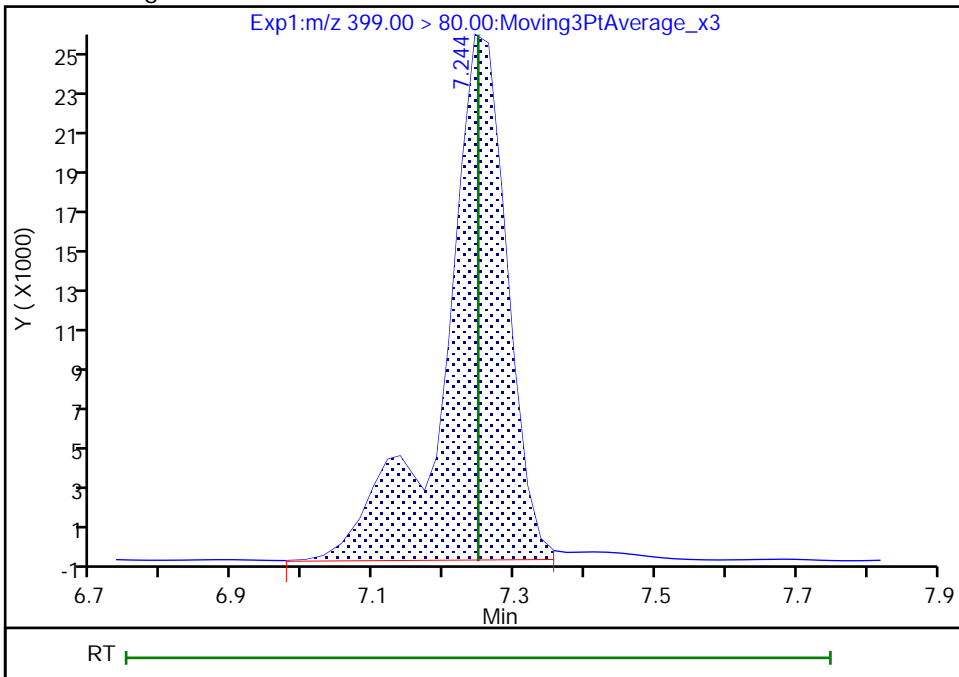
RT: 7.24  
Area: 163809  
Amount: 0.004962  
Amount Units: ng/ml

Processing Integration Results



RT: 7.24  
Area: 160511  
Amount: 0.004890  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:22  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

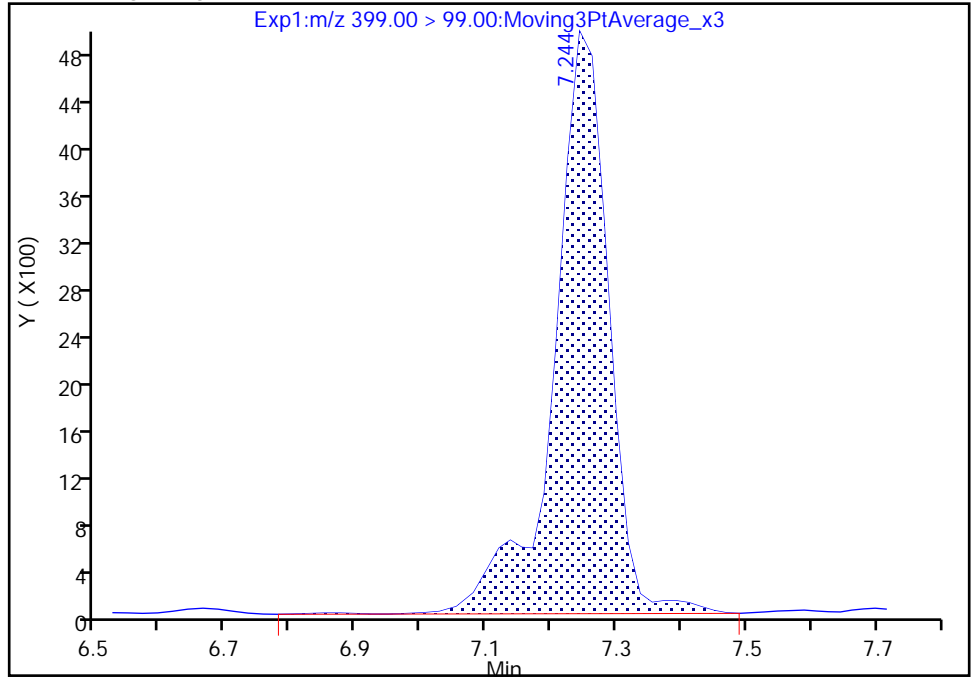
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

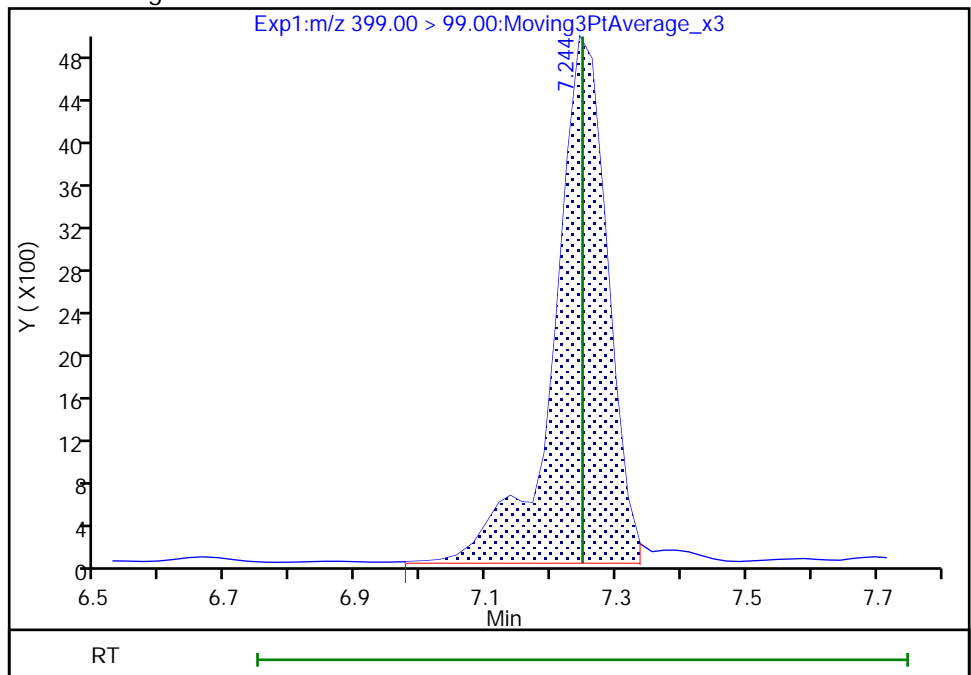
RT: 7.24  
Area: 29004  
Amount: 0.004962  
Amount Units: ng/ml

Processing Integration Results



RT: 7.24  
Area: 28573  
Amount: 0.004890  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:28

Audit Action: Manually Integrated

Audit Reason: Assign Peak



Eurofins TestAmerica, Sacramento

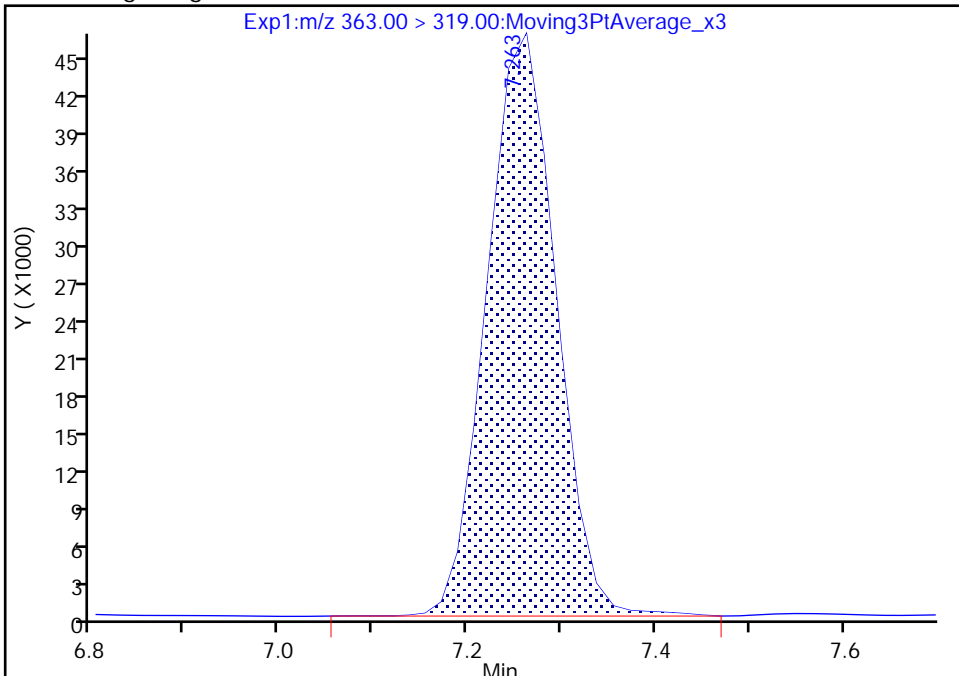
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

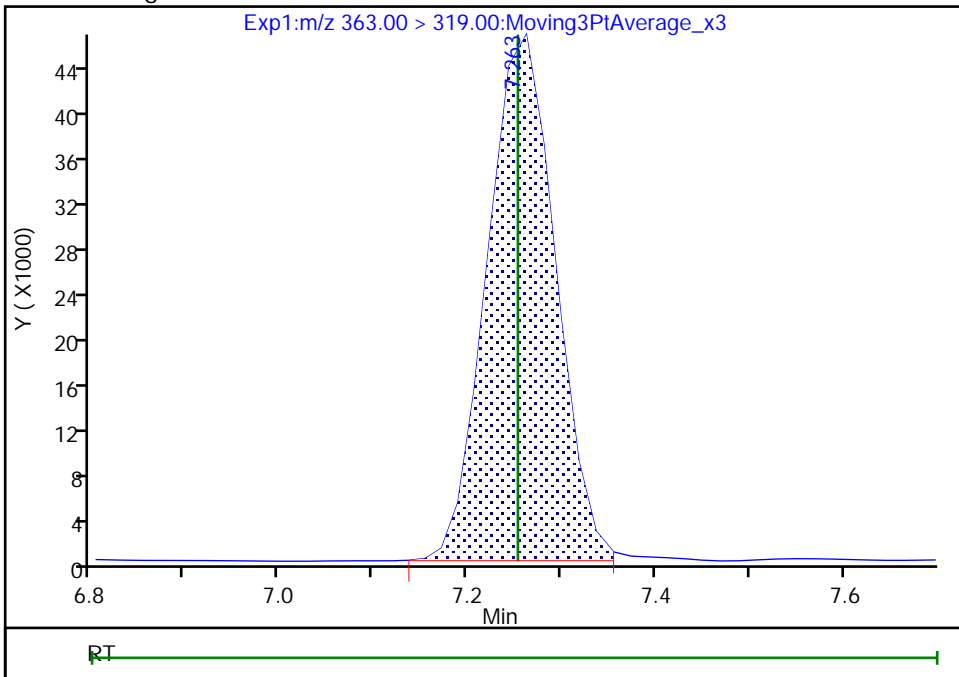
RT: 7.26  
Area: 233390  
Amount: 0.005271  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 231093  
Amount: 0.005226  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:37  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

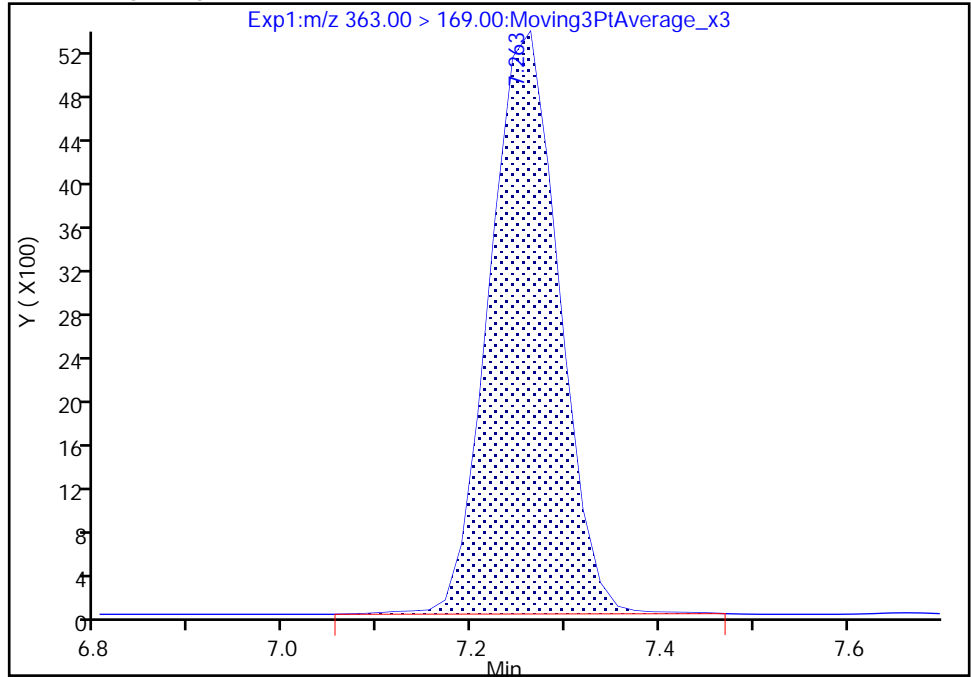
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

18 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

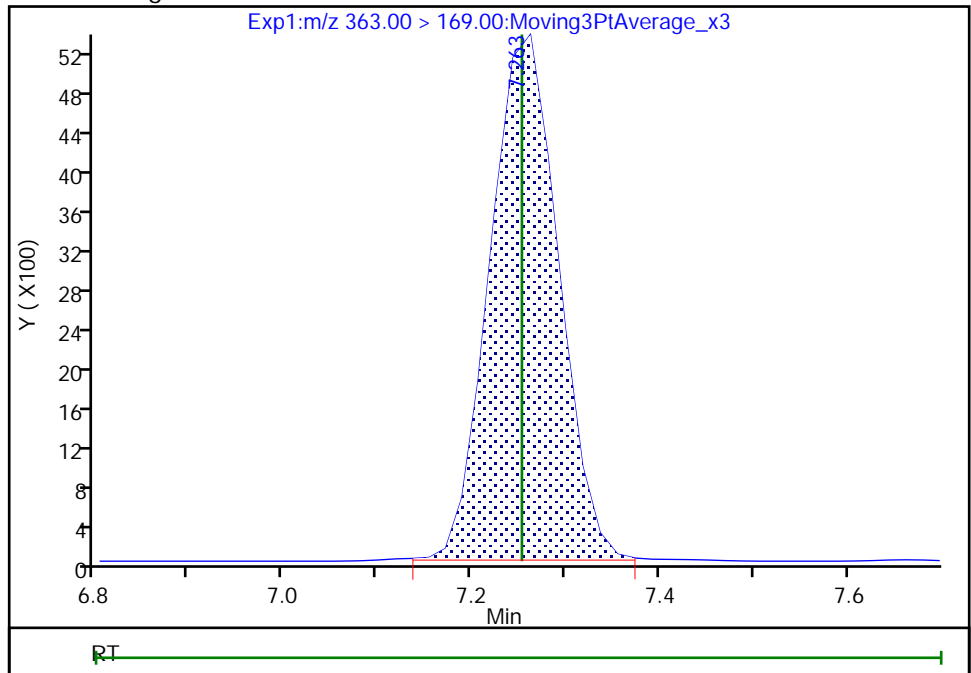
RT: 7.26  
Area: 27297  
Amount: 0.005271  
Amount Units: ng/ml

Processing Integration Results



RT: 7.26  
Area: 27057  
Amount: 0.005226  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:43

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

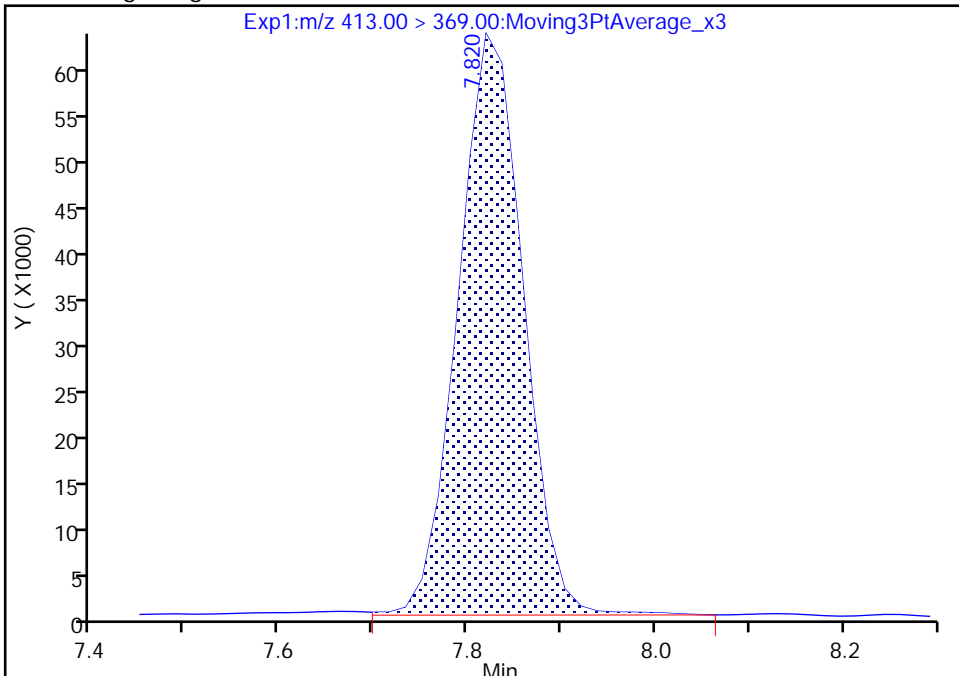
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_007.d  
Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

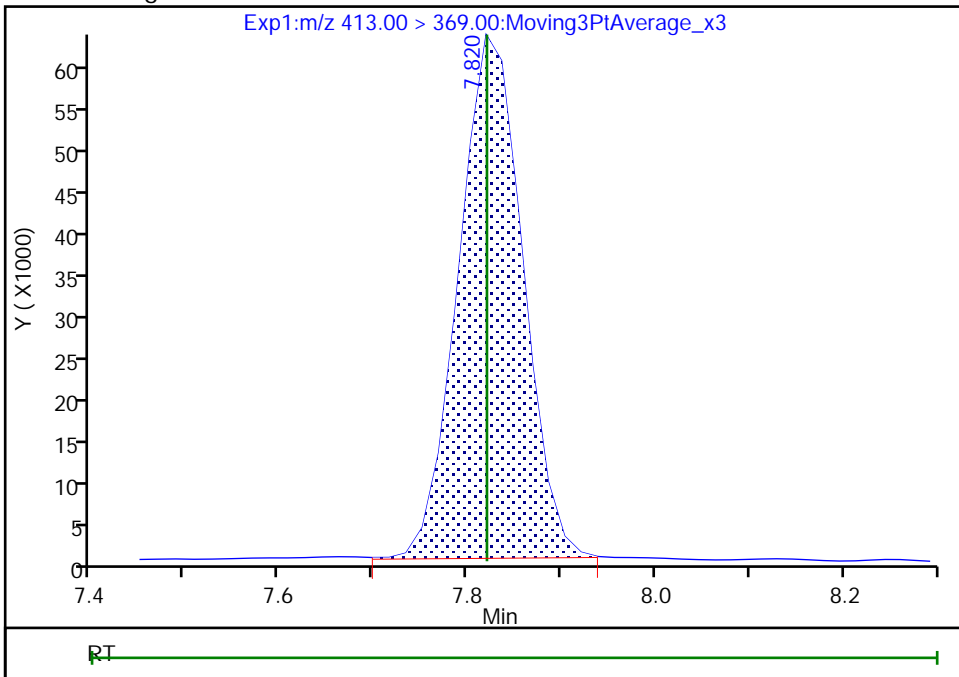
RT: 7.82  
Area: 300057  
Amount: 0.005250  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 295595  
Amount: 0.005217  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:52  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

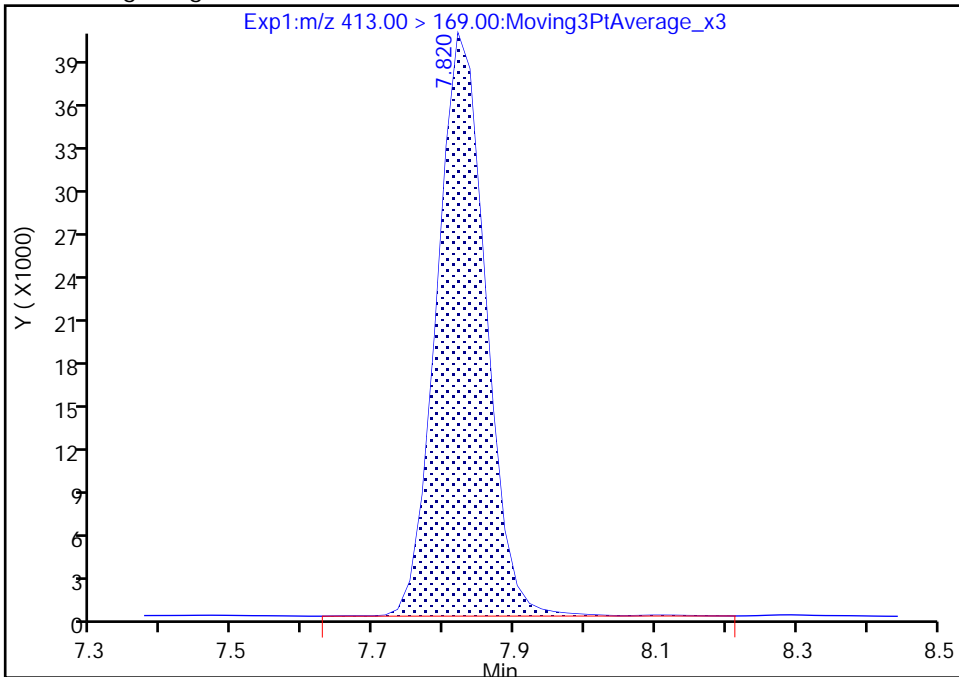
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

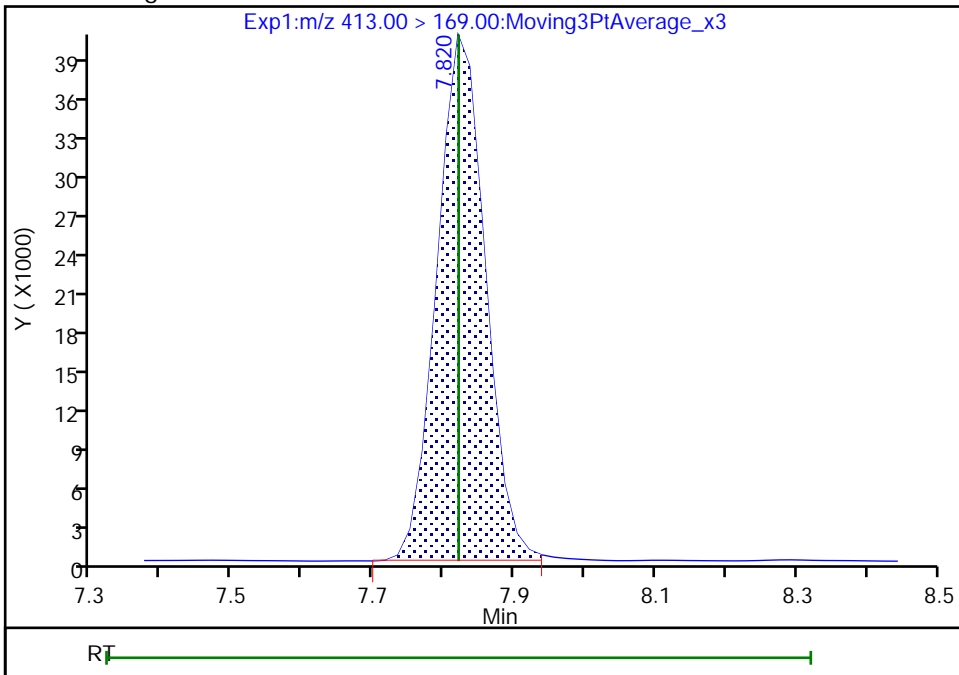
RT: 7.82  
Area: 192189  
Amount: 0.005250  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 189919  
Amount: 0.005217  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:18:57

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

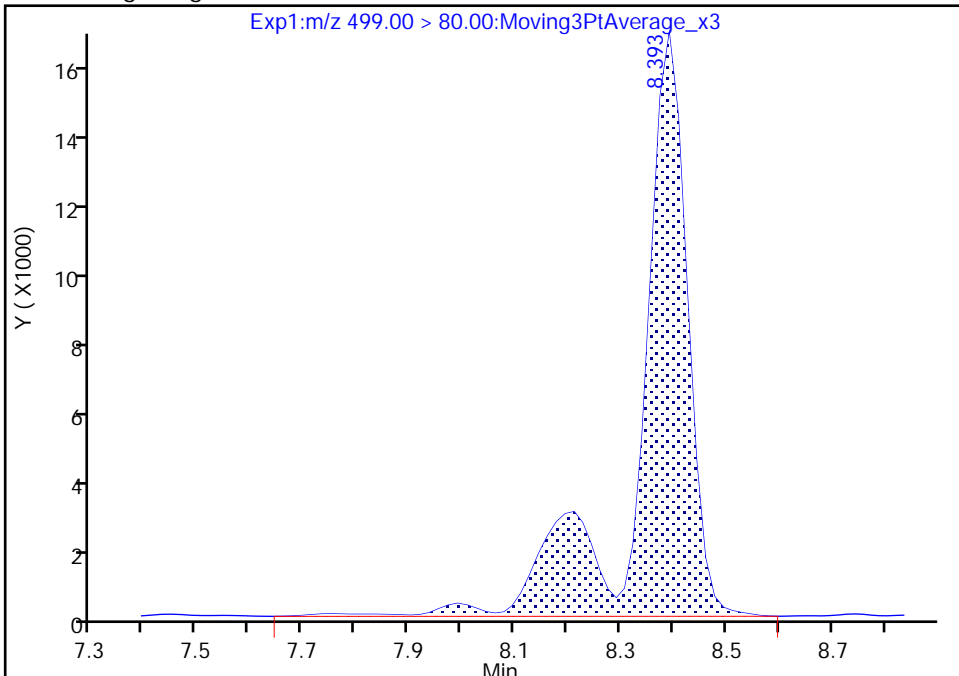
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_007.d  
Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

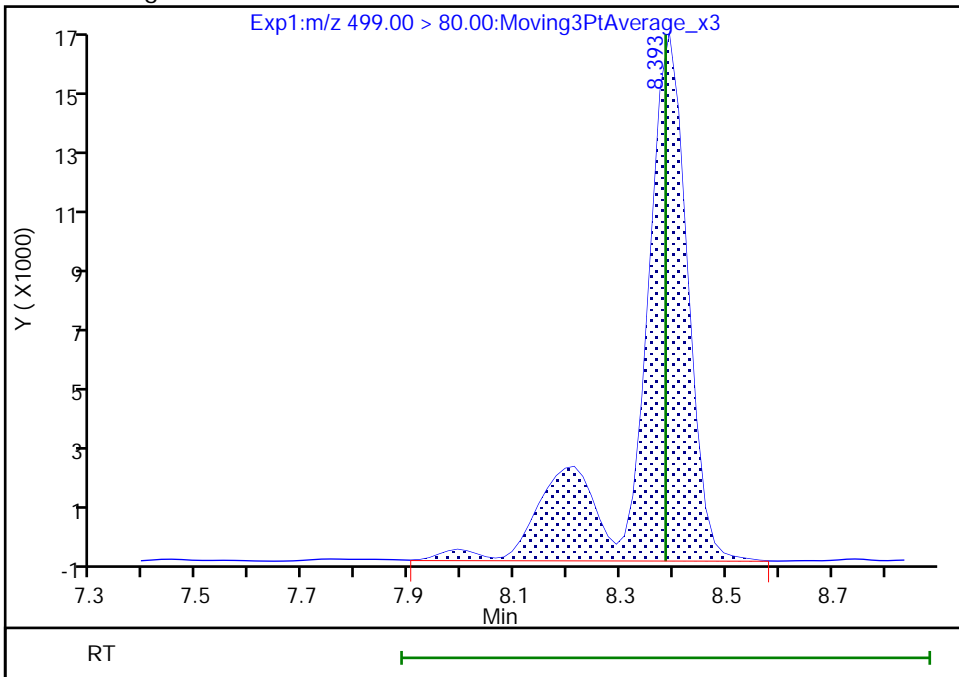
RT: 8.39  
Area: 108211  
Amount: 0.005092  
Amount Units: ng/ml

Processing Integration Results



RT: 8.39  
Area: 107226  
Amount: 0.005066  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:19:05  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

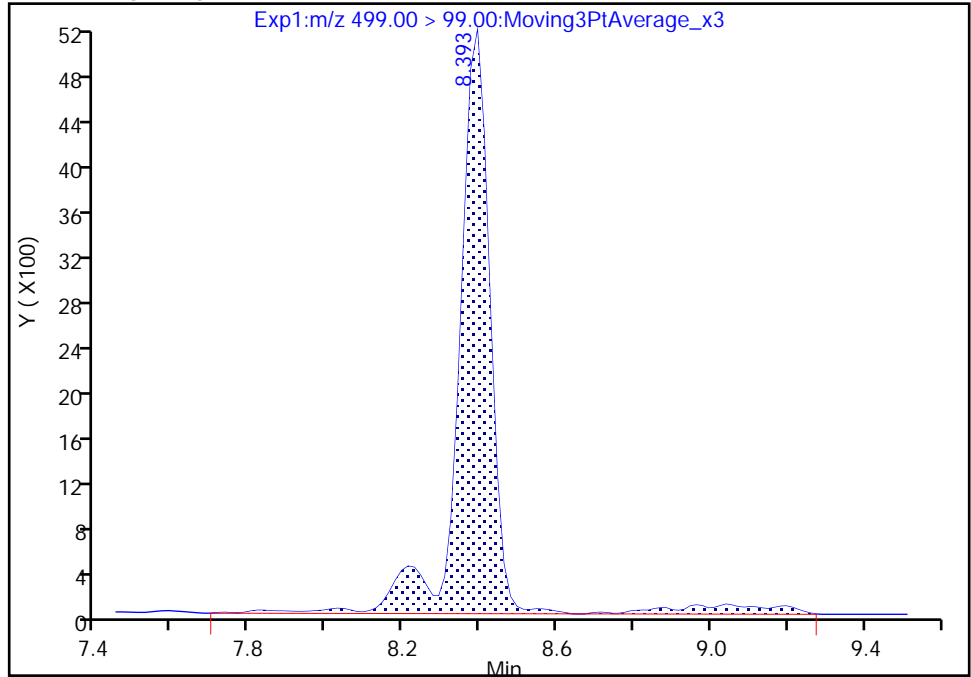
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_007.d  
Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

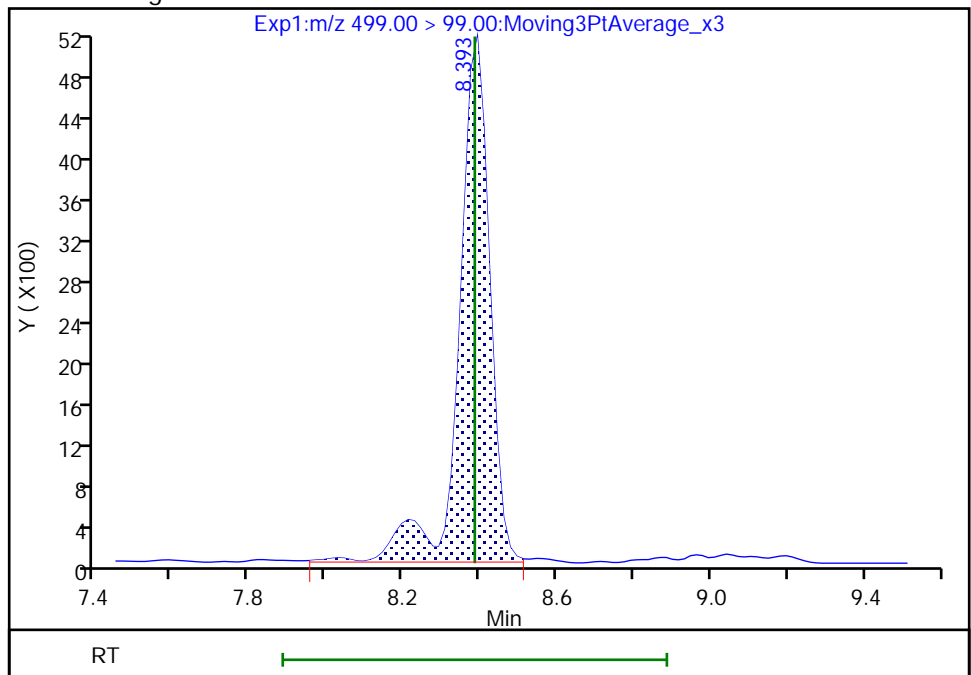
RT: 8.39  
Area: 30856  
Amount: 0.005092  
Amount Units: ng/ml

Processing Integration Results



RT: 8.39  
Area: 28691  
Amount: 0.005066  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:19:13

Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

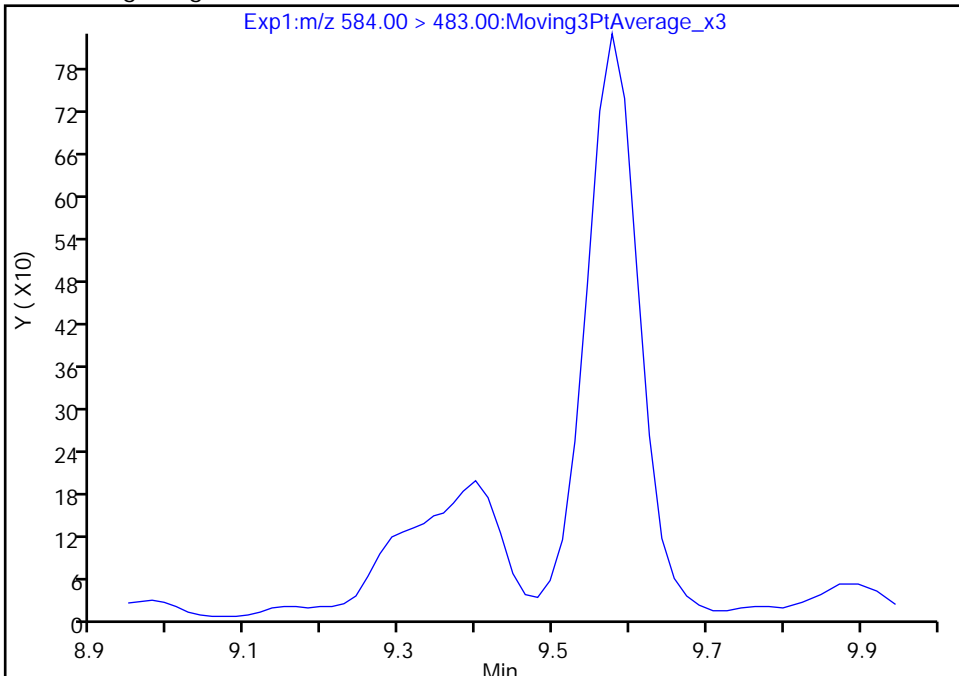
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

43 NEtFOSA, CAS: 2991-50-6

Signal: 2

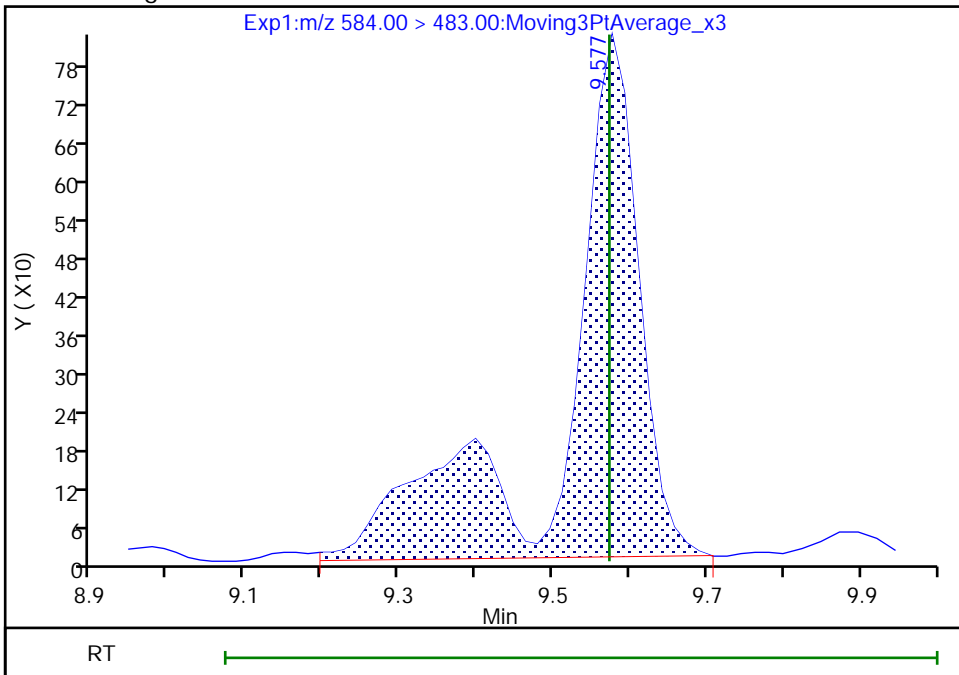
Not Detected  
Expected RT: 9.57

Processing Integration Results



Manual Integration Results

RT: 9.58  
Area: 5542  
Amount: 0.005461  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 12:19:26  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins TestAmerica, Sacramento

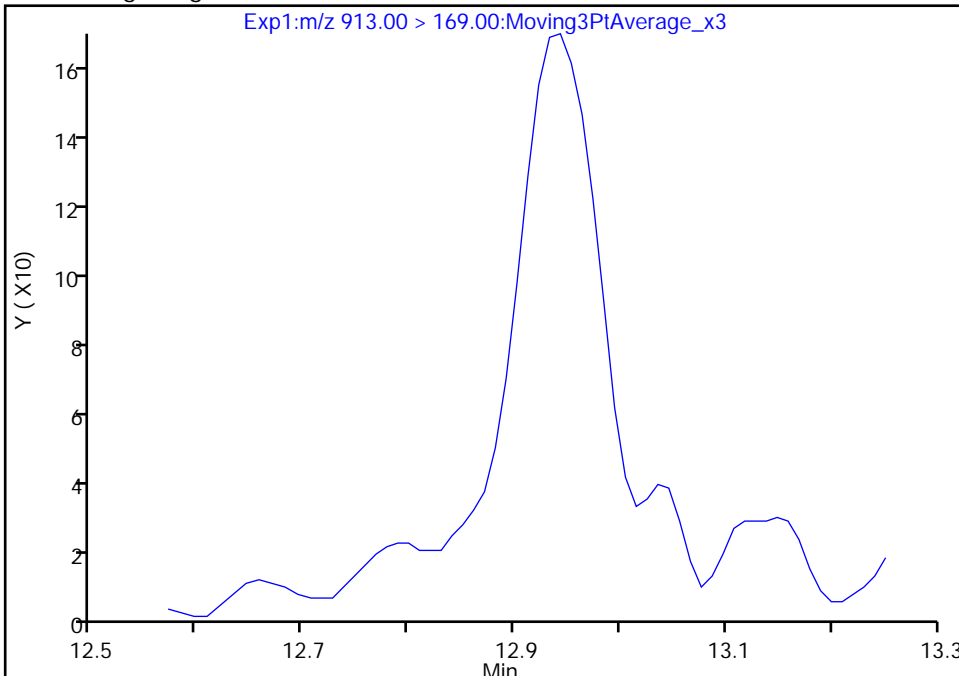
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Injection Date: 07-Jun-2021 15:23:35 Instrument ID: A10  
Lims ID: IC STD 3  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 7 Worklist Smp#: 4  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

53 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

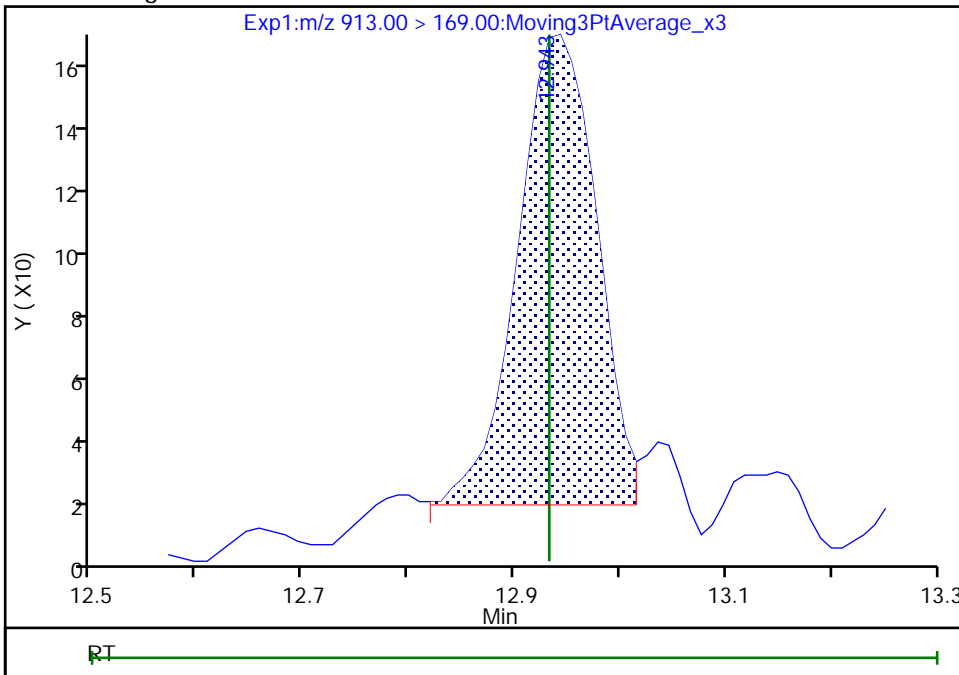
Not Detected  
Expected RT: 12.93

Processing Integration Results



Manual Integration Results

RT: 12.94  
Area: 736  
Amount: 0.004422  
Amount Units: ng/ml



Reviewer: vangmy, 08-Jun-2021 12:19:32  
Audit Action: Manually Integrated

Audit Reason: Assign Peak



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
 Lims ID: IC STD 4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 07-Jun-2021 15:42:04 ALS Bottle#: 8 Worklist Smp#: 5  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 4 (26)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:34 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:21:00

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.569	5.591	-0.022	1026028	0.0286		57.2	81.5	
1 Perfluorobutanoic acid	212.90 > 169.00	5.569	5.595	-0.026	1.000	481783	0.0227	227	98.2	
D 4 13C5 PFPeA	267.90 > 223.00	6.229	6.235	-0.006	1658513	0.0484		96.8	6843	
5 Perfluoropentanoic acid	262.90 > 219.00	6.229	6.235	-0.006	1.000	402375	0.0102	102	96.8	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.287	0.006	1218161	0.0425		91.5	4225	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.293	6.290	0.003	1.000	284480	0.009408	Target=1.41	106	679
	298.90 > 99.00	6.293	6.290	0.003	1.000	206092	1.38(0.71-2.12)	106	329	
8 4:2 FTS	327.00 > 307.00	6.664	6.676	-0.012	1.000	219415	NC	Target=2.69		2795
	327.00 > 81.00	6.687	6.676	0.011	1.003	79900	2.75(1.34-4.03)			195
D 7 M2-4:2 FTS	329.00 > 81.00	6.664	6.676	-0.012	385816	NC				960
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.728	0.006	1592138	0.0489		97.8	8298	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.728	0.006	1.000	342085	0.0101	Target=19.50	101	285
	313.00 > 119.00	6.734	6.728	0.006	1.000	17277	19.80(9.75-29.25)	101	168	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.734	6.749	-0.015	0.929	273873	NC	Target=1.44		477
	349.00 > 99.00	6.734	6.749	-0.015	0.929	201206	1.36(0.72-2.17)			730

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.876	-0.001		179680	NC			838	
13 HPFO-DA										
329.10 > 285.00	6.875	6.876	-0.001	1.000	89358	NC			90.5	
14 9CIFOS										
531.00 > 351.00	7.174	7.109	0.065	0.856	276	NC			1.4	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	310276	0.009510	Target=5.60	105	576	M
399.00 > 99.00	7.246	7.248	-0.002	1.000	48661		6.38(2.80-8.40)	105	249	M
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1344025	0.0483		102	12689	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.254	-0.008	1.000	434056	0.0102	Target=9.21	102	268	
363.00 > 169.00	7.246	7.254	-0.008	1.000	47413		9.15(4.61-13.82)	102	410	
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.254	-0.008		2065733	0.0535		107	9507	
19 DONA										
377.00 > 251.00	7.302	7.308	-0.006	0.872	1770218	NC	Target=2.84		4994	
377.00 > 85.00	7.302	7.308	-0.006	0.872	580295		3.05(1.42-4.26)		3534	
23 6:2 FTS										
427.00 > 407.00	7.787	7.793	-0.006	1.000	310285	0.0099	Target=2.57	105	2738	
427.00 > 81.00	7.787	7.793	-0.006	1.000	110944		2.80(1.29-3.86)	105	285	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.787	7.795	-0.008		486822	0.0481		101	1404	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.804	7.804	0.0	0.932	239781	0.0102	Target=6.98	107	664	
449.00 > 99.00	7.804	7.804	0.0	0.932	34814		6.89(3.49-10.48)	107	269	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.820	7.821	-0.001	1.000	527119	0.009843	Target=1.54	98.4	98.8	M
413.00 > 169.00	7.820	7.821	-0.001	1.000	347765		1.52(0.77-2.31)	98.4	1251	M
D 25 13C4 PFOA										
417.00 > 372.00	7.820	7.821	-0.001		2827946	0.0496		99.2	10571	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.376	8.386	-0.010	1.000	187403	0.009547	Target=3.65	103	692	M
499.00 > 99.00	8.376	8.386	-0.010	1.000	53383		3.51(1.83-5.48)	103	360	M
D 26 13C4 PFOS										
503.00 > 80.00	8.376	8.386	-0.010		850557	0.0438		91.6	3164	
D 28 13C5 PFNA										
468.00 > 423.00	8.410	8.417	-0.007		2304299	0.0474		94.8	12168	
29 Perfluorononanoic acid										
463.00 > 419.00	8.410	8.417	-0.007	1.000	449107	0.0107	Target=7.83	107	250	
463.00 > 169.00	8.410	8.417	-0.007	1.000	58628		7.66(3.92-11.75)	107	505	
D 30 13C8 FOSA										
506.00 > 78.00	8.916	8.926	-0.010		1138983	0.0494		98.9	6531	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.916	8.926	-0.010	1.000	258799	0.0102		102	2093	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.963	8.961	0.002	1.070	156373	NC	Target=6.10		1243	
549.00 > 99.00	8.963	8.961	0.002	1.070	28369		5.51(3.05-9.15)		205	
D 33 13C2 PFDA										
515.00 > 470.00	8.994	8.999	-0.005		2129413	0.0482		96.5	13248	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.994	9.001	-0.007	1.000	404414	0.0104	Target=16.47	104	444	
513.00 > 169.00	8.994	9.001	-0.007	1.000	23992		16.86(8.23-24.70)	104	198	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.994	9.001	-0.007		385356	0.0459		95.9	2427	
36 8:2 FTS										
527.00 > 507.00	8.994	9.001	-0.007	1.000	199893	0.0103	Target=2.29	107	1840	
527.00 > 81.00	8.994	9.001	-0.007	1.000	84550		2.36(1.15-3.44)	107	537	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.275	9.281	-0.006		800595	0.0501		100	3127	
38 NMeFOSAA										
570.00 > 419.00	9.275	9.289	-0.014	1.000	140625	0.0099	Target=13.24	99.0	740	
570.00 > 483.00	9.275	9.289	-0.014	1.000	10459		13.45(6.62-19.86)	99.0	193	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.497	9.508	-0.011	1.134	114400	0.0100	Target=2.43	104	1396	
599.00 > 99.00	9.497	9.508	-0.011	1.134	46177		2.48(1.22-3.65)	104	693	
D 42 13C2 PFUnA										
565.00 > 520.00	9.545	9.555	-0.010		1875520	0.0478		95.5	14686	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.561	9.561	0.0		771324	0.0485		97.1	4341	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.545	9.555	-0.010	1.000	369084	0.0100	Target=21.30	100	534	
563.00 > 169.00	9.545	9.555	-0.010	1.000	17400		21.21(10.65-31.95)	100	470	
43 NEtFOSA										
584.00 > 419.00	9.561	9.573	-0.012	1.000	147154	0.0104	Target=16.50	104	1678	
584.00 > 483.00	9.561	9.573	-0.012	1.000	10186		14.45(8.25-24.74)	104	86.1	
44 11C1FOS										
631.00 > 451.00	9.782	9.790	-0.008	1.168	854769	NC			3345	
D 45 13C2 PFDaA										
615.00 > 570.00	10.079	10.084	-0.005		1936400	0.0438		87.6	9240	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.079	10.084	-0.005	1.000	373564	0.0104	Target=15.78	104	207	
613.00 > 169.00	10.079	10.084	-0.005	1.000	23210		16.09(7.89-23.66)	104	543	
47 10:2 FTS										
627.00 > 607.00	10.101	10.115	-0.014	1.123	218105	NC	Target=34.02		2541	
627.00 > 81.00	10.101	10.115	-0.014	1.123	6942		31.42(17.01-51.03)		196	
48 PFDaS										
699.00 > 80.00	10.521	10.532	-0.011	1.256	41528	NC	Target=0.50		330	
699.00 > 99.00	10.521	10.532	-0.011	1.256	82565		0.50(0.25-0.74)		748	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.596	10.601	-0.005	1.051	460293	0.0100	Target=20.25	100	230	
663.00 > 169.00	10.596	10.601	-0.005	1.051	24110		19.09(10.13-30.38)	100	570	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.077	11.085	-0.008		1309771	0.0356		71.2	5010	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.077	11.085	-0.008	1.000	11662	0.0101	Target=1.26	101	201	
713.00 > 219.00	11.077	11.085	-0.008	1.000	9203		1.27(0.63-1.89)	101	158	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.995	12.002	-0.007		586517	0.0237		47.4	2948	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.995	12.004	-0.009	1.000	120056	0.009400	Target=28.54	94.0	126	
813.00 > 169.00	11.995	12.004	-0.009	1.000	3844		31.23(14.27-42.81)	94.0	46.0	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.923	12.933	-0.010	1.077	60258	0.0123	Target=35.98	123	121	
913.00 > 169.00	12.923	12.933	-0.010	1.077	1403		42.95(17.99-53.97)	123	27.7	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L4\_00026

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d

Injection Date: 07-Jun-2021 15:42:04

Instrument ID: A10

Lims ID: IC STD 4

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 8

Worklist Smp#: 5

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

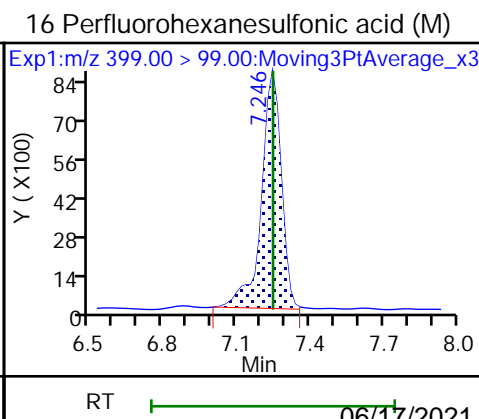
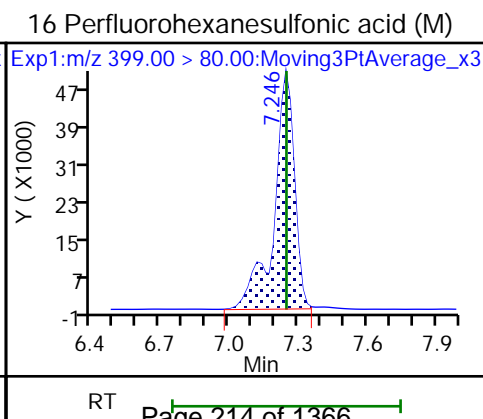
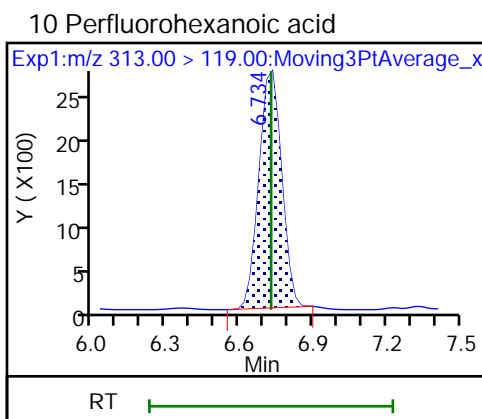
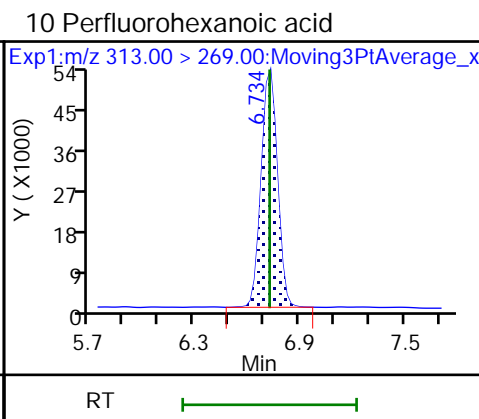
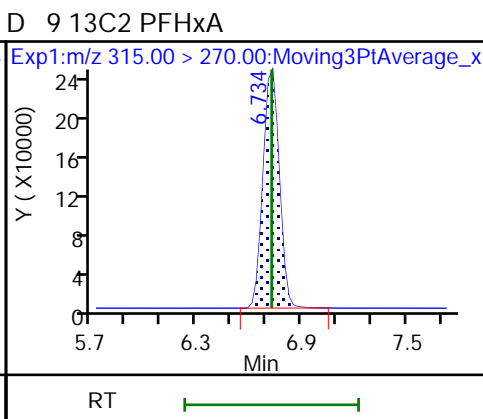
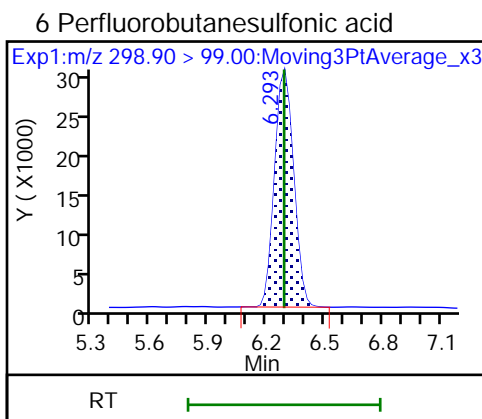
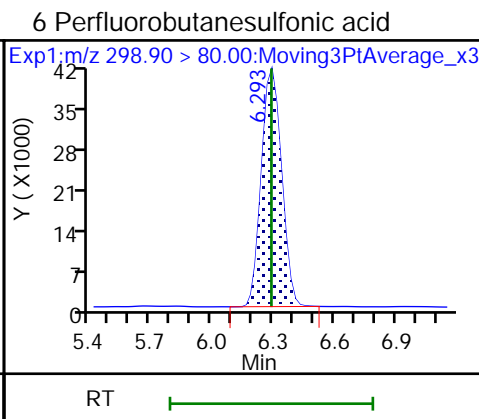
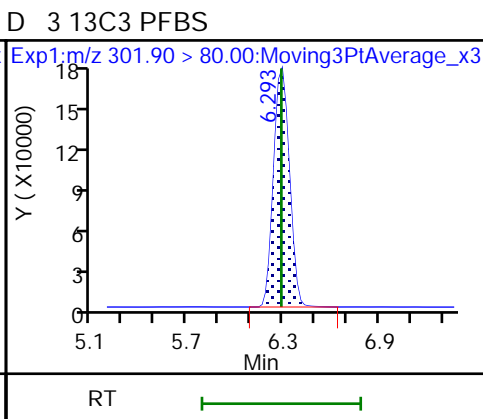
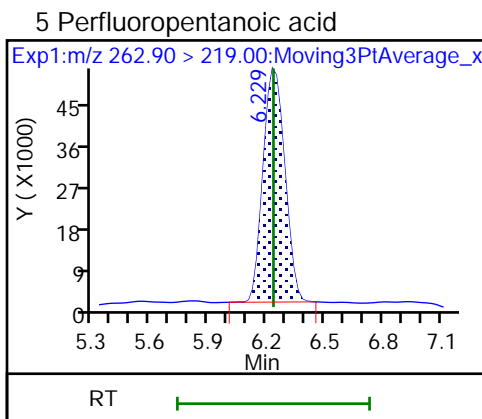
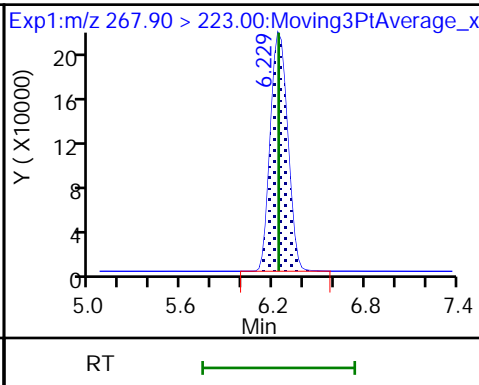
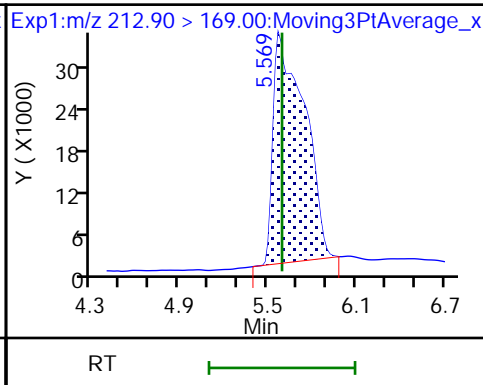
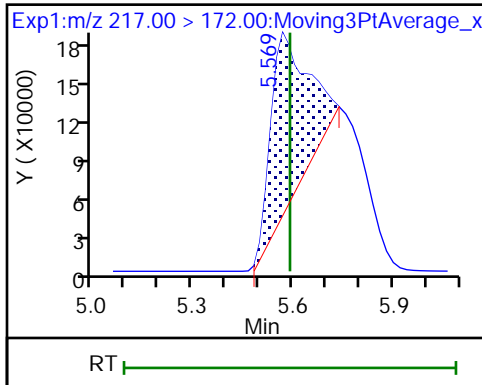
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

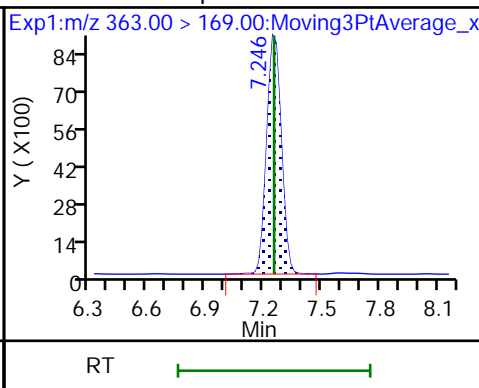
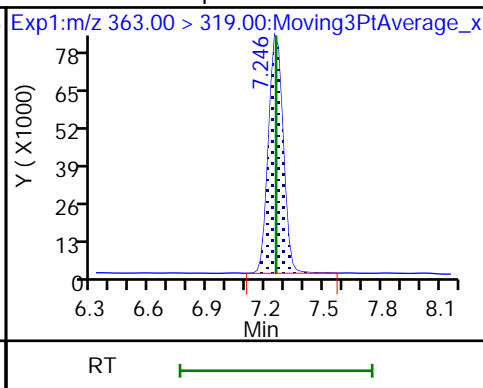
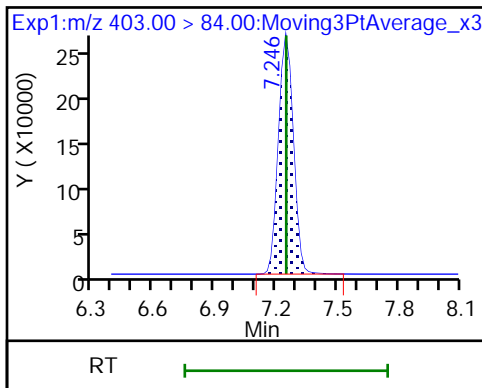
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

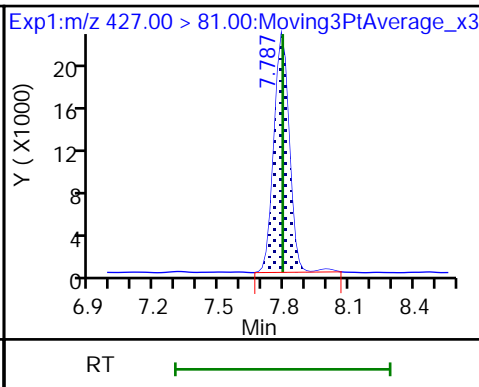
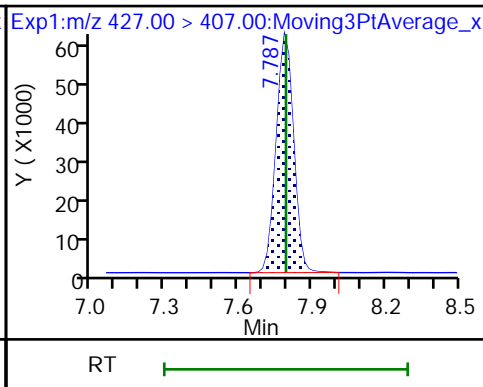
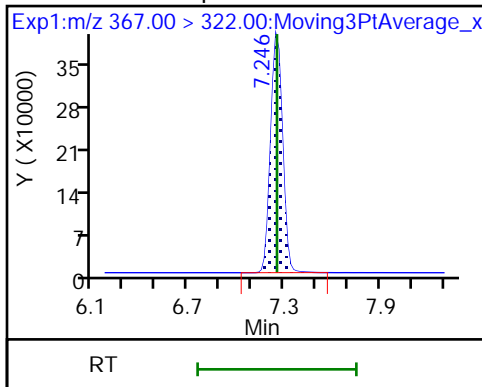
18 Perfluoroheptanoic acid



D 17 13C4 PFHpA

23 6:2 FTS

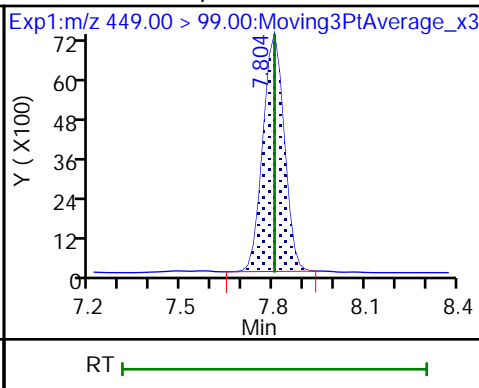
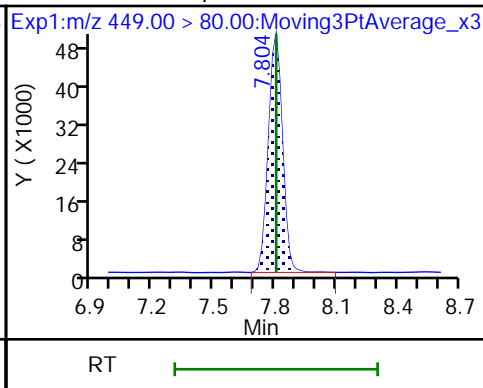
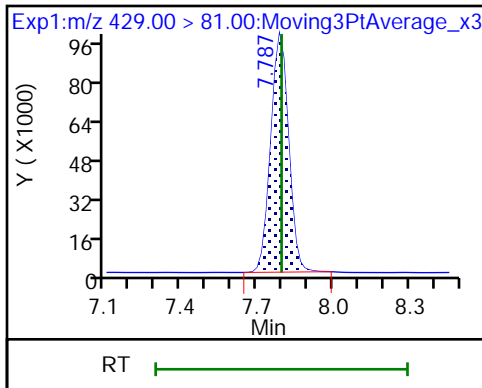
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

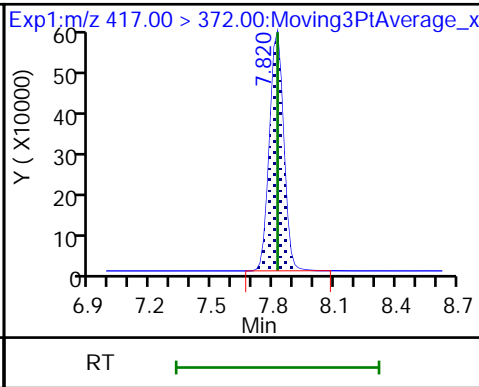
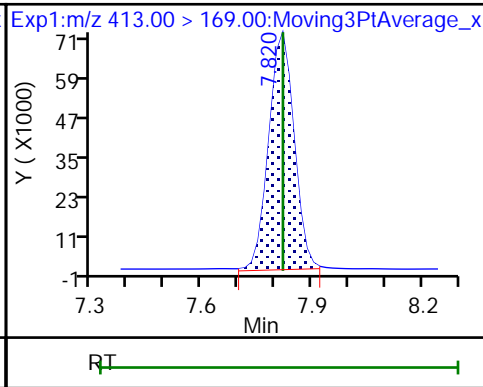
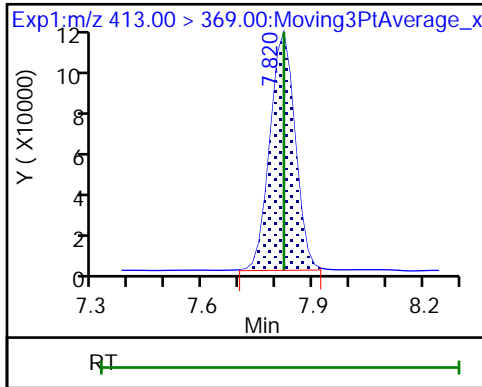
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

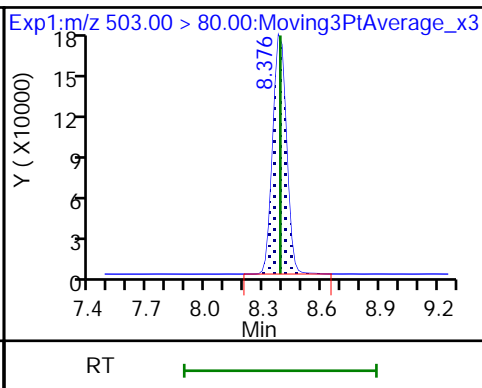
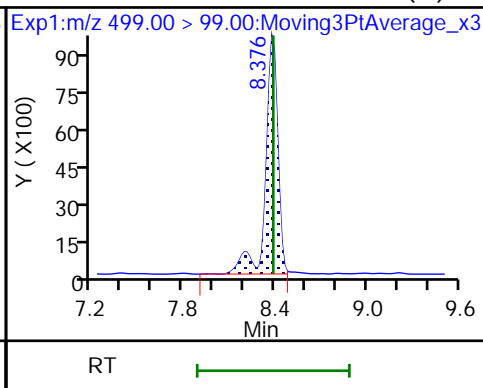
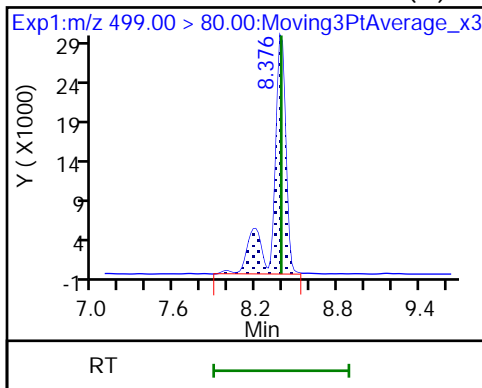
D 25 13C4 PFOA



27 Perfluorooctanesulfonic acid (M)

27 Perfluorooctanesulfonic acid (M)

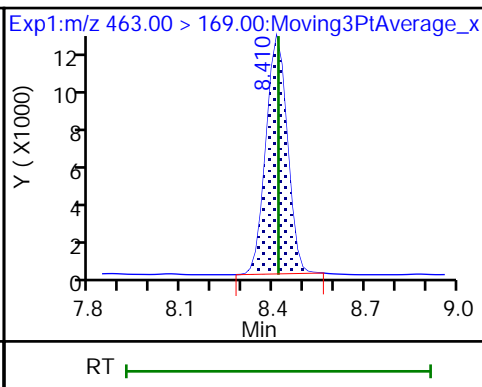
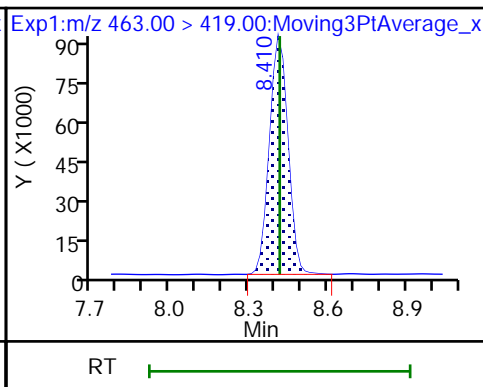
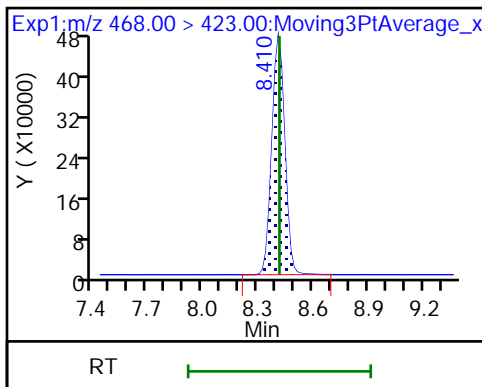
D 26 13C4 PFOS



D 28 13C5 PFNA

29 Perfluorononanoic acid

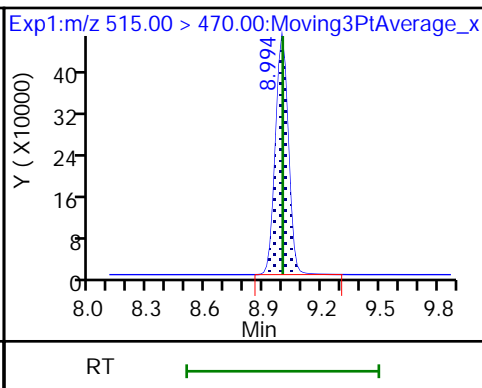
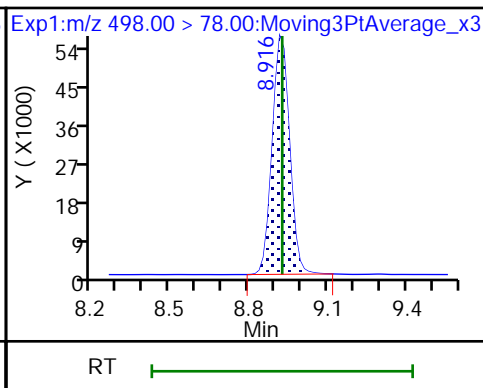
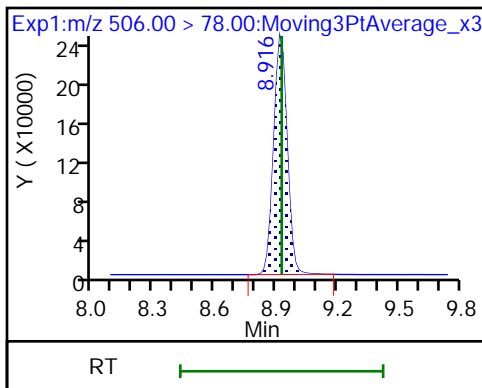
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

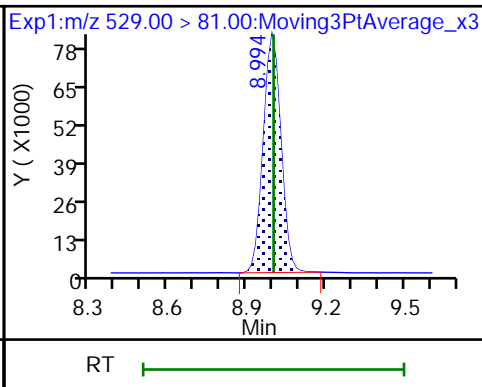
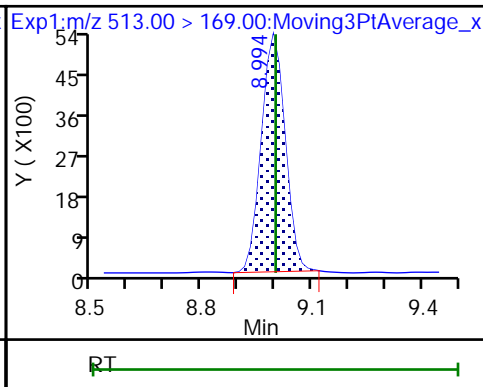
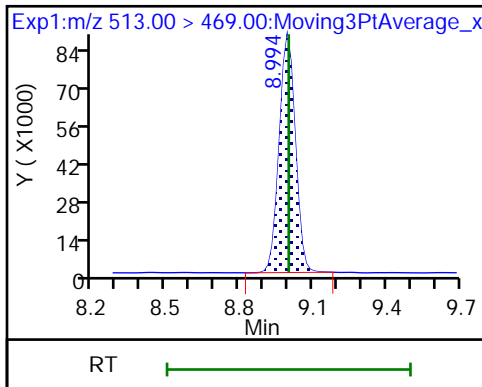
D 33 13C2 PFDA

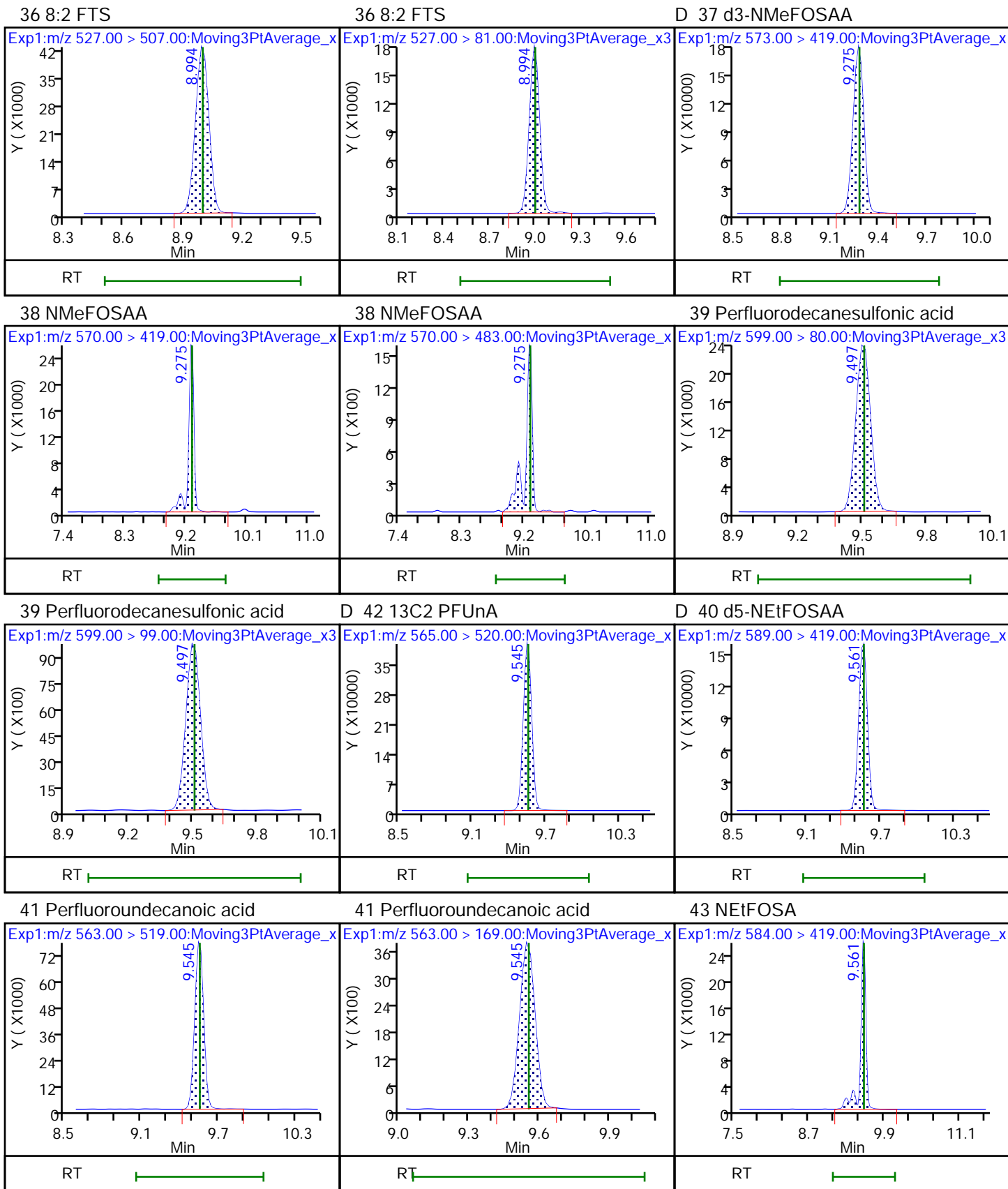


35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS



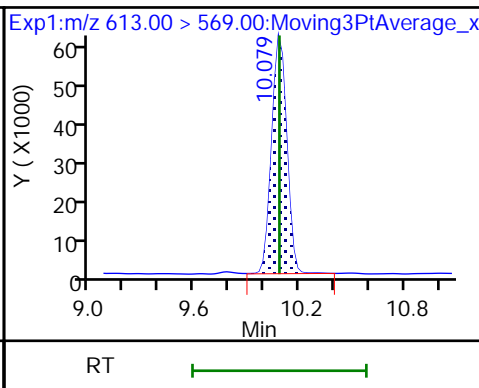
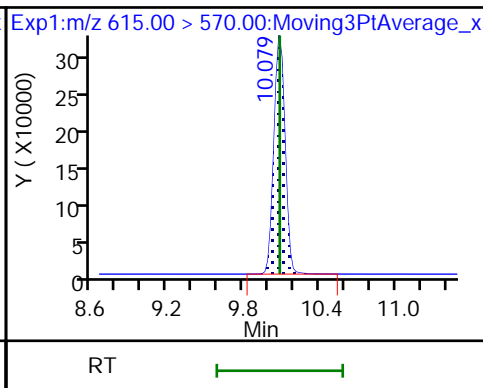
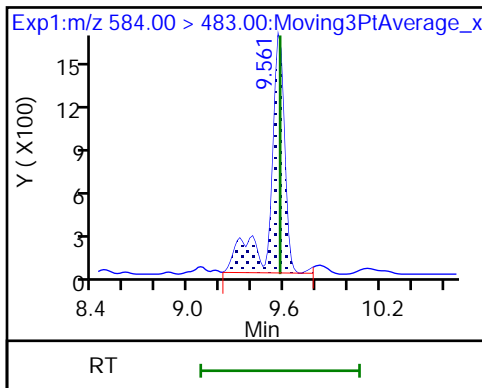




43 NEtFOSA

D 45 13C2 PFDaA

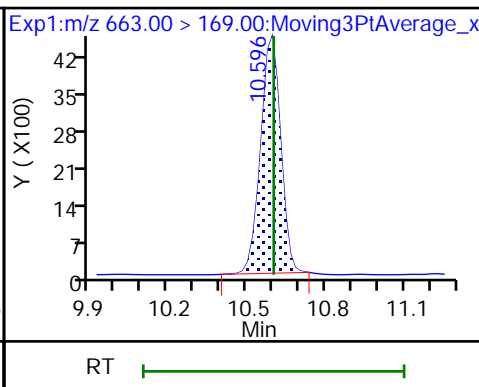
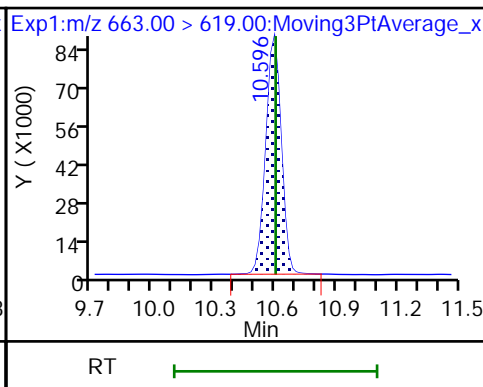
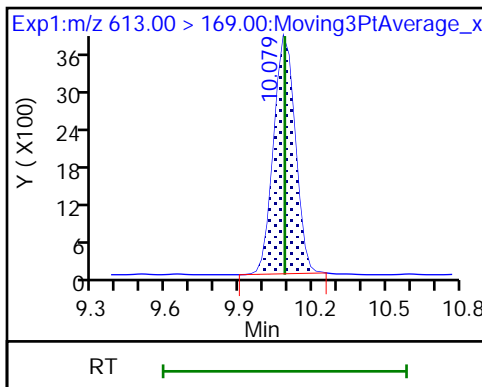
46 Perfluorododecanoic acid



46 Perfluorododecanoic acid

49 Perfluorotridecanoic acid

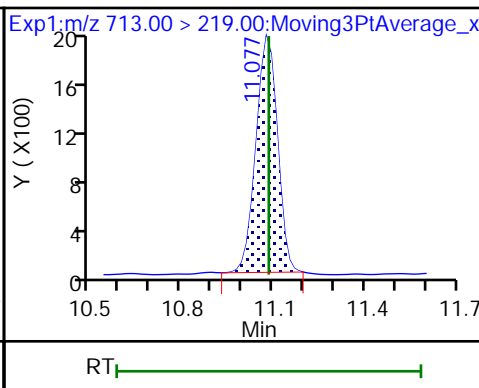
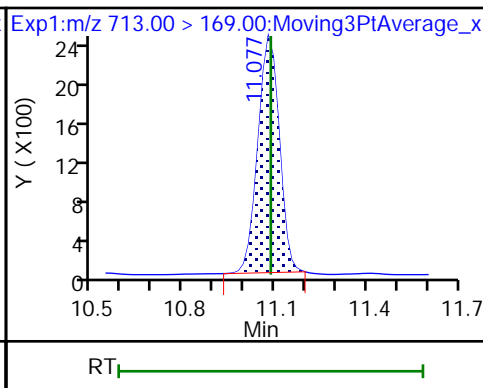
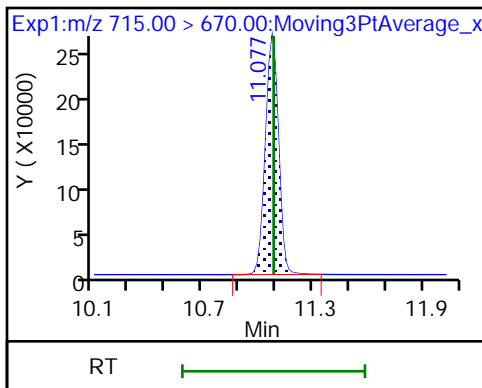
49 Perfluorotridecanoic acid



D 51 13C2 PFTeDA

50 Perfluorotetradecanoic acid

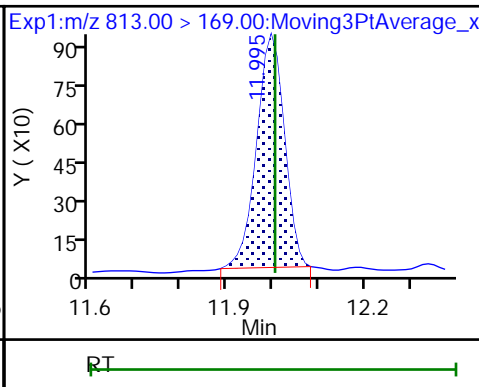
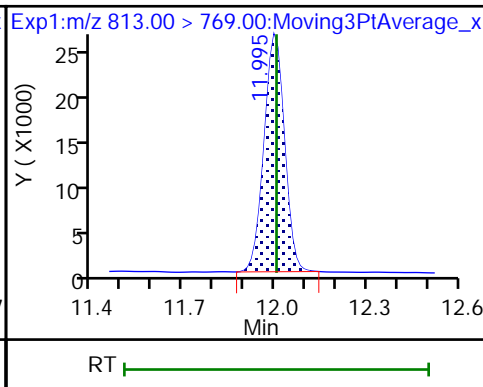
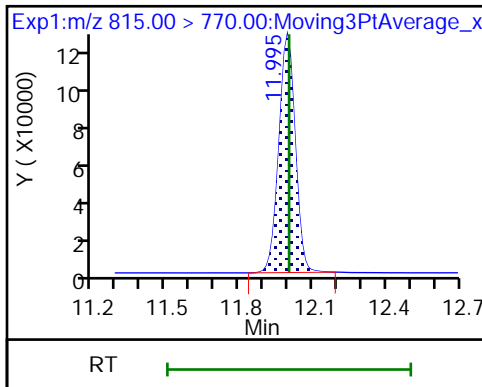
50 Perfluorotetradecanoic acid



D 52 13C2 PFHxDA

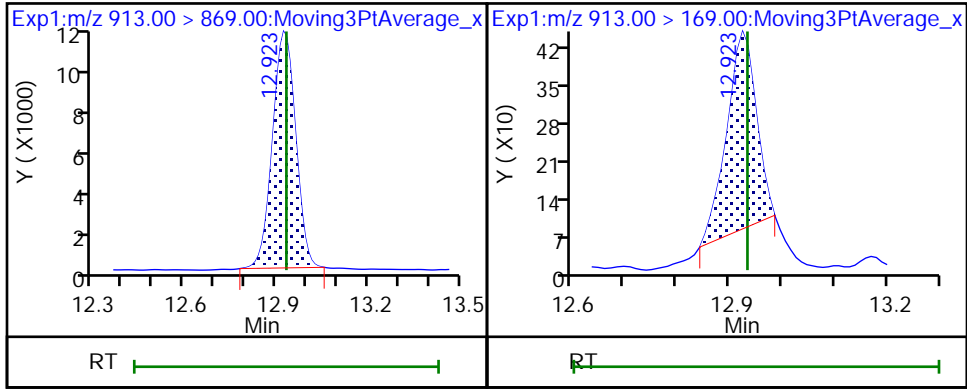
54 Perfluorohexadecanoic acid

54 Perfluorohexadecanoic acid



53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

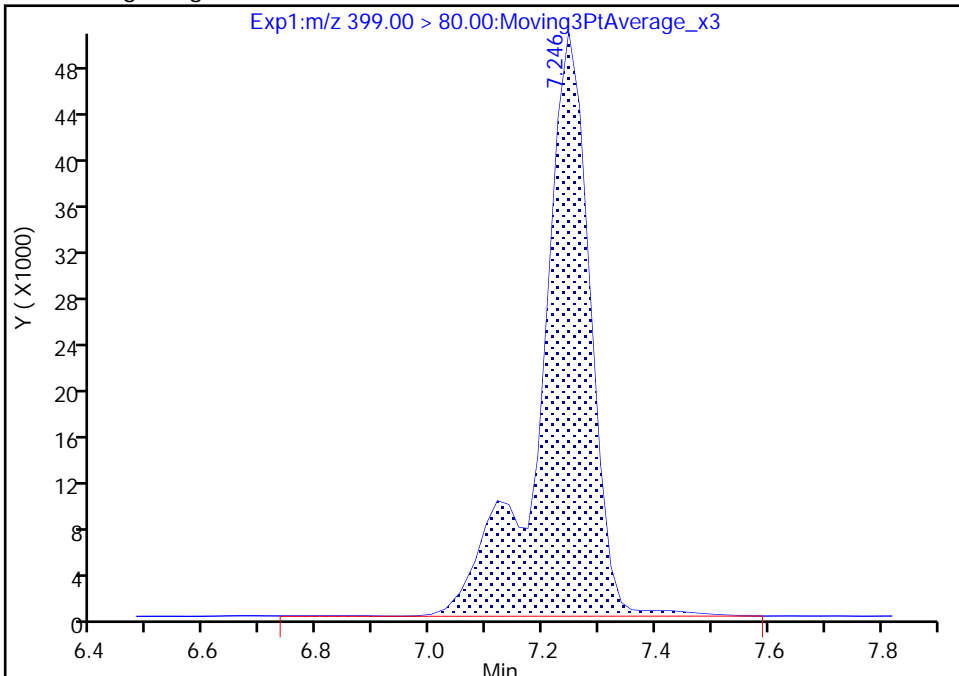
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

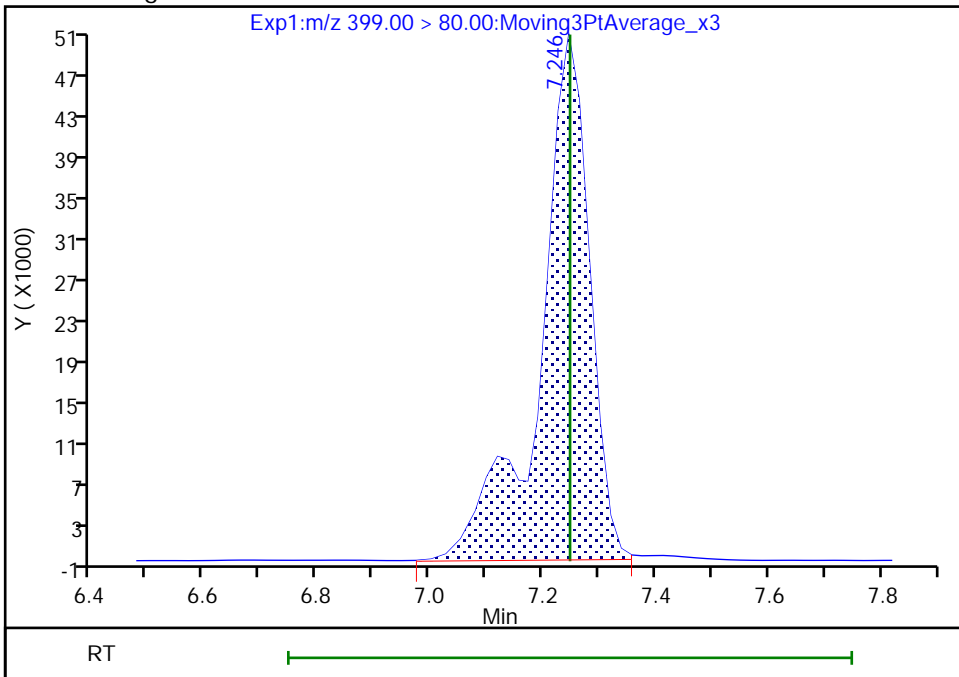
RT: 7.25  
Area: 314658  
Amount: 0.009616  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 310276  
Amount: 0.009510  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:03  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

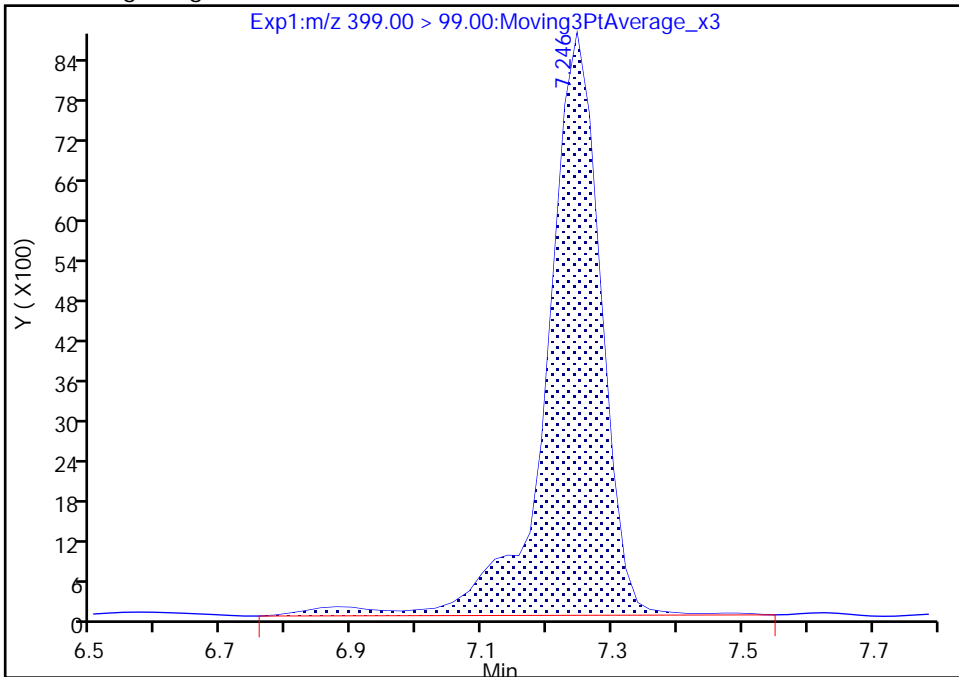
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

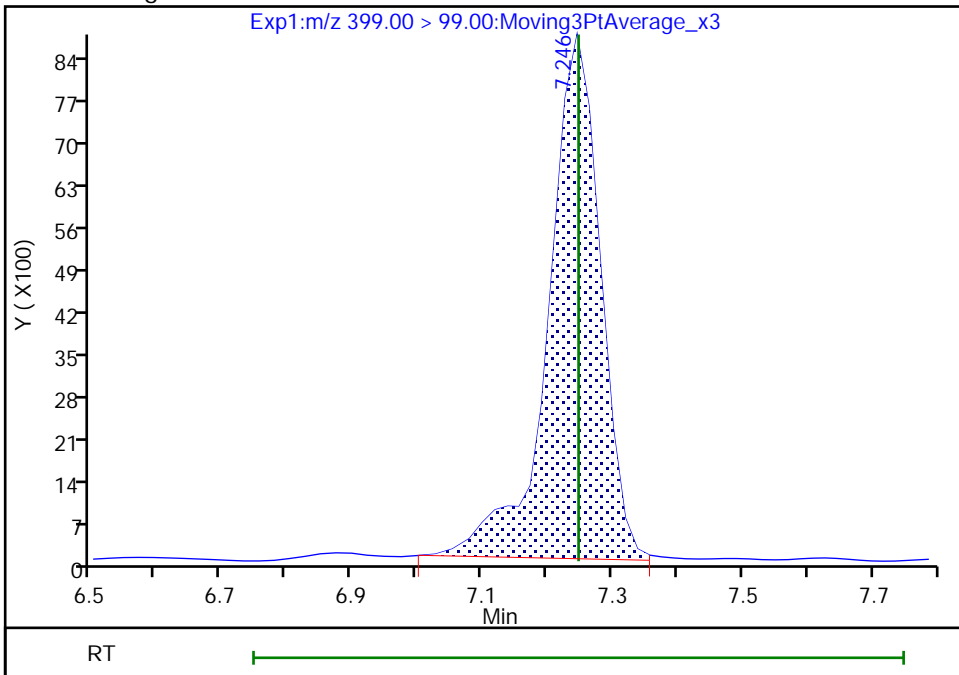
RT: 7.25  
Area: 51004  
Amount: 0.009616  
Amount Units: ng/ml

Processing Integration Results



RT: 7.25  
Area: 48661  
Amount: 0.009510  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:09

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

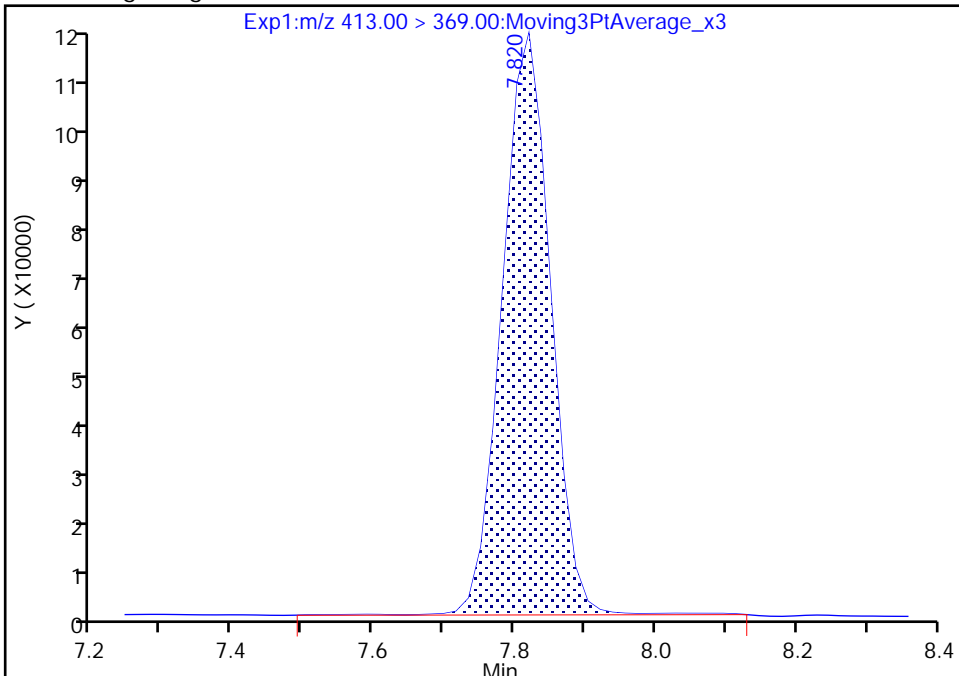
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

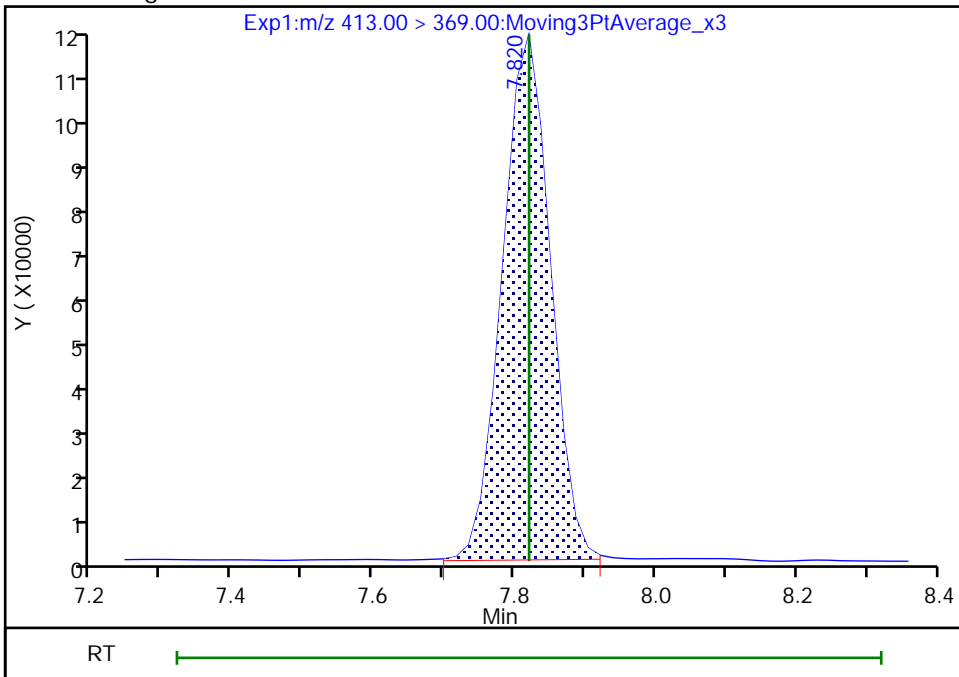
RT: 7.82  
Area: 531724  
Amount: 0.009861  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 527119  
Amount: 0.009843  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:19  
Audit Action: Manually Integrated

Audit Reason: Baseline  
Page 222 of 1366

Eurofins TestAmerica, Sacramento

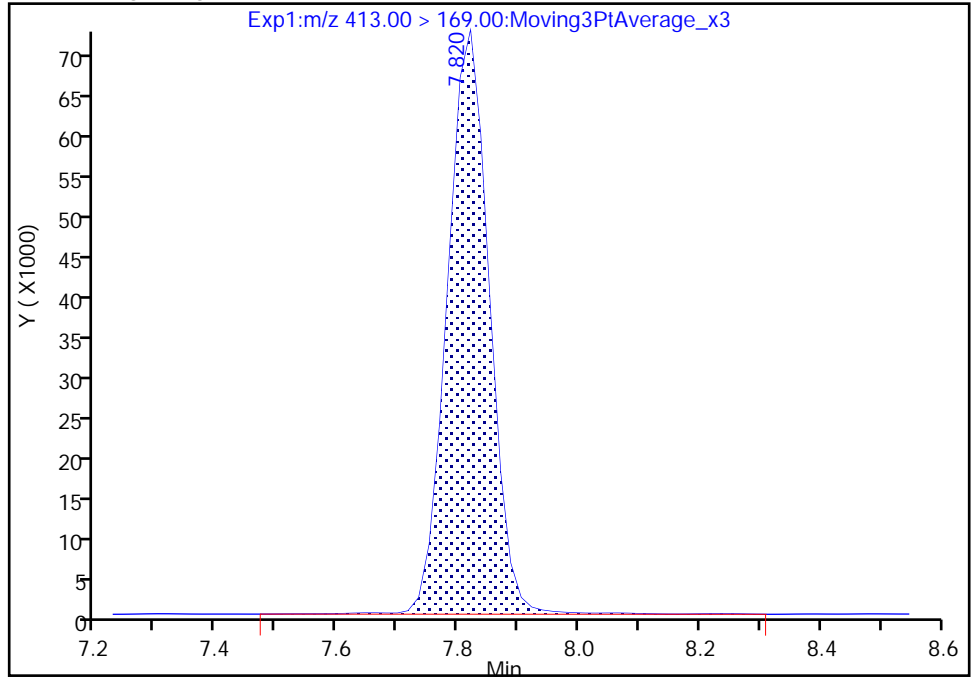
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

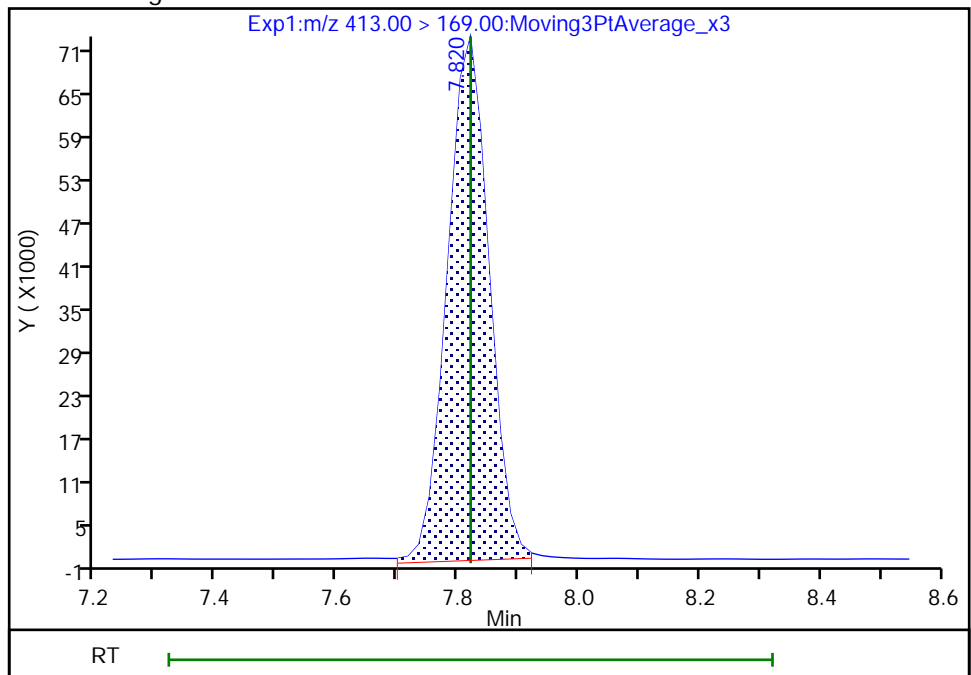
RT: 7.82  
Area: 348517  
Amount: 0.009861  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 347765  
Amount: 0.009843  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:24

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

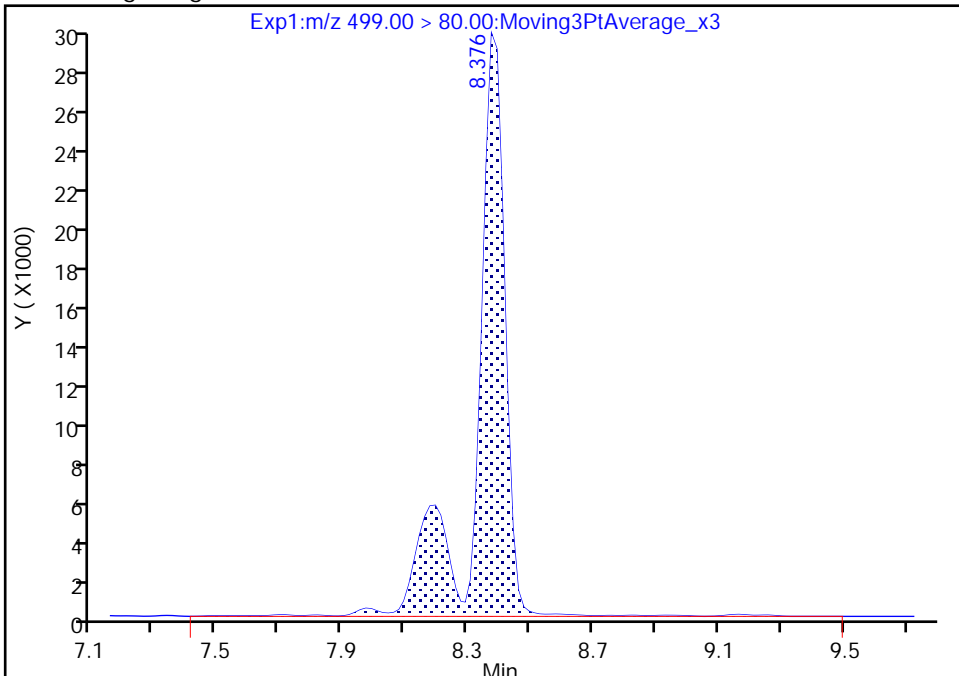
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

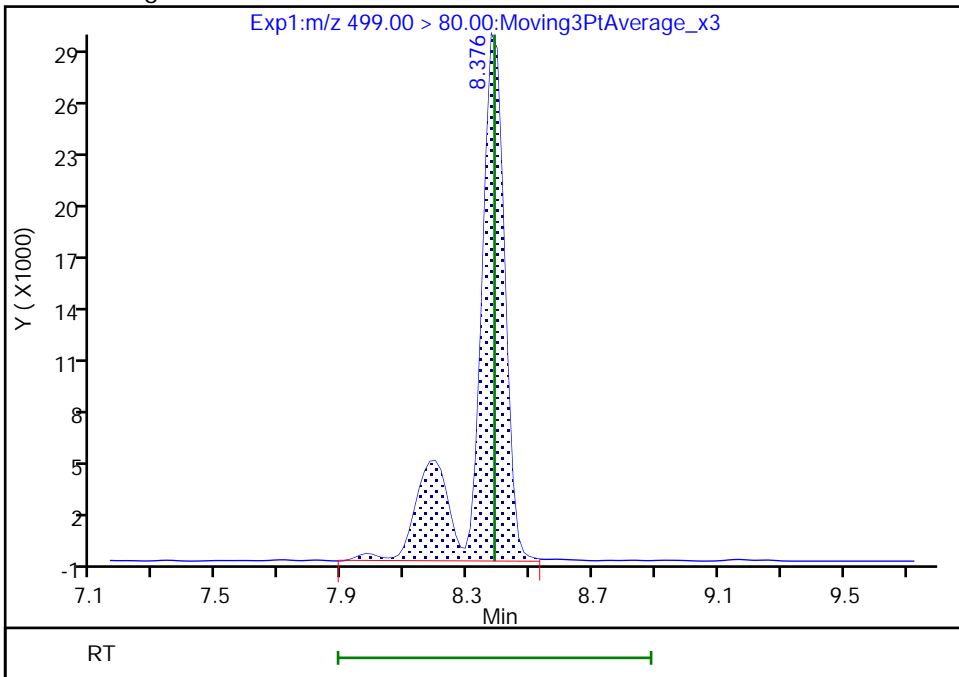
RT: 8.38  
Area: 191395  
Amount: 0.009724  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 187403  
Amount: 0.009547  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:31  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

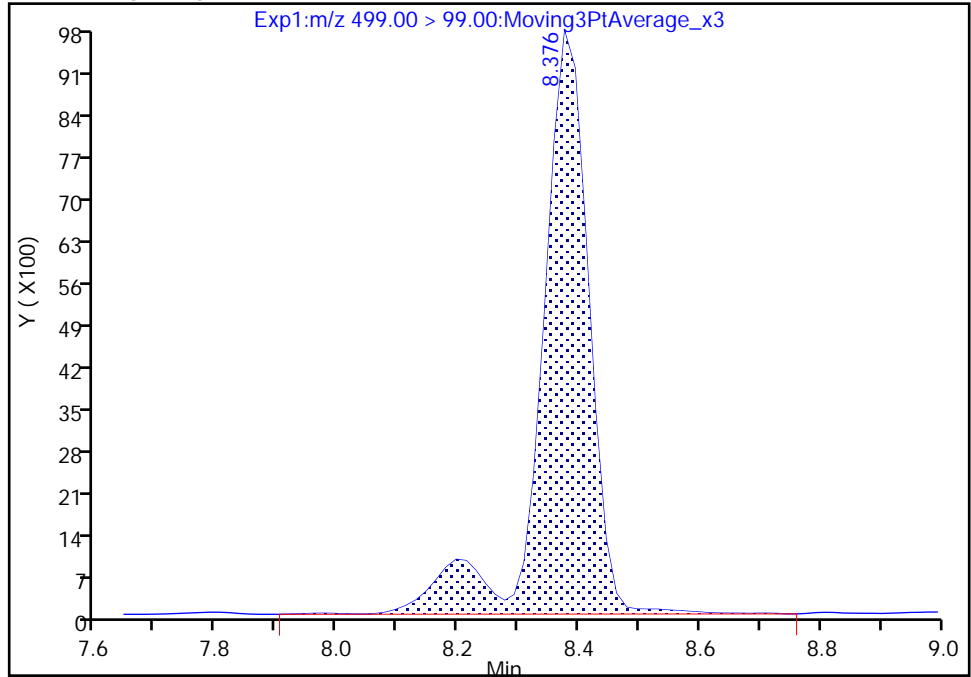
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_008.d  
Injection Date: 07-Jun-2021 15:42:04 Instrument ID: A10  
Lims ID: IC STD 4  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 8 Worklist Smp#: 5  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

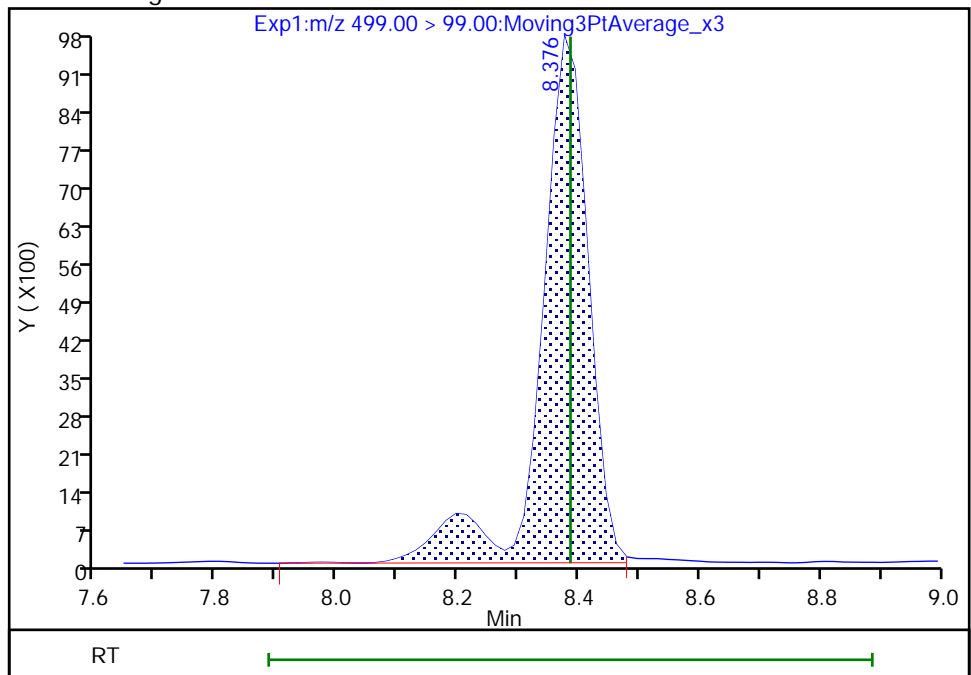
RT: 8.38  
Area: 54049  
Amount: 0.009724  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 53383  
Amount: 0.009547  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:20:45

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_009.d  
 Lims ID: IC STD 5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 07-Jun-2021 16:00:31 ALS Bottle#: 9 Worklist Smp#: 6  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 5 (36)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:43 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:22:42

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA										
217.00 > 172.00	5.621	5.591	0.030		2762551	0.0771		154	7336	
1 Perfluorobutanoic acid										
212.90 > 169.00	5.638	5.595	0.043	1.003	979450	0.0171		85.5	258	
D 4 13C5 PFPeA										
267.90 > 223.00	6.229	6.235	-0.006		1942457	0.0567		113	10116	
5 Perfluoropentanoic acid										
262.90 > 219.00	6.229	6.235	-0.006	1.000	854651	0.0185		92.7	252	
D 3 13C3 PFBS										
301.90 > 80.00	6.271	6.287	-0.016		1627682	0.0568		122	5325	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.293	6.290	0.003	1.004	649413	0.0161	Target=1.41	90.9	1424	
298.90 > 99.00	6.271	6.290	-0.019	1.000	458070		1.42(0.71-2.12)	90.9	619	
8 4:2 FTS										
327.00 > 307.00	6.664	6.676	-0.012	1.000	425143	NC	Target=2.69		8517	
327.00 > 81.00	6.664	6.676	-0.012	1.000	154451		2.75(1.34-4.03)		476	
D 7 M2-4:2 FTS										
329.00 > 81.00	6.664	6.676	-0.012		365169	NC			963	
D 9 13C2 PFHxA										
315.00 > 270.00	6.711	6.728	-0.017		1700795	0.0522		104	8611	
10 Perfluorohexanoic acid										
313.00 > 269.00	6.711	6.728	-0.017	1.000	713919	0.0198	Target=19.50	99.1	596	
313.00 > 119.00	6.711	6.728	-0.017	1.000	37101		19.24(9.75-29.25)	99.1	339	
11 Perfluoropentanesulfonic acid										
349.00 > 80.00	6.734	6.749	-0.015	0.929	570032	NC	Target=1.44		1226	
349.00 > 99.00	6.734	6.749	-0.015	0.929	389958		1.46(0.72-2.17)		980	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.875	6.876	-0.001	1.000	173958	NC			210	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.876	-0.001		191059	NC			1003	
14 9CIFOS										
531.00 > 351.00	7.100	7.109	-0.009	0.847	790	NC			3.2	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	575014	0.0172	Target=5.60	94.8	1562	
399.00 > 99.00	7.246	7.248	-0.002	1.000	110719		5.19(2.80-8.40)	94.8	484	
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1373630	0.0493		104	12435	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.254	-0.008	1.000	767807	0.0205	Target=9.21	102	492	
363.00 > 169.00	7.246	7.254	-0.008	1.000	78236		9.81(4.61-13.82)	102	969	
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.254	-0.008		1828597	0.0474		94.7	8213	
19 DONA										
377.00 > 251.00	7.302	7.308	-0.006	0.871	2896678	NC	Target=2.84		6029	
377.00 > 85.00	7.302	7.308	-0.006	0.871	1030877		2.81(1.42-4.26)		3956	
23 6:2 FTS										
427.00 > 407.00	7.787	7.793	-0.006	1.000	623103	0.0188	Target=2.57	99.2	5812	
427.00 > 81.00	7.787	7.793	-0.006	1.000	229944		2.71(1.29-3.86)	99.2	593	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.787	7.795	-0.008		515179	0.0509		107	1500	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.804	7.804	0.0	0.931	512341	0.0186	Target=6.98	97.7	1769	
449.00 > 99.00	7.804	7.804	0.0	0.931	74853		6.84(3.49-10.48)	97.7	502	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.820	7.821	-0.001	1.000	1112272	0.0202	Target=1.54	101	211	M
413.00 > 169.00	7.820	7.821	-0.001	1.000	703444		1.58(0.77-2.31)	101	1158	M
D 25 13C4 PFOA										
417.00 > 372.00	7.820	7.821	-0.001		2904655	0.0510		102	12121	
D 26 13C4 PFOS										
503.00 > 80.00	8.380	8.386	-0.006		998035	0.0514		107	3272	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.380	8.386	-0.006	1.000	413128	0.0179	Target=3.65	96.6	1578	M
499.00 > 99.00	8.380	8.386	-0.006	1.000	113944		3.63(1.83-5.48)	96.6	550	M
D 28 13C5 PFNA										
468.00 > 423.00	8.415	8.417	-0.002		2612868	0.0538		108	11995	
29 Perfluorononanoic acid										
463.00 > 419.00	8.415	8.417	-0.002	1.000	968132	0.0204	Target=7.83	102	598	
463.00 > 169.00	8.415	8.417	-0.002	1.000	117004		8.27(3.92-11.75)	102	1575	
D 30 13C8 FOSA										
506.00 > 78.00	8.927	8.926	0.001		1037398	0.0450		90.1	4591	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.927	8.926	0.001	1.000	455353	0.0198		98.8	2691	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.958	8.961	-0.003	1.069	342062	NC	Target=6.10		2646	
549.00 > 99.00	8.958	8.961	-0.003	1.069	61939		5.52(3.05-9.15)		503	
D 33 13C2 PFDA										
515.00 > 470.00	8.989	8.999	-0.010		2357433	0.0534			107	10354
35 Perfluorodecanoic acid										
513.00 > 469.00	8.989	9.001	-0.012	1.000	839702	0.0195	Target=16.47	97.5	885	
513.00 > 169.00	8.989	9.001	-0.012	1.000	53806		15.61(8.23-24.70)	97.5	327	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.989	9.001	-0.012		439527	0.0524			109	3571
36 8:2 FTS										
527.00 > 507.00	8.989	9.001	-0.012	1.000	404275	0.0183	Target=2.29	95.3	5674	
527.00 > 81.00	8.989	9.001	-0.012	1.000	181060		2.23(1.15-3.44)	95.3	1397	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.270	9.281	-0.011		785480	0.0492			98.4	2524
38 NMeFOSAA										
570.00 > 419.00	9.286	9.289	-0.003	1.002	287708	0.0207	Target=13.24	103	4195	
570.00 > 483.00	9.286	9.289	-0.003	1.002	20796		13.83(6.62-19.86)	103	251	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.505	9.508	-0.003	1.134	247309	0.0184	Target=2.43	95.5	2289	
599.00 > 99.00	9.505	9.508	-0.003	1.134	94903		2.61(1.22-3.65)	95.5	1442	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.553	9.555	-0.002	1.000	786916	0.0202	Target=21.30	101	1157	
563.00 > 169.00	9.553	9.555	-0.002	1.000	38564		20.41(10.65-31.95)	101	824	
D 42 13C2 PFUnA										
565.00 > 520.00	9.553	9.555	-0.002		1984426	0.0505			101	15162
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.553	9.561	-0.008		828340	0.0521			104	3779
43 NEtFOSA										
584.00 > 419.00	9.569	9.573	-0.004	1.002	305153	0.0201	Target=16.50	100	3496	
584.00 > 483.00	9.569	9.573	-0.004	1.002	22913		13.32(8.25-24.74)	100	206	
44 11C1FOS										
631.00 > 451.00	9.773	9.790	-0.017	1.166	1792786	NC				6231
D 45 13C2 PFDoA										
615.00 > 570.00	10.071	10.084	-0.013		1972630	0.0446			89.3	8063
46 Perfluorododecanoic acid										
613.00 > 569.00	10.071	10.084	-0.013	1.000	721118	0.0197	Target=15.78	98.3	383	
613.00 > 169.00	10.071	10.084	-0.013	1.000	46617		15.47(7.89-23.66)	98.3	484	
47 10:2 FTS										
627.00 > 607.00	10.115	10.115	0.0	1.125	461673	NC	Target=34.02			6362
627.00 > 81.00	10.115	10.115	0.0	1.125	14438		31.98(17.01-51.03)			235
48 PFDoS										
699.00 > 80.00	10.535	10.532	0.003	1.257	77481	NC	Target=0.50			631
699.00 > 99.00	10.535	10.532	0.003	1.257	156861		0.49(0.25-0.74)			1469
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.589	10.601	-0.012	1.051	851210	0.0182	Target=20.25	91.1	437	
663.00 > 169.00	10.589	10.601	-0.012	1.051	44629		19.07(10.13-30.38)	91.1	790	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.070	11.085	-0.015	1.000	20683	0.0198	Target=1.26	98.8	307	
713.00 > 219.00	11.070	11.085	-0.015	1.000	15987		1.29(0.63-1.89)	98.8	274	
D 51 13C2 PFTeDA										
715.00 > 670.00	11.070	11.085	-0.015		1192578	0.0324		64.9	5255	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.990	12.002	-0.012		1017905	0.0411		82.2	4167	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.990	12.004	-0.014	1.000	396755	0.0179	Target=28.54	89.5	431	
813.00 > 169.00	11.990	12.004	-0.014	1.000	14058		28.22(14.27-42.81)	89.5	139	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.908	12.933	-0.025	1.077	180517	0.0213	Target=35.98	106	216	
913.00 > 169.00	12.918	12.933	-0.015	1.077	5061		35.67(17.99-53.97)	106	73.4	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L5\_00036

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_009.d

Injection Date: 07-Jun-2021 16:00:31

Instrument ID: A10

Lims ID: IC STD 5

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 9

Worklist Smp#: 6

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

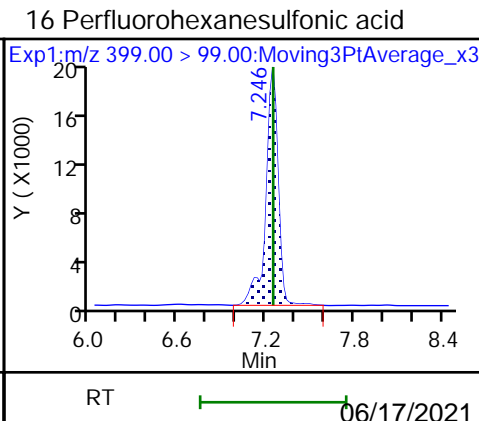
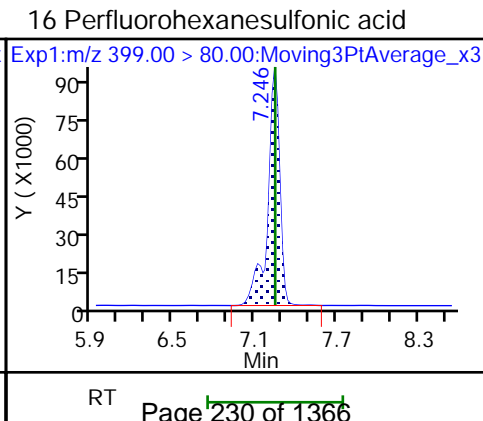
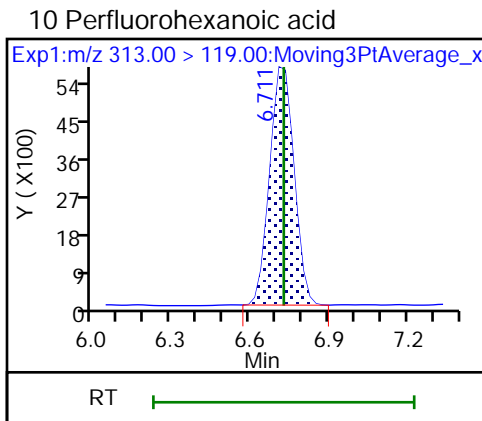
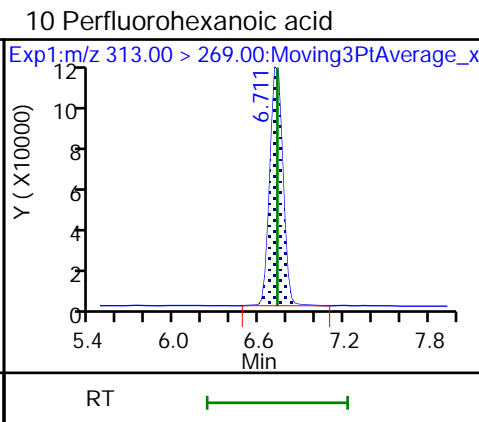
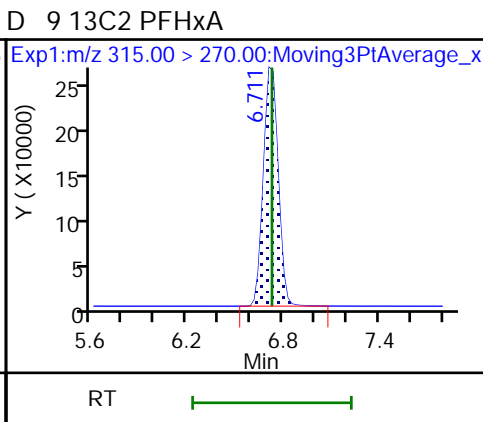
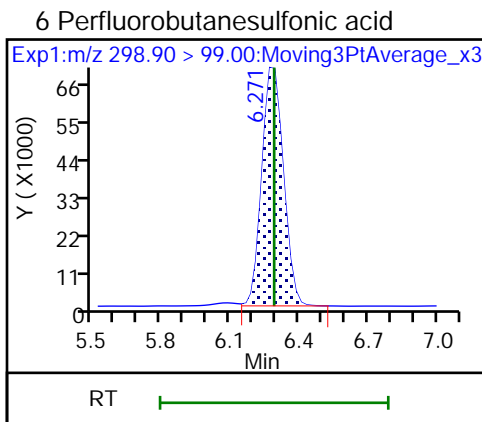
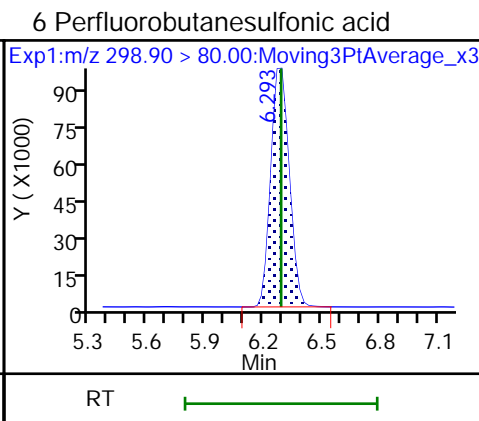
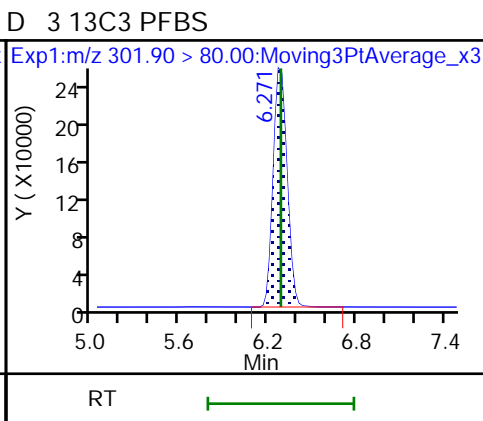
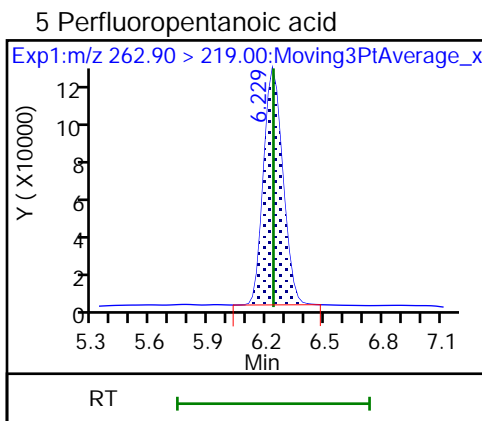
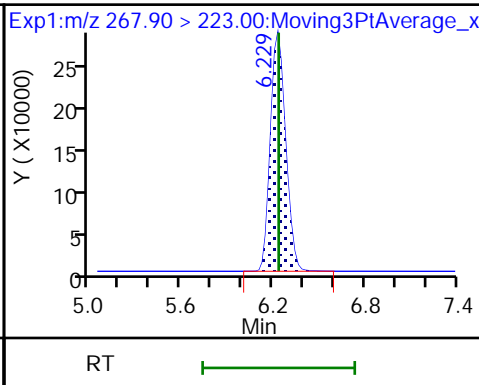
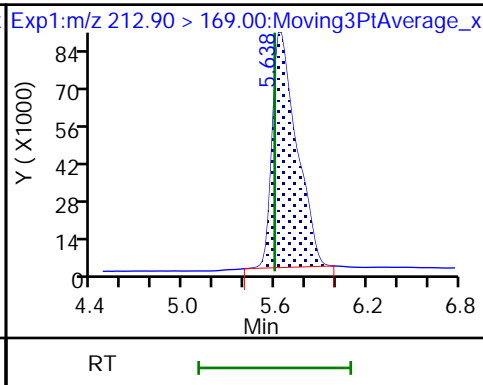
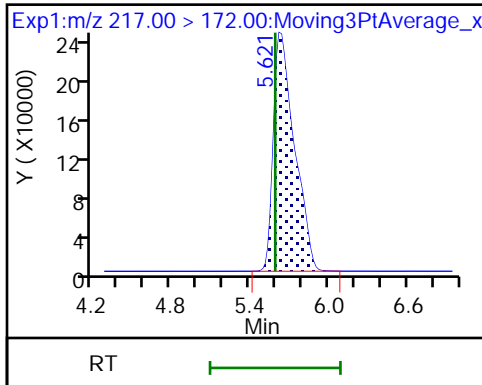
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

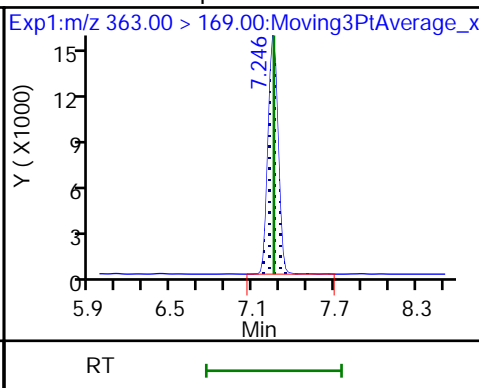
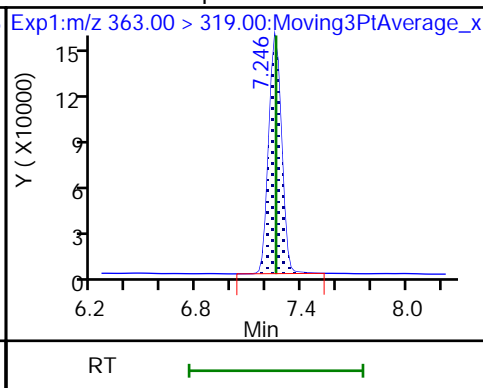
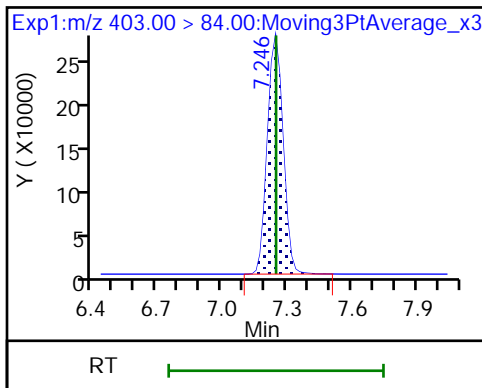
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

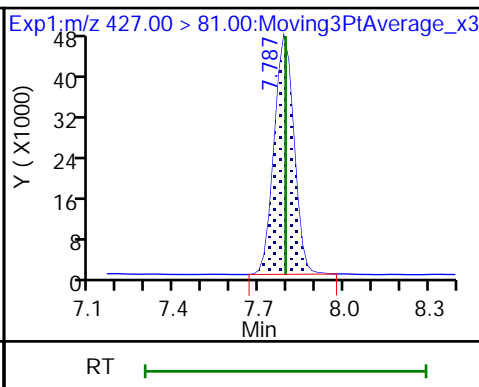
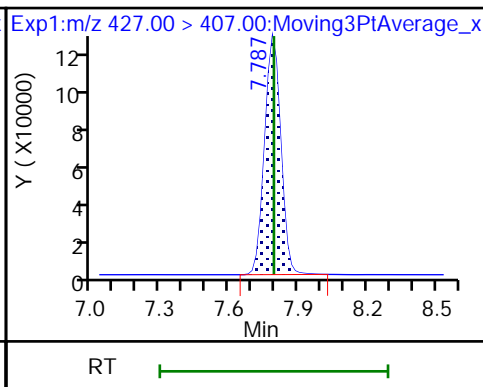
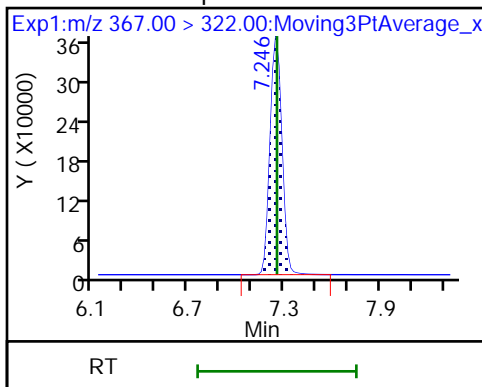
18 Perfluoroheptanoic acid



D 17 13C4 PFHpA

23 6:2 FTS

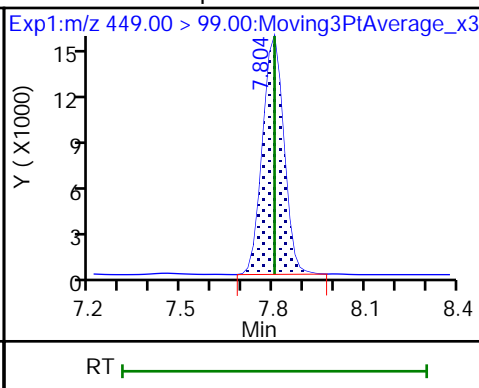
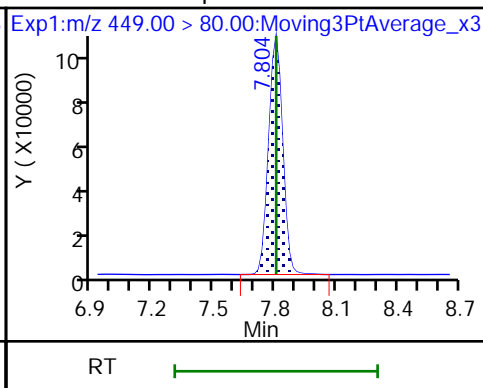
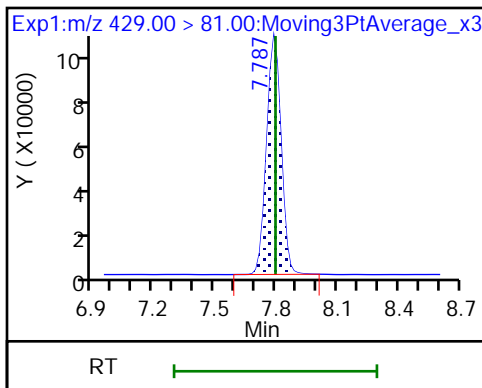
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

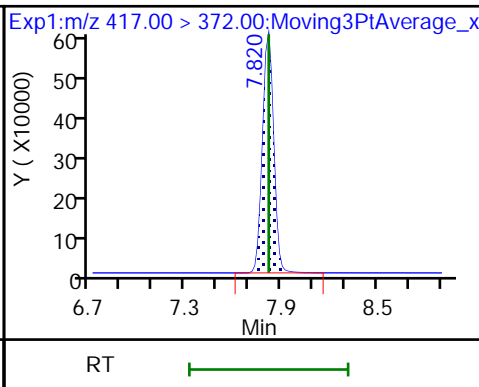
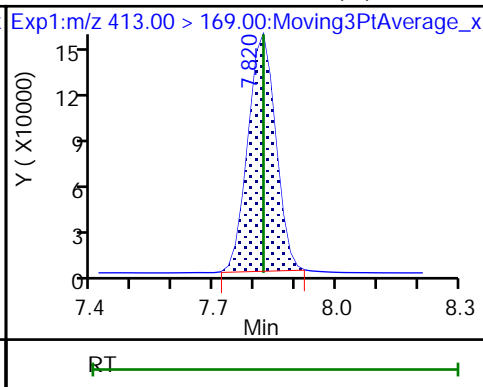
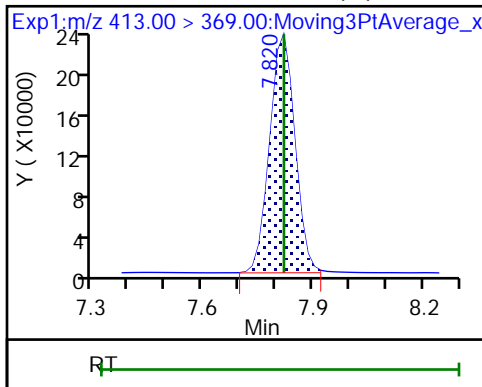
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

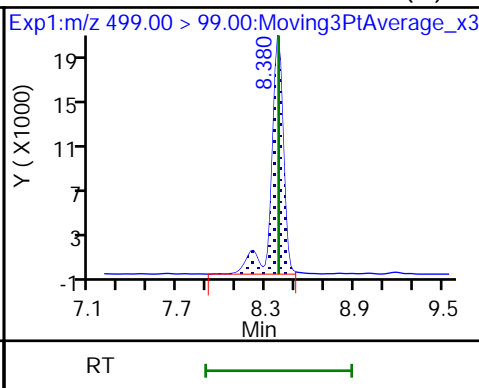
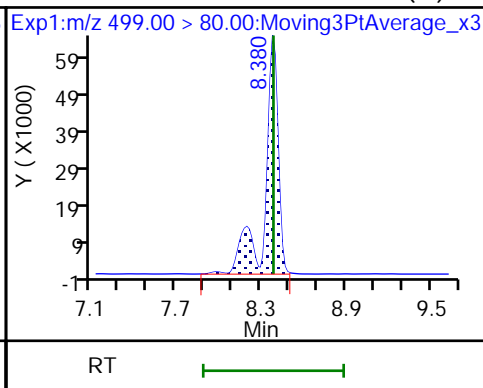
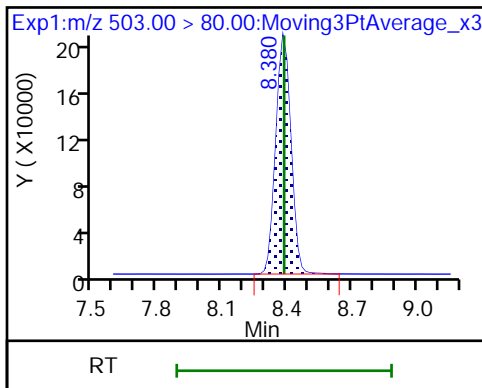
D 25 13C4 PFOA



D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid (M)

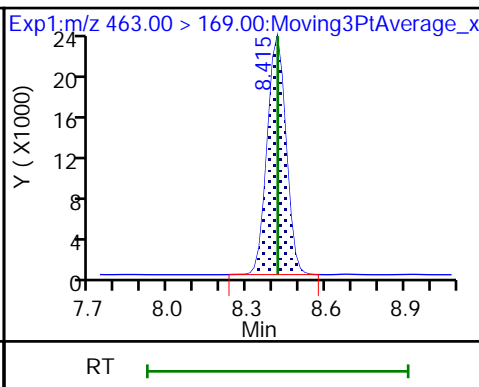
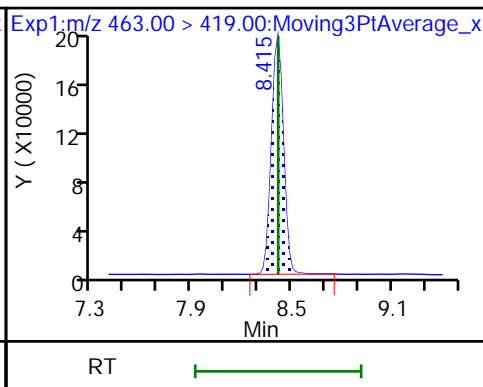
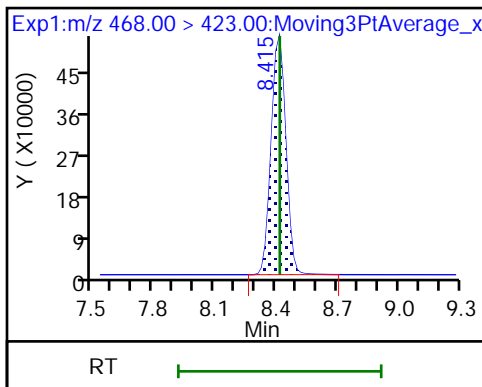
27 Perfluorooctanesulfonic acid (M)



D 28 13C5 PFNA

29 Perfluorononanoic acid

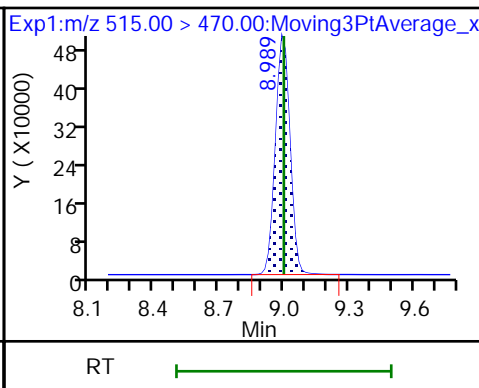
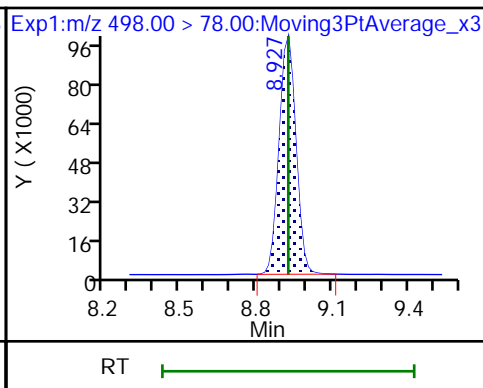
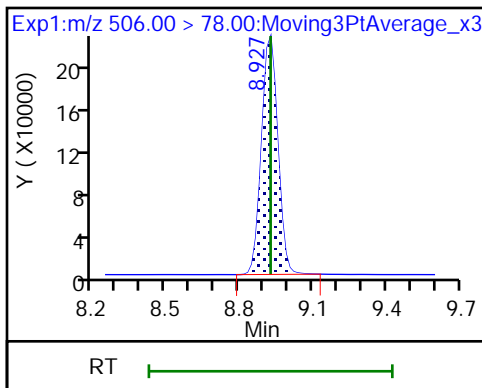
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

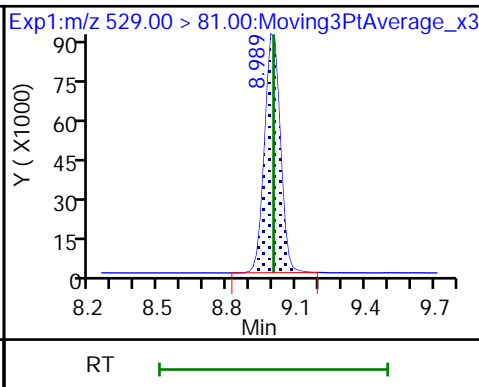
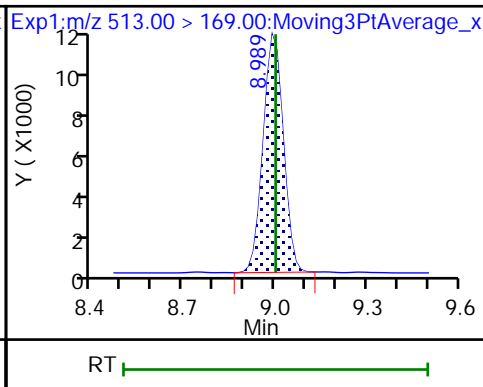
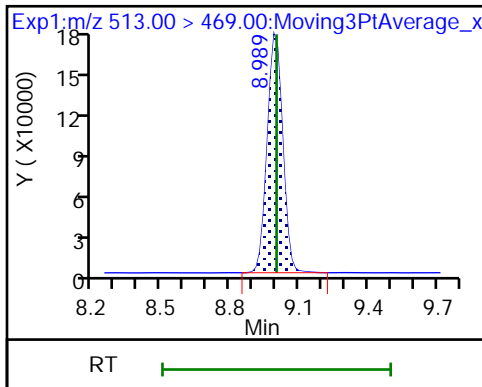
D 33 13C2 PFDA

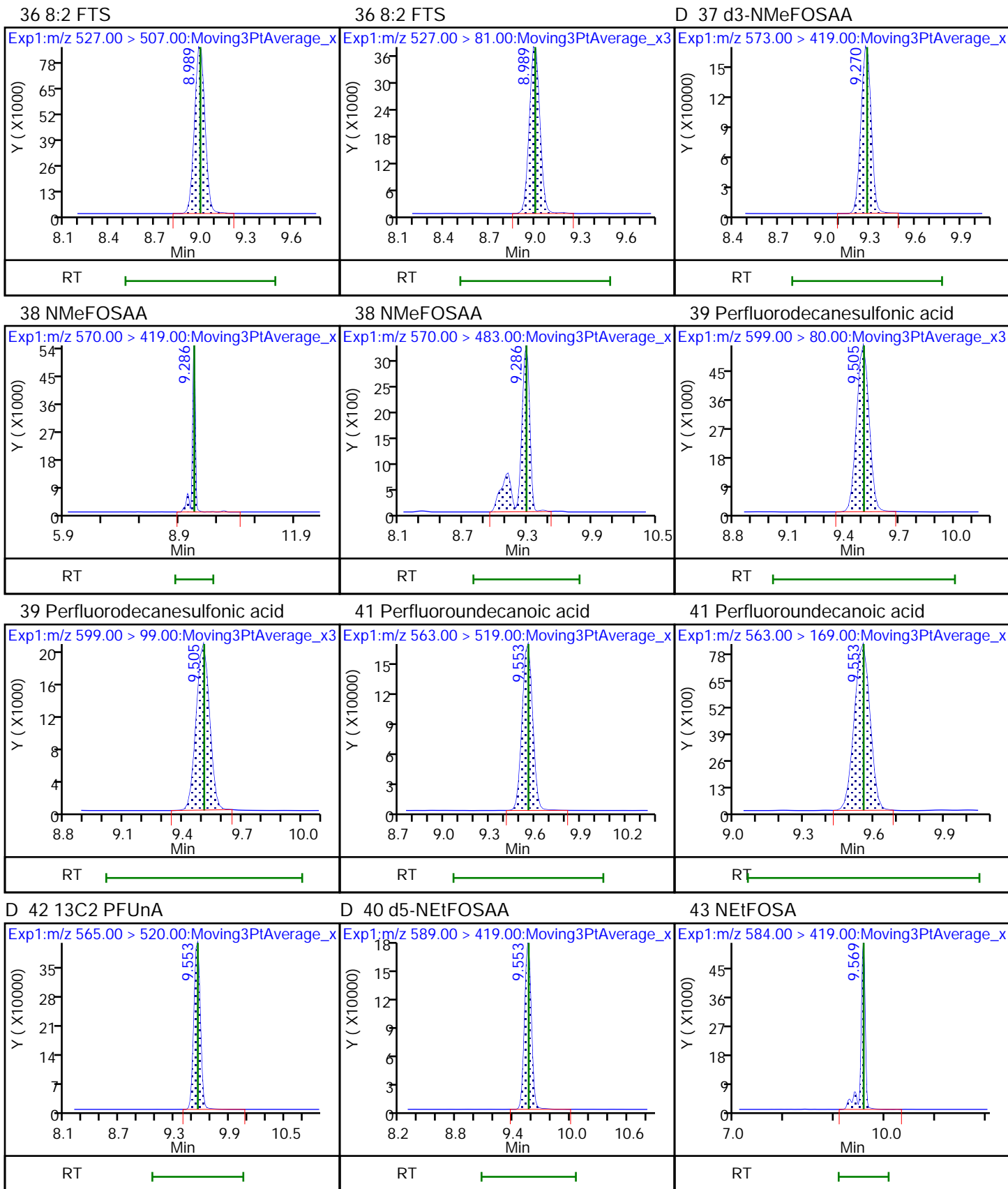


35 Perfluorodecanoic acid

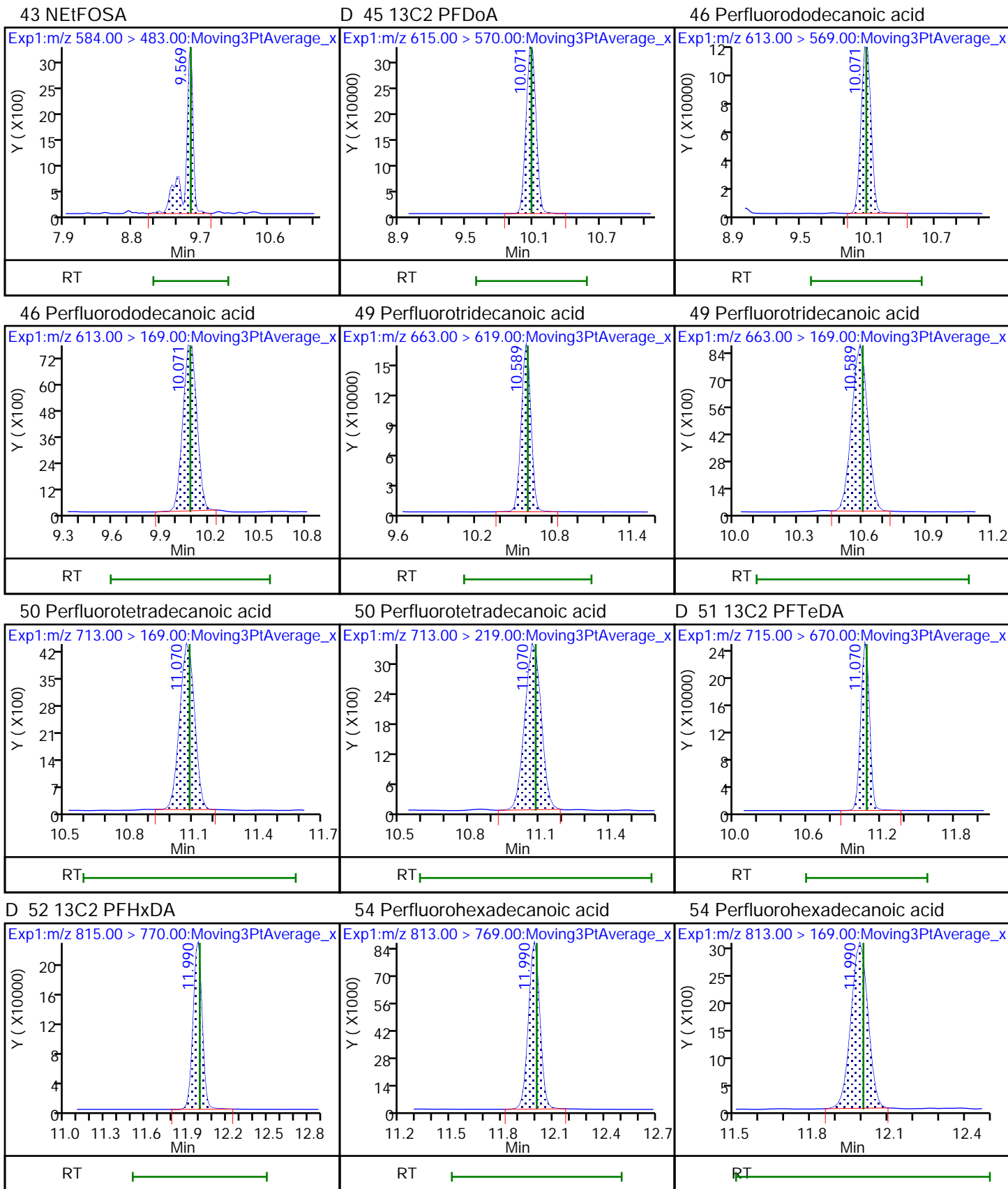
35 Perfluorodecanoic acid

D 34 M2-8:2 FTS



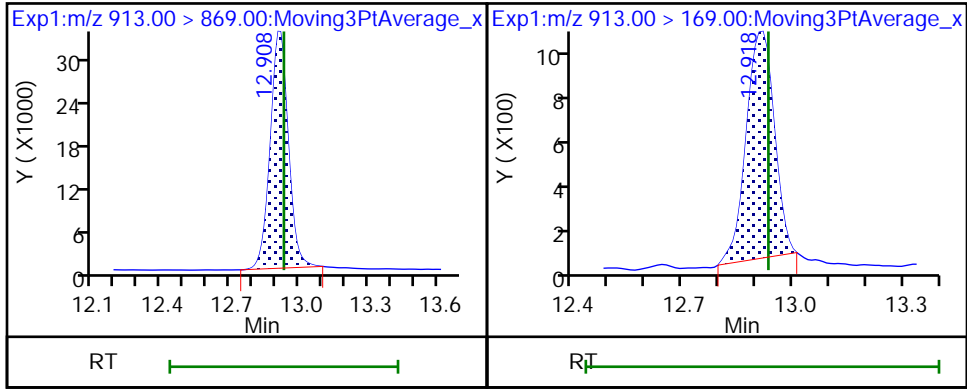






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



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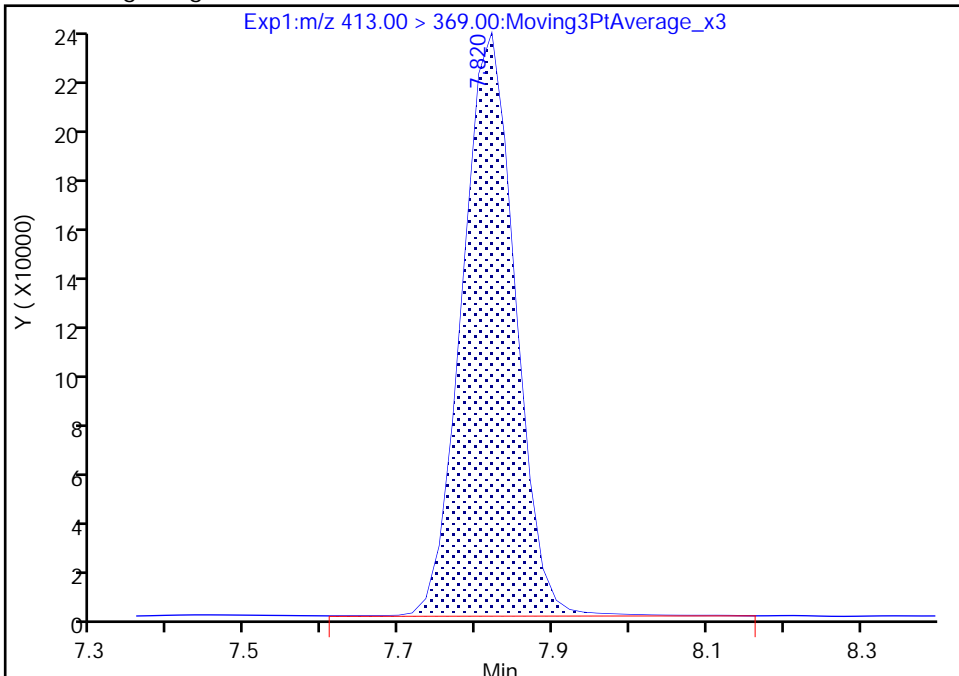
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Lims ID: IC STD 5  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 6  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

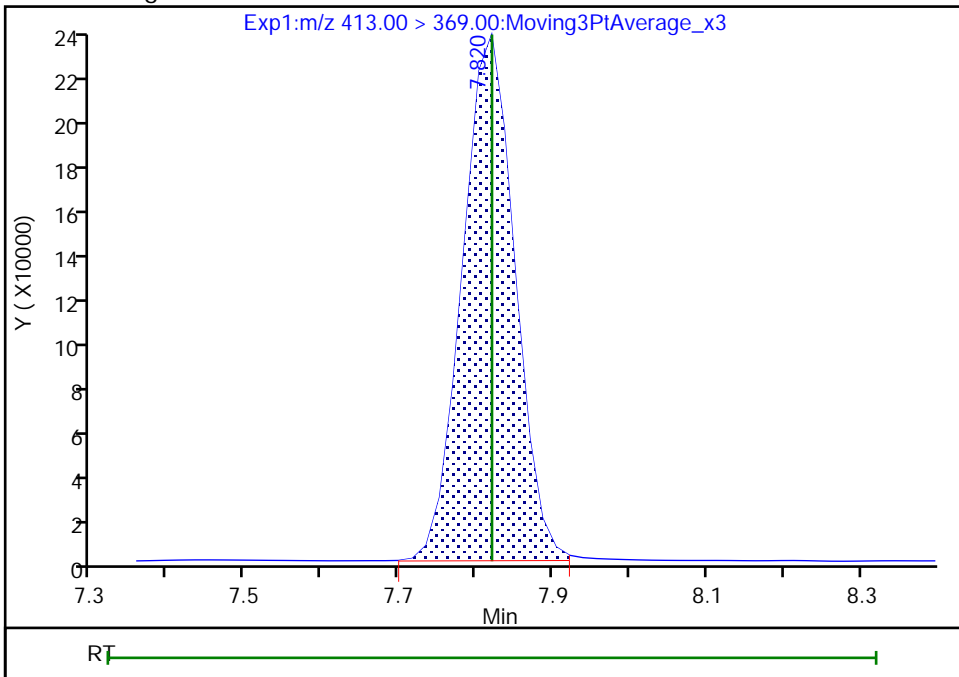
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Amount: 0.020295  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 1112272  
Amount: 0.020221  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:22:02  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

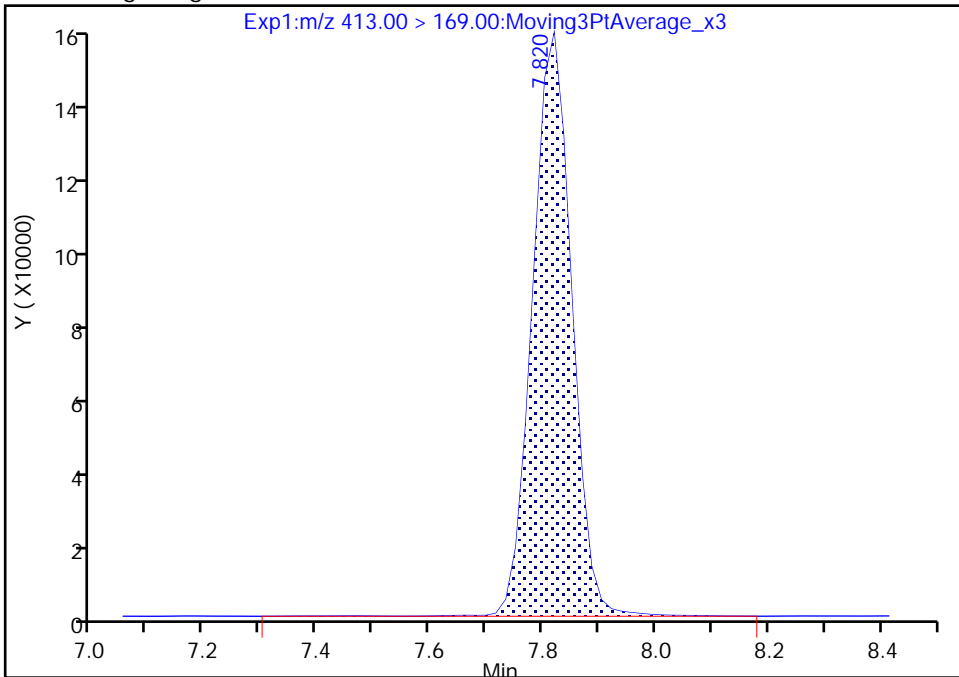
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Injection Date: 07-Jun-2021 16:00:31 Instrument ID: A10  
Lims ID: IC STD 5  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 6  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

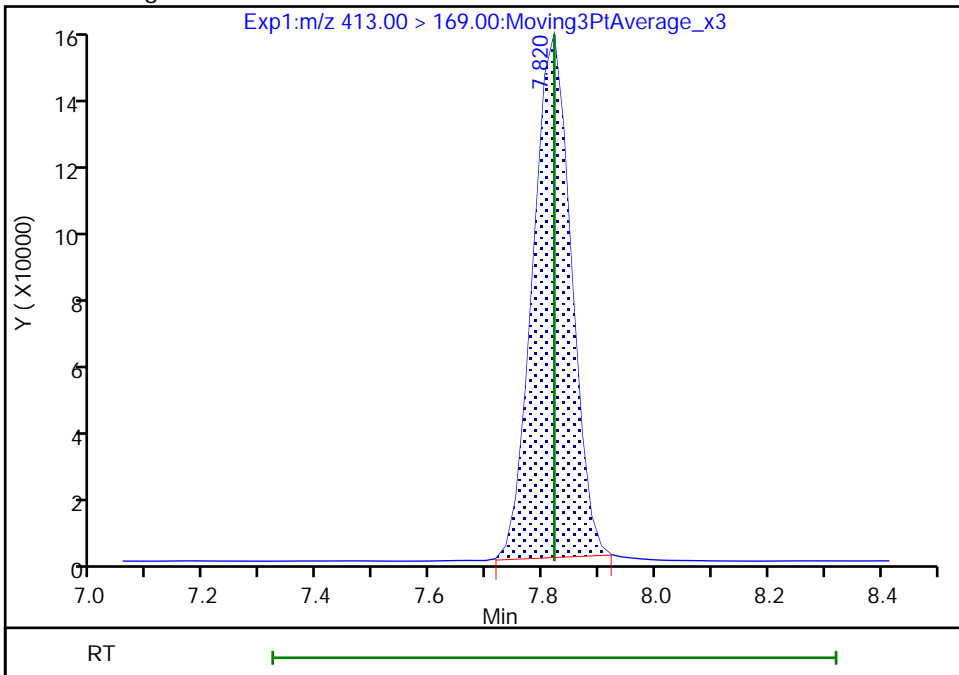
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Amount: 0.020295  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 703444  
Amount: 0.020221  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:22:07

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

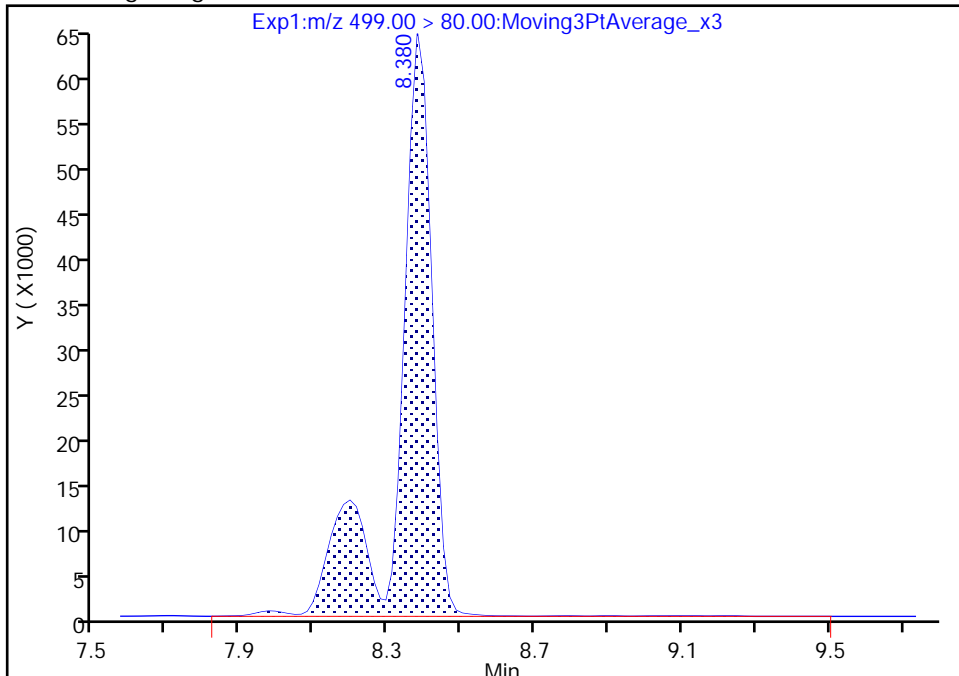
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_009.d  
Injection Date: 07-Jun-2021 16:00:31 Instrument ID: A10  
Lims ID: IC STD 5  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 6  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

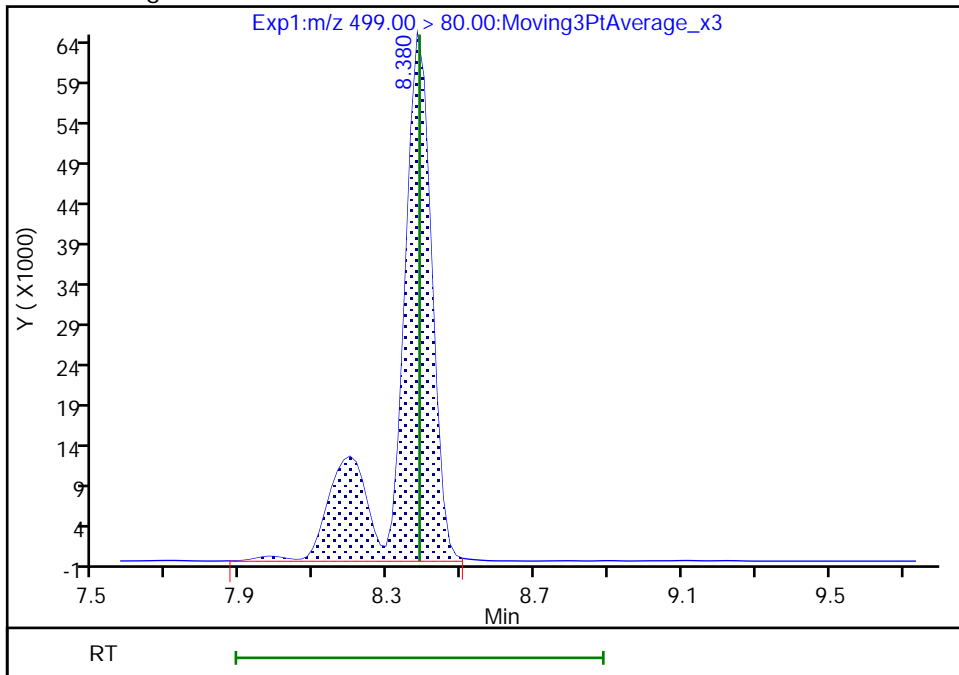
RT: 8.38  
Area: 414563  
Amount: 0.017999  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 413128  
Amount: 0.017937  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:22:16  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

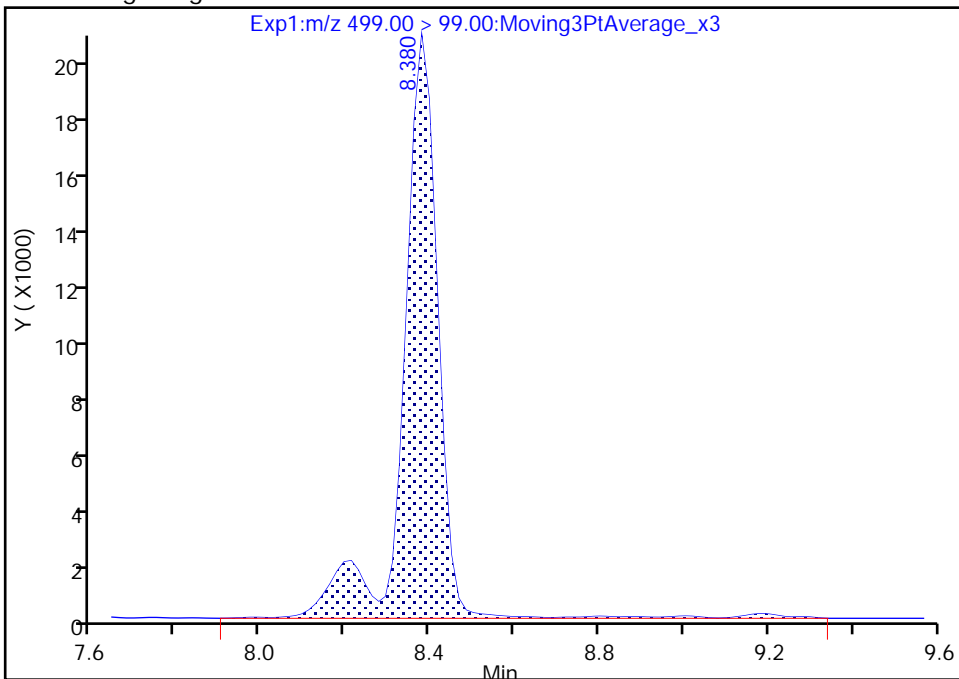
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Injection Date: 07-Jun-2021 16:00:31 Instrument ID: A10  
Lims ID: IC STD 5  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 9 Worklist Smp#: 6  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

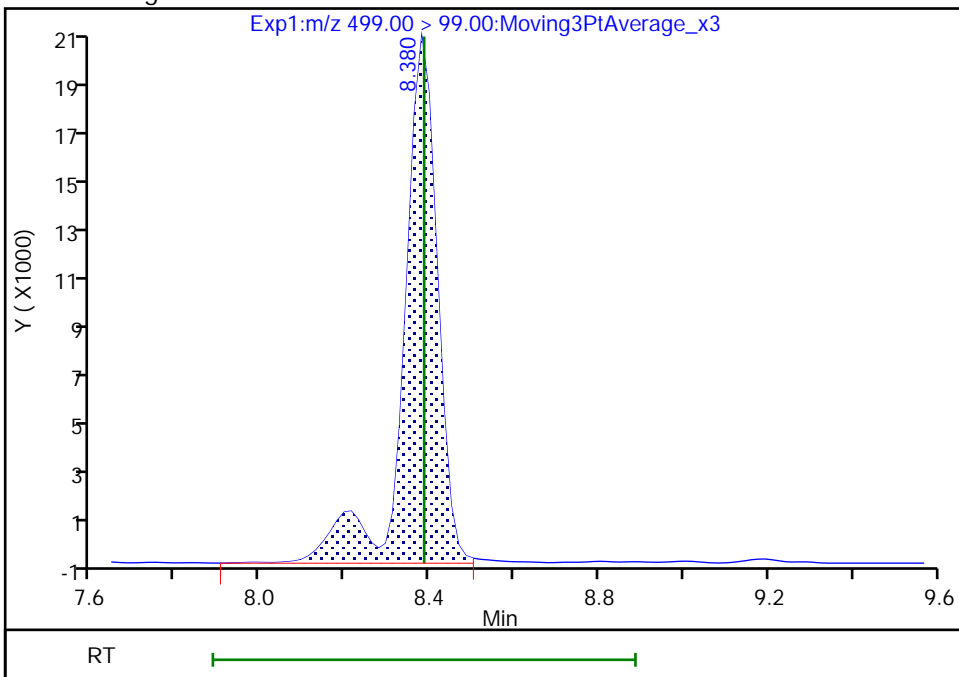
RT: 8.38  
Area: 116829  
Amount: 0.017999  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 113944  
Amount: 0.017937  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:22:28

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d  
 Lims ID: IC STD 6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 07-Jun-2021 16:18:58 ALS Bottle#: 10 Worklist Smp#: 7  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 6 (33)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:53:52 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:23:54

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA										
217.00 > 172.00	5.586	5.591	-0.005		2563961	0.0715		143	5989	
1 Perfluorobutanoic acid										
212.90 > 169.00	5.586	5.595	-0.009	1.000	2246856	0.0423		84.6	534	
D 4 13C5 PFPeA										
267.90 > 223.00	6.229	6.235	-0.006		1748569	0.0510		102	6909	
5 Perfluoropentanoic acid										
262.90 > 219.00	6.229	6.235	-0.006	1.000	1927112	0.0464		92.8	567	
D 3 13C3 PFBS										
301.90 > 80.00	6.271	6.287	-0.016		1485880	0.0519		112	5048	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.271	6.290	-0.019	1.000	1404209	0.0381	Target=1.41	86.1	2585	
298.90 > 99.00	6.271	6.290	-0.019	1.000	1018631		1.38(0.71-2.12)	86.1	1974	
8 4:2 FTS										
327.00 > 307.00	6.664	6.676	-0.012	1.000	922771	NC	Target=2.69		8428	
327.00 > 81.00	6.664	6.676	-0.012	1.000	364816		2.53(1.34-4.03)		1124	
D 7 M2-4:2 FTS										
329.00 > 81.00	6.664	6.676	-0.012		351006	NC			878	
D 9 13C2 PFHxA										
315.00 > 270.00	6.711	6.728	-0.017		1649991	0.0507		101	10637	
10 Perfluorohexanoic acid										
313.00 > 269.00	6.711	6.728	-0.017	1.000	1637981	0.0469	Target=19.50	93.7	1410	
313.00 > 119.00	6.711	6.728	-0.017	1.000	79746		20.54(9.75-29.25)	93.7	723	
11 Perfluoropentanesulfonic acid										
349.00 > 80.00	6.734	6.749	-0.015	0.930	1279673	NC	Target=1.44		2878	
349.00 > 99.00	6.734	6.749	-0.015	0.930	909703		1.41(0.72-2.17)		3151	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.876	0.0		163227	NC			729	
13 HPFO-DA										
329.10 > 285.00	6.876	6.876	0.0	1.000	428907	NC			524	
14 9CIFOS										
531.00 > 351.00	7.081	7.109	-0.028	0.845	273	NC			1.3	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.244	7.248	-0.004	1.000	1409309	0.0420	Target=5.60	92.4	3298	
399.00 > 99.00	7.244	7.248	-0.004	1.000	254404		5.54(2.80-8.40)	92.4	1153	
D 15 18O2 PFHxS										
403.00 > 84.00	7.244	7.248	-0.004		1380748	0.0496		105	14368	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.244	7.254	-0.010	1.000	2001654	0.0507	Target=9.21	101	1368	
363.00 > 169.00	7.244	7.254	-0.010	1.000	215747		9.28(4.61-13.82)	101	2624	
D 17 13C4 PFHpA										
367.00 > 322.00	7.244	7.254	-0.010		1926415	0.0499		99.8	13457	
19 DONA										
377.00 > 251.00	7.300	7.308	-0.008	0.871	7705034	NC	Target=2.84		15461	
377.00 > 85.00	7.300	7.308	-0.008	0.871	2693614		2.86(1.42-4.26)		8250	
23 6:2 FTS										
427.00 > 407.00	7.787	7.793	-0.007	1.000	1366652	0.0439	Target=2.57	92.6	11493	
427.00 > 81.00	7.787	7.793	-0.007	1.000	527129		2.59(1.29-3.86)	92.6	1819	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.787	7.795	-0.009		483822	0.0478		101	1398	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.803	7.804	-0.001	0.931	1308317	0.0463	Target=6.98	97.3	3717	
449.00 > 99.00	7.803	7.804	-0.001	0.931	172386		7.59(3.49-10.48)	97.3	1041	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.820	7.821	-0.001	1.000	2739240	0.0483	Target=1.54	96.7	495	M
413.00 > 169.00	7.820	7.821	-0.001	1.000	1768658		1.55(0.77-2.31)	96.7	2779	M
D 25 13C4 PFOA										
417.00 > 372.00	7.820	7.821	-0.001		2992428	0.0525		105	11028	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.380	8.386	-0.006	1.000	1007782	0.0427	Target=3.65	92.0	3186	M
499.00 > 99.00	8.380	8.386	-0.006	1.000	282750		3.56(1.83-5.48)	92.0	1694	M
D 26 13C4 PFOS										
503.00 > 80.00	8.380	8.386	-0.006		1023496	0.0527		110	4177	
D 28 13C5 PFNA										
468.00 > 423.00	8.414	8.417	-0.003		2573939	0.0530		106	14559	
29 Perfluorononanoic acid										
463.00 > 419.00	8.414	8.417	-0.003	1.000	2171015	0.0465	Target=7.83	92.9	1243	
463.00 > 169.00	8.414	8.417	-0.003	1.000	289661		7.50(3.92-11.75)	92.9	1869	
D 30 13C8 FOSA										
506.00 > 78.00	8.927	8.926	0.001		1316643	0.0572		114	7230	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.927	8.926	0.001	1.000	1388711	0.0475		95.0	4410	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.958	8.961	-0.003	1.069	904309	NC	Target=6.10		6089	
549.00 > 99.00	8.958	8.961	-0.003	1.069	140014		6.46(3.05-9.15)		1014	
D 33 13C2 PFDA										
515.00 > 470.00	8.990	8.999	-0.009		2294936	0.0520			104	11568
35 Perfluorodecanoic acid										
513.00 > 469.00	8.990	9.001	-0.011	1.000	2030780	0.0484	Target=16.47	96.9	2030	
513.00 > 169.00	8.990	9.001	-0.011	1.000	128412		15.81(8.23-24.70)	96.9	474	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.990	9.001	-0.011		396603	0.0473			98.7	2575
36 8:2 FTS										
527.00 > 507.00	8.990	9.001	-0.011	1.000	914420	0.0458	Target=2.29	95.5	6551	
527.00 > 81.00	8.990	9.001	-0.011	1.000	392326		2.33(1.15-3.44)	95.5	2233	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.270	9.281	-0.011		822671	0.0515			103	2314
38 NMeFOSAA										
570.00 > 419.00	9.286	9.289	-0.003	1.002	699274	0.0479	Target=13.24	95.9	2339	
570.00 > 483.00	9.286	9.289	-0.003	1.002	49177		14.22(6.62-19.86)	95.9	719	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.505	9.508	-0.003	1.134	621846	0.0451	Target=2.43	93.7	7542	
599.00 > 99.00	9.505	9.508	-0.003	1.134	252979		2.46(1.22-3.65)	93.7	5194	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.537	9.555	-0.018	1.000	1994639	0.0482	Target=21.30	96.5	2836	
563.00 > 169.00	9.537	9.555	-0.018	1.000	88668		22.50(10.65-31.95)	96.5	977	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.553	9.561	-0.008		847540	0.0533			107	3916
D 42 13C2 PFUnA										
565.00 > 520.00	9.537	9.555	-0.018		2103168	0.0536			107	14577
43 NEtFOSA										
584.00 > 419.00	9.570	9.573	-0.003	1.002	723463	0.0465	Target=16.50	93.0	4899	
584.00 > 483.00	9.553	9.573	-0.020	1.000	55687		12.99(8.25-24.74)	93.0	679	
44 11C1FOS										
631.00 > 451.00	9.774	9.790	-0.016	1.166	4886165	NC				16480
D 45 13C2 PFDoA										
615.00 > 570.00	10.072	10.084	-0.012		2324809	0.0526			105	12170
46 Perfluorododecanoic acid										
613.00 > 569.00	10.072	10.084	-0.012	1.000	1960194	0.0454	Target=15.78	90.7	1025	
613.00 > 169.00	10.072	10.084	-0.012	1.000	122588		15.99(7.89-23.66)	90.7	1571	
47 10:2 FTS										
627.00 > 607.00	10.094	10.115	-0.021	1.123	1109827	NC	Target=34.02			8654
627.00 > 81.00	10.094	10.115	-0.021	1.123	30202		36.75(17.01-51.03)			502
48 PFDoS										
699.00 > 80.00	10.515	10.532	-0.017	1.255	285360	NC	Target=0.50			1790
699.00 > 99.00	10.515	10.532	-0.017	1.255	558314		0.51(0.25-0.74)			4384
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.589	10.601	-0.012	1.051	3083355	0.0560	Target=20.25	112	1459	
663.00 > 169.00	10.589	10.601	-0.012	1.051	163518		18.86(10.13-30.38)	112	2375	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.073	11.085	-0.012	1.000	97368	0.0480	Target=1.26	96.0	1279	
713.00 > 219.00	11.073	11.085	-0.012	1.000	77082		1.26(0.63-1.89)	96.0	1024	
D 51 13C2 PFTeDA										
715.00 > 670.00	11.073	11.085	-0.012		2310660	0.0628		126	7749	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.985	12.002	-0.017		1764198	0.0712		142	5345	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.985	12.004	-0.019	1.000	1707074	0.0444	Target=28.54	88.9	1215	
813.00 > 169.00	11.985	12.004	-0.019	1.000	57003		29.95(14.27-42.81)	88.9	530	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.905	12.933	-0.028	1.077	427564	0.0291	Target=35.98	58.1	248	
913.00 > 169.00	12.905	12.933	-0.028	1.077	11776		36.31(17.99-53.97)	58.1	116	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L6\_00033

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d

Injection Date: 07-Jun-2021 16:18:58

Instrument ID: A10

Lims ID: IC STD 6

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 10

Worklist Smp#: 7

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

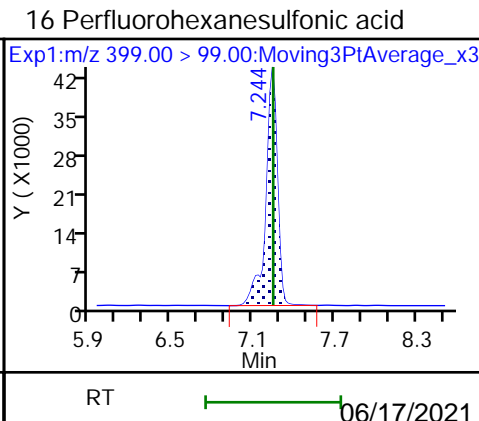
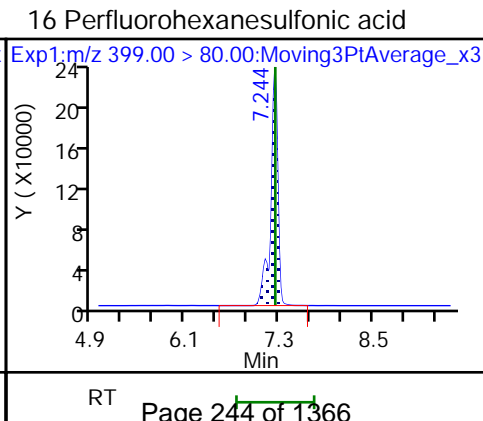
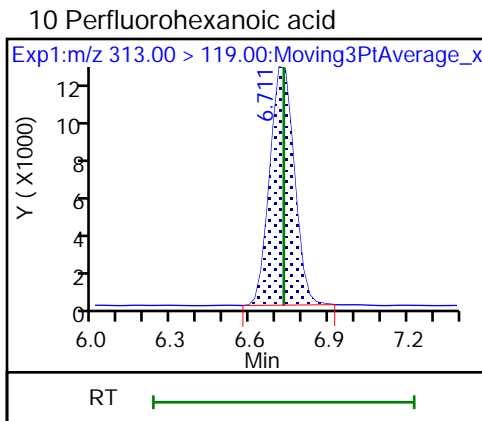
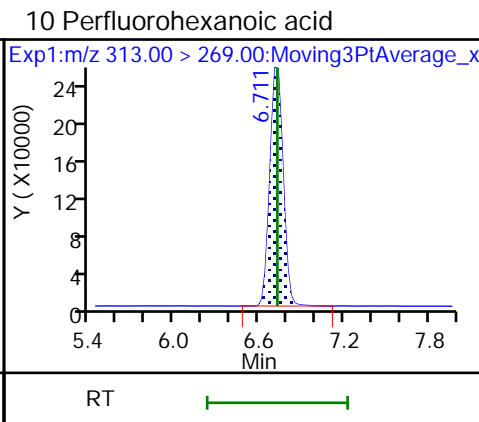
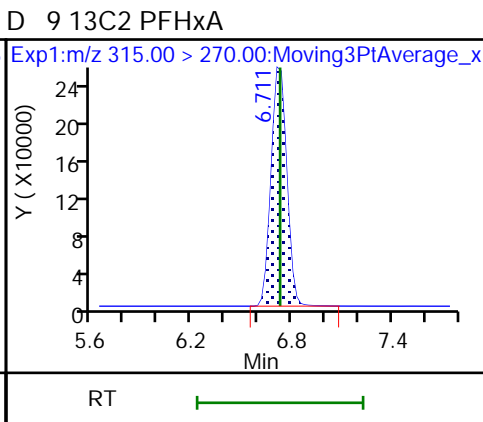
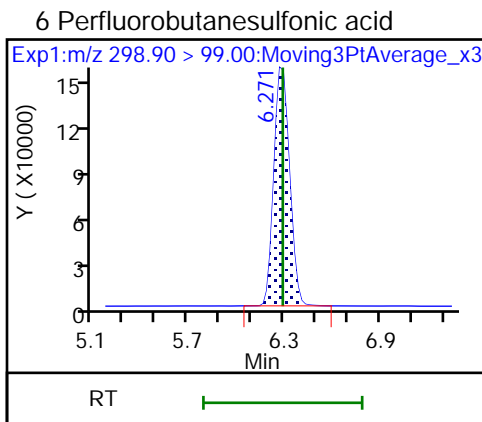
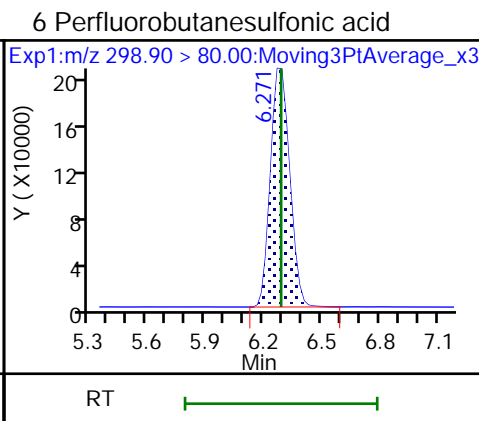
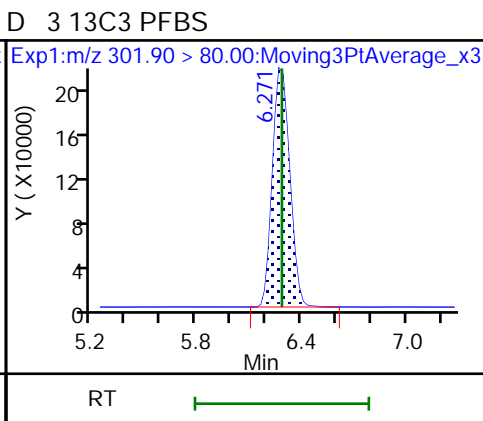
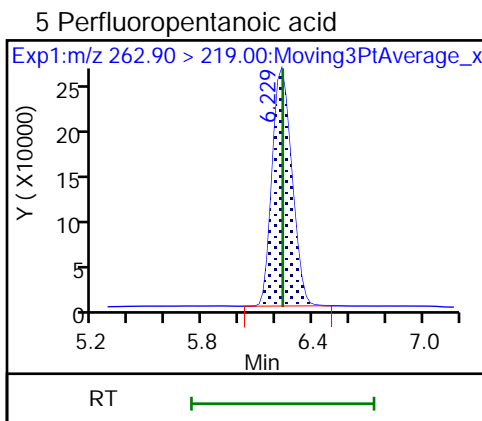
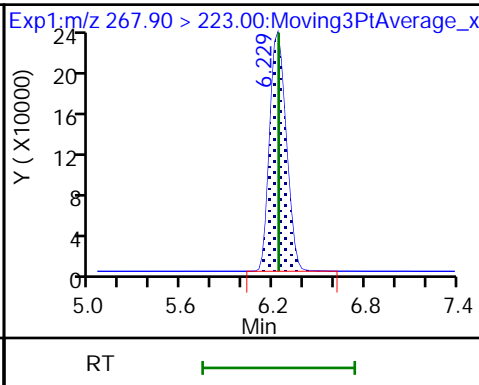
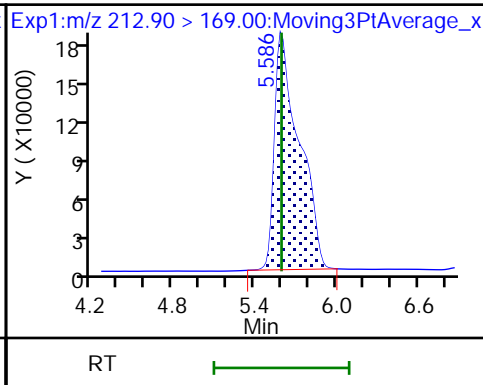
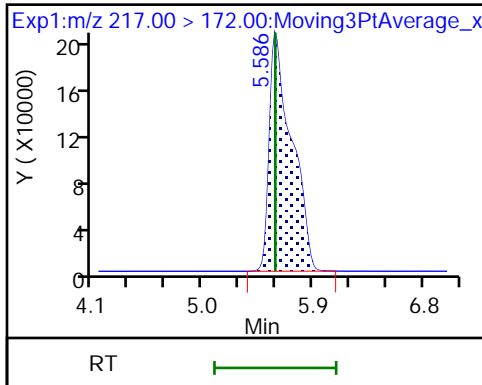
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

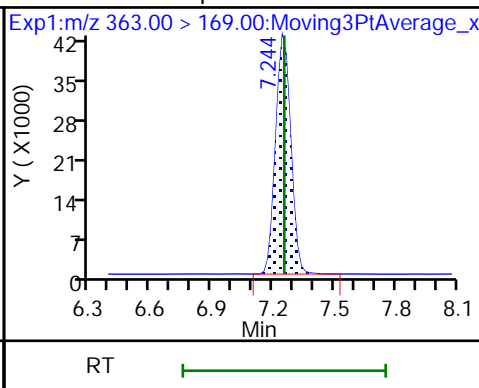
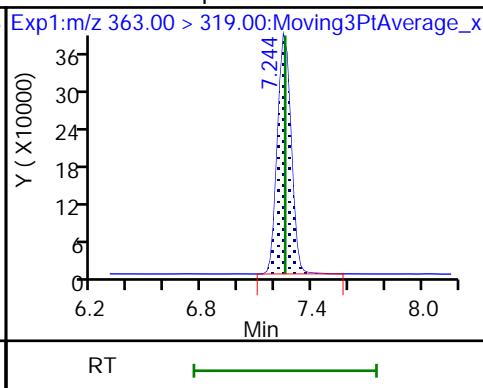
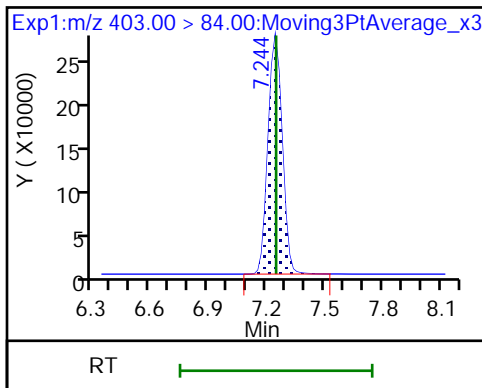
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

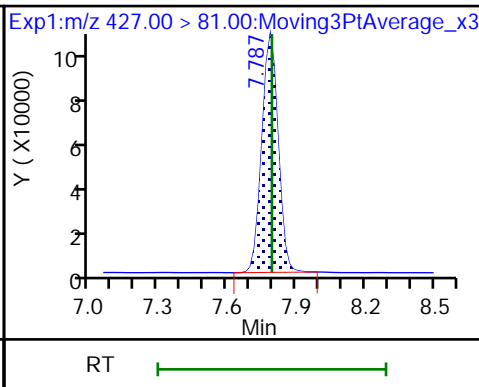
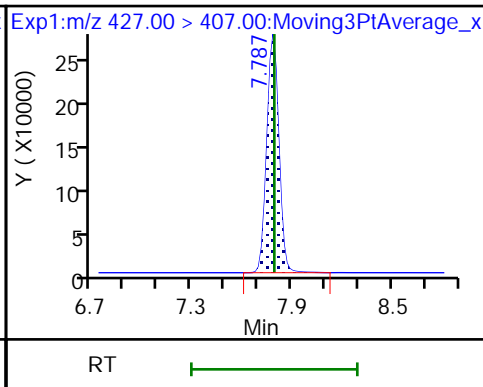
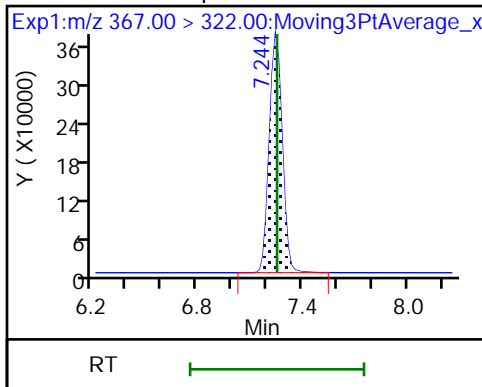
18 Perfluoroheptanoic acid



D 17 13C4 PFHpA

23 6:2 FTS

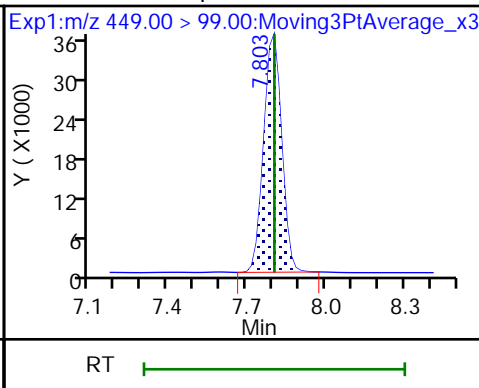
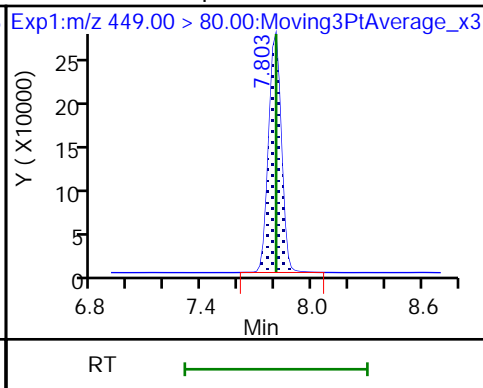
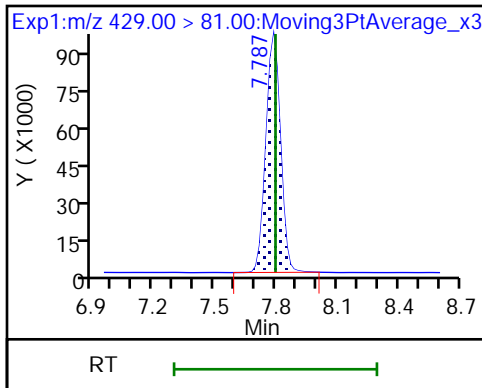
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

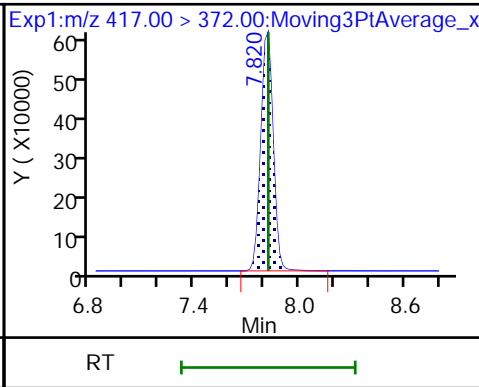
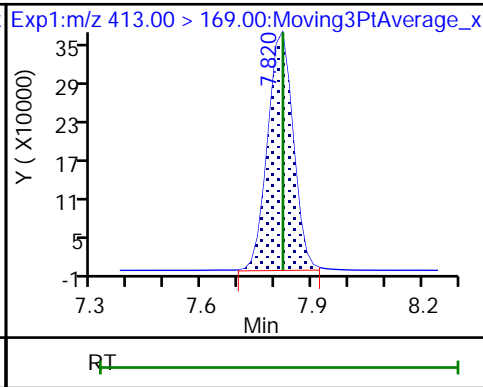
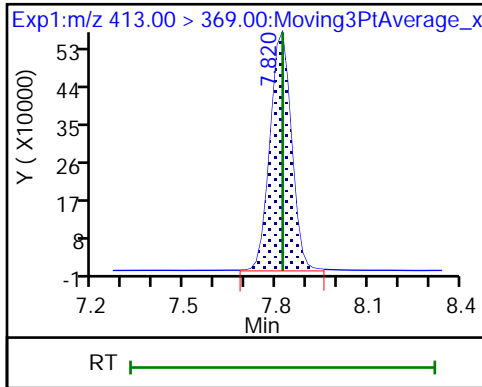
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

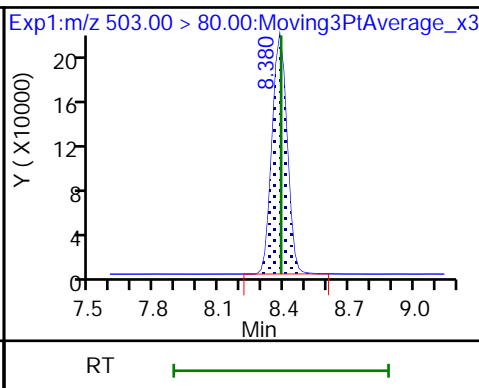
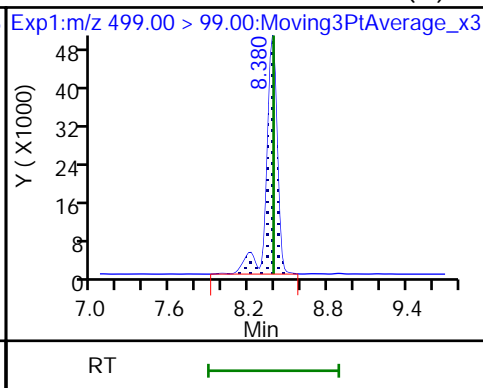
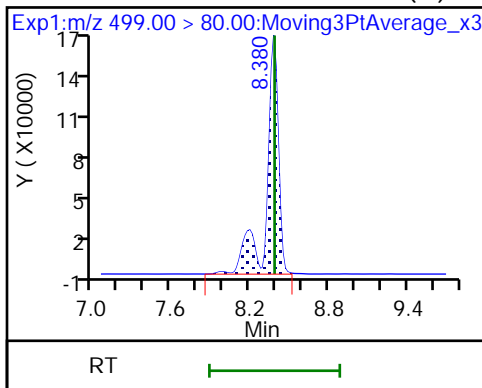
D 25 13C4 PFOA



27 Perfluorooctanesulfonic acid (M)

27 Perfluorooctanesulfonic acid (M)

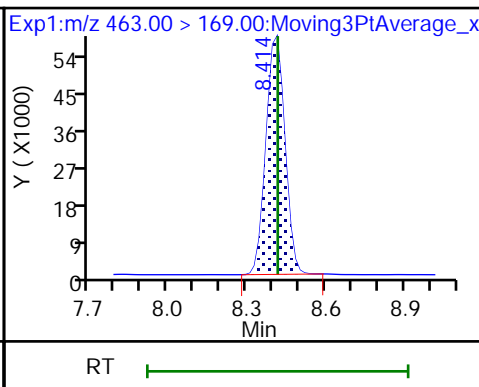
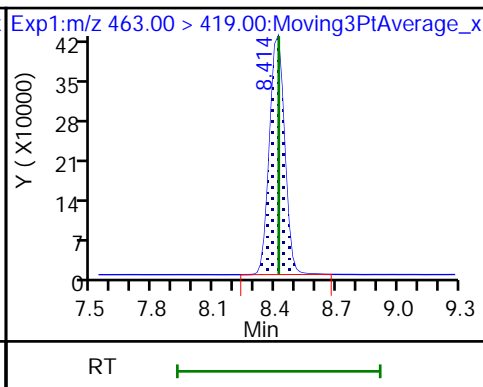
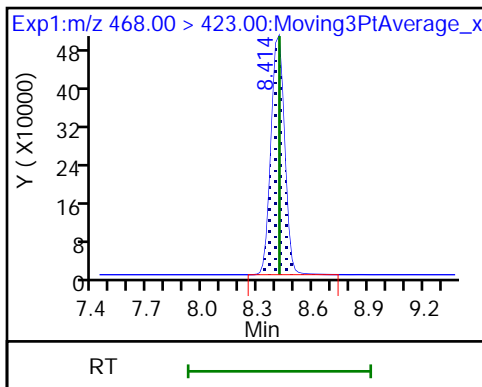
D 26 13C4 PFOS



D 28 13C5 PFNA

29 Perfluorononanoic acid

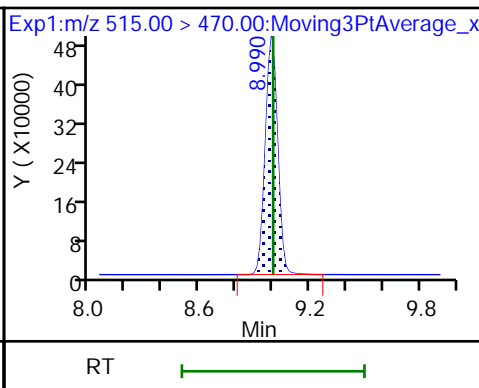
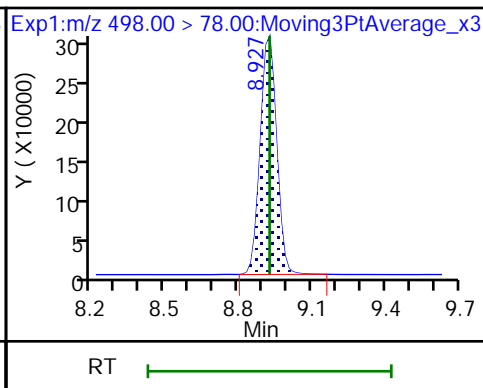
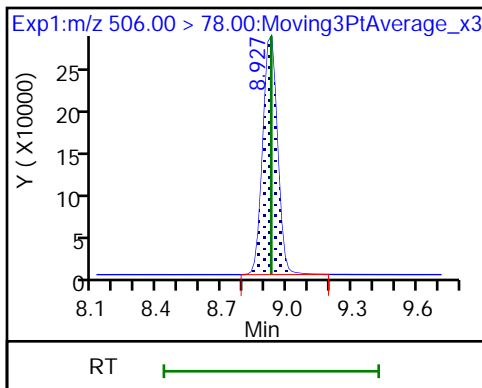
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

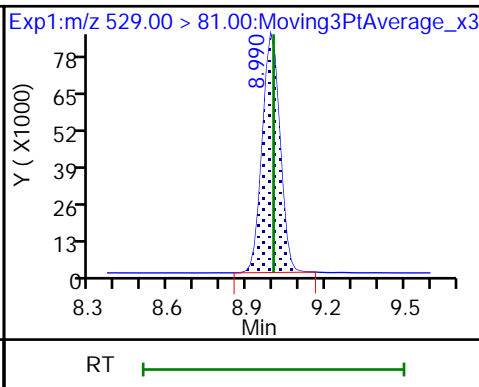
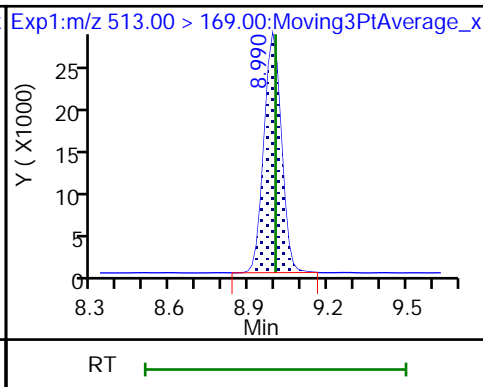
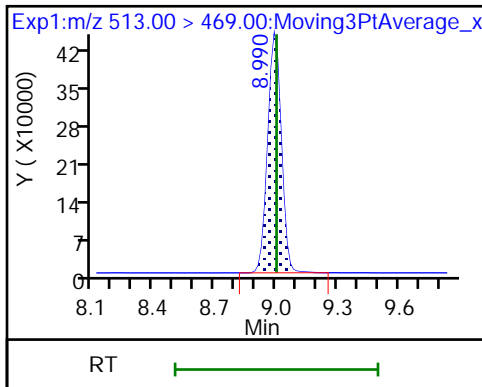
D 33 13C2 PFDA

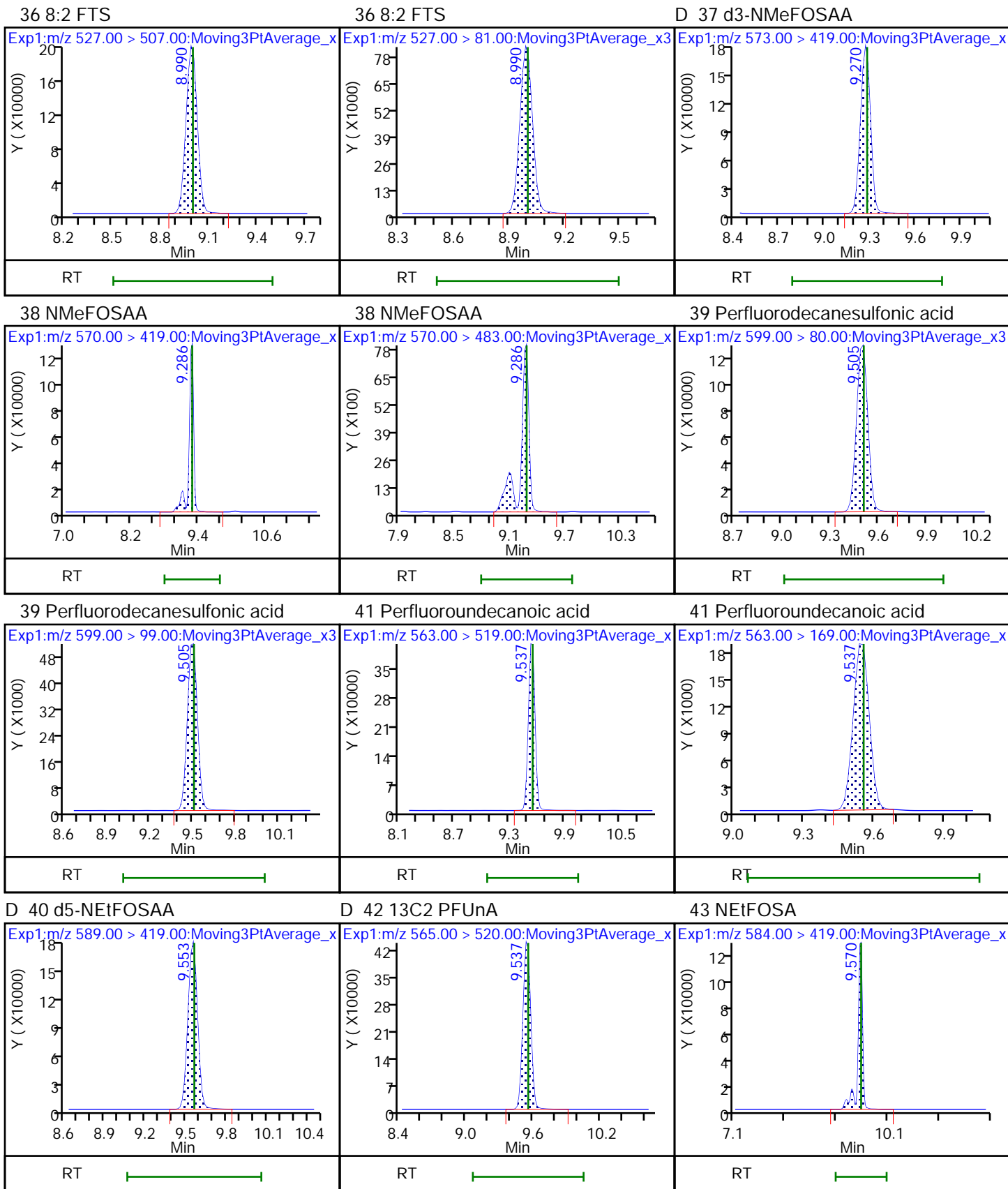


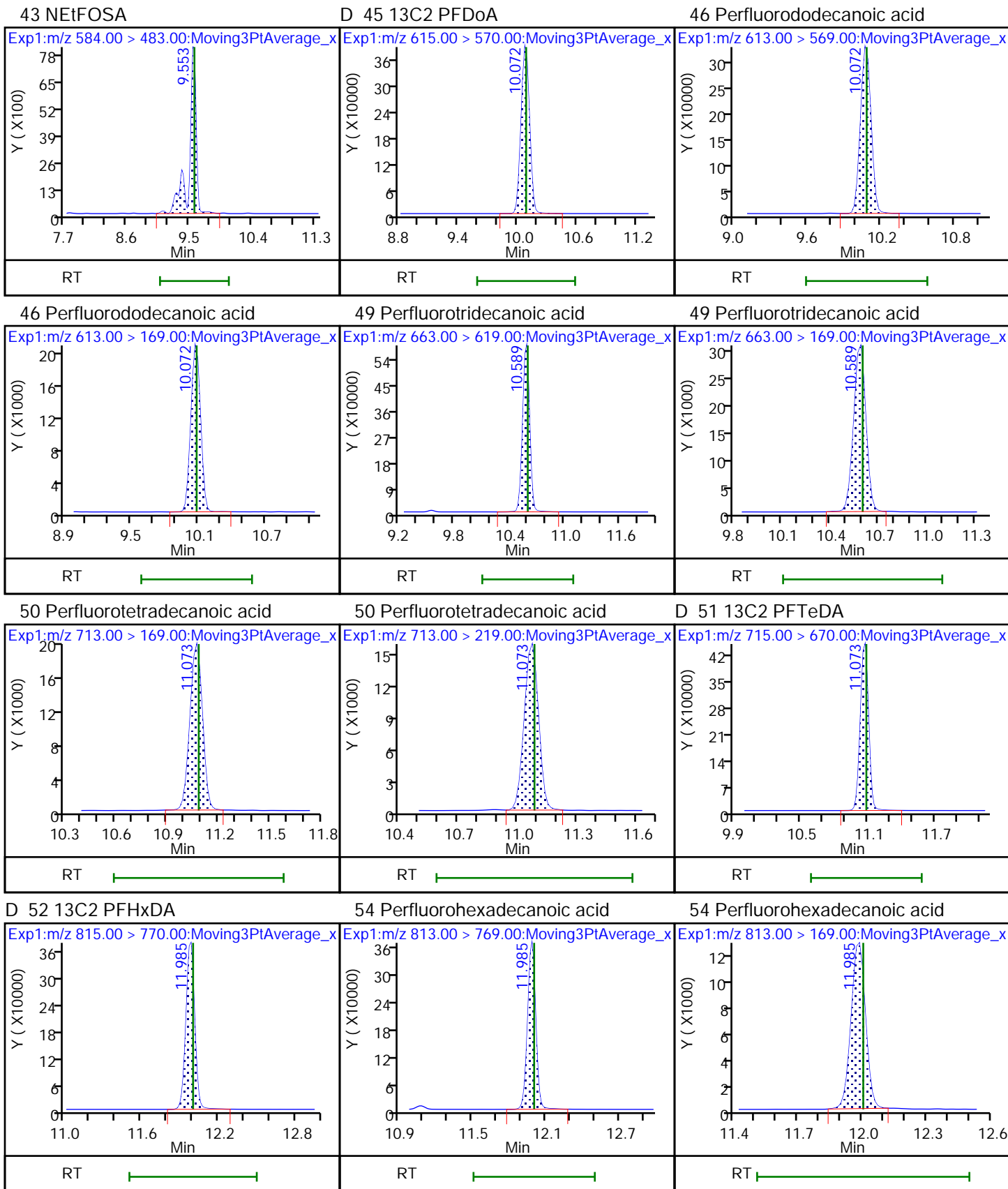
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

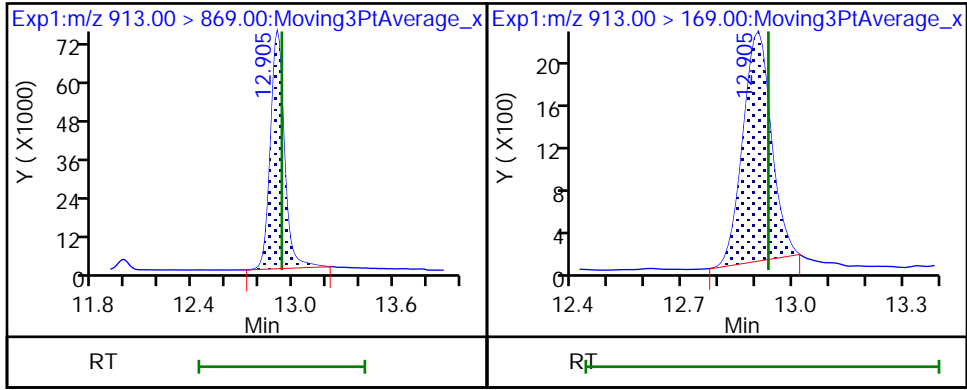






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid





Eurofins TestAmerica, Sacramento

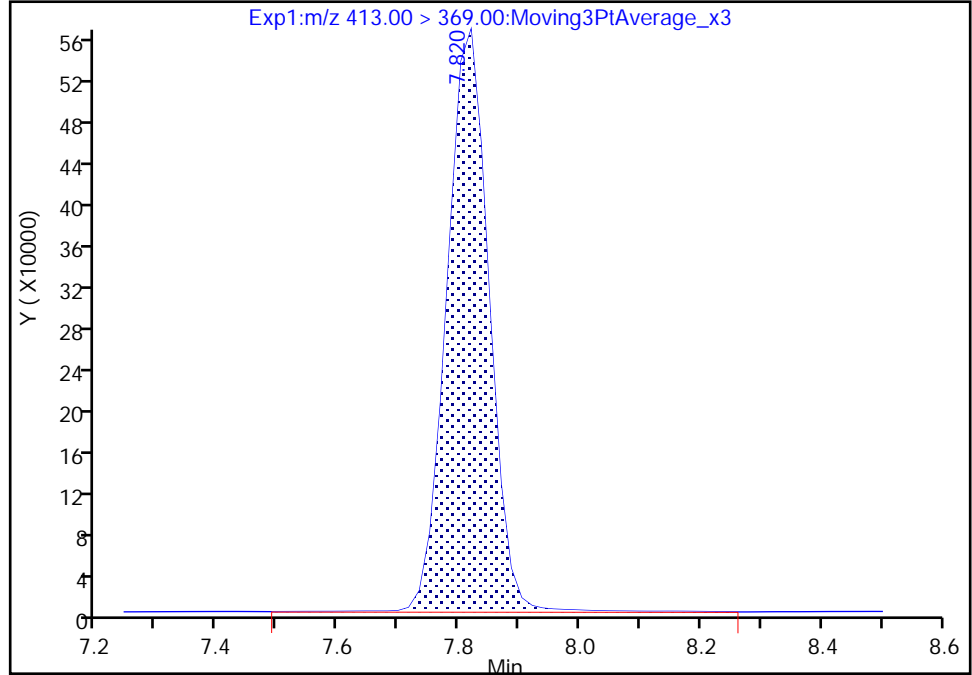
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d  
Injection Date: 07-Jun-2021 16:18:58 Instrument ID: A10  
Lims ID: IC STD 6  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 7  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

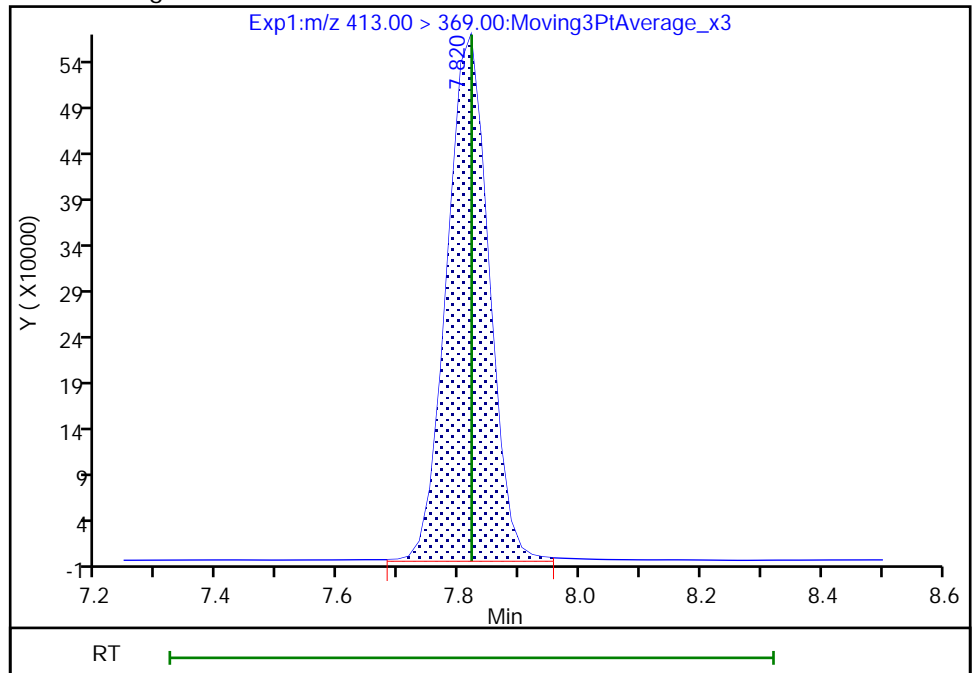
RT: 7.82  
Area: 2757507  
Amount: 0.048439  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 2739240  
Amount: 0.048339  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:23:10  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

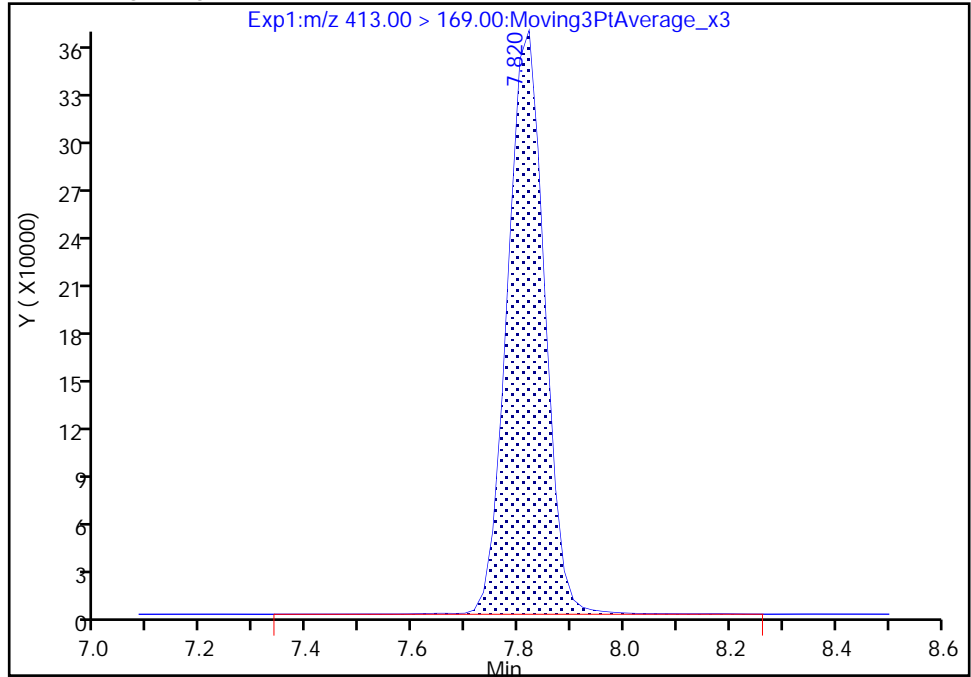
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d  
Injection Date: 07-Jun-2021 16:18:58 Instrument ID: A10  
Lims ID: IC STD 6  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 7  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

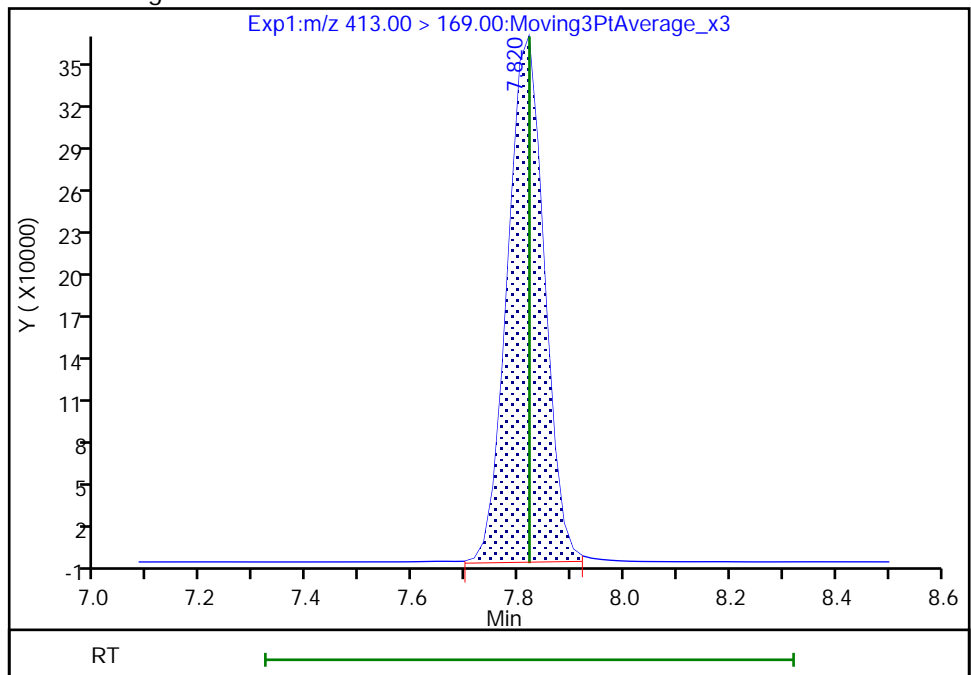
RT: 7.82  
Area: 1780073  
Amount: 0.048439  
Amount Units: ng/ml

Processing Integration Results



RT: 7.82  
Area: 1768658  
Amount: 0.048339  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:23:26

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

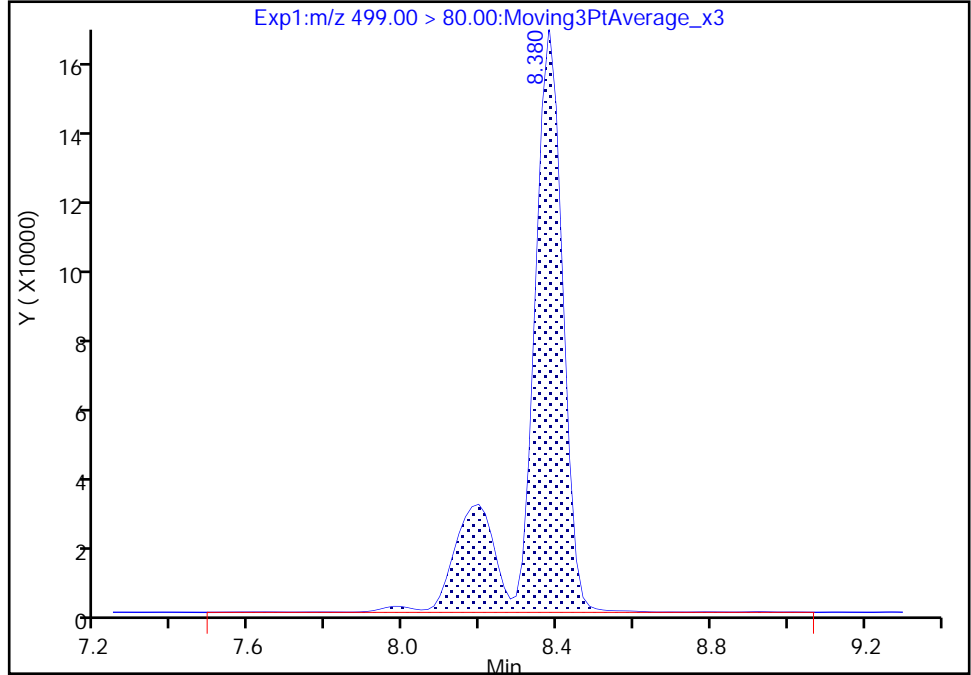
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d  
Injection Date: 07-Jun-2021 16:18:58 Instrument ID: A10  
Lims ID: IC STD 6  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 7  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

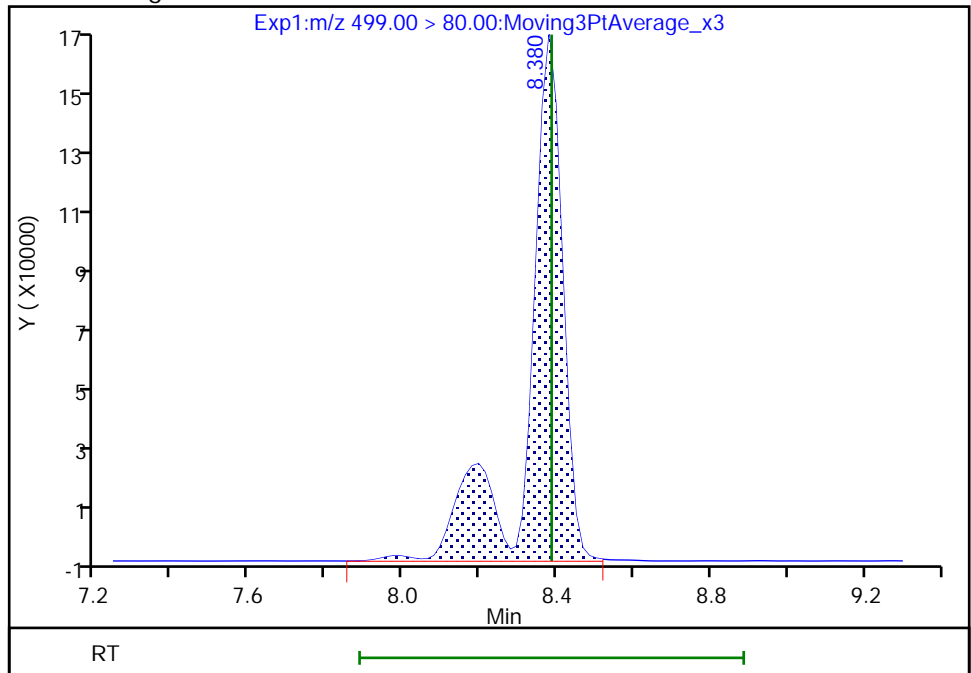
RT: 8.38  
Area: 1009306  
Amount: 0.042749  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 1007782  
Amount: 0.042667  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:23:35  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

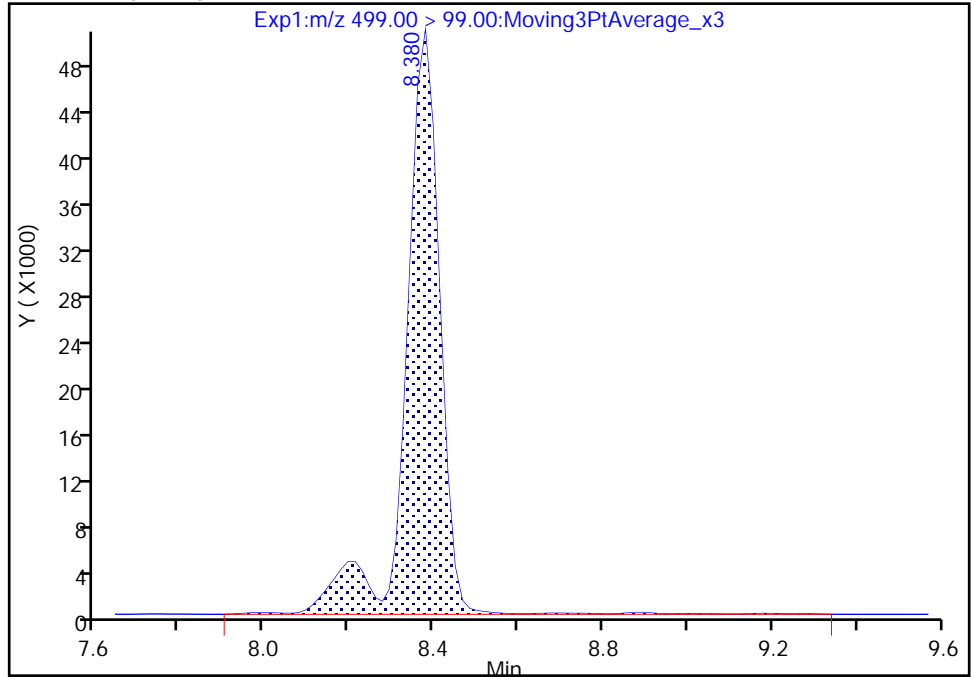
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_010.d  
Injection Date: 07-Jun-2021 16:18:58 Instrument ID: A10  
Lims ID: IC STD 6  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 10 Worklist Smp#: 7  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

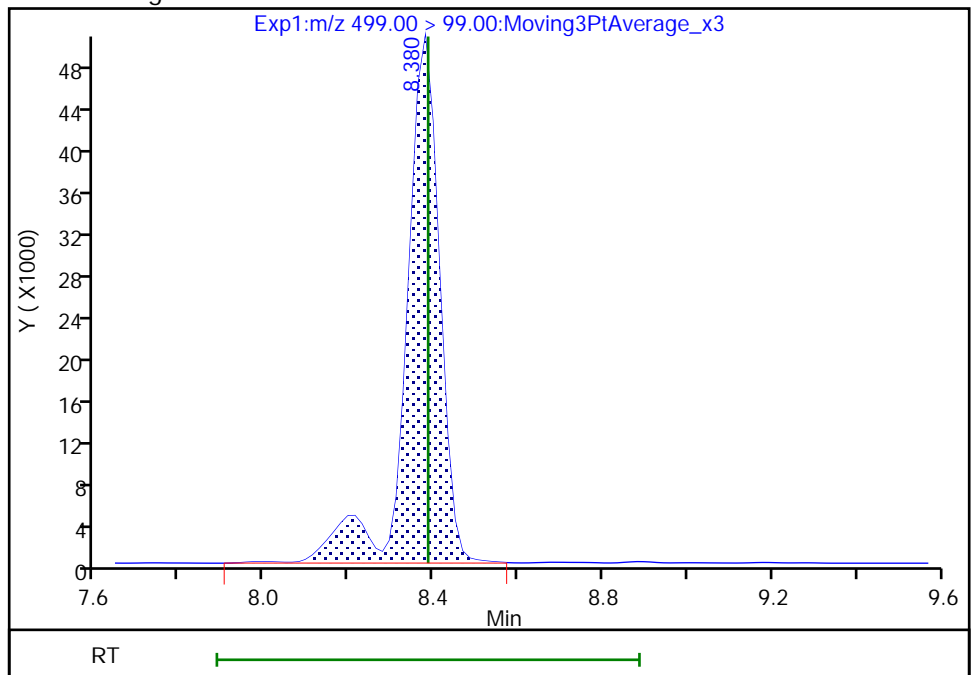
RT: 8.38  
Area: 285529  
Amount: 0.042749  
Amount Units: ng/ml

Processing Integration Results



RT: 8.38  
Area: 282750  
Amount: 0.042667  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:23:44

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_011.d  
 Lims ID: IC STD 7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 07-Jun-2021 16:37:26 ALS Bottle#: 11 Worklist Smp#: 8  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 7 (23)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:54:00 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:25:21

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.621	5.591	0.030	2519006	0.0703		141	6517	
1 Perfluorobutanoic acid	212.90 > 169.00	5.621	5.595	0.026	1.000	4486232	0.0859	85.9	1264	
D 4 13C5 PFPeA	267.90 > 223.00	6.250	6.235	0.015	1567742	0.0457		91.5	6532	
5 Perfluoropentanoic acid	262.90 > 219.00	6.250	6.235	0.015	1.000	3711218	0.0997	99.7	1288	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.287	0.006	1242524	0.0434		93.3	3933	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.293	6.290	0.003	1.000	2697108	0.0874	Target=1.41	98.9	6834
	298.90 > 99.00	6.293	6.290	0.003	1.000	2054757		1.31(0.71-2.12)	98.9	4224
8 4:2 FTS	327.00 > 307.00	6.688	6.676	0.012	1.000	1998062	NC	Target=2.69		15265
	327.00 > 81.00	6.688	6.676	0.012	1.000	717418		2.79(1.34-4.03)		1974
D 7 M2-4:2 FTS	329.00 > 81.00	6.688	6.676	0.012	309725	NC			692	
D 9 13C2 PFHxA	315.00 > 270.00	6.735	6.728	0.006	1569487	0.0482		96.4	7991	
10 Perfluorohexanoic acid	313.00 > 269.00	6.735	6.728	0.006	1.000	3166954	0.0952	Target=19.50	95.2	2795
	313.00 > 119.00	6.735	6.728	0.006	1.000	161293		19.63(9.75-29.25)	95.2	1153
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.758	6.749	0.009	0.933	2597696	NC	Target=1.44		5049
	349.00 > 99.00	6.758	6.749	0.009	0.933	1719406		1.51(0.72-2.17)		6063

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.876	6.876	0.0	1.000	821015	NC			985	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.876	0.0		166852	NC			809	
14 9CIFOS										M
531.00 > 351.00	7.120	7.109	0.011	0.850	480	NC			2.6	M
16 Perfluorohexanesulfonic acid										M
399.00 > 80.00	7.244	7.248	-0.004	1.000	2726714	0.0900	Target=5.60	98.9	2978	M
399.00 > 99.00	7.244	7.248	-0.004	1.000	485324		5.62(2.80-8.40)	98.9	1642	M
D 15 18O2 PFHxS										
403.00 > 84.00	7.244	7.248	-0.004		1248615	0.0448		94.8	22683	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.244	7.254	-0.010	1.000	3714767	0.0995	Target=9.21	99.5	2186	
363.00 > 169.00	7.244	7.254	-0.010	1.000	412947		9.00(4.61-13.82)	99.5	3781	
D 17 13C4 PFHpA										
367.00 > 322.00	7.244	7.254	-0.010		1821901	0.0472		94.4	9011	
19 DONA										
377.00 > 251.00	7.300	7.308	-0.008	0.872	15829320	NC	Target=2.84		21055	
377.00 > 85.00	7.300	7.308	-0.008	0.872	5780059		2.74(1.42-4.26)		16504	
23 6:2 FTS										
427.00 > 407.00	7.787	7.793	-0.006	1.000	2304200	0.0880	Target=2.57	92.9	15577	
427.00 > 81.00	7.787	7.793	-0.006	1.000	921507		2.50(1.29-3.86)	92.9	1812	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.787	7.795	-0.008		406943	0.0402		84.7	971	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.787	7.804	-0.017	0.930	2405619	0.0928	Target=6.98	97.5	4865	
449.00 > 99.00	7.787	7.804	-0.017	0.930	342612		7.02(3.49-10.48)	97.5	2455	
24 Perfluorooctanoic acid										M
413.00 > 369.00	7.804	7.821	-0.017	1.000	4893423	0.1000	Target=1.54	100	833	M
413.00 > 169.00	7.804	7.821	-0.017	1.000	3241642		1.51(0.77-2.31)	100	3882	M
D 25 13C4 PFOA										
417.00 > 372.00	7.804	7.821	-0.017		2583177	0.0453		90.6	10336	
D 26 13C4 PFOS										
503.00 > 80.00	8.373	8.386	-0.013		939361	0.0483		101	2987	
27 Perfluorooctanesulfonic acid										M
499.00 > 80.00	8.373	8.386	-0.013	1.000	1957223	0.0903	Target=3.65	97.3	4217	M
499.00 > 99.00	8.373	8.386	-0.013	1.000	541352		3.62(1.83-5.48)	97.3	2337	M
D 28 13C5 PFNA										
468.00 > 423.00	8.391	8.417	-0.026		2260672	0.0465		93.0	9423	
29 Perfluorononanoic acid										
463.00 > 419.00	8.391	8.417	-0.026	1.000	4197748	0.1023	Target=7.83	102	2055	
463.00 > 169.00	8.391	8.417	-0.026	1.000	542094		7.74(3.92-11.75)	102	3569	
D 30 13C8 FOSA										
506.00 > 78.00	8.913	8.926	-0.013		1007682	0.0437		87.5	6584	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.913	8.926	-0.013	1.000	2342680	0.1047		105	8837	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.945	8.961	-0.016	1.068	1737930	NC	Target=6.10		7598	
549.00 > 99.00	8.945	8.961	-0.016	1.068	283734		6.13(3.05-9.15)		1567	
D 33 13C2 PFDA										
515.00 > 470.00	8.977	8.999	-0.022		2107264	0.0477		95.5	11870	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.977	9.001	-0.024	1.000	3909441	0.1016	Target=16.47	102	3388	
513.00 > 169.00	8.977	9.001	-0.024	1.000	245974		15.89(8.23-24.70)	102	414	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.977	9.001	-0.024		357977	0.0427		89.1	1613	
36 8:2 FTS										
527.00 > 507.00	8.977	9.001	-0.024	1.000	1781906	0.0988	Target=2.29	103	19019	
527.00 > 81.00	8.977	9.001	-0.024	1.000	766003		2.33(1.15-3.44)	103	2883	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.264	9.281	-0.017		796835	0.0499		99.8	1366	
38 NMeFOSAA										
570.00 > 419.00	9.264	9.289	-0.025	1.000	1415538	0.1002	Target=13.24	100	5416	
570.00 > 483.00	9.264	9.289	-0.025	1.000	101092		14.00(6.62-19.86)	100	1234	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.489	9.508	-0.019	1.133	1172336	0.0927	Target=2.43	96.2	9425	
599.00 > 99.00	9.489	9.508	-0.019	1.133	474683		2.47(1.22-3.65)	96.2	4347	
D 42 13C2 PFUnA										
565.00 > 520.00	9.538	9.555	-0.017		1870504	0.0476		95.3	13067	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.538	9.555	-0.017	1.000	3729343	0.1014	Target=21.30	101	4496	
563.00 > 169.00	9.538	9.555	-0.017	1.000	176502		21.13(10.65-31.95)	101	2654	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.538	9.561	-0.023		731797	0.0461		92.1	2947	
43 NEtFOSA										
584.00 > 419.00	9.555	9.573	-0.018	1.002	1399303	0.1042	Target=16.50	104	7472	
584.00 > 483.00	9.555	9.573	-0.018	1.002	77939		17.95(8.25-24.74)	104	50.1	
44 11C1FOS										
631.00 > 451.00	9.779	9.790	-0.011	1.168	9832880	NC			41943	
D 45 13C2 PFDoA										
615.00 > 570.00	10.058	10.084	-0.026		2215594	0.0501		100	11885	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.058	10.084	-0.026	1.000	4246512	0.1031	Target=15.78	103	2229	
613.00 > 169.00	10.058	10.084	-0.026	1.000	275415		15.42(7.89-23.66)	103	3160	
47 10:2 FTS										
627.00 > 607.00	10.103	10.115	-0.012	1.126	2347023	NC	Target=34.02		9553	
627.00 > 81.00	10.103	10.115	-0.012	1.126	66781		35.15(17.01-51.03)		1096	
48 PFDoS										
699.00 > 80.00	10.511	10.532	-0.021	1.255	449191	NC	Target=0.50		2328	
699.00 > 99.00	10.511	10.532	-0.021	1.255	868708		0.52(0.25-0.74)		4601	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.568	10.601	-0.033	1.051	4855162	0.0925	Target=20.25	92.5	2490	
663.00 > 169.00	10.568	10.601	-0.033	1.051	258690		18.77(10.13-30.38)	92.5	2983	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.065	11.085	-0.020		1551364	0.0422		84.4	5704	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.065	11.085	-0.020	1.000	133634	0.0982	Target=1.26	98.2	1865	
713.00 > 219.00	11.065	11.085	-0.020	1.000	106710		1.25(0.63-1.89)	98.2	1617	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.970	12.002	-0.032		925207	0.0373		74.7	3485	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.970	12.004	-0.034	1.000	1886692	0.0936	Target=28.54	93.6	1457	
813.00 > 169.00	11.970	12.004	-0.034	1.000	62833		30.03(14.27-42.81)	93.6	624	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.896	12.933	-0.037	1.077	1095454	0.1420	Target=35.98	142	967	
913.00 > 169.00	12.896	12.933	-0.037	1.077	31988		34.25(17.99-53.97)	142	333	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L7\_00023

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_011.d

Injection Date: 07-Jun-2021 16:37:26

Instrument ID: A10

Lims ID: IC STD 7

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 11

Worklist Smp#: 8

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

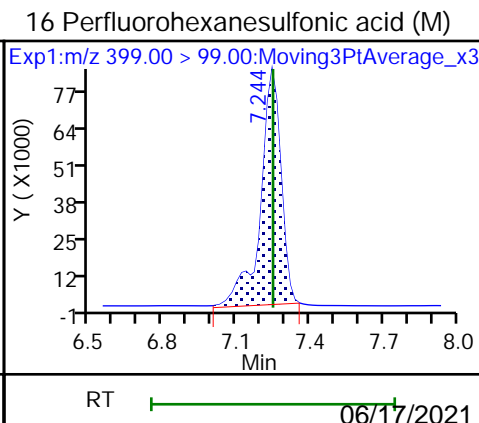
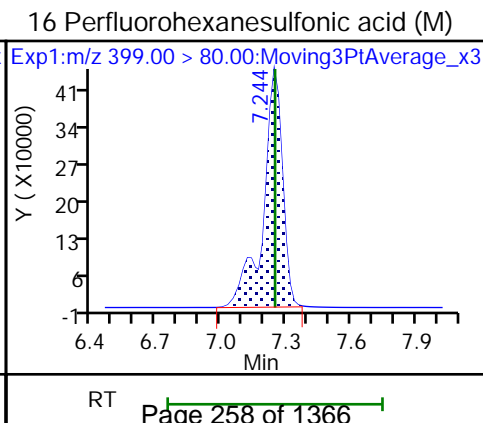
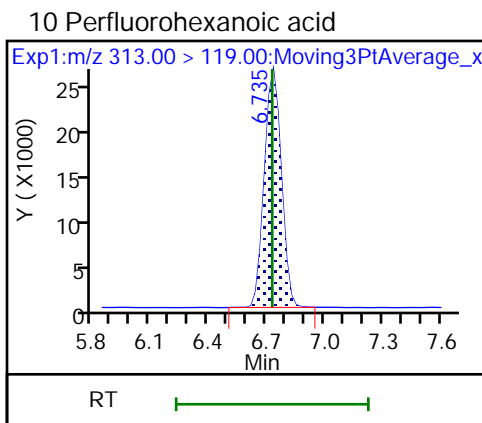
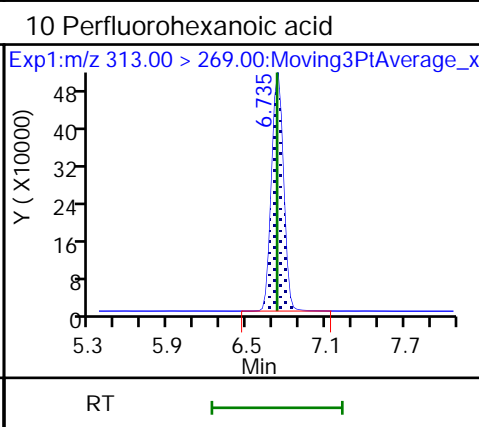
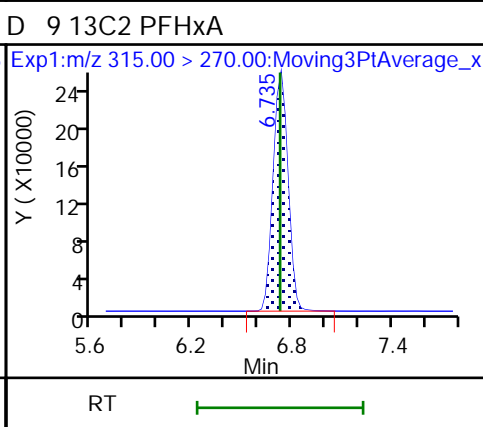
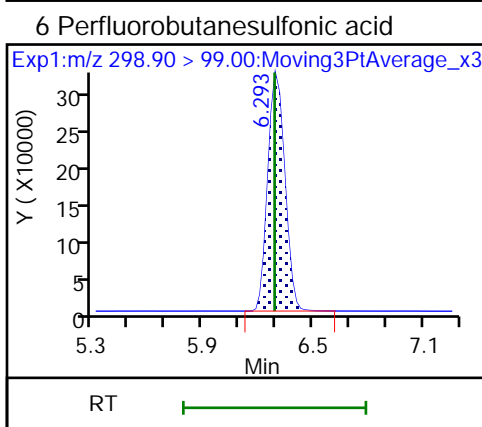
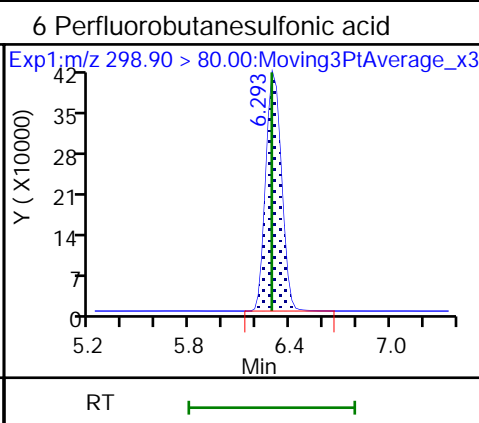
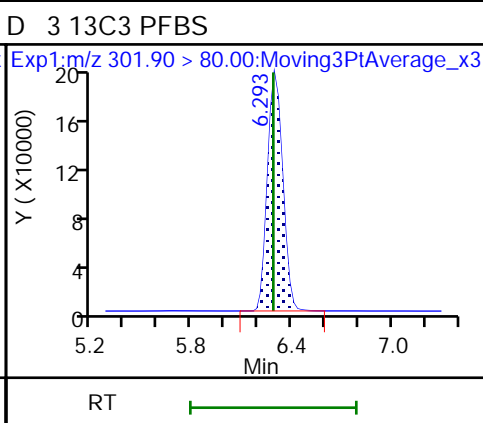
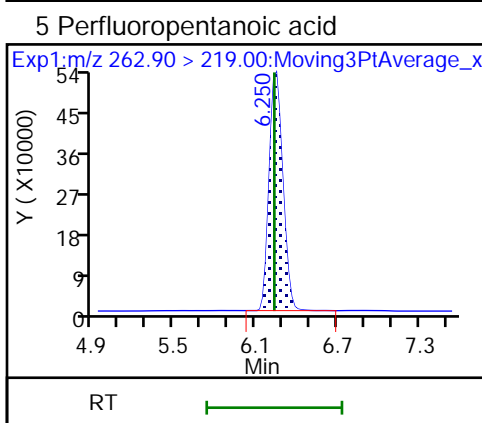
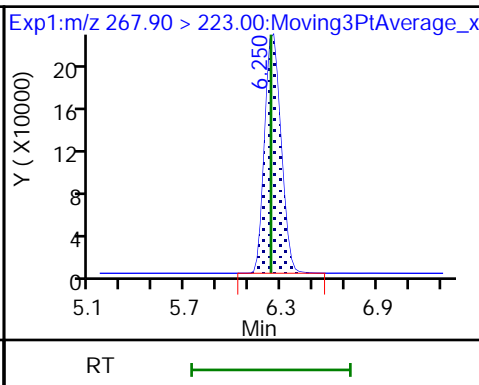
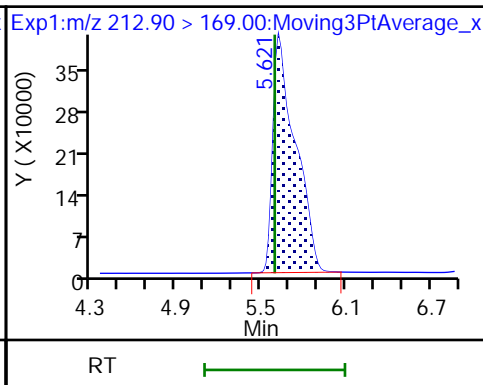
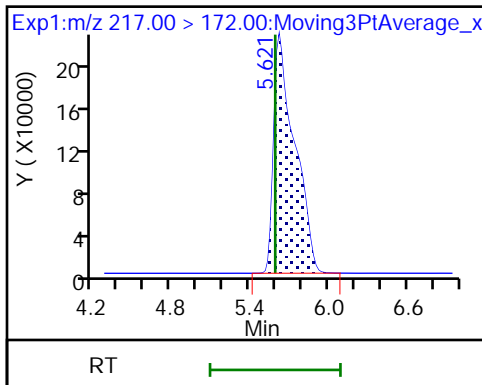
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

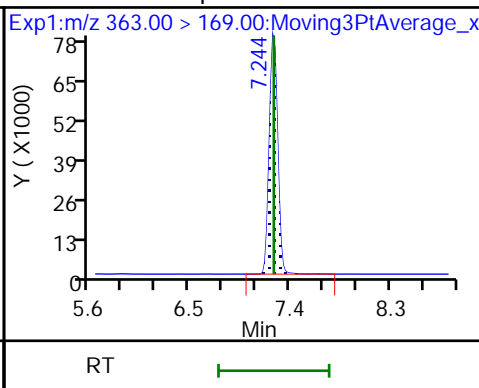
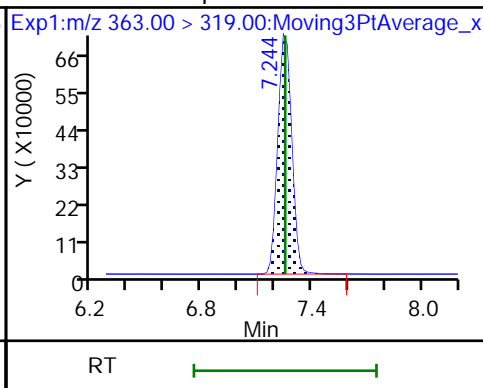
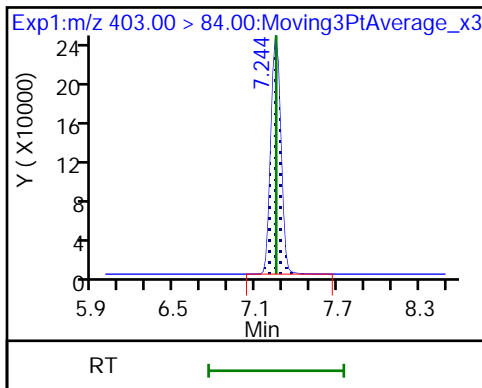
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

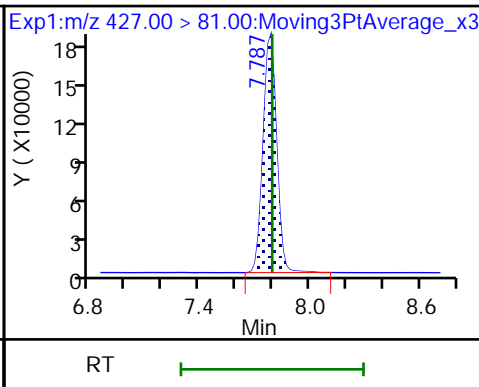
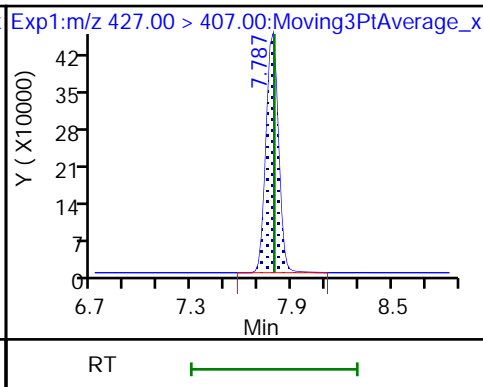
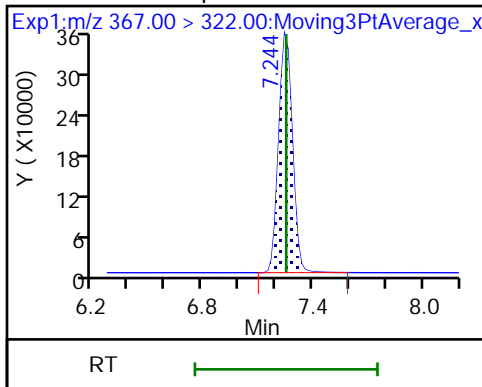
18 Perfluoroheptanoic acid



D 17 13C4 PFHpA

23 6:2 FTS

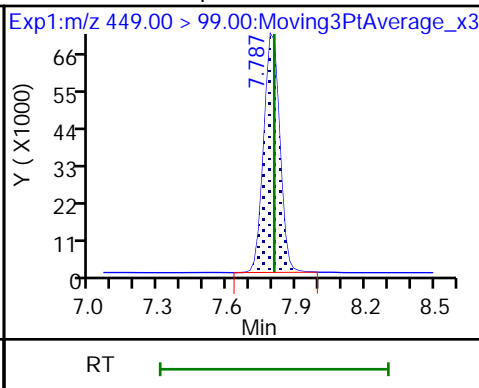
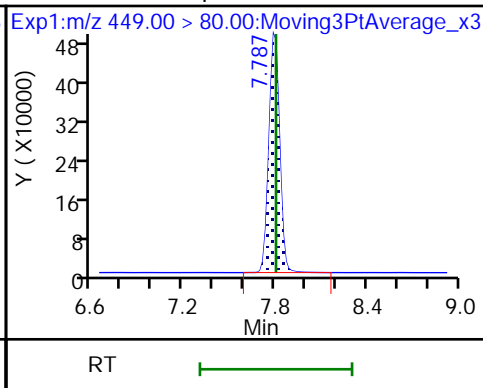
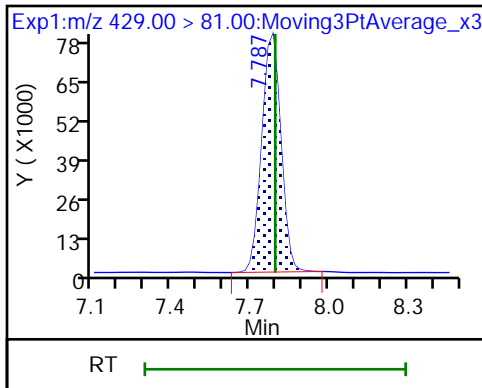
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

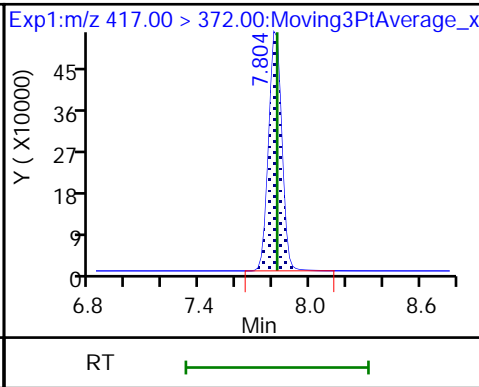
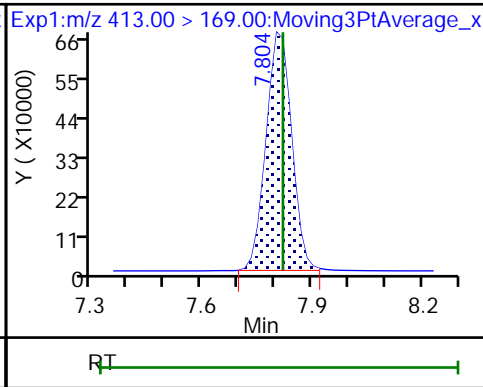
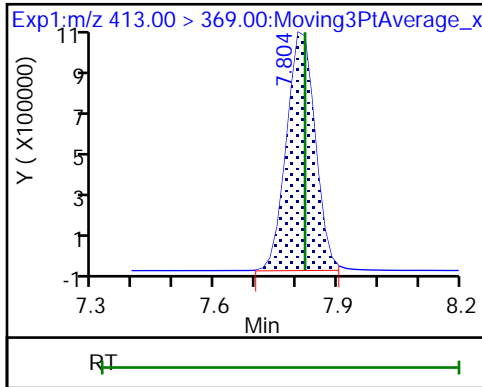
21 Perfluoroheptanesulfonic acid



24 Perfluorooctanoic acid (M)

24 Perfluorooctanoic acid (M)

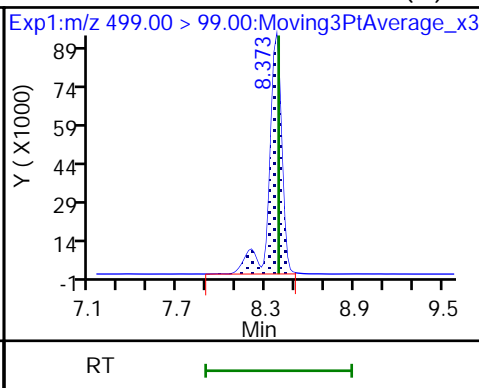
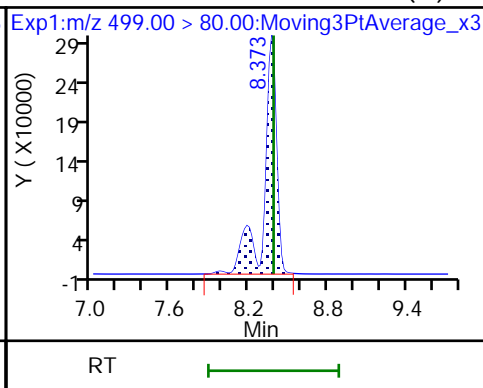
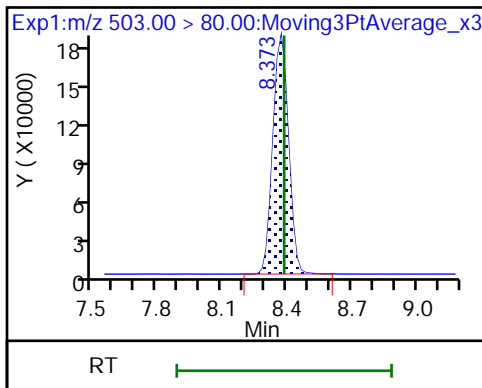
D 25 13C4 PFOA



D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid (M)

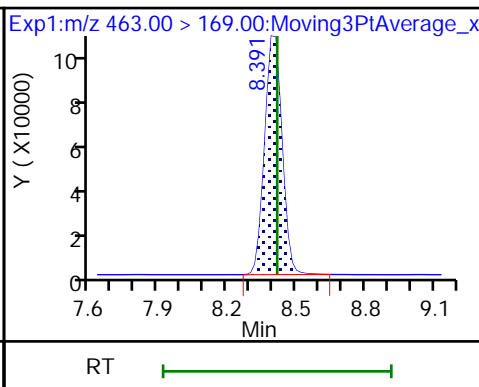
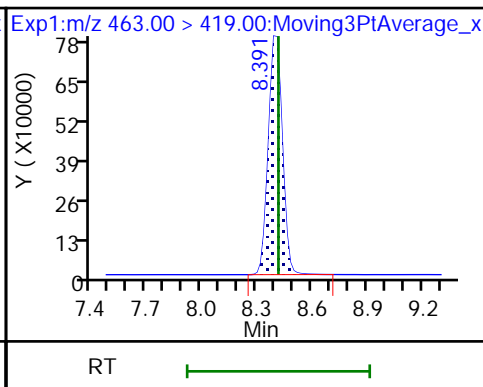
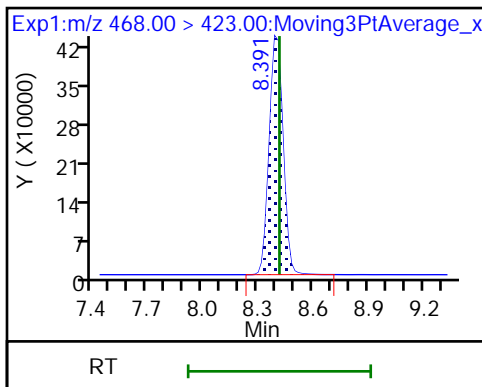
27 Perfluorooctanesulfonic acid (M)



D 28 13C5 PFNA

29 Perfluorononanoic acid

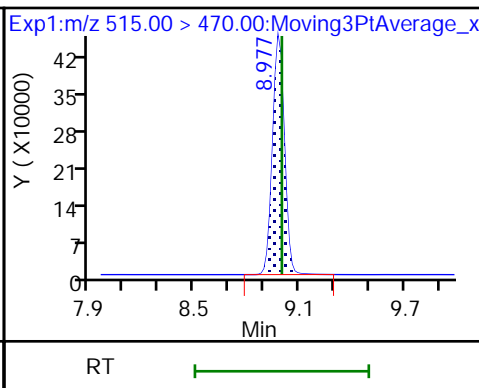
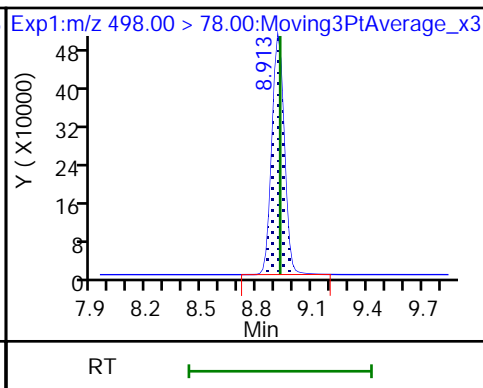
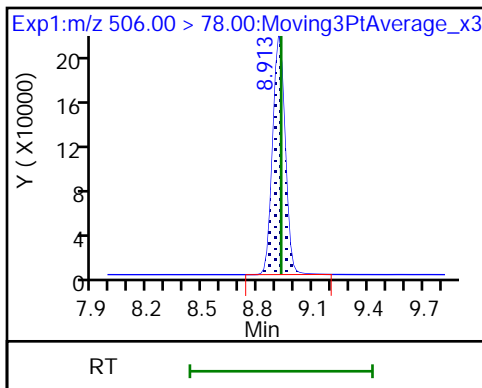
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

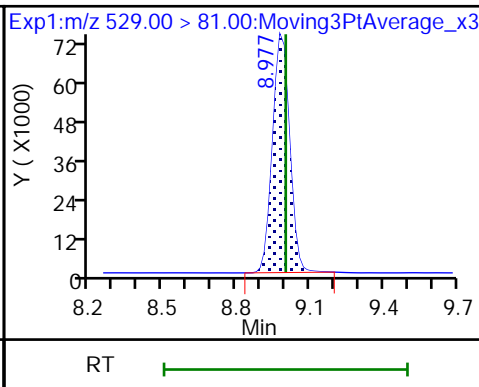
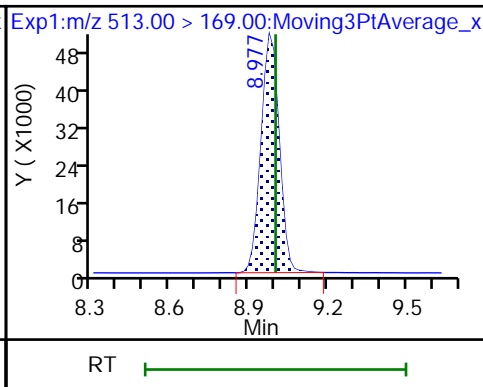
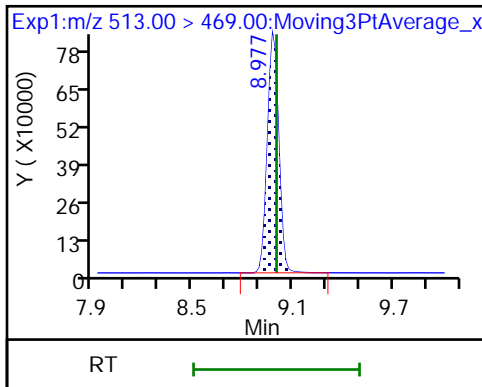
D 33 13C2 PFDA

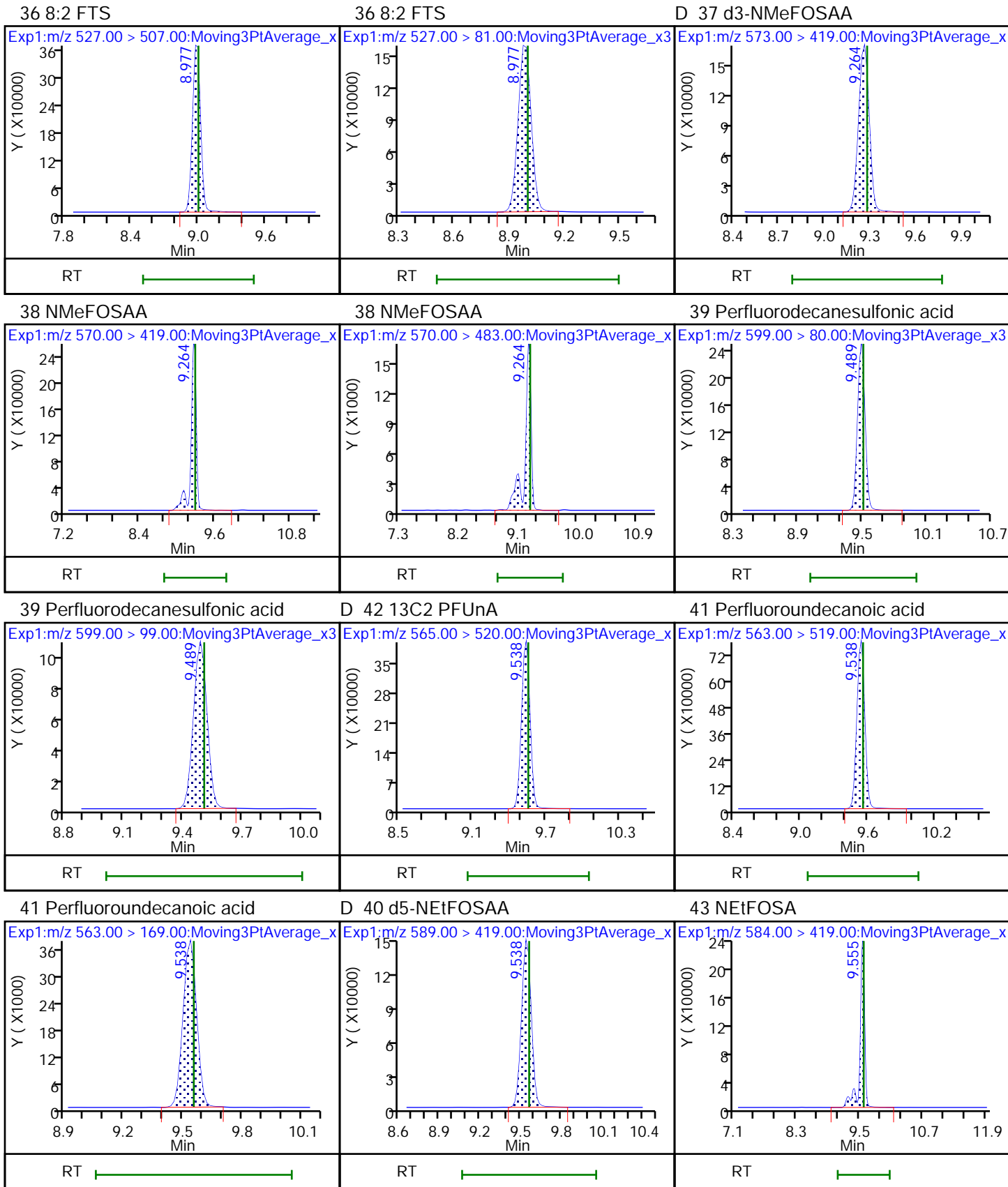


35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

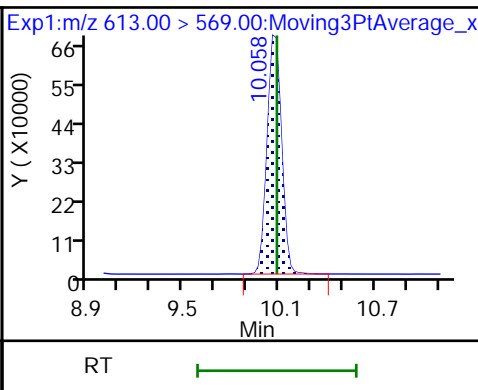
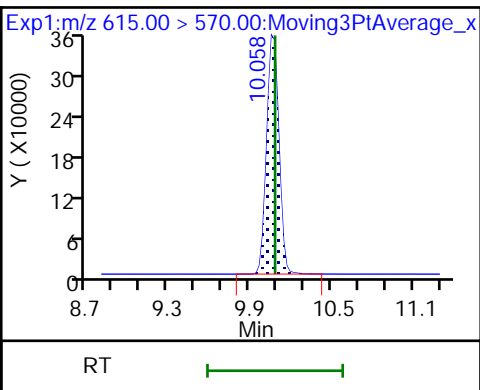
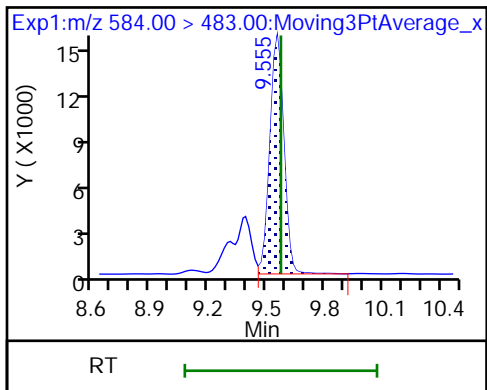




43 NEtFOSA

D 45 13C2 PFDoA

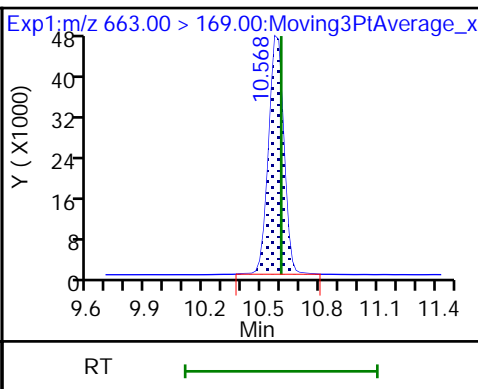
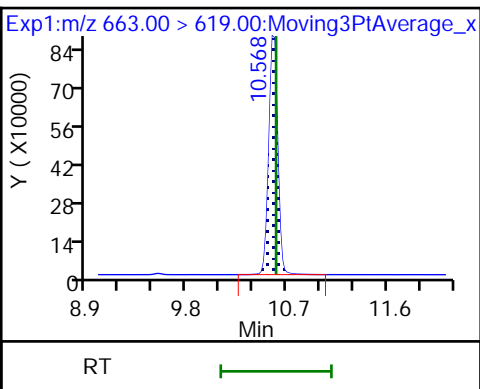
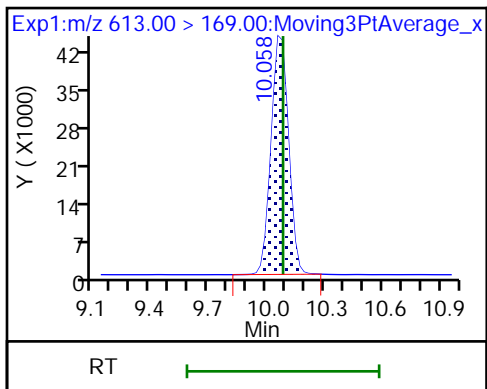
46 Perfluorododecanoic acid



46 Perfluorododecanoic acid

49 Perfluorotridecanoic acid

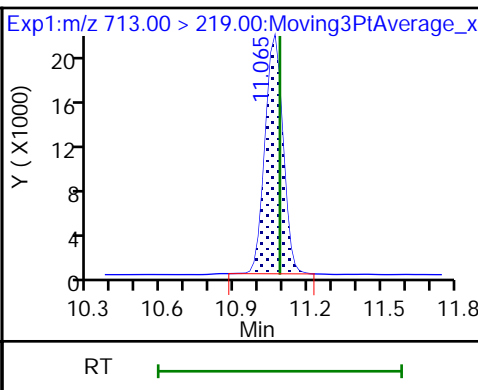
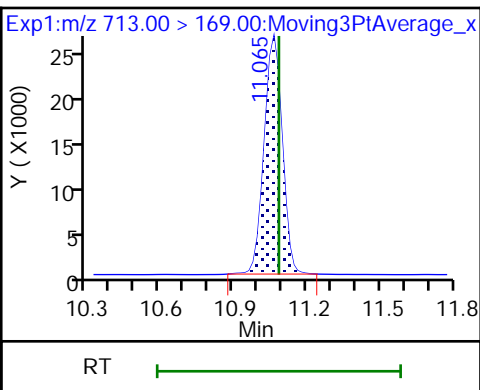
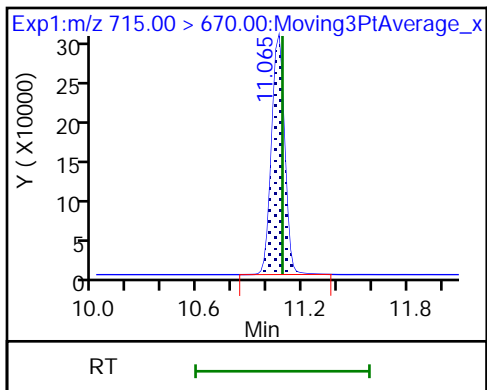
49 Perfluorotridecanoic acid



D 51 13C2 PFTeDA

50 Perfluorotetradecanoic acid

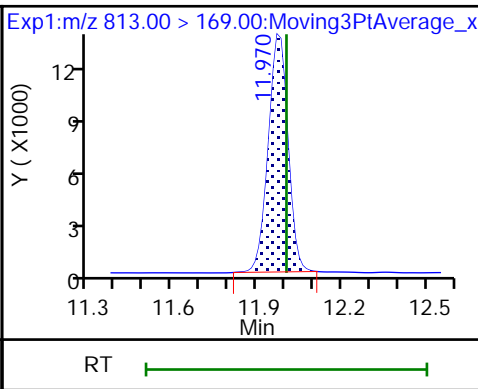
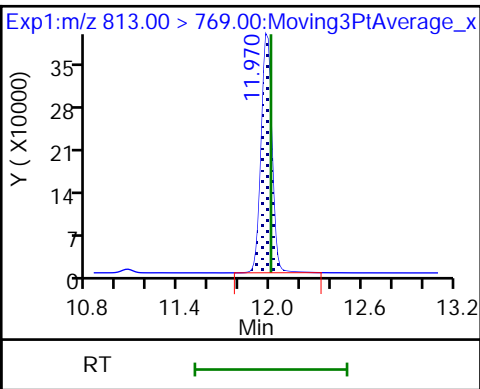
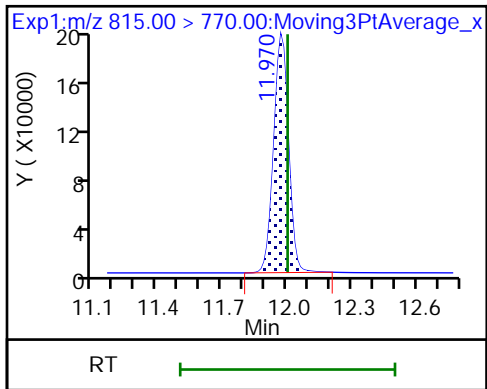
50 Perfluorotetradecanoic acid



D 52 13C2 PFHxDA

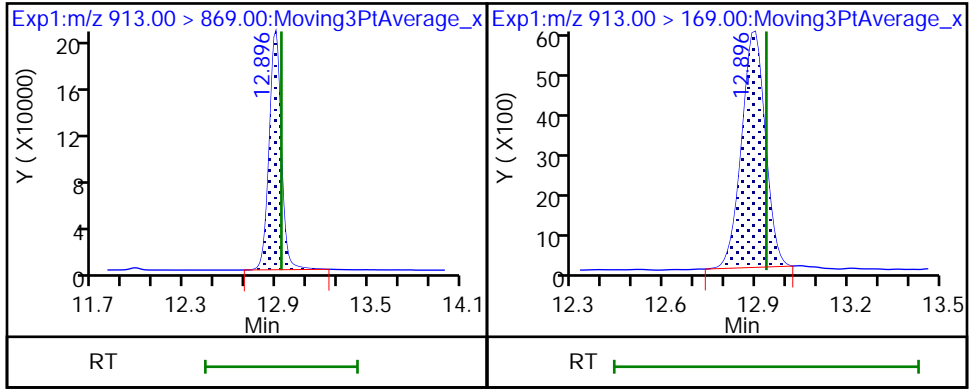
54 Perfluorohexadecanoic acid

54 Perfluorohexadecanoic acid



53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

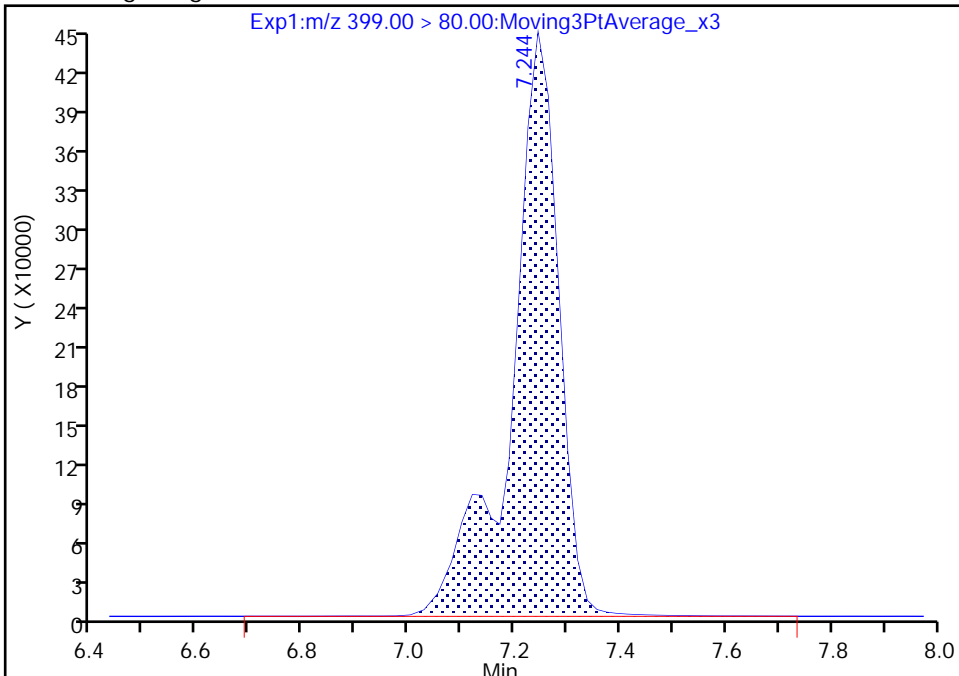
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_011.d  
Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

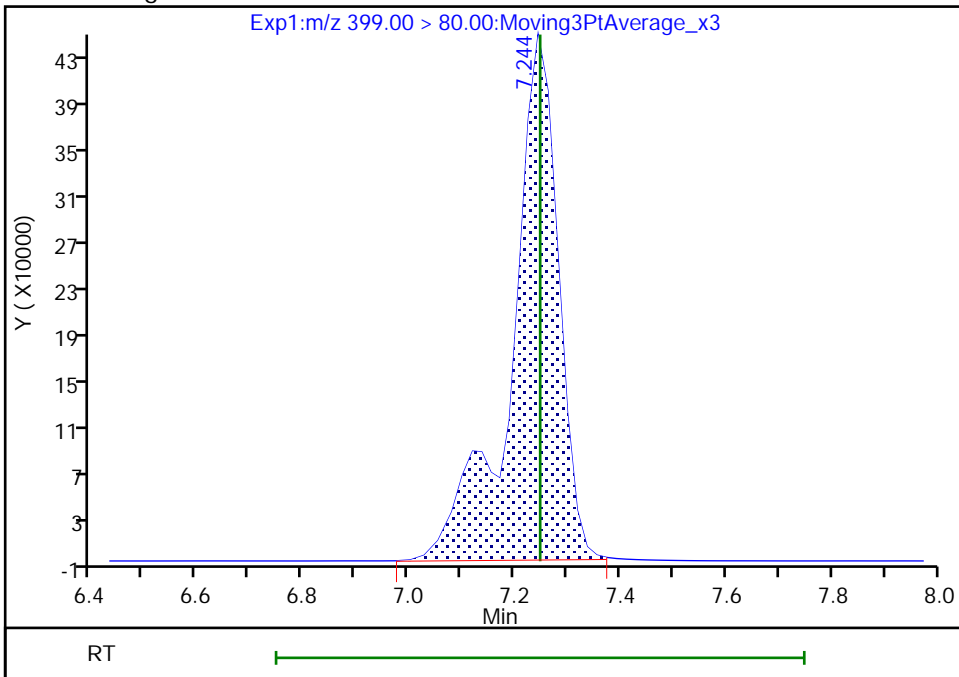
RT: 7.24  
Area: 2750572  
Amount: 0.090652  
Amount Units: ng/ml

Processing Integration Results



RT: 7.24  
Area: 2726714  
Amount: 0.089963  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:24:17  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

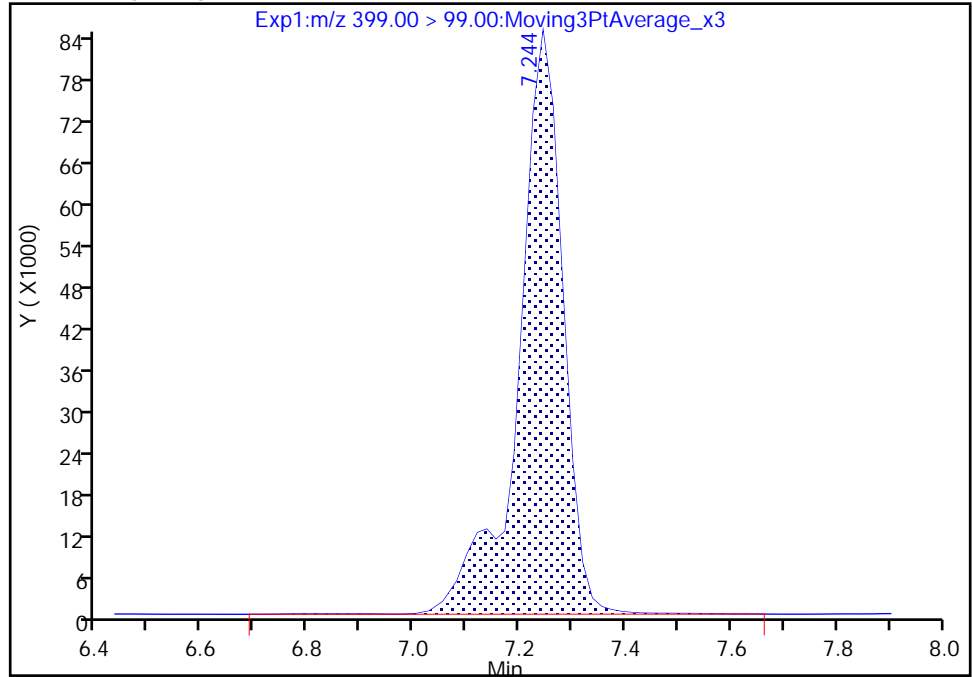
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Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

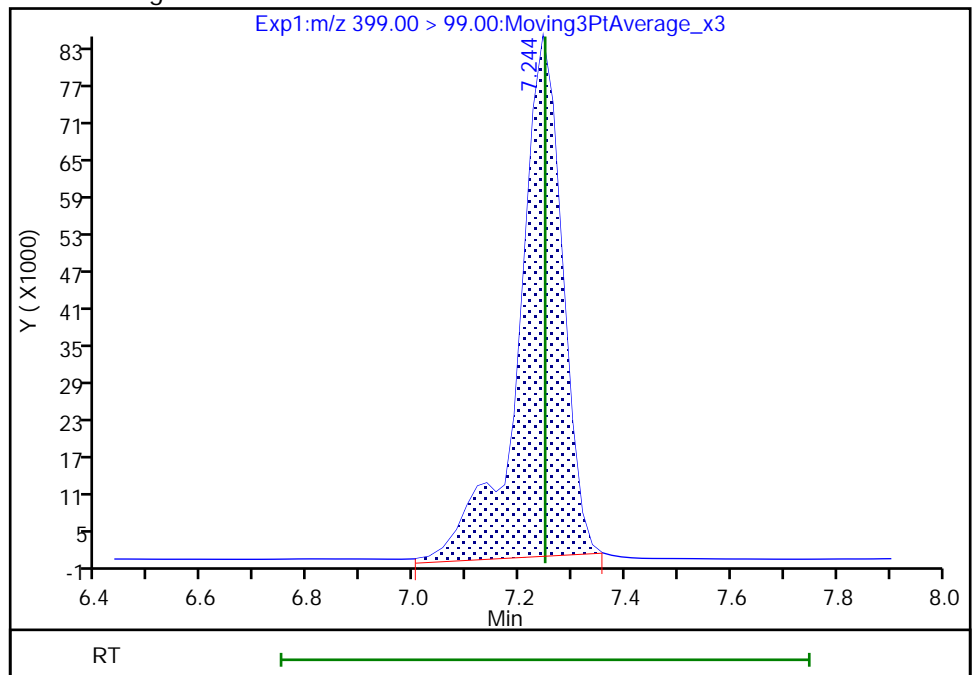
RT: 7.24  
Area: 492389  
Amount: 0.090652  
Amount Units: ng/ml

Processing Integration Results



RT: 7.24  
Area: 485324  
Amount: 0.089963  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:24:23

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

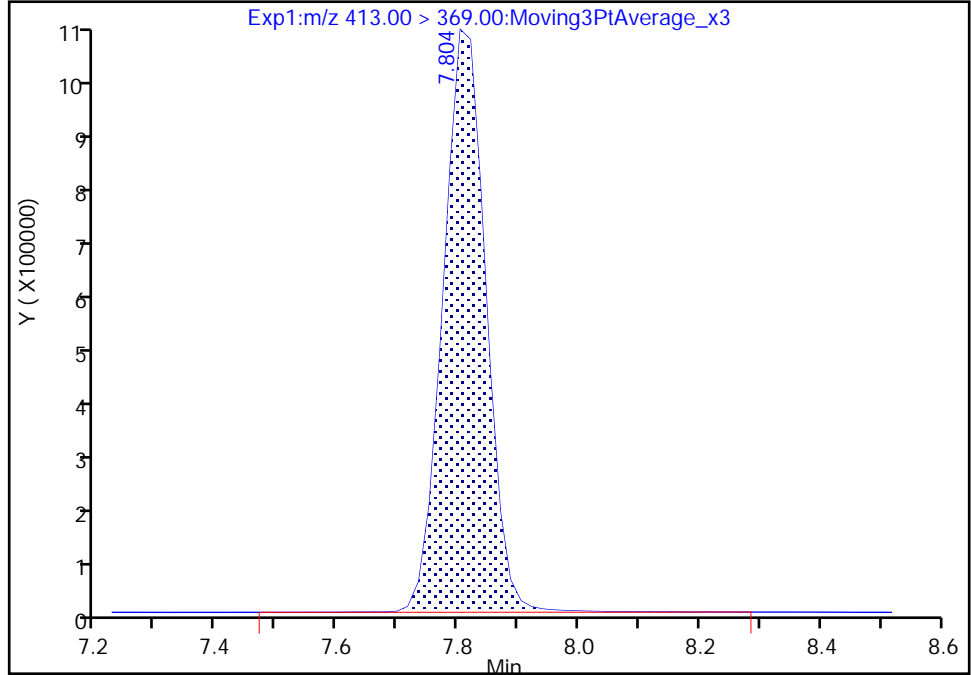
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Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

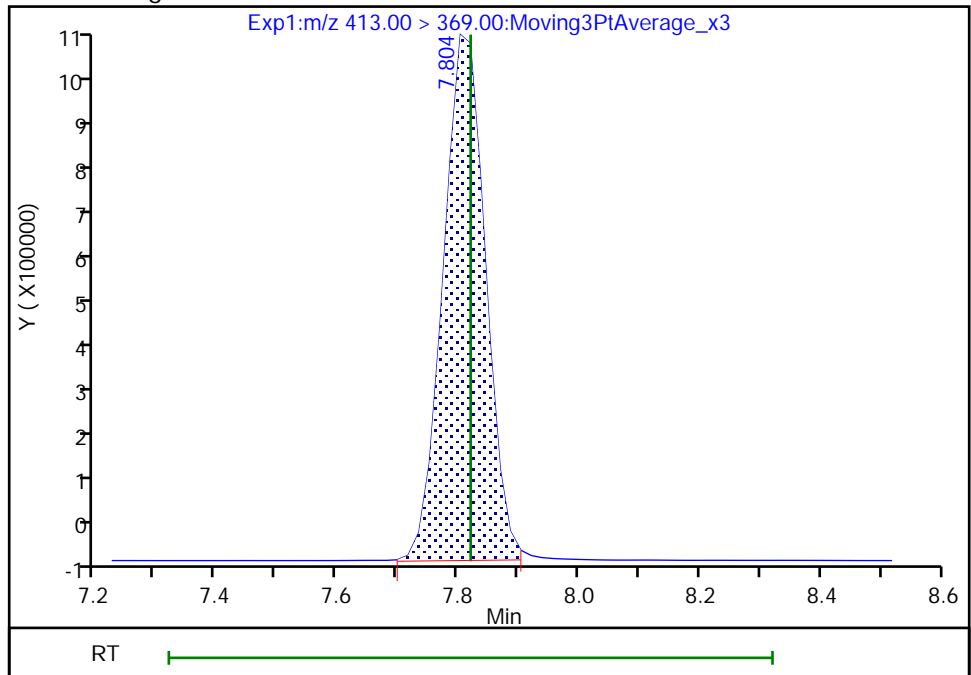
RT: 7.80  
Area: 4938803  
Amount: 0.100582  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 4893423  
Amount: 0.100034  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:24:38  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

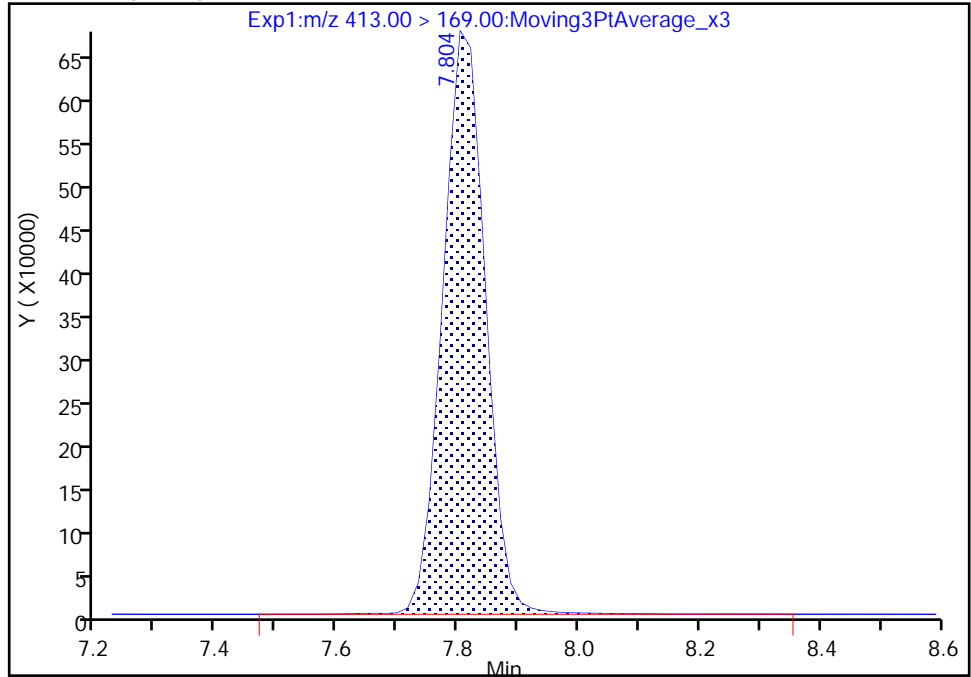
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Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

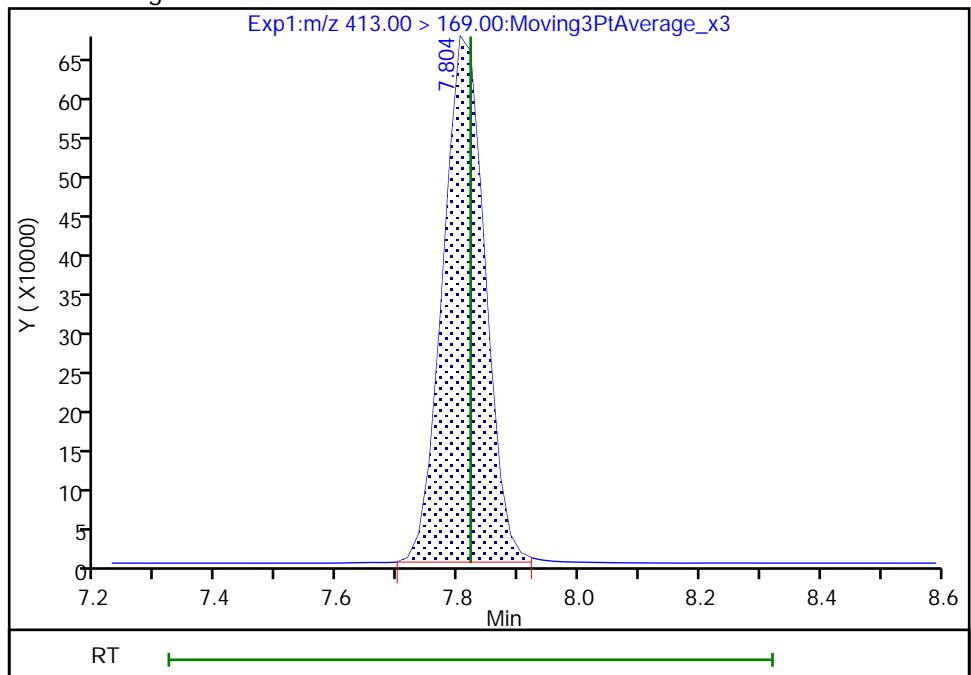
RT: 7.80  
Area: 3283667  
Amount: 0.100582  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 3241642  
Amount: 0.100034  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:24:44

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

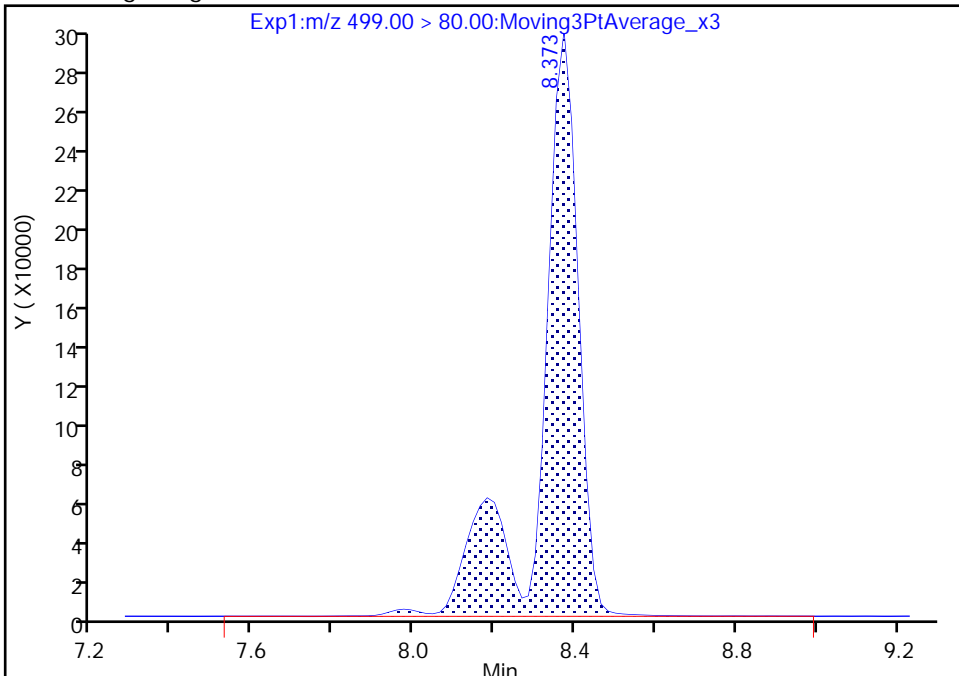
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Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

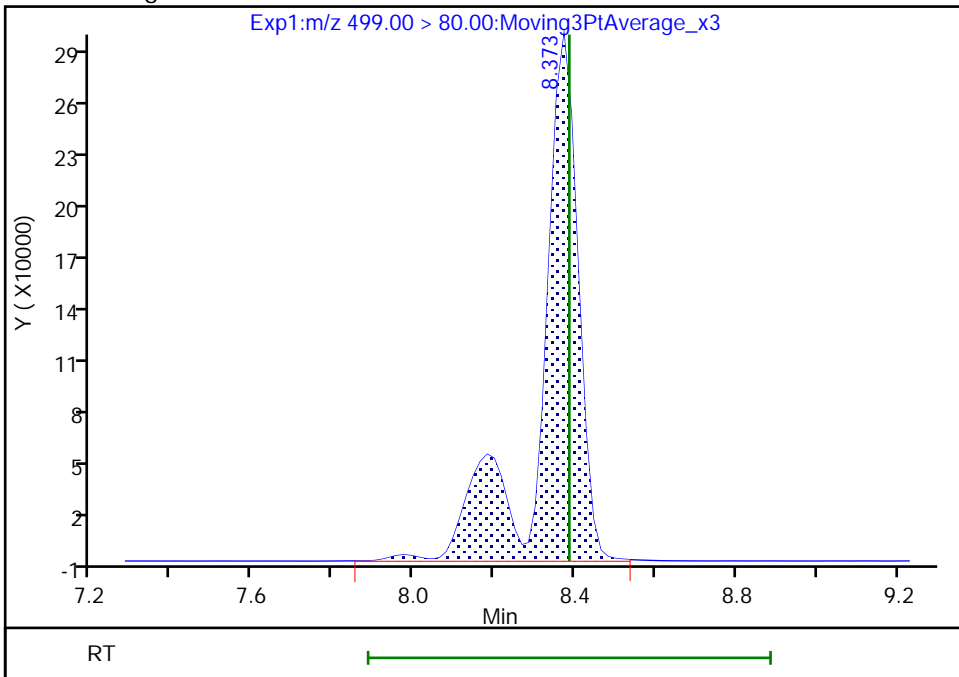
RT: 8.37  
Area: 1957456  
Amount: 0.090349  
Amount Units: ng/ml

Processing Integration Results



RT: 8.37  
Area: 1957223  
Amount: 0.090287  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:24:56  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

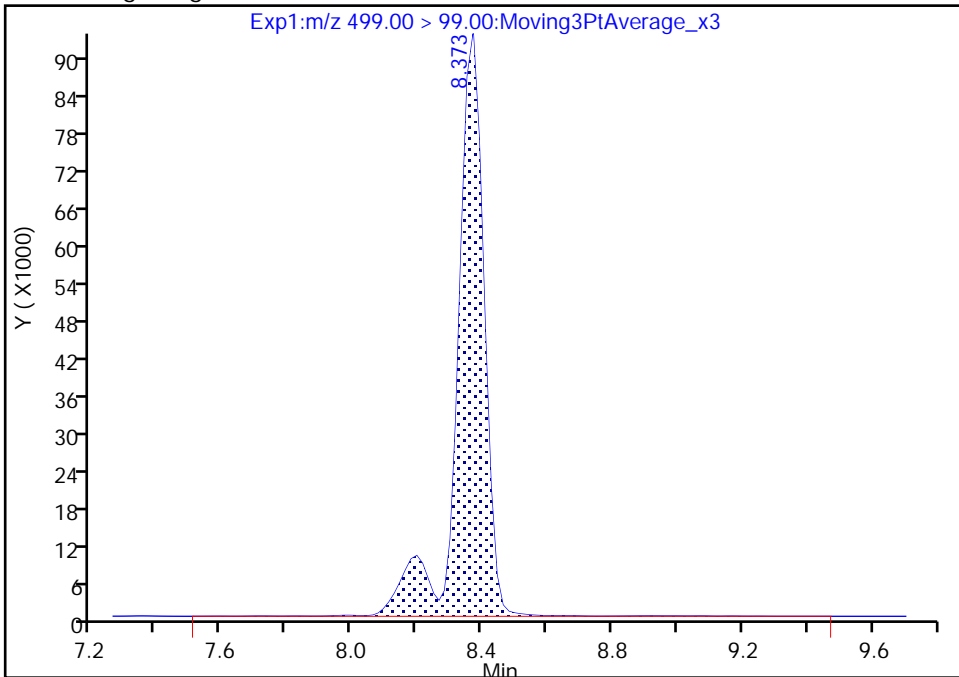
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_011.d  
Injection Date: 07-Jun-2021 16:37:26 Instrument ID: A10  
Lims ID: IC STD 7  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 11 Worklist Smp#: 8  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

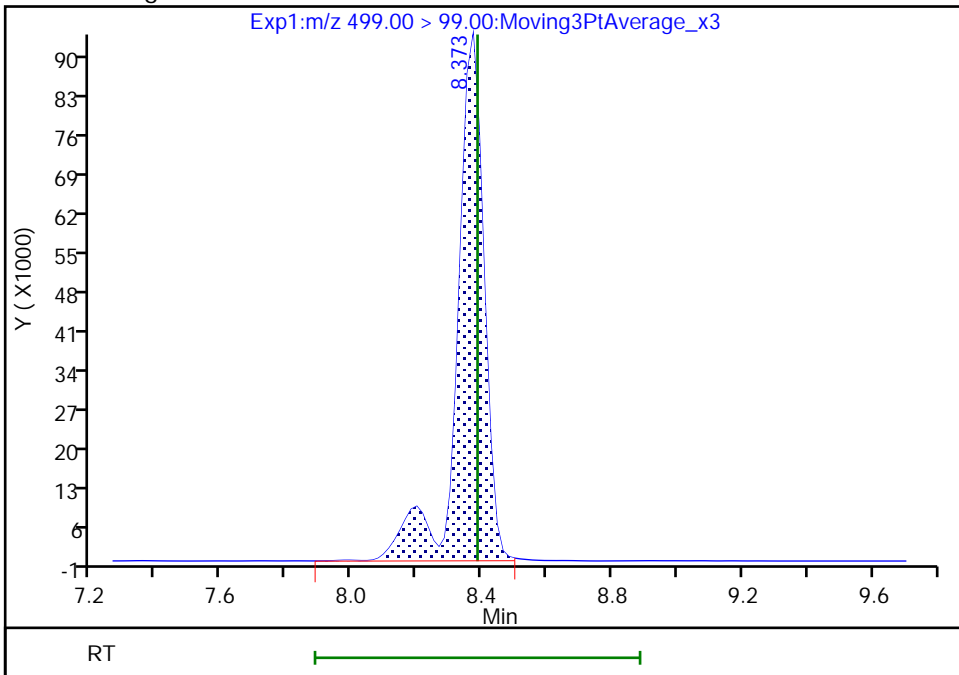
RT: 8.37  
Area: 545298  
Amount: 0.090349  
Amount Units: ng/ml

Processing Integration Results



RT: 8.37  
Area: 541352  
Amount: 0.090287  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:25:07

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Lims ID: IC STD 8  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 07-Jun-2021 16:55:55 ALS Bottle#: 12 Worklist Smp#: 9  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: IC STD 8 (23)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 12:54:09 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1631

First Level Reviewer: vangmy Date: 08-Jun-2021 12:26:37

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.569	5.591	-0.022	978915	0.0273		54.6	74.1	
1 Perfluorobutanoic acid	212.90 > 169.00	5.569	5.595	-0.026	1.000	3733701	0.1840	92.0	405	
D 4 13C5 PFPeA	267.90 > 223.00	6.230	6.235	-0.005	1659122	0.0484		96.8	6248	
5 Perfluoropentanoic acid	262.90 > 219.00	6.230	6.235	-0.005	1.000	7676559	0.1949	97.4	1660	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.287	0.006	1394362	0.0487		105	3934	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.293	6.290	0.003	1.000	5835009	0.1686	Target=1.41	95.3	15115
	298.90 > 99.00	6.293	6.290	0.003	1.000	4458541		1.31(0.71-2.12)	95.3	8124
8 4:2 FTS	327.00 > 307.00	6.664	6.676	-0.012	1.000	3868762	NC	Target=2.69		31562
	327.00 > 81.00	6.664	6.676	-0.012	1.000	1432269		2.70(1.34-4.03)		3106
D 7 M2-4:2 FTS	329.00 > 81.00	6.664	6.676	-0.012	303828	NC			776	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.728	0.006	1600787	0.0491		98.3	7205	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.728	0.006	1.000	6560332	0.1934	Target=19.50	96.7	4598
	313.00 > 119.00	6.734	6.728	0.006	1.000	314016		20.89(9.75-29.25)	96.7	1471
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.757	6.749	0.008	0.934	5246441	NC	Target=1.44		11280
	349.00 > 99.00	6.757	6.749	0.008	0.934	3497102		1.50(0.72-2.17)		11768

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.876	0.0		160646	NC			659	
13 HPFO-DA										
329.10 > 285.00	6.876	6.876	0.0	1.000	1641574	NC			1728	
14 9CIFOS										
531.00 > 351.00	7.104	7.109	-0.005	0.849	673	NC			3.2	M
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.235	7.248	-0.013	1.000	5610693	0.1782	Target=5.60	97.9	7699	
399.00 > 99.00	7.235	7.248	-0.013	1.000	1007304		5.57(2.80-8.40)	97.9	3374	
D 15 18O2 PFHxS										
403.00 > 84.00	7.235	7.248	-0.013		1297304	0.0466		98.5	12752	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.257	7.254	0.003	1.000	7207555	0.1869	Target=9.21	93.4	3460	
363.00 > 169.00	7.257	7.254	0.003	1.000	837682		8.60(4.61-13.82)	93.4	6936	
D 17 13C4 PFHpA										
367.00 > 322.00	7.257	7.254	0.003		1881167	0.0487		97.4	7649	
19 DONA										
377.00 > 251.00	7.302	7.308	-0.006	0.873	30574792	NC	Target=2.84		27177	
377.00 > 85.00	7.302	7.308	-0.006	0.873	11549202		2.65(1.42-4.26)		22000	
23 6:2 FTS										
427.00 > 407.00	7.789	7.793	-0.004	1.000	4530434	0.1859	Target=2.57	98.1	11534	
427.00 > 81.00	7.789	7.793	-0.004	1.000	1711277		2.65(1.29-3.86)	98.1	3457	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.789	7.795	-0.006		378867	0.0375		78.8	916	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.789	7.804	-0.015	0.931	4749193	0.1850	Target=6.98	97.2	9558	
449.00 > 99.00	7.789	7.804	-0.015	0.931	636158		7.47(3.49-10.48)	97.2	3255	
D 25 13C4 PFOA										
417.00 > 372.00	7.808	7.821	-0.013		2636705	0.0463		92.5	9743	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.808	7.821	-0.013	1.000	9767366	0.1956	Target=1.54	97.8	1292	M
413.00 > 169.00	7.808	7.821	-0.013	1.000	6403278		1.53(0.77-2.31)	97.8	4001	M
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.365	8.386	-0.021	1.000	4052190	0.1887	Target=3.65	102	4858	M
499.00 > 99.00	8.365	8.386	-0.021	1.000	1092407		3.71(1.83-5.48)	102	4585	M
D 26 13C4 PFOS										
503.00 > 80.00	8.365	8.386	-0.021		930409	0.0479		100	3450	
D 28 13C5 PFNA										
468.00 > 423.00	8.403	8.417	-0.014		2341546	0.0482		96.4	12522	
29 Perfluorononanoic acid										
463.00 > 419.00	8.403	8.417	-0.014	1.000	8411516	0.1979	Target=7.83	98.9	4171	
463.00 > 169.00	8.403	8.417	-0.014	1.000	1111885		7.57(3.92-11.75)	98.9	4851	
D 30 13C8 FOSA										
506.00 > 78.00	8.924	8.926	-0.002		992564	0.0431		86.2	4790	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.924	8.926	-0.002	1.000	4282389	0.1942		97.1	7999	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.941	8.961	-0.020	1.069	3689313	NC	Target=6.10		17804	
549.00 > 99.00	8.941	8.961	-0.020	1.069	599224		6.16(3.05-9.15)		3132	
D 33 13C2 PFDA										
515.00 > 470.00	8.974	8.999	-0.025		2149874	0.0487		97.4	9919	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.991	9.001	-0.010	1.002	8050258	0.2050	Target=16.47	102	6607	
513.00 > 169.00	8.991	9.001	-0.010	1.002	472833		17.03(8.23-24.70)	102	788	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.991	9.001	-0.010		352482	0.0420		87.7	2011	
36 8:2 FTS										
527.00 > 507.00	8.991	9.001	-0.010	1.000	3342049	0.1882	Target=2.29	98.2	15586	
527.00 > 81.00	8.991	9.001	-0.010	1.000	1493500		2.24(1.15-3.44)	98.2	7291	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.257	9.281	-0.024		802095	0.0502		100	974	
38 NMeFOSAA										
570.00 > 419.00	9.274	9.289	-0.015	1.002	2731107	0.1920	Target=13.24	96.0	30098	
570.00 > 483.00	9.274	9.289	-0.015	1.002	201332		13.57(6.62-19.86)	96.0	1702	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.491	9.508	-0.017	1.135	2435734	0.1945	Target=2.43	101	14662	
599.00 > 99.00	9.491	9.508	-0.017	1.135	986570		2.47(1.22-3.65)	101	10195	
D 42 13C2 PFUnA										
565.00 > 520.00	9.541	9.555	-0.014		1937854	0.0494		98.7	14922	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.541	9.561	-0.020		770415	0.0485		97.0	2842	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.541	9.555	-0.014	1.000	7684125	0.2016	Target=21.30	101	7820	
563.00 > 169.00	9.541	9.555	-0.014	1.000	359784		21.36(10.65-31.95)	101	4027	
43 NEtFOSA										
584.00 > 419.00	9.558	9.573	-0.015	1.002	2797717	0.1979	Target=16.50	98.9	8574	
584.00 > 483.00	9.558	9.573	-0.015	1.002	167828		16.67(8.25-24.74)	98.9	48.8	
44 11C1FOS										
631.00 > 451.00	9.769	9.790	-0.022	1.168	19077875	NC			47686	
D 45 13C2 PFDaA										
615.00 > 570.00	10.056	10.084	-0.028		2395183	0.0542		108	9970	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.056	10.084	-0.028	1.000	8334519	0.1872	Target=15.78	93.6	3910	
613.00 > 169.00	10.056	10.084	-0.028	1.000	547949		15.21(7.89-23.66)	93.6	3766	
47 10:2 FTS										
627.00 > 607.00	10.102	10.115	-0.013	1.124	4439592	NC	Target=34.02		17321	
627.00 > 81.00	10.102	10.115	-0.013	1.124	126350		35.14(17.01-51.03)		2467	
48 PFDaS										
699.00 > 80.00	10.502	10.532	-0.030	1.255	879308	NC	Target=0.50		4076	
699.00 > 99.00	10.502	10.532	-0.030	1.255	1681620		0.52(0.25-0.74)		8432	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.580	10.601	-0.021	1.052	9586490	0.1689	Target=20.25	84.5	4557	
663.00 > 169.00	10.580	10.601	-0.021	1.052	508223		18.86(10.13-30.38)	84.5	4578	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.059	11.085	-0.026		1586979	0.0432		86.3	5887	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.059	11.085	-0.026	1.000	277982	0.1996	Target=1.26	99.8	3413	
713.00 > 219.00	11.059	11.085	-0.026	1.000	223083		1.25(0.63-1.89)	99.8	2432	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.961	12.002	-0.041		1094089	0.0442		88.3	5171	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.961	12.004	-0.043	1.000	4380968	0.1839	Target=28.54	91.9	4044	
813.00 > 169.00	11.961	12.004	-0.043	1.000	146758		29.85(14.27-42.81)	91.9	1303	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.880	12.933	-0.053	1.077	2024283	0.2219	Target=35.98	111	1717	
913.00 > 169.00	12.880	12.933	-0.053	1.077	57356		35.29(17.99-53.97)	111	577	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L8\_00023

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d

Injection Date: 07-Jun-2021 16:55:55

Instrument ID: A10

Lims ID: IC STD 8

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 12

Worklist Smp#: 9

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

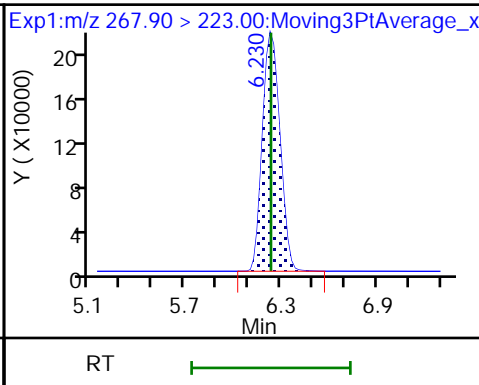
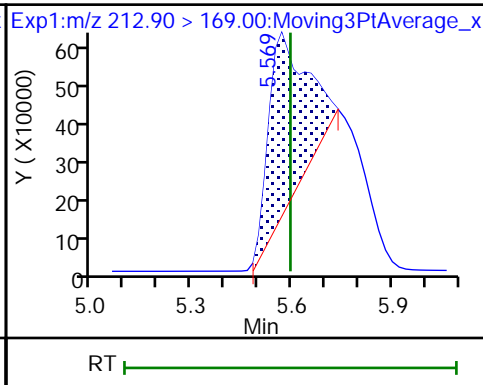
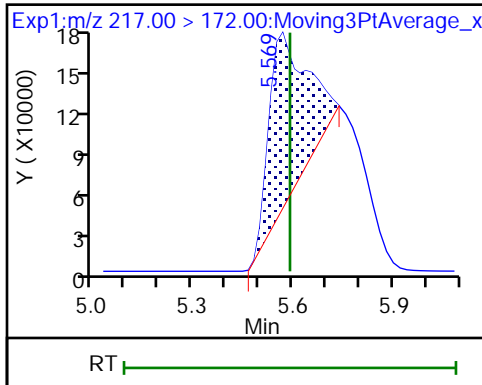
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

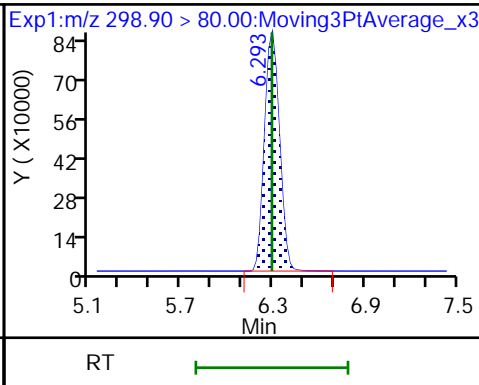
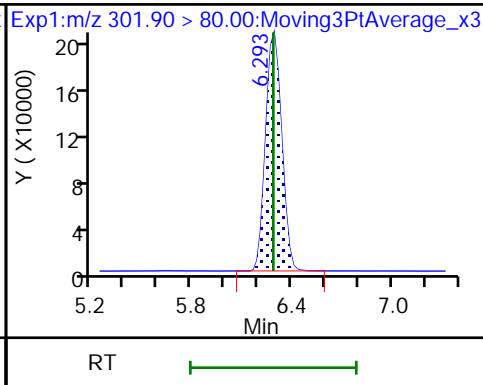
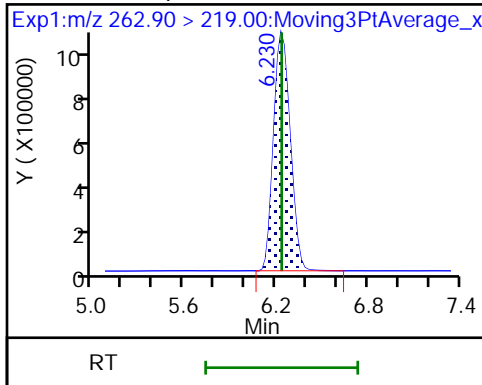
D 4 13C5 PFPeA



5 Perfluoropentanoic acid

D 3 13C3 PFBS

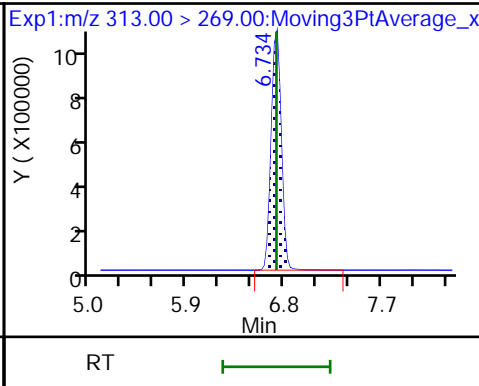
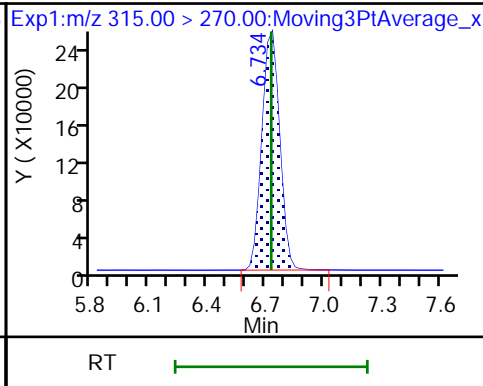
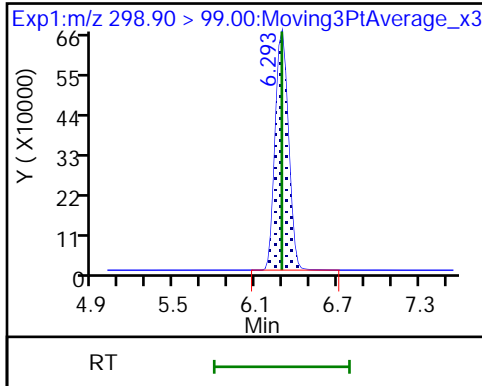
6 Perfluorobutanesulfonic acid



6 Perfluorobutanesulfonic acid

D 9 13C2 PFHxA

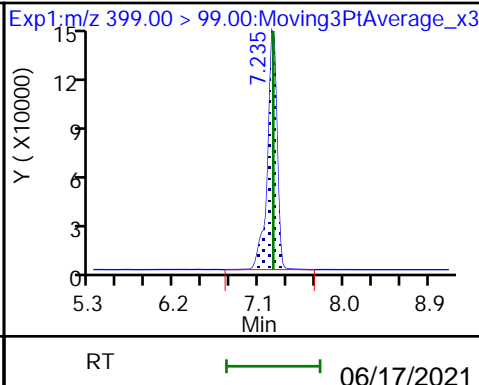
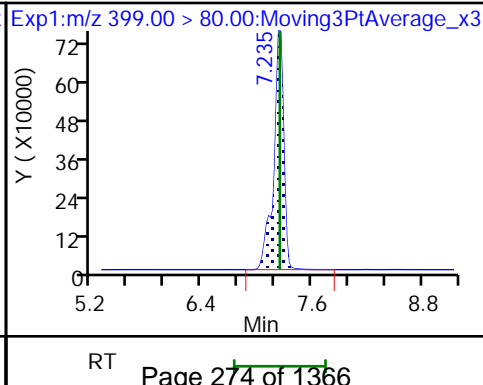
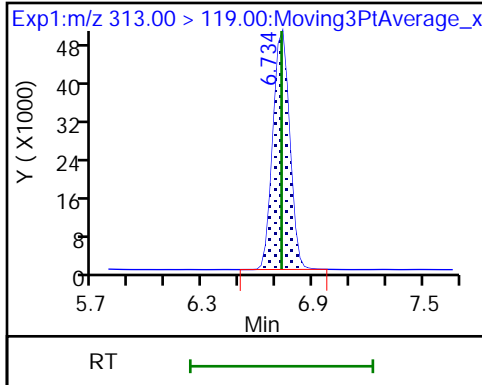
10 Perfluorohexanoic acid



10 Perfluorohexanoic acid

16 Perfluorohexanesulfonic acid

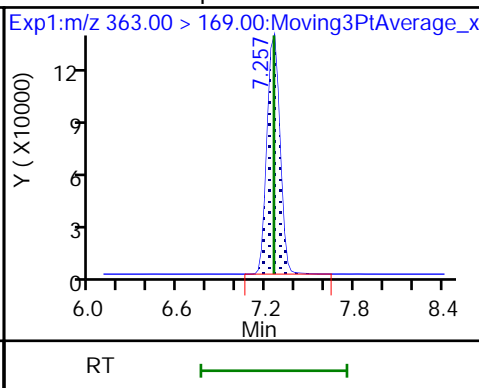
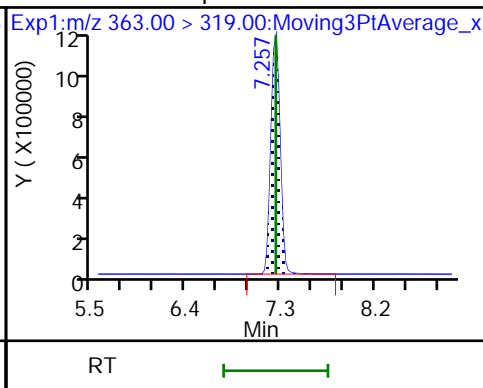
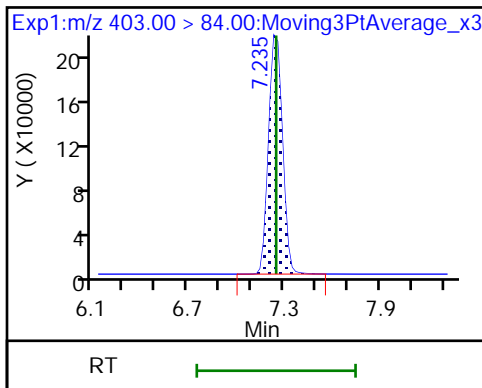
16 Perfluorohexanesulfonic acid



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid

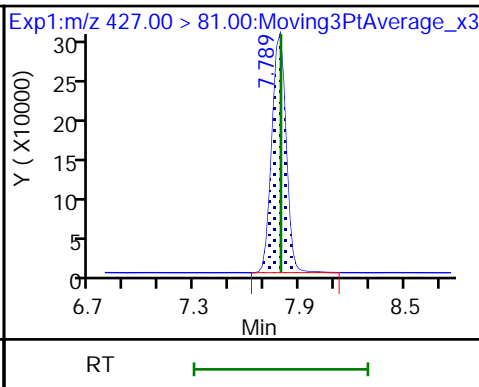
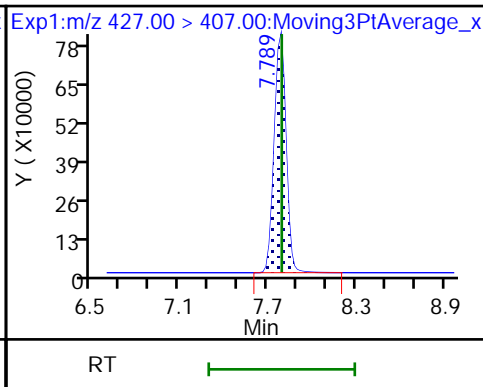
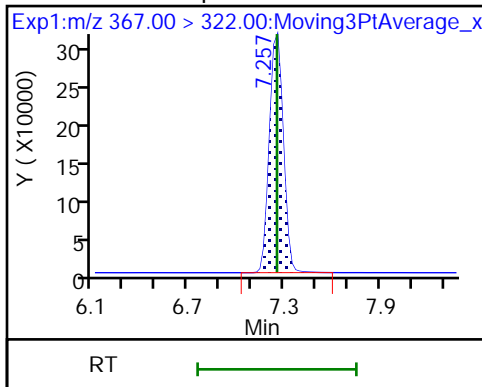
18 Perfluoroheptanoic acid



D 17 13C4 PFHpA

23 6:2 FTS

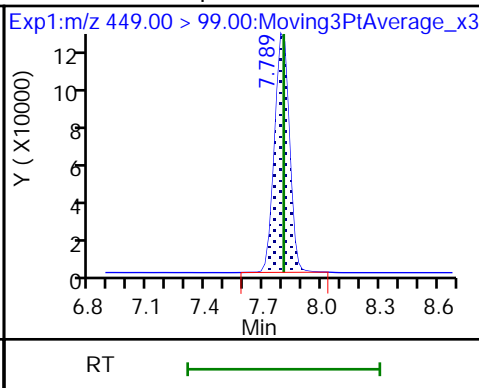
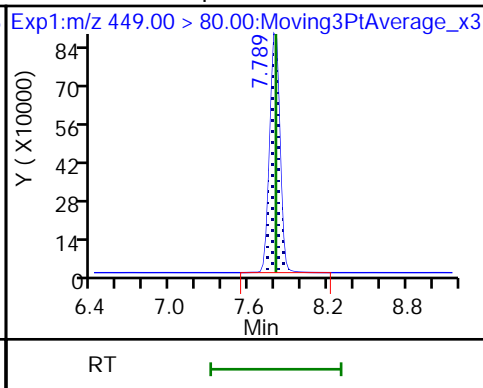
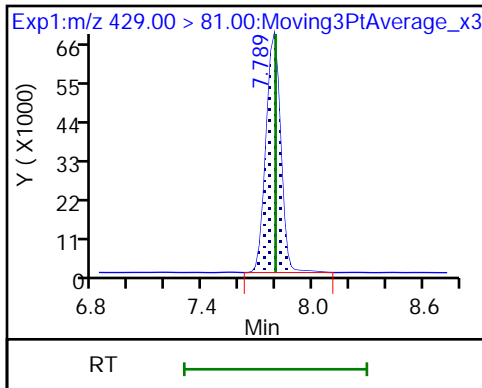
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid

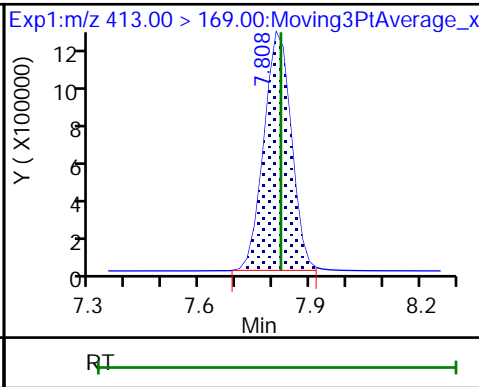
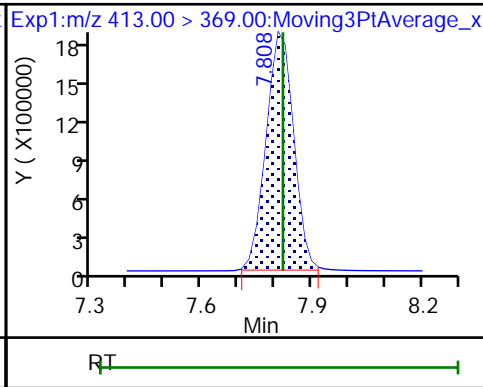
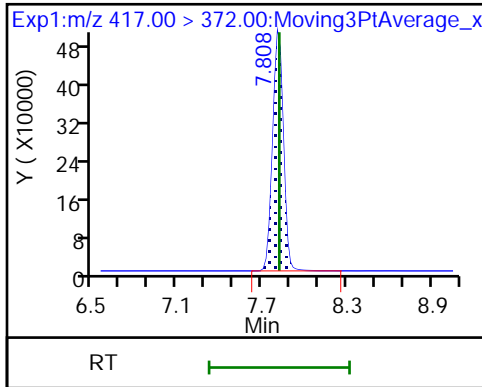
21 Perfluoroheptanesulfonic acid



D 25 13C4 PFOA

24 Perfluorooctanoic acid (M)

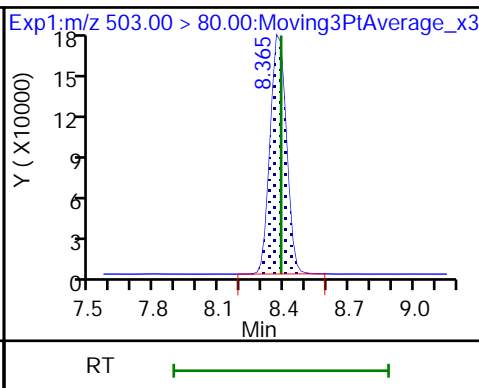
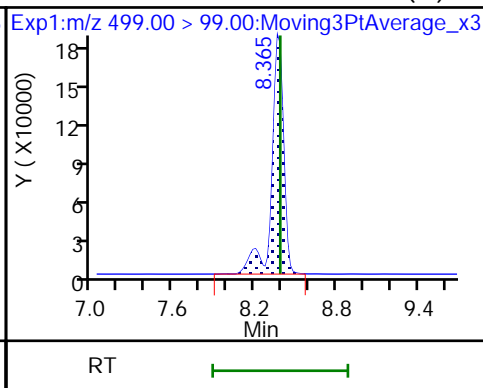
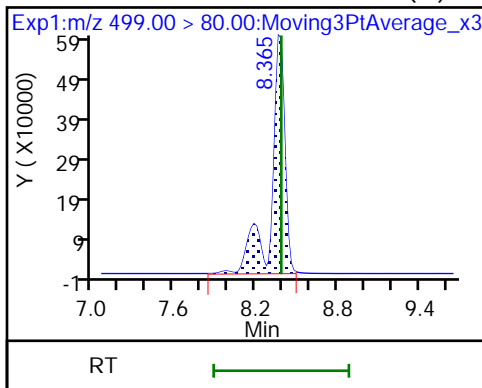
24 Perfluorooctanoic acid (M)



27 Perfluorooctanesulfonic acid (M)

27 Perfluorooctanesulfonic acid (M)

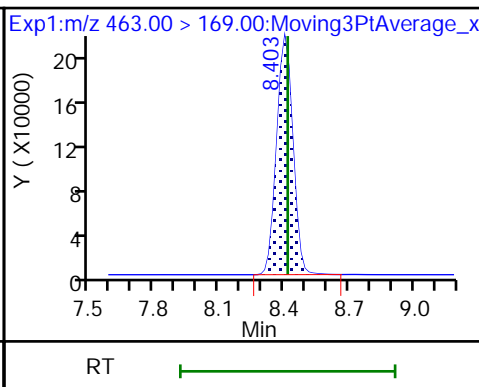
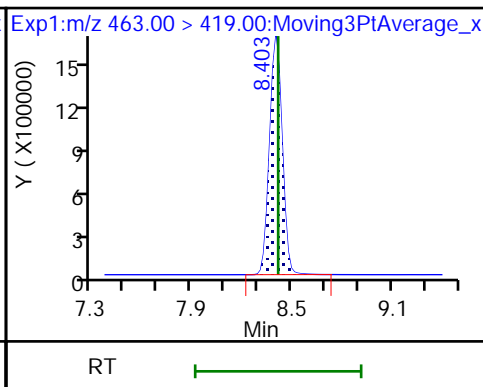
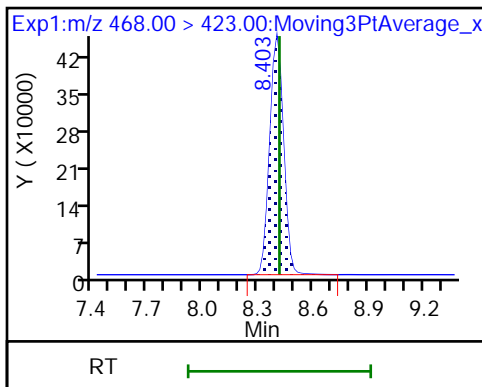
D 26 13C4 PFOS



D 28 13C5 PFNA

29 Perfluorononanoic acid

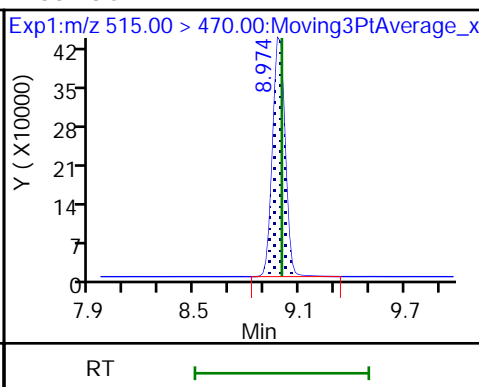
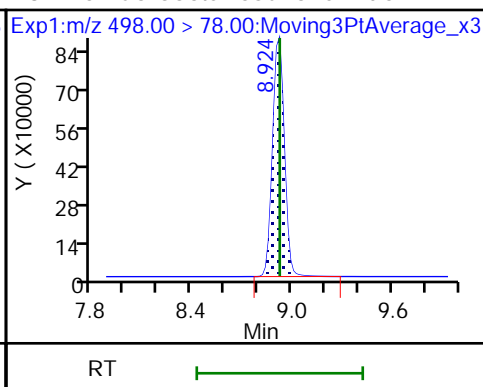
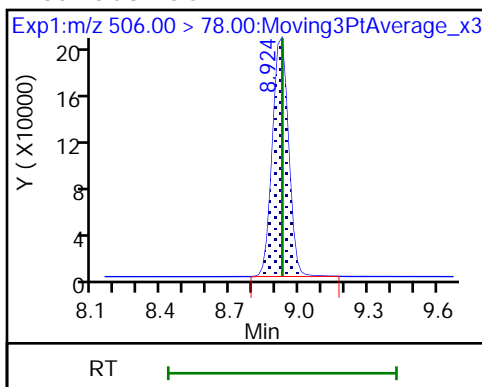
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

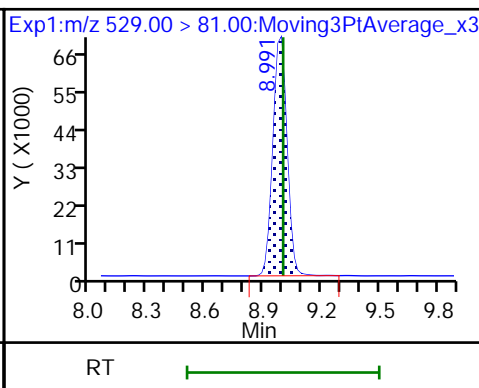
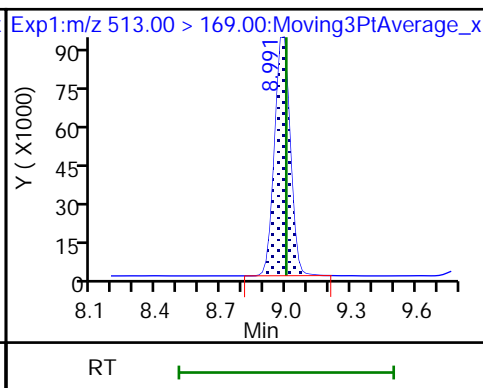
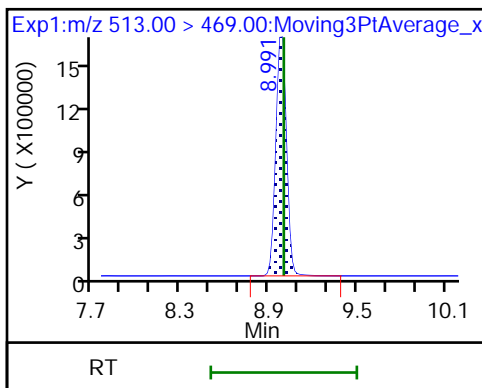
D 33 13C2 PFDA

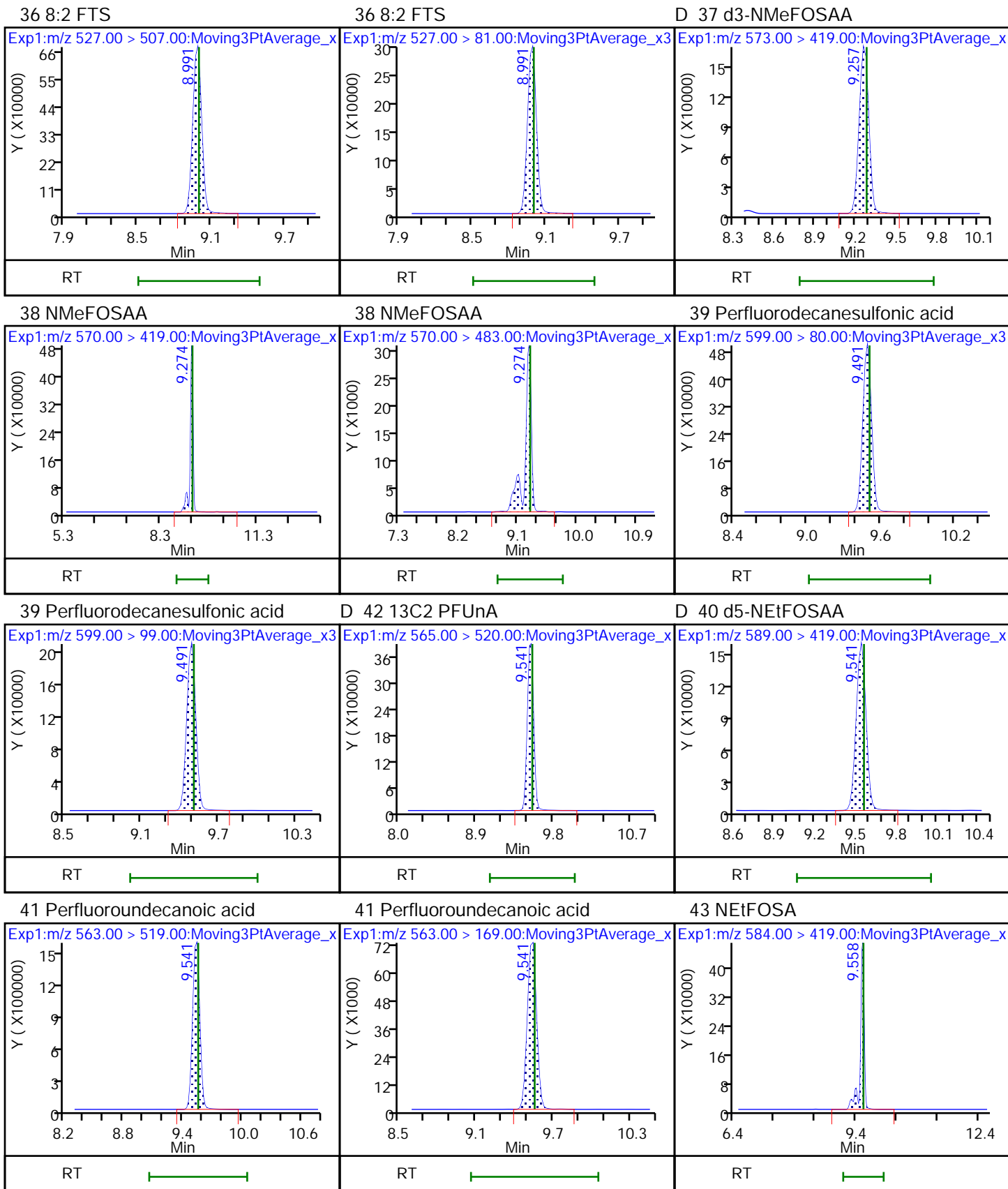


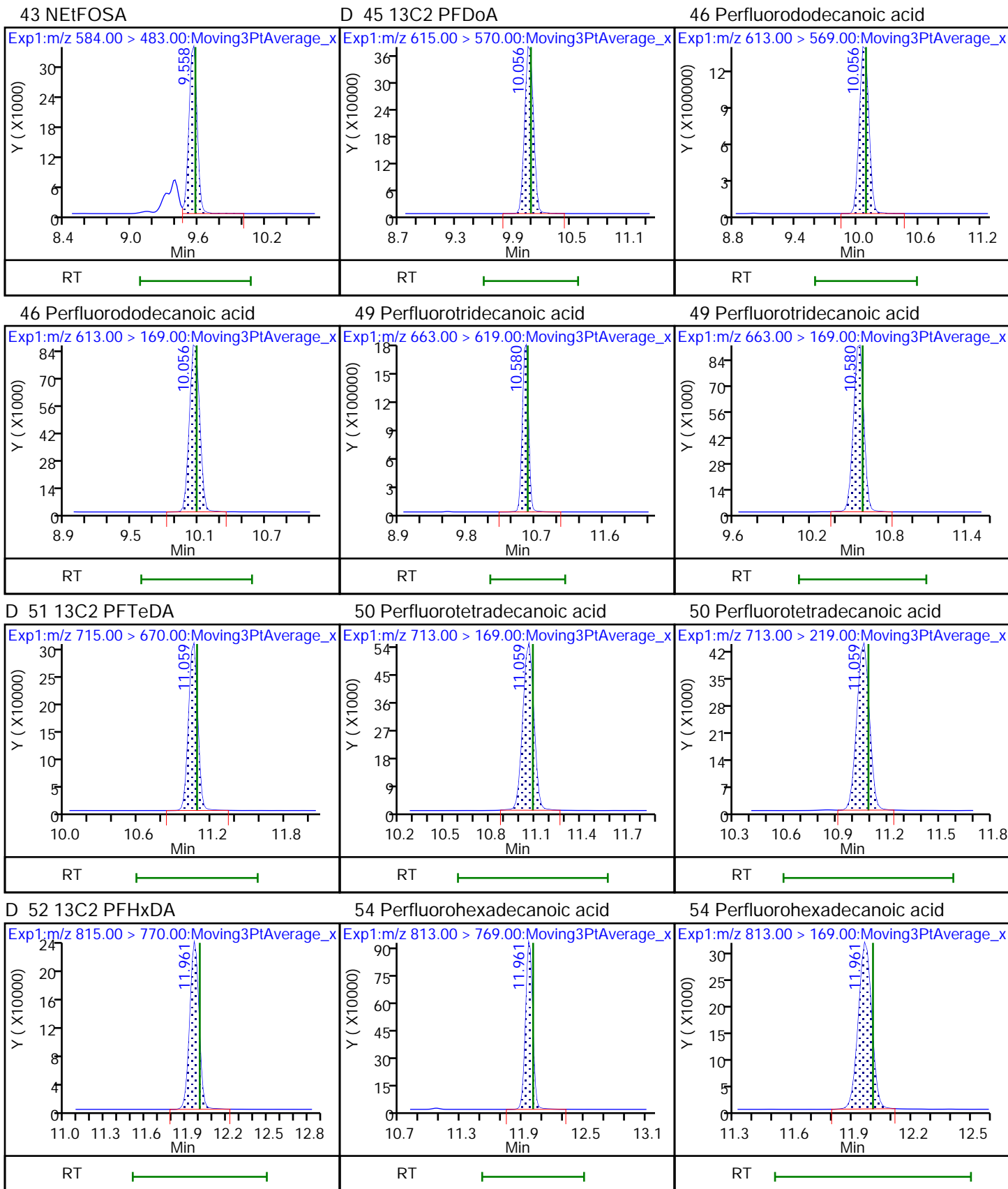
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

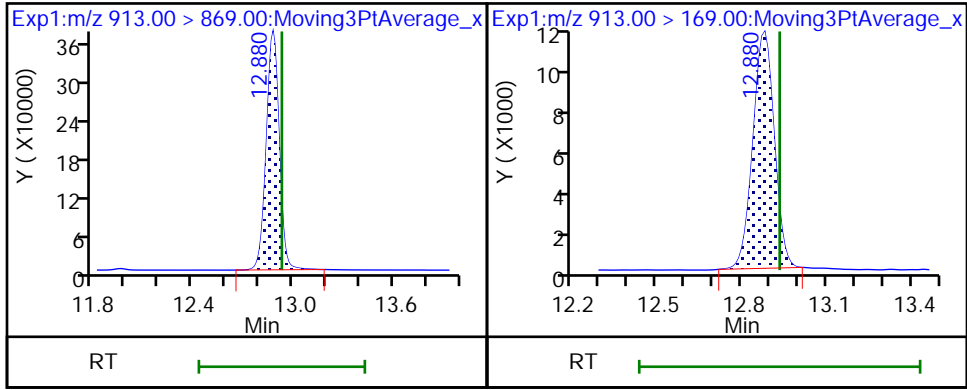






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

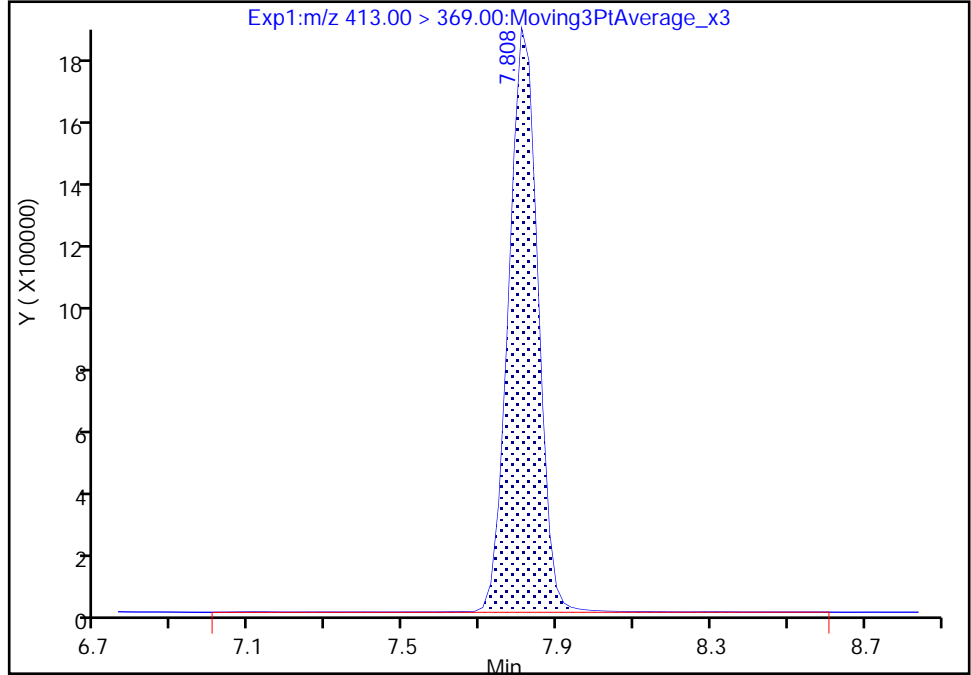
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
Injection Date: 07-Jun-2021 16:55:55 Instrument ID: A10  
Lims ID: IC STD 8  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 12 Worklist Smp#: 9  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

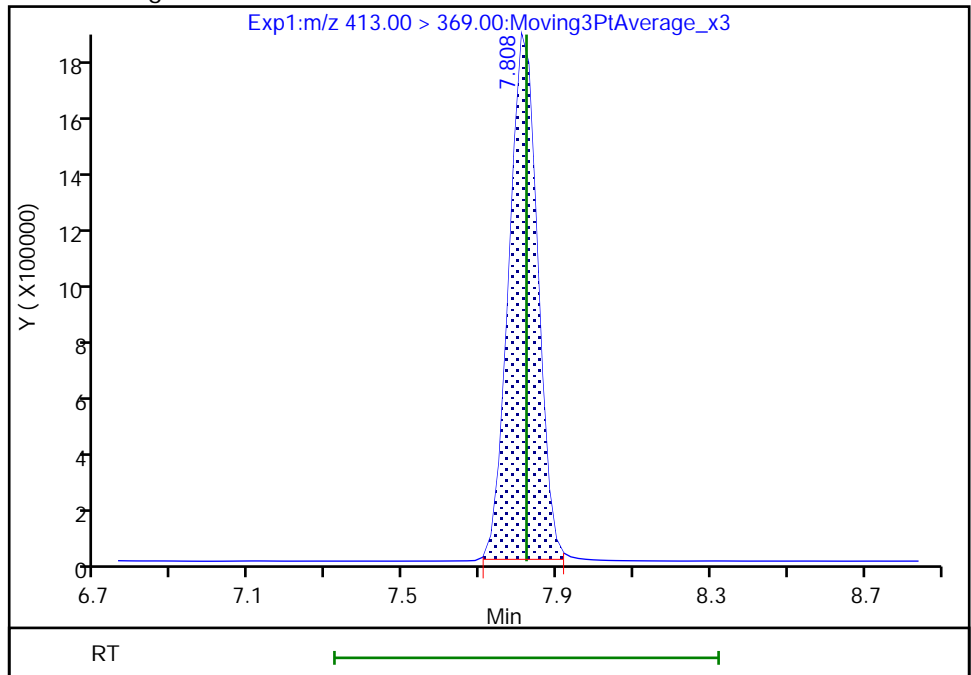
RT: 7.81  
Area: 9976049  
Amount: 0.199275  
Amount Units: ng/ml

Processing Integration Results



RT: 7.81  
Area: 9767366  
Amount: 0.195616  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:26:03  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

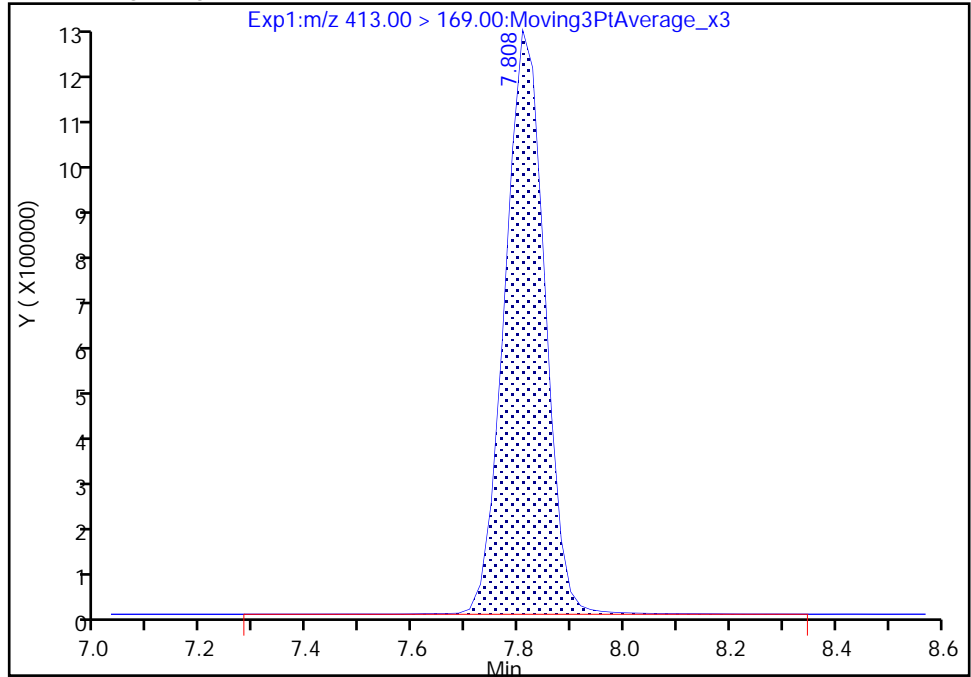
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
Injection Date: 07-Jun-2021 16:55:55 Instrument ID: A10  
Lims ID: IC STD 8  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 12 Worklist Smp#: 9  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

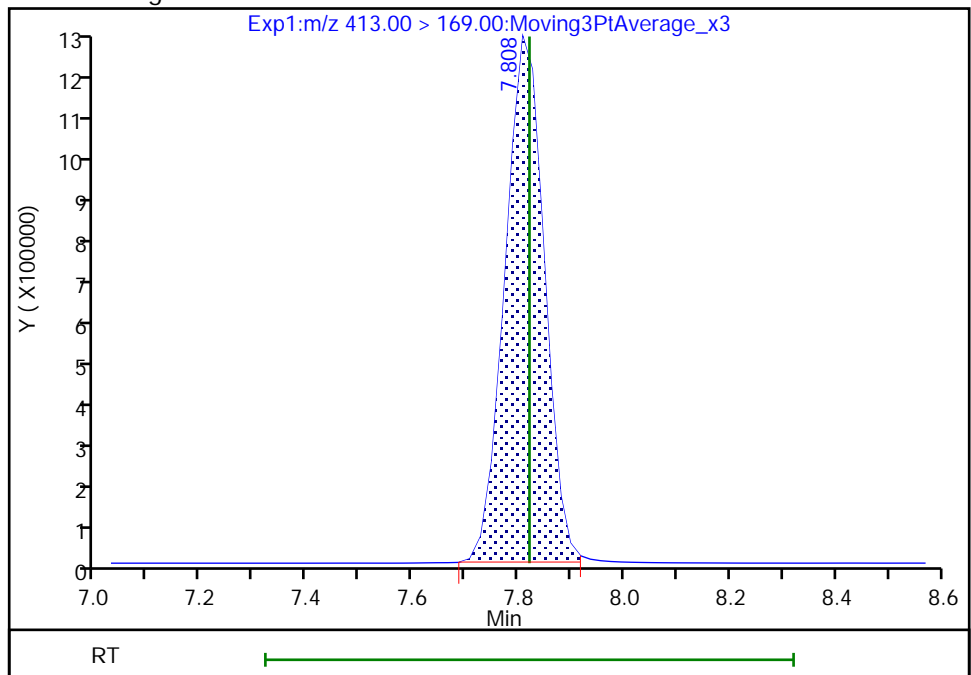
RT: 7.81  
Area: 6493321  
Amount: 0.199275  
Amount Units: ng/ml

Processing Integration Results



RT: 7.81  
Area: 6403278  
Amount: 0.195616  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:26:11

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

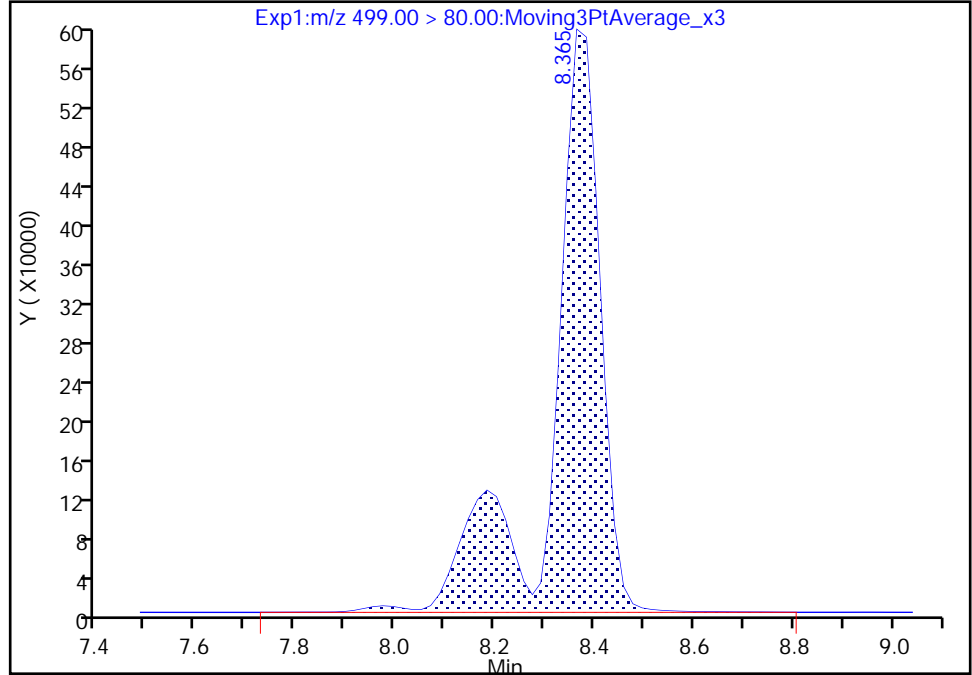
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
Injection Date: 07-Jun-2021 16:55:55 Instrument ID: A10  
Lims ID: IC STD 8  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 12 Worklist Smp#: 9  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

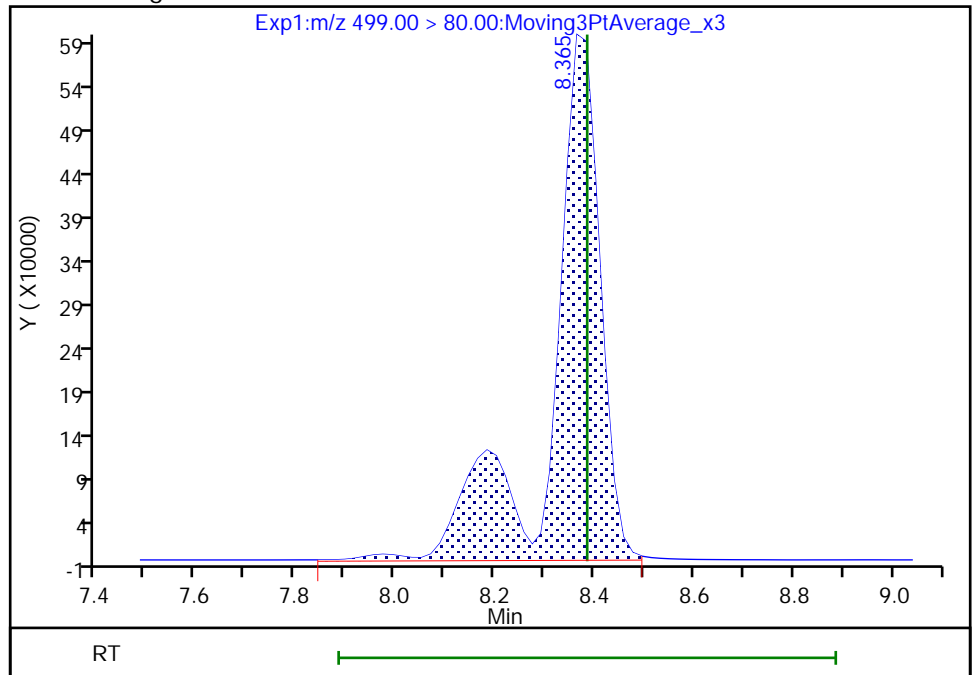
RT: 8.37  
Area: 4033548  
Amount: 0.187968  
Amount Units: ng/ml

Processing Integration Results



RT: 8.37  
Area: 4052190  
Amount: 0.188726  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:26:21  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

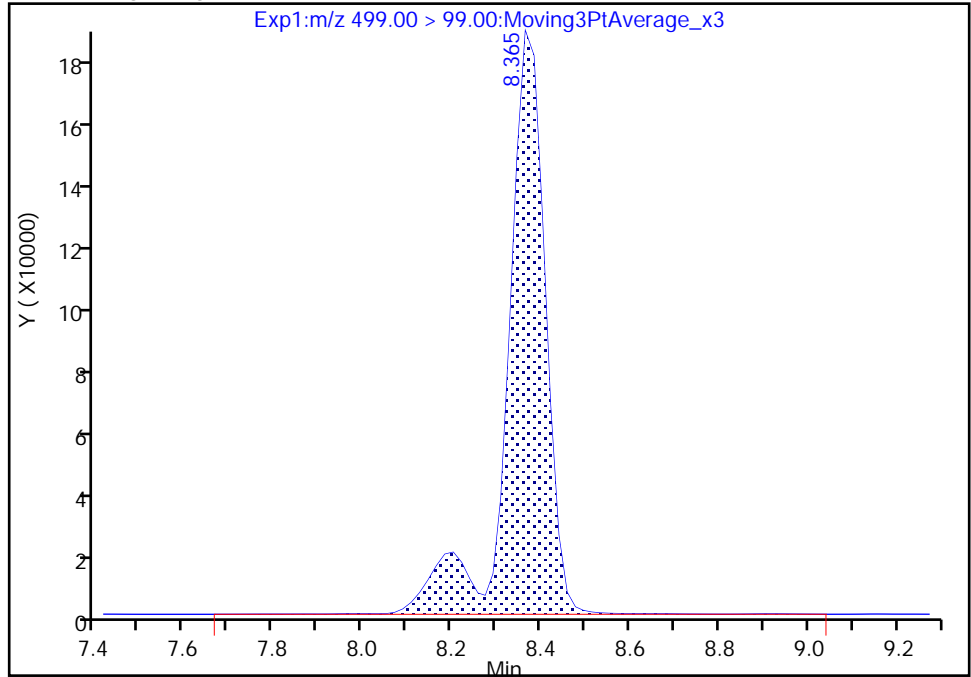
Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
Injection Date: 07-Jun-2021 16:55:55 Instrument ID: A10  
Lims ID: IC STD 8  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 12 Worklist Smp#: 9  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm ID) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

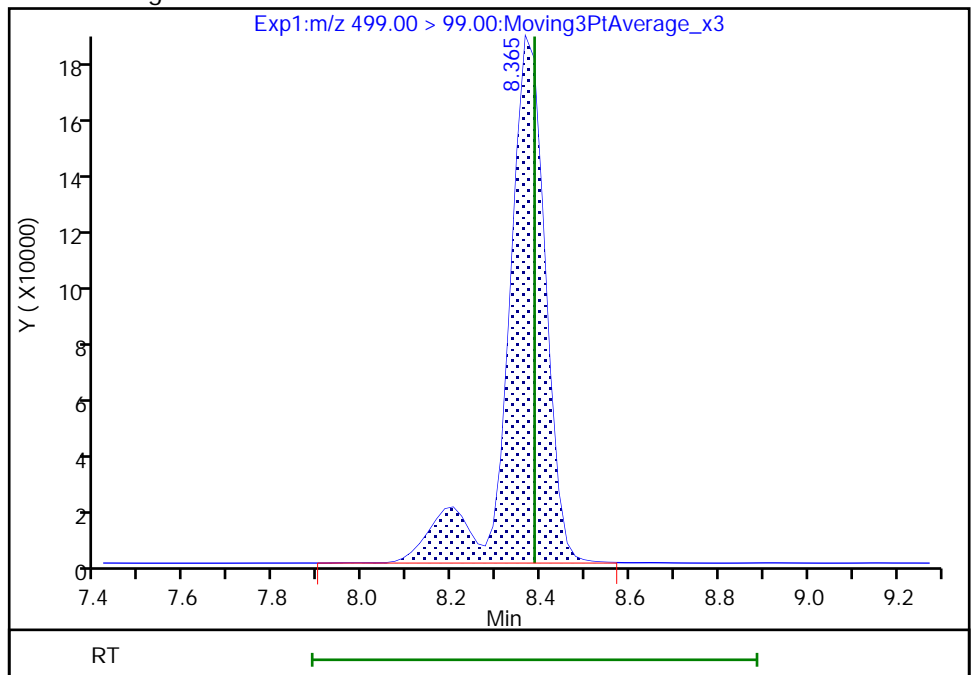
RT: 8.37  
Area: 1096389  
Amount: 0.187968  
Amount Units: ng/ml

Processing Integration Results



RT: 8.37  
Area: 1092407  
Amount: 0.188726  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:26:31

Audit Action: Manually Integrated

Audit Reason: Baseline

**Calibration**

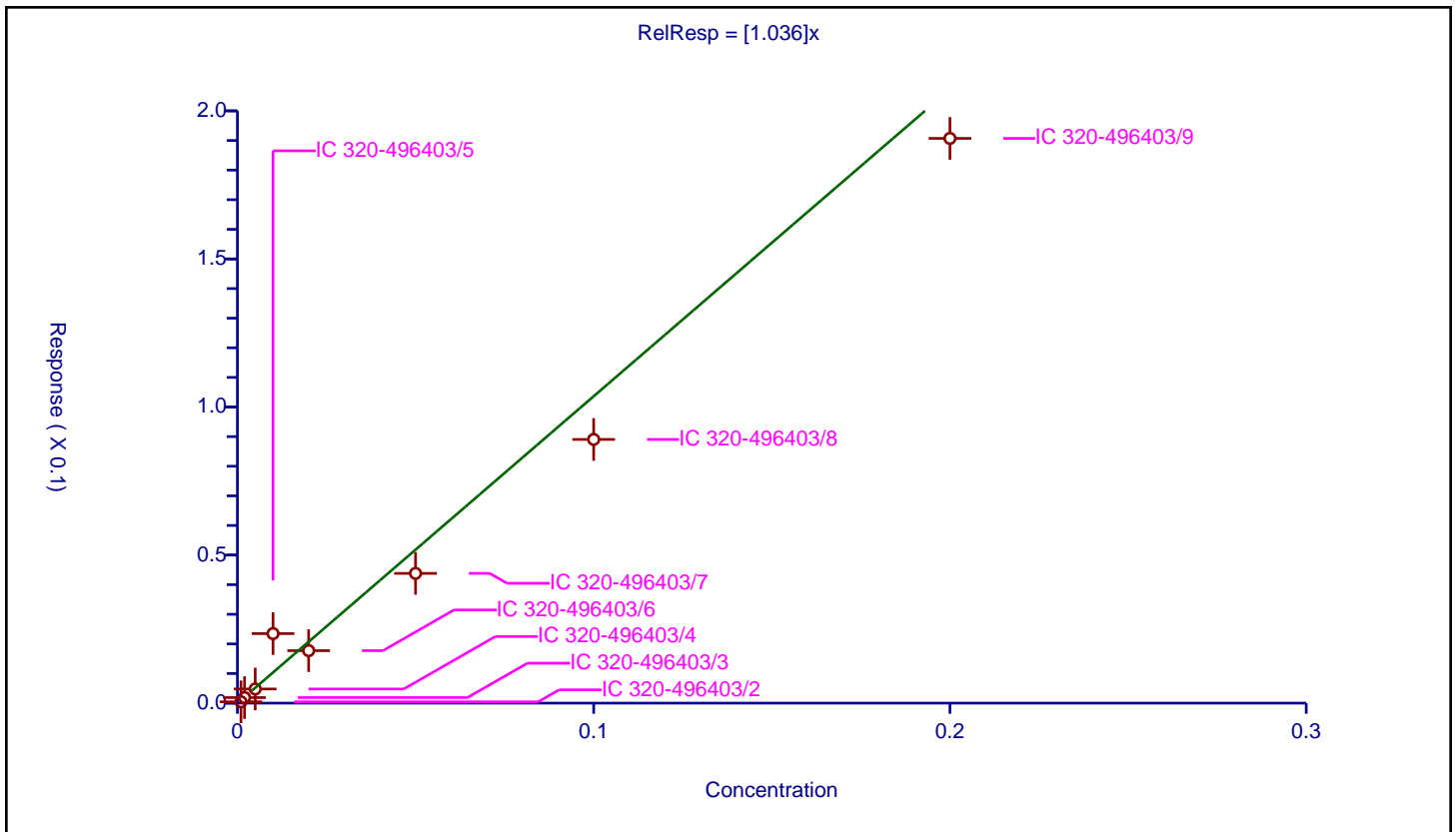
/ Perfluorobutanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.036

Error Coefficients	
Standard Error:	2400000
Relative Standard Error:	53.7
Correlation Coefficient:	0.739
Coefficient of Determination (Adjusted):	0.765

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000442	0.05	958754.0	0.441823	Y
2	IC 320-496403/3	0.002	0.001876	0.05	907612.0	0.937873	Y
3	IC 320-496403/4	0.005	0.004781	0.05	2621733.0	0.956173	Y
4	IC 320-496403/5	0.01	0.023478	0.05	1026028.0	2.347806	Y
5	IC 320-496403/6	0.02	0.017727	0.05	2762551.0	0.886364	Y
6	IC 320-496403/7	0.05	0.043816	0.05	2563961.0	0.876322	Y
7	IC 320-496403/8	0.1	0.089048	0.05	2519006.0	0.890477	Y
8	IC 320-496403/9	0.2	0.190706	0.05	978915.0	0.95353	Y



**Calibration**

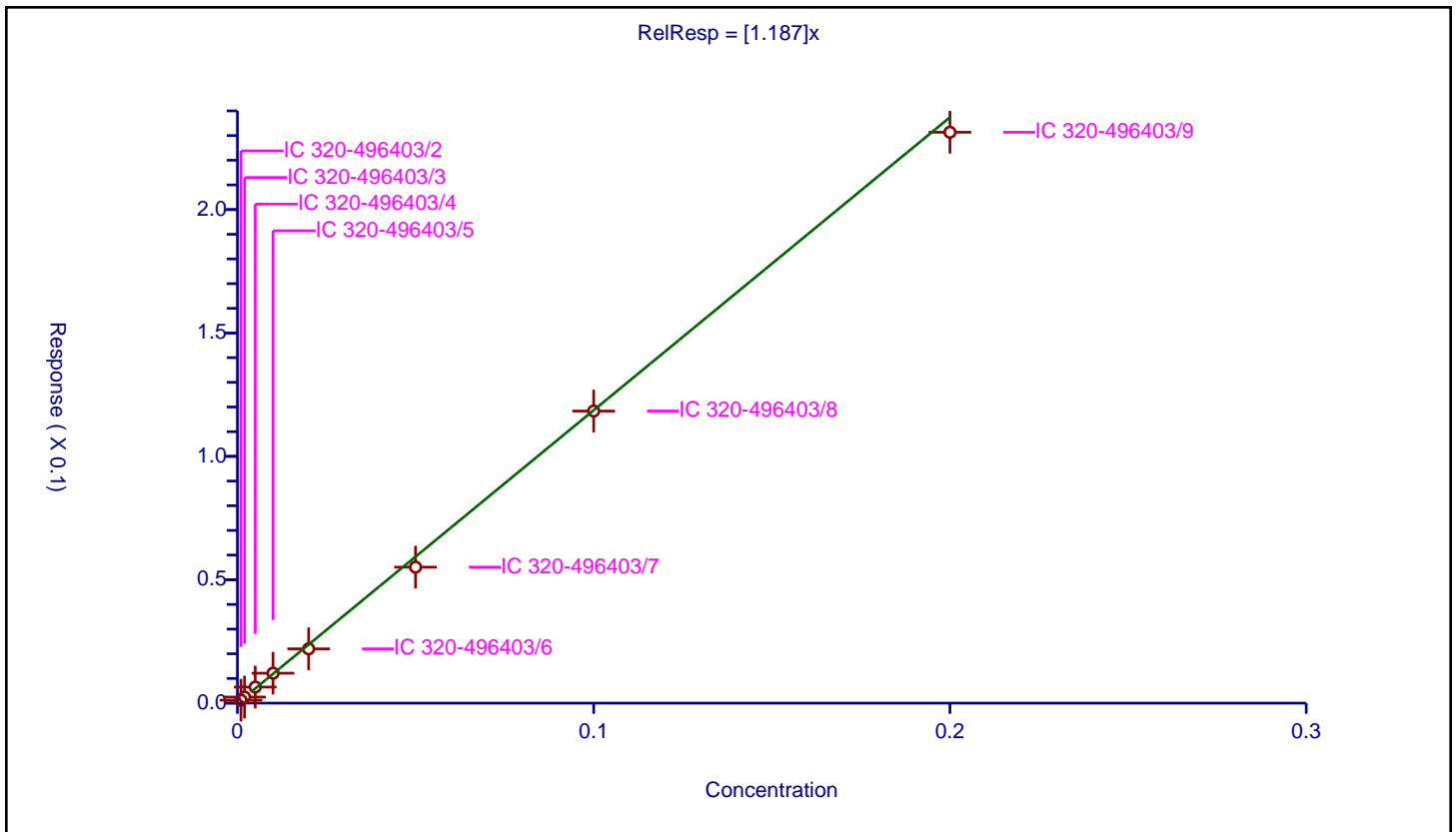
/ Perfluoropentanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.187

Error Coefficients	
Standard Error:	3320000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.001208	0.05	1715553.0	1.207861	Y
2	IC 320-496403/3	0.002	0.002461	0.05	1765142.0	1.230496	Y
3	IC 320-496403/4	0.005	0.006511	0.05	1652762.0	1.30225	Y
4	IC 320-496403/5	0.01	0.012131	0.05	1658513.0	1.21306	Y
5	IC 320-496403/6	0.02	0.021999	0.05	1942457.0	1.099961	Y
6	IC 320-496403/7	0.05	0.055105	0.05	1748569.0	1.102108	Y
7	IC 320-496403/8	0.1	0.118362	0.05	1567742.0	1.183619	Y </td
8	IC 320-496403/9	0.2	0.231344	0.05	1659122.0	1.15672	Y



**Calibration**

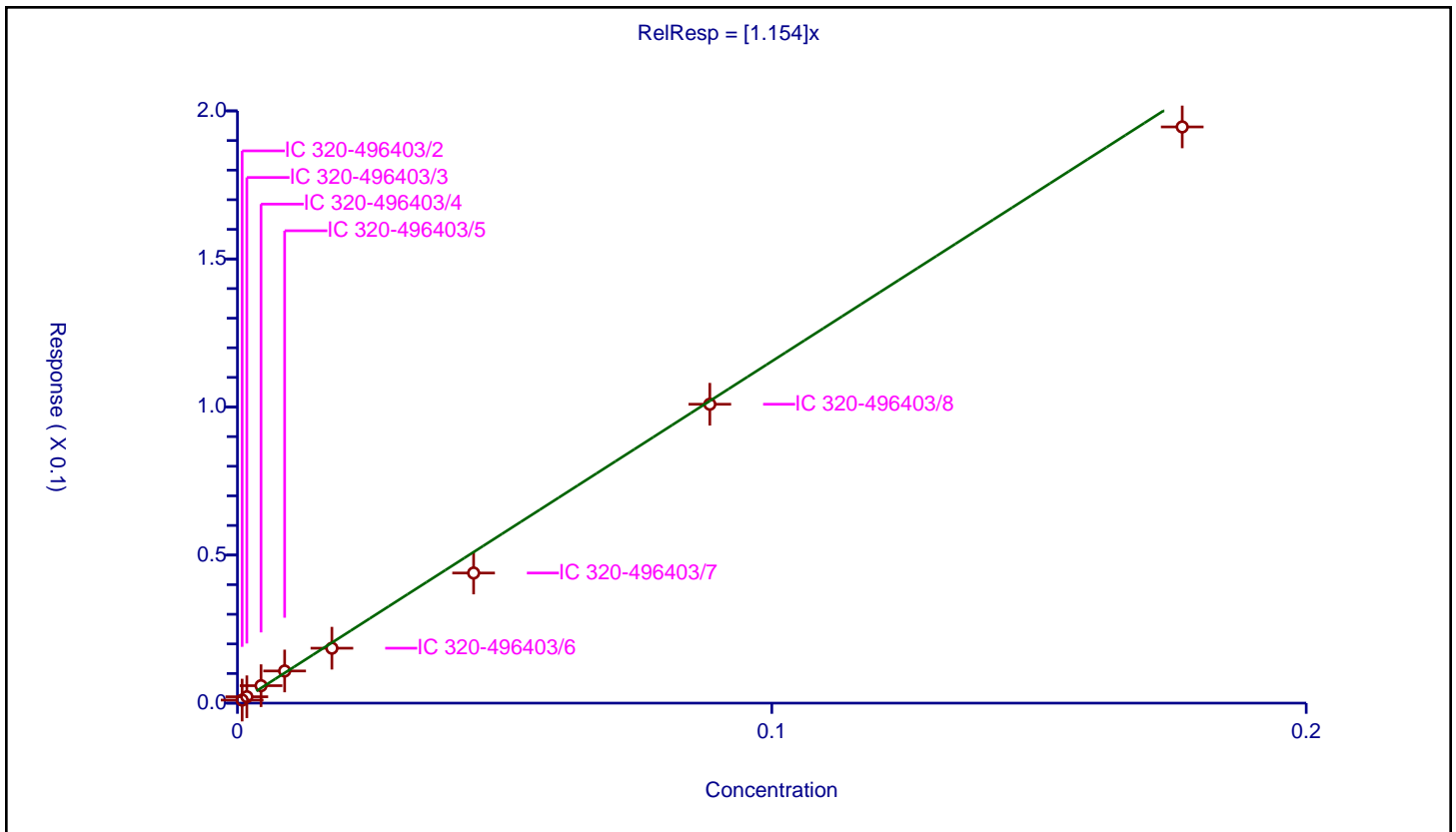
/ Perfluorobutanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.154

Error Coefficients	
Standard Error:	2500000
Relative Standard Error:	9.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000884	0.001031	0.0465	1245213.0	1.166716	Y
2	IC 320-496403/3	0.001768	0.002158	0.0465	1230780.0	1.220422	Y
3	IC 320-496403/4	0.00442	0.005891	0.0465	1211708.0	1.33284	Y
4	IC 320-496403/5	0.00884	0.010859	0.0465	1218161.0	1.228422	Y
5	IC 320-496403/6	0.01768	0.018553	0.0465	1627682.0	1.049354	Y
6	IC 320-496403/7	0.0442	0.043944	0.0465	1485880.0	0.994211	Y
7	IC 320-496403/8	0.0884	0.100936	0.0465	1242524.0	1.141811	Y
8	IC 320-496403/9	0.1768	0.194589	0.0465	1394362.0	1.100618	Y



**Calibration**

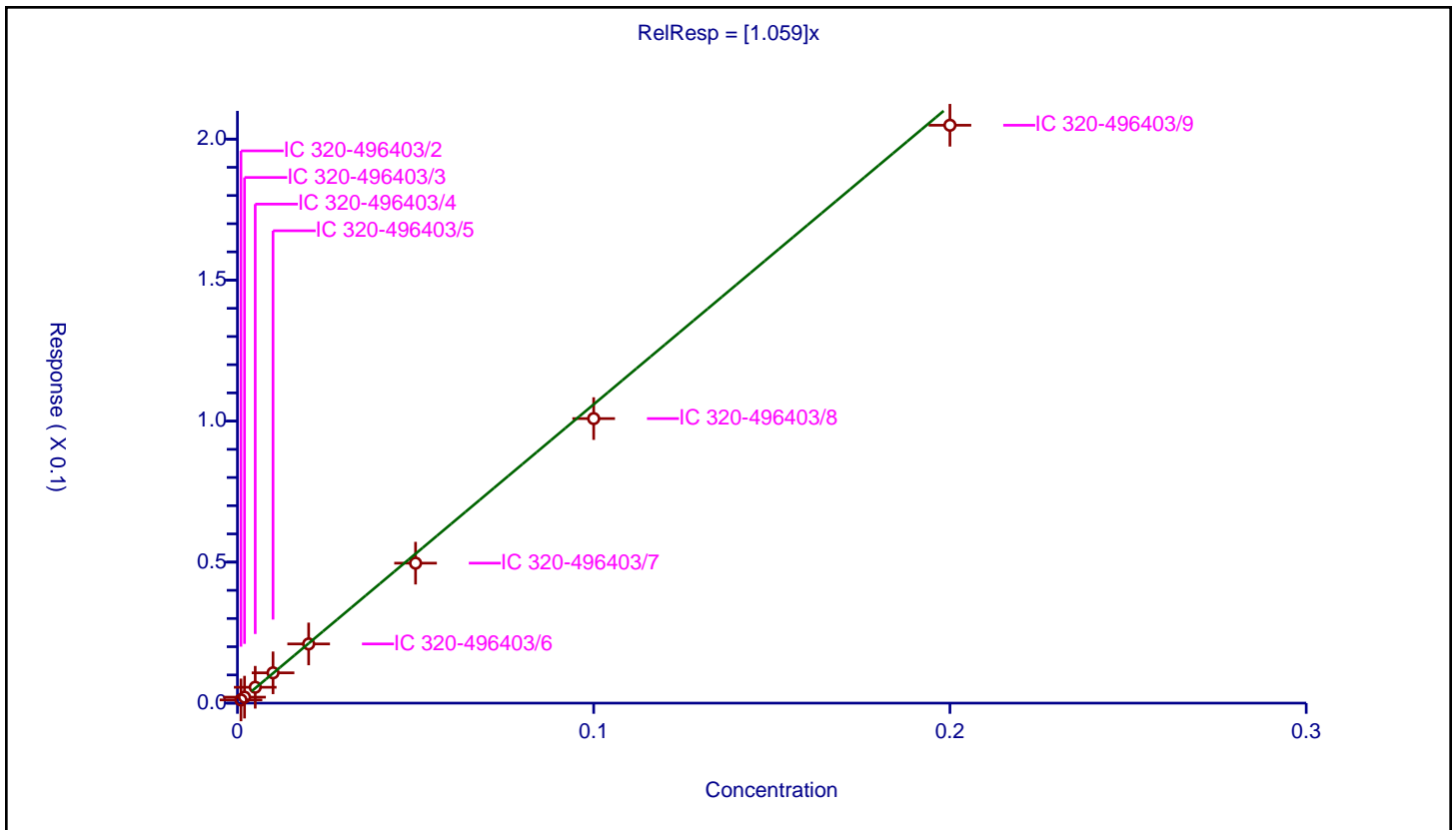
/ Perfluorohexanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.059

Error Coefficients	
Standard Error:	2840000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.001139	0.05	1588620.0	1.138598	Y
2	IC 320-496403/3	0.002	0.002123	0.05	1699996.0	1.061385	Y
3	IC 320-496403/4	0.005	0.005625	0.05	1627229.0	1.124968	Y
4	IC 320-496403/5	0.01	0.010743	0.05	1592138.0	1.074294	Y
5	IC 320-496403/6	0.02	0.020988	0.05	1700795.0	1.04939	Y
6	IC 320-496403/7	0.05	0.049636	0.05	1649991.0	0.992721	Y
7	IC 320-496403/8	0.1	0.100891	0.05	1569487.0	1.008914	Y
8	IC 320-496403/9	0.2	0.20491	0.05	1600787.0	1.024548	Y



**Calibration**

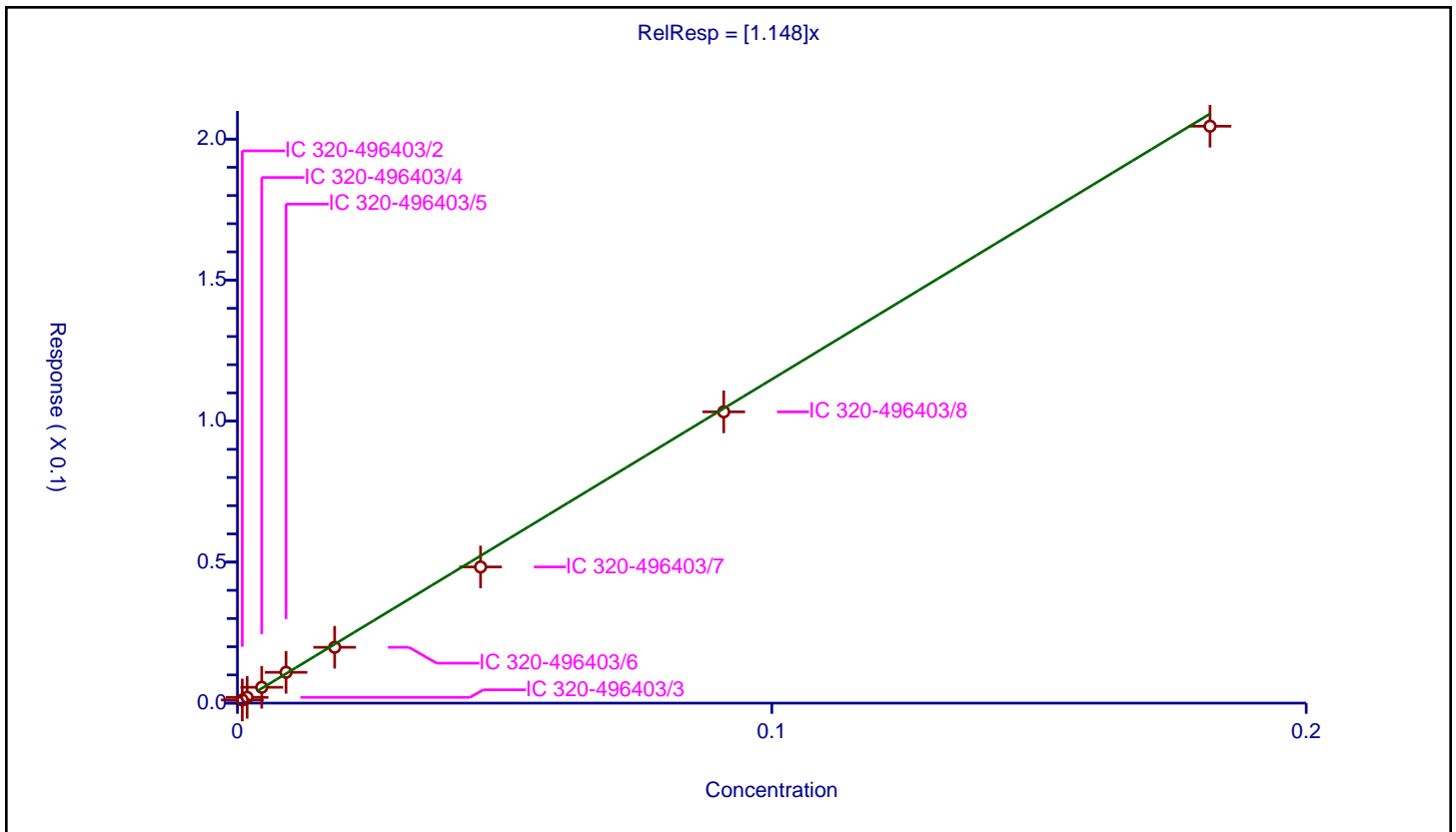
/ Perfluorohexanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.148

Error Coefficients	
Standard Error:	2430000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.00091	0.00111	0.0473	1237298.0	1.220244	Y
2	IC 320-496403/3	0.00182	0.002044	0.0473	1301531.0	1.123222	Y
3	IC 320-496403/4	0.00455	0.005614	0.0473	1352273.0	1.233929	Y
4	IC 320-496403/5	0.0091	0.010919	0.0473	1344025.0	1.199943	Y
5	IC 320-496403/6	0.0182	0.0198	0.0473	1373630.0	1.087924	Y
6	IC 320-496403/7	0.0455	0.048278	0.0473	1380748.0	1.061064	Y
7	IC 320-496403/8	0.091	0.103293	0.0473	1248615.0	1.135091	Y
8	IC 320-496403/9	0.182	0.204567	0.0473	1297304.0	1.123995	Y



**Calibration**

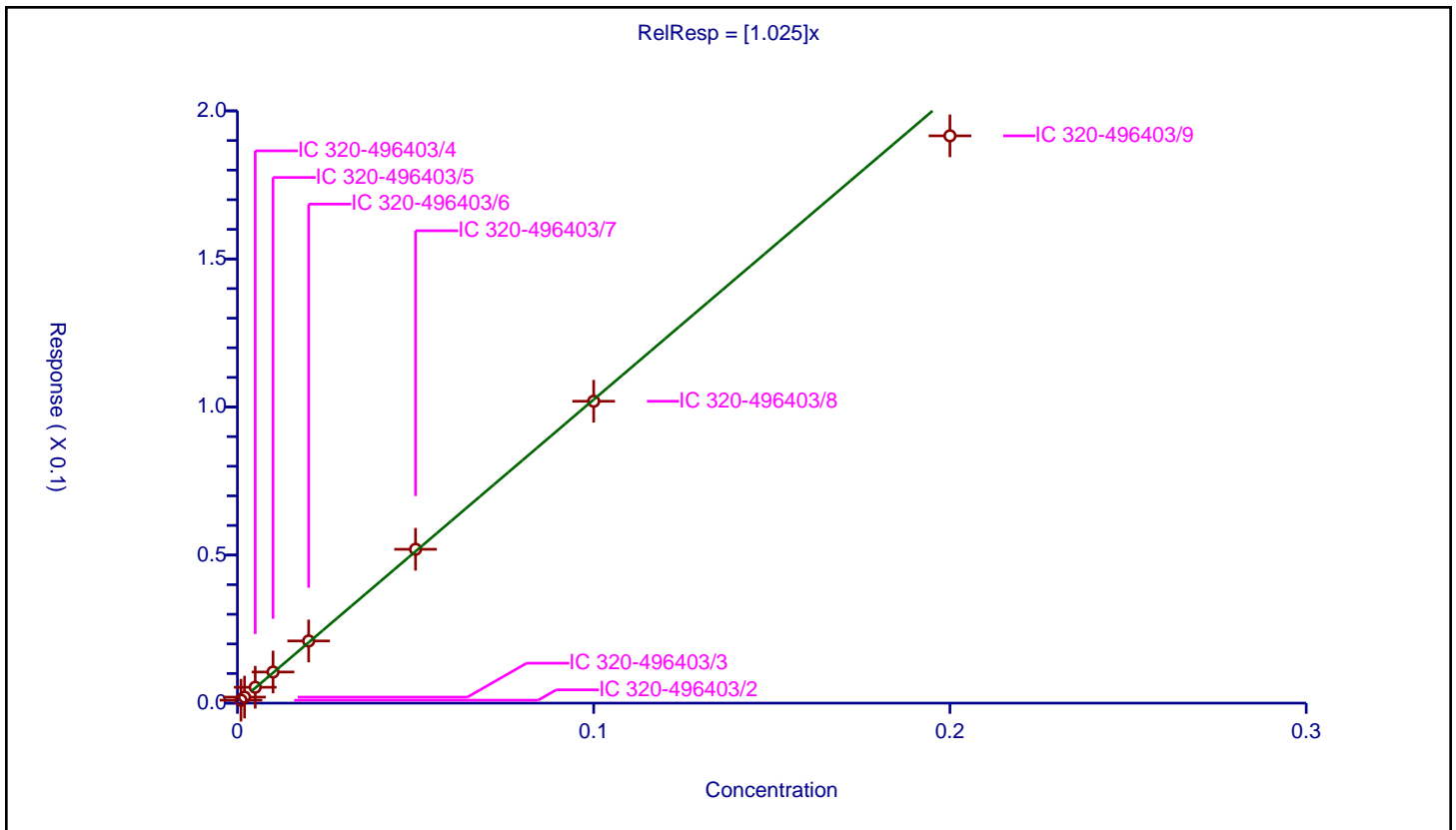
/ Perfluoroheptanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.025

Error Coefficients	
Standard Error:	3180000
Relative Standard Error:	3.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000993	0.05	1823353.0	0.993472	Y
2	IC 320-496403/3	0.002	0.002038	0.05	1942591.0	1.019129	Y
3	IC 320-496403/4	0.005	0.005357	0.05	2156967.0	1.071379	Y
4	IC 320-496403/5	0.01	0.010506	0.05	2065733.0	1.05061	Y
5	IC 320-496403/6	0.02	0.020994	0.05	1828597.0	1.049721	Y
6	IC 320-496403/7	0.05	0.051953	0.05	1926415.0	1.039056	Y
7	IC 320-496403/8	0.1	0.101948	0.05	1821901.0	1.019476	Y
8	IC 320-496403/9	0.2	0.191571	0.05	1881167.0	0.957857	Y





**Calibration**

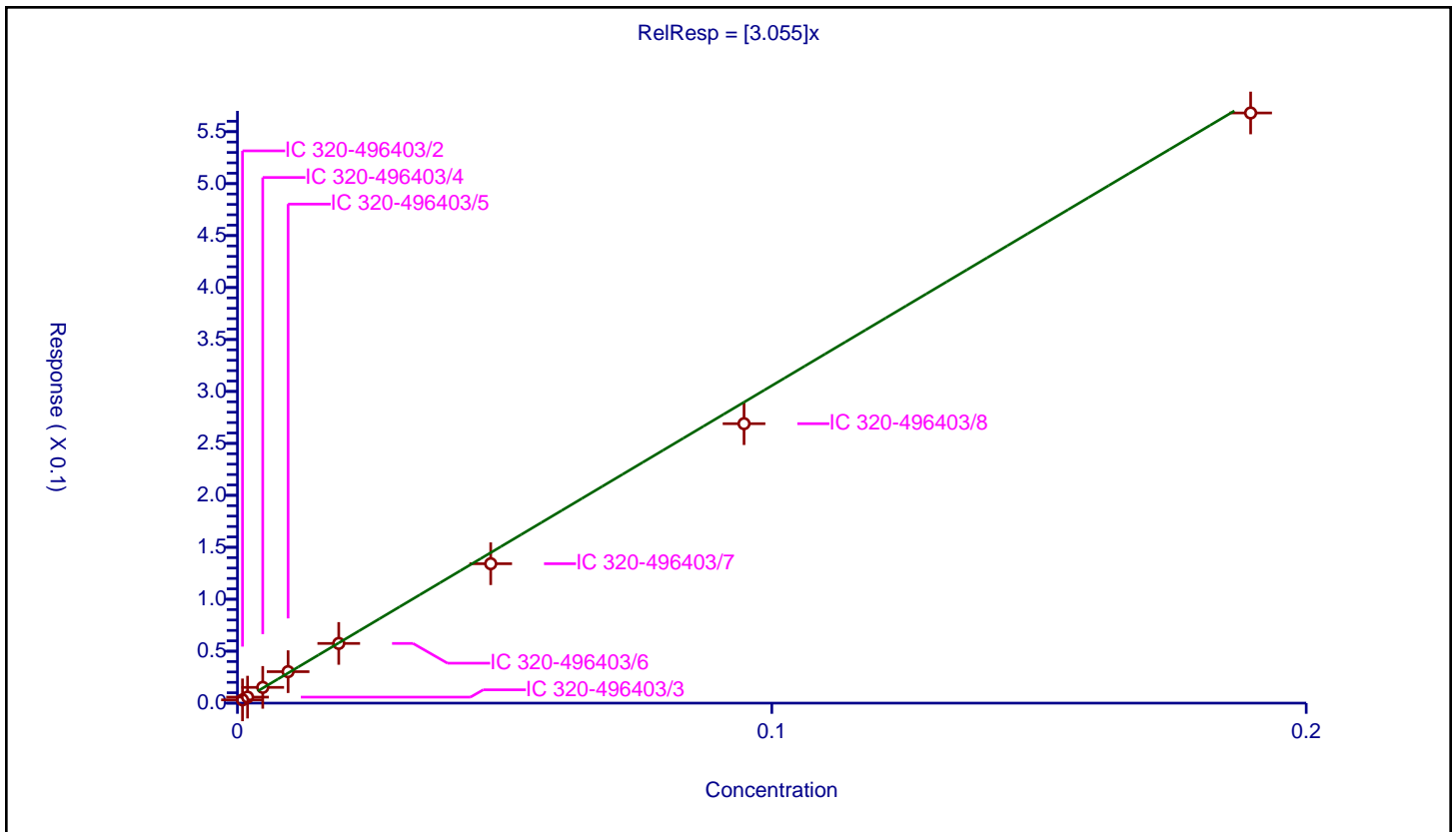
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.055

Error Coefficients	
Standard Error:	2010000
Relative Standard Error:	5.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000948	0.003141	0.0475	518984.0	3.313436	Y
2	IC 320-496403/3	0.001896	0.005775	0.0475	508425.0	3.045848	Y
3	IC 320-496403/4	0.00474	0.01515	0.0475	545000.0	3.196142	Y
4	IC 320-496403/5	0.00948	0.030275	0.0475	486822.0	3.193566	Y
5	IC 320-496403/6	0.01896	0.057451	0.0475	515179.0	3.0301	Y
6	IC 320-496403/7	0.0474	0.134173	0.0475	483822.0	2.830659	Y
7	IC 320-496403/8	0.0948	0.268955	0.0475	406943.0	2.837082	Y
8	IC 320-496403/9	0.1896	0.567998	0.0475	378867.0	2.995769	Y



Calibration

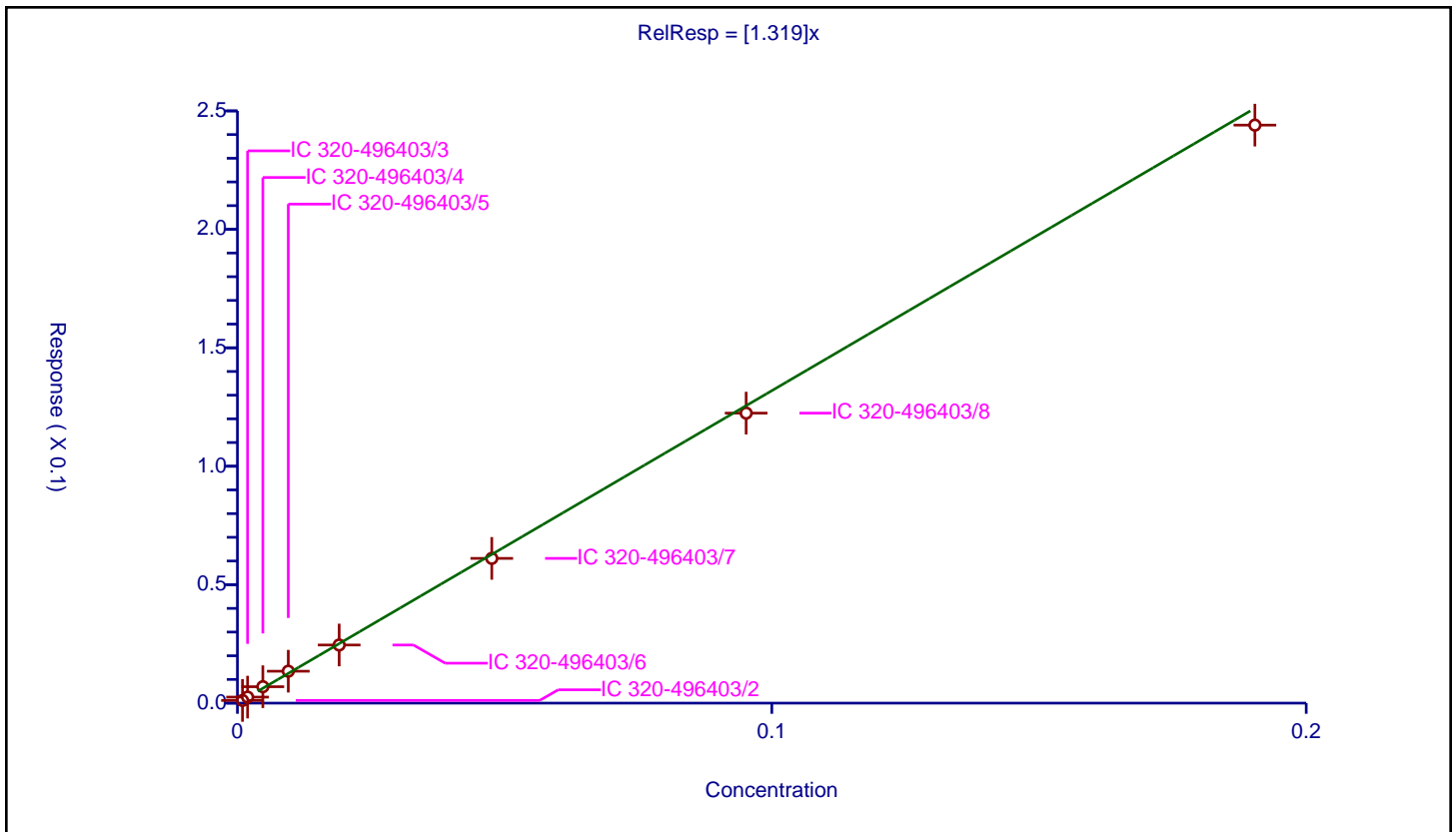
/ Perfluoroheptanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.319

Error Coefficients	
Standard Error:	2080000
Relative Standard Error:	6.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000952	0.001146	0.0478	881395.0	1.203989	Y
2	IC 320-496403/3	0.001904	0.002542	0.0478	890888.0	1.335271	Y
3	IC 320-496403/4	0.00476	0.006934	0.0478	917213.0	1.456762	Y
4	IC 320-496403/5	0.00952	0.013475	0.0478	850557.0	1.415475	Y
5	IC 320-496403/6	0.01904	0.024538	0.0478	998035.0	1.288767	Y
6	IC 320-496403/7	0.0476	0.061102	0.0478	1023496.0	1.283653	Y
7	IC 320-496403/8	0.0952	0.122411	0.0478	939361.0	1.285835	Y
8	IC 320-496403/9	0.1904	0.243991	0.0478	930409.0	1.281465	Y



**Calibration**

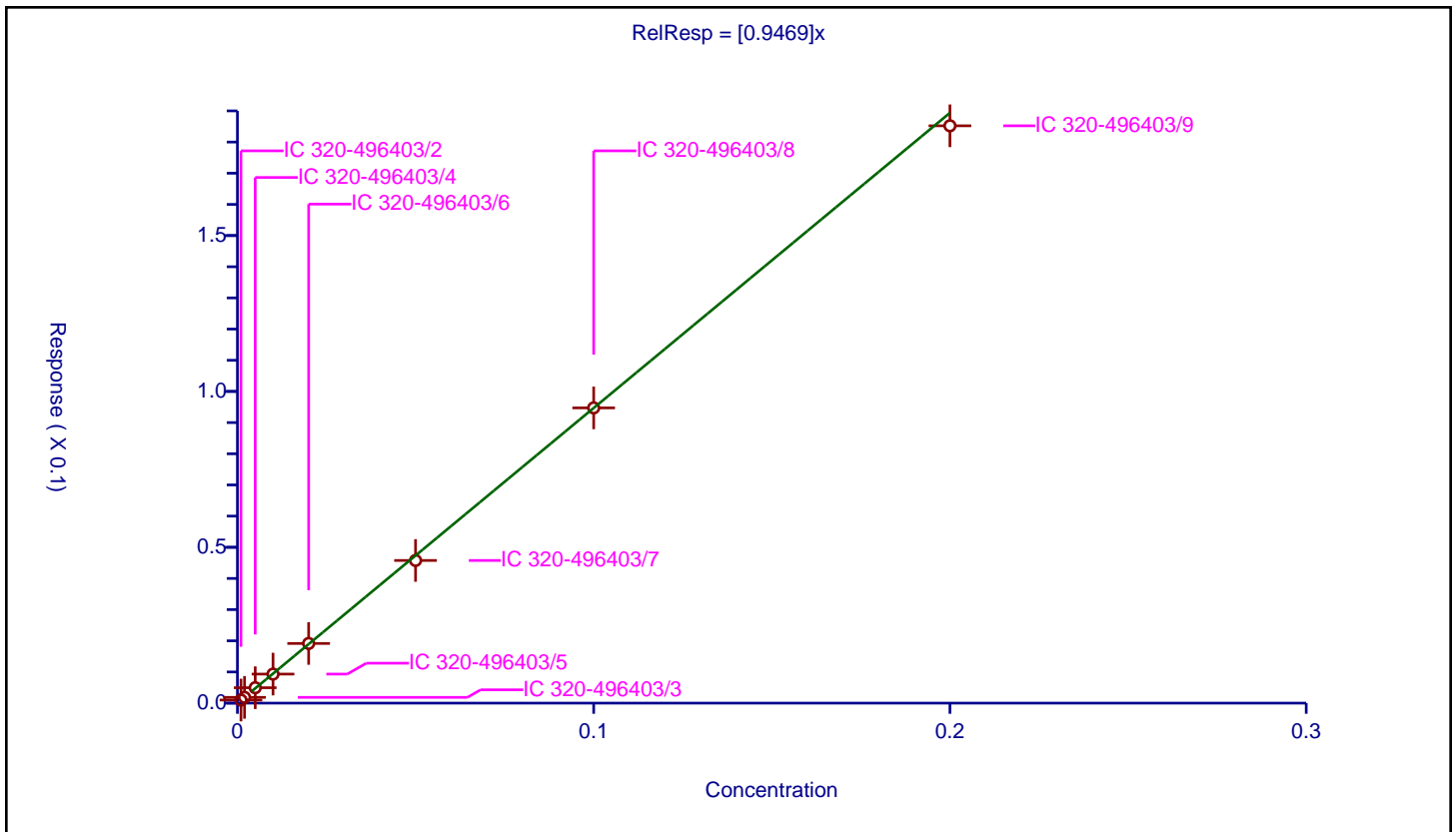
/ Perfluorooctanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9469

Error Coefficients	
Standard Error:	4280000
Relative Standard Error:	2.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000984	0.05	2916281.0	0.984027	Y
2	IC 320-496403/3	0.002	0.00185	0.05	2948744.0	0.924843	Y
3	IC 320-496403/4	0.005	0.00494	0.05	2991897.0	0.987985	Y
4	IC 320-496403/5	0.01	0.00932	0.05	2827946.0	0.931982	Y
5	IC 320-496403/6	0.02	0.019146	0.05	2904655.0	0.957319	Y
6	IC 320-496403/7	0.05	0.04577	0.05	2992428.0	0.91539	Y
7	IC 320-496403/8	0.1	0.094717	0.05	2583177.0	0.947171	Y
8	IC 320-496403/9	0.2	0.185219	0.05	2636705.0	0.926096	Y



**Calibration**

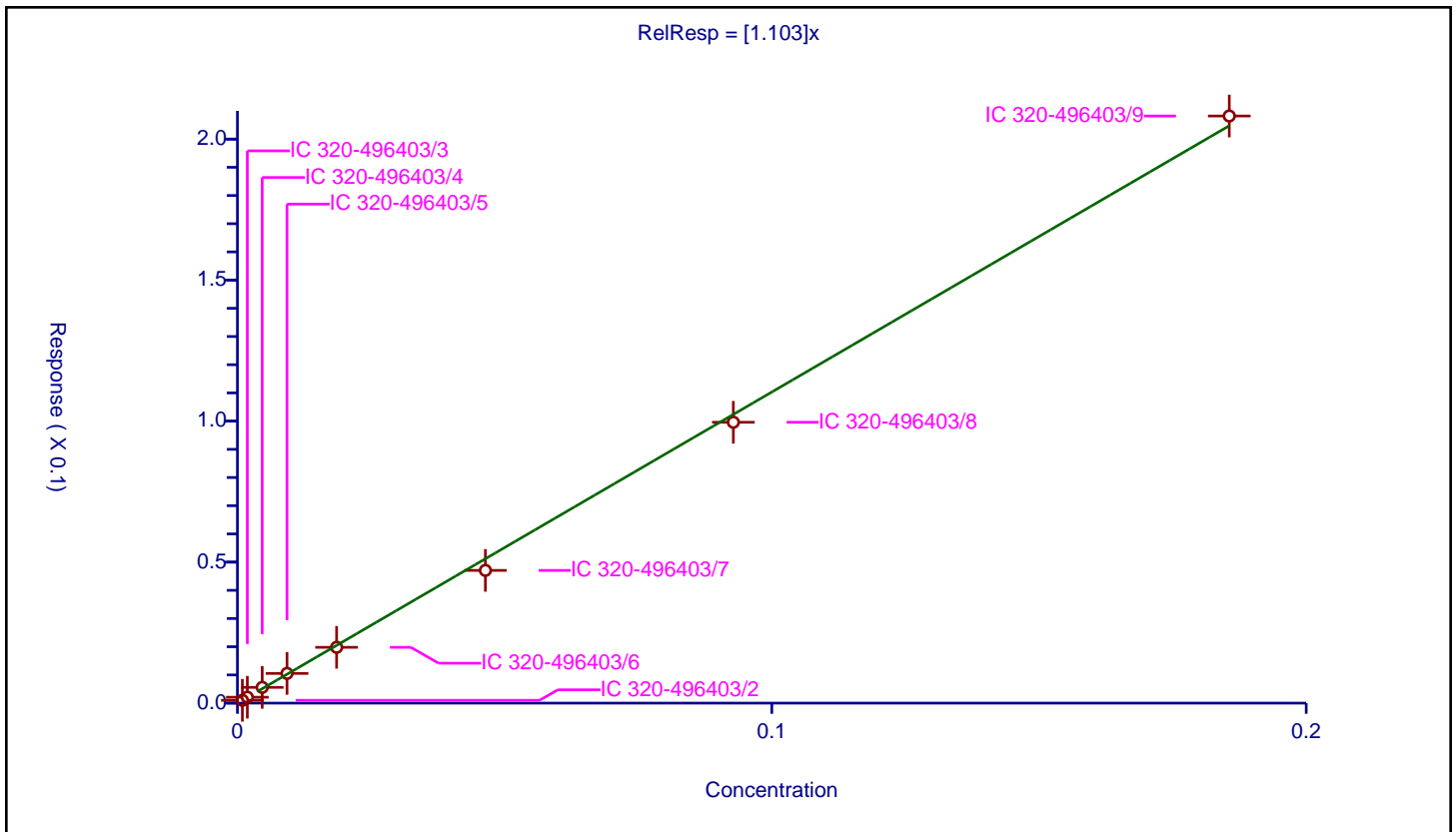
/ Perfluorooctanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.103

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000928	0.001004	0.0478	881395.0	1.081488	Y
2	IC 320-496403/3	0.001856	0.002095	0.0478	890888.0	1.128736	Y
3	IC 320-496403/4	0.00464	0.005588	0.0478	917213.0	1.204314	Y
4	IC 320-496403/5	0.00928	0.010532	0.0478	850557.0	1.134888	Y
5	IC 320-496403/6	0.01856	0.019786	0.0478	998035.0	1.066078	Y
6	IC 320-496403/7	0.0464	0.047066	0.0478	1023496.0	1.014356	Y
7	IC 320-496403/8	0.0928	0.099595	0.0478	939361.0	1.073217	Y
8	IC 320-496403/9	0.1856	0.208182	0.0478	930409.0	1.121672	Y



**Calibration**

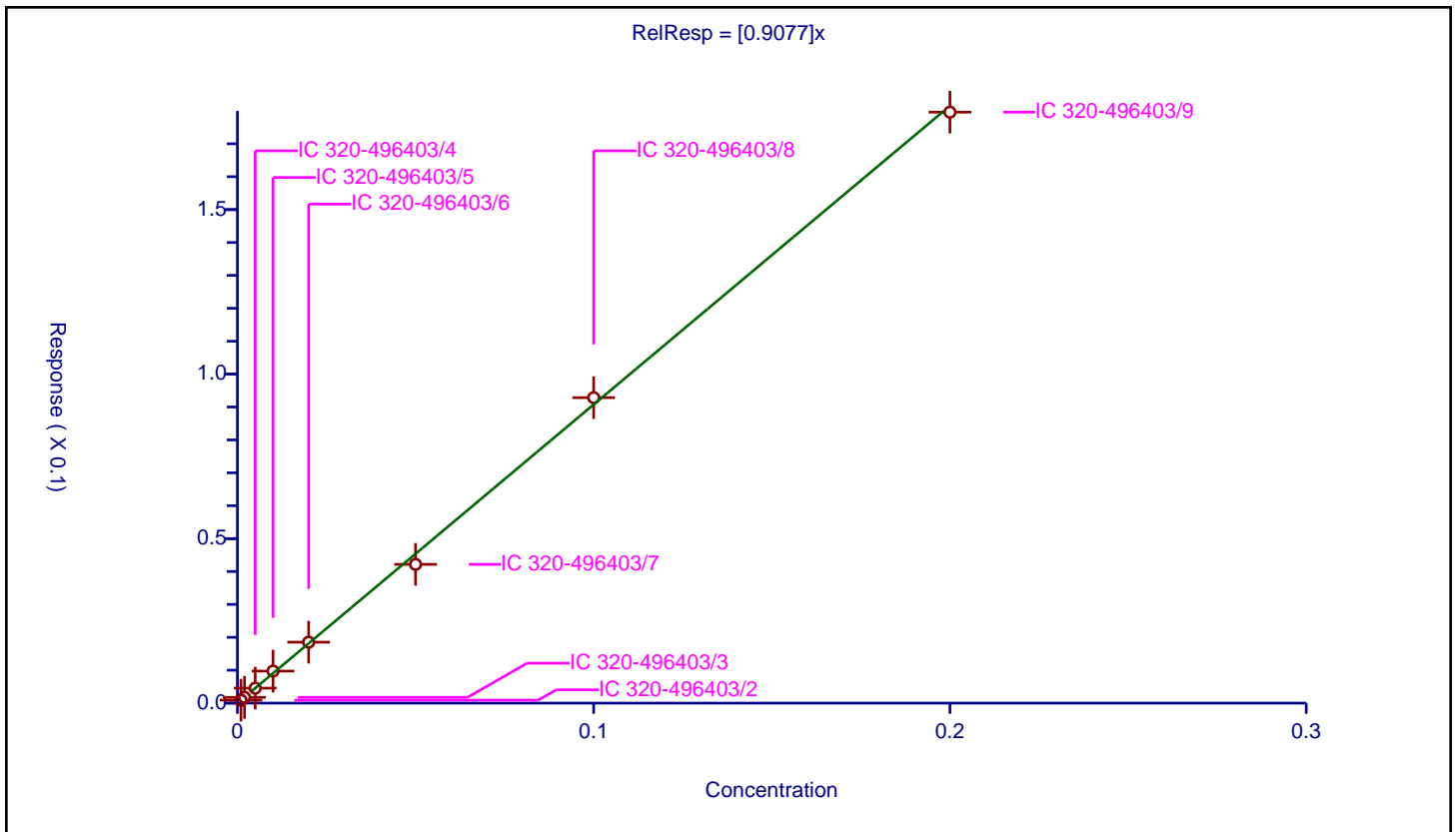
/ Perfluorononanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9077

Error Coefficients	
Standard Error:	3670000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000905	0.05	2374892.0	0.904589	Y
2	IC 320-496403/3	0.002	0.001749	0.05	2474895.0	0.87433	Y
3	IC 320-496403/4	0.005	0.004558	0.05	2496799.0	0.911531	Y
4	IC 320-496403/5	0.01	0.009745	0.05	2304299.0	0.974498	Y
5	IC 320-496403/6	0.02	0.018526	0.05	2612868.0	0.926312	Y
6	IC 320-496403/7	0.05	0.042173	0.05	2573939.0	0.84346	Y
7	IC 320-496403/8	0.1	0.092843	0.05	2260672.0	0.928429	Y
8	IC 320-496403/9	0.2	0.179615	0.05	2341546.0	0.898073	Y



**Calibration**

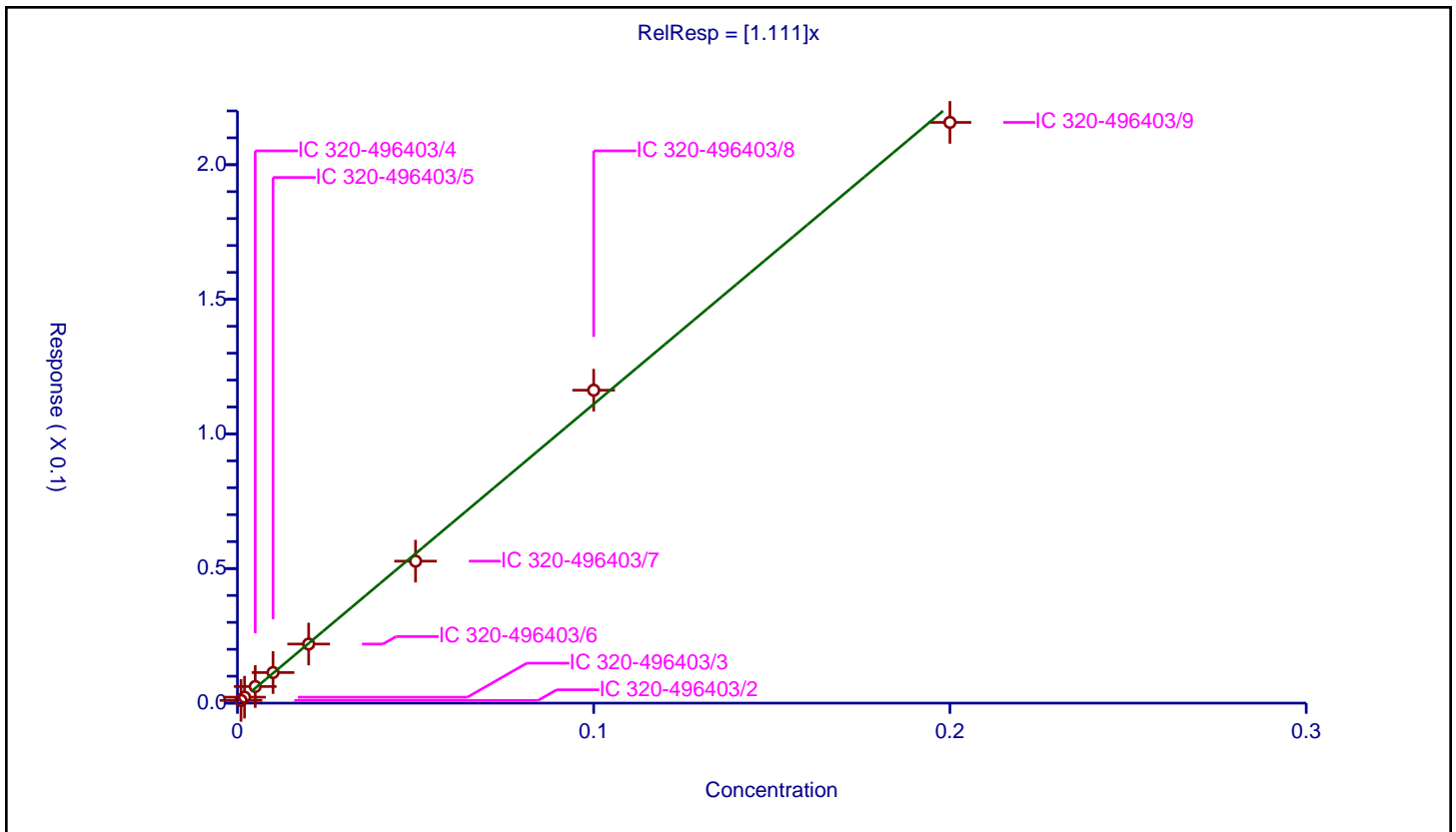
**/ Perfluorooctanesulfonamide**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.111

Error Coefficients	
Standard Error:	1930000
Relative Standard Error:	6.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.001016	0.05	1246212.0	1.016079	Y
2	IC 320-496403/3	0.002	0.002211	0.05	1408729.0	1.105465	Y
3	IC 320-496403/4	0.005	0.006173	0.05	1065060.0	1.234682	Y
4	IC 320-496403/5	0.01	0.011361	0.05	1138983.0	1.136097	Y
5	IC 320-496403/6	0.02	0.021947	0.05	1037398.0	1.097344	Y
6	IC 320-496403/7	0.05	0.052737	0.05	1316643.0	1.054736	Y
7	IC 320-496403/8	0.1	0.116241	0.05	1007682.0	1.16241	Y
8	IC 320-496403/9	0.2	0.215724	0.05	992564.0	1.078618	Y



**Calibration**

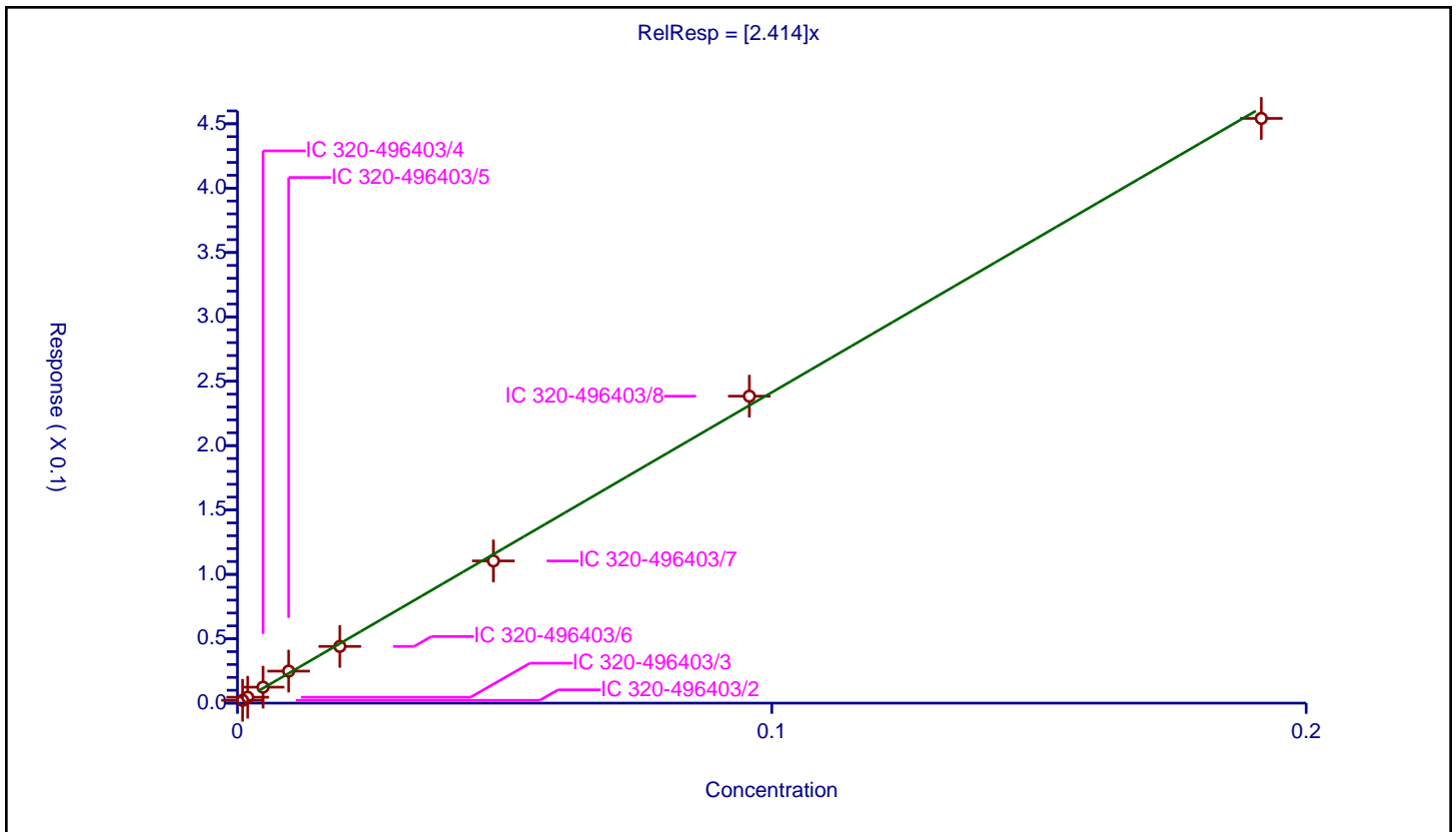
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.414

Error Coefficients	
Standard Error:	1480000
Relative Standard Error:	5.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000958	0.002176	0.0479	421811.0	2.271041	Y
2	IC 320-496403/3	0.001916	0.004581	0.0479	425016.0	2.391145	Y
3	IC 320-496403/4	0.00479	0.012403	0.0479	434930.0	2.589313	Y
4	IC 320-496403/5	0.00958	0.024847	0.0479	385356.0	2.593615	Y
5	IC 320-496403/6	0.01916	0.044058	0.0479	439527.0	2.299489	Y
6	IC 320-496403/7	0.0479	0.11044	0.0479	396603.0	2.305631	Y
7	IC 320-496403/8	0.0958	0.238432	0.0479	357977.0	2.488855	Y
8	IC 320-496403/9	0.1916	0.454163	0.0479	352482.0	2.370369	Y



**Calibration**

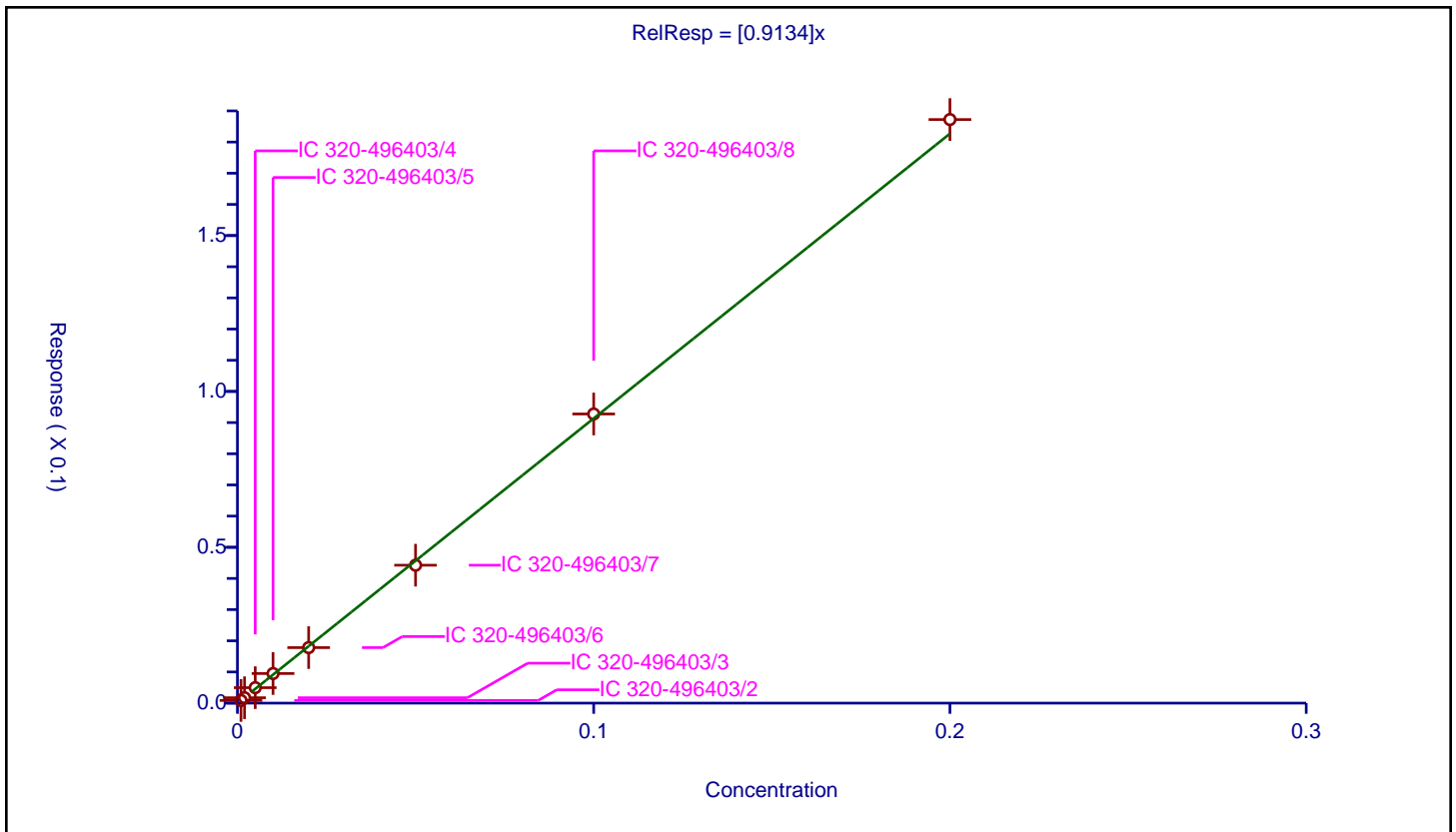
/ Perfluorodecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9134

Error Coefficients	
Standard Error:	3490000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000861	0.05	2126382.0	0.860828	Y
2	IC 320-496403/3	0.002	0.001732	0.05	2245864.0	0.865803	Y
3	IC 320-496403/4	0.005	0.004961	0.05	2244776.0	0.992166	Y
4	IC 320-496403/5	0.01	0.009496	0.05	2129413.0	0.94959	Y
5	IC 320-496403/6	0.02	0.01781	0.05	2357433.0	0.890483	Y
6	IC 320-496403/7	0.05	0.044245	0.05	2294936.0	0.884896	Y
7	IC 320-496403/8	0.1	0.092761	0.05	2107264.0	0.927611	Y
8	IC 320-496403/9	0.2	0.187226	0.05	2149874.0	0.936131	Y





**Calibration**

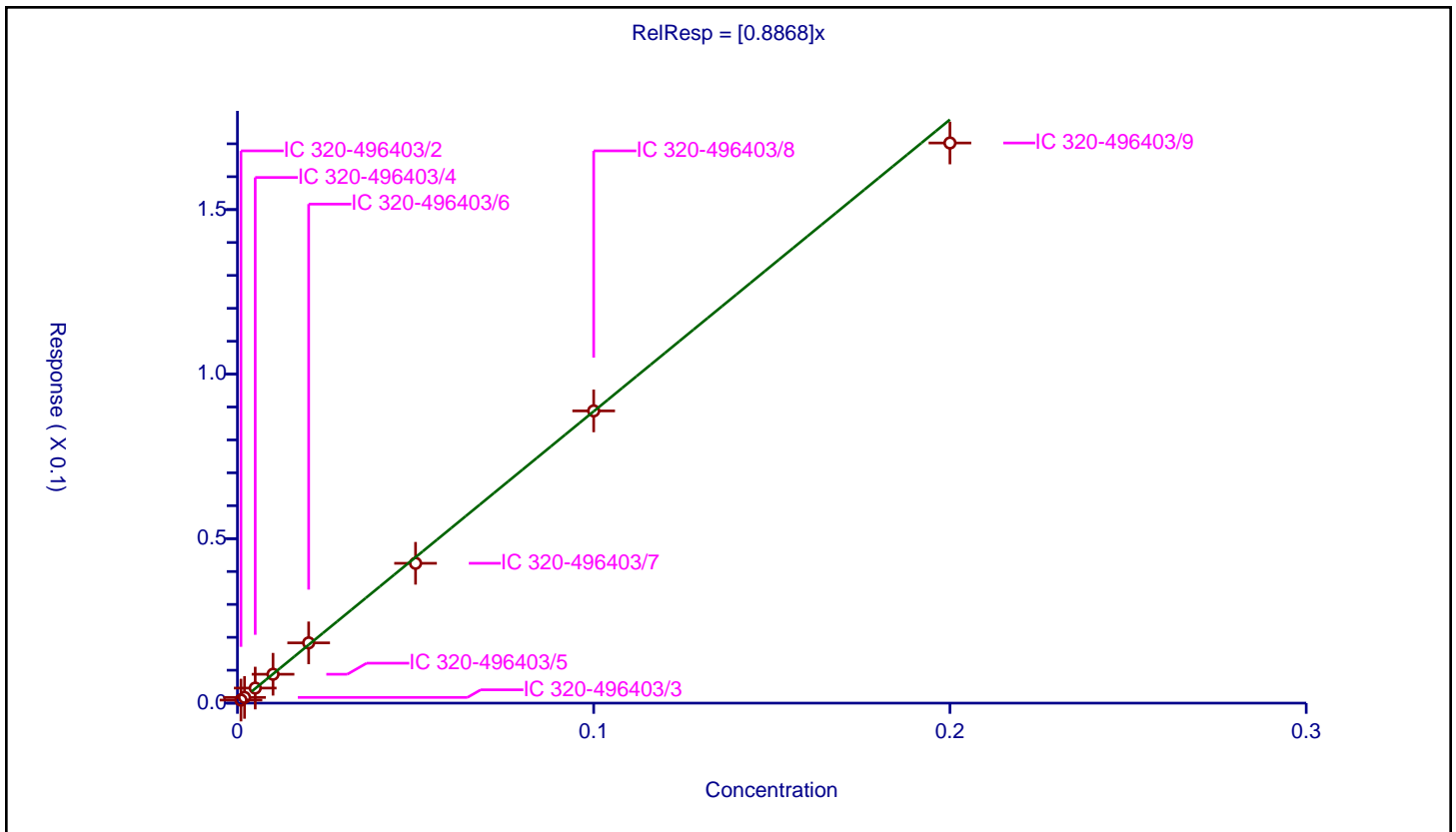
**/ N-methylperfluorooctanesulfonamidoacetic acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.8868

Error Coefficients	
Standard Error:	1200000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000928	0.05	767195.0	0.927535	Y
2	IC 320-496403/3	0.002	0.001734	0.05	775607.0	0.866966	Y
3	IC 320-496403/4	0.005	0.004581	0.05	837425.0	0.916178	Y
4	IC 320-496403/5	0.01	0.008783	0.05	800595.0	0.878253	Y
5	IC 320-496403/6	0.02	0.018314	0.05	785480.0	0.915708	Y
6	IC 320-496403/7	0.05	0.0425	0.05	822671.0	0.850004	Y
7	IC 320-496403/8	0.1	0.088823	0.05	796835.0	0.888225	Y
8	IC 320-496403/9	0.2	0.170248	0.05	802095.0	0.851242	Y



**Calibration**

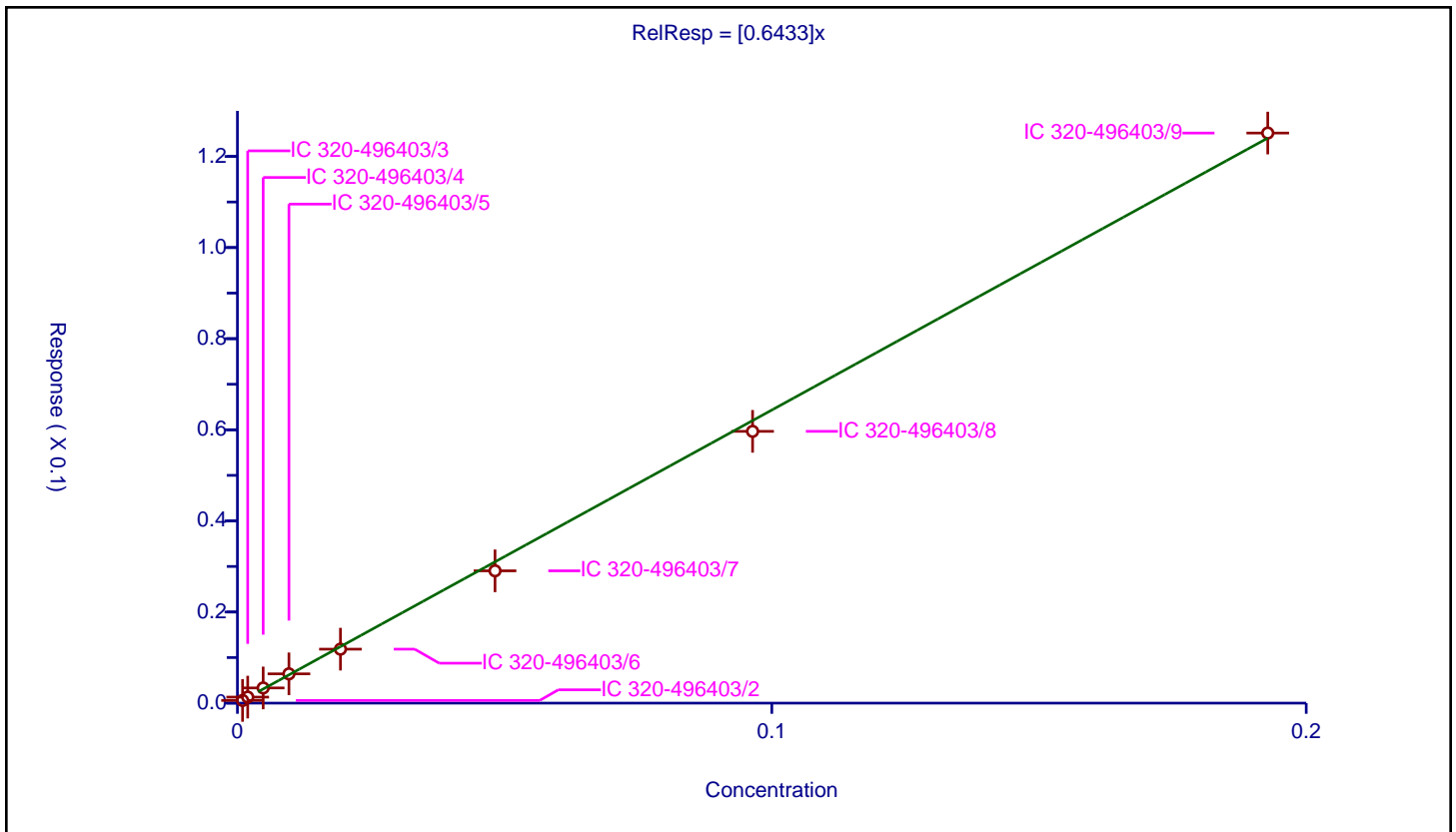
/ Perfluorodecanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6433

Error Coefficients	
Standard Error:	1050000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.000964	0.000595	0.0478	881395.0	0.616863	Y
2	IC 320-496403/3	0.001928	0.001324	0.0478	890888.0	0.686542	Y
3	IC 320-496403/4	0.00482	0.003333	0.0478	917213.0	0.691554	Y
4	IC 320-496403/5	0.00964	0.006429	0.0478	850557.0	0.66692	Y
5	IC 320-496403/6	0.01928	0.011845	0.0478	998035.0	0.614349	Y
6	IC 320-496403/7	0.0482	0.029042	0.0478	1023496.0	0.602528	Y
7	IC 320-496403/8	0.0964	0.059655	0.0478	939361.0	0.618829	Y
8	IC 320-496403/9	0.1928	0.125136	0.0478	930409.0	0.649048	Y



**Calibration**

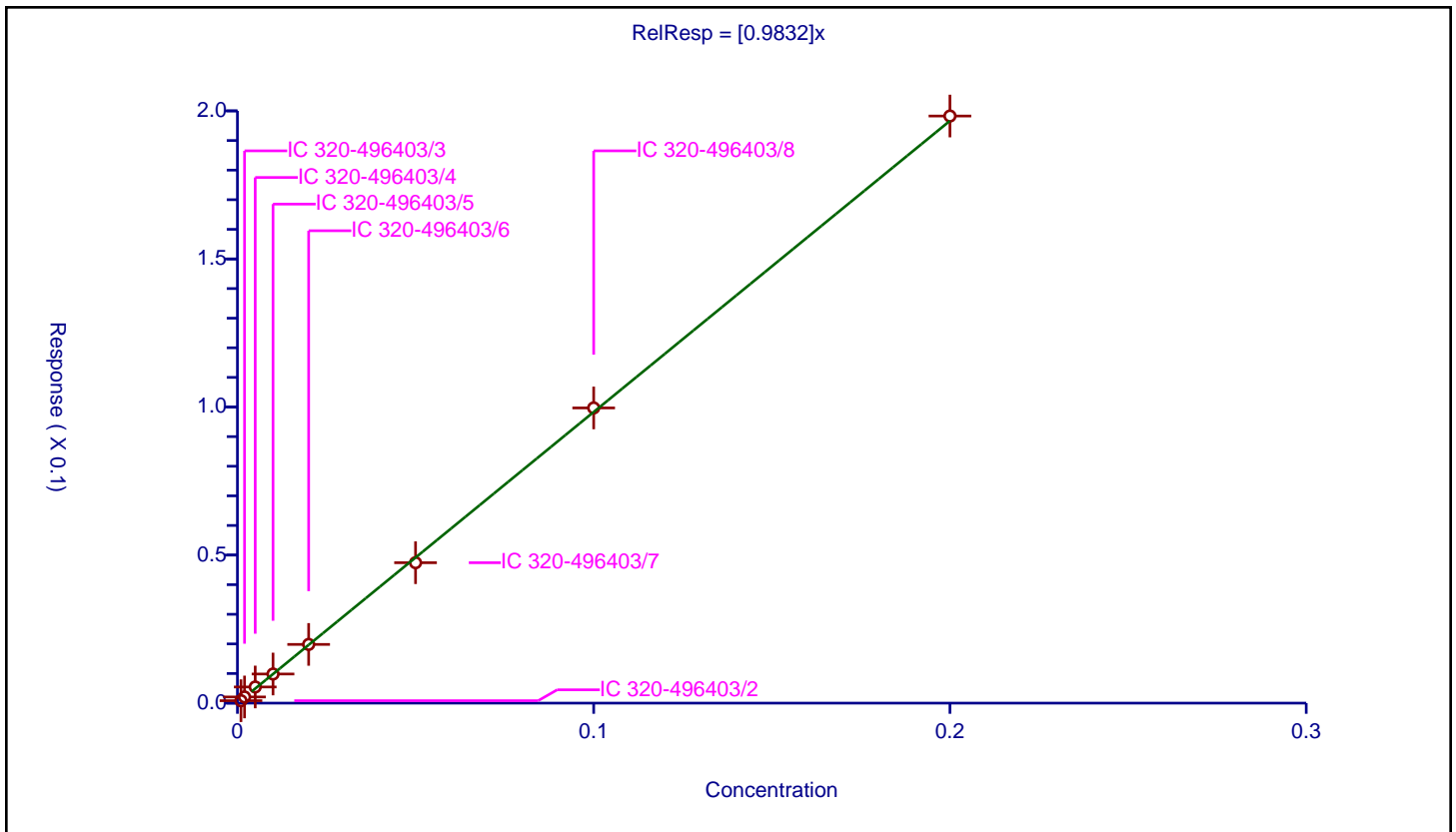
/ Perfluoroundecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9832

Error Coefficients	
Standard Error:	3330000
Relative Standard Error:	7.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000822	0.05	1959814.0	0.822195	Y
2	IC 320-496403/3	0.002	0.00208	0.05	1947911.0	1.040089	Y
3	IC 320-496403/4	0.005	0.005457	0.05	2026727.0	1.091499	Y
4	IC 320-496403/5	0.01	0.00984	0.05	1875520.0	0.983951	Y
5	IC 320-496403/6	0.02	0.019827	0.05	1984426.0	0.991365	Y
6	IC 320-496403/7	0.05	0.04742	0.05	2103168.0	0.948397	Y
7	IC 320-496403/8	0.1	0.099688	0.05	1870504.0	0.996882	Y
8	IC 320-496403/9	0.2	0.198264	0.05	1937854.0	0.991319	Y



**Calibration**

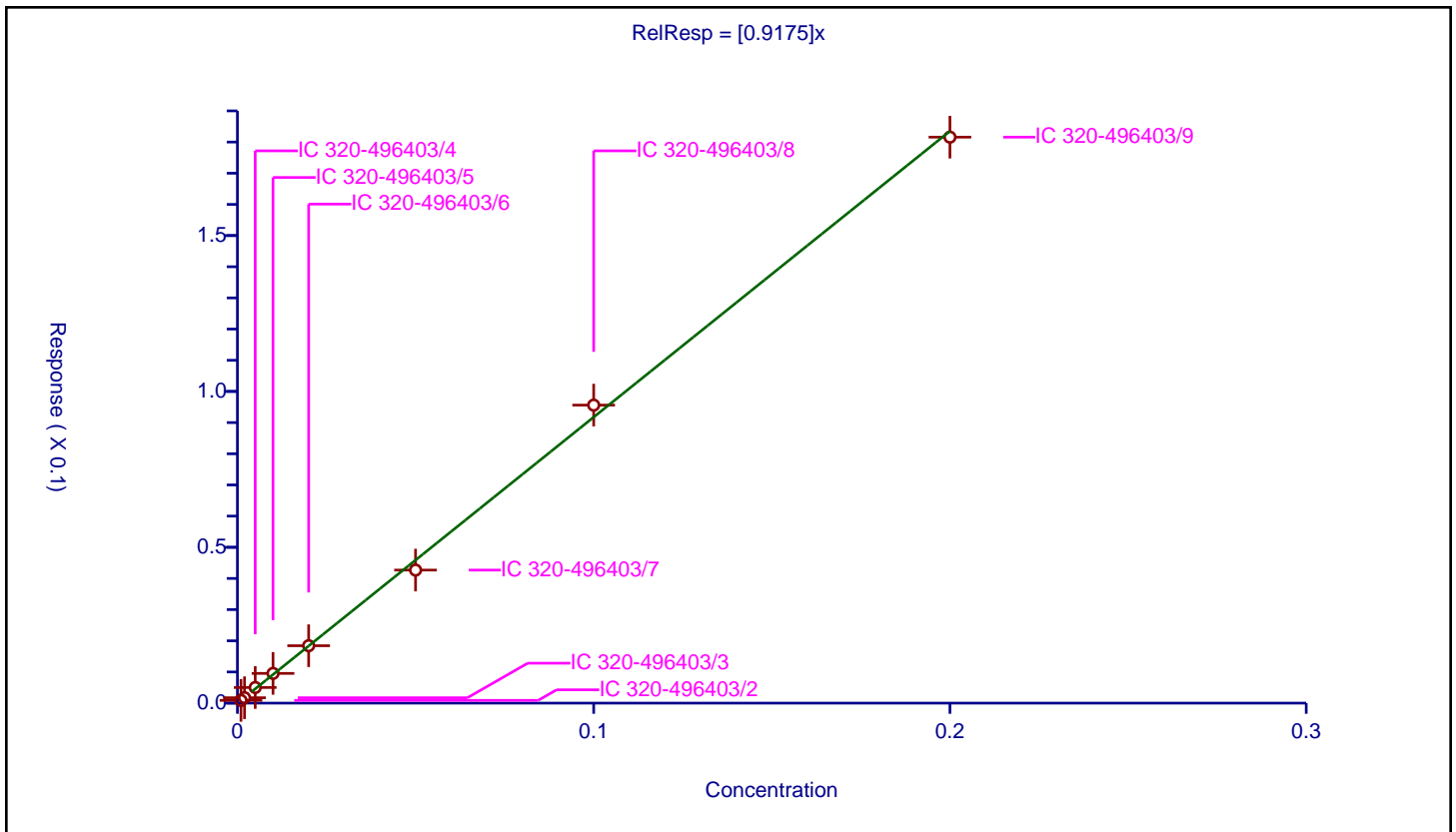
**/ N-ethylperfluorooctanesulfonamidoacetic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9175

Error Coefficients	
Standard Error:	1220000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000882	0.05	789012.0	0.881862	Y
2	IC 320-496403/3	0.002	0.001728	0.05	801675.0	0.864003	Y
3	IC 320-496403/4	0.005	0.005011	0.05	816078.0	1.00211	Y
4	IC 320-496403/5	0.01	0.009539	0.05	771324.0	0.953905	Y
5	IC 320-496403/6	0.02	0.01842	0.05	828340.0	0.920977	Y
6	IC 320-496403/7	0.05	0.04268	0.05	847540.0	0.853603	Y
7	IC 320-496403/8	0.1	0.095607	0.05	731797.0	0.956073	Y
8	IC 320-496403/9	0.2	0.181572	0.05	770415.0	0.90786	Y



**Calibration**

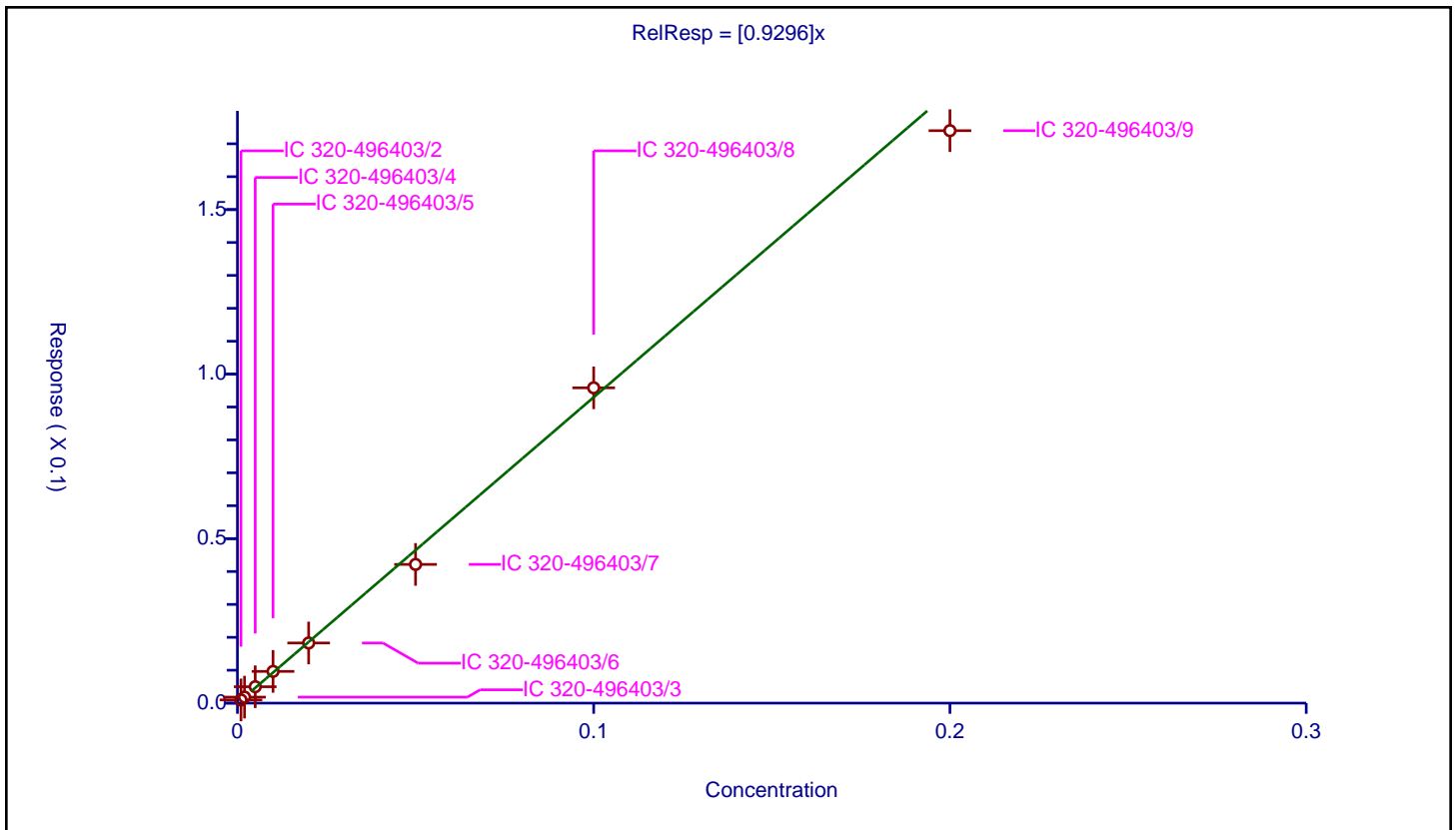
**/ Perfluorododecanoic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9296

Error Coefficients	
Standard Error:	3630000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000977	0.05	2164131.0	0.976558	Y
2	IC 320-496403/3	0.002	0.001827	0.05	2683986.0	0.913623	Y
3	IC 320-496403/4	0.005	0.004984	0.05	1987072.0	0.996738	Y
4	IC 320-496403/5	0.01	0.009646	0.05	1936400.0	0.964584	Y
5	IC 320-496403/6	0.02	0.018278	0.05	1972630.0	0.913904	Y
6	IC 320-496403/7	0.05	0.042158	0.05	2324809.0	0.843163	Y
7	IC 320-496403/8	0.1	0.095832	0.05	2215594.0	0.958324	Y
8	IC 320-496403/9	0.2	0.173985	0.05	2395183.0	0.869925	Y



**Calibration**

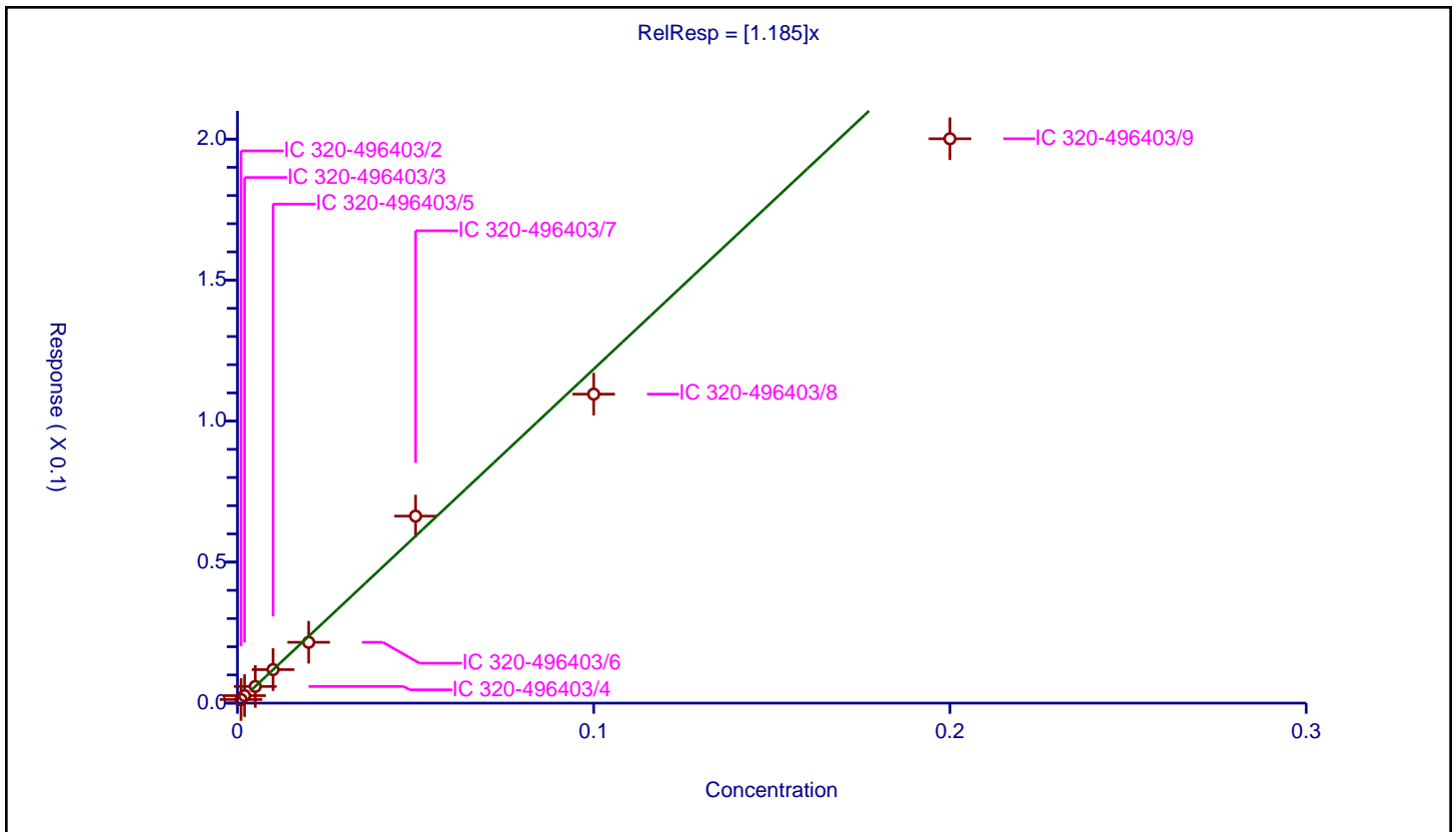
/ Perfluorotridecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.185

Error Coefficients	
Standard Error:	4240000
Relative Standard Error:	10.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.001276	0.05	2164131.0	1.275547	Y
2	IC 320-496403/3	0.002	0.002659	0.05	2683986.0	1.32931	Y
3	IC 320-496403/4	0.005	0.005906	0.05	1987072.0	1.181286	Y
4	IC 320-496403/5	0.01	0.011885	0.05	1936400.0	1.188528	Y
5	IC 320-496403/6	0.02	0.021576	0.05	1972630.0	1.078776	Y
6	IC 320-496403/7	0.05	0.066314	0.05	2324809.0	1.326283	Y
7	IC 320-496403/8	0.1	0.109568	0.05	2215594.0	1.09568	Y
8	IC 320-496403/9	0.2	0.20012	0.05	2395183.0	1.000601	Y



**Calibration**

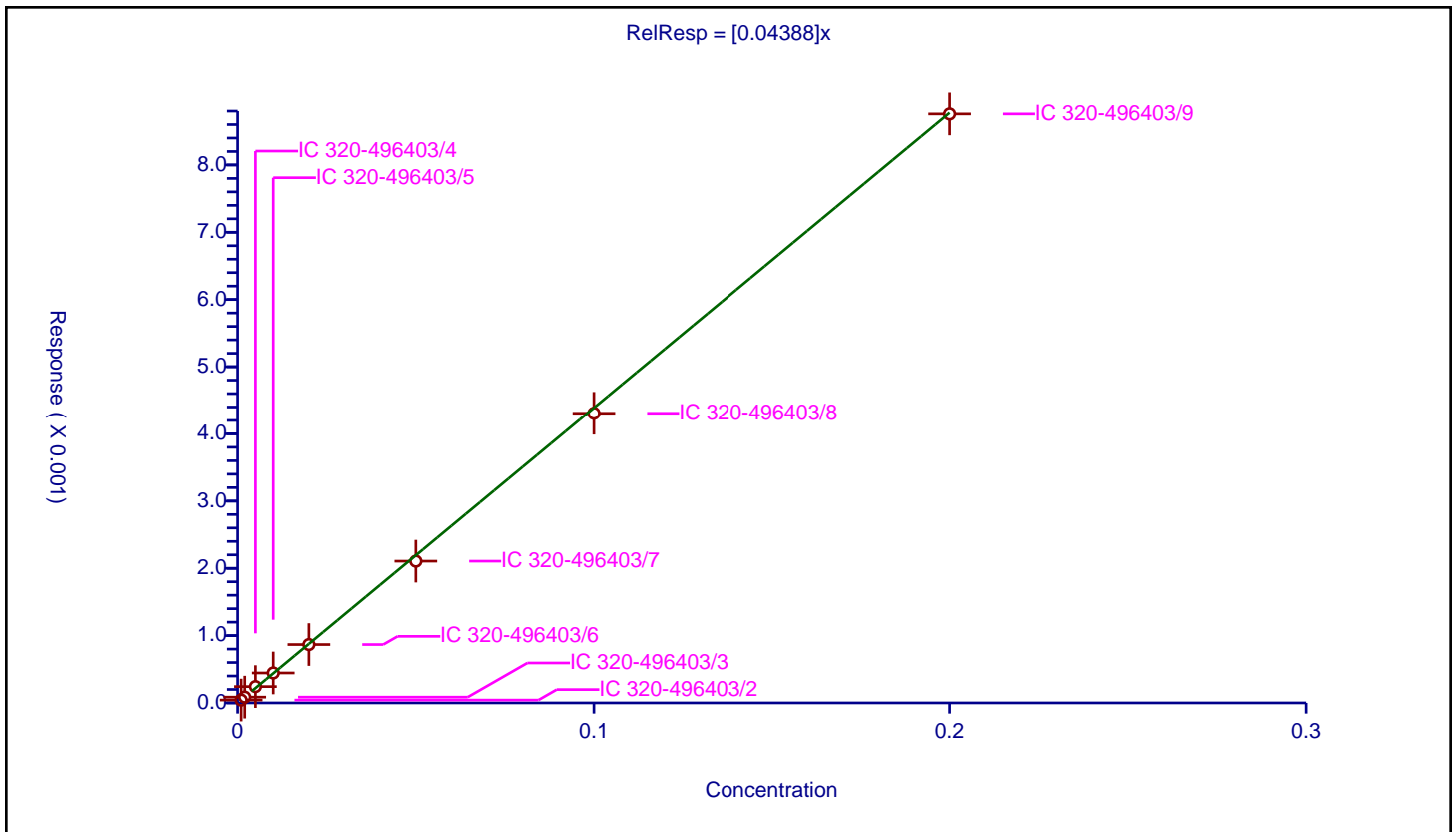
/ Perfluorotetradecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.04388

Error Coefficients	
Standard Error:	123000
Relative Standard Error:	4.5
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000043	0.05	2060416.0	0.042588	Y
2	IC 320-496403/3	0.002	0.000086	0.05	3407352.0	0.043105	Y
3	IC 320-496403/4	0.005	0.000242	0.05	1287251.0	0.048468	Y
4	IC 320-496403/5	0.01	0.000445	0.05	1309771.0	0.044519	Y
5	IC 320-496403/6	0.02	0.000867	0.05	1192578.0	0.043358	Y
6	IC 320-496403/7	0.05	0.002107	0.05	2310660.0	0.042139	Y
7	IC 320-496403/8	0.1	0.004307	0.05	1551364.0	0.04307	Y
8	IC 320-496403/9	0.2	0.008758	0.05	1586979.0	0.043791	Y



**Calibration**

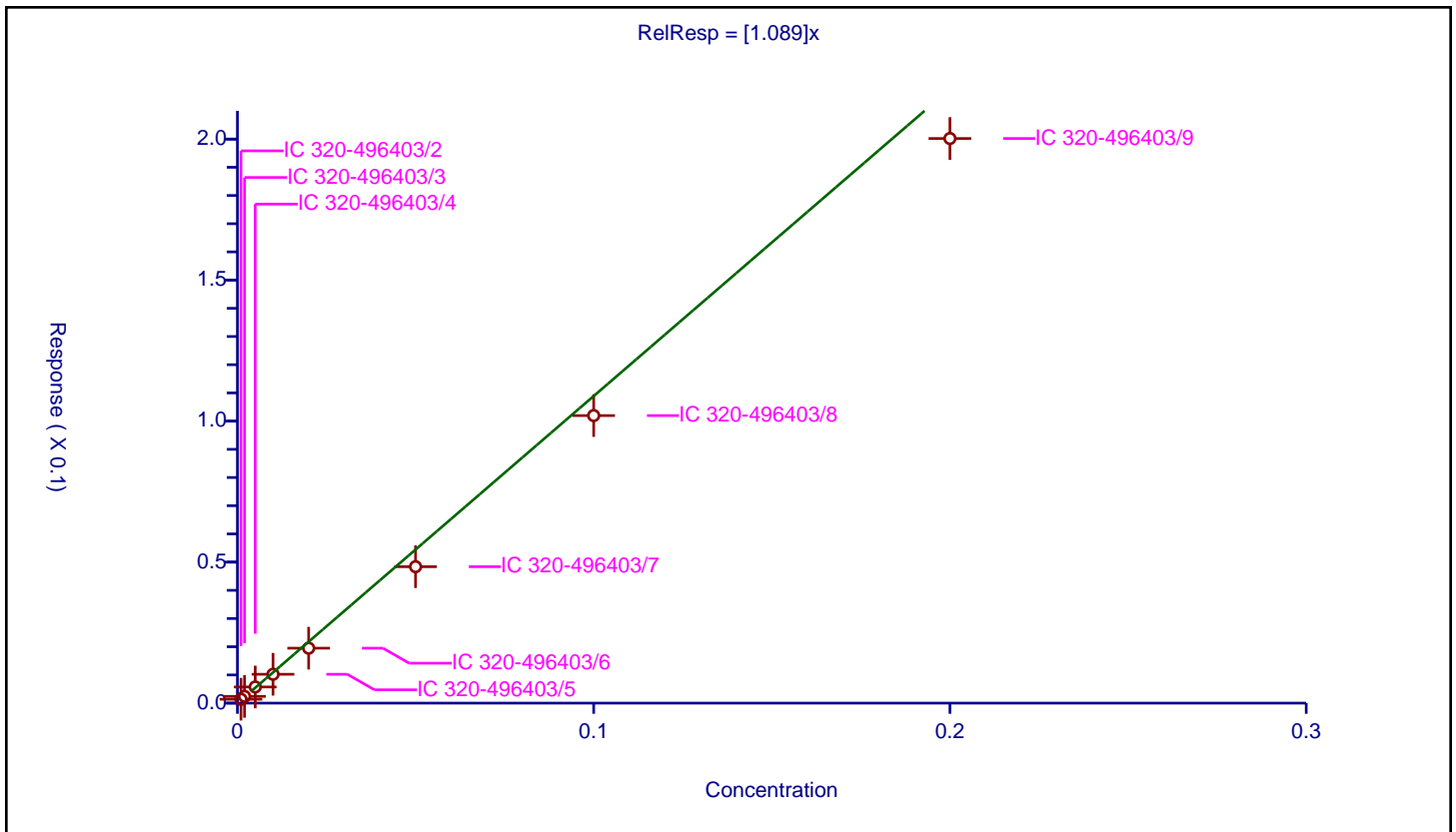
/ Perfluorohexadecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.089

Error Coefficients	
Standard Error:	1920000
Relative Standard Error:	13.3
Correlation Coefficient:	0.971
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.001385	0.05	1134388.0	1.384711	Y
2	IC 320-496403/3	0.002	0.002389	0.05	2597981.0	1.194668	Y
3	IC 320-496403/4	0.005	0.005725	0.05	789052.0	1.144906	Y
4	IC 320-496403/5	0.01	0.010235	0.05	586517.0	1.023466	Y
5	IC 320-496403/6	0.02	0.019489	0.05	1017905.0	0.97444	Y
6	IC 320-496403/7	0.05	0.048381	0.05	1764198.0	0.96762	Y
7	IC 320-496403/8	0.1	0.101961	0.05	925207.0	1.019605	Y
8	IC 320-496403/9	0.2	0.200211	0.05	1094089.0	1.001054	Y





**Calibration**

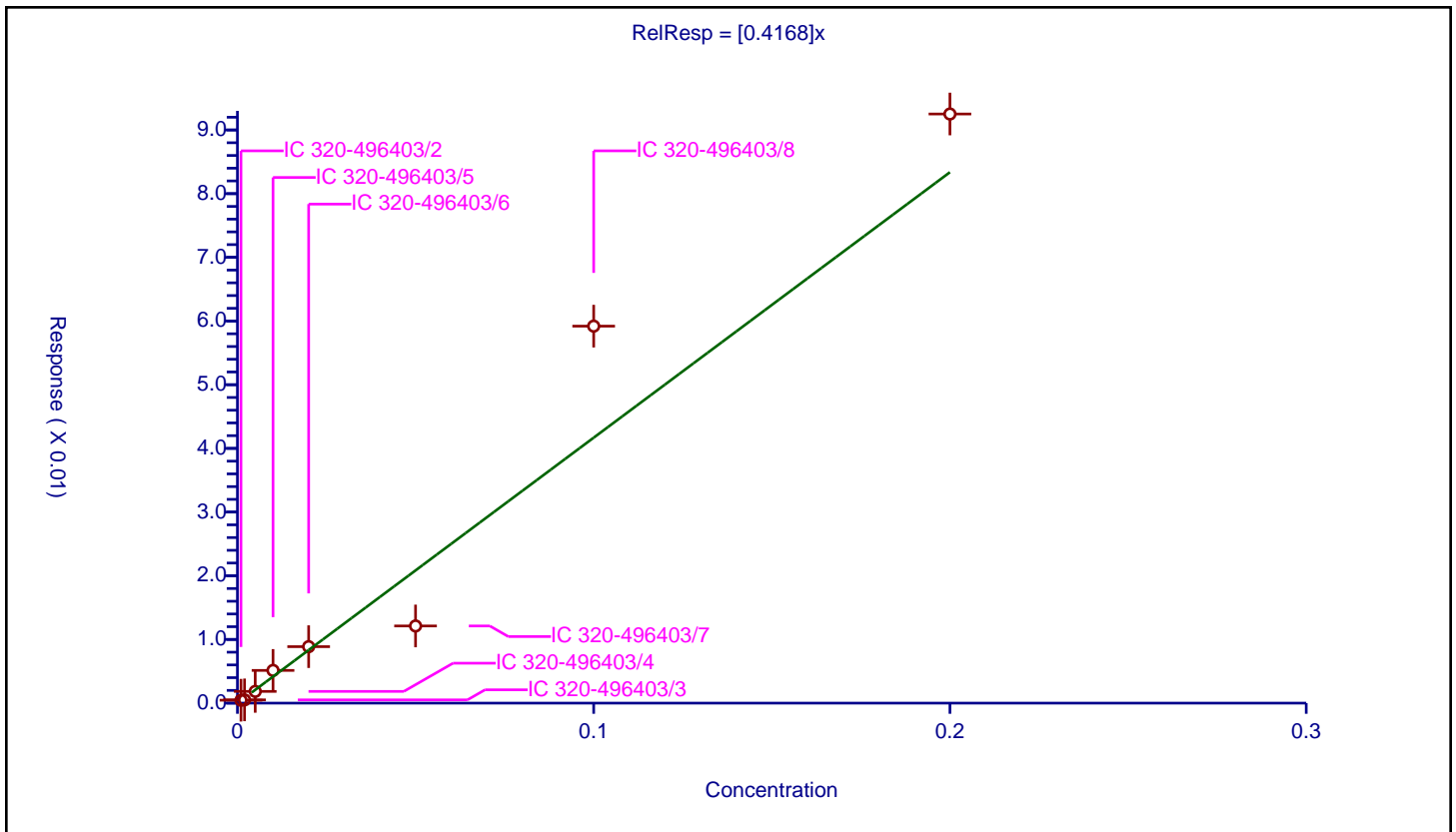
/ Perfluorooctadecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4168

Error Coefficients	
Standard Error:	888000
Relative Standard Error:	29.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.903

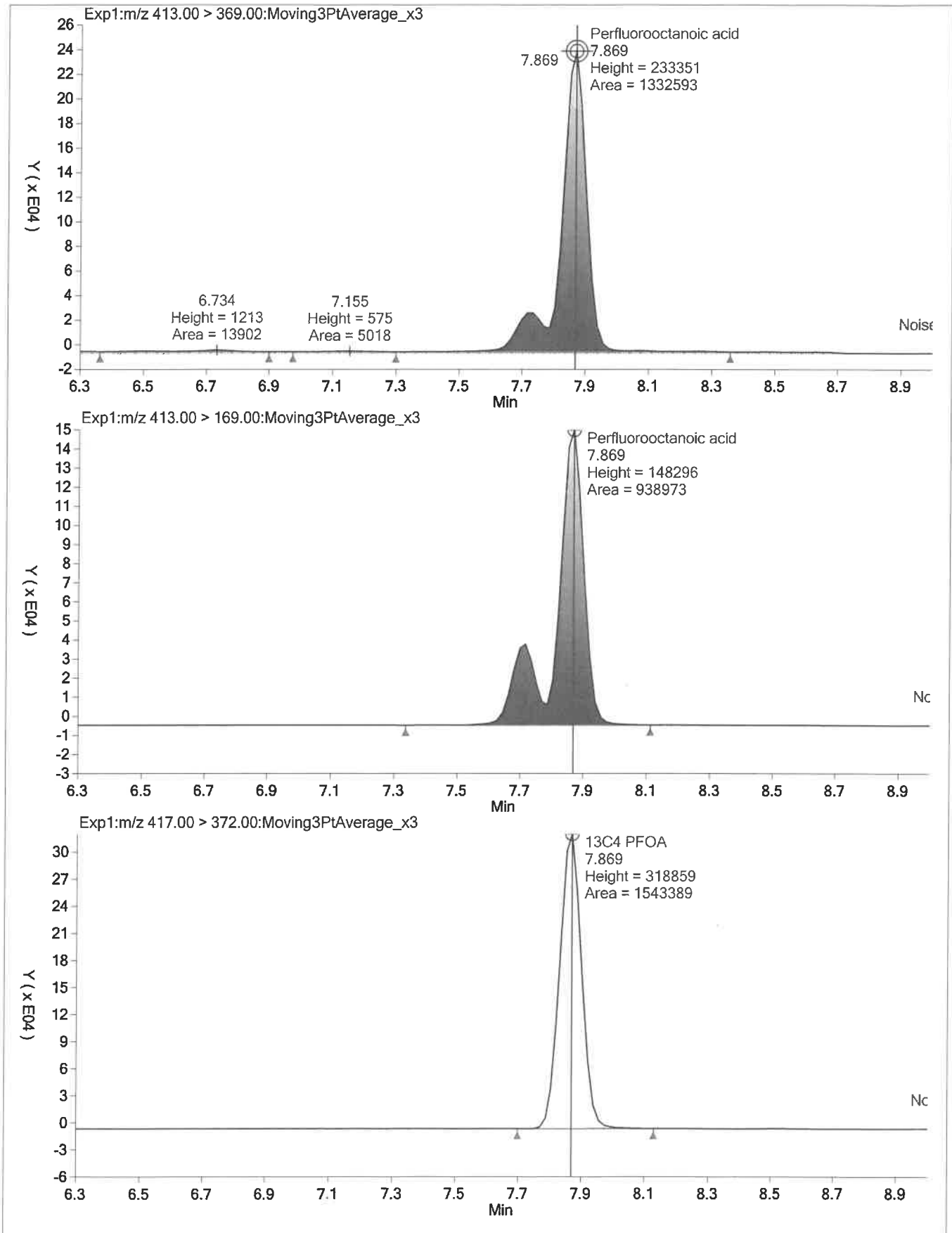
ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-496403/2	0.001	0.000457	0.05	1134388.0	0.45681	Y
2	IC 320-496403/3	0.002	0.000511	0.05	2597981.0	0.255256	Y
3	IC 320-496403/4	0.005	0.001843	0.05	789052.0	0.36862	Y
4	IC 320-496403/5	0.01	0.005137	0.05	586517.0	0.513694	Y
5	IC 320-496403/6	0.02	0.008867	0.05	1017905.0	0.443354	Y
6	IC 320-496403/7	0.05	0.012118	0.05	1764198.0	0.242356	Y
7	IC 320-496403/8	0.1	0.0592	0.05	925207.0	0.592005	Y
8	IC 320-496403/9	0.2	0.09251	0.05	1094089.0	0.46255	Y



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 320-496403/14 Calibration Date: 06/08/2021 11:01  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.07\_A10\_DI\_ICAL\_017.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	AveID	1.154	1.068		74.1	80.0	-7.4	50.0
Perfluorohexanoic acid	AveID	1.059	0.9693		73.2	80.0	-8.5	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.025	0.9422		73.5	80.0	-8.1	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.148	1.057		73.6	80.0	-8.0	40.0
Perfluorooctanoic acid (PFOA)	AveID	0.9469	0.7994		70.9	84.0	-15.6	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.103	0.8550		62.0	80.0	-22.5	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9077	0.8289		76.7	84.0	-8.7	40.0
Perfluorodecanoic acid	AveID	0.9134	0.8724		76.4	80.0	-4.5	40.0
N-methylperfluorooctanesulfonamidoacetic acid	AveID	0.8868	0.7303		65.9	80.0	-17.6	
Perfluoroundecanoic acid	AveID	0.9832	0.0048			84.0	-99.5*	40.0
N-ethylperfluorooctanesulfonamidoacetic acid	AveID	0.9175	0.7608		66.3	80.0	-17.1	
Perfluorododecanoic acid	AveID	0.9296	0.7619		68.8	84.0	-18.0	40.0
Perfluorotridecanoic acid	AveID	1.185	1.183		79.9	80.0	-0.1	50.0
Perfluorotetradecanoic acid	AveID	0.0439	0.0392		71.5	80.0	-10.6	50.0
13C4 PFBA	Ave	35846400	63100820		88.0	50.0	76.0*	50.0
13C5 PFPeA	Ave	34274650	40840600		59.6	50.0	19.2	50.0
13C3 PFBS	Ave	28645995	32092645		52.1	46.5	12.0	50.0
13C2 PFHxA	Ave	32572608	39631140		60.8	50.0	21.7	50.0
13C4 PFHpA	Ave	38616810	42455420		55.0	50.0	9.9	50.0
18O2 PFHxS	Ave	27842030	31465264		53.5	47.3	13.0	50.0
M2-6:2 FTS	Ave	10115900	11915474		56.0	47.5	17.8	
13C4 PFOA	Ave	57004583	65193340		57.2	50.0	14.4	50.0
13C4 PFOS	Ave	19433457	23698598		58.3	47.8	21.9	50.0
13C5 PFNA	Ave	48599775	55146120		56.7	50.0	13.5	50.0
13C8 FOSA	Ave	23033178	29118400		63.2	50.0	26.4	50.0
13C2 PFDA	Ave	44139855	52676340		59.7	50.0	19.3	50.0
M2-8:2 FTS	Ave	8386487	10385365		59.3	47.9	23.8	
d3-NMeFOSAA	Ave	15969758	20802340		65.1	50.0	30.3	
13C2 PFUnA	Ave	39264810	48234660		61.4	50.0	22.8	50.0
d5-NEtFOSAA	Ave	15890453	20515600		64.6	50.0	29.1	
13C2 PFDoA	Ave	44199513	47163300		53.4	50.0	6.7	50.0
13C2 PFTeDA	Ave	36765928	58357320		79.4	50.0	58.7*	50.0
13C2 PFHxDA	Ave	24773343	44679740		90.2	50.0	80.4*	50.0



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_017.d  
 Lims ID: ICV  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 08-Jun-2021 11:01:32 ALS Bottle#: 17 Worklist Smp#: 14  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: ICV (12)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist:

Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 13:31:46 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1607

First Level Reviewer: vangm Date: 08-Jun-2021 13:31:18

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.586	5.569	0.017	3155041	0.0880		176	6959	
D 4 13C5 PFPeA	267.90 > 223.00	6.250	6.230	0.020	2042030	0.0596		119	10528	
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.293	0.023	1492308	0.0521		112	3297	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.316	6.293	0.023	2743151	0.0741	Target=1.41		2843	
	298.90 > 99.00	6.316	6.293	0.023	2014642		1.36(0.71-2.12)		3212	
D 7 M2-4:2 FTS	329.00 > 81.00	6.711	6.664	0.047	428020	NC			1038	
D 9 13C2 PFHxA	315.00 > 270.00	6.757	6.734	0.023	1981557	0.0608		122	11045	
10 Perfluorohexanoic acid	313.00 > 269.00	6.757	6.734	0.023	3073279	0.0732	Target=19.50		2063	
	313.00 > 119.00	6.757	6.734	0.023	143474		21.42(9.75-29.25)		1720	
13 HPFO-DA	329.10 > 285.00	6.923	6.876	0.047	653840	NC			853	
D 12 13C3 HFPO-DA	332.10 > 287.00	6.923	6.876	0.047	186241	NC			802	
14 9CIFOS	531.00 > 351.00	7.137	7.104	0.033	788	NC			2.8	M
16 Perfluorohexanesulfonic acid	399.00 > 80.00	7.300	7.235	0.065	2660102	0.0736	Target=5.60		2552	M
	399.00 > 99.00	7.300	7.235	0.065	438534		6.07(2.80-8.40)		1455	M
D 15 18O2 PFHxS	403.00 > 84.00	7.300	7.235	0.065	1488307	0.0535		113	10844	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.300	7.257	0.043	1.000	3200144	0.0735	Target=9.21		1475	
363.00 > 169.00	7.300	7.257	0.043	1.000	352289		9.08(4.61-13.82)		5126	
D 17 13C4 PFHpA										
367.00 > 322.00	7.300	7.257	0.043		2122771	0.0550			110	11523
19 DONA										
377.00 > 251.00	7.355	7.302	0.053	0.870	13409420	NC	Target=2.84		20107	
377.00 > 85.00	7.355	7.302	0.053	0.870	4962732		2.70(1.42-4.26)		14449	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.853	7.789	0.064		565985	0.0560			118	1272
D 20 13C2 PFOA										
415.00 > 370.00	7.734	7.804	-0.070		1077	NC			0.0	0.0
24 Perfluorooctanoic acid										
413.00 > 369.00	7.886	7.808	0.078	1.000	4377768	0.0709	Target=1.54		728	M
413.00 > 169.00	7.886	7.808	0.078	1.000	2989219		1.46(0.77-2.31)		4911	M
D 25 13C4 PFOA										
417.00 > 372.00	7.886	7.808	0.078		3259667	0.0572			114	14193
D 26 13C4 PFOS										
503.00 > 80.00	8.455	8.365	0.090		1132793	0.0583			122	3411
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.455	8.365	0.090	1.000	1621047	0.0620	Target=3.65		2783	M
499.00 > 99.00	8.455	8.365	0.090	1.000	439738		3.69(1.83-5.48)		1889	M
D 28 13C5 PFNA										
468.00 > 423.00	8.491	8.403	0.088		2757306	0.0567			113	11264
29 Perfluorononanoic acid										
463.00 > 419.00	8.491	8.403	0.088	1.000	3839588	0.0767	Target=7.83		1663	
463.00 > 169.00	8.491	8.403	0.088	1.000	517638		7.42(3.92-11.75)		3393	
D 30 13C8 FOSA										
506.00 > 78.00	8.955	8.924	0.031		1455920	0.0632			126	7008
D 33 13C2 PFDA										
515.00 > 470.00	9.069	8.974	0.095		2633817	0.0597			119	16192
35 Perfluorodecanoic acid										
513.00 > 469.00	9.069	8.991	0.078	1.000	3676285	0.0764	Target=16.47		2175	
513.00 > 169.00	9.069	8.991	0.078	1.000	229779		16.00(8.23-24.70)		1299	
D 34 M2-8:2 FTS										
529.00 > 81.00	9.069	8.991	0.078		497459	0.0593			124	2056
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.353	9.257	0.096		1040117	0.0651			130	2172
38 NMeFOSAA										
570.00 > 419.00	9.367	9.274	0.093	1.002	1215416	0.0659	Target=13.24		3419	
570.00 > 483.00	9.367	9.274	0.093	1.002	92529		13.14(6.62-19.86)		1371	
D 42 13C2 PFUnA										
565.00 > 520.00	9.643	9.541	0.102		2411733	0.0614			123	24509
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.643	9.541	0.102		1025780	0.0646			129	4564

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.478	9.541	-0.063	0.983	19522	0.000412	Target=21.30		0.2	
563.00 > 169.00	9.353	9.541	-0.188	0.970	896		21.79(10.65-31.95)		0.1	
43 NEtFOSA										
584.00 > 419.00	9.660	9.558	0.102	1.002	1248728	0.0663	Target=16.50		7480	
584.00 > 483.00	9.660	9.558	0.102	1.002	74467		16.77(8.25-24.74)		50.5	
44 11C1FOS										
631.00 > 451.00	9.886	9.769	0.118	1.169	7114541	NC			19217	
D 45 13C2 PFDaA										
615.00 > 570.00	10.183	10.056	0.127		2358165	0.0534		107	11888	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.183	10.056	0.127	1.000	3018545	0.0688	Target=15.78		1329	
613.00 > 169.00	10.183	10.056	0.127	1.000	185491		16.27(7.89-23.66)		683	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.707	10.580	0.127	1.051	4464373	0.0799	Target=20.25		1357	
663.00 > 169.00	10.707	10.580	0.127	1.051	236523		18.88(10.13-30.38)		1061	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.203	11.059	0.144	1.000	183143	0.0715	Target=1.26		1330	
713.00 > 219.00	11.203	11.059	0.144	1.000	148138		1.24(0.63-1.89)		713	
D 51 13C2 PFTeDA										
715.00 > 670.00	11.203	11.059	0.144		2917866	0.0794		159	11019	
D 52 13C2 PFHxDA										
815.00 > 770.00	12.163	11.961	0.202		2233987	0.0902		180	8284	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFCIC\_LLICV\_00012

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_017.d

Injection Date: 08-Jun-2021 11:01:32

Instrument ID: A10

Lims ID: ICV

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 17

Worklist Smp#: 14

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

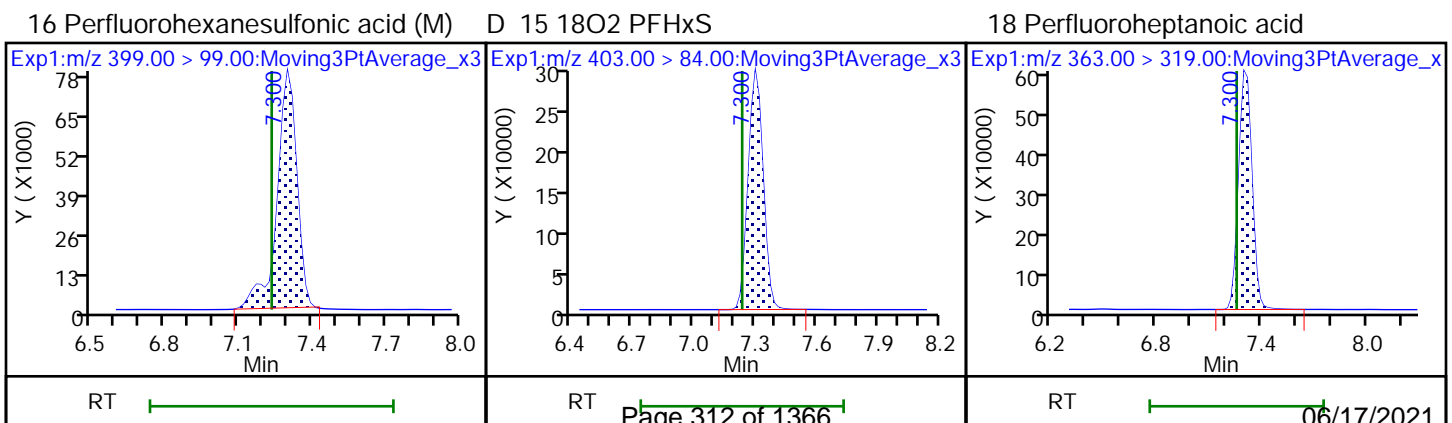
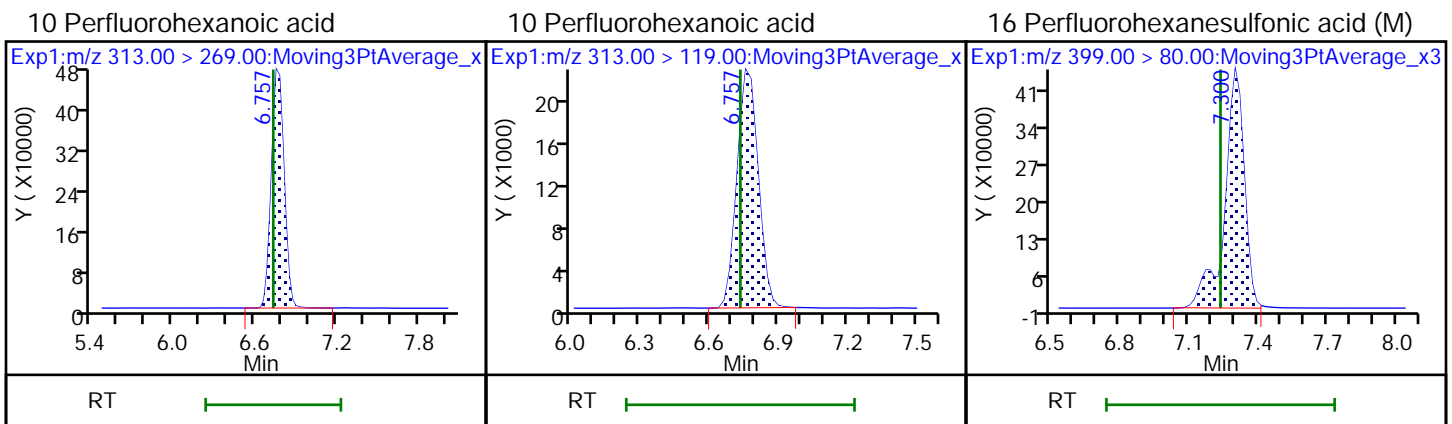
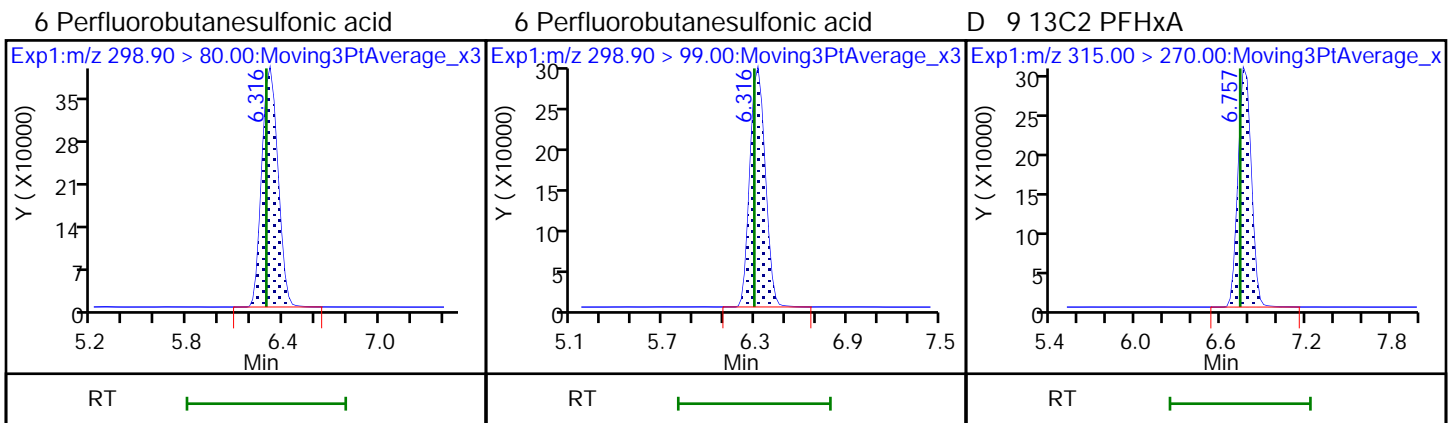
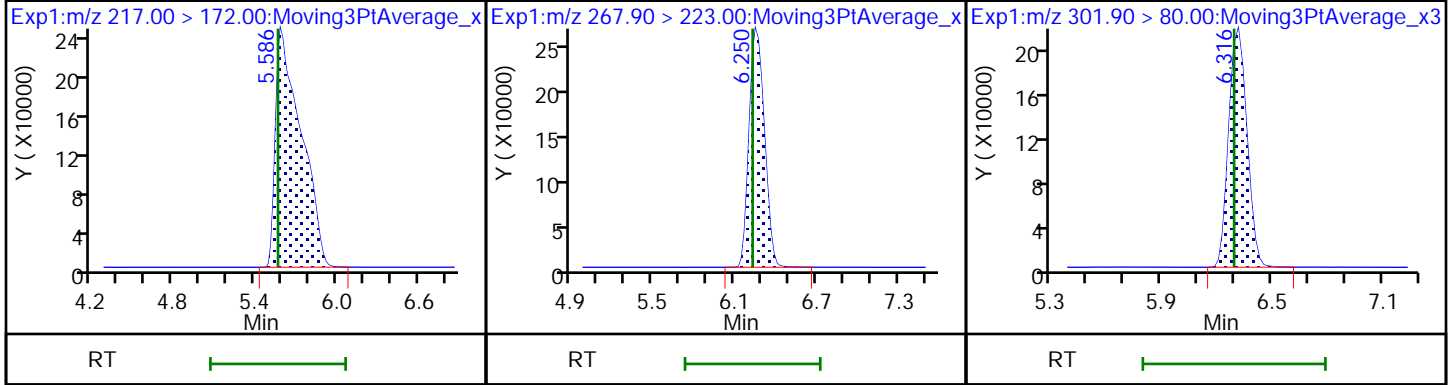
Method: A10\_In\_Line\_SPE

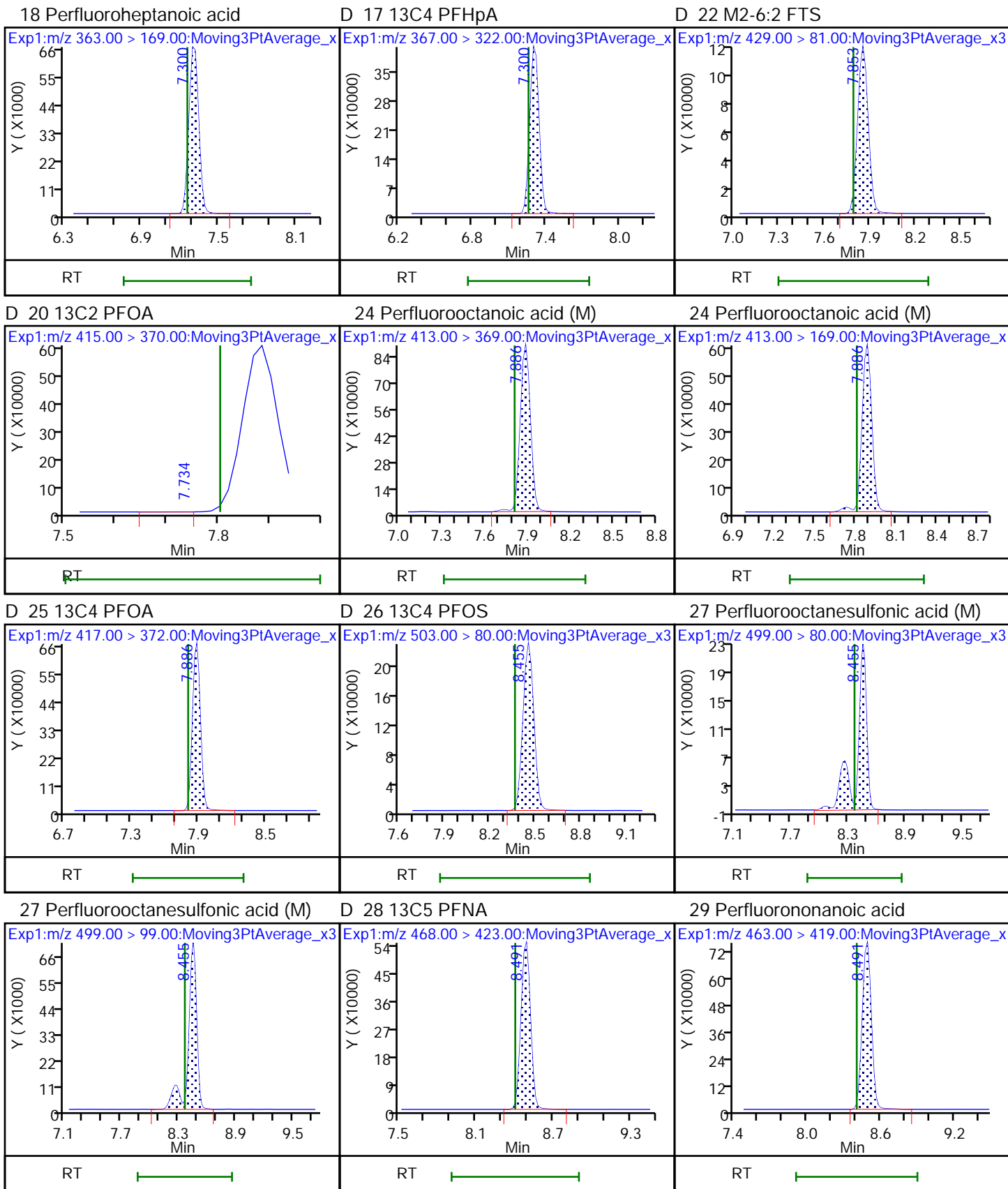
Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

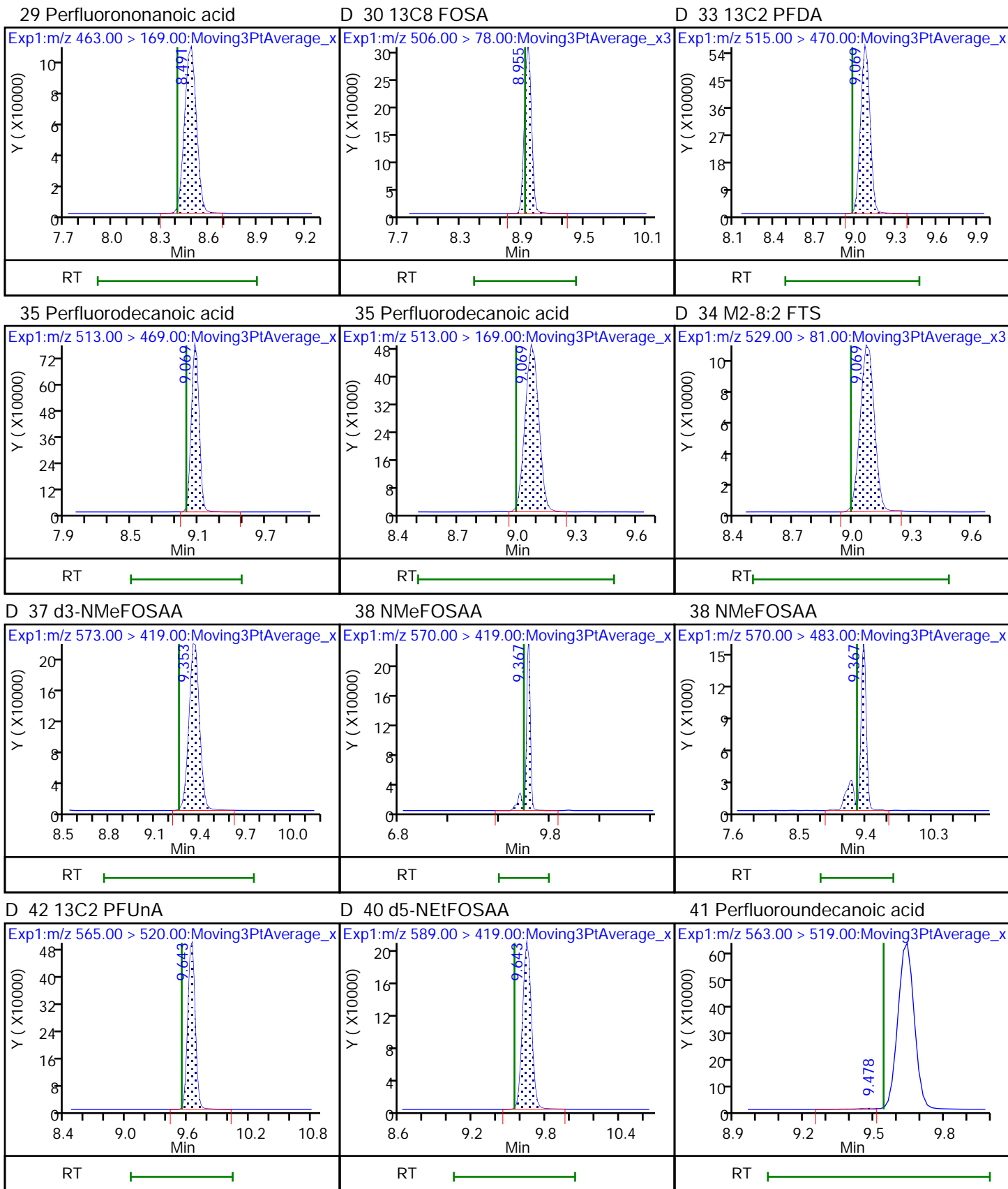
D 4 13C5 PFPeA

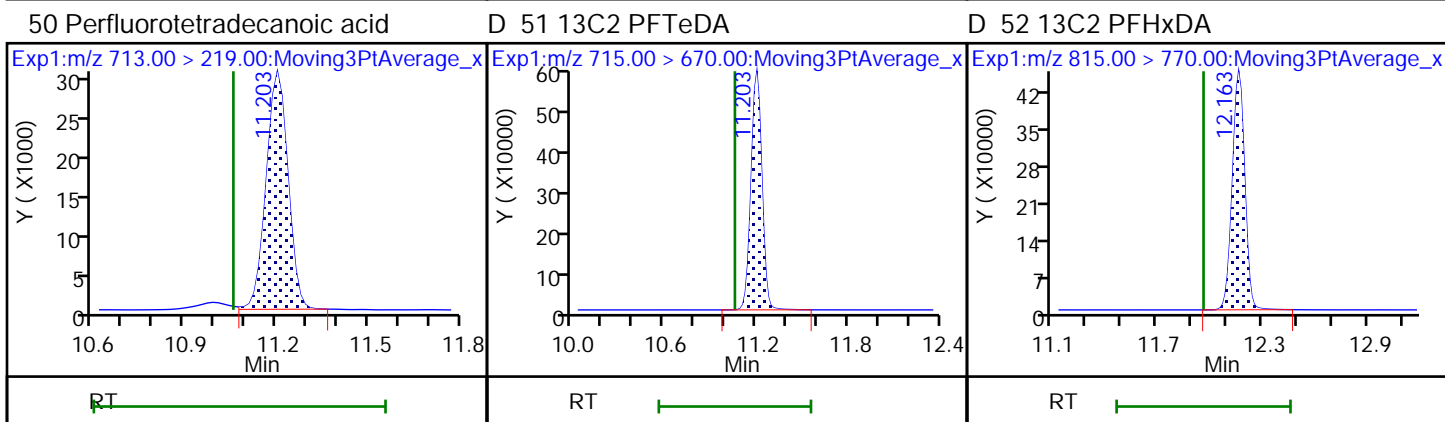
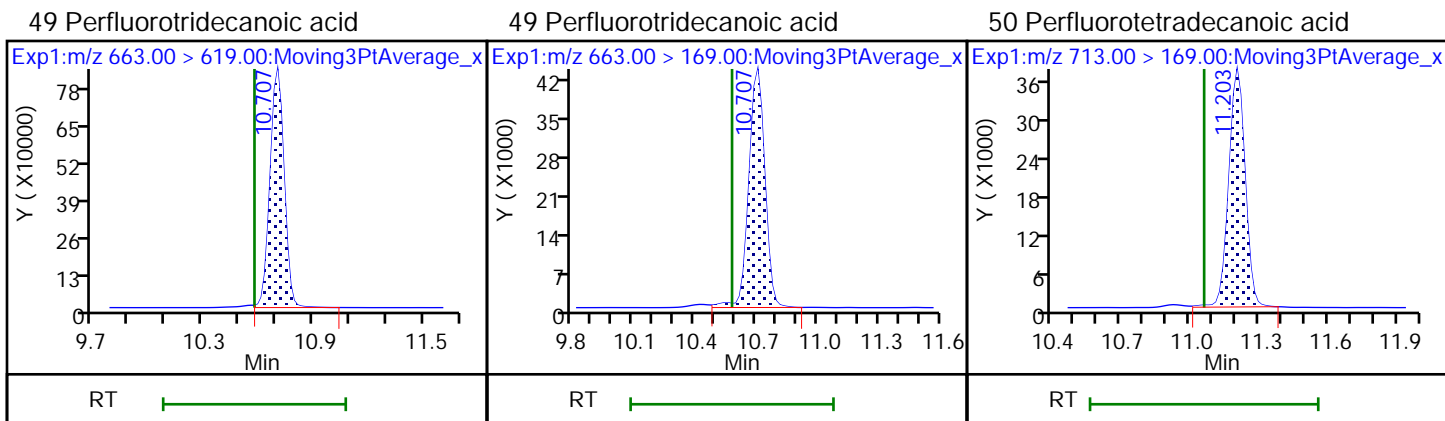
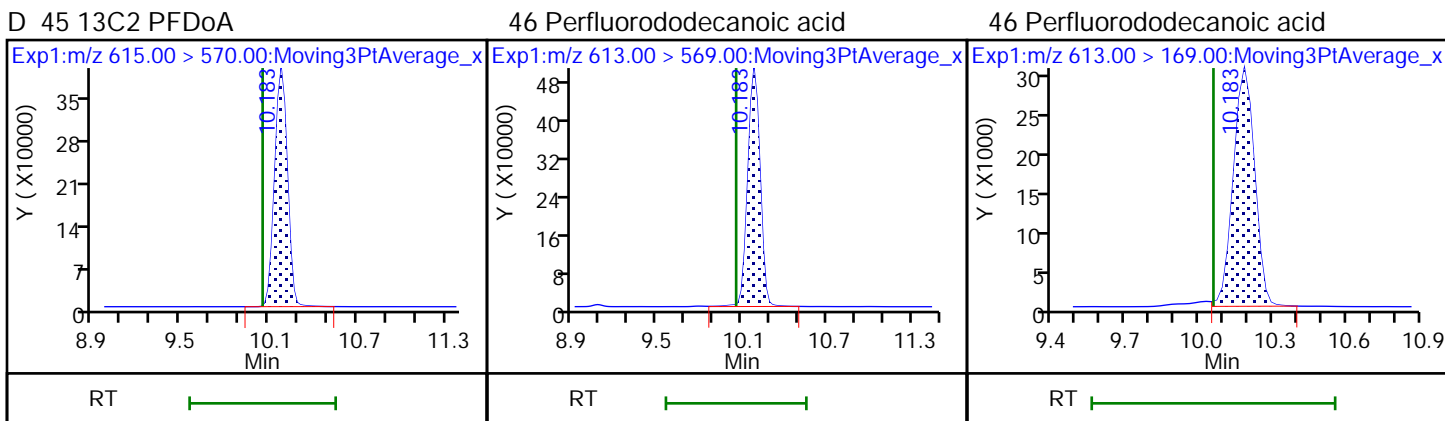
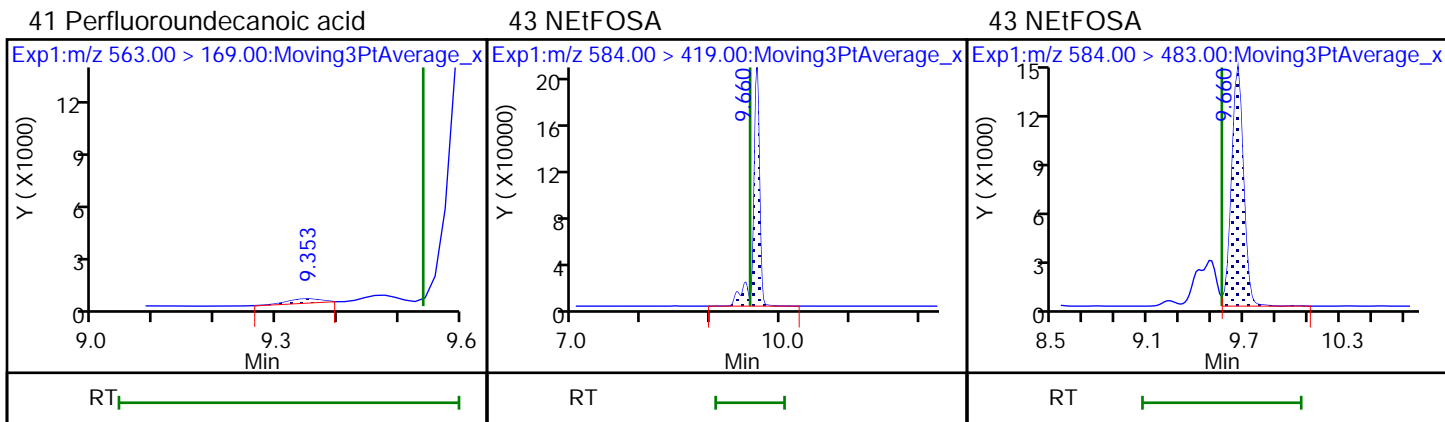
D 3 13C3 PFBS













Eurofins TestAmerica, Sacramento

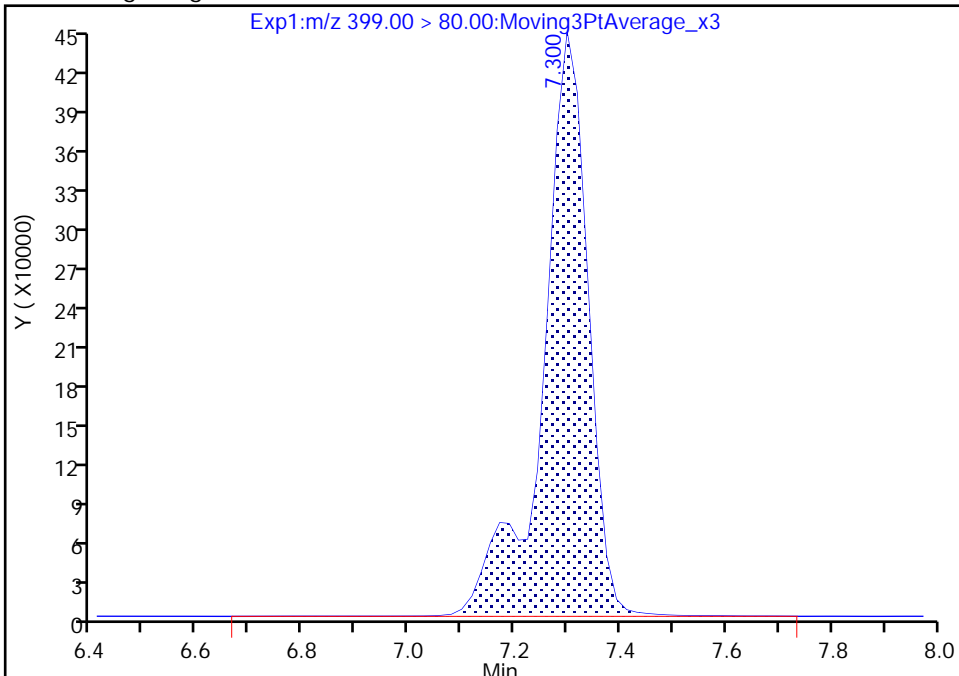
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Injection Date: 08-Jun-2021 11:01:32 Instrument ID: A10  
Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

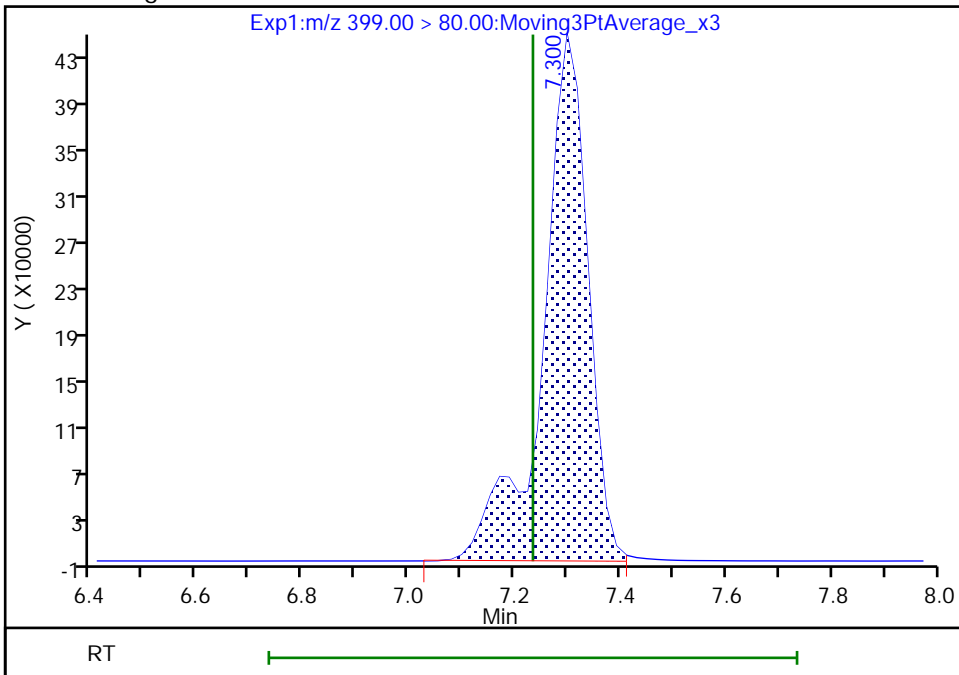
RT: 7.30  
Area: 2682563  
Amount: 0.074252  
Amount Units: ng/ml

Processing Integration Results



RT: 7.30  
Area: 2660102  
Amount: 0.073631  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:27:38  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

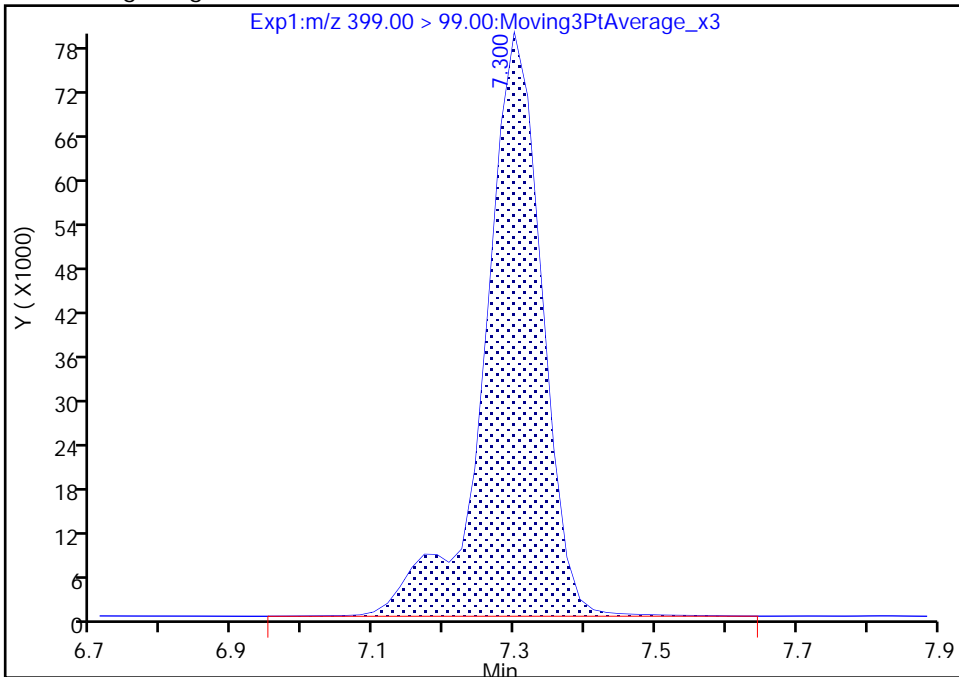
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Injection Date: 08-Jun-2021 11:01:32 Instrument ID: A10  
Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

16 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

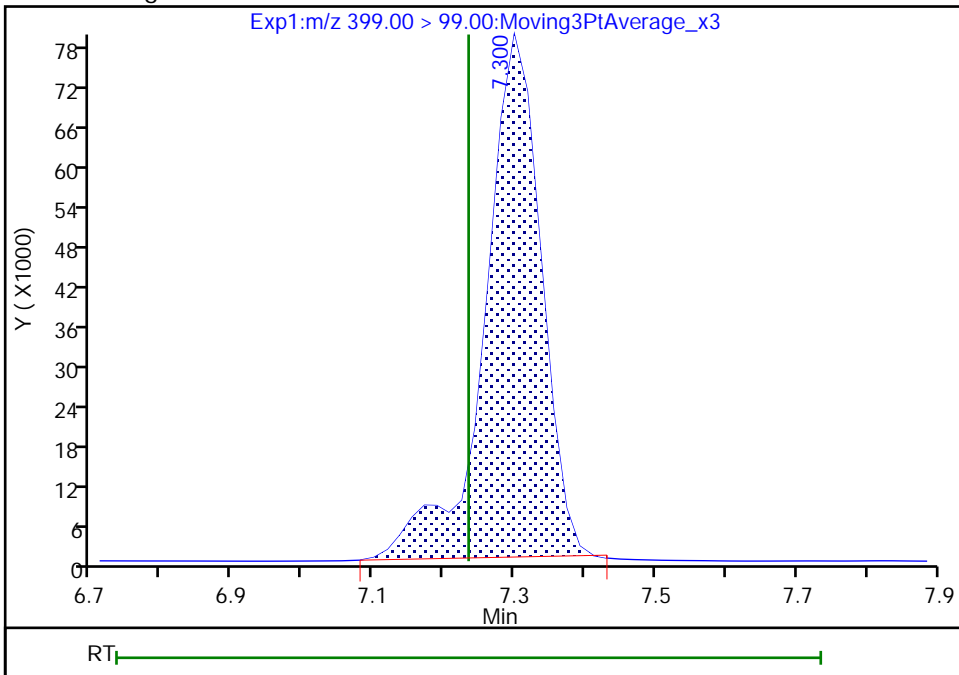
RT: 7.30  
Area: 451442  
Amount: 0.074252  
Amount Units: ng/ml

Processing Integration Results



RT: 7.30  
Area: 438534  
Amount: 0.073631  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:27:44

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

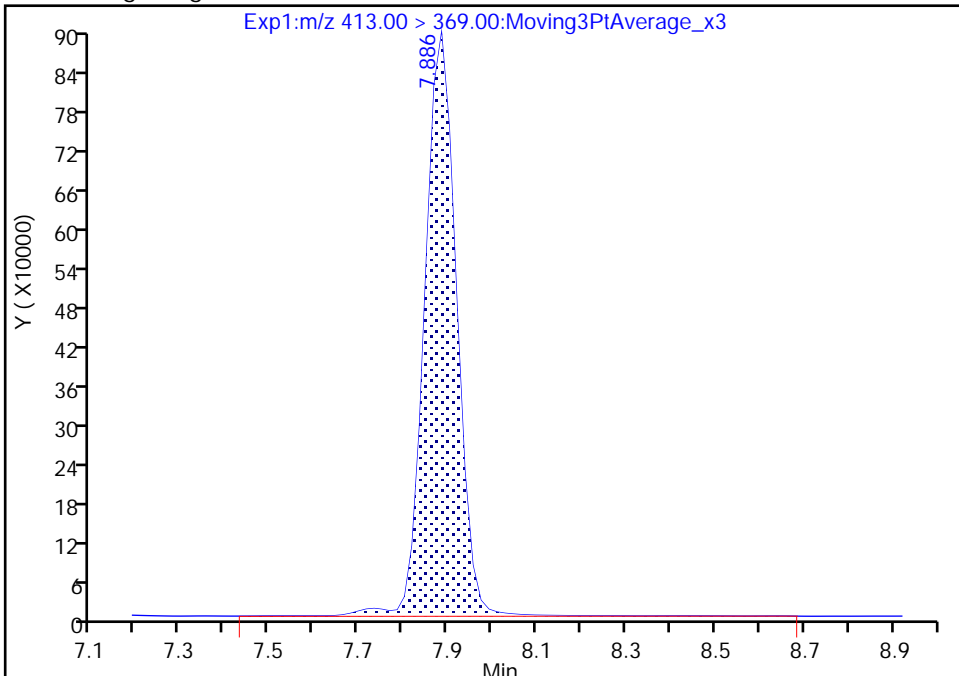
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Injection Date: 08-Jun-2021 11:01:32 Instrument ID: A10  
Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm (3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

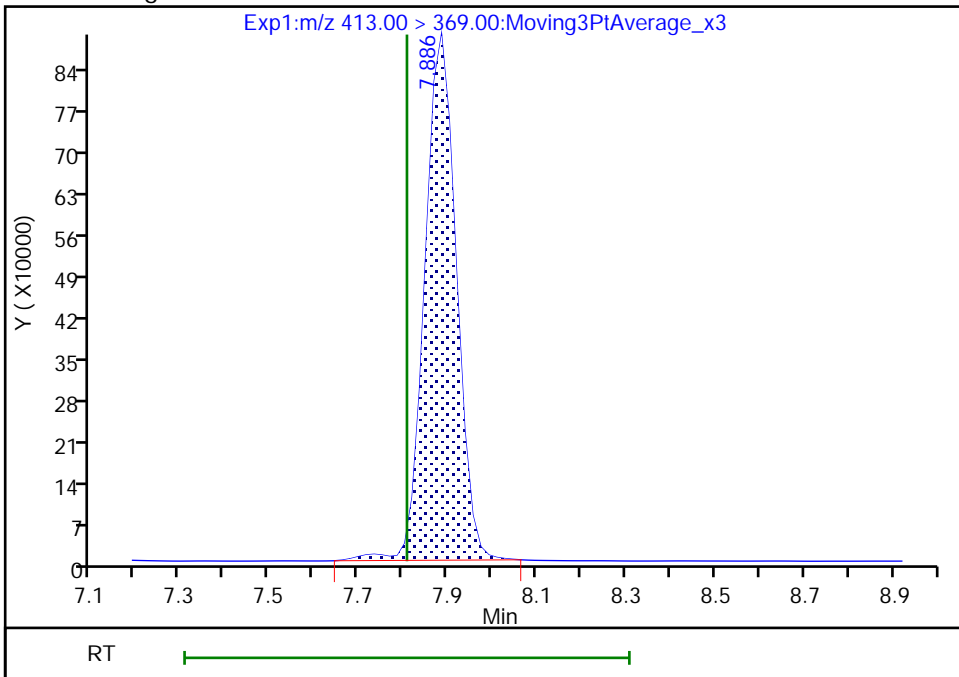
RT: 7.89  
Area: 4449014  
Amount: 0.071450  
Amount Units: ng/ml

Processing Integration Results



RT: 7.89  
Area: 4377768  
Amount: 0.070920  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangm, 08-Jun-2021 13:31:07  
Audit Action: Manually Integrated

Audit Reason: Isomers

Eurofins TestAmerica, Sacramento

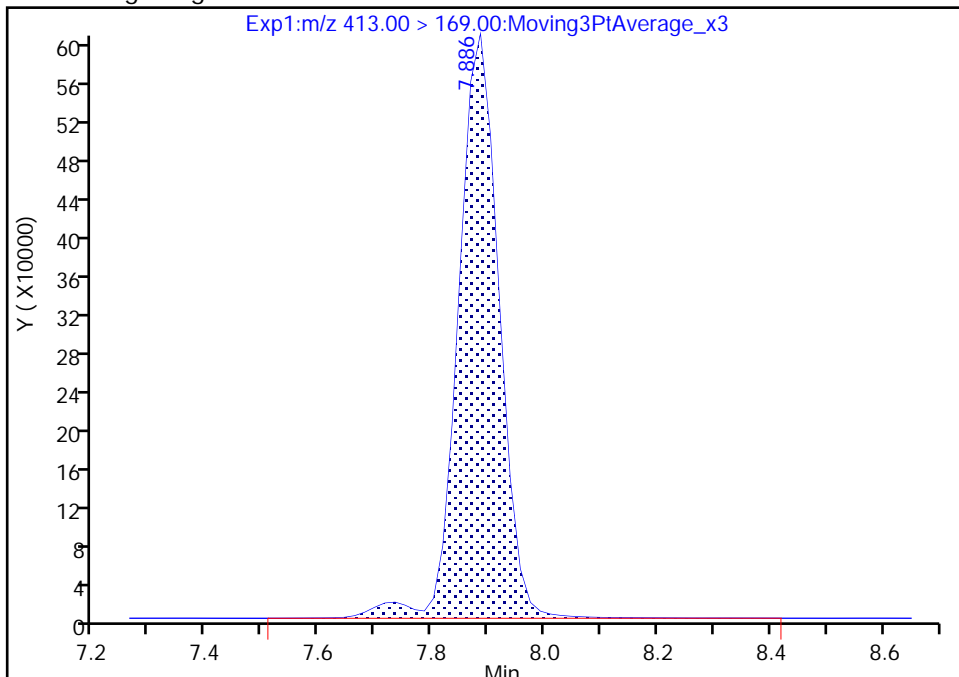
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Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

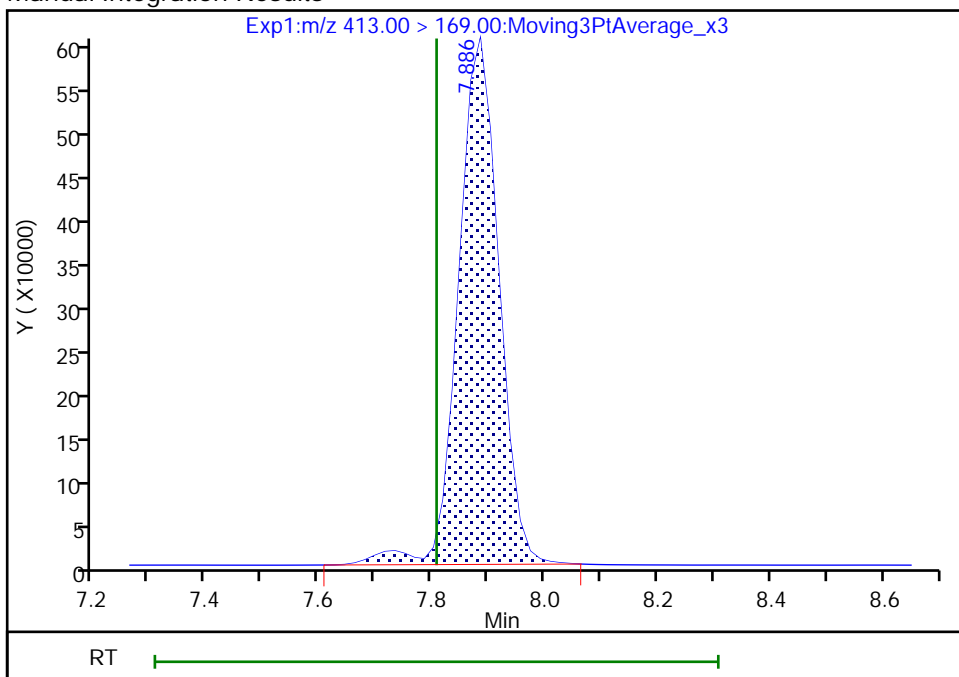
RT: 7.89  
Area: 3015037  
Amount: 0.071450  
Amount Units: ng/ml

Processing Integration Results



RT: 7.89  
Area: 2989219  
Amount: 0.070920  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

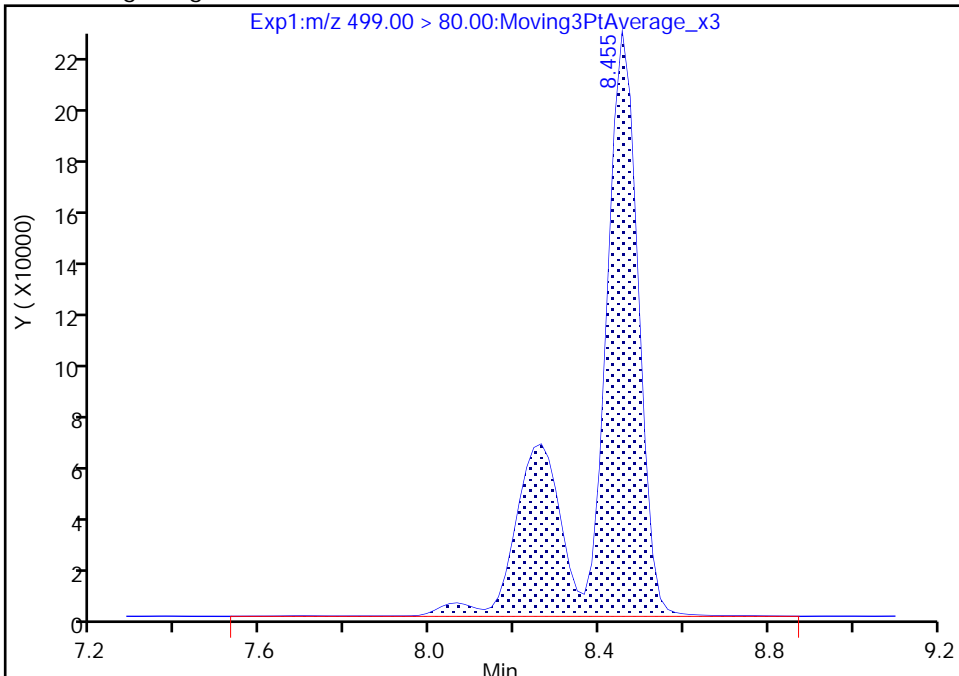
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Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

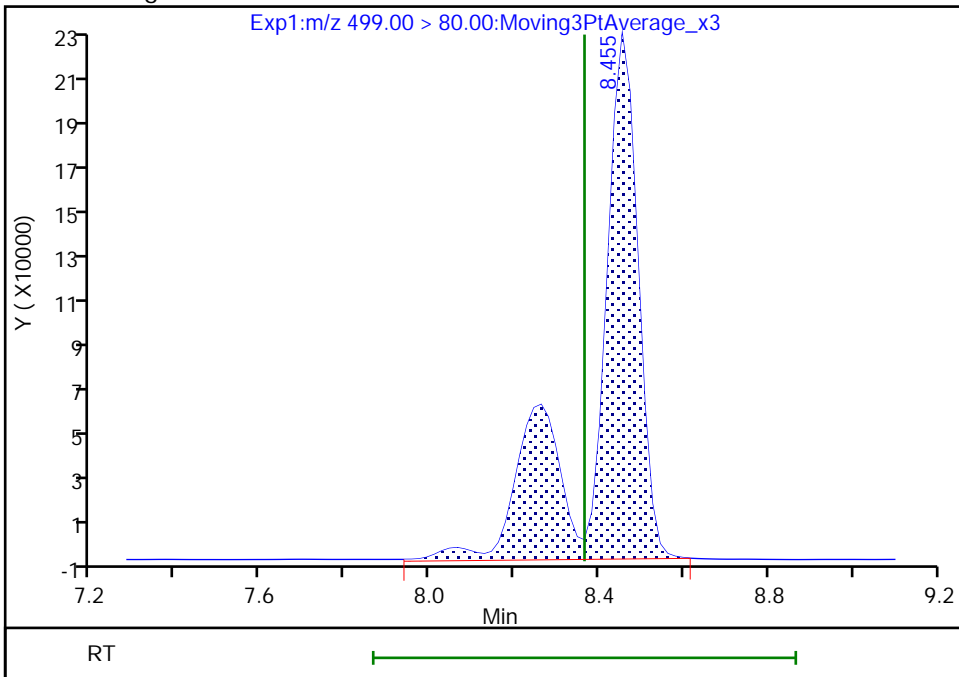
RT: 8.45  
Area: 1621969  
Amount: 0.061797  
Amount Units: ng/ml

Processing Integration Results



RT: 8.45  
Area: 1621047  
Amount: 0.062010  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:35:30  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

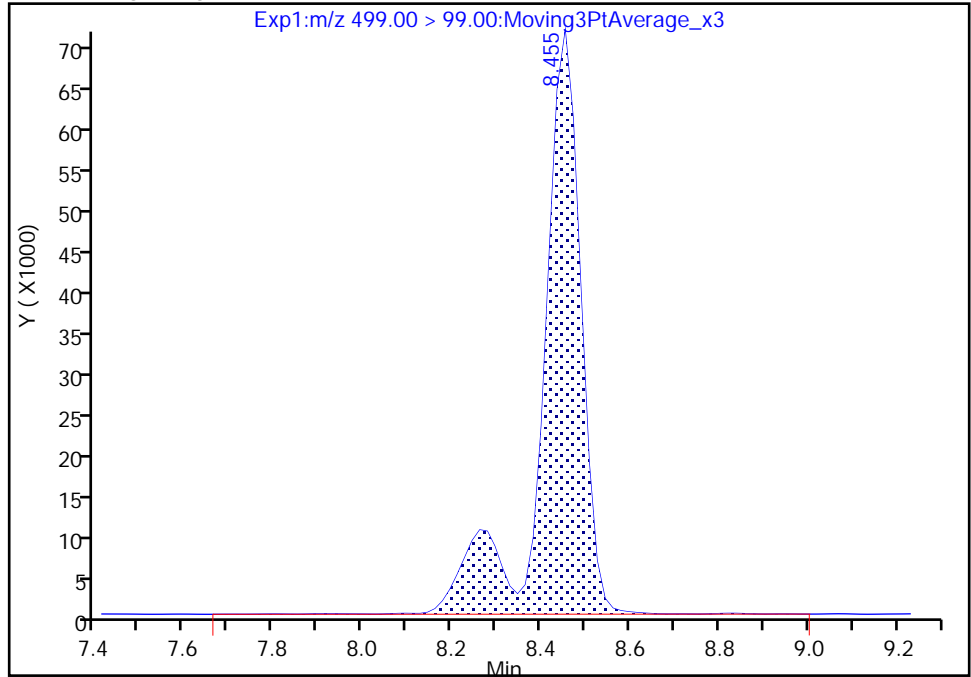
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Injection Date: 08-Jun-2021 11:01:32 Instrument ID: A10  
Lims ID: ICV  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 17 Worklist Smp#: 14  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

27 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

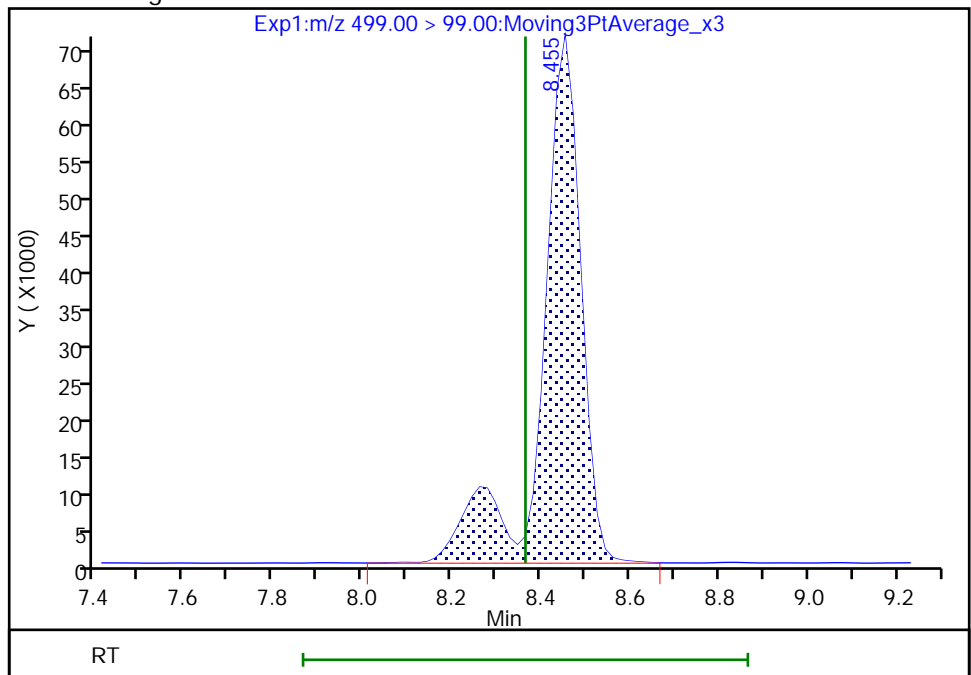
RT: 8.45  
Area: 440259  
Amount: 0.061797  
Amount Units: ng/ml

Processing Integration Results



RT: 8.45  
Area: 439738  
Amount: 0.062010  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 11:35:39

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVL 320-496697/1 Calibration Date: 06/08/2021 12:07  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.08\_A10\_DI\_C\_004.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid	AveID	1.036	0.8680		1.68	2.00	-16.2	50.0
Perfluoropentanoic acid	AveID	1.187	1.187		2.00	2.00	0.0	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.154	1.202		1.84	1.77	4.2	50.0
Perfluorohexanoic acid	AveID	1.059	1.078		2.04	2.00	1.8	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.025	1.039		2.03	2.00	1.4	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.148	1.249		1.98	1.82	8.8	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	3.055	2.988			1.90	-2.2	50.0
Perfluoroheptanesulfonic acid	AveID	1.319	1.380		1.99	1.90	4.7	50.0
Perfluorooctanoic acid (PFOA)	AveID	0.9469	1.012		2.14	2.00	6.9	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.103	1.044		1.76	1.86	-5.3	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9077	0.8900		1.96	2.00	-1.9	50.0
Perfluorooctanesulfonamide	AveID	1.111	1.154		2.08	2.00	3.9	50.0
Perfluorodecanoic acid	AveID	0.9134	0.9266		2.03	2.00	1.4	50.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	2.414	2.631			1.92	9.0	50.0
Perfluorodecanesulfonic acid	AveID	0.6433	0.6539		1.96	1.93	1.6	50.0
Perfluoroundecanoic acid	AveID	0.9832	0.9208		1.87	2.00	-6.4	50.0
Perfluorododecanoic acid	AveID	0.9296	0.9009		1.94	2.00	-3.1	50.0
Perfluorotridecanoic acid	AveID	1.185	1.243		2.10	2.00	4.9	50.0
Perfluorotetradecanoic acid	AveID	0.0439	0.0431		1.96	2.00	-1.8	50.0
N-ethylperfluorooctanesulfonamidoacetic acid	AveID	0.9175				2.00		
N-methylperfluorooctanesulfonamidoacetic acid	AveID	0.8868				2.00		
Perfluorohexadecanoic acid	AveID	1.089				2.00		
Perfluorooctadecanoic acid	AveID	0.4168				2.00		
13C4 PFBA	Ave	35846400	61248160		85.4	50.0	70.9*	50.0
13C5 PFPeA	Ave	34274650	39919320		58.2	50.0	16.5	50.0
13C3 PFBS	Ave	28645995	31236731		50.7	46.5	9.0	50.0
13C2 PFHxA	Ave	32572608	37236380		57.2	50.0	14.3	50.0
18O2 PFHxS	Ave	27842030	31934799		54.3	47.3	14.7	50.0
13C4 PFHpA	Ave	38616810	45460680		58.9	50.0	17.7	50.0
M2-6:2 FTS	Ave	10115900	12642316		59.4	47.5	25.0	50.0
13C4 PFOA	Ave	57004583	66286980		58.1	50.0	16.3	50.0
13C4 PFOS	Ave	19433457	21862782		53.8	47.8	12.5	50.0
13C5 PFNA	Ave	48599775	53087240		54.6	50.0	9.2	50.0
13C8 FOSA	Ave	23033178	28159680		61.1	50.0	22.3	50.0
13C2 PFDA	Ave	44139855	45865500		52.0	50.0	3.9	50.0
M2-8:2 FTS	Ave	8386487	10569436		60.4	47.9	26.0	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVL 320-496697/1 Calibration Date: 06/08/2021 12:07  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.08\_A10\_DI\_C\_004.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
d3-NMeFOSAA	Ave	15969758	16903720		52.9	50.0	5.8	50.0
13C2 PFUnA	Ave	39264810	44161640		56.2	50.0	12.5	50.0
d5-NEtFOSAA	Ave	15890453	16452520		51.8	50.0	3.5	50.0
13C2 PFDoA	Ave	44199513	45749440		51.8	50.0	3.5	50.0
13C2 PFTeDA	Ave	36765928	34066300		46.3	50.0	-7.3	50.0
13C2 PFHxDA	Ave	24773343	19851000		40.1	50.0	-19.9	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120708.b\2021.06.08\_A10\_DI\_C\_004.d  
 Lims ID: CCVL  
 Client ID:  
 Sample Type: CCVL  
 Inject. Date: 08-Jun-2021 12:07:21 ALS Bottle#: 4 Worklist Smp#: 1  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L2  
 Misc. Info.: Plate: 1 Rack: 3  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12  
 Method: \\chromfs\Sacramento\ChromData\A10\20210608-120708.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 09-Jun-2021 08:23:12 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1634

First Level Reviewer: ruangyotsakuld Date: 09-Jun-2021 08:23:12

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.677	5.677	0.0	3062408	0.0854		171	10015	
1 Perfluorobutanoic acid	212.90 > 169.00	5.677	5.677	0.0	106323	0.001675		83.8	41.5	
D 4 13C5 PFPeA	267.90 > 223.00	6.270	6.270	0.0	1995966	0.0582		116	8625	
5 Perfluoropentanoic acid	262.90 > 219.00	6.270	6.270	0.0	94778	0.002000		100	35.2	
D 3 13C3 PFBS	301.90 > 80.00	6.339	6.339	0.0	1452508	0.0507		109	3433	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.339	6.339	0.0	66395	0.001841	Target=1.41	104	169	
	298.90 > 99.00	6.339	6.339	0.0	46314		1.43(0.71-2.12)		80.1	
8 4:2 FTS	327.00 > 307.00	6.711	6.711	0.0	52895	NC	Target=2.69		1081	
	327.00 > 81.00	6.734	6.711	0.023	24152		2.19(1.34-4.03)		52.9	
D 7 M2-4:2 FTS	329.00 > 81.00	6.711	6.711	0.0	466649	NC			950	
D 9 13C2 PFHxA	315.00 > 270.00	6.780	6.780	0.0	1861819	0.0572		114	10199	
10 Perfluorohexanoic acid	313.00 > 269.00	6.780	6.780	0.0	80294	0.002036	Target=19.50	102	63.9	
	313.00 > 119.00	6.780	6.780	0.0	3492		22.99(9.75-29.25)		46.4	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.780	6.780	0.0	64331	NC	Target=1.44		134	
	349.00 > 99.00	6.780	6.780	0.0	43113		1.49(0.72-2.17)		144	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.923	6.923	0.0	1.000	15738	NC			20.8	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.923	6.923	0.0		166393	NC			964	
D 15 18O2 PFHxS										
403.00 > 84.00	7.283	7.283	0.0		1510516	0.0543		115	17227	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.302	7.302	0.0	1.003	72606	0.001980	Target=5.60	109	104	
399.00 > 99.00	7.283	7.302	-0.019	1.000	13888		5.23(2.80-8.40)		50.7	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.302	7.302	0.0	1.000	94471	0.002027	Target=9.21	101	67.8	
363.00 > 169.00	7.302	7.302	0.0	1.000	10084		9.37(4.61-13.82)		112	
D 17 13C4 PFHpA										
367.00 > 322.00	7.302	7.302	0.0		2273034	0.0589		118	17898	
19 DONA										
377.00 > 251.00	7.357	7.357	0.0	0.871	374590	NC	Target=2.84		1137	
377.00 > 85.00	7.357	7.357	0.0	0.871	126961		2.95(1.42-4.26)		663	
23 6:2 FTS										
427.00 > 407.00	7.837	7.837	0.0	1.000	71617	0.001854	Target=2.57	97.8	925	
427.00 > 81.00	7.837	7.837	0.0	1.000	31014		2.31(1.29-3.86)		72.8	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.837	7.837	0.0		600510	0.0594		125	1418	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.853	7.853	0.0	0.930	57465	0.001993	Target=6.98	105	126	
449.00 > 99.00	7.853	7.853	0.0	0.930	8022		7.16(3.49-10.48)		38.4	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.870	7.870	0.0	1.000	134222	0.002139	Target=1.54	107	28.9	
413.00 > 169.00	7.870	7.870	0.0	1.000	84034		1.60(0.77-2.31)		326	
D 25 13C4 PFOA										
417.00 > 372.00	7.870	7.870	0.0		3314349	0.0581		116	14696	
D 26 13C4 PFOS										
503.00 > 80.00	8.445	8.445	0.0		1045041	0.0538		113	3376	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.445	8.445	0.0	1.000	42376	0.001757	Target=3.65	94.7	160	
499.00 > 99.00	8.445	8.445	0.0	1.000	12194		3.48(1.83-5.48)		67.5	
D 28 13C5 PFNA										
468.00 > 423.00	8.479	8.479	0.0		2654362	0.0546		109	11286	
29 Perfluorononanoic acid										
463.00 > 419.00	8.479	8.479	0.0	1.000	94493	0.001961	Target=7.83	98.1	59.0	
463.00 > 169.00	8.479	8.479	0.0	1.000	12665		7.46(3.92-11.75)		89.8	
D 30 13C8 FOSA										
506.00 > 78.00	8.964	8.964	0.0		1407984	0.0611		122	7575	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.964	8.964	0.0	1.000	65002	0.002078		104	640	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	9.042	9.042	0.0	1.071	37607	NC	Target=6.10		374	
549.00 > 99.00	9.042	9.042	0.0	1.071	5790		6.50(3.05-9.15)		30.8	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	9.073	9.073	0.0		2293275	0.0520		104	12336	
35 Perfluorodecanoic acid										
513.00 > 469.00	9.073	9.073	0.0	1.000	84995	0.002029	Target=16.47	101	92.7	
513.00 > 169.00	9.073	9.073	0.0	1.000	6316		13.46(8.23-24.70)		72.9	
D 34 M2-8:2 FTS										
529.00 > 81.00	9.073	9.073	0.0		506276	0.0604		126	2701	
36 8:2 FTS										
527.00 > 507.00	9.088	9.088	0.0	1.002	53288	0.002089	Target=2.29	109	696	
527.00 > 81.00	9.088	9.088	0.0	1.002	20615		2.58(1.15-3.44)		124	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.372	9.372	0.0		845186	0.0529		106	4033	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.611	9.611	0.0	1.138	27561	0.001960	Target=2.43	102	341	
599.00 > 99.00	9.611	9.611	0.0	1.138	11172		2.47(1.22-3.65)		386	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.660	9.660	0.0	1.000	81326	0.001873	Target=21.30	93.6	124	
563.00 > 169.00	9.660	9.660	0.0	1.000	3501		23.23(10.65-31.95)		62.3	
D 42 13C2 PFUnA										
565.00 > 520.00	9.660	9.660	0.0		2208082	0.0562		112	13295	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.676	9.676	0.0		822626	0.0518		104	3449	
44 11C1FOS										
631.00 > 451.00	9.906	9.906	0.0	1.173	196434	NC			848	
D 45 13C2 PFDaA										
615.00 > 570.00	10.217	10.217	0.0		2287472	0.0518		104	17353	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.217	10.217	0.0	1.000	82431	0.001938	Target=15.78	96.9	45.6	
613.00 > 169.00	10.217	10.217	0.0	1.000	5417		15.22(7.89-23.66)		113	
48 PFDaS										
699.00 > 80.00	10.690	10.690	0.0	1.266	10409	NC	Target=0.50		88.9	
699.00 > 99.00	10.690	10.690	0.0	1.266	20741		0.50(0.25-0.74)		224	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.760	10.760	0.0	1.053	113706	0.002098	Target=20.25	105	58.2	
663.00 > 169.00	10.760	10.760	0.0	1.053	5551		20.48(10.13-30.38)		114	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.261	11.261	0.0	1.000	2936	0.001964	Target=1.26	98.2	47.5	
713.00 > 219.00	11.261	11.261	0.0	1.000	2091		1.40(0.63-1.89)		42.9	
D 51 13C2 PFTeDA										
715.00 > 670.00	11.261	11.261	0.0		1703315	0.0463		92.7	6797	
D 52 13C2 PFHxDA										
815.00 > 770.00	12.232	12.232	0.0		992550	0.0401		80.1	3388	

[QC Flag Legend](#)

Processing Flags

NC - Not Calibrated

[Reagents:](#)

LCPFC-LL-L2\_00031

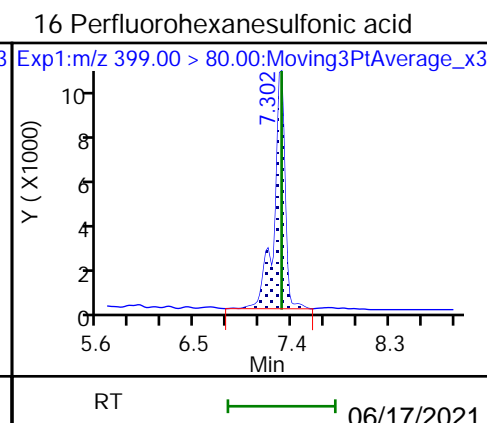
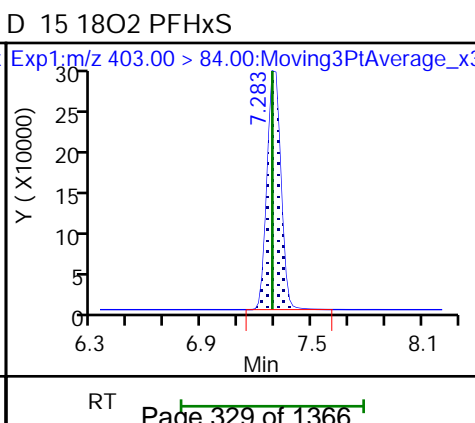
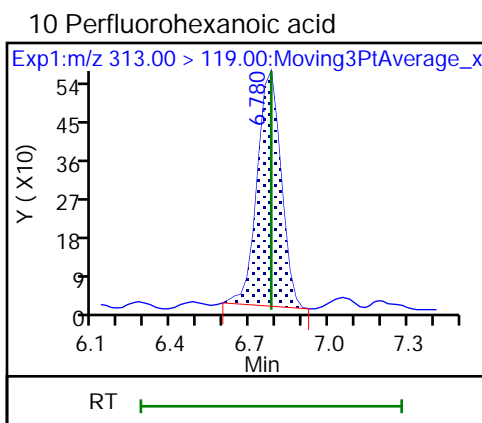
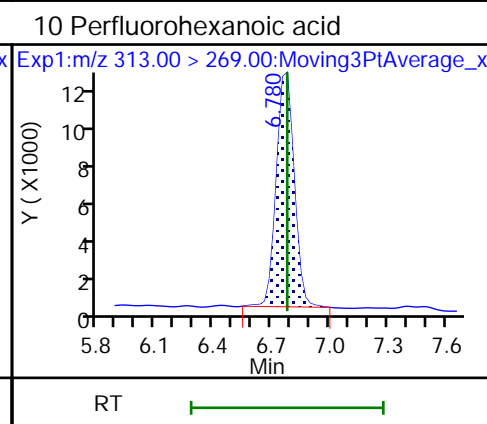
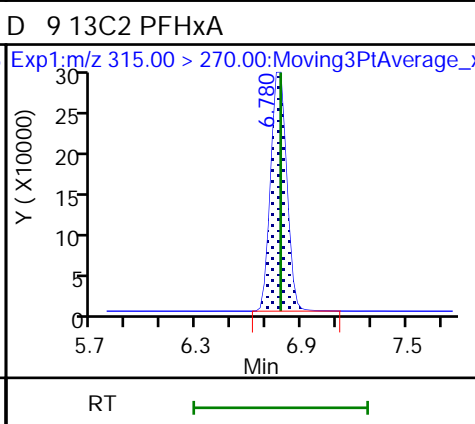
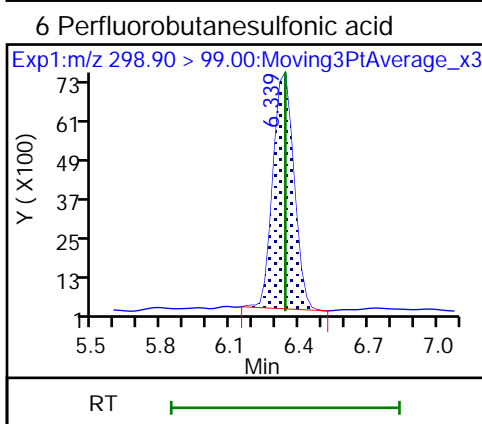
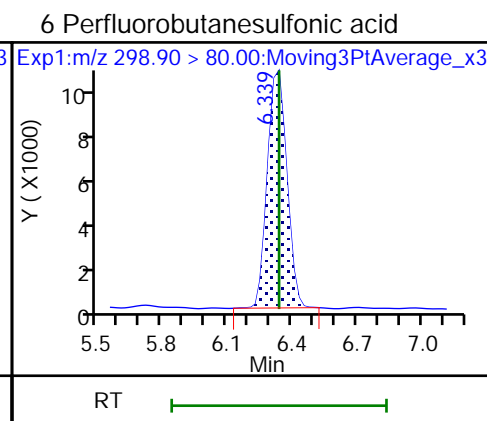
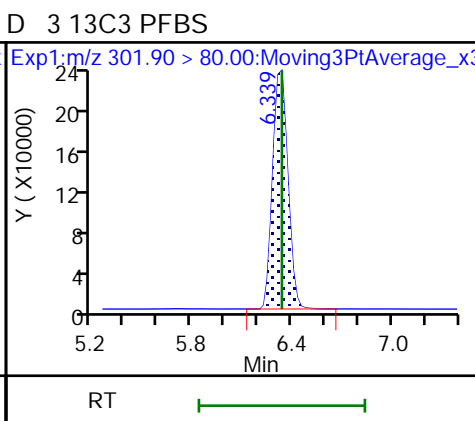
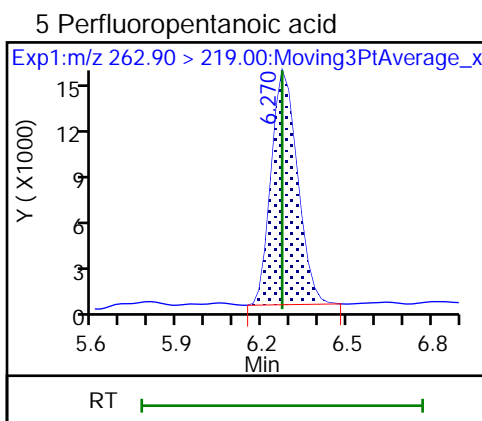
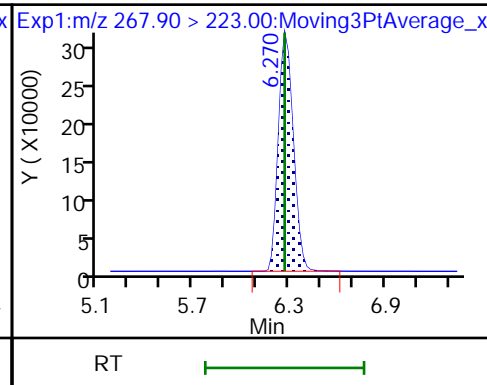
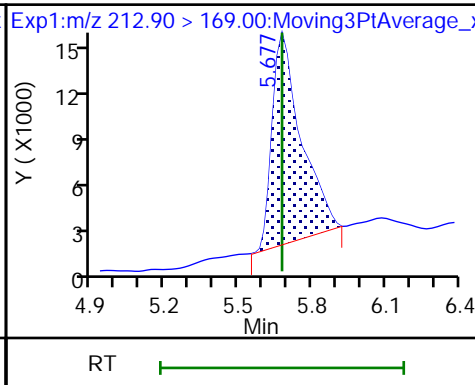
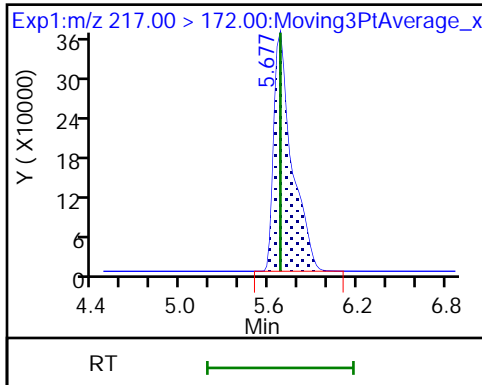
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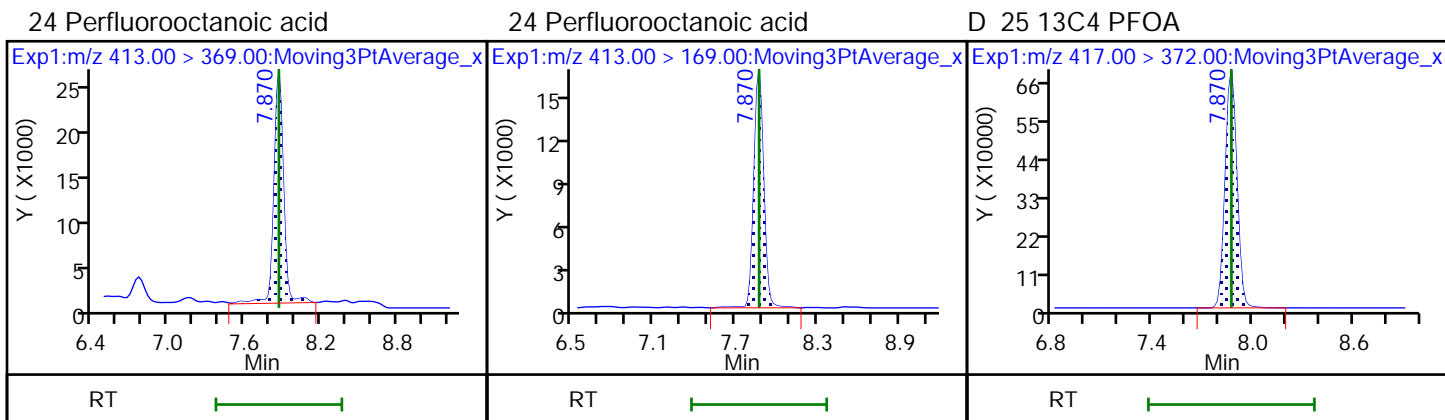
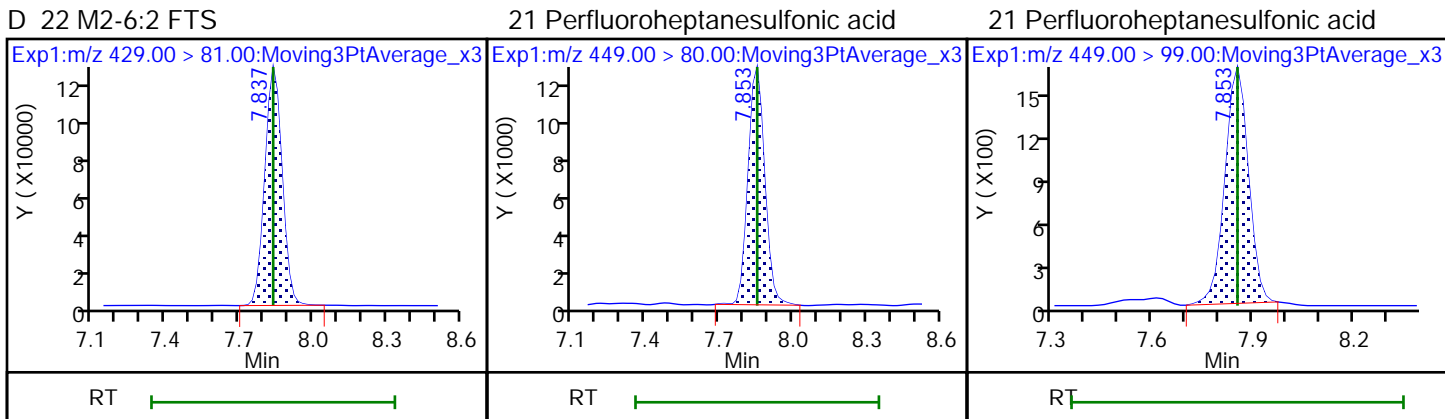
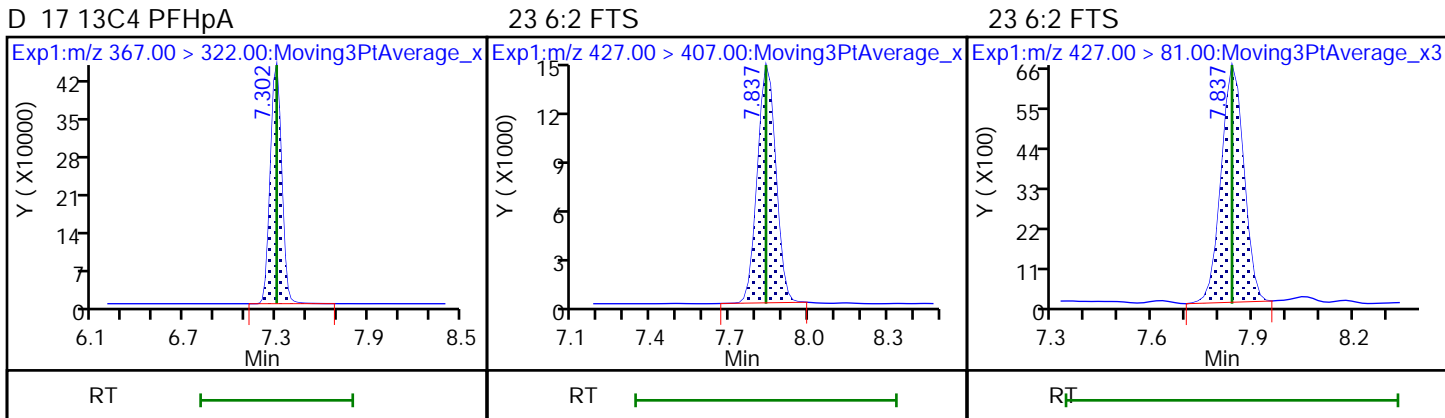
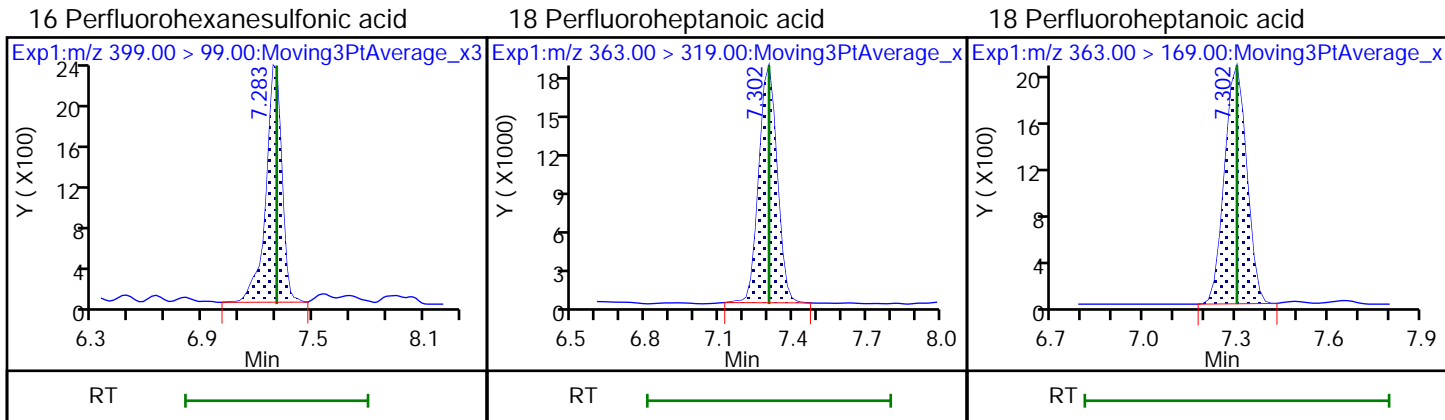
D 2 13C4 PFBA

1 Perfluorobutanoic acid

D 4 13C5 PFPeA



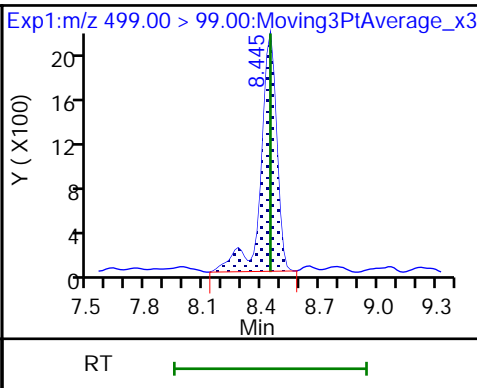
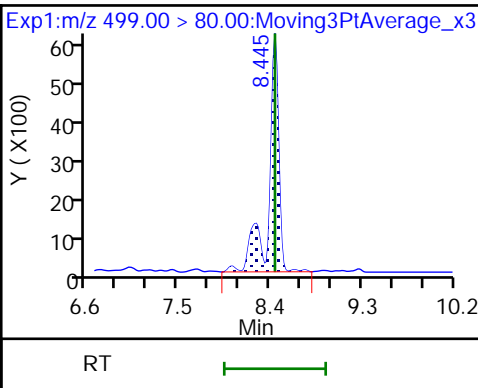
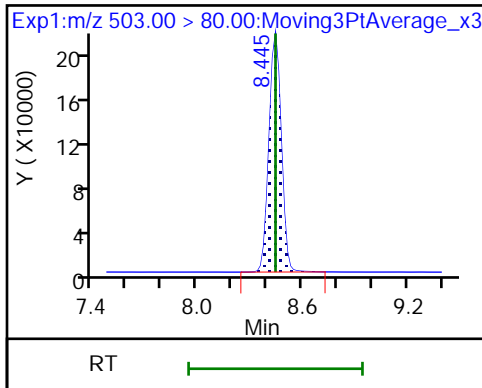




D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

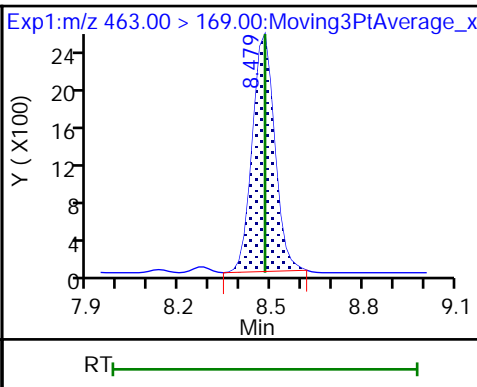
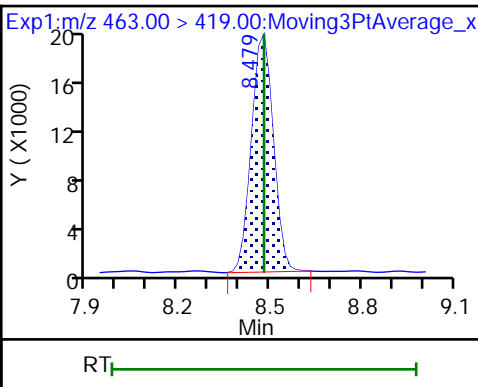
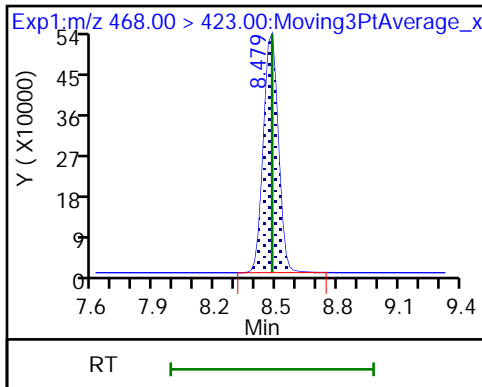
27 Perfluorooctanesulfonic acid



D 28 13C5 PFNA

29 Perfluorononanoic acid

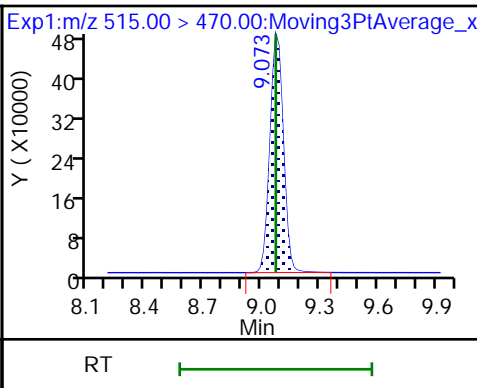
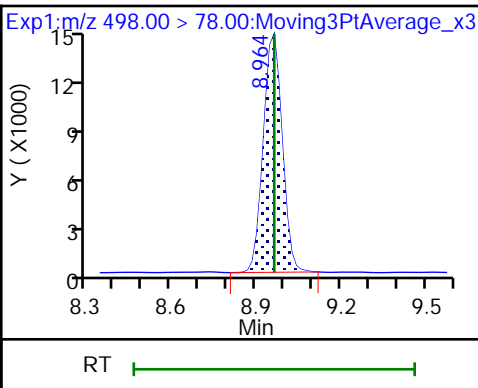
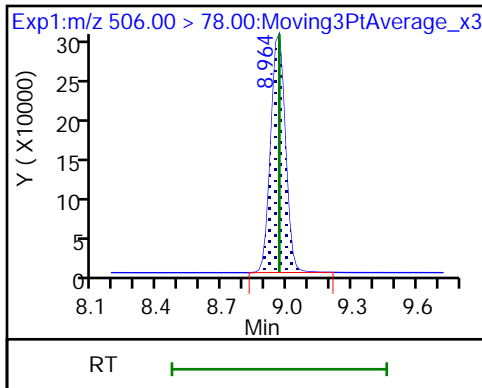
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

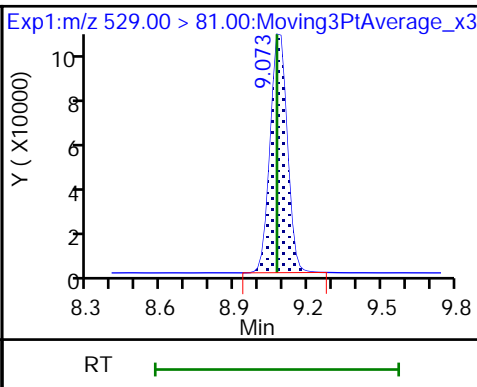
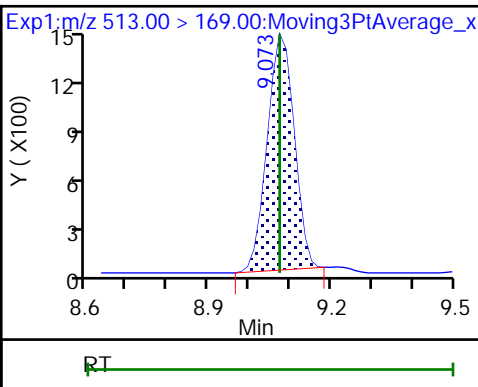
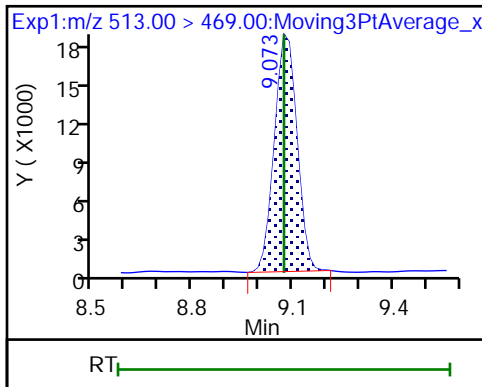
D 33 13C2 PFDA

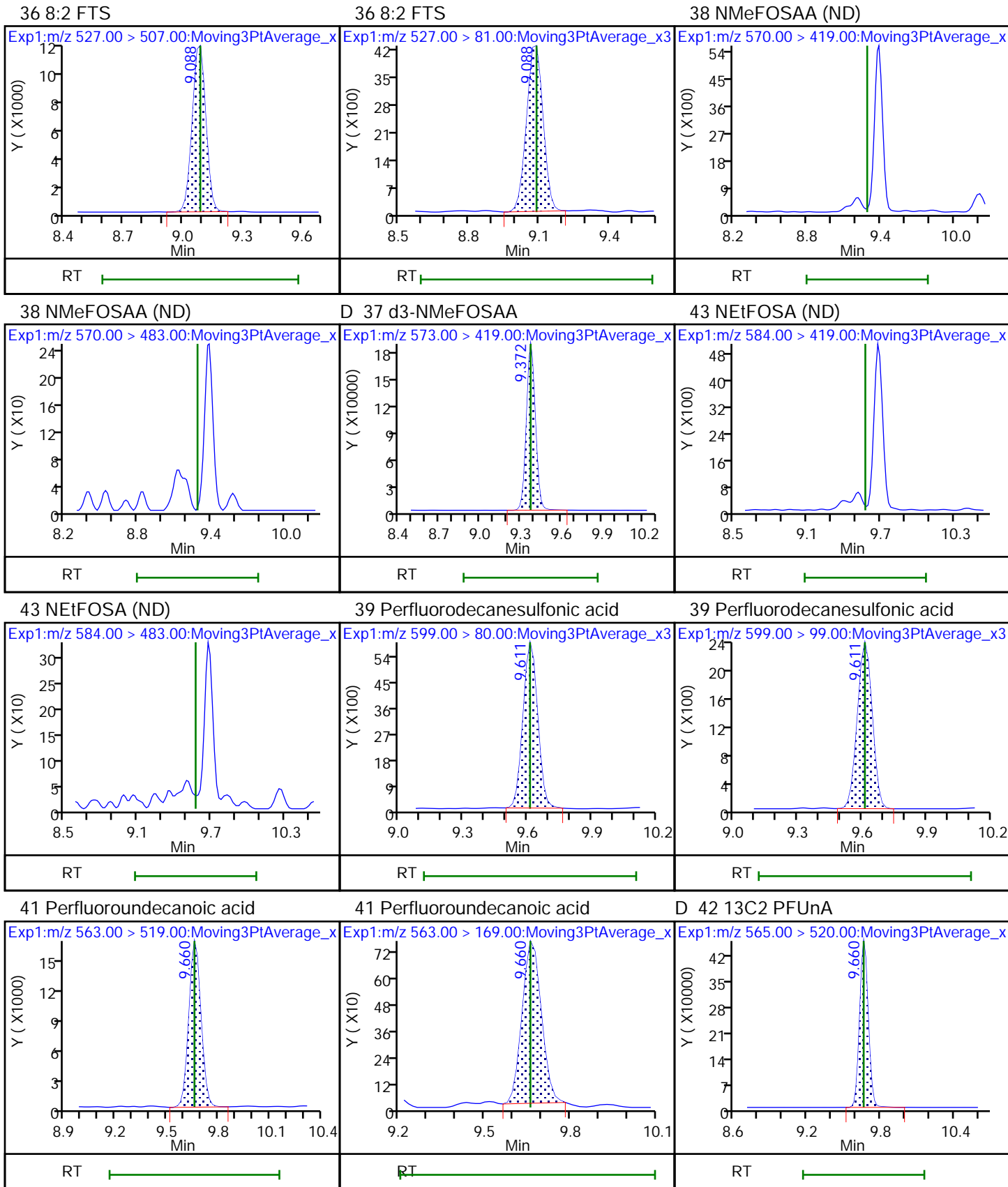


35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

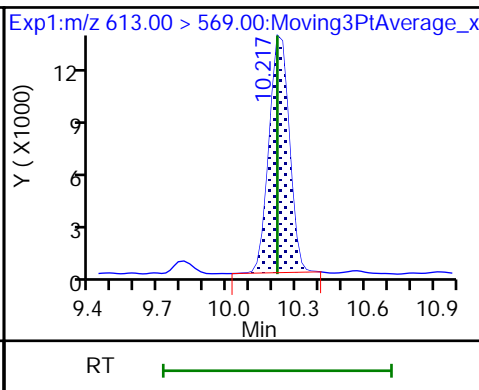
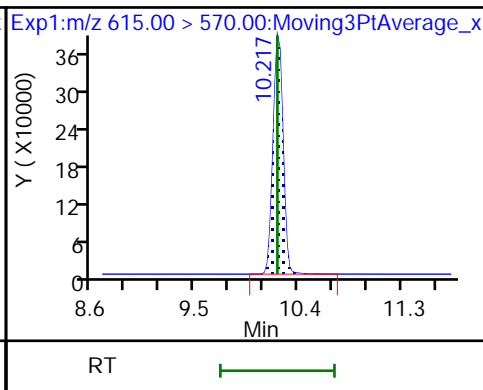
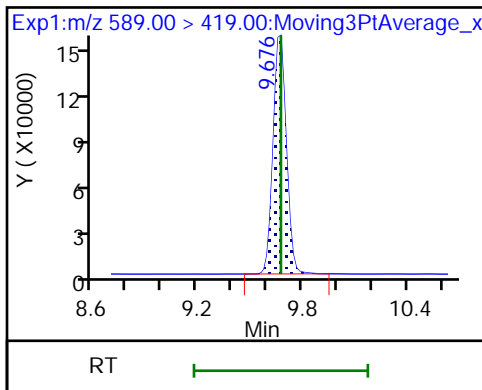




D 40 d5-NEtFOSAA

D 45 13C2 PFDoA

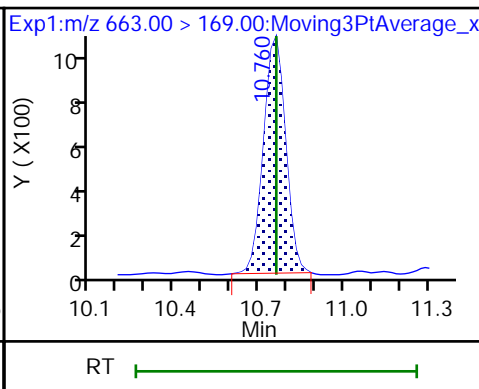
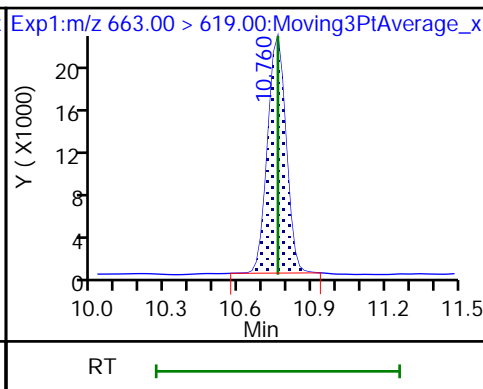
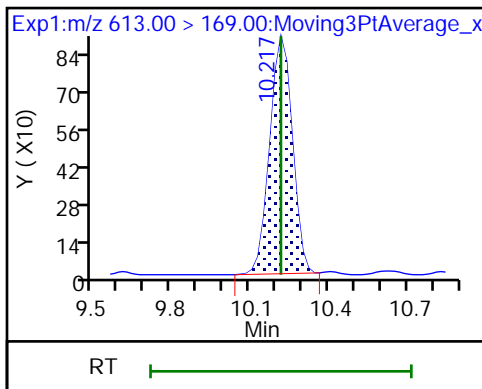
46 Perfluorododecanoic acid



46 Perfluorododecanoic acid

49 Perfluorotridecanoic acid

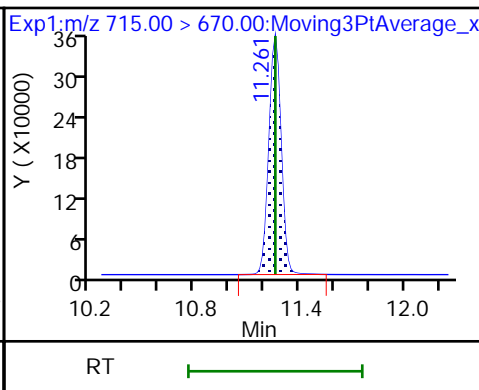
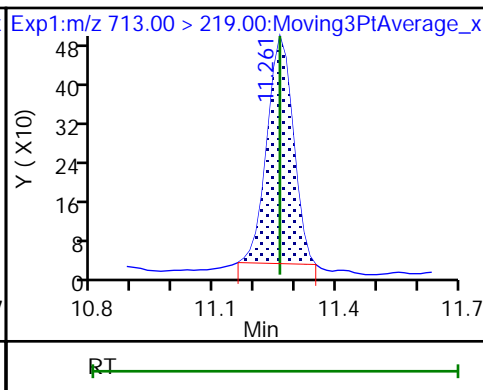
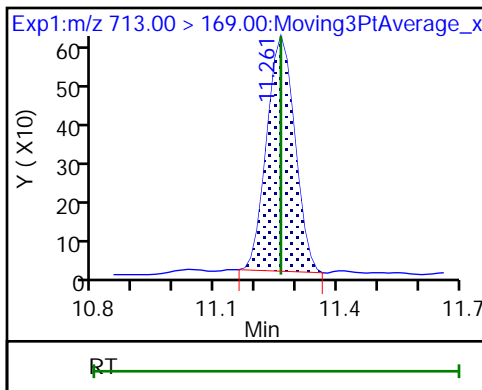
49 Perfluorotridecanoic acid



50 Perfluorotetradecanoic acid

50 Perfluorotetradecanoic acid

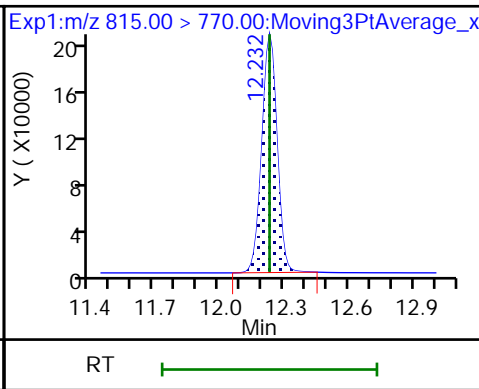
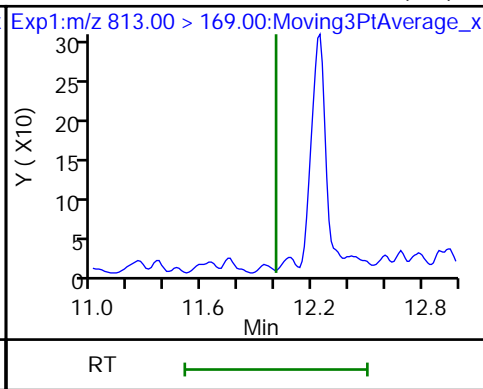
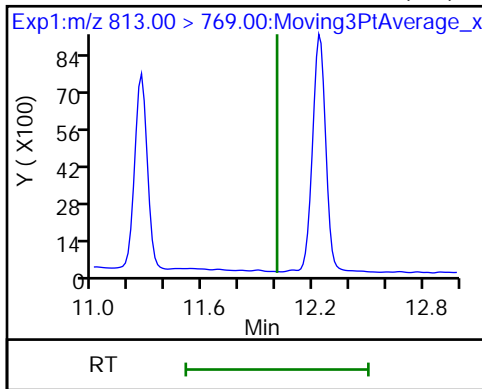
D 51 13C2 PFTeDA



54 Perfluorohexadecanoic acid (ND)

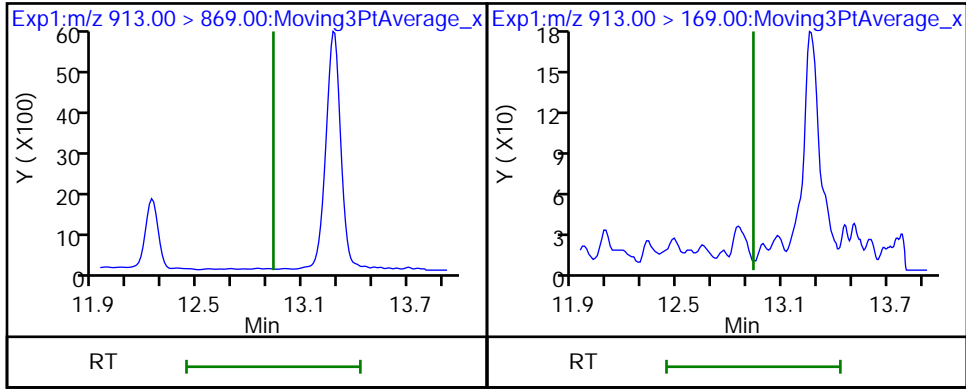
54 Perfluorohexadecanoic acid (ND)

D 52 13C2 PFHxDA



53 Perfluorooctadecanoic acid (ND)

53 Perfluorooctadecanoic acid (ND)



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/47 Calibration Date: 06/10/2021 09:19  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.08\_A10\_DI\_C\_054.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid	AveID	1.036	0.8880		17.1	20.0	-14.3	40.0
Perfluoropentanoic acid	AveID	1.187	1.075		18.1	20.0	-9.4	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.154	1.026		15.7	17.7	-11.1	40.0
Perfluorohexanoic acid	AveID	1.059	1.075		20.3	20.0	1.5	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.025	1.074		21.0	20.0	4.8	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.148	1.071		17.0	18.2	-6.7	40.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	3.055	3.016			19.0	-1.3	40.0
Perfluoroheptanesulfonic acid	AveID	1.319	1.347		19.4	19.0	2.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	0.9469	0.9796		20.7	20.0	3.5	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.103	1.034		17.4	18.6	-6.3	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9077	0.9515		21.0	20.0	4.8	40.0
Perfluorooctanesulfonamide	AveID	1.111	1.089		19.6	20.0	-2.0	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	2.414	2.221			19.2	-8.0	40.0
Perfluorodecanoic acid	AveID	0.9134	0.8766		19.2	20.0	-4.0	40.0
N-methylperfluorooctanesulfonamidoacetic acid	AveID	0.8868	0.8804			20.0	-0.7	40.0
Perfluorodecanesulfonic acid	AveID	0.6433	0.6258		18.8	19.3	-2.7	50.0
Perfluoroundecanoic acid	AveID	0.9832	0.9714		19.8	20.0	-1.2	40.0
N-ethylperfluorooctanesulfonamidoacetic acid	AveID	0.9175	0.8698			20.0	-5.2	40.0
Perfluorododecanoic acid	AveID	0.9296	0.9103		19.6	20.0	-2.1	40.0
Perfluorotridecanoic acid	AveID	1.185	1.088		18.4	20.0	-8.1	50.0
Perfluorotetradecanoic acid	AveID	0.0439	0.0444		20.2	20.0	1.2	40.0
Perfluorohexadecanoic acid	AveID	1.089	1.007		18.5	20.0	-7.5	50.0
Perfluorooctadecanoic acid	AveID	0.4168	0.4612		22.1	20.0	10.6	50.0
13C4 PFBA	Ave	35846400	62852660		87.7	50.0	75.3*	50.0
13C5 PFPeA	Ave	34274650	45545860		66.4	50.0	32.9	50.0
13C3 PFBS	Ave	28645995	40051398		65.0	46.5	39.8	50.0
13C2 PFHxA	Ave	32572608	38384460		58.9	50.0	17.8	50.0
13C4 PFHpA	Ave	38616810	43889460		56.8	50.0	13.7	50.0
18O2 PFHxS	Ave	27842030	35918964		61.0	47.3	29.0	50.0
M2-6:2 FTS	Ave	10115900	10542526		49.5	47.5	4.2	50.0
13C4 PFOA	Ave	57004583	64090860		56.2	50.0	12.4	50.0
13C4 PFOS	Ave	19433457	22765167		56.0	47.8	17.1	50.0
13C5 PFNA	Ave	48599775	53146480		54.7	50.0	9.4	50.0
13C8 FOSA	Ave	23033178	26763280		58.1	50.0	16.2	50.0
13C2 PFDA	Ave	44139855	50205120		56.9	50.0	13.7	50.0
M2-8:2 FTS	Ave	8386487	8054906		46.0	47.9	-4.0	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/47 Calibration Date: 06/10/2021 09:19  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.08\_A10\_DI\_C\_054.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
d3-NMeFOSAA	Ave	15969758	16758960		52.5	50.0	4.9	50.0
13C2 PFUnA	Ave	39264810	44363680		56.5	50.0	13.0	50.0
d5-NEtFOSAA	Ave	15890453	18210280		57.3	50.0	14.6	50.0
13C2 PFDoA	Ave	44199513	47244080		53.4	50.0	6.9	50.0
13C2 PFTeDA	Ave	36765928	36859540		50.1	50.0	0.3	50.0
13C2 PFHxDA	Ave	24773343	14188320		28.6	50.0	-42.7	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d  
 Lims ID: CCV L5  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 09:19:53 ALS Bottle#: 54 Worklist Smp#: 47  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L5  
 Misc. Info.: Plate: 1 Rack: 3  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:51:34 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:51:34

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.638	5.701	-0.063	3142633	0.0877		175	9760	
1 Perfluorobutanoic acid	212.90 > 169.00	5.638	5.701	-0.063	1116310	0.0171		85.7	299	
D 4 13C5 PFPeA	267.90 > 223.00	6.250	6.254	-0.004	2277293	0.0664		133	10865	
5 Perfluoropentanoic acid	262.90 > 219.00	6.250	6.254	-0.004	979098	0.0181		90.6	279	
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.297	0.019	1862390	0.0650		140	7311	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.316	6.297	0.019	726523	0.0157	Target=1.41	88.9	1702	
	298.90 > 99.00	6.316	6.297	0.019	515686		1.41(0.71-2.12)		637	
8 4:2 FTS	327.00 > 307.00	6.687	6.668	0.019	392469	NC	Target=2.69		5342	
	327.00 > 81.00	6.687	6.668	0.019	164463		2.39(1.34-4.03)		624	
D 7 M2-4:2 FTS	329.00 > 81.00	6.687	6.668	0.019	363831	NC			1423	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.715	0.019	1919223	0.0589		118	13039	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.738	-0.004	825081	0.0203	Target=19.50	101	703	
	313.00 > 119.00	6.734	6.738	-0.004	40142		20.55(9.75-29.25)		368	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.757	6.738	0.019	654195	NC	Target=1.44		1874	
	349.00 > 99.00	6.757	6.738	0.019	454355		1.44(0.72-2.17)		1168	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.875	6.879	-0.004	1.000	205403	NC			269	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.879	-0.004		208456	NC			1084	
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1698967	0.0610		129	16312	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	699974	0.0170	Target=5.60	93.3	1796	
399.00 > 99.00	7.246	7.248	-0.002	1.000	126006		5.56(2.80-8.40)		725	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.248	-0.002	1.000	942673	0.0210	Target=9.21	105	397	
363.00 > 169.00	7.246	7.248	-0.002	1.000	106691		8.84(4.61-13.82)		1013	
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.248	-0.002		2194473	0.0568		114	15758	
19 DONA										
377.00 > 251.00	7.302	7.304	-0.002	0.873	3090291	NC	Target=2.84		8878	
377.00 > 85.00	7.302	7.304	-0.002	0.873	1135231		2.72(1.42-4.26)		4394	
23 6:2 FTS										
427.00 > 407.00	7.770	7.772	-0.002	1.000	602846	0.0187	Target=2.57	98.7	4902	
427.00 > 81.00	7.770	7.772	-0.002	1.000	232018		2.60(1.29-3.86)		597	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.770	7.772	-0.002		500770	0.0495		104	1715	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.787	7.790	-0.003	0.931	583981	0.0194	Target=6.98	102	1758	
449.00 > 99.00	7.787	7.790	-0.003	0.931	83637		6.98(3.49-10.48)		640	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	1255607	0.0207	Target=1.54	103	248	
413.00 > 169.00	7.803	7.806	-0.003	1.000	791532		1.59(0.77-2.31)		1314	
D 25 13C4 PFOA										
417.00 > 372.00	7.803	7.806	-0.003		3204543	0.0562		112	14002	
D 26 13C4 PFOS										
503.00 > 80.00	8.362	8.367	-0.005		1088175	0.0560		117	4062	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.362	8.367	-0.005	1.000	436747	0.0174	Target=3.65	93.7	1507	
499.00 > 99.00	8.362	8.367	-0.005	1.000	130469		3.35(1.83-5.48)		780	
D 28 13C5 PFNA										
468.00 > 423.00	8.380	8.401	-0.021		2657324	0.0547		109	11728	
29 Perfluorononanoic acid										
463.00 > 419.00	8.380	8.401	-0.021	1.000	1011373	0.0210	Target=7.83	105	556	
463.00 > 169.00	8.380	8.401	-0.021	1.000	127549		7.93(3.92-11.75)		1236	
D 30 13C8 FOSA										
506.00 > 78.00	8.913	8.931	-0.018		1338164	0.0581		116	7765	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.913	8.931	-0.018	1.000	582911	0.0196		98.0	3452	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.929	8.947	-0.018	1.068	404317	NC	Target=6.10		3294	
549.00 > 99.00	8.929	8.947	-0.018	1.068	67258		6.01(3.05-9.15)		749	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	8.960	8.978	-0.018		2510256	0.0569		114	19501	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.960	8.978	-0.018	1.000	880216	0.0192	Target=16.47	96.0	851	
513.00 > 169.00	8.960	8.978	-0.018	1.000	56277		15.64(8.23-24.70)		426	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.960	8.978	-0.018		385830	0.0460		96.0	3305	
36 8:2 FTS										
527.00 > 507.00	8.960	8.978	-0.018	1.000	342796	0.0176	Target=2.29	92.0	4474	
527.00 > 81.00	8.960	8.978	-0.018	1.000	150958		2.27(1.15-3.44)		1106	
38 NMeFOSAA										
570.00 > 419.00	9.241	9.259	-0.018	1.000	295082	0.0199	Target=13.24	99.3	905	
570.00 > 483.00	9.241	9.259	-0.018	1.000	22039		13.39(6.62-19.86)		330	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.241	9.259	-0.018		837948	0.0525		105	2952	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.474	9.479	-0.005	1.133	274669	0.0188	Target=2.43	97.3	3030	
599.00 > 99.00	9.474	9.479	-0.005	1.133	104753		2.62(1.22-3.65)		1005	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.522	9.528	-0.006		910514	0.0573		115	3571	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.506	9.528	-0.022	1.000	861925	0.0198	Target=21.30	98.8	1210	
563.00 > 169.00	9.506	9.528	-0.022	1.000	44461		19.39(10.65-31.95)		1029	
D 42 13C2 PFUnA										
565.00 > 520.00	9.506	9.528	-0.022		2218184	0.0565		113	17906	
43 NEtFOSA										
584.00 > 419.00	9.522	9.544	-0.022	1.000	316787	0.0190	Target=16.50	94.8	2560	
584.00 > 483.00	9.522	9.544	-0.022	1.000	19784		16.01(8.25-24.74)		46.3	
44 11C1FOS										
631.00 > 451.00	9.738	9.762	-0.024	1.165	2003849	NC			7292	
D 45 13C2 PFDaA										
615.00 > 570.00	10.029	10.055	-0.026		2362204	0.0534		107	10120	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.029	10.055	-0.026	1.000	860140	0.0196	Target=15.78	97.9	408	
613.00 > 169.00	10.029	10.055	-0.026	1.000	55227		15.57(7.89-23.66)		843	
47 10:2 FTS										
627.00 > 607.00	10.051	10.077	-0.026	1.122	444141	NC	Target=34.02		8083	
627.00 > 81.00	10.073	10.077	-0.004	1.124	12525		35.46(17.01-51.03)		303	
48 PFDaS										
699.00 > 80.00	10.476	10.501	-0.025	1.253	103712	NC	Target=0.50		855	
699.00 > 99.00	10.476	10.501	-0.025	1.253	207813		0.50(0.25-0.74)		2081	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.536	10.560	-0.024	1.051	1028485	0.0184	Target=20.25	91.9	379	
663.00 > 169.00	10.536	10.560	-0.024	1.051	54933		18.72(10.13-30.38)		859	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.006	11.044	-0.038	1.000	32746	0.0202	Target=1.26	101	673	
713.00 > 219.00	11.006	11.044	-0.038	1.000	25995		1.26(0.63-1.89)		534	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.006	11.044	-0.038		1842977	0.0501		100	8919	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.892	11.945	-0.053	1.000	285669	0.0185	Target=28.54	92.5	206	
813.00 > 169.00	11.892	11.945	-0.053	1.000	10038		28.46(14.27-42.81)		193	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.892	11.945	-0.053		709416	0.0286		57.3	3136	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.775	12.841	-0.066	1.074	130877	0.0221	Target=35.98	111	134	
913.00 > 169.00	12.765	12.841	-0.076	1.073	3778		34.64(17.99-53.97)		69.5	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

**Reagents:**

LCPFC-LL-L5\_00036

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Injection Date: 10-Jun-2021 09:19:53

Instrument ID: A10

Lims ID: CCV L5

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 54

Worklist Smp#: 47

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

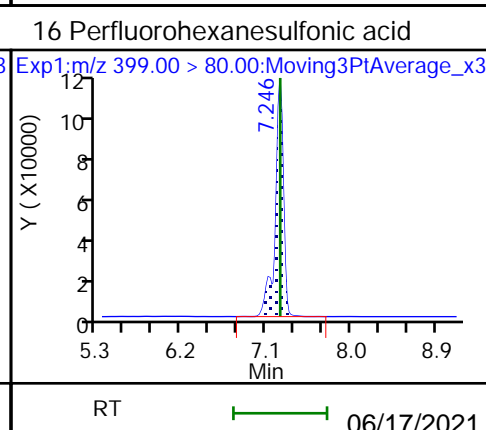
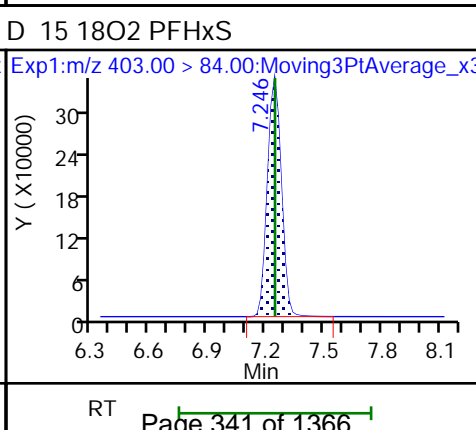
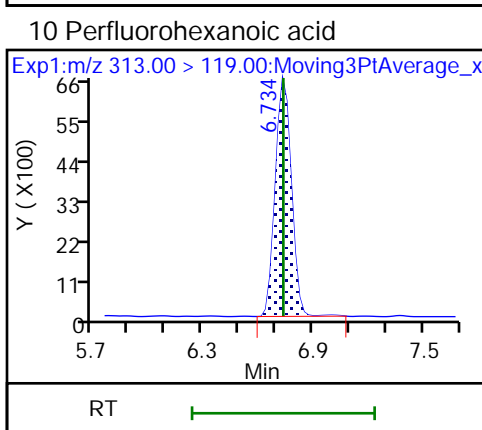
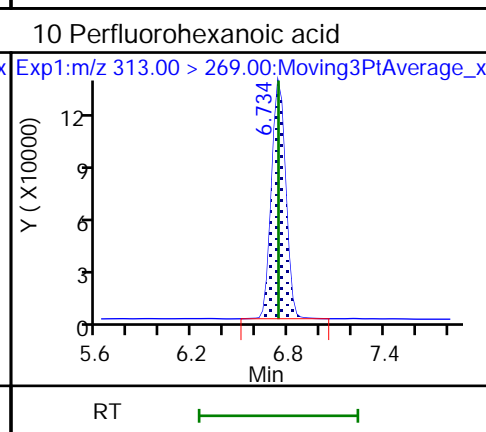
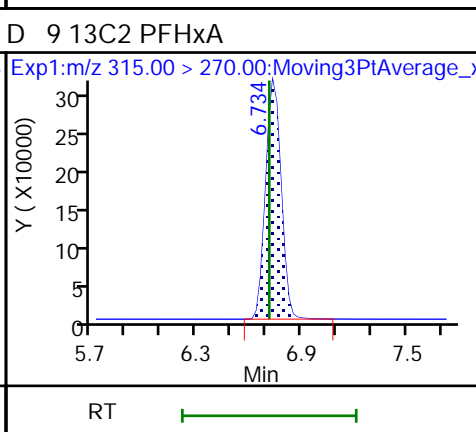
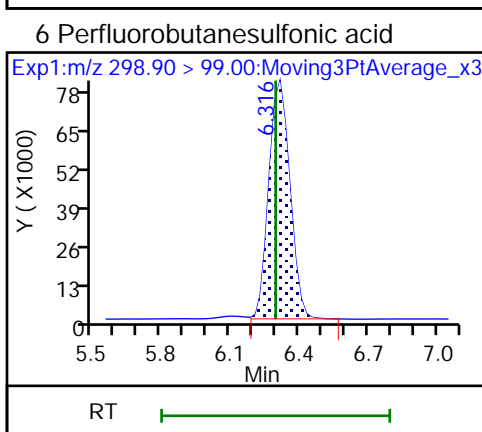
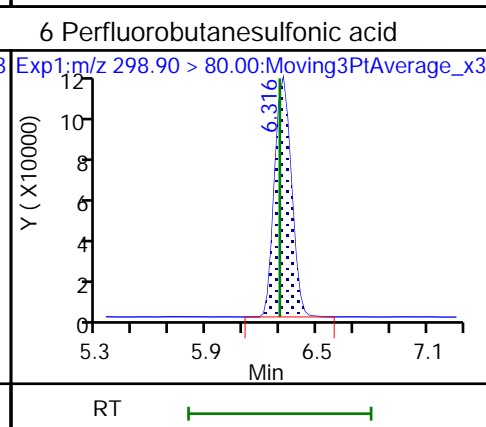
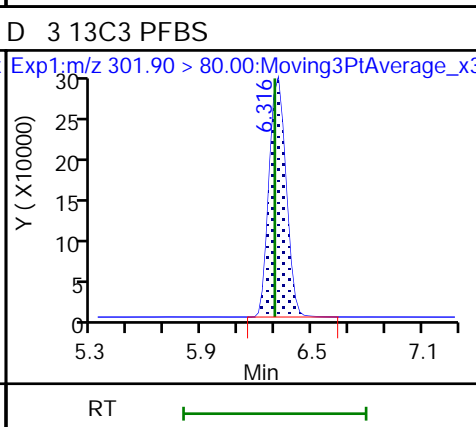
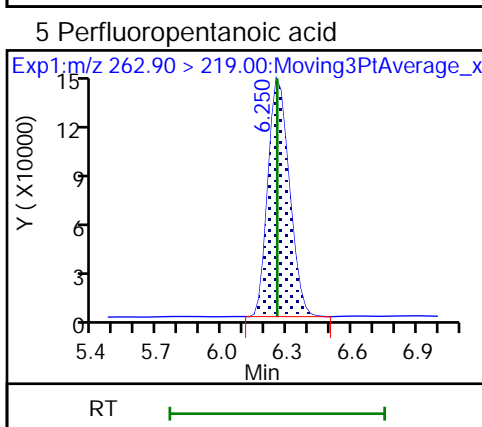
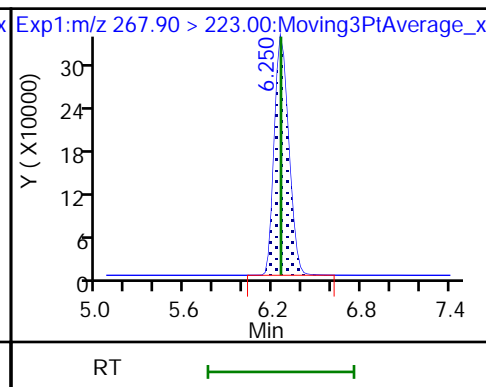
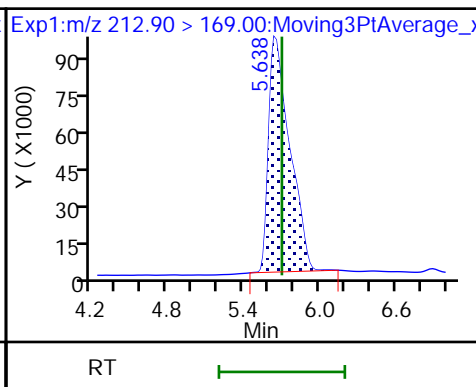
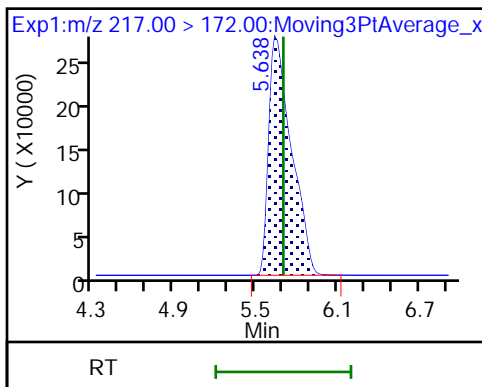
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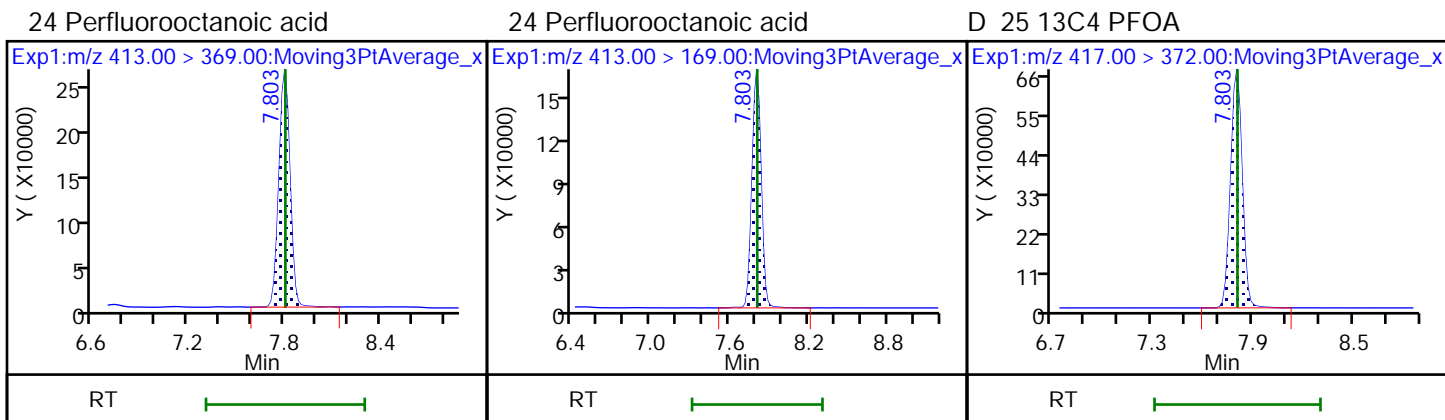
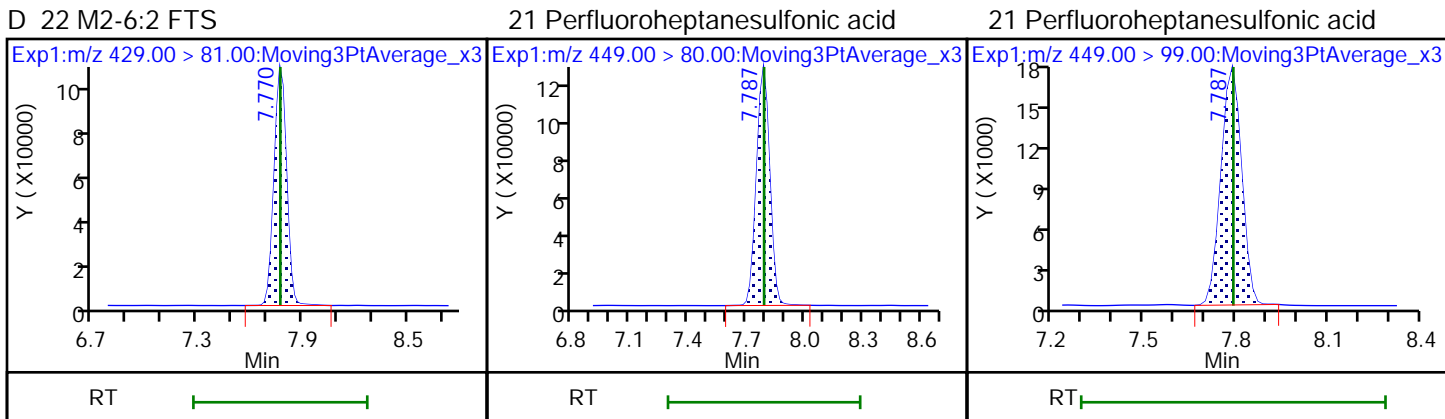
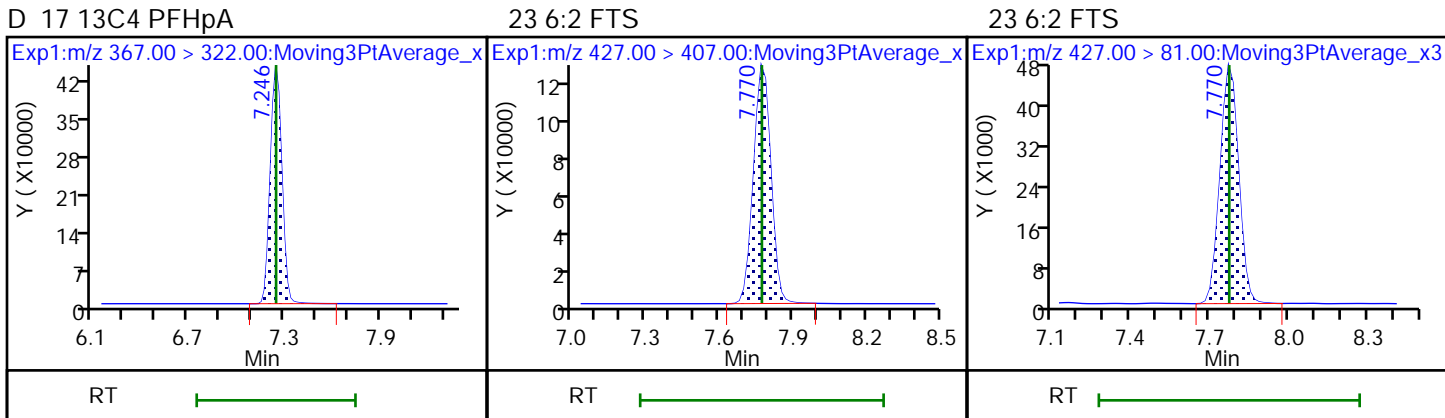
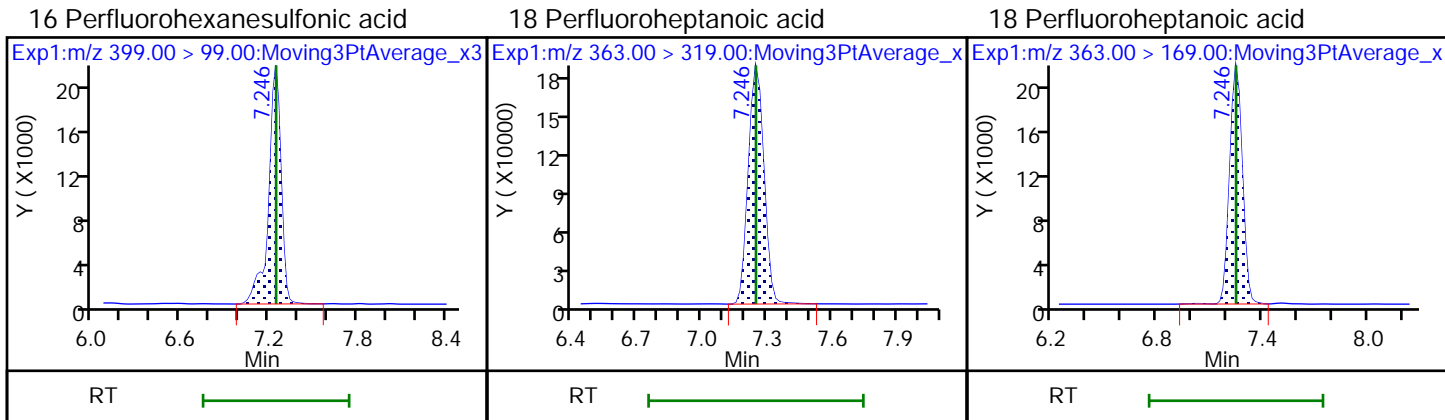
Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

D 4 13C5 PFPeA

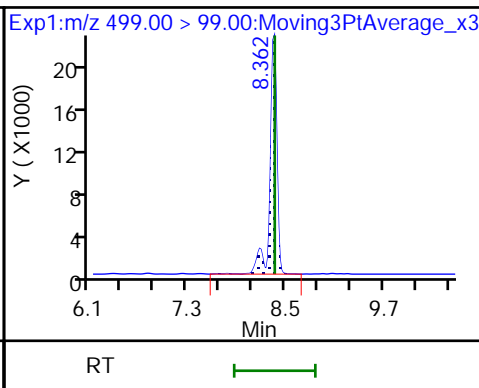
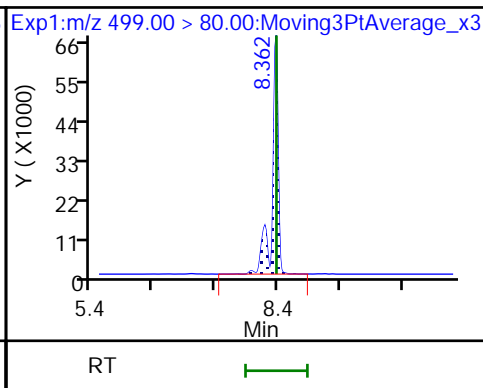
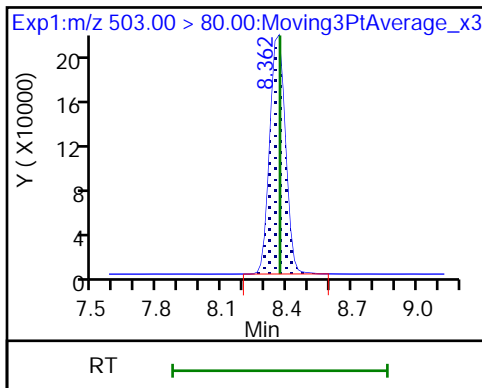




D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

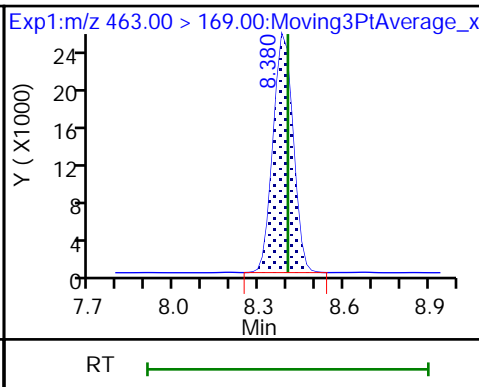
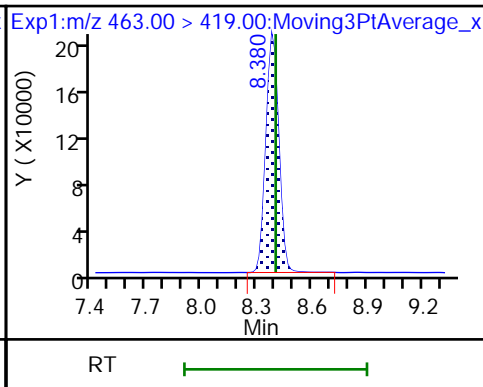
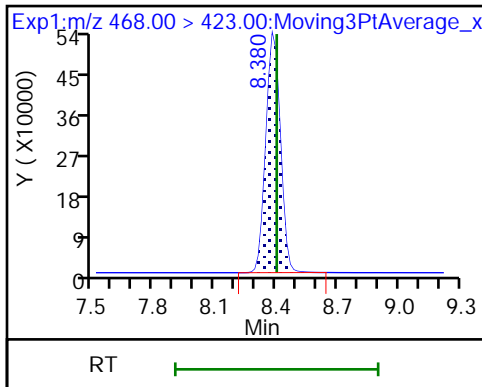
27 Perfluorooctanesulfonic acid



D 28 13C5 PFNA

29 Perfluorononanoic acid

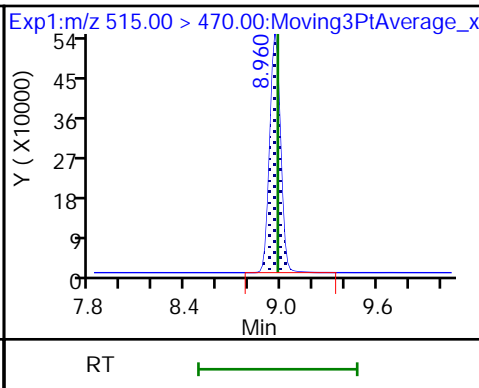
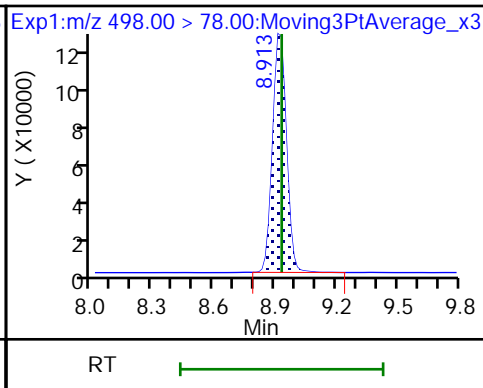
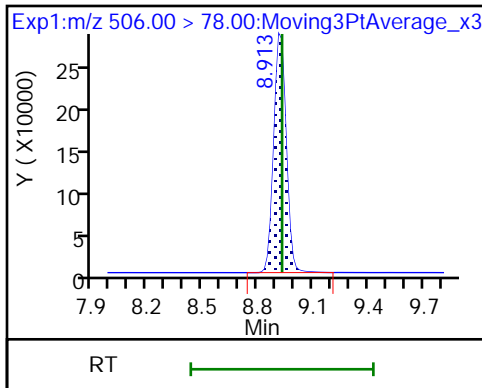
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

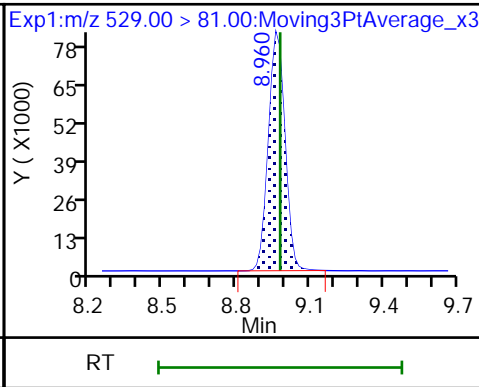
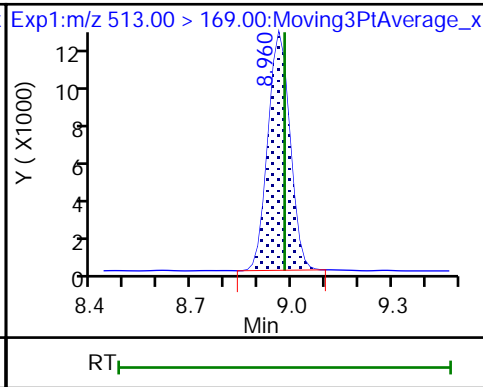
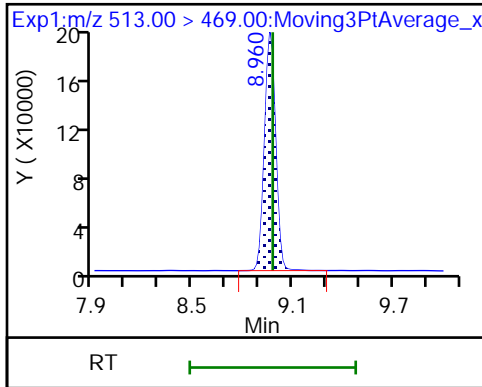
D 33 13C2 PFDA

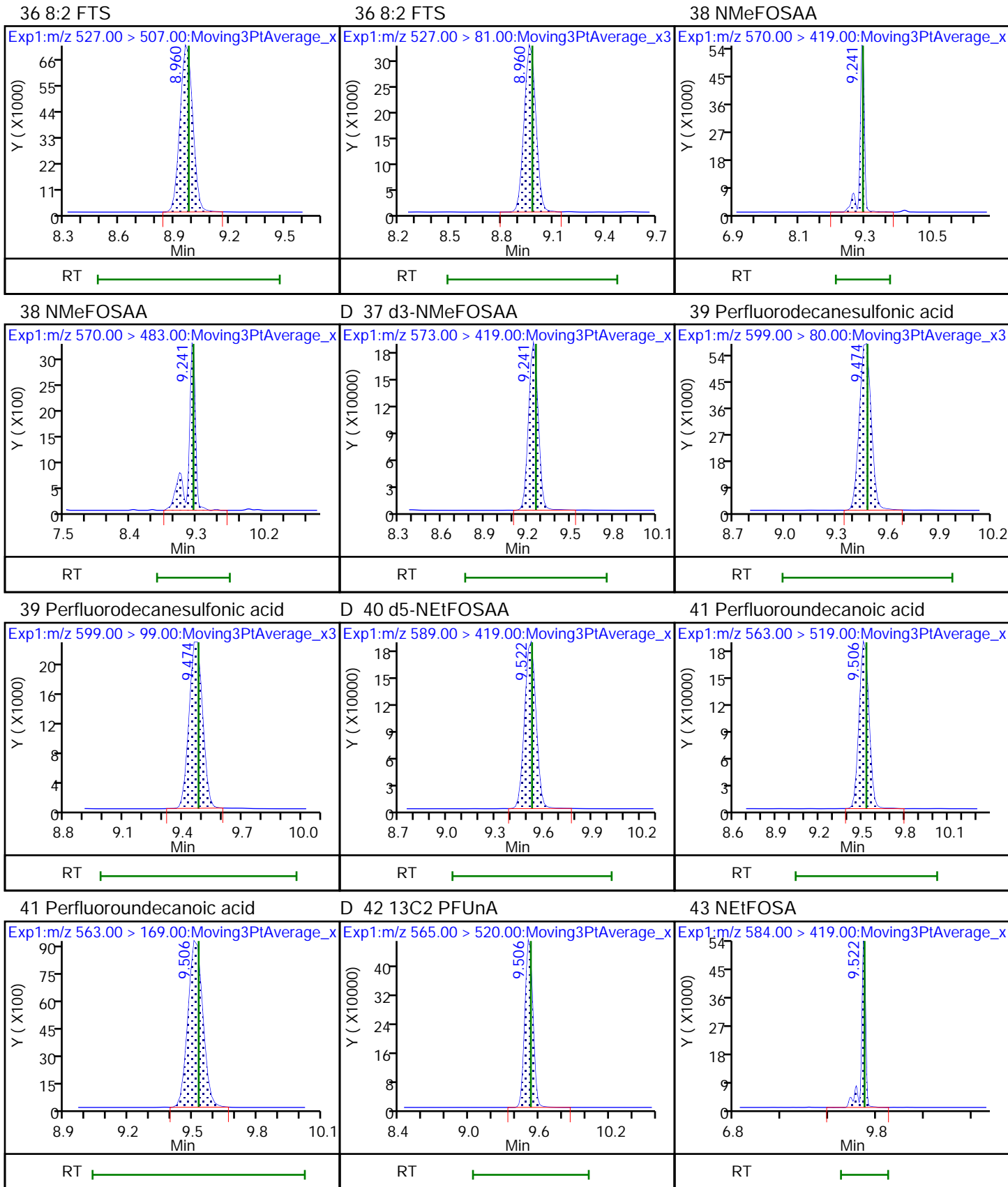


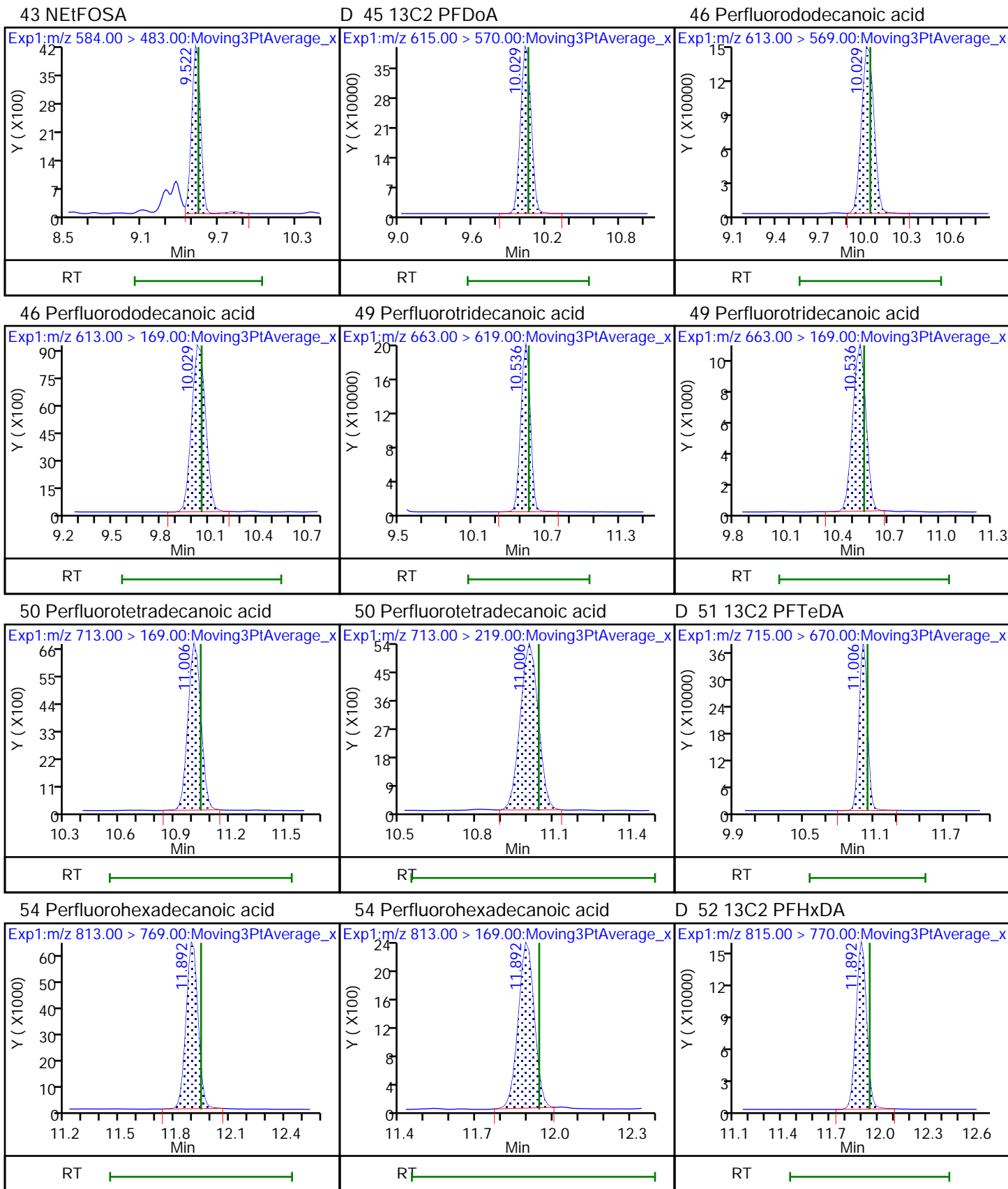
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS



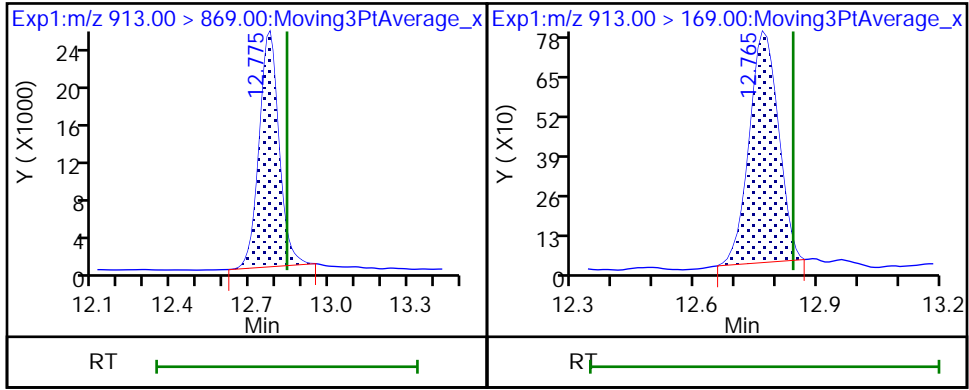






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/58 Calibration Date: 06/10/2021 12:42  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.10\_A10\_DI\_A\_011.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid	AveID	1.036	0.8606		41.5	50.0	-17.0	40.0
Perfluoropentanoic acid	AveID	1.187	1.090		45.9	50.0	-8.2	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.154	0.9711		37.2	44.2	-15.9	40.0
Perfluorohexanoic acid	AveID	1.059	0.9777		46.1	50.0	-7.7	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.025	0.998		48.7	50.0	-2.6	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.148	1.055		41.8	45.5	-8.1	40.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	3.055	2.760		42.8	47.4	-9.7	40.0
Perfluoroheptanesulfonic acid	AveID	1.319	1.208		43.6	47.6	-8.4	50.0
Perfluorooctanoic acid (PFOA)	AveID	0.9469	0.9108		48.1	50.0	-3.8	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.103	1.017		42.8	46.4	-7.8	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9077	0.9115		50.2	50.0	0.4	40.0
Perfluorooctanesulfonamide	AveID	1.111	1.063		47.9	50.0	-4.3	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	2.414	2.264		44.9	47.9	-6.2	40.0
Perfluorodecanoic acid	AveID	0.9134	0.8354		45.7	50.0	-8.5	40.0
N-methylperfluorooctanesulfonamidoacetic acid	AveID	0.8868	0.8330		47.0	50.0	-6.1	40.0
Perfluorodecanesulfonic acid	AveID	0.6433	0.6143		46.0	48.2	-4.5	50.0
Perfluoroundecanoic acid	AveID	0.9832	0.9487		48.2	50.0	-3.5	40.0
N-ethylperfluorooctanesulfonamidoacetic acid	AveID	0.9175	0.8874		48.4	50.0	-3.3	40.0
Perfluorododecanoic acid	AveID	0.9296	0.8892		47.8	50.0	-4.3	40.0
Perfluorotridecanoic acid	AveID	1.185	1.264		53.4	50.0	6.7	50.0
Perfluorotetradecanoic acid	AveID	0.0439	0.0419		47.7	50.0	-4.6	40.0
Perfluorohexadecanoic acid	AveID	1.089	1.001		46.0	50.0	-8.1	50.0
Perfluorooctadecanoic acid	AveID	0.4168	0.1974		23.7	50.0	-52.6*	50.0
13C4 PFBA	Ave	35846400	55050080		76.8	50.0	53.6*	50.0
13C5 PFPeA	Ave	34274650	40232780		58.7	50.0	17.4	50.0
13C3 PFBS	Ave	28645995	37580796		61.0	46.5	31.2	50.0
13C2 PFHxA	Ave	32572608	38205760		58.6	50.0	17.3	50.0
13C4 PFHpA	Ave	38616810	43968820		56.9	50.0	13.9	50.0
18O2 PFHxS	Ave	27842030	33411057		56.8	47.3	20.0	50.0
M2-6:2 FTS	Ave	10115900	10031621		47.1	47.5	-0.8	50.0
13C4 PFOA	Ave	57004583	62292300		54.6	50.0	9.3	50.0
13C4 PFOS	Ave	19433457	24217699		59.6	47.8	24.6	50.0
13C5 PFNA	Ave	48599775	52639960		54.2	50.0	8.3	50.0
13C8 FOSA	Ave	23033178	29793020		64.7	50.0	29.3	50.0
13C2 PFDA	Ave	44139855	52272460		59.2	50.0	18.4	50.0
M2-8:2 FTS	Ave	8386487	8343048		47.7	47.9	-0.5	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/58 Calibration Date: 06/10/2021 12:42  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.10\_A10\_DI\_A\_011.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
d3-NMeFOSAA	Ave	15969758	18422600		57.7	50.0	15.4	50.0
13C2 PFUnA	Ave	39264810	46045160		58.6	50.0	17.3	50.0
d5-NEtFOSAA	Ave	15890453	18728540		58.9	50.0	17.9	50.0
13C2 PFDoA	Ave	44199513	50655060		57.3	50.0	14.6	50.0
13C2 PFTeDA	Ave	36765928	42510760		57.8	50.0	15.6	50.0
13C2 PFHxDA	Ave	24773343	40596000		81.9	50.0	63.9*	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_011.d  
 Lims ID: CCV L6  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 12:42:59 ALS Bottle#: 11 Worklist Smp#: 58  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L6  
 Misc. Info.: Plate: 1 Rack: 3  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:58:36 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:58:36

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA										
217.00 > 172.00	5.603	5.701	-0.098		2752504	0.0768		154	7184	
1 Perfluorobutanoic acid										
212.90 > 169.00	5.603	5.701	-0.098	1.000	2368779	0.0415		83.0	507	
D 4 13C5 PFPeA										
267.90 > 223.00	6.250	6.254	-0.004		2011639	0.0587		117	8768	
5 Perfluoropentanoic acid										
262.90 > 219.00	6.250	6.254	-0.004	1.000	2191954	0.0459		91.8	684	
D 3 13C3 PFBS										
301.90 > 80.00	6.316	6.297	0.019		1747507	0.0610		131	5066	
6 Perfluorobutanesulfonic acid										
298.90 > 80.00	6.316	6.297	0.019	1.000	1613054	0.0372	Target=1.41	84.1	1209	
298.90 > 99.00	6.316	6.297	0.019	1.000	1207008		1.34(0.71-2.12)		1937	
8 4:2 FTS										
327.00 > 307.00	6.687	6.668	0.019	1.000	889284	NC	Target=2.69		10877	
327.00 > 81.00	6.687	6.668	0.019	1.000	343534		2.59(1.34-4.03)		279	
D 7 M2-4:2 FTS										
329.00 > 81.00	6.687	6.668	0.019		335478	NC			488	
D 9 13C2 PFHxA										
315.00 > 270.00	6.734	6.715	0.019		1910288	0.0586		117	11934	
10 Perfluorohexanoic acid										
313.00 > 269.00	6.734	6.738	-0.004	1.000	1867768	0.0461	Target=19.50	92.3	1206	
313.00 > 119.00	6.734	6.738	-0.004	1.000	93670		19.94(9.75-29.25)		522	
11 Perfluoropentanesulfonic acid										
349.00 > 80.00	6.757	6.738	0.019	0.933	1519003	NC	Target=1.44		3902	
349.00 > 99.00	6.757	6.738	0.019	0.933	1075084		1.41(0.72-2.17)		3173	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.875	6.879	-0.004	1.000	431356	NC			323	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.879	-0.004		171895	NC			1062	
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1580343	0.0568		120	22511	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	1603991	0.0418	Target=5.60	91.9	2814	
399.00 > 99.00	7.246	7.248	-0.002	1.000	299670		5.35(2.80-8.40)		1790	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.248	-0.002	1.000	2194233	0.0487	Target=9.21	97.4	1453	
363.00 > 169.00	7.246	7.248	-0.002	1.000	227460		9.65(4.61-13.82)		3198	
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.248	-0.002		2198441	0.0569		114	15509	
19 DONA										
377.00 > 251.00	7.302	7.304	-0.002	0.873	8211986	NC	Target=2.84		19277	
377.00 > 85.00	7.302	7.304	-0.002	0.873	2980484		2.76(1.42-4.26)		12485	
23 6:2 FTS										
427.00 > 407.00	7.770	7.772	-0.002	1.000	1312314	0.0428	Target=2.57	90.3	11571	
427.00 > 81.00	7.770	7.772	-0.002	1.000	502662		2.61(1.29-3.86)		708	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.770	7.772	-0.002		476502	0.0471		99.2	813	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.787	7.790	-0.003	0.931	1392002	0.0436	Target=6.98	91.6	2789	
449.00 > 99.00	7.787	7.790	-0.003	0.931	200525		6.94(3.49-10.48)		1211	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	2836684	0.0481	Target=1.54	96.2	702	
413.00 > 169.00	7.803	7.806	-0.003	1.000	1913207		1.48(0.77-2.31)		7281	
D 25 13C4 PFOA										
417.00 > 372.00	7.803	7.806	-0.003		3114615	0.0546		109	14458	
D 26 13C4 PFOS										
503.00 > 80.00	8.366	8.367	-0.001		1157606	0.0596		125	4163	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.366	8.367	-0.001	1.000	1142392	0.0428	Target=3.65	92.2	2733	
499.00 > 99.00	8.348	8.367	-0.019	0.998	320077		3.57(1.83-5.48)		1867	
D 28 13C5 PFNA										
468.00 > 423.00	8.384	8.401	-0.017		2631998	0.0542		108	13510	
29 Perfluorononanoic acid										
463.00 > 419.00	8.384	8.401	-0.017	1.000	2399137	0.0502	Target=7.83	100	1462	
463.00 > 169.00	8.384	8.401	-0.017	1.000	298093		8.05(3.92-11.75)		3720	
D 30 13C8 FOSA										
506.00 > 78.00	8.914	8.931	-0.017		1489651	0.0647		129	7620	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.914	8.931	-0.017	1.000	1583676	0.0479		95.7	5932	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.930	8.947	-0.017	1.067	1059069	NC	Target=6.10		5404	
549.00 > 99.00	8.930	8.947	-0.017	1.067	180595		5.86(3.05-9.15)		1508	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	8.962	8.978	-0.016		2613623	0.0592		118	20147	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.962	8.978	-0.016	1.000	2183360	0.0457	Target=16.47	91.5	2203	
513.00 > 169.00	8.962	8.978	-0.016	1.000	145297		15.03(8.23-24.70)		533	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.962	8.978	-0.016		399632	0.0477		99.5	1467	
36 8:2 FTS										
527.00 > 507.00	8.962	8.978	-0.016	1.000	904589	0.0449	Target=2.29	93.8	8261	
527.00 > 81.00	8.962	8.978	-0.016	1.000	393704		2.30(1.15-3.44)		1652	
38 NMeFOSAA										
570.00 > 419.00	9.249	9.259	-0.010	1.000	767345	0.0470	Target=13.24	93.9	1814	
570.00 > 483.00	9.249	9.259	-0.010	1.000	58612		13.09(6.62-19.86)		585	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.249	9.259	-0.010		921130	0.0577		115	2588	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.468	9.479	-0.011	1.132	717100	0.0460	Target=2.43	95.5	4891	
599.00 > 99.00	9.468	9.479	-0.011	1.132	280243		2.56(1.22-3.65)		5468	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.517	9.528	-0.011	1.000	2184100	0.0482	Target=21.30	96.5	2930	
563.00 > 169.00	9.517	9.528	-0.011	1.000	103207		21.16(10.65-31.95)		2197	
D 42 13C2 PFUnA										
565.00 > 520.00	9.517	9.528	-0.011		2302258	0.0586		117	17592	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.517	9.528	-0.011		936427	0.0589		118	3065	
43 NEtFOSA										
584.00 > 419.00	9.533	9.544	-0.011	1.002	830983	0.0484	Target=16.50	96.7	4721	
584.00 > 483.00	9.533	9.544	-0.011	1.002	47319		17.56(8.25-24.74)		66.1	
44 11C1FOS										
631.00 > 451.00	9.749	9.762	-0.013	1.165	5242102	NC			17411	
D 45 13C2 PFDaA										
615.00 > 570.00	10.043	10.055	-0.012		2532753	0.0573		115	17749	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.043	10.055	-0.012	1.000	2252138	0.0478	Target=15.78	95.7	1120	
613.00 > 169.00	10.043	10.055	-0.012	1.000	138712		16.24(7.89-23.66)		1806	
47 10:2 FTS										
627.00 > 607.00	10.065	10.077	-0.012	1.123	1101723	NC	Target=34.02		9284	
627.00 > 81.00	10.065	10.077	-0.012	1.123	34432		32.00(17.01-51.03)		490	
48 PFDaS										
699.00 > 80.00	10.469	10.501	-0.032	1.251	344580	NC	Target=0.50		1696	
699.00 > 99.00	10.469	10.501	-0.032	1.251	645616		0.53(0.25-0.74)		4562	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.549	10.560	-0.011	1.050	3202411	0.0534	Target=20.25	107	1332	
663.00 > 169.00	10.549	10.560	-0.011	1.050	175635		18.23(10.13-30.38)		2297	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.019	11.044	-0.025	1.000	88962	0.0477	Target=1.26	95.4	1247	
713.00 > 219.00	11.019	11.044	-0.025	1.000	70167		1.27(0.63-1.89)		1140	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.019	11.044	-0.025		2125538	0.0578		116	9456	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.908	11.945	-0.037	1.000	2031069	0.0460	Target=28.54	91.9	1501	
813.00 > 169.00	11.908	11.945	-0.037	1.000	69466		29.24(14.27-42.81)		957	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.908	11.945	-0.037		2029800	0.0819		164	7505	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.799	12.841	-0.042	1.075	400777	0.0237	Target=35.98	47.4	218	
913.00 > 169.00	12.799	12.841	-0.042	1.075	11544		34.72(17.99-53.97)		136	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

**Reagents:**

LCPFC-LL-L6\_00033

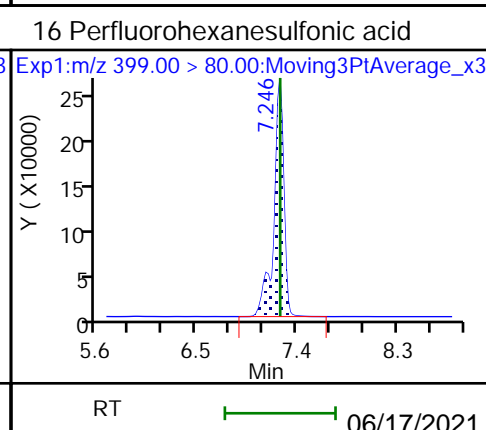
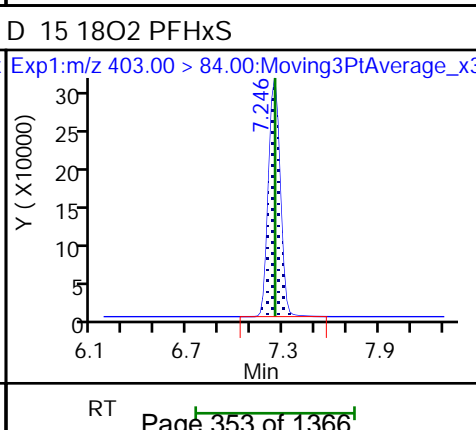
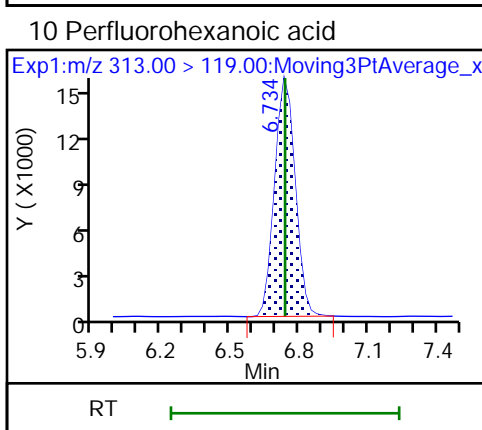
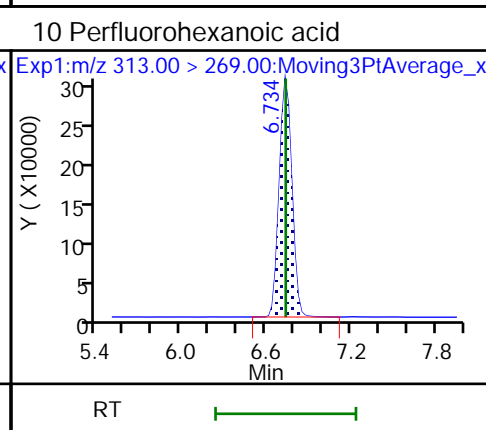
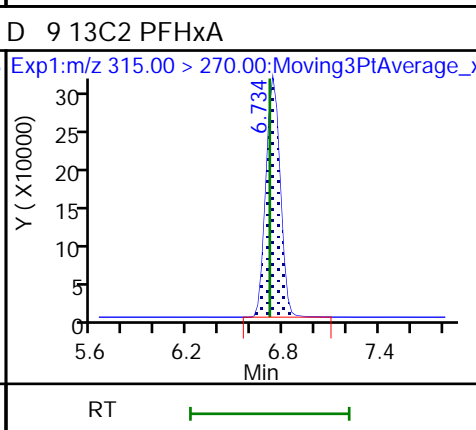
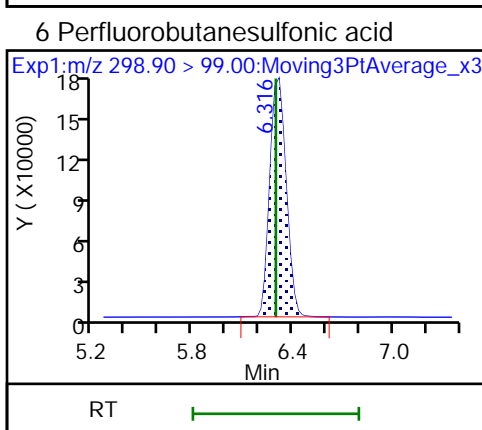
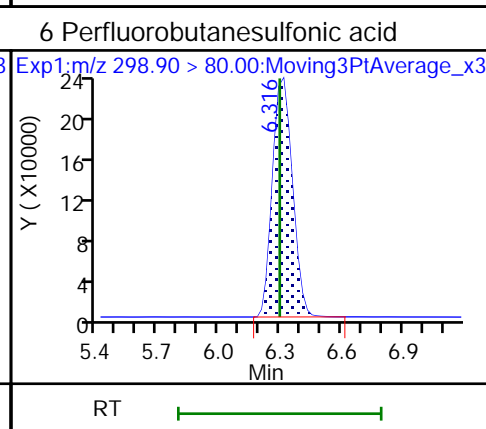
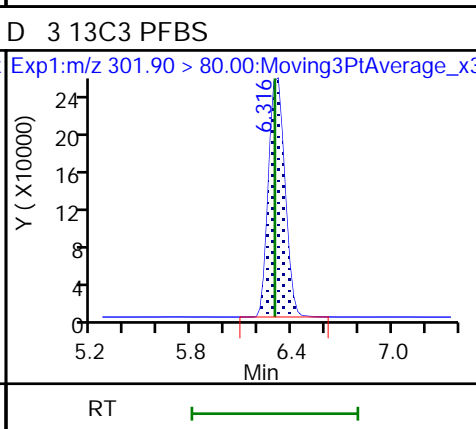
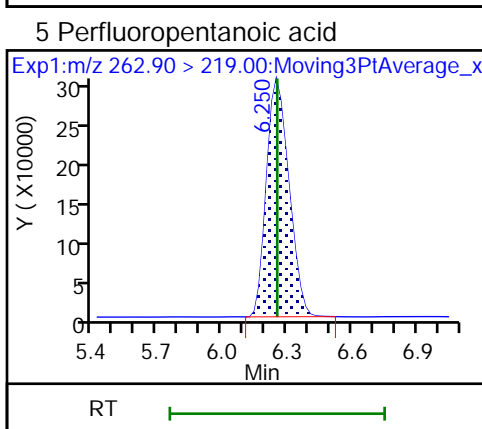
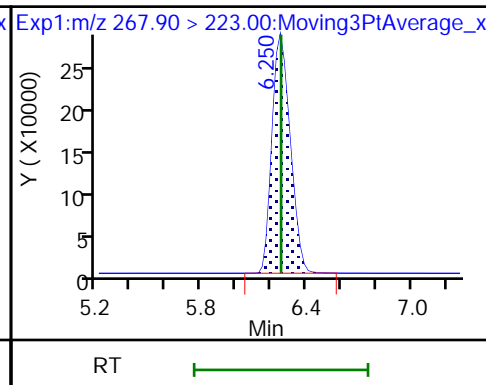
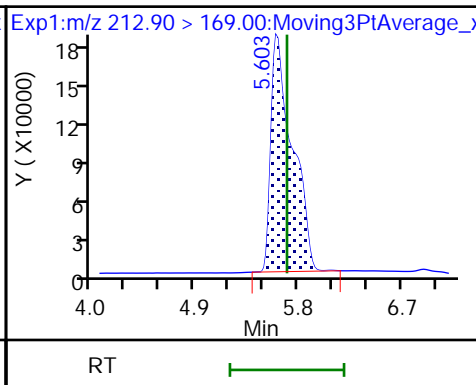
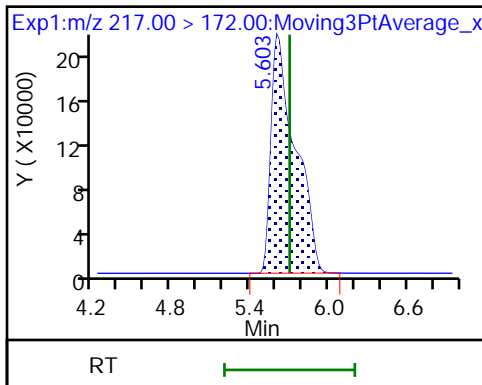
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Units: mL

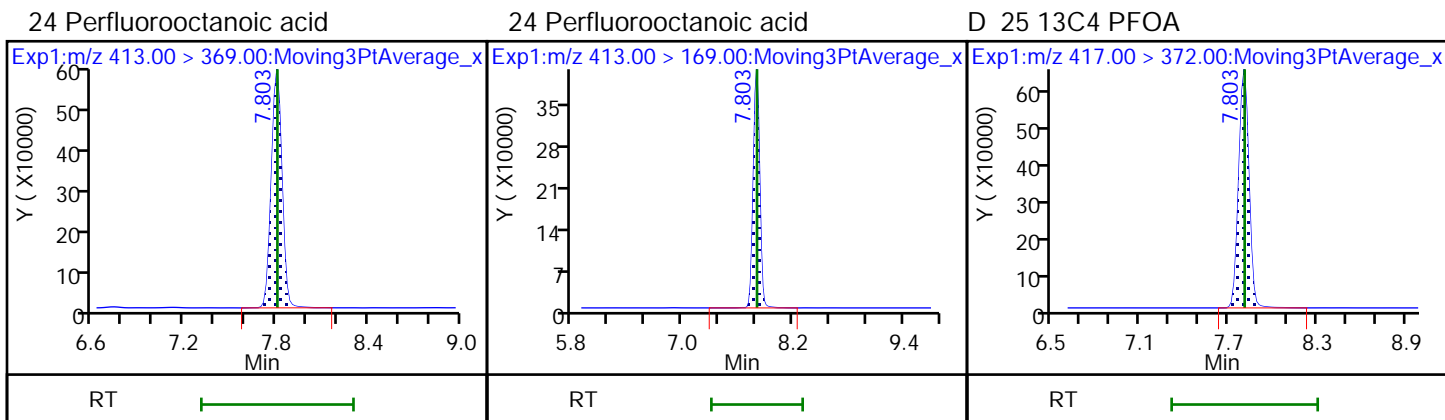
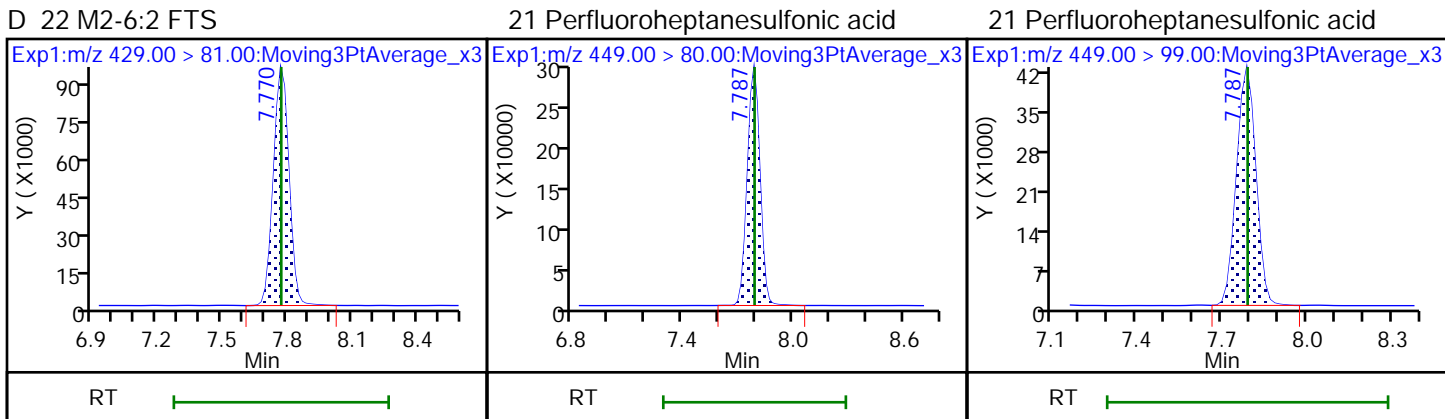
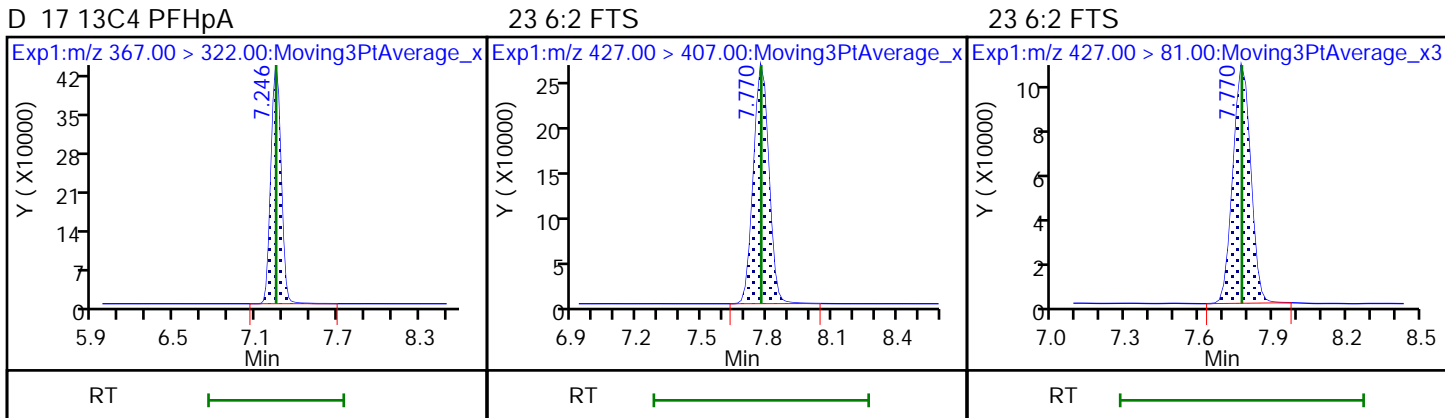
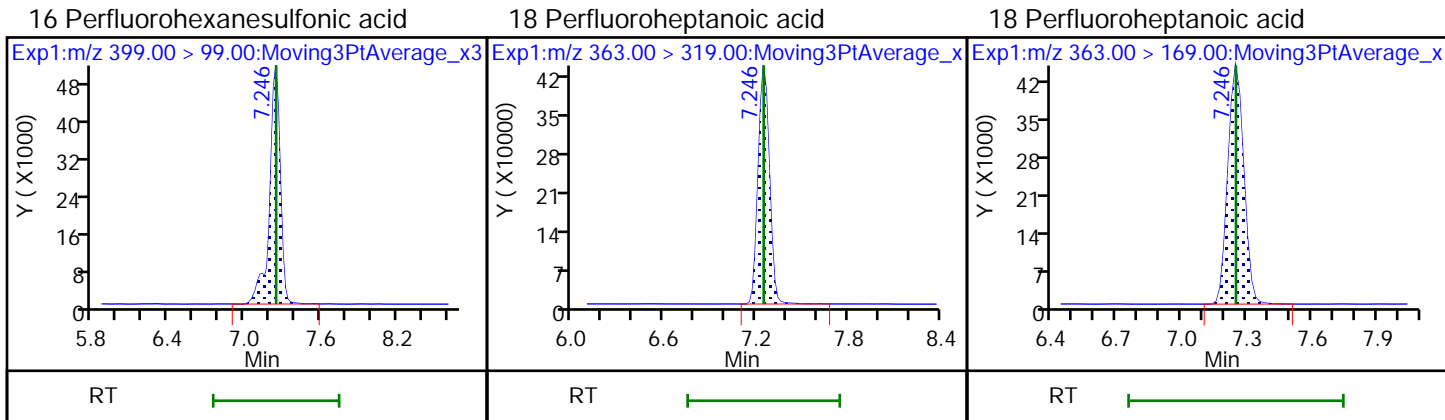
D 2 13C4 PFBA

1 Perfluorobutanoic acid

D 4 13C5 PFPeA



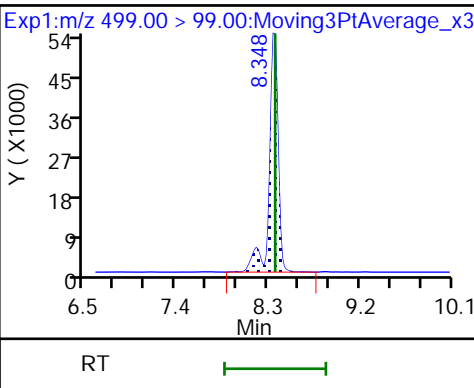
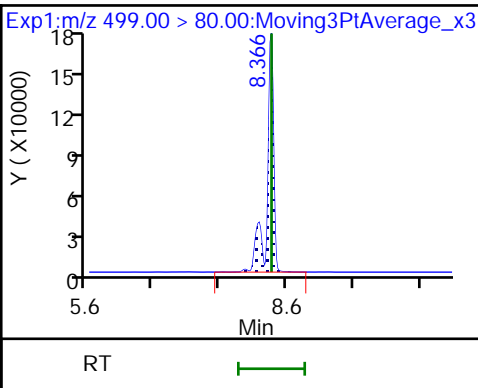
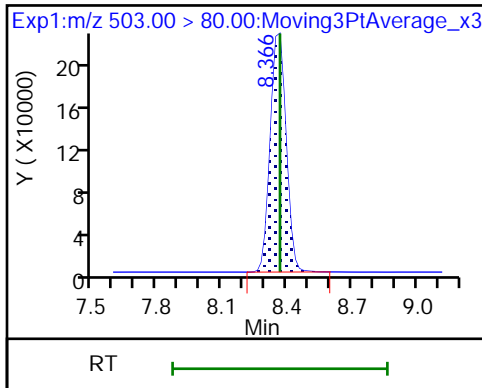




D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

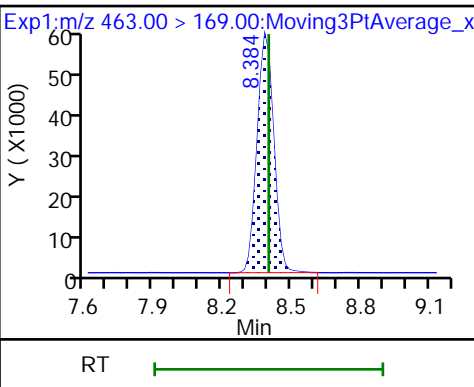
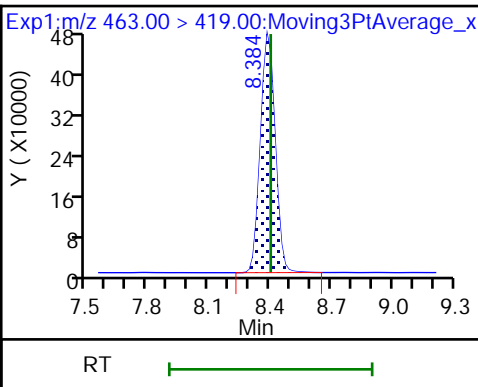
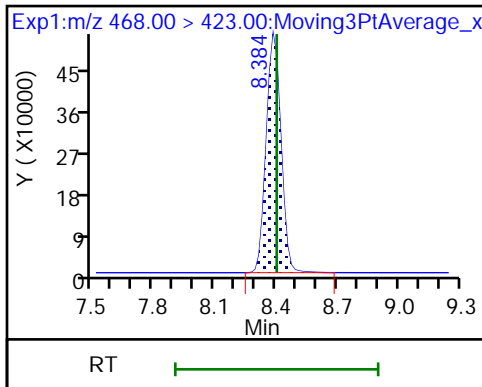
27 Perfluorooctanesulfonic acid



D 28 13C5 PFNA

29 Perfluorononanoic acid

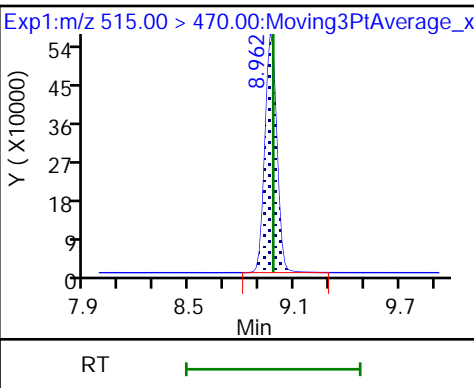
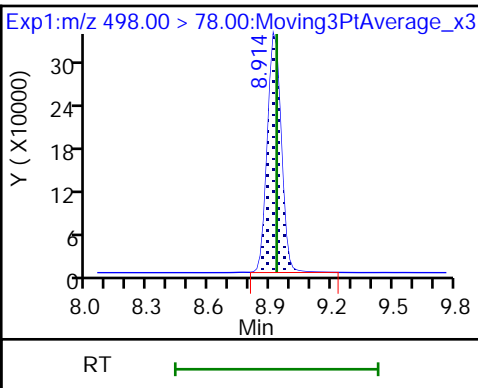
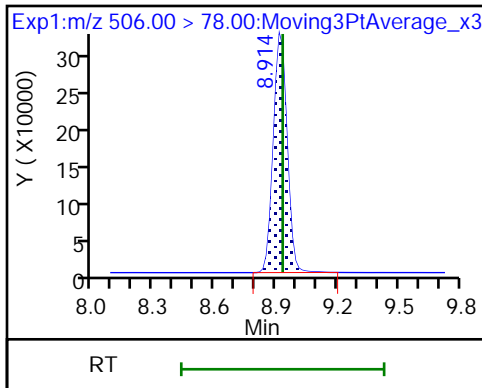
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

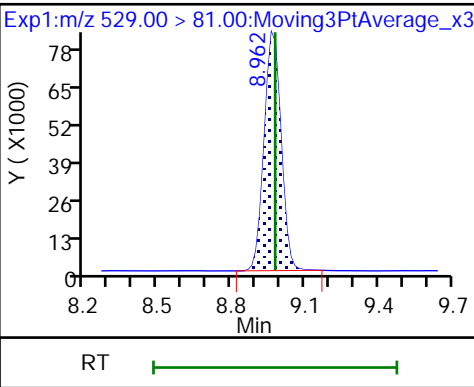
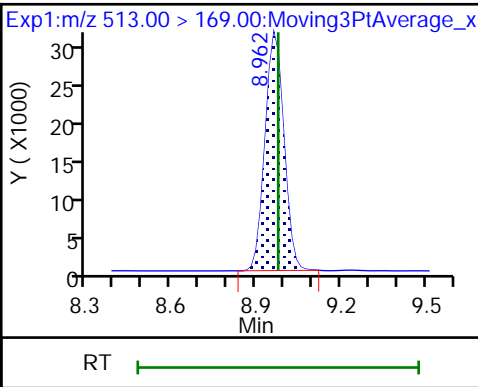
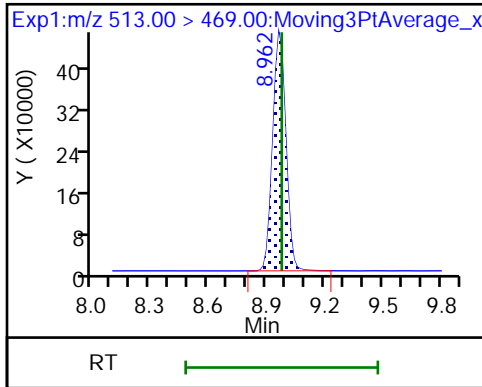
D 33 13C2 PFDA

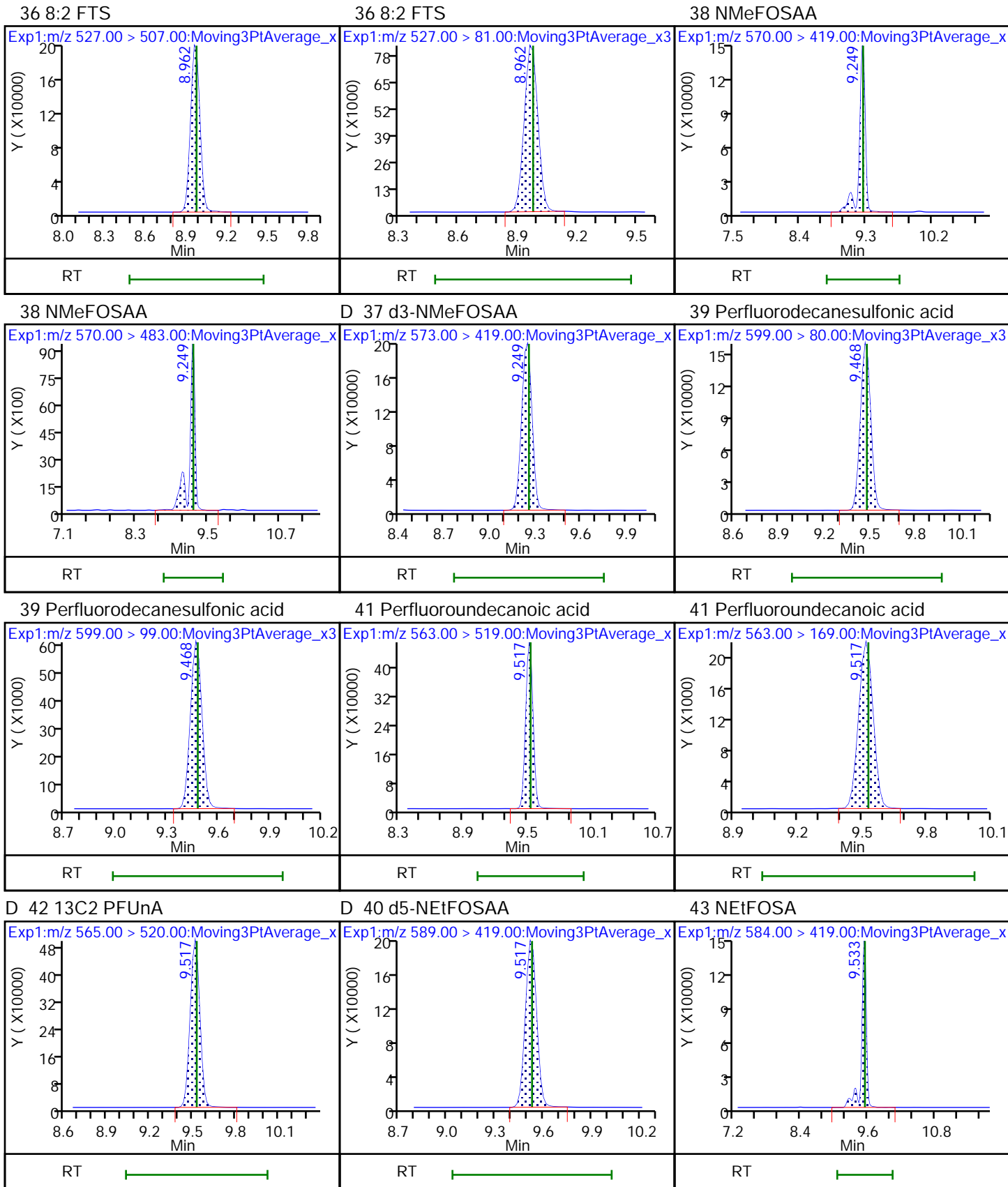


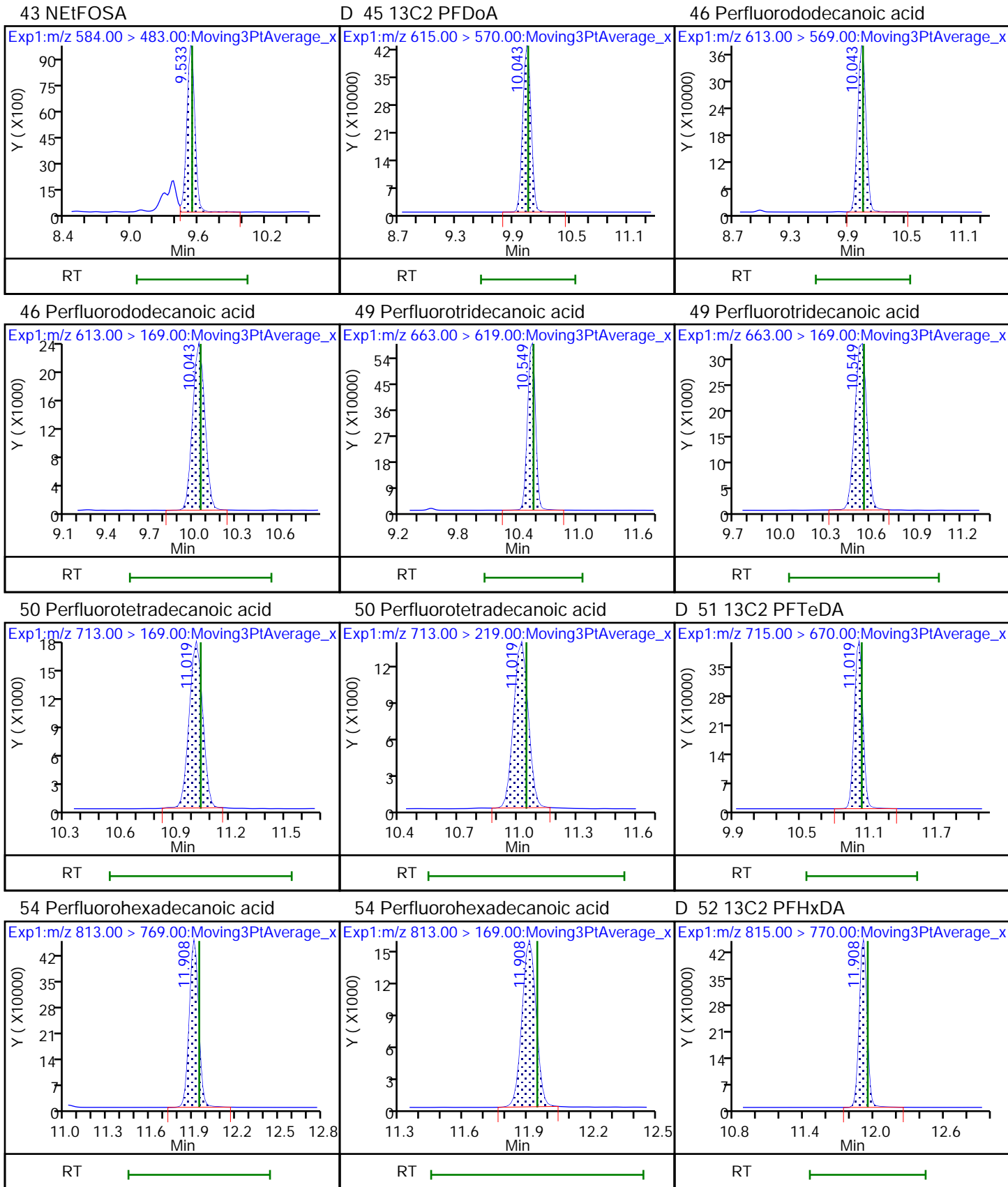
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

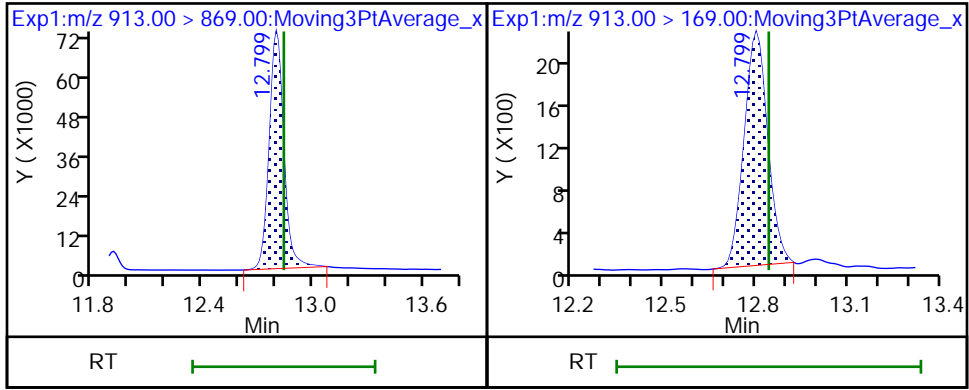






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/63 Calibration Date: 06/10/2021 14:15  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.10\_A10\_DI\_A\_016.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid	AveID	1.036	0.8669		16.7	20.0	-16.4	40.0
Perfluoropentanoic acid	AveID	1.187	1.151		19.4	20.0	-3.1	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.154	0.9730		14.9	17.7	-15.7	40.0
Perfluorohexanoic acid	AveID	1.059	1.023		19.3	20.0	-3.4	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.025	1.088		21.2	20.0	6.1	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.148	1.123		17.8	18.2	-2.2	40.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	3.055	2.746			19.0	-10.1	40.0
Perfluoroheptanesulfonic acid	AveID	1.319	1.295		18.7	19.0	-1.8	50.0
Perfluorooctanoic acid (PFOA)	AveID	0.9469	0.9497		20.1	20.0	0.3	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.103	1.029		17.3	18.6	-6.7	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9077	0.9329		20.6	20.0	2.8	40.0
Perfluorooctanesulfonamide	AveID	1.111	1.066		19.2	20.0	-4.0	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	2.414	2.339			19.2	-3.1	40.0
Perfluorodecanoic acid	AveID	0.9134	0.8823		19.3	20.0	-3.4	40.0
N-methylperfluorooctanesulfonamidoacetic acid	AveID	0.8868	0.8748			20.0	-1.3	40.0
Perfluorodecanesulfonic acid	AveID	0.6433	0.6098		18.3	19.3	-5.2	50.0
Perfluoroundecanoic acid	AveID	0.9832	0.9513		19.4	20.0	-3.2	40.0
N-ethylperfluorooctanesulfonamidoacetic acid	AveID	0.9175	0.9004			20.0	-1.9	40.0
Perfluorododecanoic acid	AveID	0.9296	0.9227		19.9	20.0	-0.7	40.0
Perfluorotridecanoic acid	AveID	1.185	1.301		22.0	20.0	9.9	50.0
Perfluorotetradecanoic acid	AveID	0.0439	0.0448		20.4	20.0	2.1	40.0
Perfluorohexadecanoic acid	AveID	1.089	1.002		18.4	20.0	-7.9	50.0
Perfluorooctadecanoic acid	AveID	0.4168	0.3445		16.5	20.0	-17.4	50.0
13C4 PFBA	Ave	35846400	56818740		79.3	50.0	58.5*	50.0
13C5 PFPeA	Ave	34274650	41858240		61.1	50.0	22.1	50.0
13C3 PFBS	Ave	28645995	38556753		62.6	46.5	34.6	50.0
13C2 PFHxA	Ave	32572608	37552500		57.6	50.0	15.3	50.0
13C4 PFHpA	Ave	38616810	43247460		56.0	50.0	12.0	50.0
18O2 PFHxS	Ave	27842030	32442727		55.1	47.3	16.5	50.0
M2-6:2 FTS	Ave	10115900	11234484		52.8	47.5	11.1	50.0
13C4 PFOA	Ave	57004583	62542740		54.9	50.0	9.7	50.0
13C4 PFOS	Ave	19433457	23305377		57.3	47.8	19.9	50.0
13C5 PFNA	Ave	48599775	53554380		55.1	50.0	10.2	50.0
13C8 FOSA	Ave	23033178	29520960		64.1	50.0	28.2	50.0
13C2 PFDA	Ave	44139855	52301240		59.2	50.0	18.5	50.0
M2-8:2 FTS	Ave	8386487	8479749		48.4	47.9	1.1	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-496915/63 Calibration Date: 06/10/2021 14:15  
 Instrument ID: A10 Calib Start Date: 06/07/2021 14:46  
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 06/07/2021 16:55  
 Lab File ID: 2021.06.10\_A10\_DI\_A\_016.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
d3-NMeFOSAA	Ave	15969758	18686460		58.5	50.0	17.0	50.0
13C2 PFUnA	Ave	39264810	43925620		55.9	50.0	11.9	50.0
d5-NEtFOSAA	Ave	15890453	19714040		62.0	50.0	24.1	50.0
13C2 PFDoA	Ave	44199513	47469840		53.7	50.0	7.4	50.0
13C2 PFTeDA	Ave	36765928	50444360		68.6	50.0	37.2	50.0
13C2 PFHxDA	Ave	24773343	31720460		64.0	50.0	28.0	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_016.d  
 Lims ID: CCV L5  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 14:15:20 ALS Bottle#: 16 Worklist Smp#: 63  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L5  
 Misc. Info.: Plate: 1 Rack: 3  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Sublist: chrom-A10\_In\_Line\_SPE\*sub12  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 08:00:47 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 08:00:47

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.698	5.701	-0.003	2840937	0.0793		159	8585	
1 Perfluorobutanoic acid	212.90 > 169.00	5.698	5.701	-0.003	1.000	985079	0.0167	83.6	311	
D 4 13C5 PFPeA	267.90 > 223.00	6.271	6.254	0.017	2092912	0.0611		122	11719	
5 Perfluoropentanoic acid	262.90 > 219.00	6.271	6.254	0.017	1.000	963358	0.0194	96.9	303	
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.297	0.019	1792889	0.0626		135	6484	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.316	6.297	0.019	1.000	663302	0.0149	Target=1.41	84.3	1246
	298.90 > 99.00	6.316	6.297	0.019	1.000	490278	1.35(0.71-2.12)		880	
8 4:2 FTS	327.00 > 307.00	6.688	6.668	0.020	1.000	391417	NC	Target=2.69		6504
	327.00 > 81.00	6.688	6.668	0.020	1.000	161727	2.42(1.34-4.03)		153	
D 7 M2-4:2 FTS	329.00 > 81.00	6.688	6.668	0.020		356392	NC		667	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.715	0.019	1877625	0.0576		115	9719	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.738	-0.004	1.000	768224	0.0193	Target=19.50	96.6	500
	313.00 > 119.00	6.734	6.738	-0.004	1.000	36572	21.01(9.75-29.25)		307	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.757	6.738	0.019	0.933	598915	NC	Target=1.44		1426
	349.00 > 99.00	6.757	6.738	0.019	0.933	435196	1.38(0.72-2.17)		987	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 HPFO-DA										
329.10 > 285.00	6.876	6.879	-0.003	1.000	184468	NC			153	
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.879	-0.003		191686	NC			996	
D 15 18O2 PFHxS										
403.00 > 84.00	7.244	7.248	-0.004		1534541	0.0551		117	20608	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.244	7.248	-0.004	1.000	662806	0.0178	Target=5.60	97.8	1488	
399.00 > 99.00	7.244	7.248	-0.004	1.000	121878		5.44(2.80-8.40)		709	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.244	7.248	-0.004	1.000	941038	0.0212	Target=9.21	106	616	
363.00 > 169.00	7.244	7.248	-0.004	1.000	98511		9.55(4.61-13.82)		1328	
D 17 13C4 PFHpA										
367.00 > 322.00	7.244	7.248	-0.004		2162373	0.0560		112	14446	
19 DONA										
377.00 > 251.00	7.300	7.304	-0.004	0.873	3163223	NC	Target=2.84		7951	
377.00 > 85.00	7.300	7.304	-0.004	0.873	1201839		2.63(1.42-4.26)		6133	
23 6:2 FTS										
427.00 > 407.00	7.769	7.772	-0.003	1.000	584847	0.0170	Target=2.57	89.9	5671	
427.00 > 81.00	7.769	7.772	-0.003	1.000	224158		2.61(1.29-3.86)		364	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.769	7.772	-0.003		533638	0.0528		111	1020	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.787	7.790	-0.003	0.931	574612	0.0187	Target=6.98	98.2	1495	
449.00 > 99.00	7.787	7.790	-0.003	0.931	84753		6.78(3.49-10.48)		696	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	1187903	0.0201	Target=1.54	100	259	
413.00 > 169.00	7.803	7.806	-0.003	1.000	812494		1.46(0.77-2.31)		2403	
D 25 13C4 PFOA										
417.00 > 372.00	7.803	7.806	-0.003		3127137	0.0549		110	11462	
D 26 13C4 PFOS										
503.00 > 80.00	8.362	8.367	-0.005		1113997	0.0573		120	3789	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.362	8.367	-0.005	1.000	445076	0.0173	Target=3.65	93.3	1517	
499.00 > 99.00	8.345	8.367	-0.022	0.998	123990		3.59(1.83-5.48)		670	
D 28 13C5 PFNA										
468.00 > 423.00	8.380	8.401	-0.021		2677719	0.0551		110	13457	
29 Perfluorononanoic acid										
463.00 > 419.00	8.380	8.401	-0.021	1.000	999178	0.0206	Target=7.83	103	610	
463.00 > 169.00	8.380	8.401	-0.021	1.000	125193		7.98(3.92-11.75)		961	
D 30 13C8 FOSA										
506.00 > 78.00	8.911	8.931	-0.020		1476048	0.0641		128	6858	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.911	8.931	-0.020	1.000	629416	0.0192		96.0	3324	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.927	8.947	-0.020	1.067	406843	NC	Target=6.10		2430	
549.00 > 99.00	8.927	8.947	-0.020	1.067	73032		5.57(3.05-9.15)		738	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	8.958	8.978	-0.020		2615062	0.0592		118	11992	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.958	8.978	-0.020	1.000	922946	0.0193	Target=16.47	96.6	969	
513.00 > 169.00	8.958	8.978	-0.020	1.000	60474		15.26(8.23-24.70)		385	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.958	8.978	-0.020		406180	0.0484		101	1635	
36 8:2 FTS										
527.00 > 507.00	8.958	8.978	-0.020	1.000	380014	0.0186	Target=2.29	96.9	2861	
527.00 > 81.00	8.958	8.978	-0.020	1.000	163323		2.33(1.15-3.44)		811	
38 NMeFOSAA										
570.00 > 419.00	9.254	9.259	-0.005	1.002	326941	0.0197	Target=13.24	98.7	1163	
570.00 > 483.00	9.254	9.259	-0.005	1.002	25300		12.92(6.62-19.86)		290	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.239	9.259	-0.020		934323	0.0585		117	4364	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.472	9.479	-0.007	1.133	274011	0.0183	Target=2.43	94.8	2068	
599.00 > 99.00	9.472	9.479	-0.007	1.133	104989		2.61(1.22-3.65)		2222	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.520	9.528	-0.008		985702	0.0620		124	4021	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.520	9.528	-0.008	1.002	835692	0.0194	Target=21.30	96.8	1005	
563.00 > 169.00	9.504	9.528	-0.024	1.000	42445		19.69(10.65-31.95)		904	
D 42 13C2 PFUnA										
565.00 > 520.00	9.504	9.528	-0.024		2196281	0.0559		112	14278	
43 NEtFOSA										
584.00 > 419.00	9.536	9.544	-0.008	1.002	355010	0.0196	Target=16.50	98.1	2465	
584.00 > 483.00	9.536	9.544	-0.008	1.002	25291		14.04(8.25-24.74)		197	
44 11C1FOS										
631.00 > 451.00	9.752	9.762	-0.010	1.166	2085992	NC			7333	
D 45 13C2 PFDoA										
615.00 > 570.00	10.046	10.055	-0.009		2373492	0.0537		107	13105	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.046	10.055	-0.009	1.000	876049	0.0199	Target=15.78	99.3	429	
613.00 > 169.00	10.046	10.055	-0.009	1.000	53967		16.23(7.89-23.66)		816	
47 10:2 FTS										
627.00 > 607.00	10.068	10.077	-0.009	1.124	464276	NC	Target=34.02		5543	
627.00 > 81.00	10.068	10.077	-0.009	1.124	14391		32.26(17.01-51.03)		340	
48 PFDoS										
699.00 > 80.00	10.472	10.501	-0.029	1.252	122193	NC	Target=0.50		686	
699.00 > 99.00	10.472	10.501	-0.029	1.252	249198		0.49(0.25-0.74)		2359	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.532	10.560	-0.028	1.048	1235615	0.0220	Target=20.25	110	499	
663.00 > 169.00	10.532	10.560	-0.028	1.048	64281		19.22(10.13-30.38)		1086	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.018	11.044	-0.026	1.000	45206	0.0204	Target=1.26	102	1020	
713.00 > 219.00	11.018	11.044	-0.026	1.000	34542		1.31(0.63-1.89)		640	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.018	11.044	-0.026		2522218	0.0686		137	11003	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.902	11.945	-0.043	1.000	635856	0.0184	Target=28.54	92.1	380	
813.00 > 169.00	11.902	11.945	-0.043	1.000	21108		30.12(14.27-42.81)		379	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.902	11.945	-0.043		1586023	0.0640		128	6076	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.793	12.841	-0.048	1.075	218523	0.0165	Target=35.98	82.6	179	
913.00 > 169.00	12.793	12.841	-0.048	1.075	5611		38.95(17.99-53.97)		95.0	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

**Reagents:**

LCPFC-LL-L5\_00036

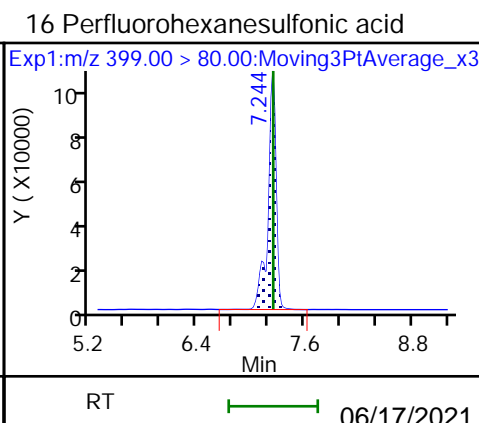
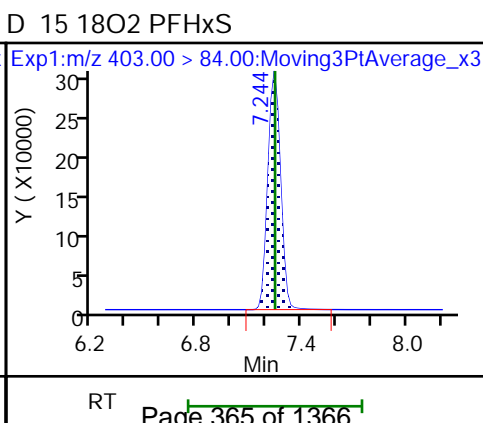
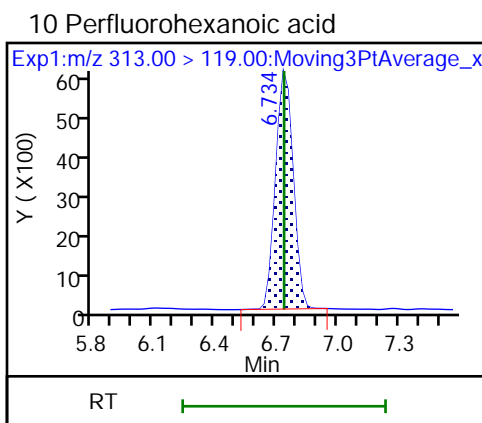
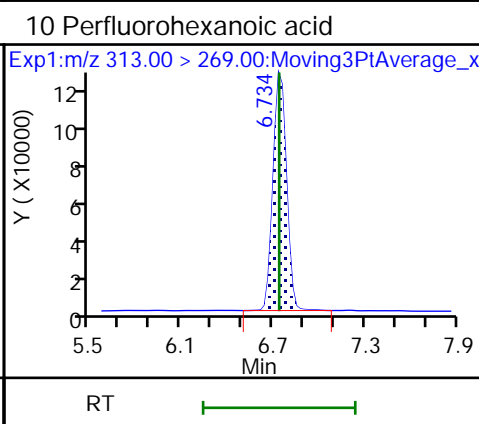
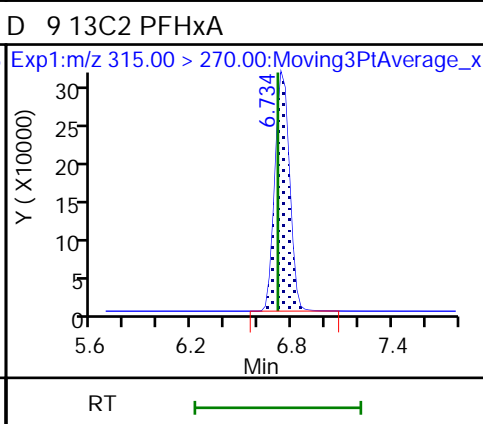
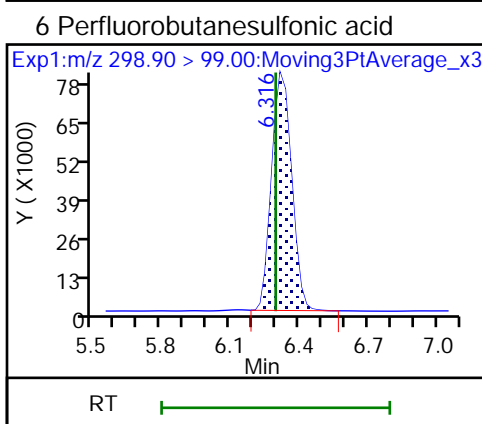
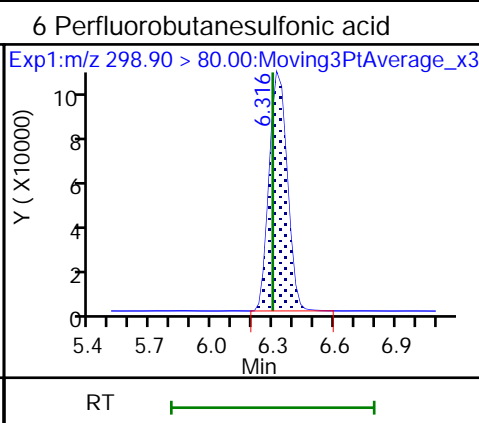
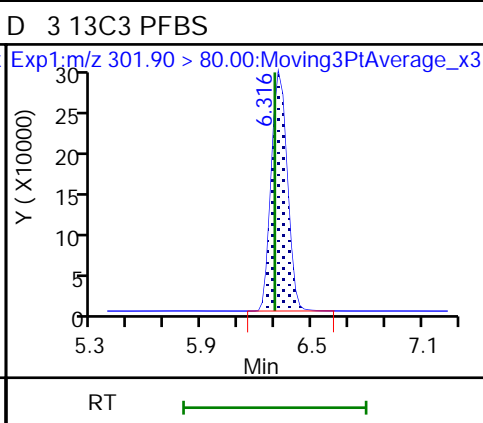
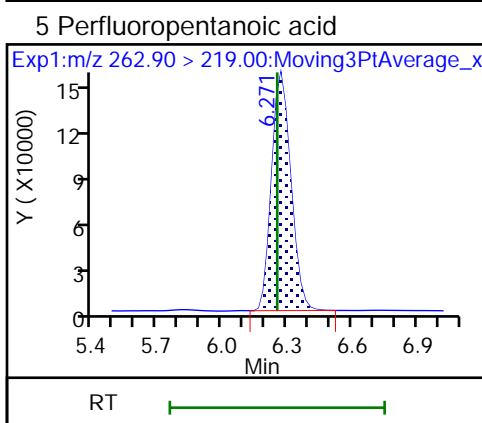
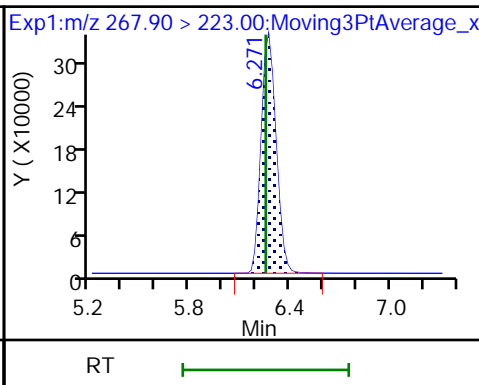
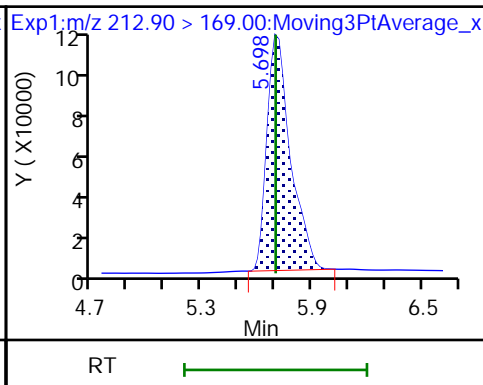
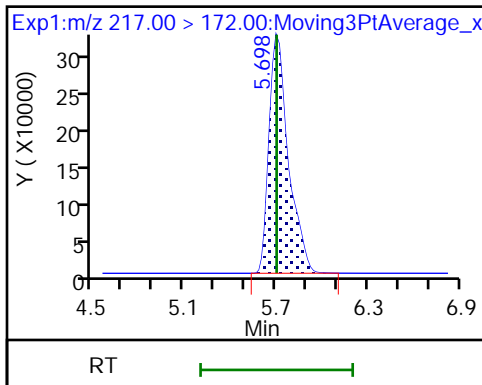
Amount Added: 1.00

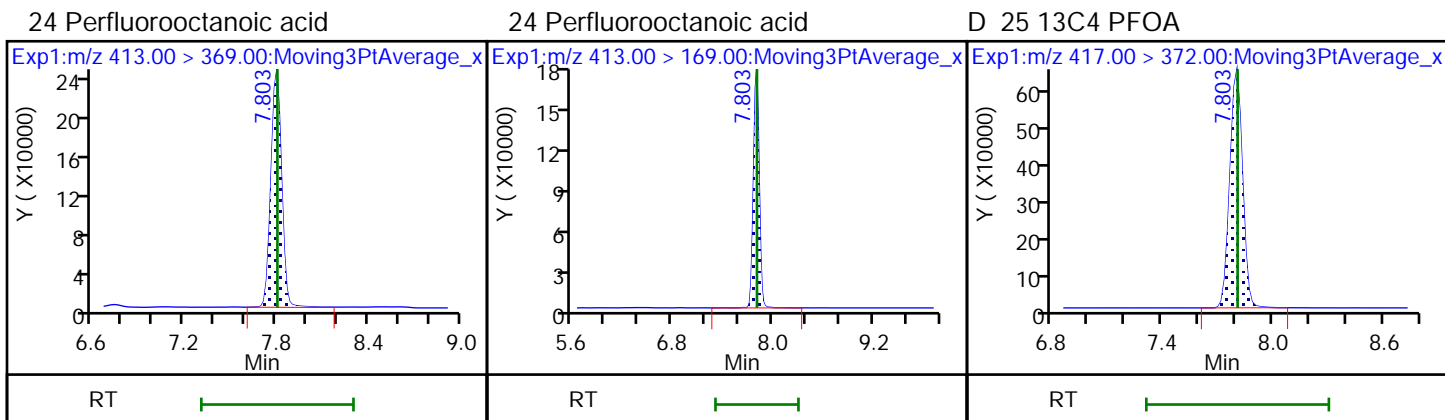
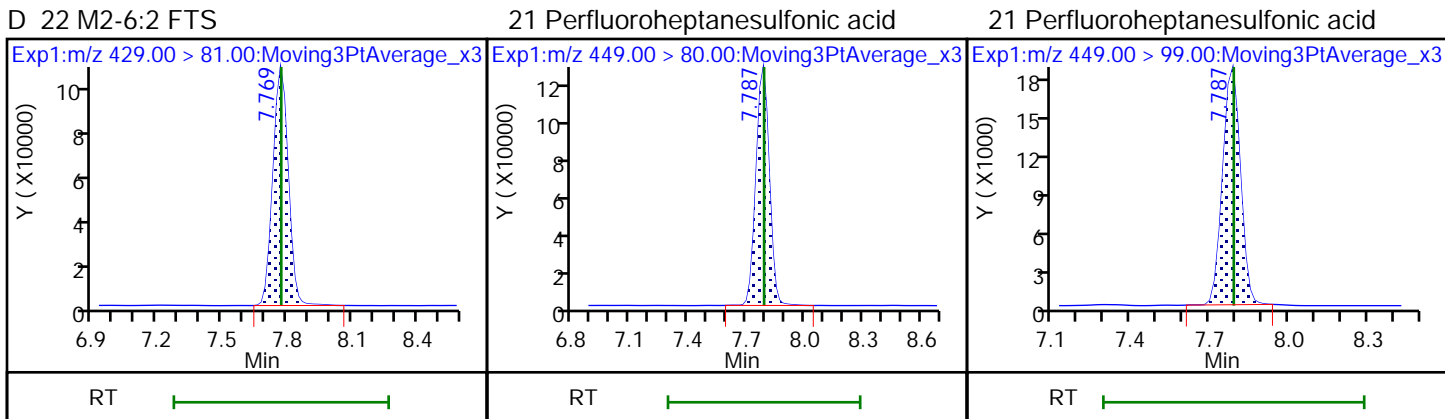
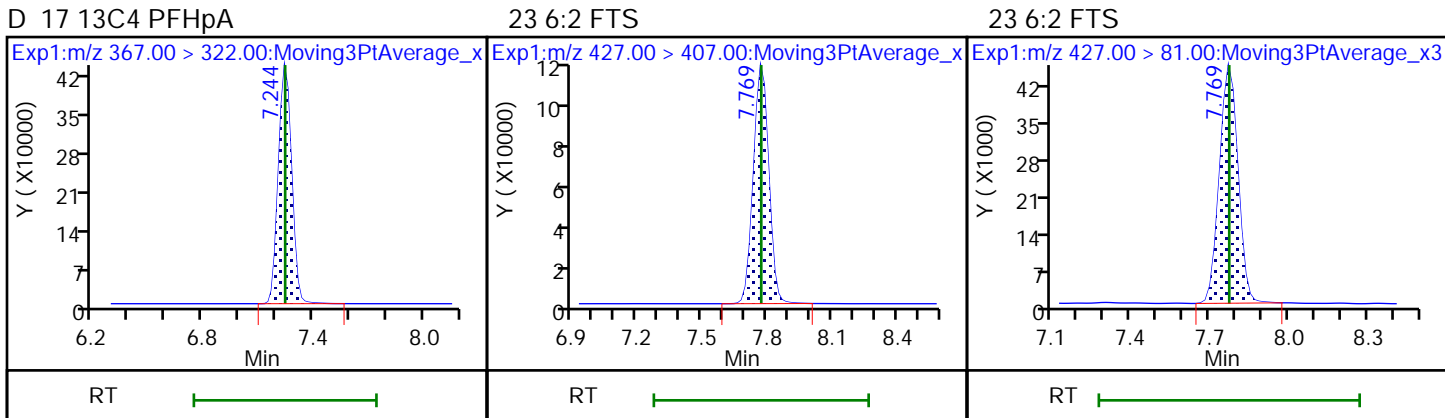
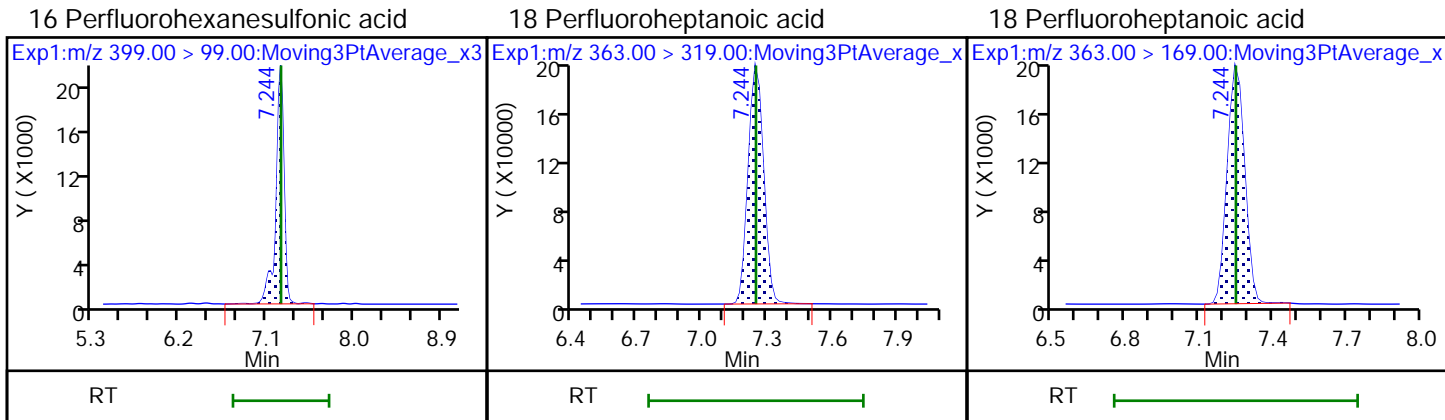
Units: mL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

D 4 13C5 PFPeA

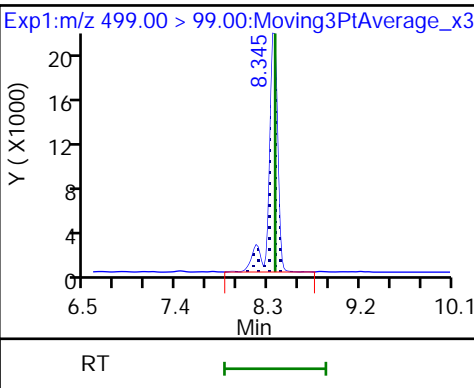
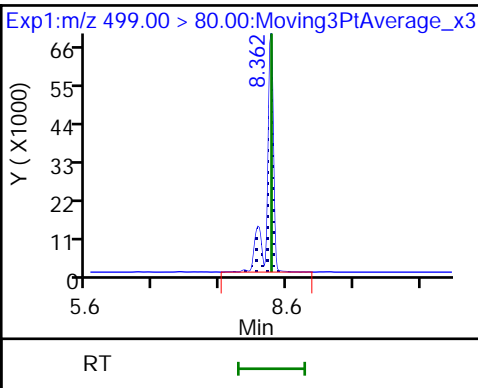
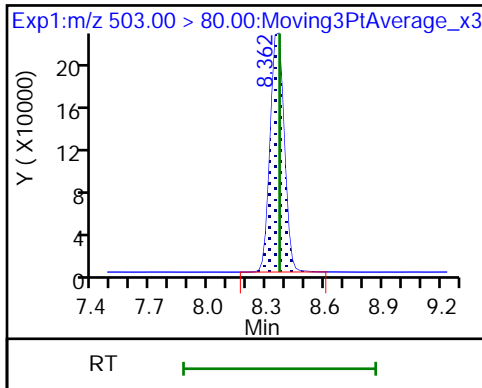




D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

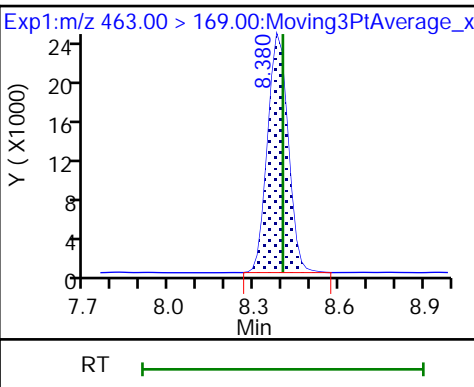
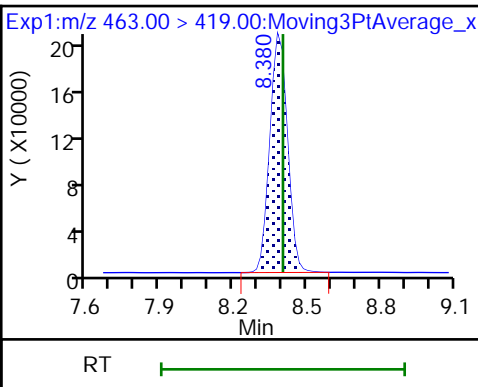
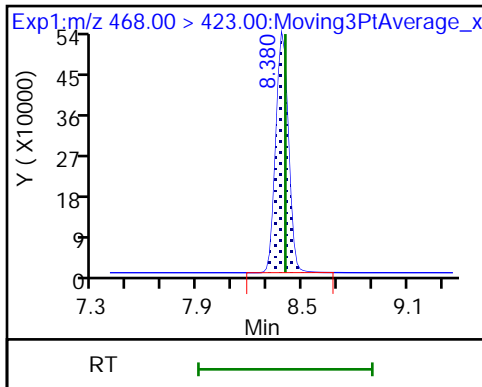
27 Perfluorooctanesulfonic acid



D 28 13C5 PFNA

29 Perfluorononanoic acid

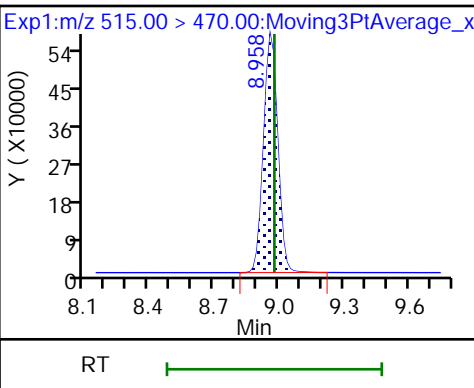
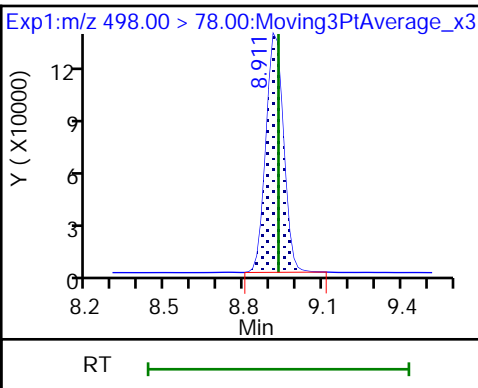
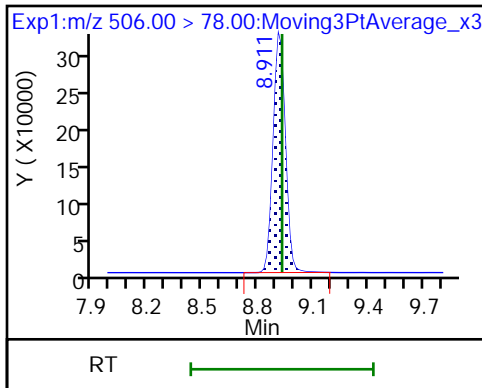
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

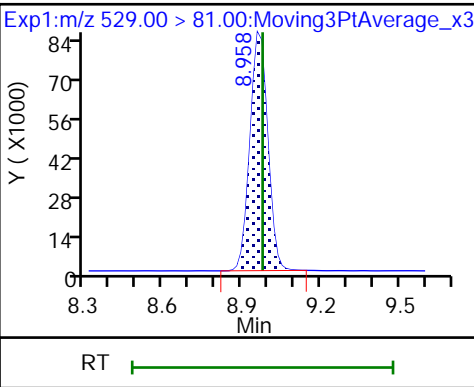
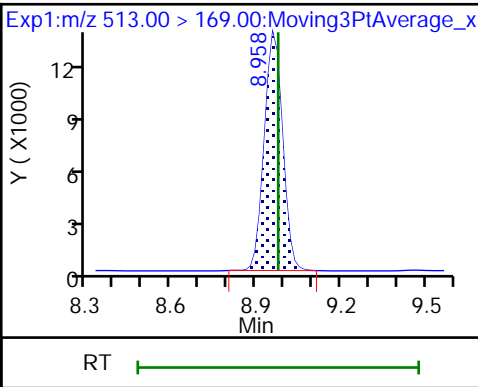
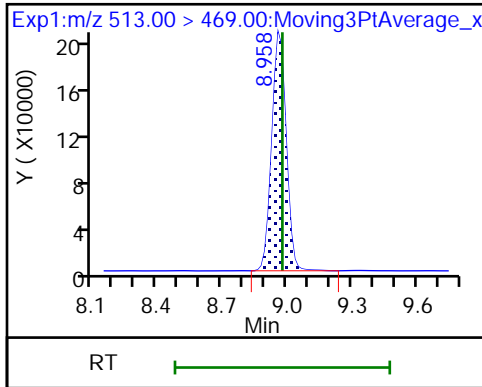
D 33 13C2 PFDA

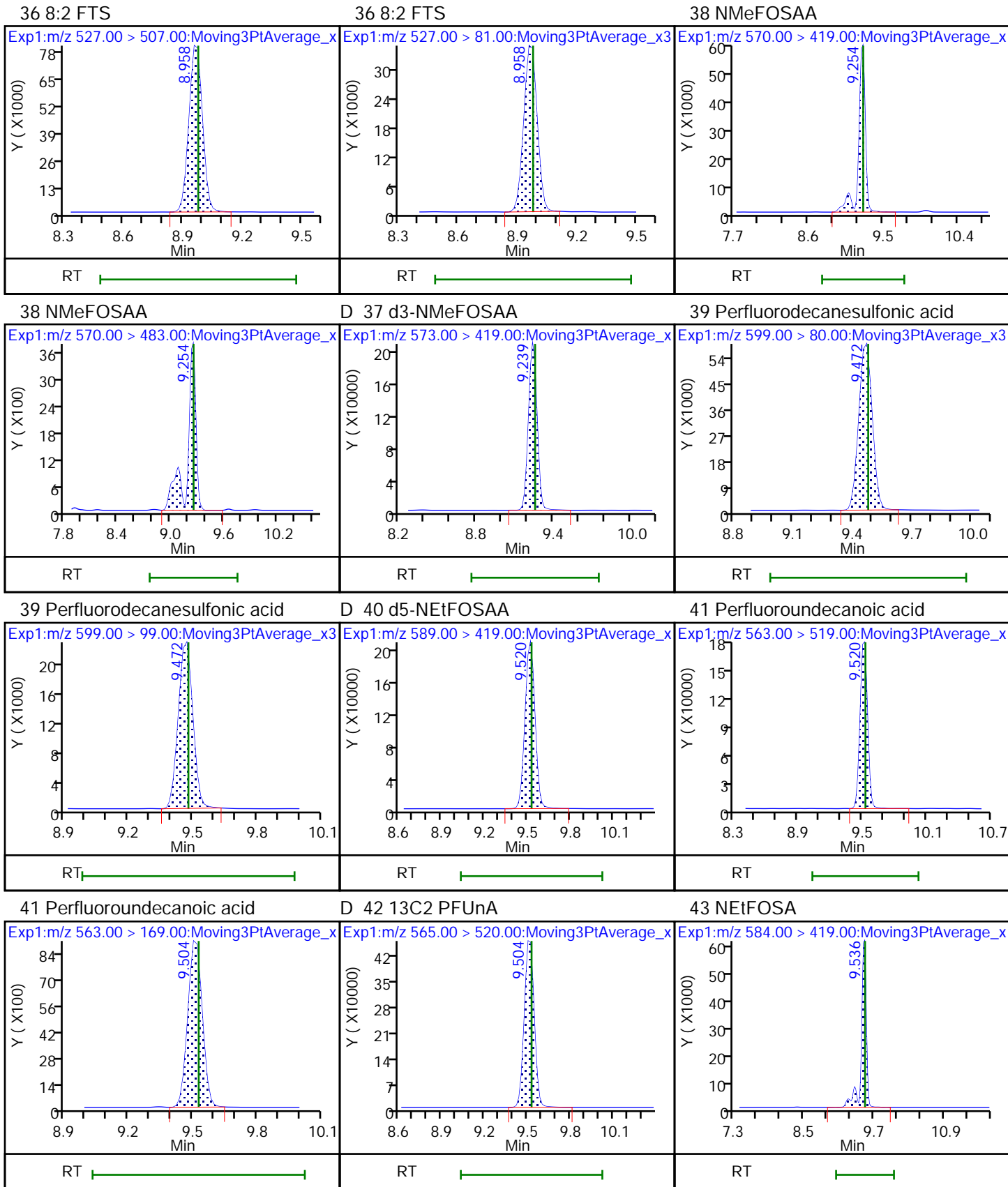


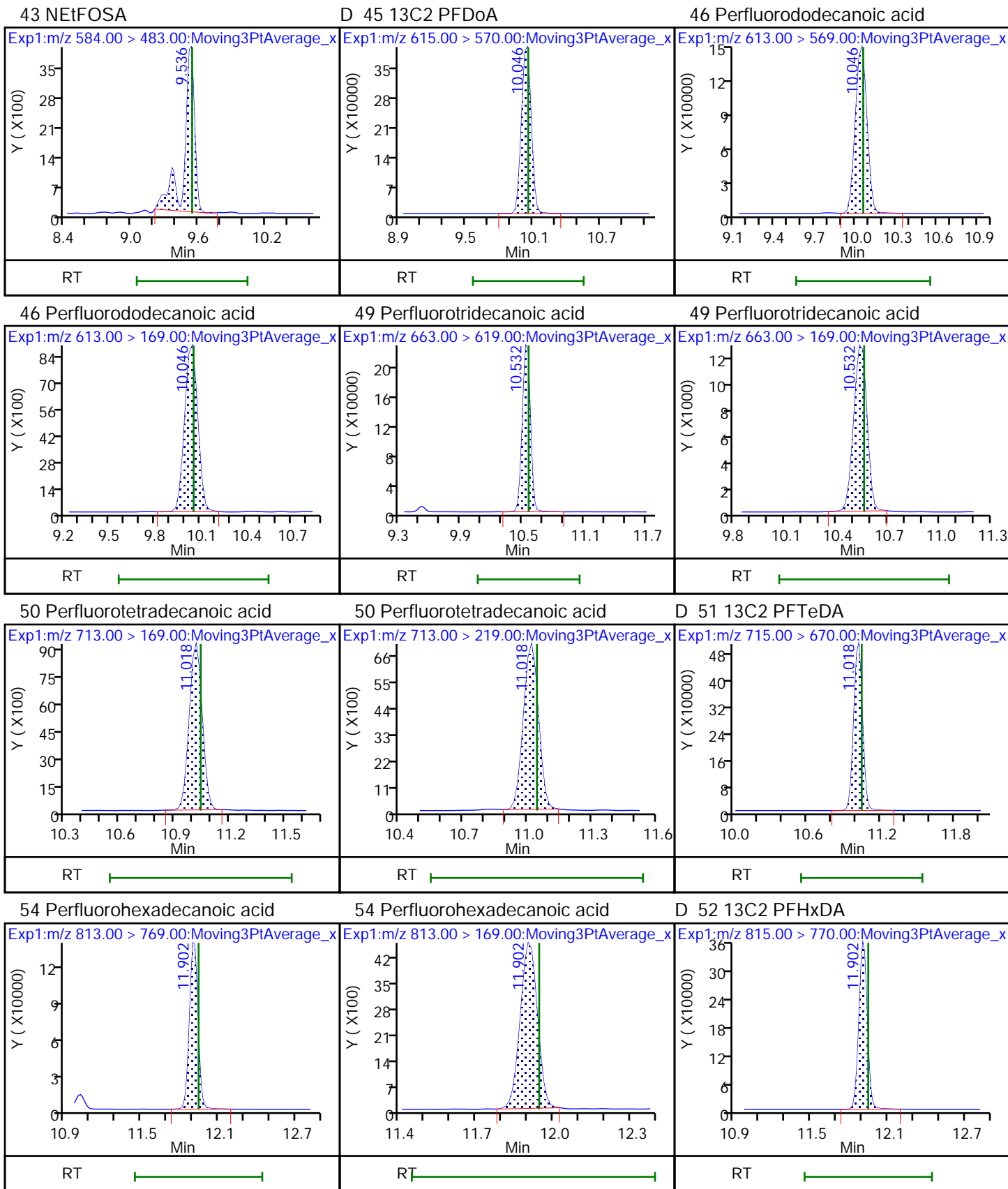
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS



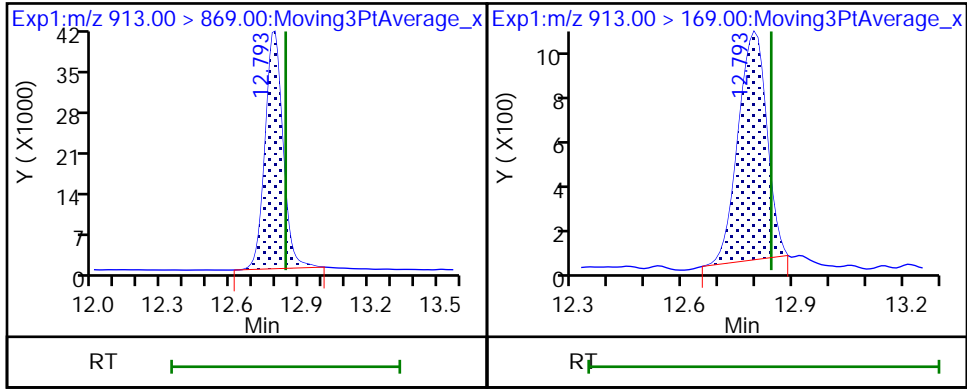






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 320-497181/1-A  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_001.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: \_\_\_\_\_  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 09:38  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	134		25-150
STL00995	13C5 PFNA	129		25-150
STL00990	13C4 PFOA	126		70-130
STL00991	13C4 PFOS	129		70-130
STL00994	18O2 PFHxS	132		25-150
STL02337	13C3 PFBS	114		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_001.d  
 Lims ID: MB 320-497181/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 10-Jun-2021 09:38:19 ALS Bottle#: 1 Worklist Smp#: 48  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: mb 320-497181/1-a (DI DW) RUSH DUE 6/11  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:52:48 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:52:48  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.718	5.701	0.017	3132084	0.0874		175	12930	
1 Perfluorobutanoic acid										M
212.90 > 169.00	5.739	5.701	0.038	1.004	5108	0.00007869		2.0		M
D 4 13C5 PFPeA	267.90 > 223.00	6.271	6.254	0.017	2107071	0.0615		123	12890	
5 Perfluoropentanoic acid										
262.90 > 219.00	6.271	6.254	0.017	1.000	3757	0.00007511		1.6		
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.297	0.019	1512602	0.0528		114	4910	
D 7 M2-4:2 FTS	329.00 > 81.00	6.687	6.668	0.019	413025	NC			1542	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.715	0.019	2173989	0.0667		133	16537	
D 12 13C3 HFPO-DA	332.10 > 287.00	6.875	6.879	-0.004	202814	NC			1008	
D 15 18O2 PFHxS	403.00 > 84.00	7.244	7.248	-0.004	1732793	0.0622		132	21823	
D 17 13C4 PFHpA	367.00 > 322.00	7.244	7.248	-0.004	2590076	0.0671		134	19860	
D 22 M2-6:2 FTS	429.00 > 81.00	7.769	7.772	-0.003	578477	0.0572		120	1677	
D 20 13C2 PFOA	415.00 > 370.00	7.786	7.804	-0.018	2171	NC		0.0	32.9	
24 Perfluorooctanoic acid										M
413.00 > 369.00	7.803	7.806	-0.003	1.000	8306	0.000122	Target=1.59	1.1		
413.00 > 169.00	7.803	7.806	-0.003	1.000	4007		2.07(0.79-2.38)	18.2		M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 25 13C4 PFOA	417.00 > 372.00	7.803	7.806	-0.003	3588674	0.0630		126	15944	
D 26 13C4 PFOS	503.00 > 80.00	8.341	8.367	-0.026	1199388	0.0617		129	4531	
D 28 13C5 PFNA	468.00 > 423.00	8.376	8.401	-0.025	3143128	0.0647		129	17030	
D 30 13C8 FOSA	506.00 > 78.00	8.914	8.931	-0.017	1616599	0.0702		140	7433	
31 Perfluorooctanesulfonamide	498.00 > 78.00	8.914	8.931	-0.017	1.000	2223	0.00006190		33.1	
D 33 13C2 PFDA	515.00 > 470.00	8.946	8.978	-0.032	2910703	0.0659		132	15361	
D 34 M2-8:2 FTS	529.00 > 81.00	8.961	8.978	-0.017	467653	0.0558		116	2627	
D 37 d3-NMeFOSAA	573.00 > 419.00	9.226	9.259	-0.033	1049269	0.0657		131	5585	
D 42 13C2 PFUnA	565.00 > 520.00	9.498	9.528	-0.030	2345052	0.0597		119	16892	
D 40 d5-NEtFOSAA	589.00 > 419.00	9.515	9.528	-0.013	1103211	0.0694		139	4182	
D 45 13C2 PFDaA	615.00 > 570.00	10.026	10.055	-0.029	2760888	0.0625		125	15561	
D 51 13C2 PFTeDA	715.00 > 670.00	11.004	11.044	-0.040	3012475	0.0819		164	13703	
D 52 13C2 PFHxDA	815.00 > 770.00	11.878	11.945	-0.067	2993023	0.1208		242	11631	

### QC Flag Legend

#### Processing Flags

NC - Not Calibrated

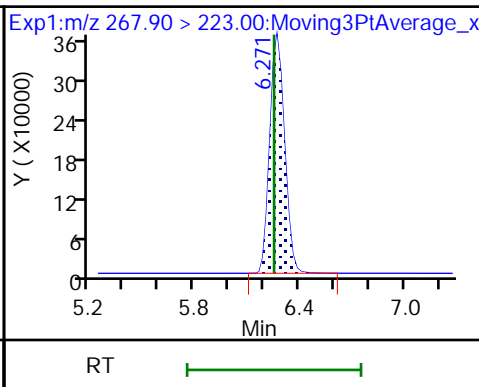
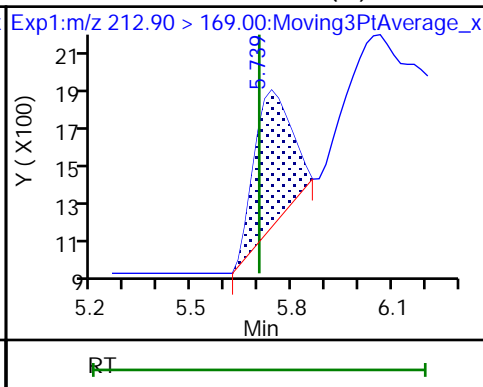
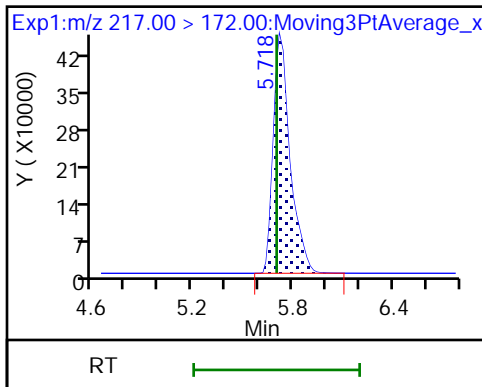
#### Review Flags

M - Manually Integrated

D 2 13C4 PFBA

1 Perfluorobutanoic acid (M)

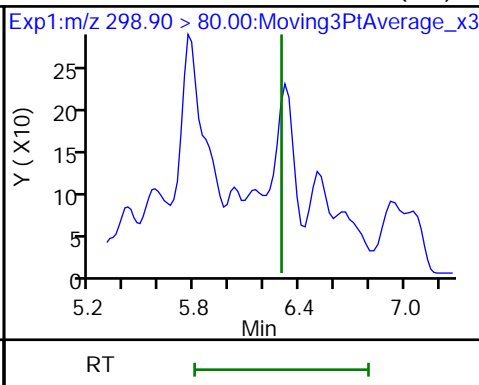
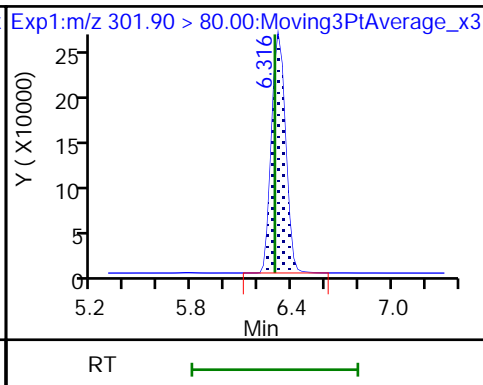
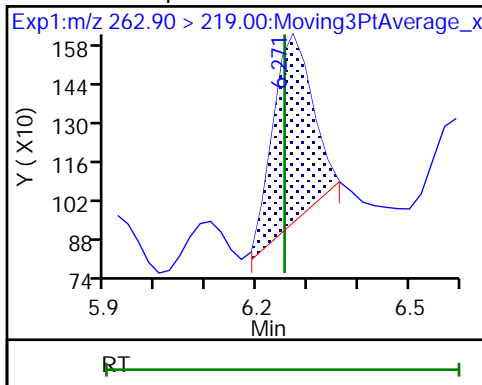
D 4 13C5 PFPeA



5 Perfluoropentanoic acid

D 3 13C3 PFBS

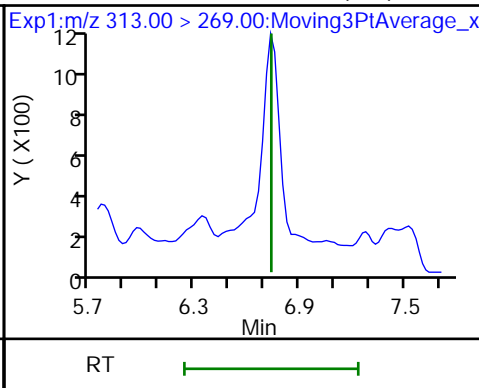
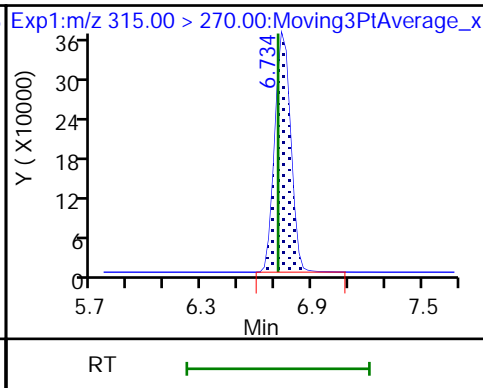
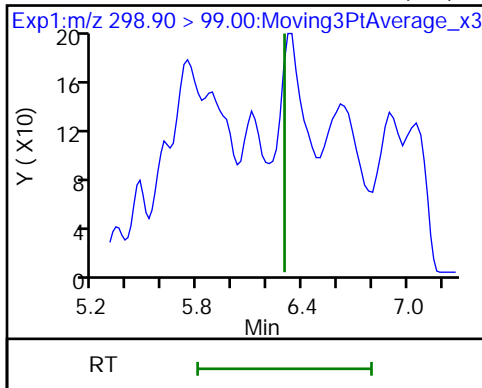
6 Perfluorobutanesulfonic acid (ND)



6 Perfluorobutanesulfonic acid (ND)

D 9 13C2 PFHxA

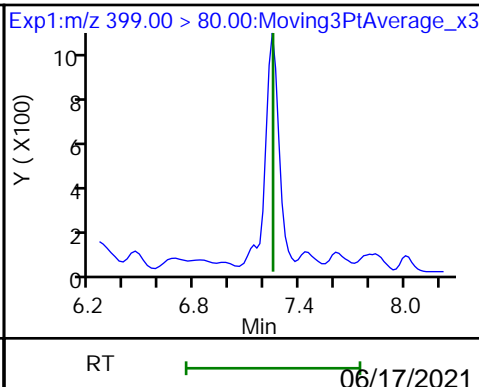
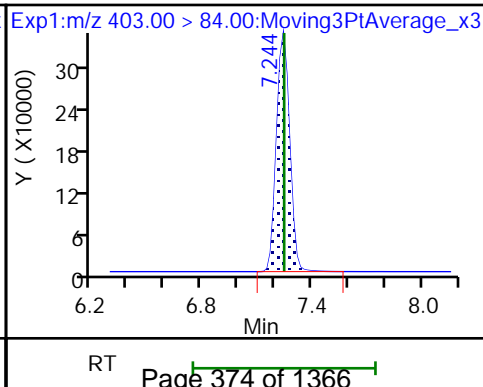
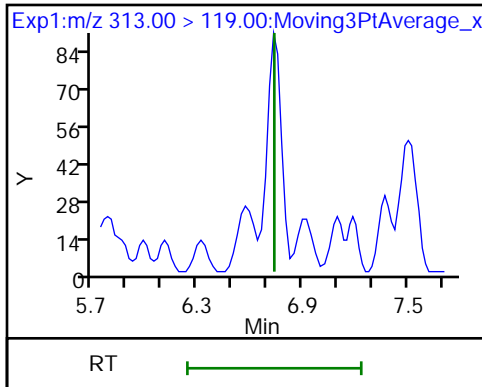
10 Perfluorohexanoic acid (ND)



10 Perfluorohexanoic acid (ND)

D 15 18O2 PFHxS

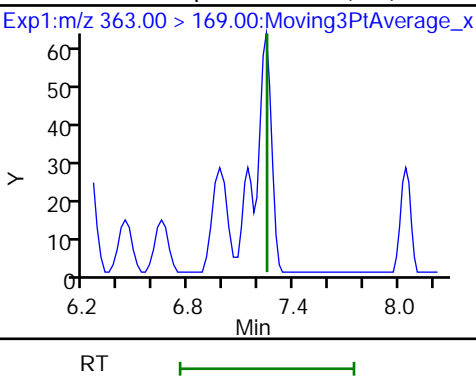
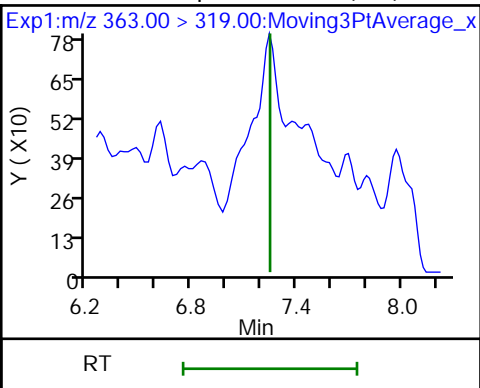
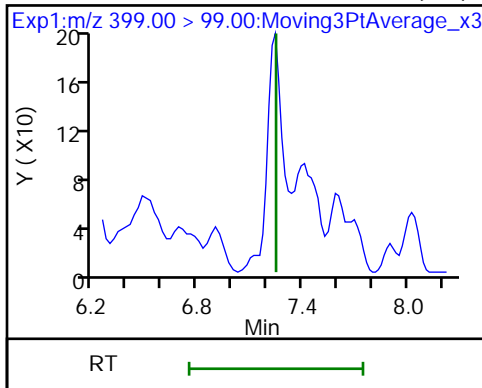
16 Perfluorohexanesulfonic acid (ND)



16 Perfluorohexanesulfonic acid (ND)

18 Perfluoroheptanoic acid (ND)

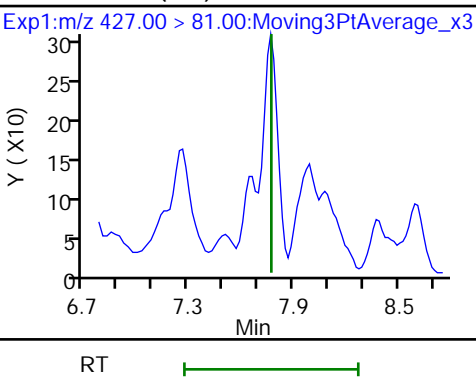
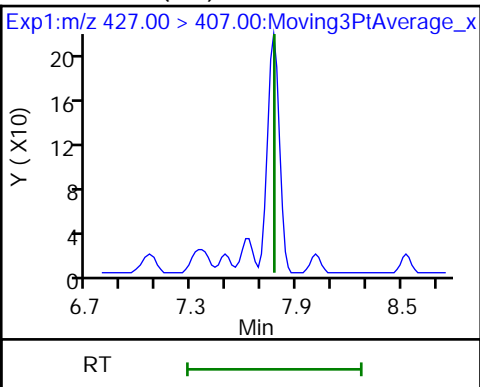
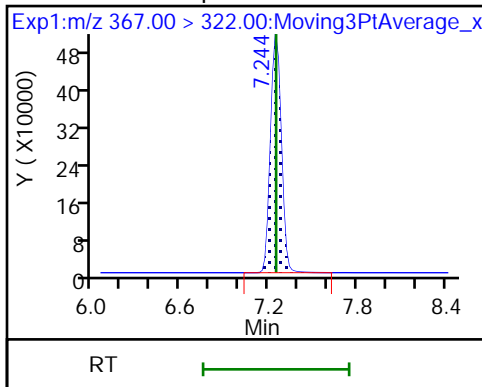
18 Perfluoroheptanoic acid (ND)



D 17 13C4 PFHpA

23 6:2 FTS (ND)

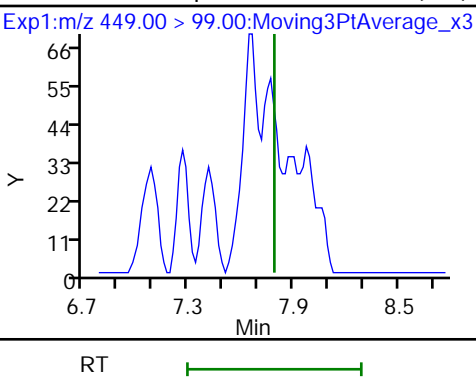
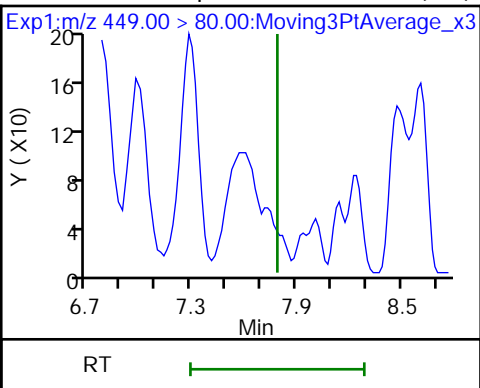
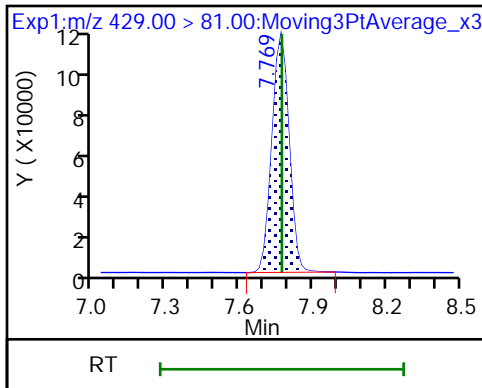
23 6:2 FTS (ND)



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid (ND)

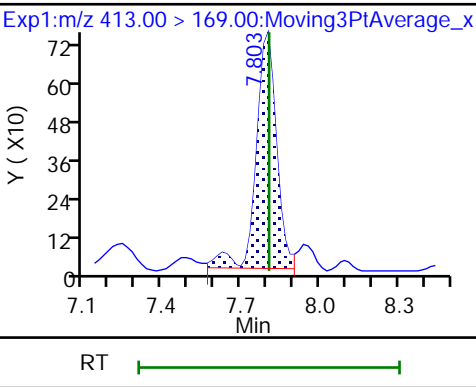
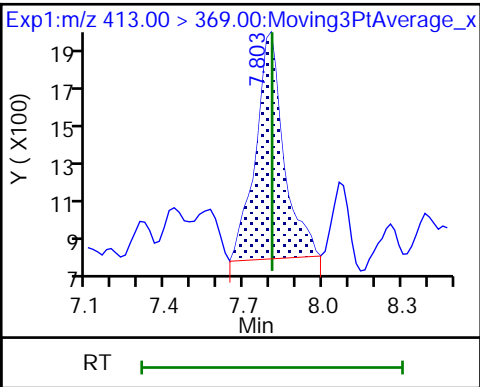
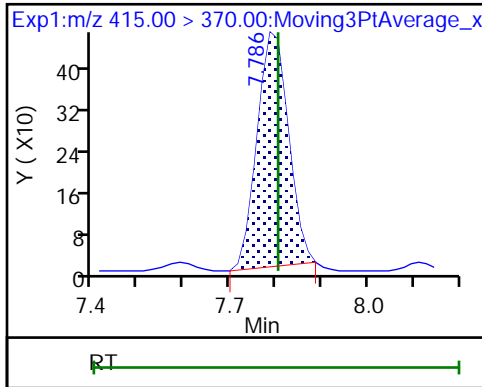
21 Perfluoroheptanesulfonic acid (ND)



D 20 13C2 PFOA

24 Perfluorooctanoic acid

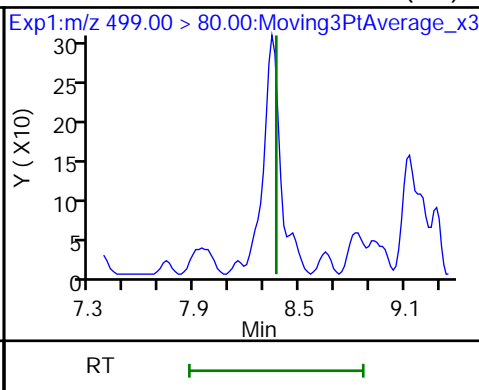
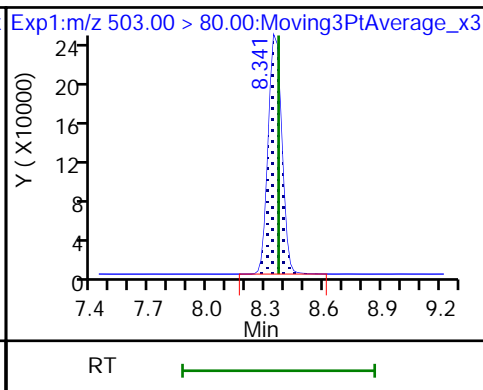
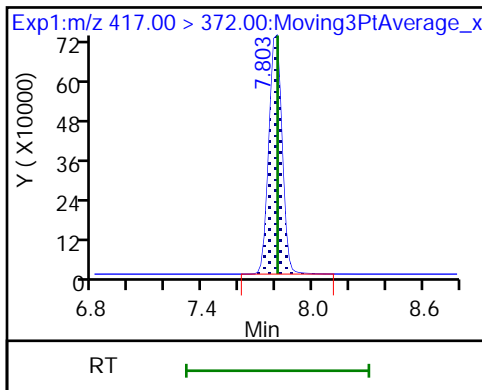
24 Perfluorooctanoic acid (M)



D 25 13C4 PFOA

D 26 13C4 PFOS

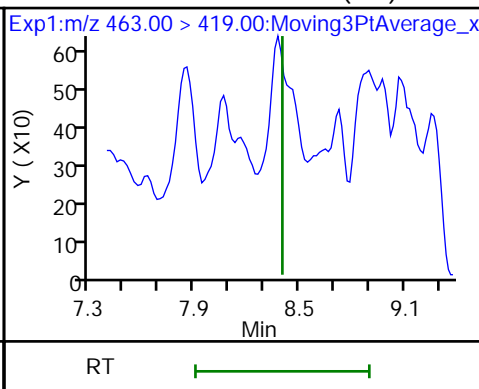
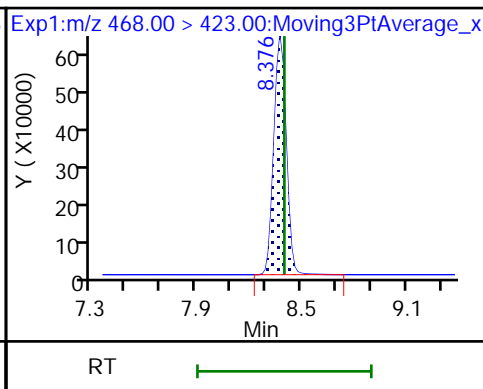
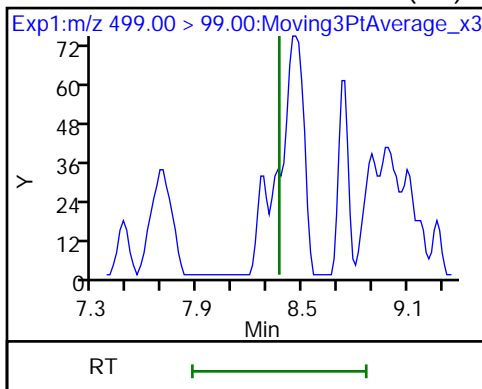
27 Perfluorooctanesulfonic acid (ND)



27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

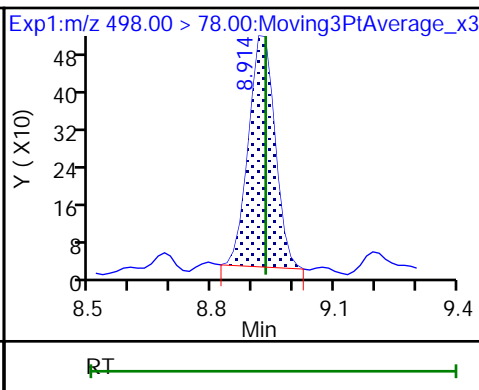
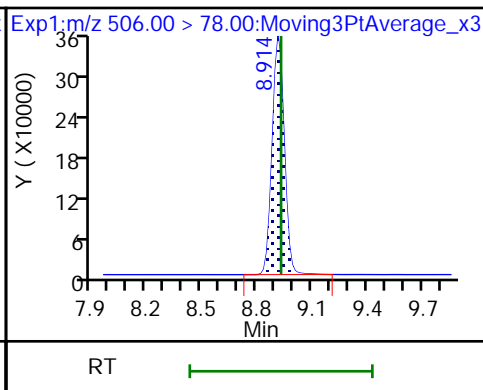
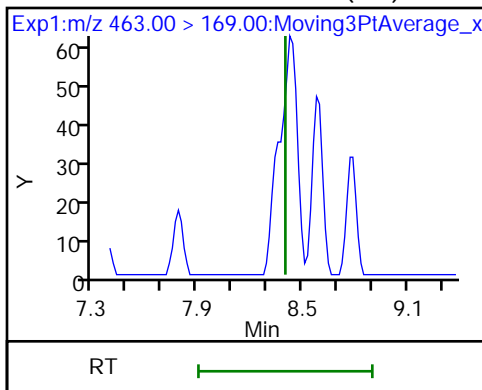
29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)

D 30 13C8 FOSA

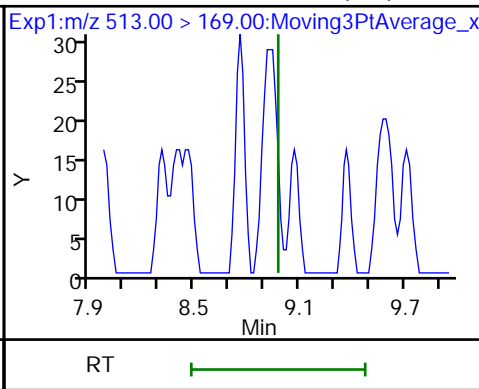
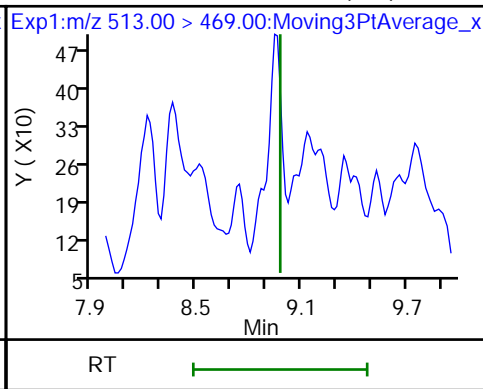
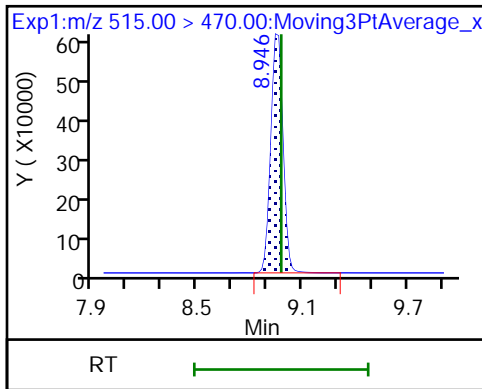
31 Perfluorooctanesulfonamide



D 33 13C2 PFDA

35 Perfluorodecanoic acid (ND)

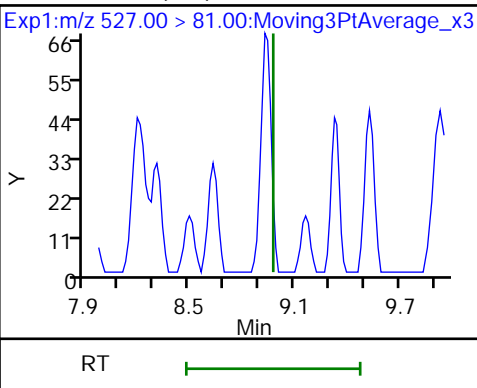
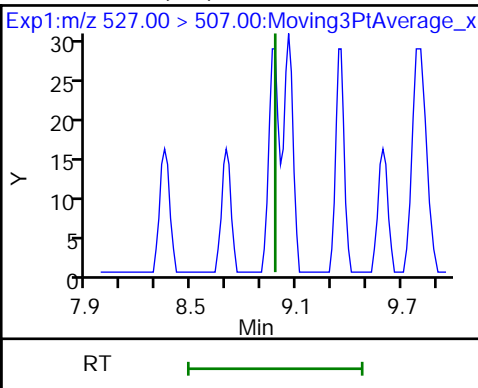
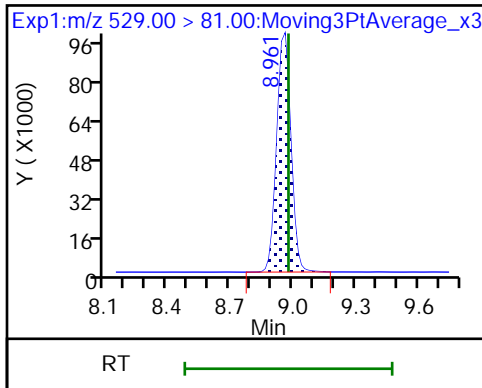
35 Perfluorodecanoic acid (ND)



D 34 M2-8:2 FTS

36 8:2 FTS (ND)

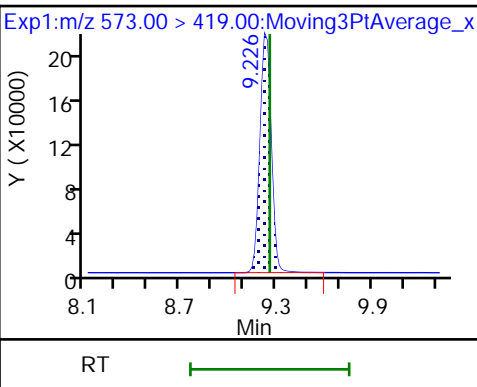
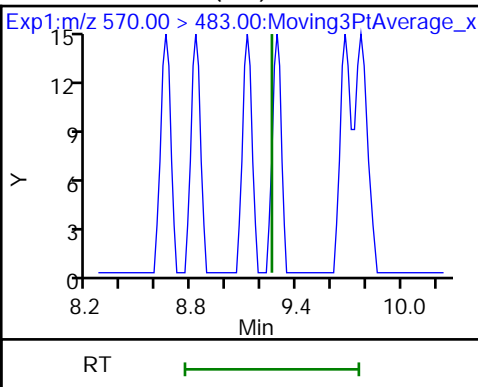
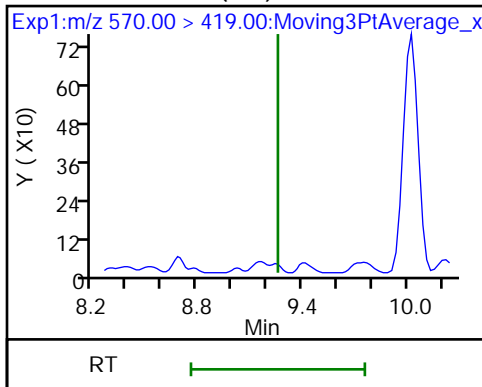
36 8:2 FTS (ND)



38 NMeFOSAA (ND)

38 NMeFOSAA (ND)

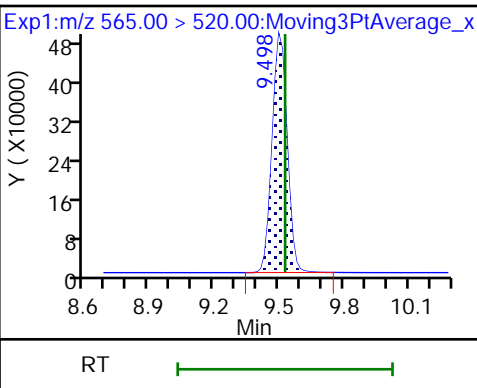
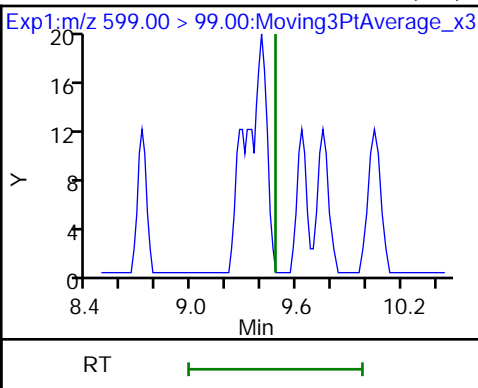
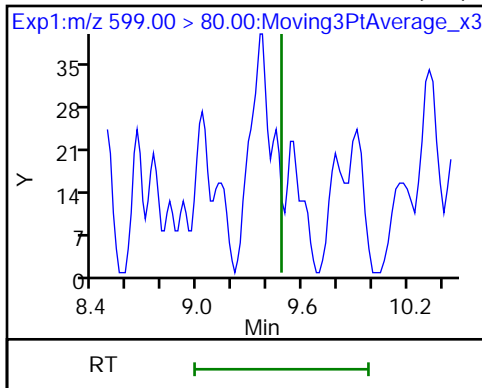
D 37 d3-NMeFOSAA



39 Perfluorodecanesulfonic acid (ND)

39 Perfluorodecanesulfonic acid (ND)

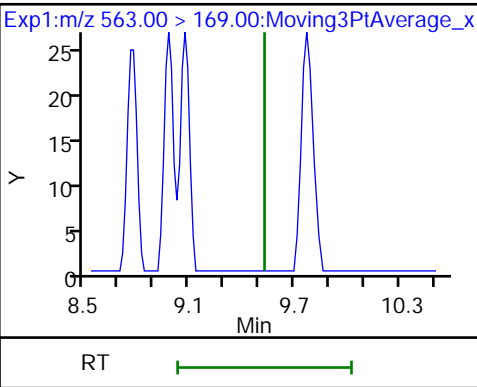
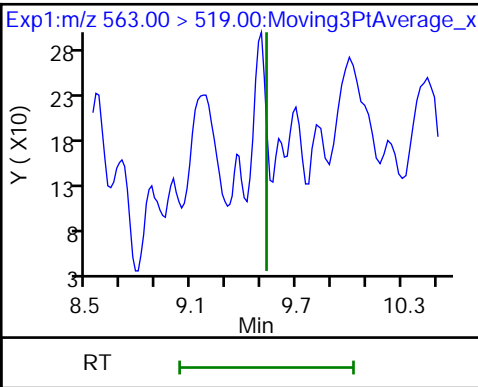
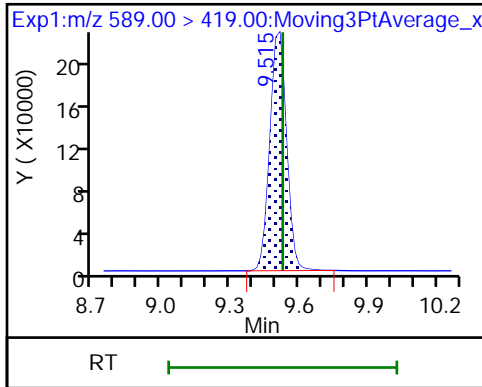
D 42 13C2 PFUnA



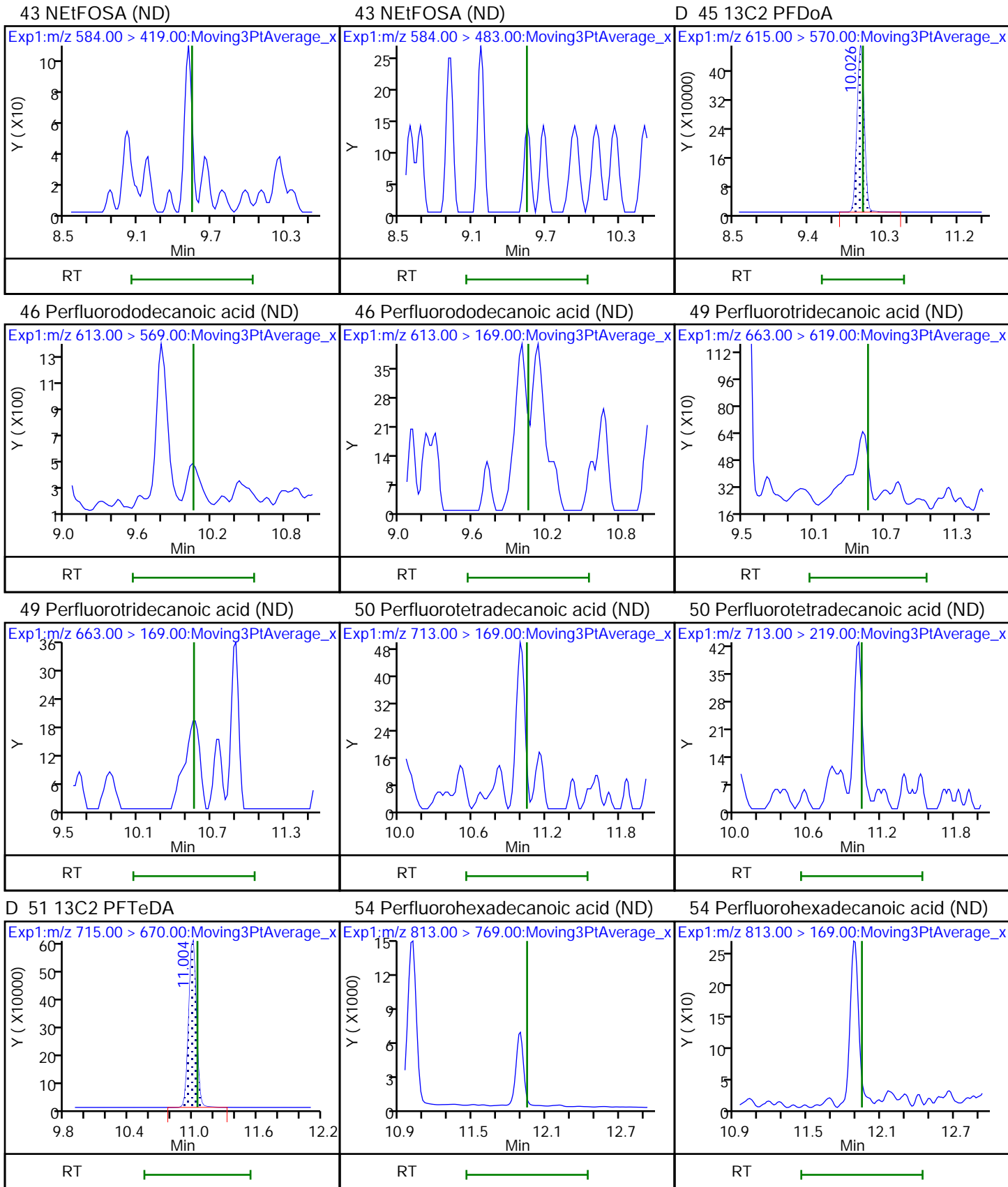
D 40 d5-NEtFOSAA

41 Perfluoroundecanoic acid (ND)

41 Perfluoroundecanoic acid (ND)



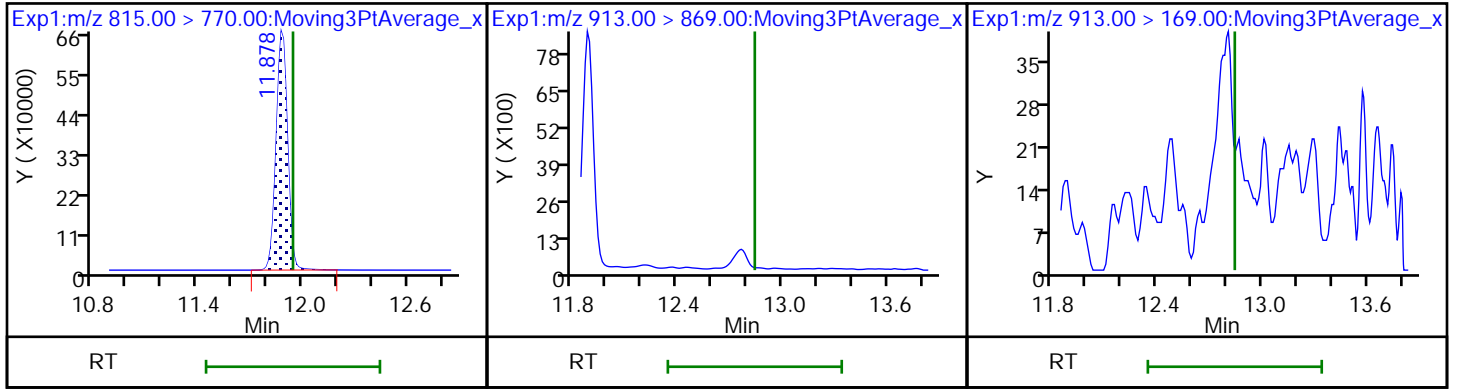




D 52 13C2 PFHxDA

53 Perfluorooctadecanoic acid (ND)

53 Perfluorooctadecanoic acid (ND)



Eurofins TestAmerica, Sacramento

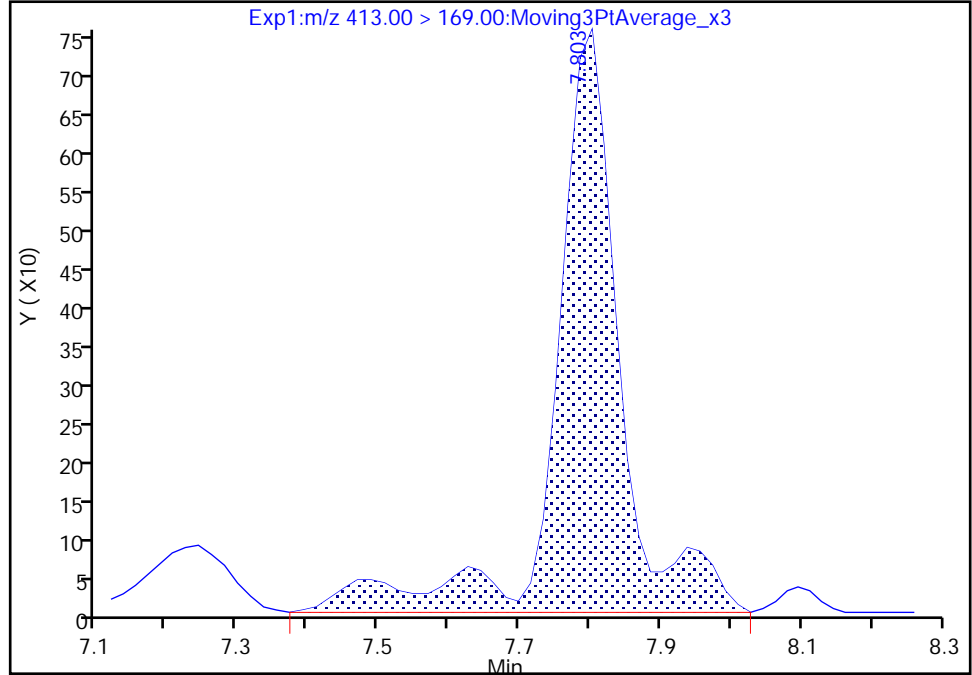
Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_001.d  
Injection Date: 10-Jun-2021 09:38:19 Instrument ID: A10  
Lims ID: MB 320-497181/1-A  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 1 Worklist Smp#: 48  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

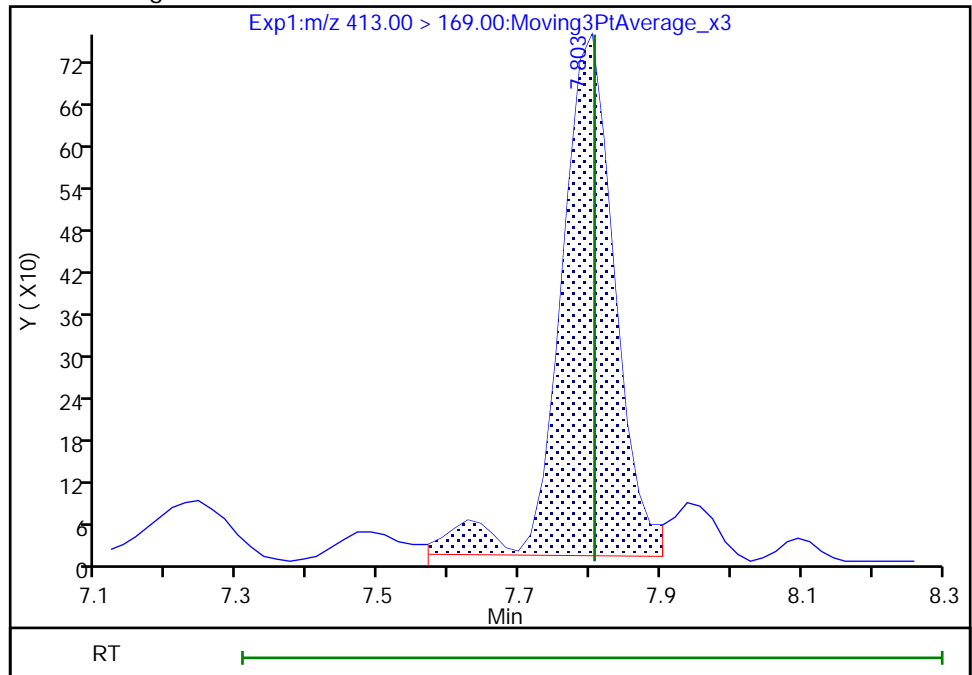
RT: 7.80  
Area: 4841  
Amount: 0.000122  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 4007  
Amount: 0.000122  
Amount Units: ng/ml

Manual Integration Results



Reviewer: ruangyotsakuld, 11-Jun-2021 07:52:35

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: ICB 320-496403/10  
 Matrix: Water Lab File ID: 2021.06.07\_A10\_DI\_ICAL\_013.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 06/07/2021 17:14  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496403 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	115		25-150
STL00995	13C5 PFNA	107		25-150
STL00990	13C4 PFOA	107		70-130
STL00991	13C4 PFOS	103		70-130
STL00994	18O2 PFHxS	109		25-150
STL02337	13C3 PFBS	92		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_013.d  
 Lims ID: ICB  
 Client ID:  
 Sample Type: ICB  
 Inject. Date: 07-Jun-2021 17:14:22 ALS Bottle#: 13 Worklist Smp#: 10  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: ICB (25)  
 Misc. Info.: Plate: 1 Rack: 5  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 08-Jun-2021 13:31:46 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1607

First Level Reviewer: vangmy Date: 08-Jun-2021 12:27:12

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.604	5.569	0.035	2785142	0.0777		155	6318	
D 4 13C5 PFPeA	267.90 > 223.00	6.230	6.230	0.0	1716083	0.0501		100	7473	
D 3 13C3 PFBS	301.90 > 80.00	6.271	6.293	-0.022	1223274	0.0427		91.8	3283	
D 7 M2-4:2 FTS	329.00 > 81.00	6.665	6.664	0.001	378636	NC			767	
D 9 13C2 PFHxA	315.00 > 270.00	6.711	6.734	-0.023	1715978	0.0527		105	9276	
D 12 13C3 HFPO-DA	332.10 > 287.00	6.852	6.876	-0.024	170357	NC			708	
D 15 18O2 PFHxS	403.00 > 84.00	7.226	7.235	-0.009	1431844	0.0514		109	15998	
D 17 13C4 PFHpA	367.00 > 322.00	7.226	7.257	-0.031	2212953	0.0573		115	13045	
23 6:2 FTS	427.00 > 407.00	7.769	7.789	-0.020	13218	0.000380	Target=2.57		165	
	427.00 > 81.00	7.769	7.789	-0.020	3979		3.32(1.29-3.86)		8.8	
D 22 M2-6:2 FTS	429.00 > 81.00	7.769	7.789	-0.020	541480	0.0535		113	1121	
D 20 13C2 PFOA	415.00 > 370.00	7.787	7.804	-0.017	1595	NC		0.0	28.3	
24 Perfluorooctanoic acid	413.00 > 369.00	7.787	7.808	-0.021	6965	0.000121	Target=1.54		1.1	M
	413.00 > 169.00	7.803	7.808	-0.005	3613		1.93(0.77-2.31)		12.4	M
D 25 13C4 PFOA	417.00 > 372.00	7.787	7.808	-0.021	3040140	0.0533		107	12221	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 26 13C4 PFOS	503.00 > 80.00	8.359	8.365	-0.006		954640	0.0491	103	4002	
D 28 13C5 PFNA	468.00 > 423.00	8.376	8.403	-0.027		2606175	0.0536	107	11246	
D 30 13C8 FOSA	506.00 > 78.00	8.911	8.924	-0.013		1492779	0.0648	130	6957	
31 Perfluorooctanesulfonamide	498.00 > 78.00	8.911	8.924	-0.013	1.000	1732	0.00005223		15.6	
D 33 13C2 PFDA	515.00 > 470.00	8.957	8.974	-0.017		2363039	0.0535	107	10751	
D 34 M2-8:2 FTS	529.00 > 81.00	8.972	8.991	-0.019		444490	0.0530	111	2710	
D 37 d3-NMeFOSAA	573.00 > 419.00	9.246	9.257	-0.011		910076	0.0570	114	4630	
D 42 13C2 PFUnA	565.00 > 520.00	9.513	9.541	-0.028		2048850	0.0522	104	14156	
D 40 d5-NEtFOSAA	589.00 > 419.00	9.529	9.541	-0.012		883125	0.0556	111	3645	
44 11CIFOS	631.00 > 451.00	9.764	9.769	-0.004	1.168	1518	NC		8.3	
D 45 13C2 PFDaA	615.00 > 570.00	10.057	10.056	0.001		2387468	0.0540	108	14011	
D 51 13C2 PFTeDA	715.00 > 670.00	11.028	11.059	-0.031		2723964	0.0741	148	9069	
D 52 13C2 PFHxDA	815.00 > 770.00	11.946	11.961	-0.015		1532443	0.0619	124	7209	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC-LL-L0\_00025

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_013.d

Injection Date: 07-Jun-2021 17:14:22

Instrument ID: A10

Lims ID: ICB

Client ID:

Operator ID: Sac\_inst\_A10

ALS Bottle#: 13

Worklist Smp#: 10

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

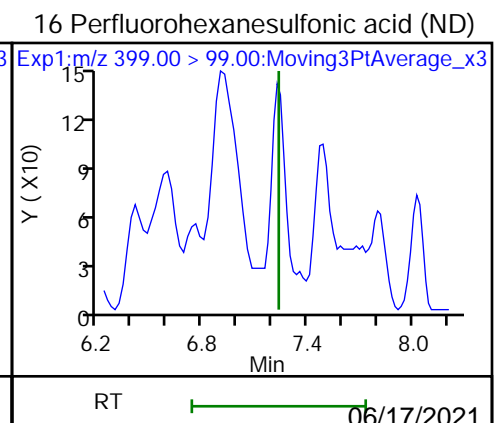
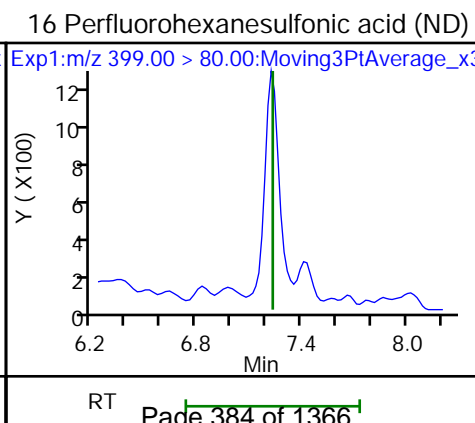
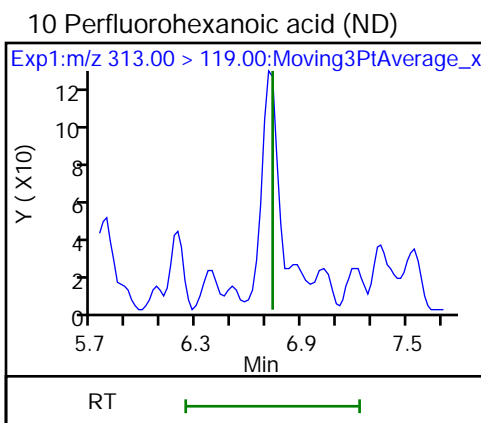
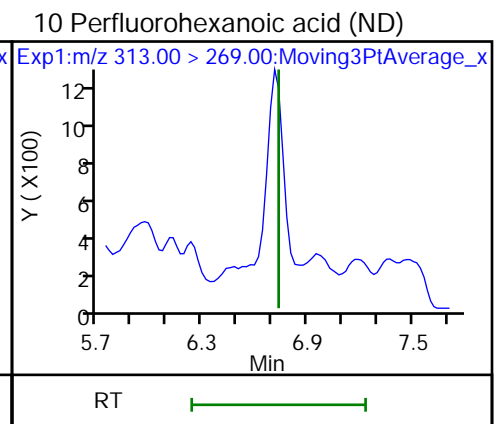
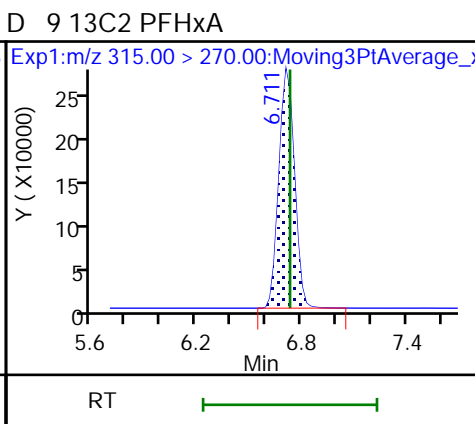
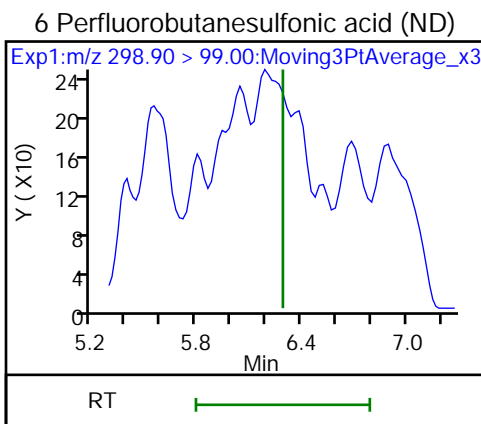
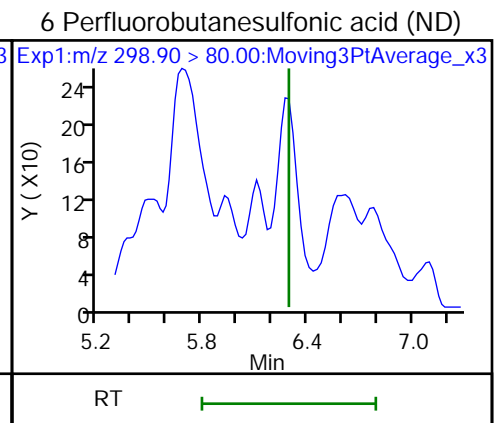
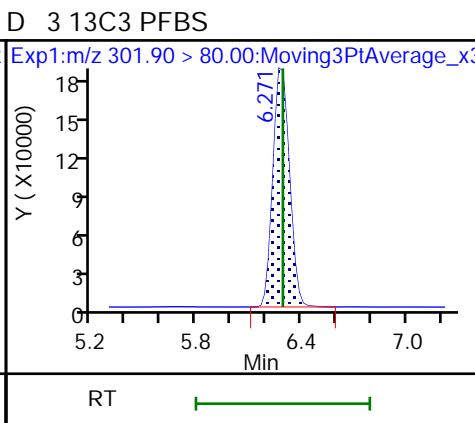
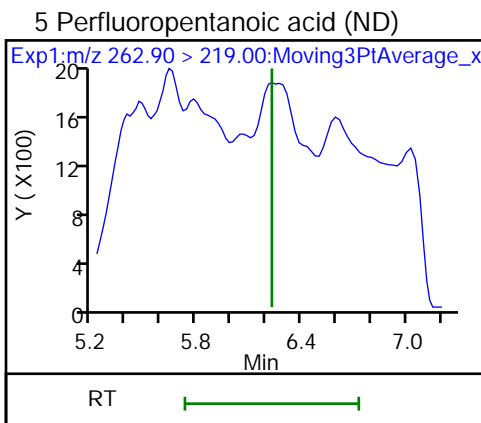
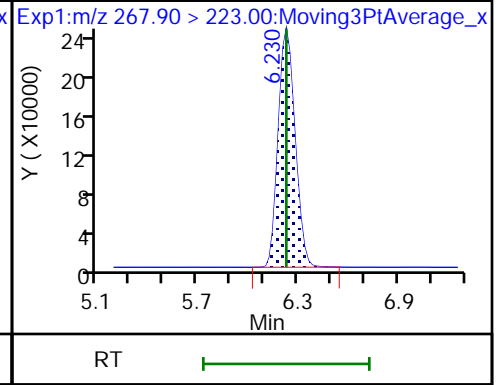
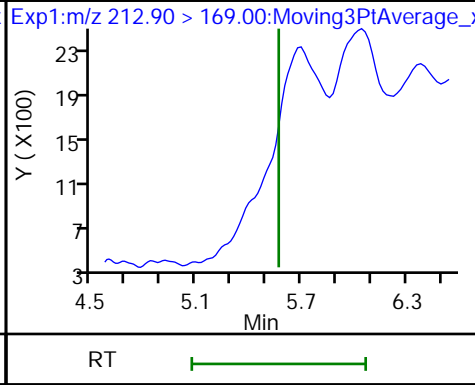
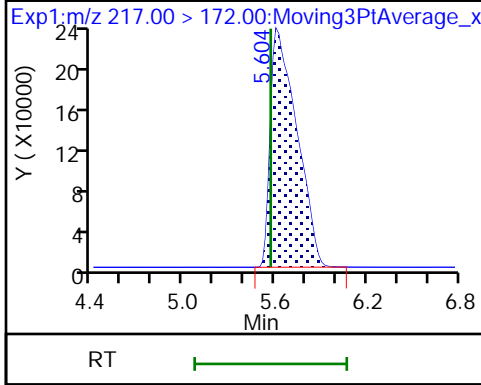
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid (ND)

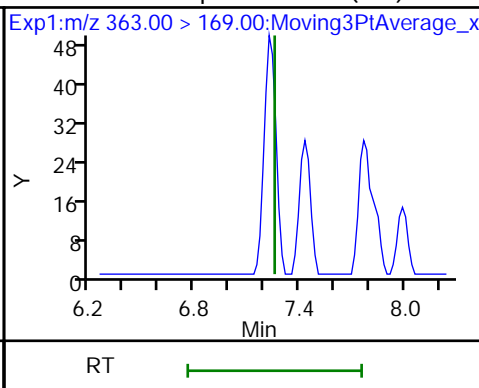
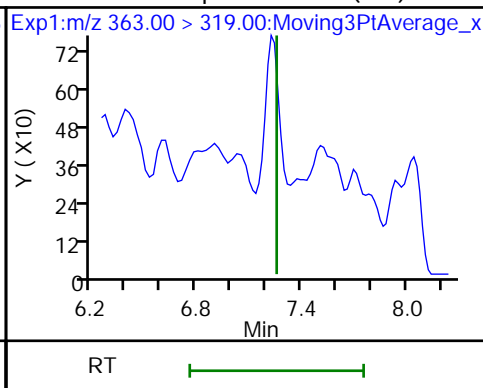
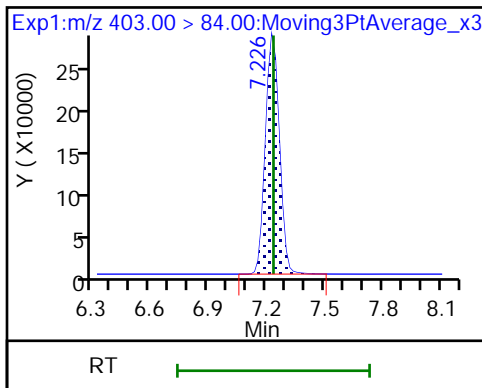
D 4 13C5 PFPeA



D 15 18O2 PFHxS

18 Perfluoroheptanoic acid (ND)

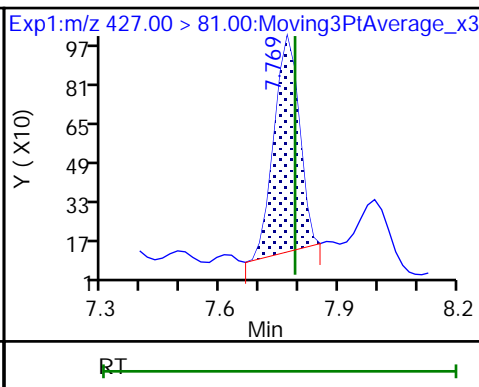
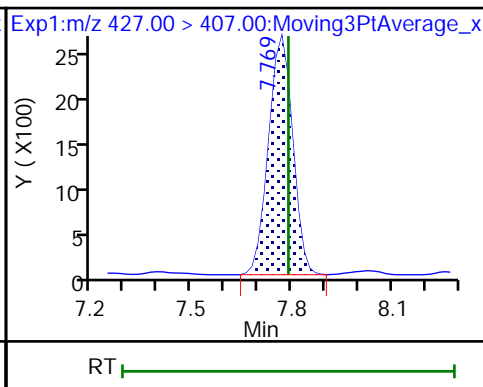
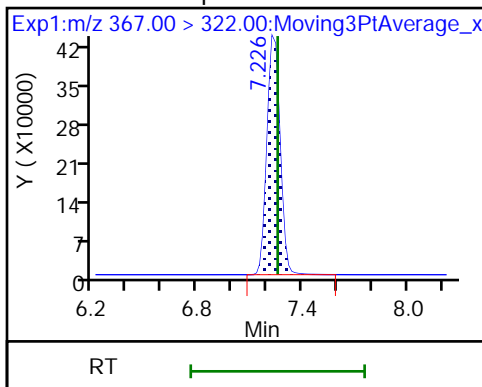
18 Perfluoroheptanoic acid (ND)



D 17 13C4 PFHpA

23 6:2 FTS

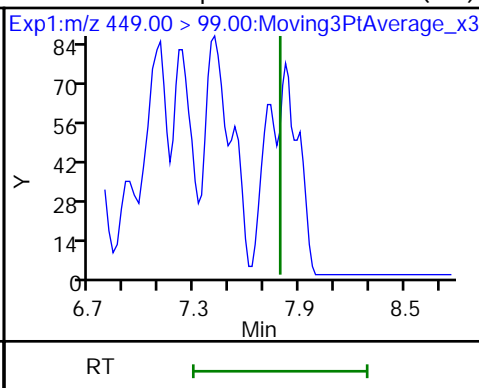
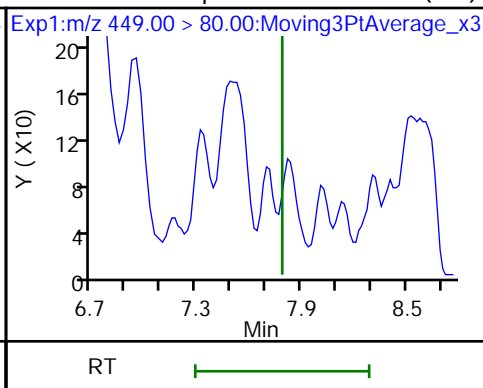
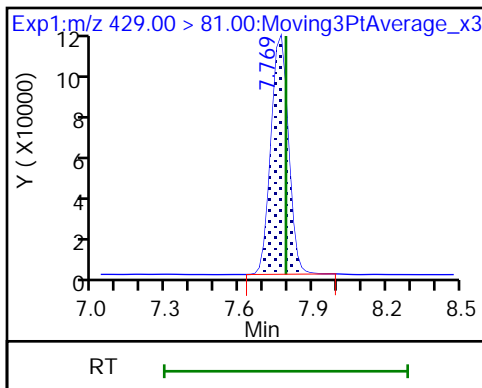
23 6:2 FTS



D 22 M2-6:2 FTS

21 Perfluoroheptanesulfonic acid (ND)

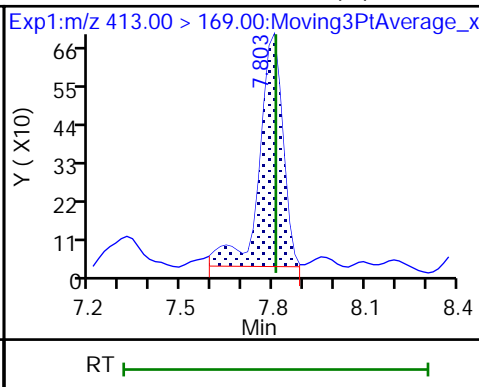
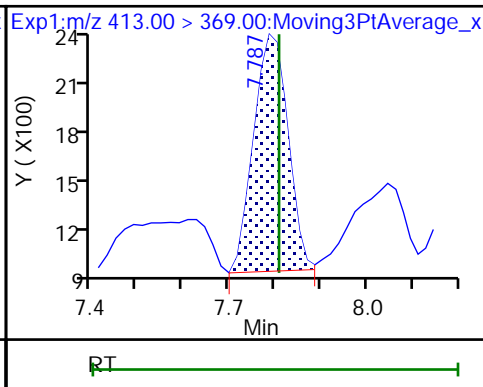
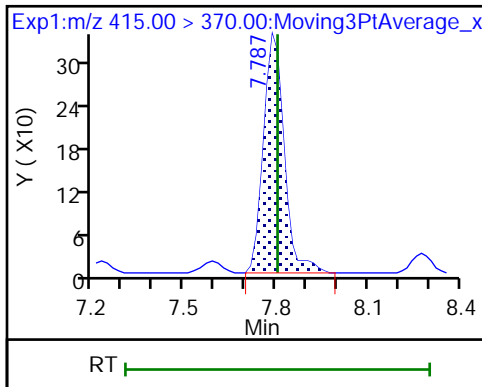
21 Perfluoroheptanesulfonic acid (ND)



D 20 13C2 PFOA

24 Perfluorooctanoic acid

24 Perfluorooctanoic acid (M)

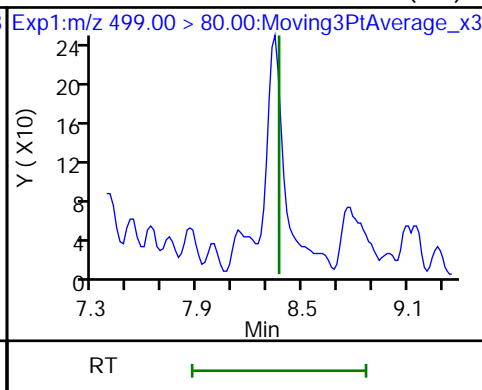
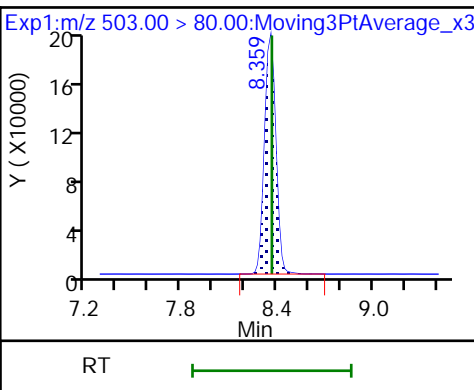
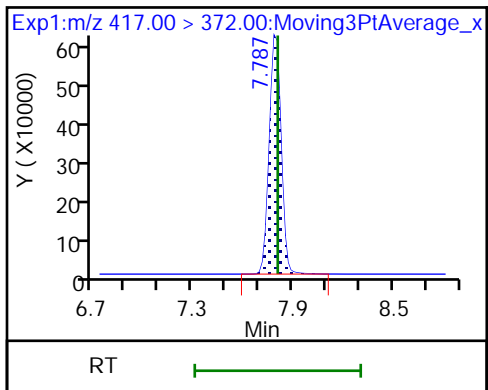




D 25 13C4 PFOA

D 26 13C4 PFOS

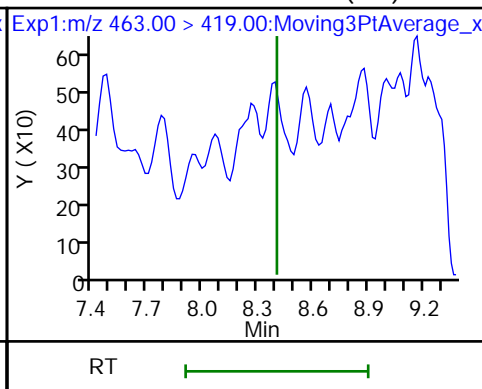
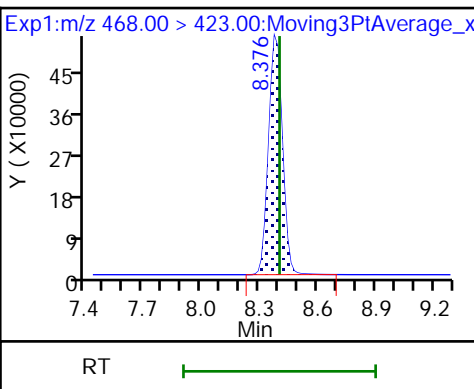
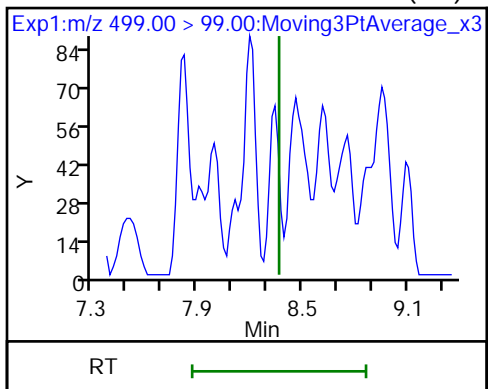
27 Perfluorooctanesulfonic acid (ND)



27 Perfluorooctanesulfonic acid (ND)

D 28 13C5 PFNA

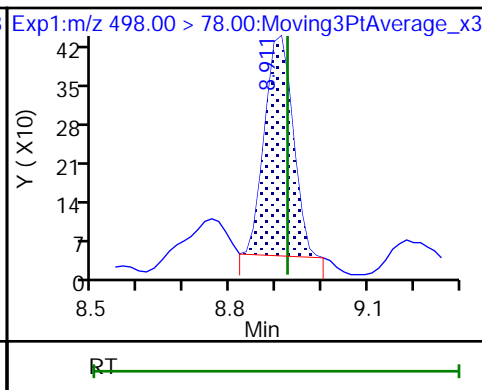
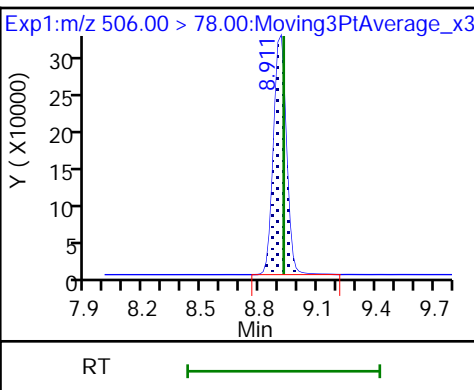
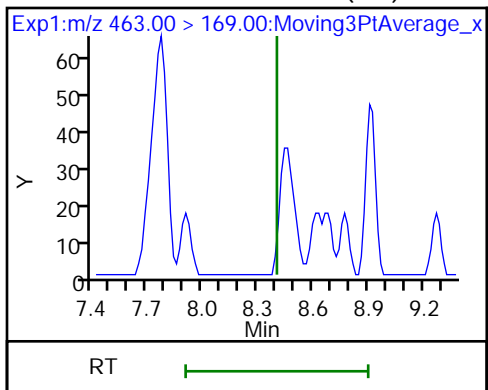
29 Perfluorononanoic acid (ND)



29 Perfluorononanoic acid (ND)

D 30 13C8 FOSA

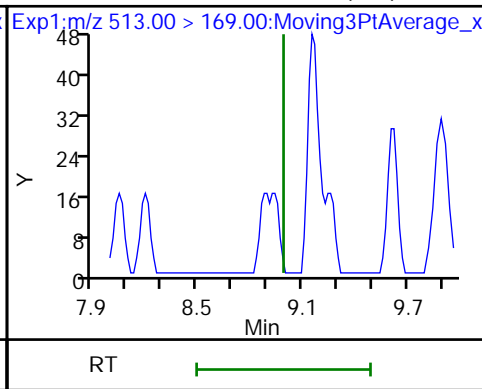
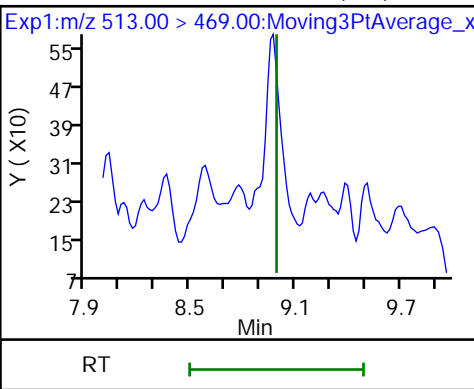
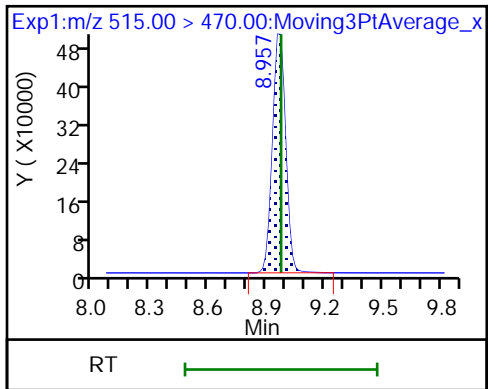
31 Perfluorooctanesulfonamide



D 33 13C2 PFDA

35 Perfluorodecanoic acid (ND)

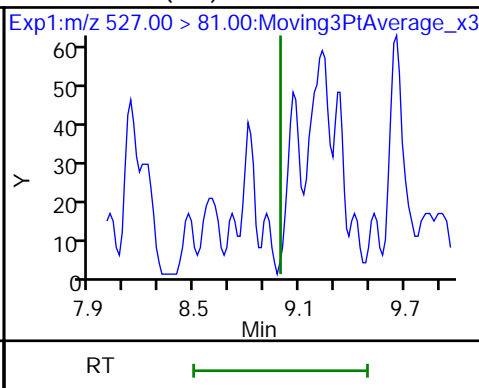
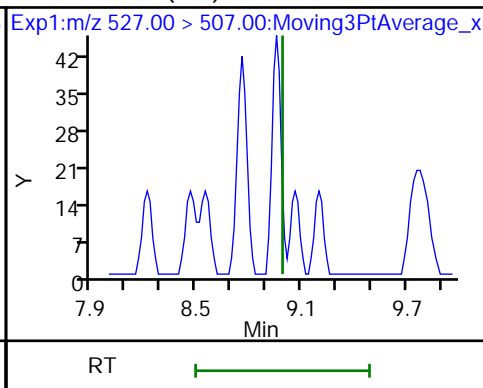
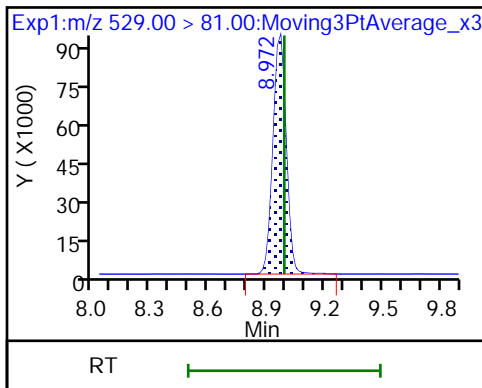
35 Perfluorodecanoic acid (ND)



D 34 M2-8:2 FTS

36 8:2 FTS (ND)

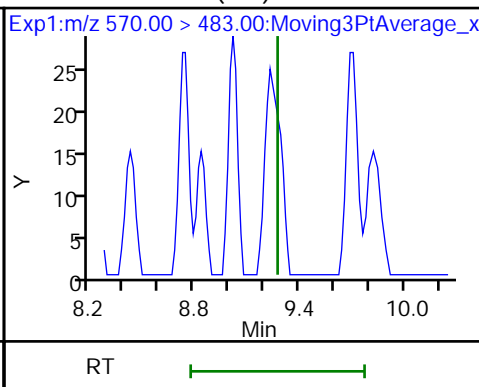
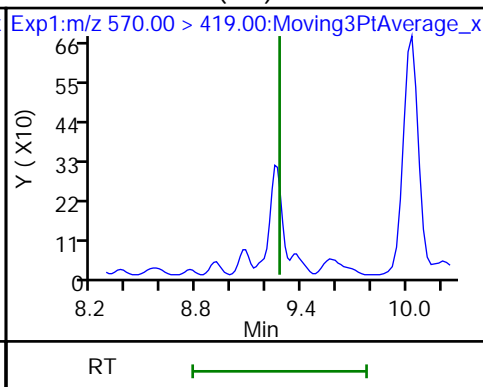
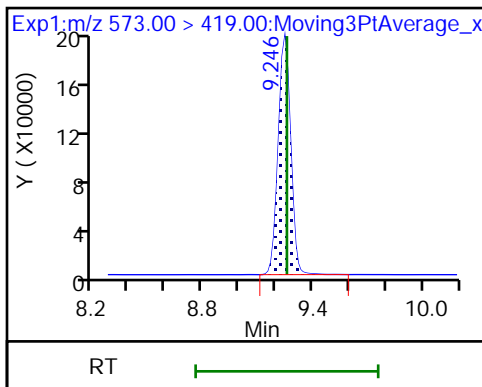
36 8:2 FTS (ND)



D 37 d3-NMeFOSAA

38 NMeFOSAA (ND)

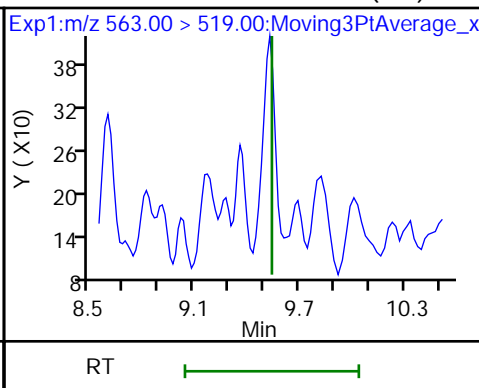
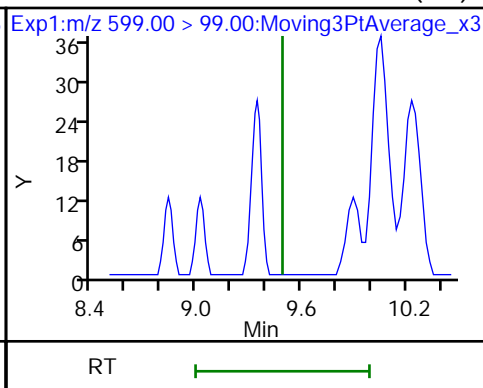
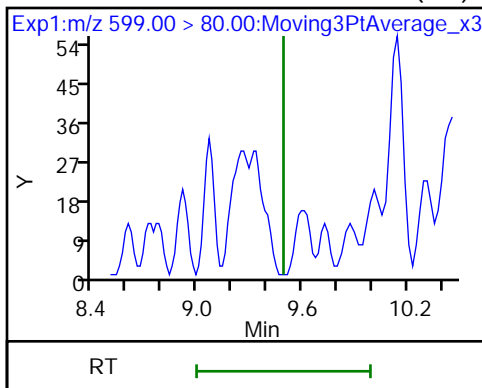
38 NMeFOSAA (ND)



39 Perfluorodecanesulfonic acid (ND)

39 Perfluorodecanesulfonic acid (ND)

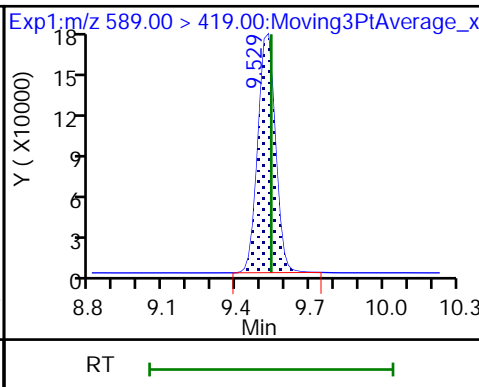
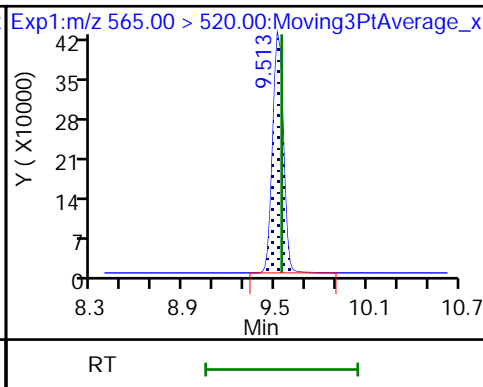
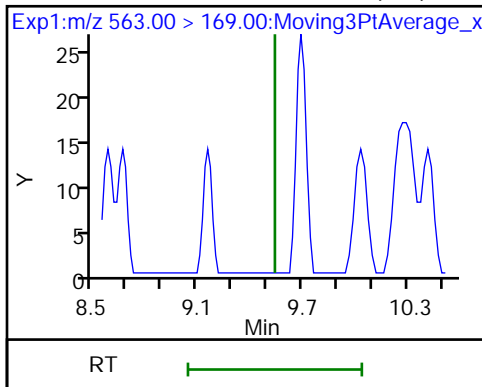
41 Perfluoroundecanoic acid (ND)

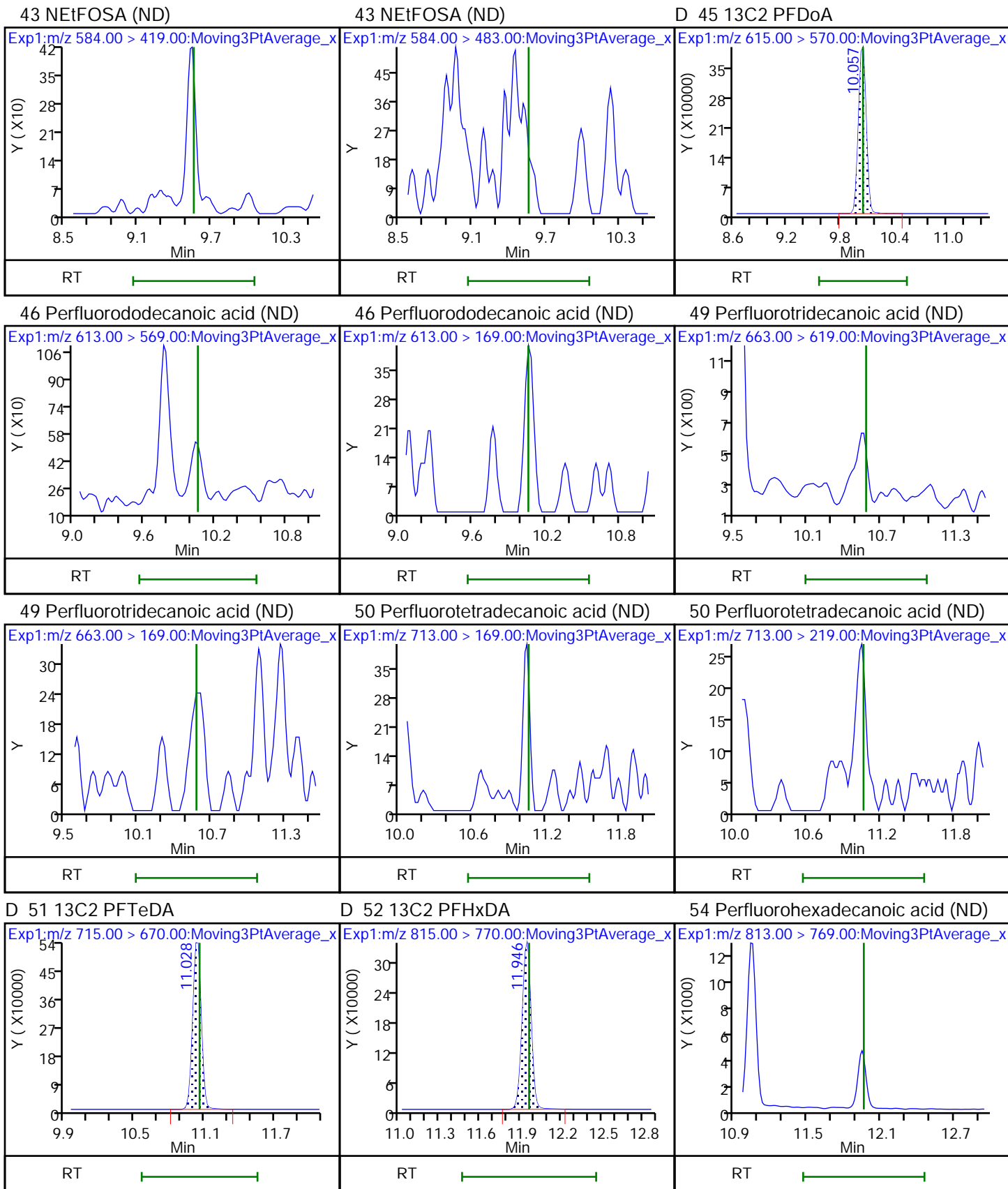


41 Perfluoroundecanoic acid (ND)

D 42 13C2 PFUnA

D 40 d5-NEtFOSAA

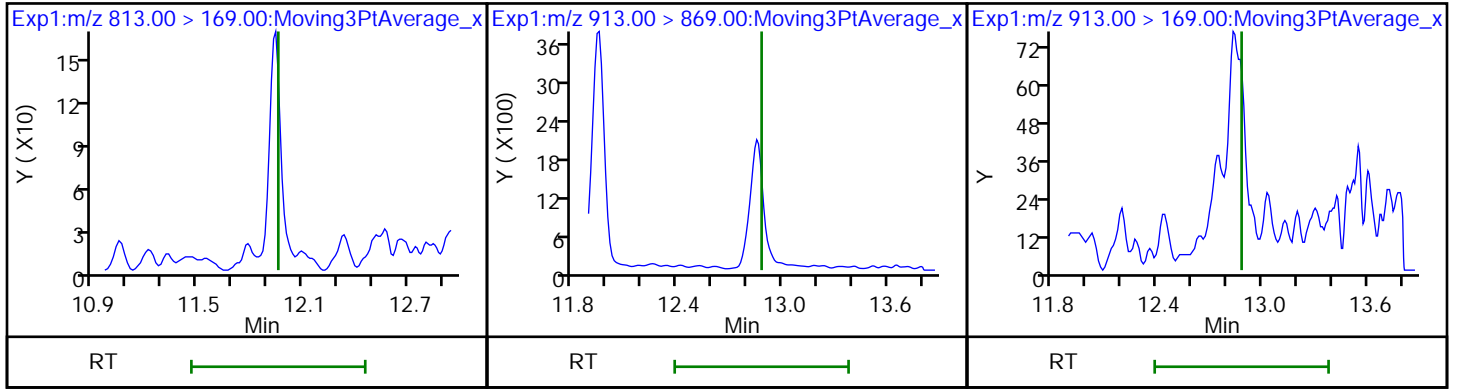




54 Perfluorohexadecanoic acid (ND)

53 Perfluorooctadecanoic acid (ND)

53 Perfluorooctadecanoic acid (ND)



Eurofins TestAmerica, Sacramento

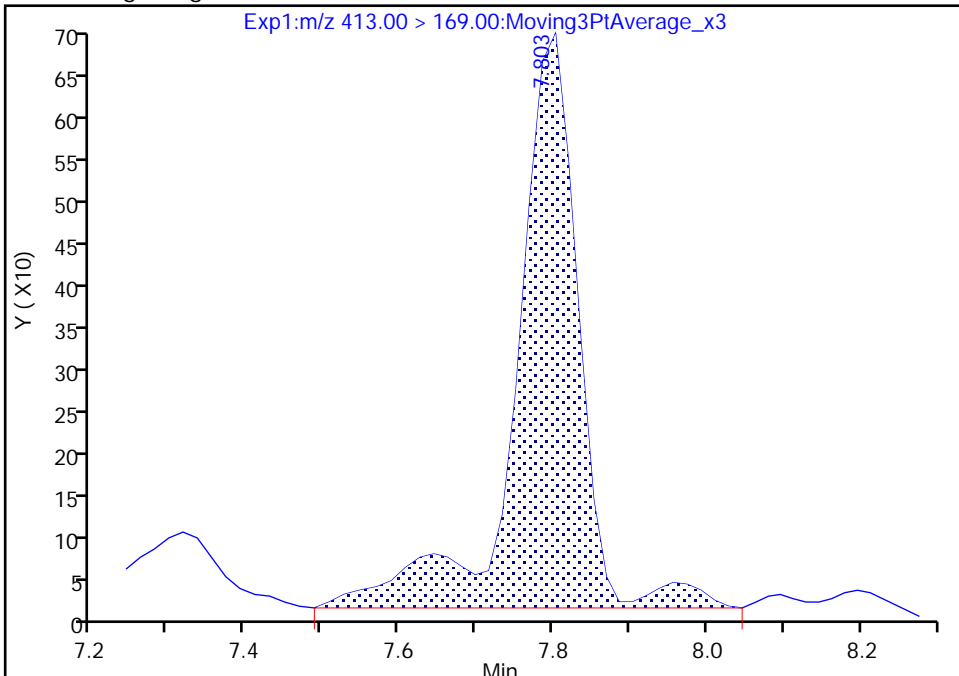
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Injection Date: 07-Jun-2021 17:14:22 Instrument ID: A10  
Lims ID: ICB  
Client ID:  
Operator ID: Sac\_inst\_A10 ALS Bottle#: 13 Worklist Smp#: 10  
Injection Vol: 950.0 ul Dil. Factor: 1.0000  
Method: A10\_In\_Line\_SPE Limit Group: LC PFAS\_DW ICAL  
Column: Gemini C18 3um 3 x 100mm ( 3.00 mm) Detector: EXP1

24 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

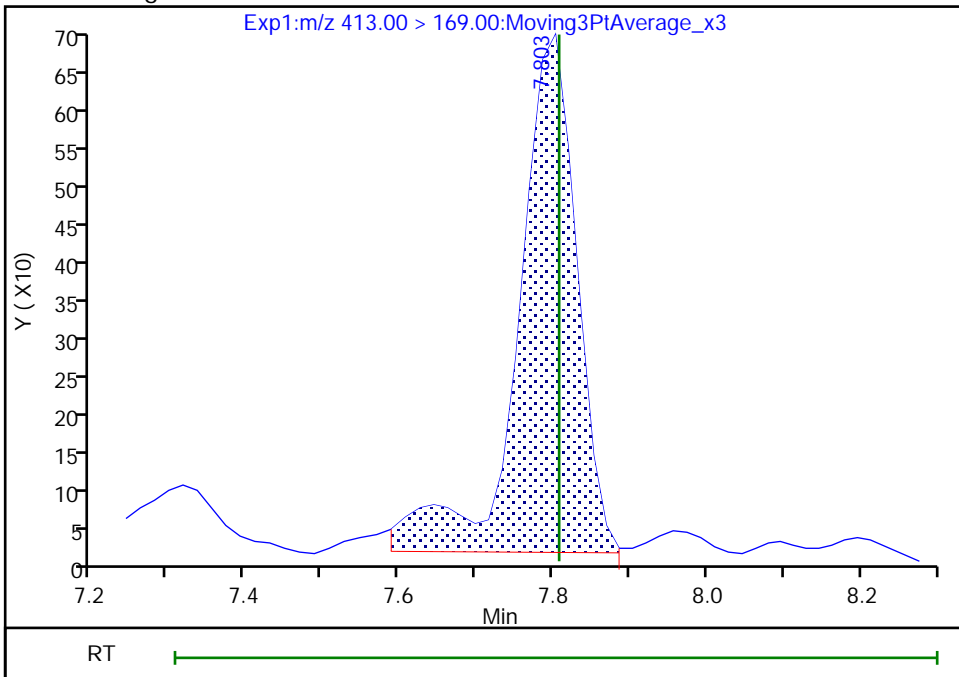
RT: 7.80  
Area: 3898  
Amount: 0.000121  
Amount Units: ng/ml

Processing Integration Results



RT: 7.80  
Area: 3613  
Amount: 0.000121  
Amount Units: ng/ml

Manual Integration Results



Reviewer: vangmy, 08-Jun-2021 12:27:06  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 320-497181/2-A  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_002.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: \_\_\_\_\_  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 09:56  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	15.9		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	17.3		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	16.6		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	17.6		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	14.9		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	17.4		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	132		25-150
STL00995	13C5 PFNA	122		25-150
STL00990	13C4 PFOA	123		70-130
STL00991	13C4 PFOS	132	*5+	70-130
STL00994	18O2 PFHxS	131		25-150
STL02337	13C3 PFBS	112		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_002.d  
 Lims ID: LCS 320-497181/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 10-Jun-2021 09:56:48 ALS Bottle#: 2 Worklist Smp#: 49  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: lcs 320-497181/2-a  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:53:14 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:53:14  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.08\_A10\_DI\_C\_054.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.641	5.701	-0.060	3110349	0.0868		174	10780	
1 Perfluorobutanoic acid	212.90 > 169.00	5.641	5.701	-0.060	1.000	574138	0.008906	73.9	198	
D 4 13C5 PFPeA	267.90 > 223.00	6.254	6.254	0.0	2100208	0.0613		123	10660	
5 Perfluoropentanoic acid	262.90 > 219.00	6.254	6.254	0.0	1.000	494203	0.0099	82.3	211	
D 3 13C3 PFBS	301.90 > 80.00	6.296	6.297	-0.001	1490163	0.0520		112	4876	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.296	6.297	-0.001	1.000	354237	0.009576	Target=1.41	89.9	1082
	298.90 > 99.00	6.296	6.297	-0.001	1.000	255697	1.39(0.70-2.11)		548	
8 4:2 FTS	327.00 > 307.00	6.691	6.668	0.023	1.003	221657	NC	Target=2.39	3938	
	327.00 > 81.00	6.691	6.668	0.023	1.003	86242	2.57(1.19-3.58)		105	
D 7 M2-4:2 FTS	329.00 > 81.00	6.668	6.668	0.0	380592	NC			1117	
D 9 13C2 PFHxA	315.00 > 270.00	6.738	6.715	0.023	2116867	0.0650		130	11820	
10 Perfluorohexanoic acid	313.00 > 269.00	6.738	6.738	0.0	1.000	428874	0.009562	Target=20.55	79.4	498
	313.00 > 119.00	6.738	6.738	0.0	1.000	20087	21.35(10.28-30.83)		194	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.738	6.738	0.0	0.932	364812	NC	Target=1.44	1161	
	349.00 > 99.00	6.738	6.738	0.0	0.932	258893	1.41(0.72-2.16)		700	
13 HPFO-DA	329.10 > 285.00	6.879	6.879	0.0	1.000	100196	NC		133	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.879	6.879	0.0		216863	NC			1106	
D 15 18O2 PFHxS										
403.00 > 84.00	7.229	7.248	-0.019		1728353	0.0621		131	18447	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.229	7.248	-0.019	1.000	419017	0.0100	Target=5.56	91.1	929	
399.00 > 99.00	7.229	7.248	-0.019	1.000	73182		5.73(2.78-8.33)		478	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.229	7.248	-0.019	1.000	545314	0.0104	Target=8.84	86.7	318	
363.00 > 169.00	7.229	7.248	-0.019	1.000	59846		9.11(4.42-13.25)		1489	
D 17 13C4 PFHpA										
367.00 > 322.00	7.229	7.248	-0.019		2547398	0.0660		132	13260	
19 DONA										
377.00 > 251.00	7.285	7.304	-0.019	0.875	2231566	NC	Target=2.72		7225	
377.00 > 85.00	7.285	7.304	-0.019	0.875	804079		2.78(1.36-4.08)		4859	
23 6:2 FTS										
427.00 > 407.00	7.755	7.772	-0.017	1.000	335666	0.009634	Target=2.60	84.3	4336	
427.00 > 81.00	7.755	7.772	-0.017	1.000	124574		2.69(1.30-3.90)		382	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.755	7.772	-0.017		541674	0.0535		113	1877	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.772	7.790	-0.018	0.933	339394	0.0100	Target=6.98	87.4	770	
449.00 > 99.00	7.772	7.790	-0.018	0.933	47740		7.11(3.49-10.47)		335	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.790	7.806	-0.016	1.000	697066	0.0105	Target=1.59	87.0	142	
413.00 > 169.00	7.790	7.806	-0.016	1.000	454107		1.54(0.79-2.38)		1921	
D 25 13C4 PFOA										
417.00 > 372.00	7.790	7.806	-0.016		3510022	0.0616		123	11873	
D 26 13C4 PFOS										
503.00 > 80.00	8.328	8.367	-0.039		1227501	0.0632		132	4445	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.346	8.367	-0.021	1.002	253611	0.008953	Target=3.35	80.1	1088	
499.00 > 99.00	8.328	8.367	-0.039	1.000	74588		3.40(1.67-5.02)		603	
D 28 13C5 PFNA										
468.00 > 423.00	8.363	8.401	-0.038		2971331	0.0611		122	13128	
29 Perfluorononanoic acid										
463.00 > 419.00	8.363	8.401	-0.038	1.000	570876	0.0106	Target=7.93	87.8	371	
463.00 > 169.00	8.363	8.401	-0.038	1.000	76859		7.43(3.96-11.89)		944	
D 30 13C8 FOSA										
506.00 > 78.00	8.903	8.931	-0.028		1614518	0.0701		140	8444	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.903	8.931	-0.028	1.000	295614	0.008243		68.4	2484	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.903	8.947	-0.044	1.069	213328	NC	Target=6.01		1712	
549.00 > 99.00	8.903	8.947	-0.044	1.069	39085		5.46(3.01-9.02)		361	
D 33 13C2 PFDA										
515.00 > 470.00	8.950	8.978	-0.028		2761213	0.0626		125	17290	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Perfluorodecanoic acid										
513.00 > 469.00	8.950	8.978	-0.028	1.000	512235	0.0102	Target=15.64	84.3	547	
513.00 > 169.00	8.950	8.978	-0.028	1.000	30239		16.94(7.82-23.46)		259	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.950	8.978	-0.028		433218	0.0517		108	2512	
36 8:2 FTS										
527.00 > 507.00	8.950	8.978	-0.028	1.000	197236	0.009035	Target=2.27	78.3	3066	
527.00 > 81.00	8.950	8.978	-0.028	1.000	84712		2.33(1.14-3.41)		679	
38 NMeFOSAA										
570.00 > 419.00	9.231	9.259	-0.028	1.000	161134	0.008545	Target=13.39	70.9	569	
570.00 > 483.00	9.231	9.259	-0.028	1.000	12873		12.52(6.69-20.08)		152	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.231	9.259	-0.028		1063215	0.0666		133	3968	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.452	9.479	-0.027	1.135	149828	0.009069	Target=2.62	78.1	1987	
599.00 > 99.00	9.452	9.479	-0.027	1.135	55228		2.71(1.31-3.93)		1067	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.502	9.528	-0.026	1.000	435304	0.009746	Target=19.39	80.9	683	
563.00 > 169.00	9.502	9.528	-0.026	1.000	20678		21.05(9.69-29.08)		425	
D 42 13C2 PFUnA										
565.00 > 520.00	9.502	9.528	-0.026		2271355	0.0578		116	20297	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.502	9.528	-0.026		1049873	0.0661		132	4290	
43 NEtFOSA										
584.00 > 419.00	9.519	9.544	-0.026	1.002	164394	0.008533	Target=16.01	70.8	2060	
584.00 > 483.00	9.502	9.544	-0.042	1.000	13510		12.17(8.01-24.02)		146	
44 11C1FOS										
631.00 > 451.00	9.739	9.762	-0.023	1.169	1007567	NC			3514	
D 45 13C2 PFDaA										
615.00 > 570.00	10.031	10.055	-0.024		2594137	0.0587		117	15830	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.031	10.055	-0.024	1.000	439593	0.009114	Target=15.57	75.6	209	
613.00 > 169.00	10.031	10.055	-0.024	1.000	28516		15.42(7.79-23.36)		392	
47 10:2 FTS										
627.00 > 607.00	10.053	10.077	-0.024	1.123	219052	NC	Target=35.46		3342	
627.00 > 81.00	10.053	10.077	-0.024	1.123	6133		35.72(17.73-53.19)		125	
48 PFDaS										
699.00 > 80.00	10.458	10.501	-0.043	1.256	52766	NC	Target=0.50		429	
699.00 > 99.00	10.458	10.501	-0.043	1.256	109483		0.48(0.25-0.75)		1103	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.518	10.560	-0.042	1.049	563902	0.009176	Target=18.72	76.2	213	
663.00 > 169.00	10.518	10.560	-0.042	1.049	28383		19.87(9.36-28.08)		657	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	10.992	11.044	-0.052	1.000	21662	0.008741	Target=1.26	72.5	555	
713.00 > 219.00	10.992	11.044	-0.052	1.000	17812		1.22(0.63-1.89)		455	
D 51 13C2 PFTeDA										
715.00 > 670.00	10.992	11.044	-0.052		2823891	0.0768		154	14603	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.881	11.945	-0.064	1.000	564721	0.009190	Target=28.46	76.3	332	
813.00 > 169.00	11.881	11.945	-0.064	1.000	18528		30.48(14.23-42.69)		321	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.881	11.945	-0.064		2821988	0.1139		228	9398	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.746	12.841	-0.095	1.073	280547	0.0119	Target=34.64	99.0	208	
913.00 > 169.00	12.756	12.841	-0.085	1.074	7587		36.98(17.32-51.96)		149	

**QC Flag Legend**

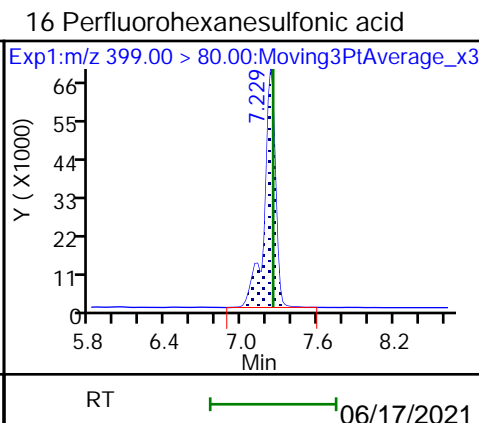
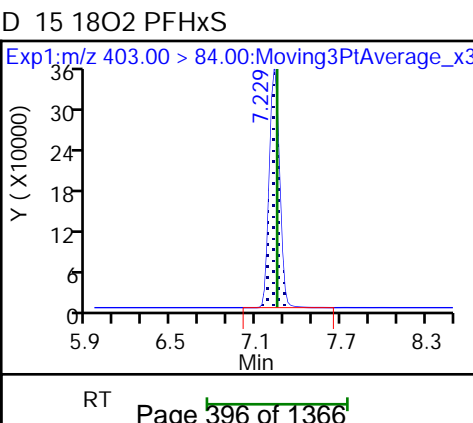
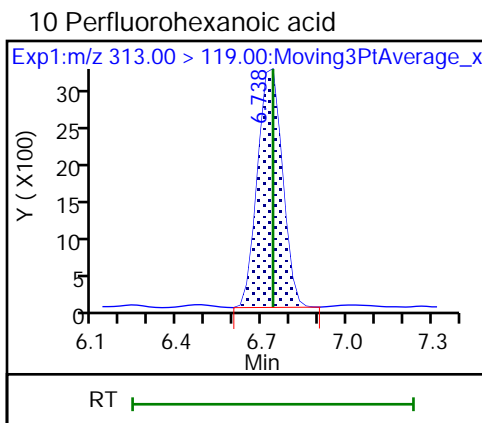
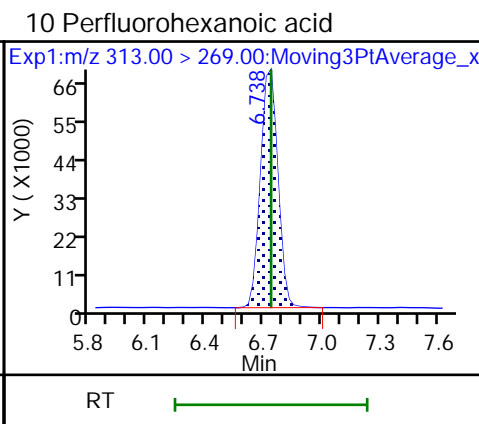
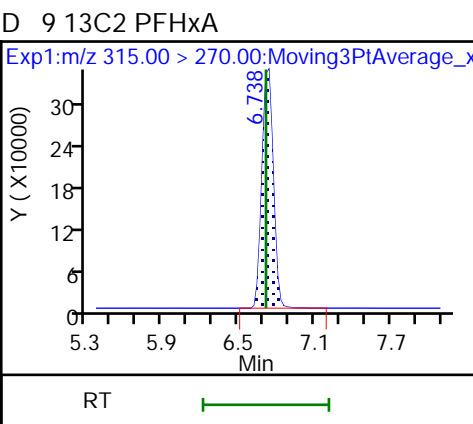
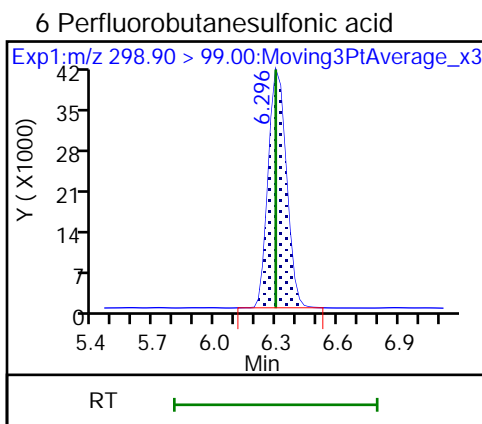
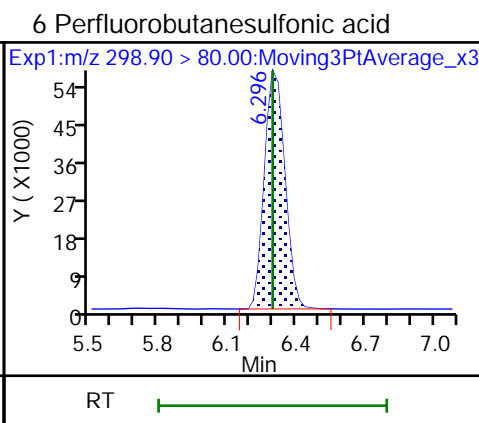
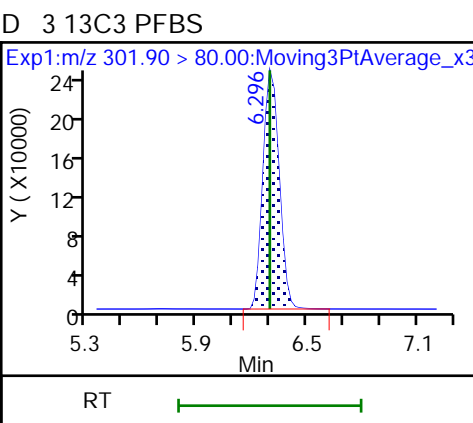
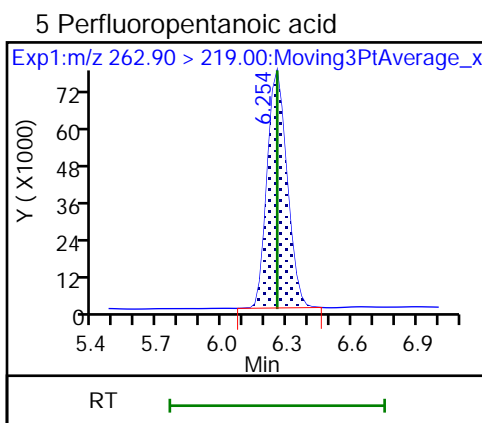
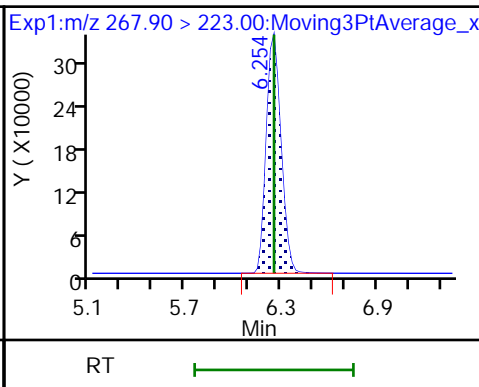
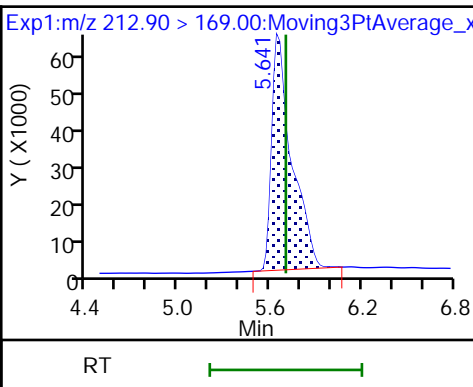
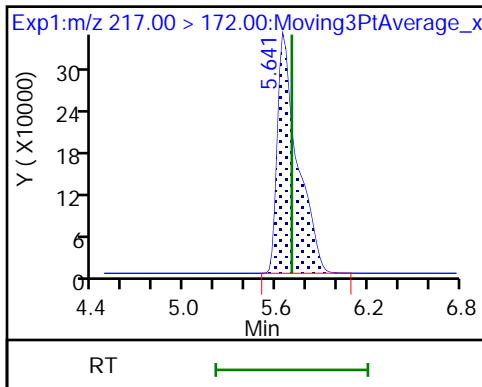
Processing Flags

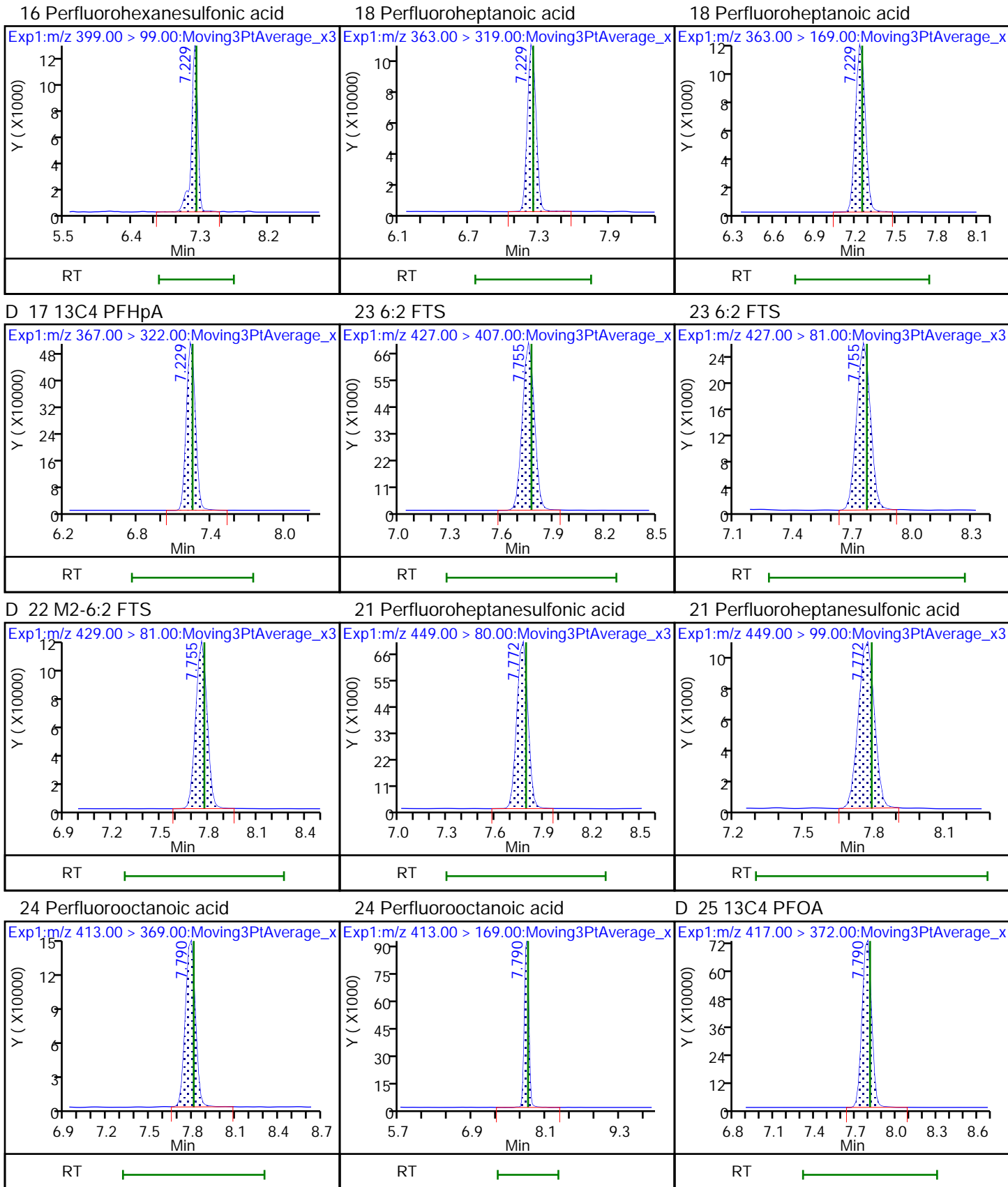
NC - Not Calibrated

D 2 13C4 PFBA

1 Perfluorobutanoic acid

D 4 13C5 PFPeA

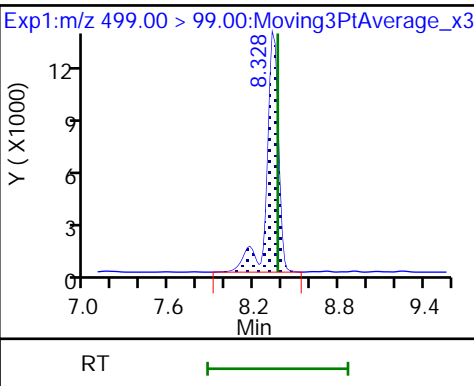
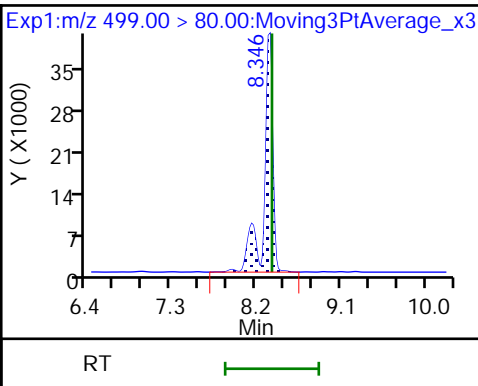
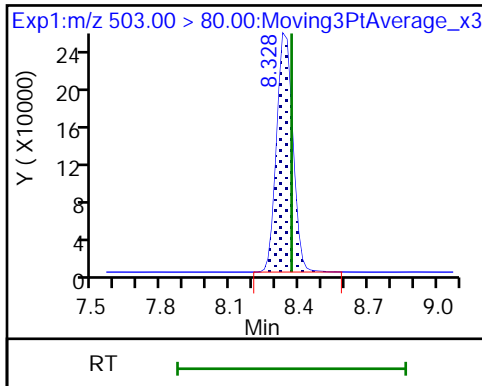




D 26 13C4 PFOS

27 Perfluorooctanesulfonic acid

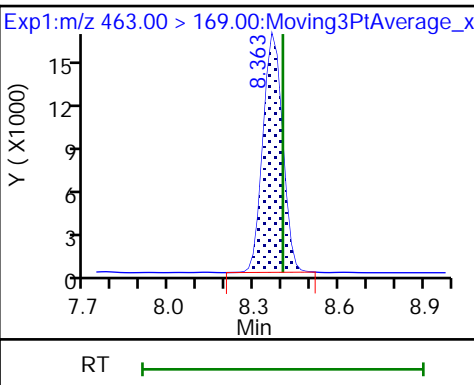
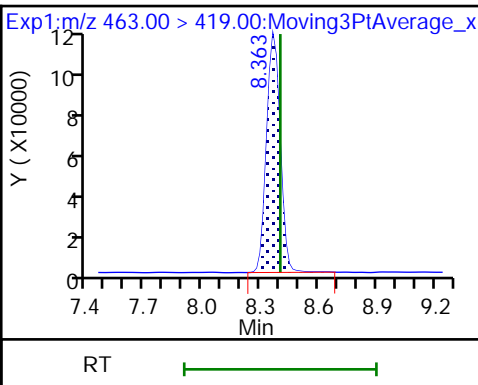
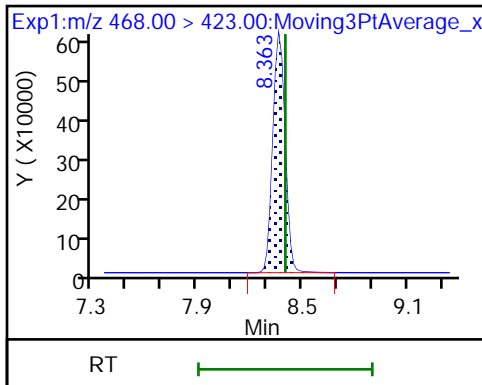
27 Perfluorooctanesulfonic acid



D 28 13C5 PFNA

29 Perfluorononanoic acid

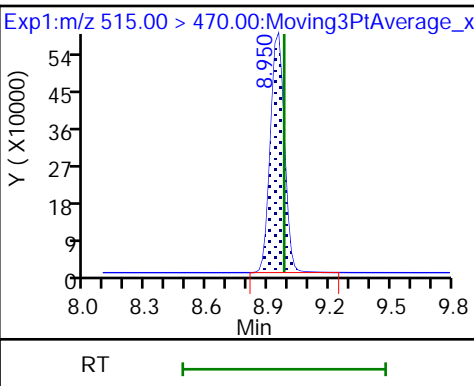
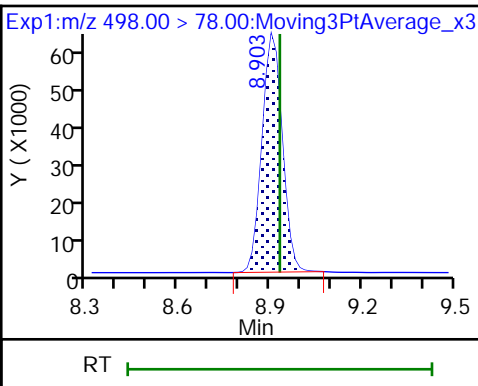
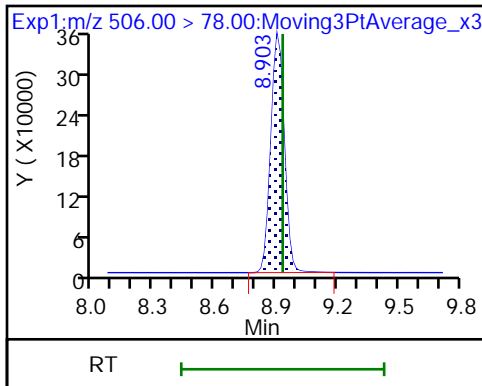
29 Perfluorononanoic acid



D 30 13C8 FOSA

31 Perfluorooctanesulfonamide

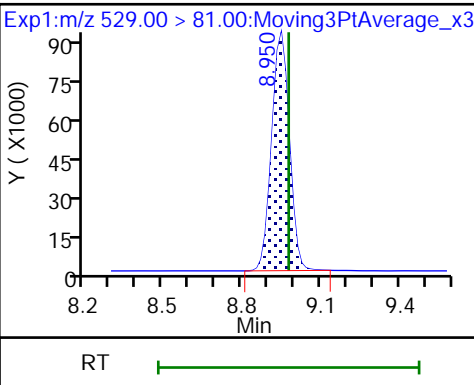
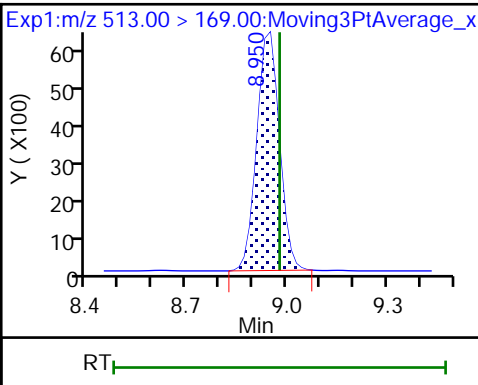
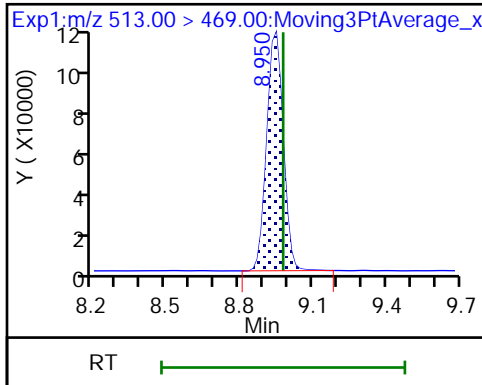
D 33 13C2 PFDA

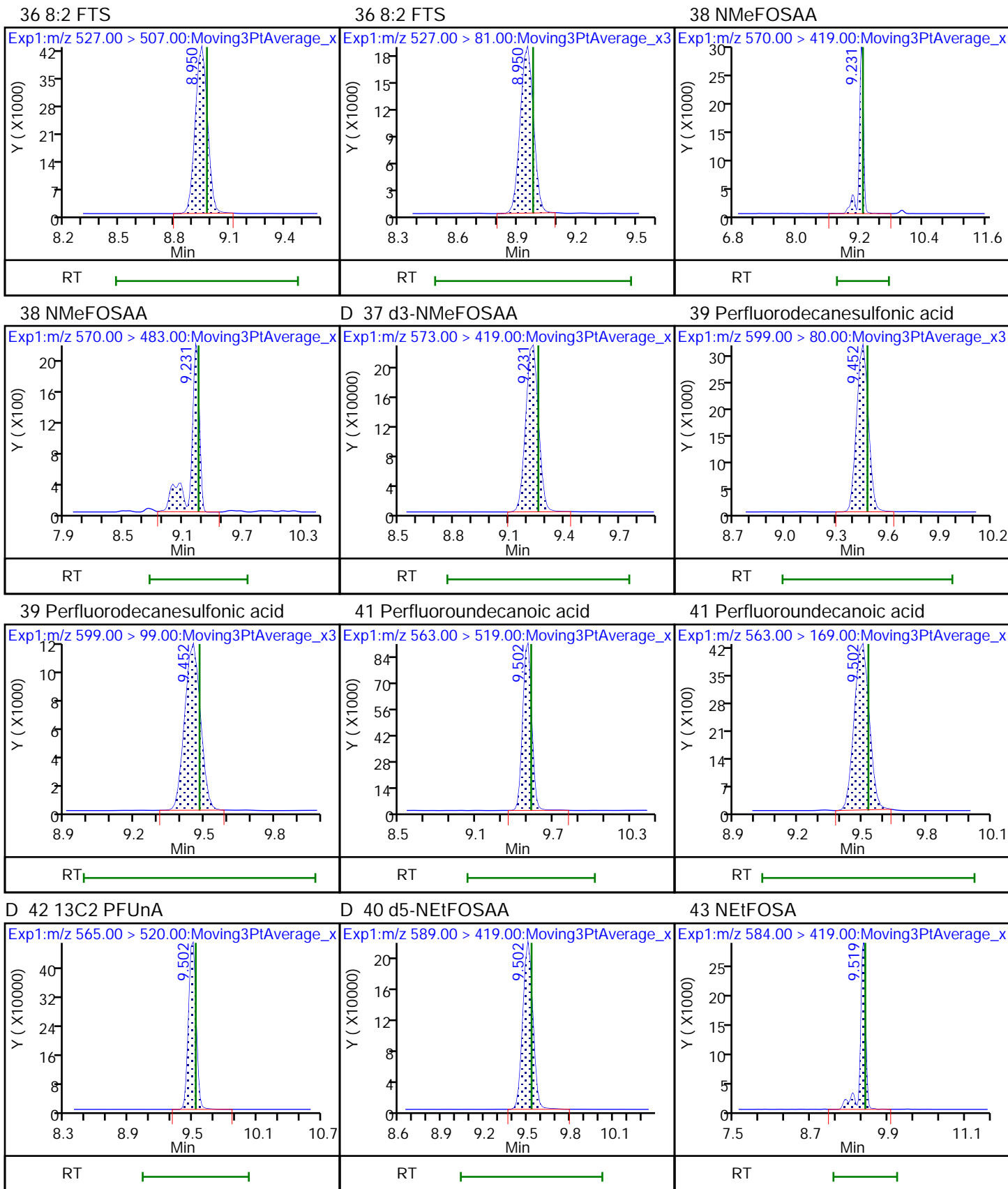


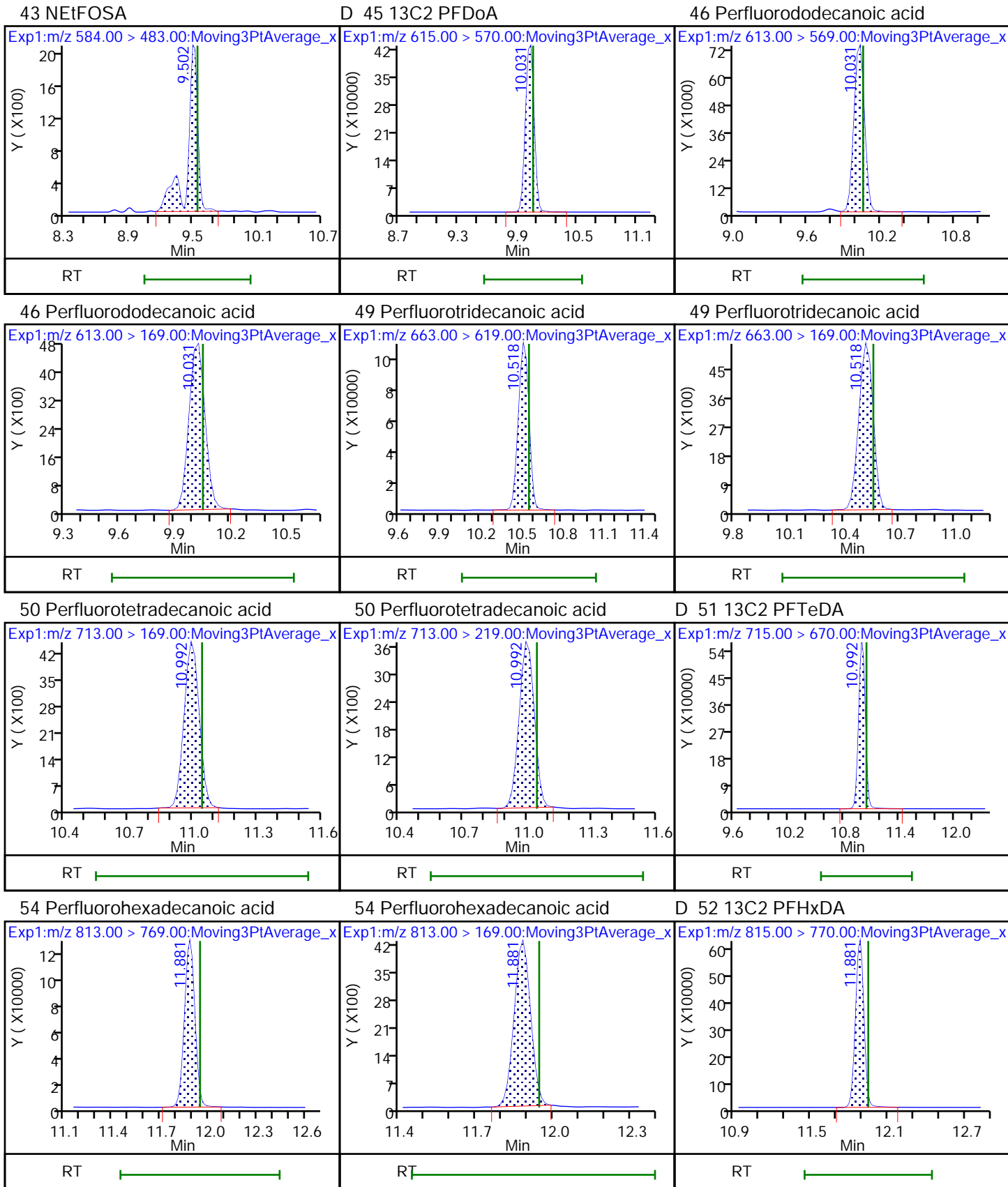
35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

D 34 M2-8:2 FTS

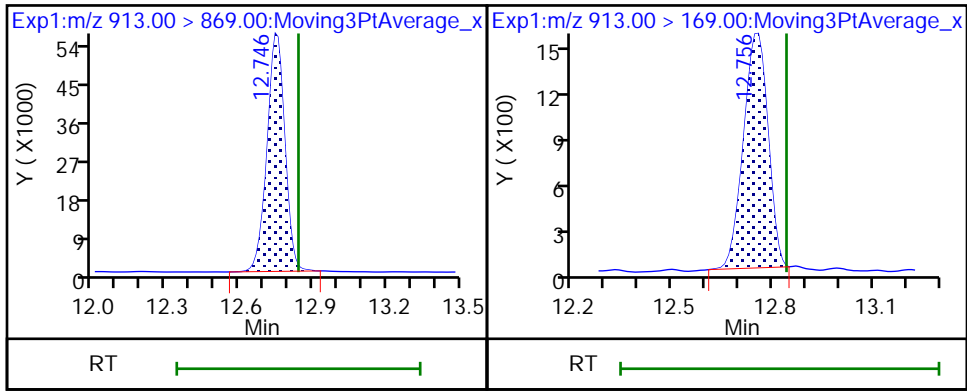






53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid





FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC MS Lab Sample ID: 320-74597-28 MS  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_013.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:05  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 13:19  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	14.4		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	15.4		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	14.1		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	16.4		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	13.0		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	15.4		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	124		25-150
STL00995	13C5 PFNA	119		25-150
STL00990	13C4 PFOA	119		70-130
STL00991	13C4 PFOS	128		70-130
STL00994	18O2 PFHxS	127		25-150
STL02337	13C3 PFBS	102		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_013.d  
 Lims ID: 320-74597-A-28-B MS  
 Client ID: BH20210604-POSTGAC  
 Sample Type: MS  
 Inject. Date: 10-Jun-2021 13:19:56 ALS Bottle#: 13 Worklist Smp#: 60  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-28-b ms  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 07:59:36 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 07:59:36  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_011.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.800	5.701	0.099	1851951	0.0517		103	125	
1 Perfluorobutanoic acid	212.90 > 169.00	5.800	5.701	0.099	1.000	334918	0.008726	82.1	51.6	
D 4 13C5 PFPeA	267.90 > 223.00	6.270	6.254	0.016	1849117	0.0539		108	5416	
5 Perfluoropentanoic acid	262.90 > 219.00	6.270	6.254	0.016	1.000	414702	0.009447	88.9	115	
D 3 13C3 PFBS	301.90 > 80.00	6.316	6.297	0.019	1364331	0.0476		102	5018	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.316	6.297	0.019	1.000	294473	0.008695	Target=1.34	92.5	432
	298.90 > 99.00	6.316	6.297	0.019	1.000	206730	1.42(0.67-2.00)		195	
8 4:2 FTS	327.00 > 307.00	6.687	6.668	0.019	1.000	183278	NC	Target=2.59	2228	
	327.00 > 81.00	6.687	6.668	0.019	1.000	74453	2.46(1.29-3.88)		30.1	
D 7 M2-4:2 FTS	329.00 > 81.00	6.687	6.668	0.019	338256	NC			371	
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.715	0.019	2040309	0.0626		125	12329	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.738	-0.004	1.000	368844	0.008533	Target=19.94	80.3	178
	313.00 > 119.00	6.734	6.738	-0.004	1.000	18665	19.76(9.97-29.91)		179	
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.734	6.738	-0.004	0.929	302883	NC	Target=1.41	478	
	349.00 > 99.00	6.757	6.738	0.019	0.933	205810	1.47(0.71-2.12)		347	
13 HPFO-DA	329.10 > 285.00	6.875	6.879	-0.004	1.000	85419	NC		102	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.875	6.879	-0.004		163819	NC			2152	
D 15 18O2 PFHxS										
403.00 > 84.00	7.246	7.248	-0.002		1676941	0.0602		127	10205	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.246	7.248	-0.002	1.000	344562	0.008465	Target=5.35	87.5	473	
399.00 > 99.00	7.246	7.248	-0.002	1.000	61570		5.60(2.68-8.03)		177	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.246	7.248	-0.002	1.000	456499	0.009265	Target=9.65	87.2	232	
363.00 > 169.00	7.246	7.248	-0.002	1.000	49619		9.20(4.82-14.47)		628	
D 17 13C4 PFHpA										
367.00 > 322.00	7.246	7.248	-0.002		2403240	0.0622		124	16802	
19 DONA										
377.00 > 251.00	7.302	7.304	-0.002	0.873	1762910	NC	Target=2.76		3553	
377.00 > 85.00	7.302	7.304	-0.002	0.873	670714		2.63(1.38-4.13)		1717	
23 6:2 FTS										
427.00 > 407.00	7.787	7.772	0.015	1.002	318906	0.008369	Target=2.61	83.0	3465	
427.00 > 81.00	7.769	7.772	-0.003	1.000	123466		2.58(1.31-3.92)		131	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.769	7.772	-0.003		592423	0.0586		123	632	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.787	7.790	-0.003	0.932	292010	0.008907	Target=6.94	88.0	591	
449.00 > 99.00	7.787	7.790	-0.003	0.932	39465		7.40(3.47-10.41)		247	
D 20 13C2 PFOA										
415.00 > 370.00	7.803	7.804	-0.001		3323	NC		0.0	41.2	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	596618	0.009293	Target=1.48	87.4	386	
413.00 > 169.00	7.803	7.806	-0.003	1.000	385910		1.55(0.74-2.22)		1006	
D 25 13C4 PFOA										
417.00 > 372.00	7.803	7.806	-0.003		3390189	0.0595		119	18408	
D 26 13C4 PFOS										
503.00 > 80.00	8.359	8.367	-0.008		1188187	0.0611		128	3560	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.359	8.367	-0.008	1.000	214977	0.007840	Target=3.57	79.5	789	
499.00 > 99.00	8.359	8.367	-0.008	1.000	65257		3.29(1.78-5.35)		434	
D 28 13C5 PFNA										
468.00 > 423.00	8.393	8.401	-0.008		2902938	0.0597		119	16613	
29 Perfluorononanoic acid										
463.00 > 419.00	8.393	8.401	-0.008	1.000	521060	0.009888	Target=8.05	93.0	972	
463.00 > 169.00	8.393	8.401	-0.008	1.000	63880		8.16(4.02-12.07)		507	
D 30 13C8 FOSA										
506.00 > 78.00	8.916	8.931	-0.015		1507934	0.0655		131	6401	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.916	8.931	-0.015	1.000	287114	0.008571		80.6	2963	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.932	8.947	-0.015	1.069	173693	NC	Target=5.86		1405	
549.00 > 99.00	8.932	8.947	-0.015	1.069	30035		5.78(2.93-8.80)		305	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	8.979	8.978	0.001		2743118	0.0621		124	20106	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.979	8.978	0.001	1.000	398753	0.007957	Target=15.03	74.9	1411	
513.00 > 169.00	8.979	8.978	0.001	1.000	26978		14.78(7.51-22.54)		219	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.979	8.978	0.001		467819	0.0558		116	1029	
36 8:2 FTS										
527.00 > 507.00	8.979	8.978	0.001	1.000	171297	0.007267	Target=2.30	71.4	2463	
527.00 > 81.00	8.979	8.978	0.001	1.000	82136		2.09(1.15-3.45)		318	
38 NMeFOSAA										
570.00 > 419.00	9.259	9.259	0.0	1.000	141294	0.007660	Target=13.09	72.1	1162	
570.00 > 483.00	9.259	9.259	0.0	1.000	13263		10.65(6.55-19.64)		159	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.259	9.259	0.0		1040069	0.0651		130	2847	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.483	9.479	0.004	1.135	110939	0.006937	Target=2.56	67.7	1218	
599.00 > 99.00	9.483	9.479	0.004	1.135	45115		2.46(1.28-3.84)		953	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.533	9.528	0.005		1098825	0.0692		138	4653	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.516	9.528	-0.012	1.000	351743	0.007674	Target=21.16	72.2	1605	
563.00 > 169.00	9.533	9.528	0.005	1.002	15149		23.22(10.58-31.74)		287	
D 42 13C2 PFUnA										
565.00 > 520.00	9.516	9.528	-0.012		2331051	0.0594		119	18543	
43 NEtFOSA										
584.00 > 419.00	9.533	9.544	-0.011	1.000	137295	0.006809	Target=17.56	64.1	827	
584.00 > 483.00	9.533	9.544	-0.011	1.000	9845		13.95(8.78-26.34)		156	
44 11C1FOS										
631.00 > 451.00	9.754	9.762	-0.008	1.167	822164	NC			6876	
D 45 13C2 PFDaA										
615.00 > 570.00	10.050	10.055	-0.005		2546308	0.0576		115	14848	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.050	10.055	-0.005	1.000	320611	0.006772	Target=16.24	63.7	304	
613.00 > 169.00	10.050	10.055	-0.005	1.000	22166		14.46(8.12-24.35)		315	
47 10:2 FTS										
627.00 > 607.00	10.072	10.077	-0.005	1.122	157335	NC	Target=32.00		2208	
627.00 > 81.00	10.072	10.077	-0.005	1.122	5087		30.93(16.00-48.00)		86.1	
48 PFDaS										
699.00 > 80.00	10.495	10.501	-0.006	1.256	38675	NC	Target=0.53		319	
699.00 > 99.00	10.495	10.501	-0.006	1.256	77955		0.50(0.27-0.80)		783	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.554	10.560	-0.006	1.050	443949	0.007360	Target=18.23	69.2	405	
663.00 > 169.00	10.554	10.560	-0.006	1.050	25320		17.53(9.12-27.35)		540	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.038	11.044	-0.006	1.000	13871	0.006837	Target=1.27	64.3	278	
713.00 > 219.00	11.038	11.044	-0.006	1.000	11535		1.20(0.63-1.90)		229	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.038	11.044	-0.006		2311689	0.0629		126	11114	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.929	11.945	-0.016	1.000	208951	0.007143	Target=29.24	67.2	212	
813.00 > 169.00	11.929	11.945	-0.016	1.000	7055		29.62(14.62-43.86)		131	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.929	11.945	-0.016		1343345	0.0542		108	6150	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.826	12.841	-0.015	1.075	99237	0.008861	Target=34.72	83.4	161	
913.00 > 169.00	12.826	12.841	-0.015	1.075	3189		31.12(17.36-52.08)		71.5	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_013.d

Injection Date: 10-Jun-2021 13:19:56

Instrument ID: A10

Lims ID: 320-74597-A-28-B MS

Client ID: BH20210604-POSTGAC

Operator ID: Sac\_inst\_A10

ALS Bottle#: 13

Worklist Smp#: 60

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

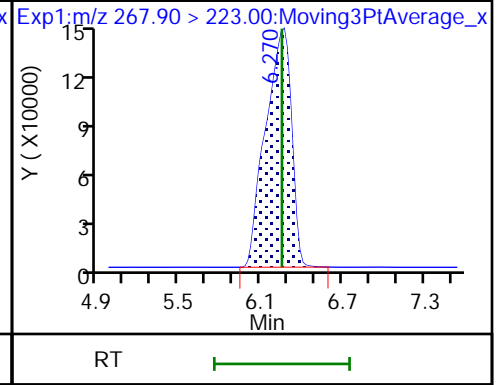
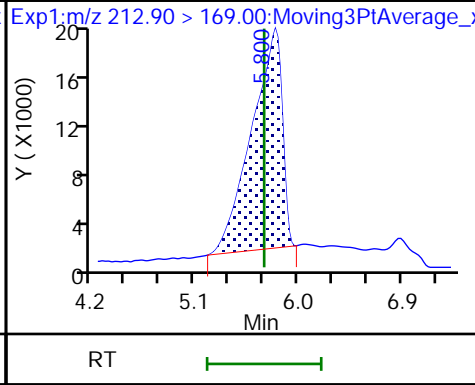
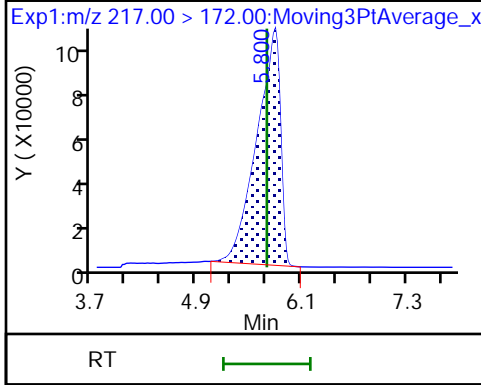
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

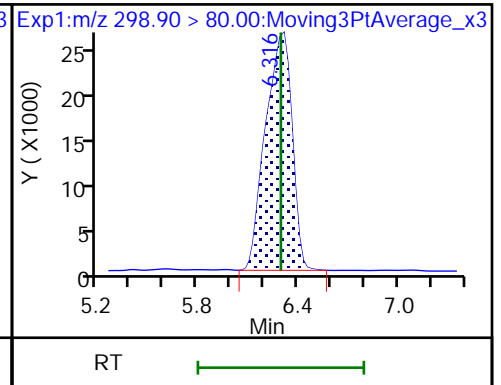
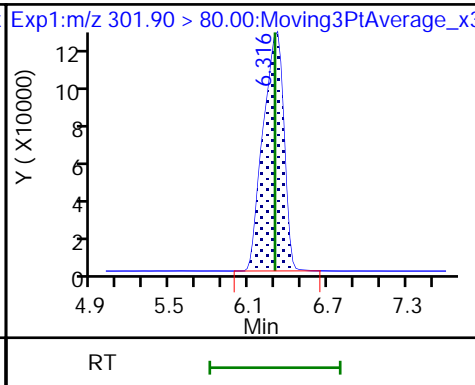
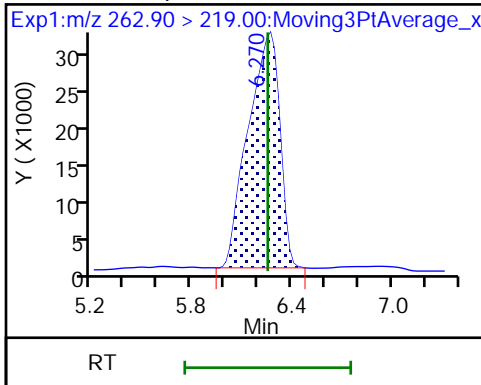
D 4 13C5 PFPeA



5 Perfluoropentanoic acid

D 3 13C3 PFBS

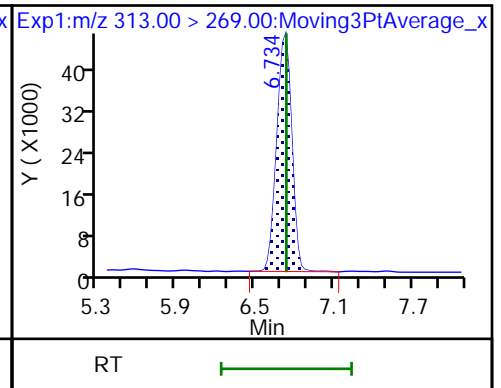
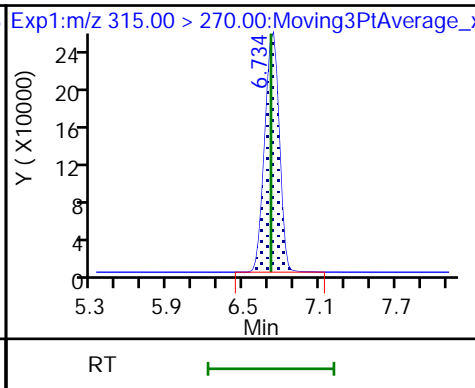
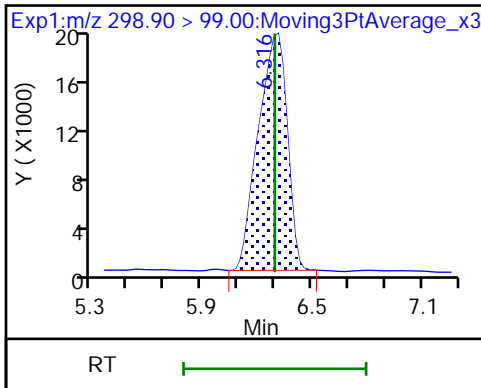
6 Perfluorobutanesulfonic acid



6 Perfluorobutanesulfonic acid

D 9 13C2 PFHxA

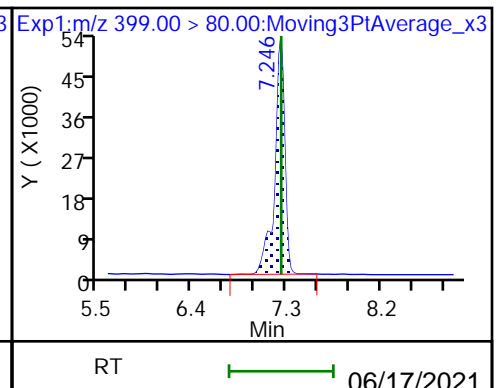
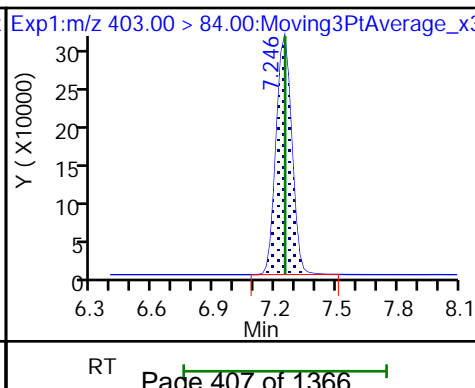
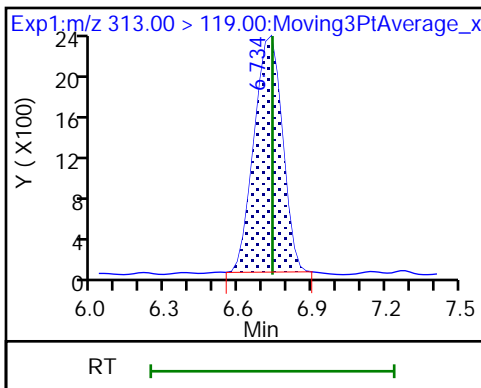
10 Perfluorohexanoic acid

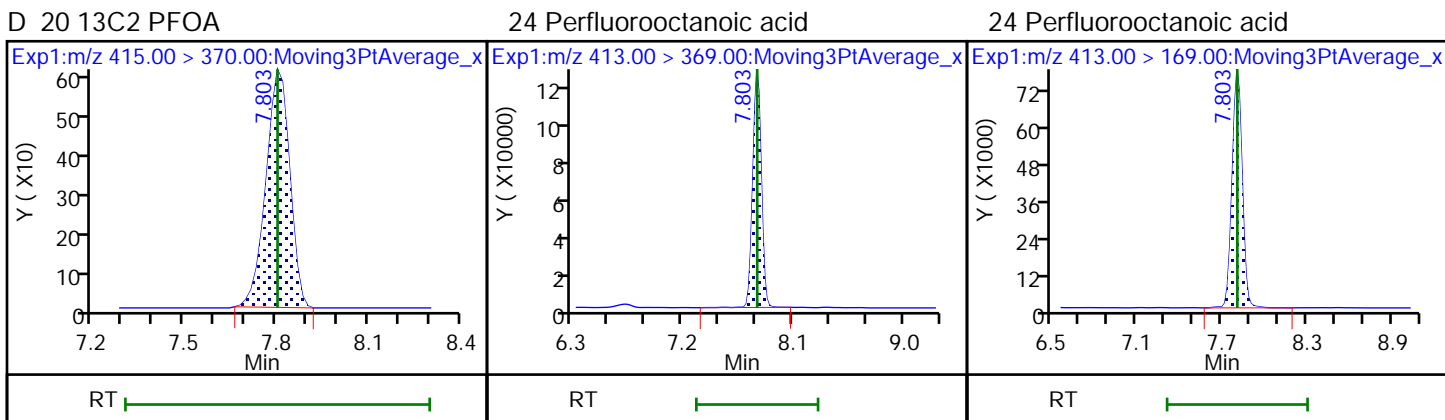
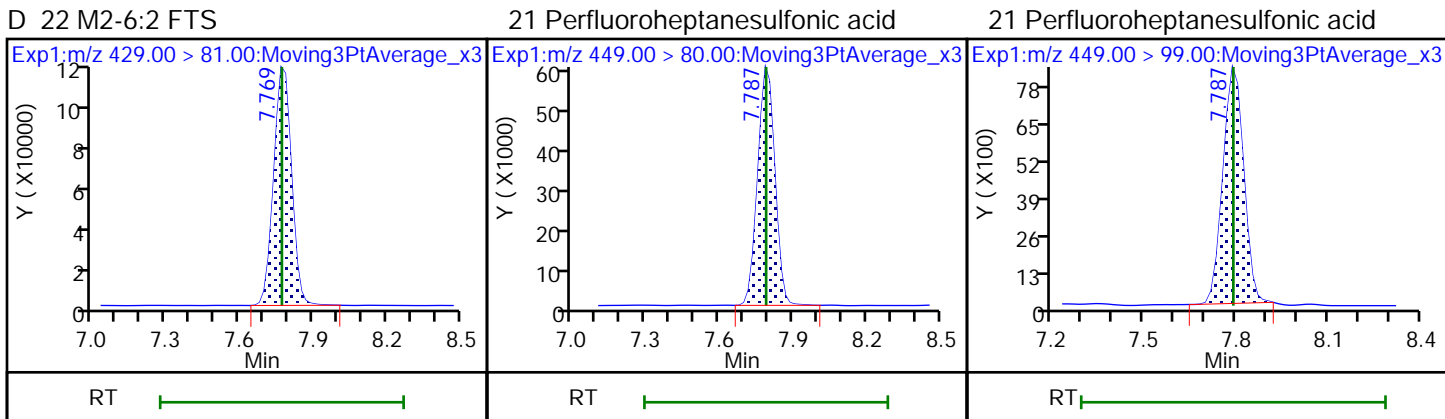
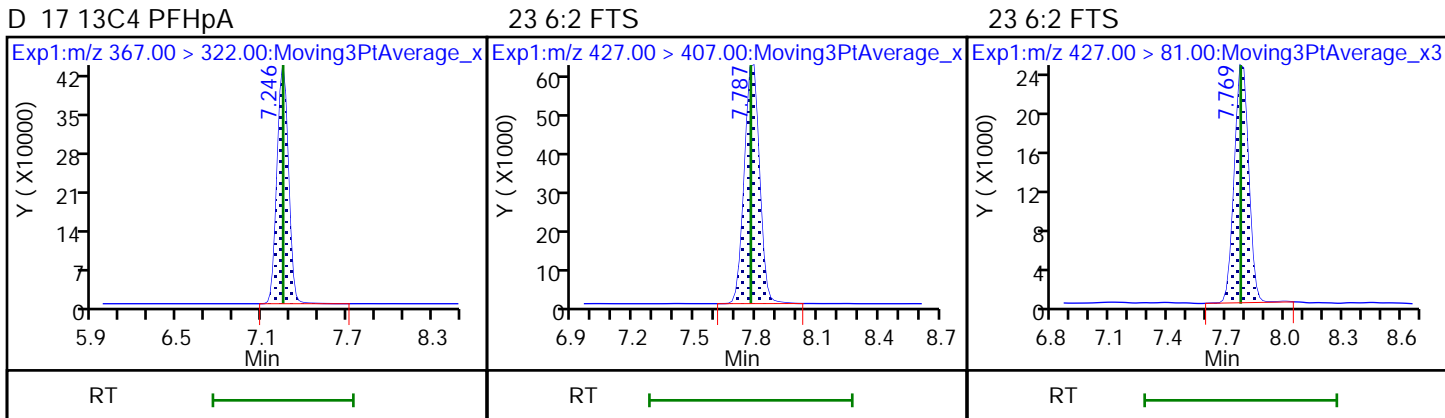
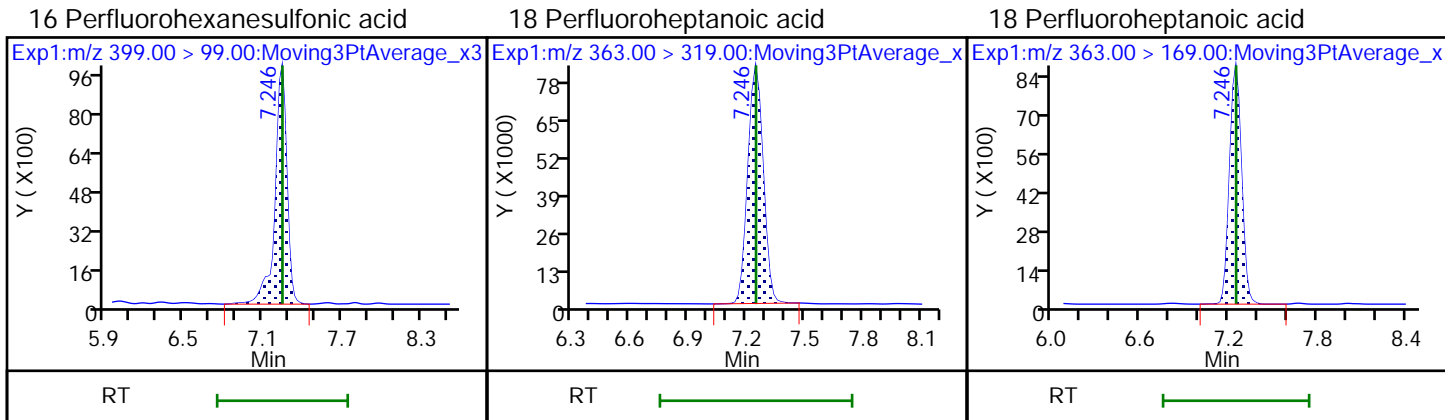


10 Perfluorohexanoic acid

D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid

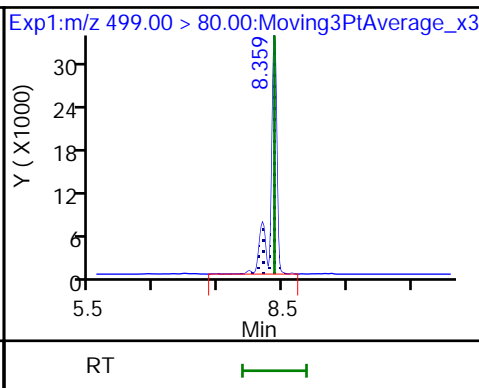
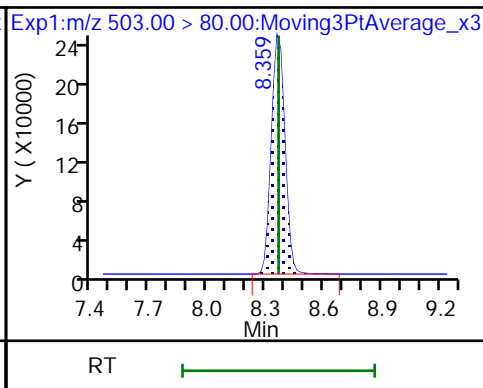
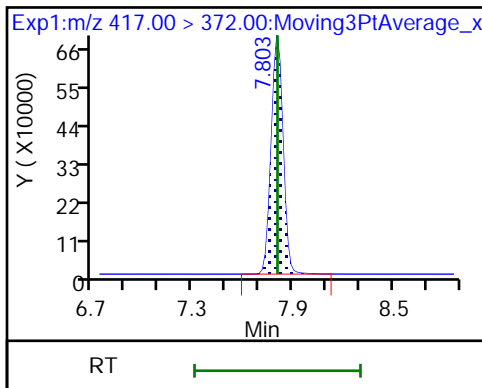




D 25 13C4 PFOA

D 26 13C4 PFOS

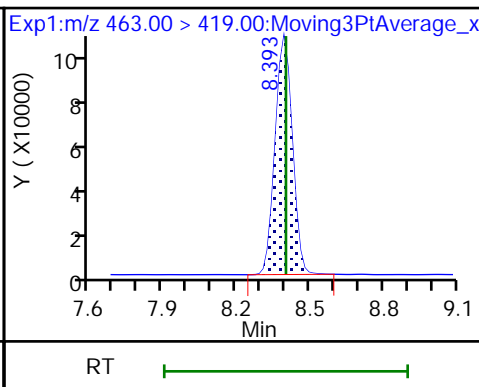
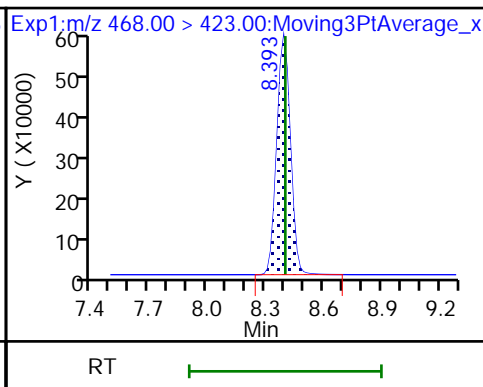
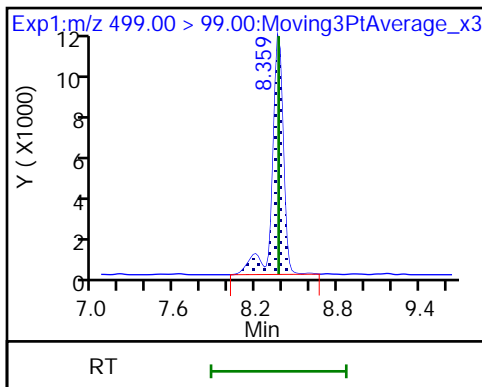
27 Perfluorooctanesulfonic acid



27 Perfluorooctanesulfonic acid

D 28 13C5 PFNA

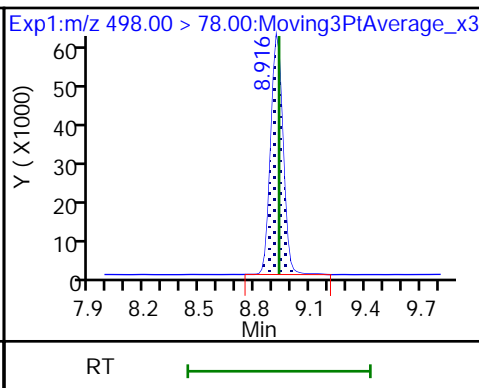
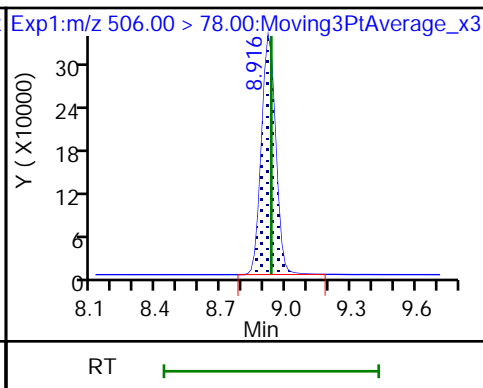
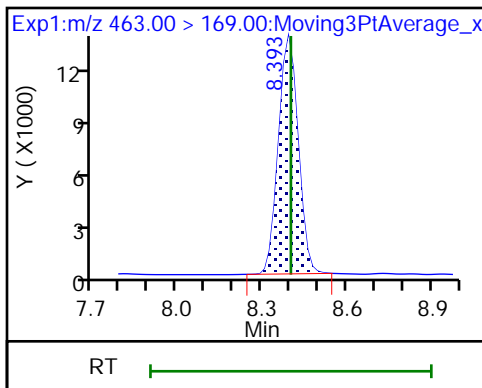
29 Perfluorononanoic acid



29 Perfluorononanoic acid

D 30 13C8 FOSA

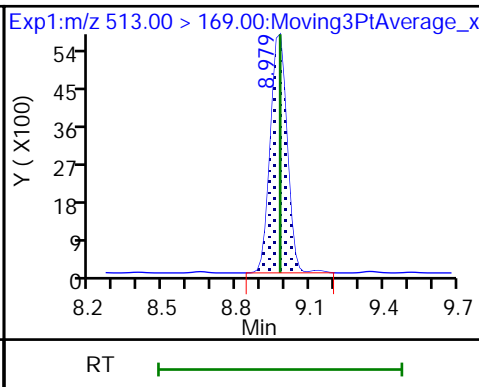
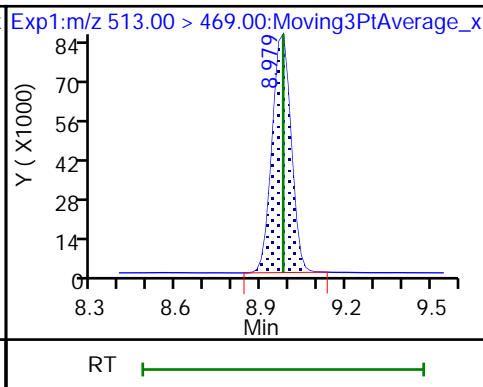
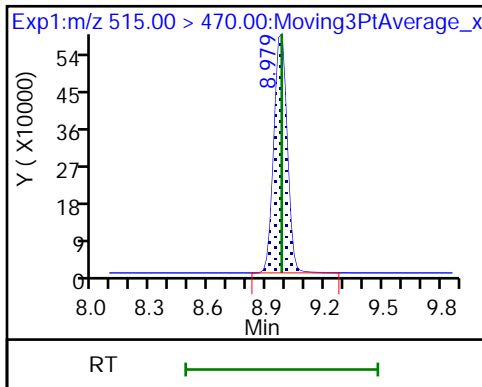
31 Perfluorooctanesulfonamide



D 33 13C2 PFDA

35 Perfluorodecanoic acid

35 Perfluorodecanoic acid

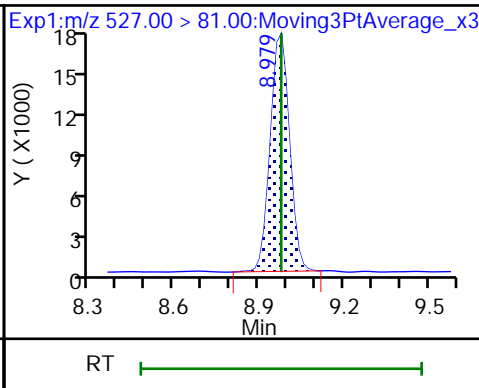
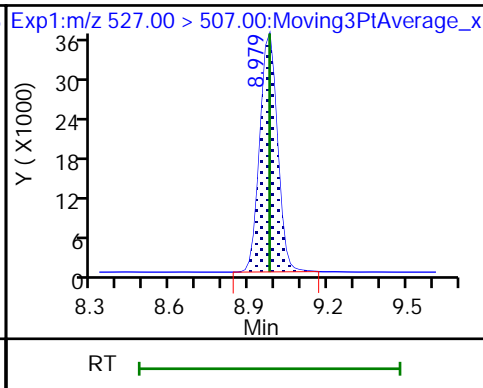
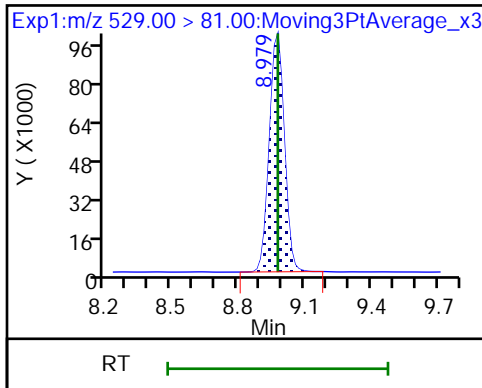




D 34 M2-8:2 FTS

36 8:2 FTS

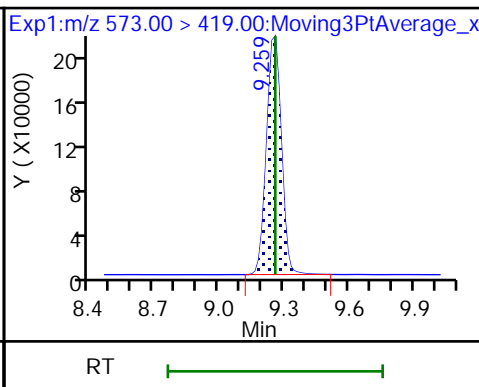
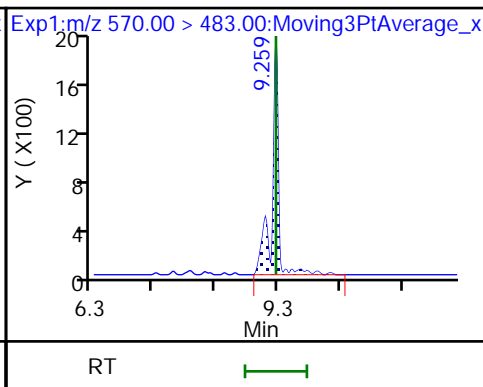
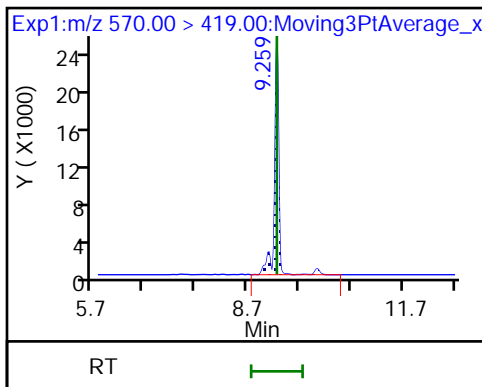
36 8:2 FTS



38 NMeFOSAA

38 NMeFOSAA

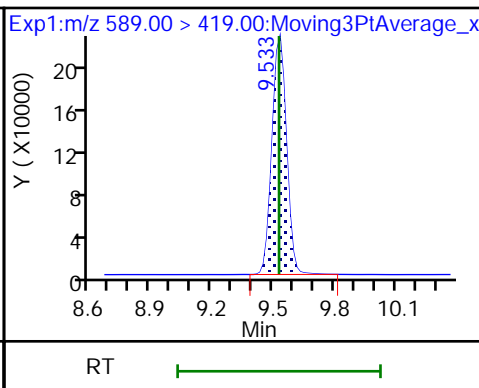
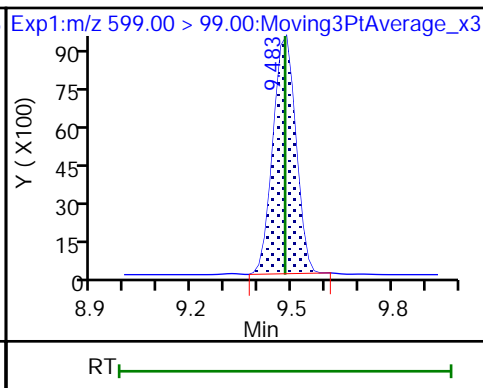
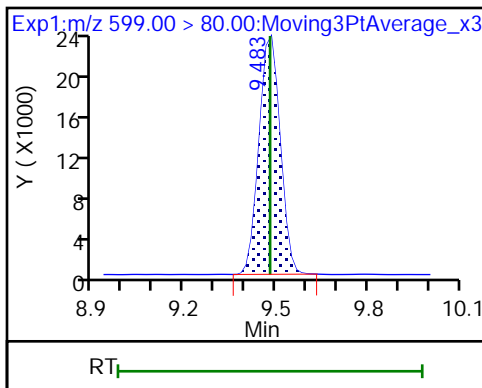
D 37 d3-NMeFOSAA



39 Perfluorodecanesulfonic acid

39 Perfluorodecanesulfonic acid

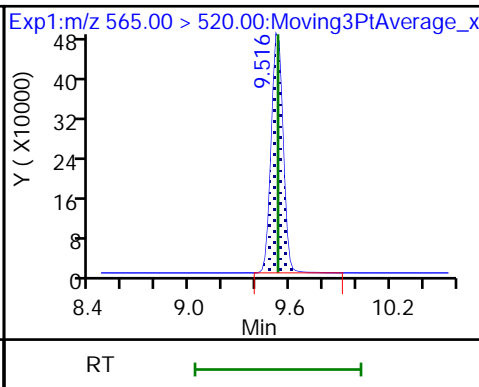
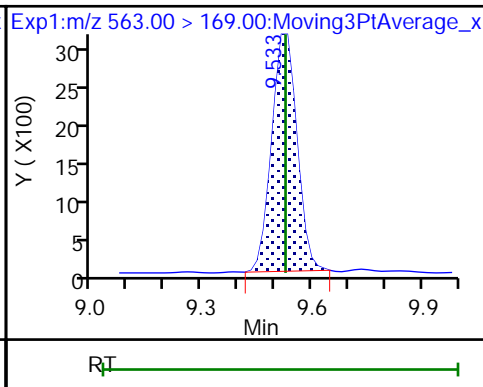
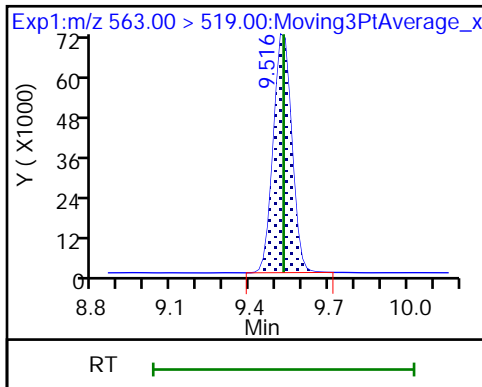
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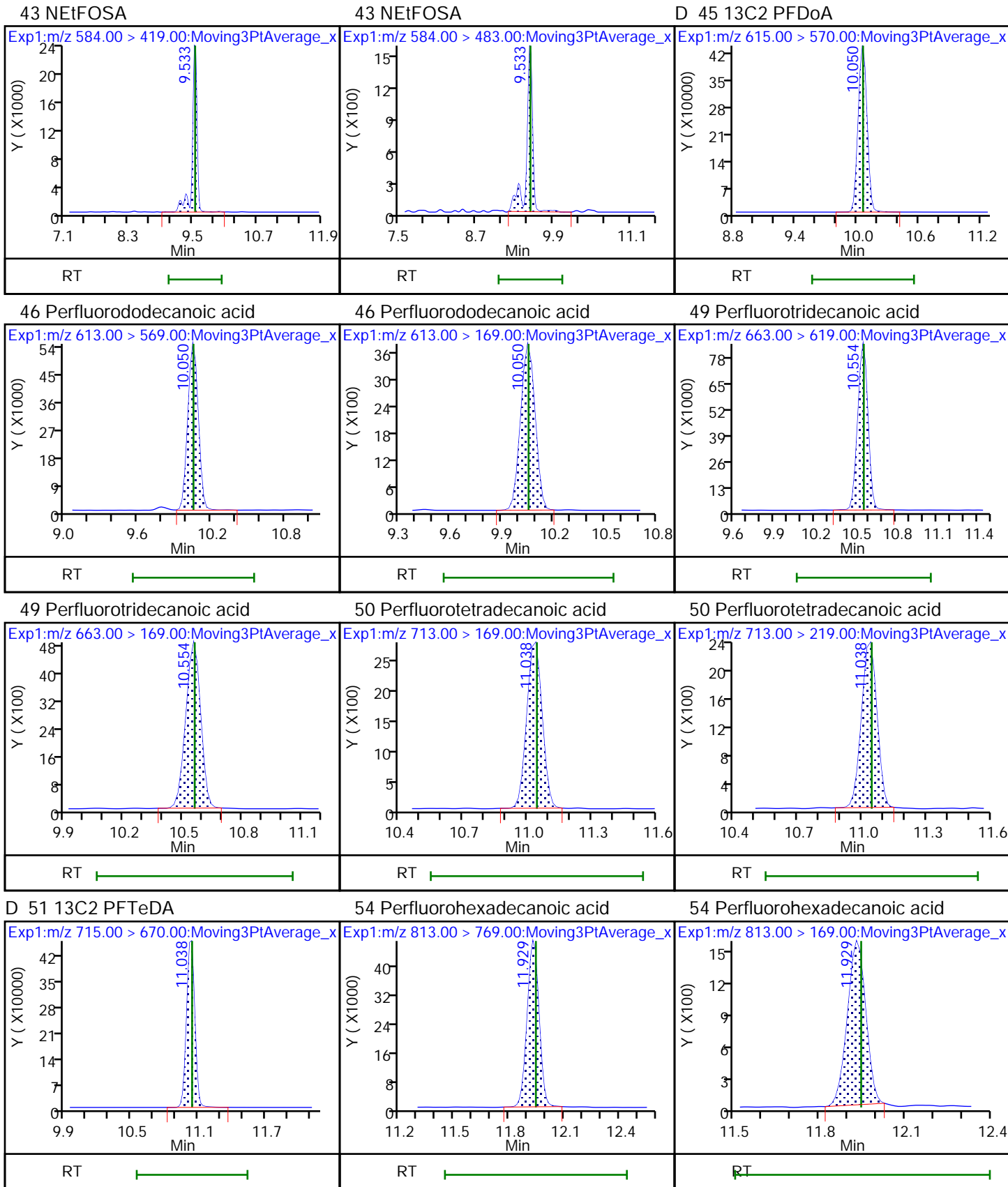


41 Perfluoroundecanoic acid

41 Perfluoroundecanoic acid

D 42 13C2 PFUnA

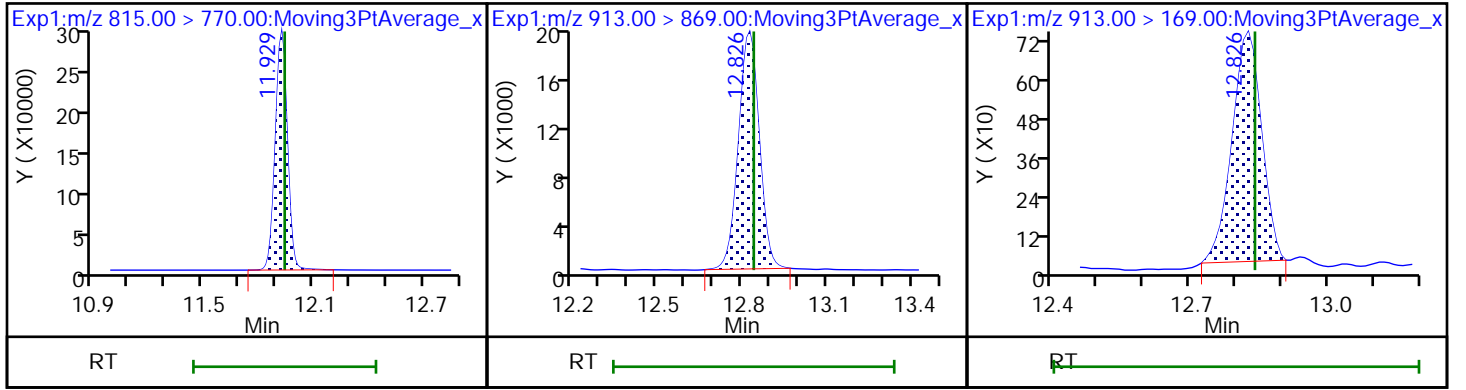




D 52 13C2 PFHxDA

53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC MSD Lab Sample ID: 320-74597-28 MSD  
 Matrix: Water Lab File ID: 2021.06.10\_A10\_DI\_A\_014.d  
 Analysis Method: WS-LC-0025 Att1 Date Collected: 06/04/2021 09:14  
 Extraction Method: PFAS Prep Date Extracted: 06/09/2021 19:29  
 Sample wt/vol: 1.00 (mL) Date Analyzed: 06/10/2021 13:38  
 Con. Extract Vol.: 1.66 (mL) Dilution Factor: 1  
 Injection Volume: 950 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 496915 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	14.0		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	16.0		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	13.9		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	14.9		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	12.2		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	15.9		2.0	

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	122		25-150
STL00995	13C5 PFNA	123		25-150
STL00990	13C4 PFOA	114		70-130
STL00991	13C4 PFOS	131	*5+	70-130
STL00994	18O2 PFHxS	127		25-150
STL02337	13C3 PFBS	112		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_014.d  
 Lims ID: 320-74597-A-28-C MSD  
 Client ID: BH20210604-POSTGAC  
 Sample Type: MSD  
 Inject. Date: 10-Jun-2021 13:38:24 ALS Bottle#: 14 Worklist Smp#: 61  
 Injection Vol: 950.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-28-c msd  
 Misc. Info.: Plate: 1 Rack: 6  
 Operator ID: Sac\_inst\_A10 Instrument ID: A10  
 Method: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\A10\_In\_Line\_SPE.m  
 Limit Group: LC PFAS\_DW ICAL  
 Last Update: 11-Jun-2021 08:00:00 Calib Date: 07-Jun-2021 16:55:55  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A10\20210608-120644.b\2021.06.07\_A10\_DI\_ICAL\_012.d  
 Column 1 : Gemini C18 3um 3 x 100mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1639

First Level Reviewer: ruangyotsakuld Date: 11-Jun-2021 08:00:00  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_011.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 2 13C4 PFBA	217.00 > 172.00	5.780	5.701	0.079	2047316	0.0571		114	84.4	
1 Perfluorobutanoic acid	212.90 > 169.00	5.780	5.701	0.079	1.000	354344	0.008351	80.0	53.3	
D 4 13C5 PFPeA	267.90 > 223.00	6.271	6.254	0.017	2063116	0.0602		120	5084	
5 Perfluoropentanoic acid	262.90 > 219.00	6.271	6.254	0.017	1.000	448508	0.009157	87.7	118	
D 3 13C3 PFBS	301.90 > 80.00	6.293	6.297	-0.004	1486827	0.0519		112	5376	
6 Perfluorobutanesulfonic acid	298.90 > 80.00	6.316	6.297	0.019	1.004	312066	0.008455	Target=1.34	91.6	612
	298.90 > 99.00	6.293	6.297	-0.004	1.000	223160		1.40(0.67-2.00)		220
8 4:2 FTS	327.00 > 307.00	6.688	6.668	0.020	1.003	171820	NC	Target=2.59		1725
	327.00 > 81.00	6.688	6.668	0.020	1.003	81184		2.12(1.29-3.88)		60.4
D 7 M2-4:2 FTS	329.00 > 81.00	6.664	6.668	-0.004	342768	NC				337
D 9 13C2 PFHxA	315.00 > 270.00	6.734	6.715	0.019	2081003	0.0639		128	10176	
10 Perfluorohexanoic acid	313.00 > 269.00	6.734	6.738	-0.004	1.000	396092	0.008984	Target=19.94	86.1	182
	313.00 > 119.00	6.734	6.738	-0.004	1.000	18799		21.07(9.97-29.91)		186
11 Perfluoropentanesulfonic acid	349.00 > 80.00	6.734	6.738	-0.004	0.930	311027	NC	Target=1.41		533
	349.00 > 99.00	6.734	6.738	-0.004	0.930	224276		1.39(0.71-2.12)		485
13 HPFO-DA	329.10 > 285.00	6.876	6.879	-0.003	1.000	90391	NC			105

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C3 HFPO-DA										
332.10 > 287.00	6.876	6.879	-0.003		200082	NC			2508	
D 15 18O2 PFHxS										
403.00 > 84.00	7.244	7.248	-0.004		1667328	0.0599		127	15012	
16 Perfluorohexanesulfonic acid										
399.00 > 80.00	7.244	7.248	-0.004	1.000	338712	0.008369	Target=5.35	88.1	467	
399.00 > 99.00	7.244	7.248	-0.004	1.000	62002		5.46(2.68-8.03)		208	
18 Perfluoroheptanoic acid										
363.00 > 319.00	7.244	7.248	-0.004	1.000	466068	0.009640	Target=9.65	92.3	237	
363.00 > 169.00	7.244	7.248	-0.004	1.000	52060		8.95(4.82-14.47)		862	
D 17 13C4 PFHpA										
367.00 > 322.00	7.244	7.248	-0.004		2358299	0.0611		122	13270	
19 DONA										
377.00 > 251.00	7.300	7.304	-0.004	0.872	1747548	NC	Target=2.76		2998	
377.00 > 85.00	7.300	7.304	-0.004	0.872	646819		2.70(1.38-4.13)		1789	
23 6:2 FTS										
427.00 > 407.00	7.786	7.772	0.014	1.000	290539	0.008481	Target=2.61	85.7	2740	
427.00 > 81.00	7.786	7.772	0.014	1.000	105939		2.74(1.31-3.92)		153	
D 22 M2-6:2 FTS										
429.00 > 81.00	7.786	7.772	0.014		532612	0.0527		111	629	
21 Perfluoroheptanesulfonic acid										
449.00 > 80.00	7.786	7.790	-0.004	0.930	279849	0.008347	Target=6.94	84.0	897	
449.00 > 99.00	7.786	7.790	-0.004	0.930	38686		7.23(3.47-10.41)		249	
D 20 13C2 PFOA										
415.00 > 370.00	7.803	7.804	-0.001		1941	NC		0.0	32.9	
24 Perfluorooctanoic acid										
413.00 > 369.00	7.803	7.806	-0.003	1.000	589342	0.009595	Target=1.48	91.9	366	
413.00 > 169.00	7.803	7.806	-0.003	1.000	395402		1.49(0.74-2.22)		1092	
D 25 13C4 PFOA										
417.00 > 372.00	7.803	7.806	-0.003		3243601	0.0569		114	18415	
D 26 13C4 PFOS										
503.00 > 80.00	8.376	8.367	0.009		1215110	0.0625		131	5943	
27 Perfluorooctanesulfonic acid										
499.00 > 80.00	8.376	8.367	0.009	1.000	206864	0.007377	Target=3.57	76.1	796	
499.00 > 99.00	8.359	8.367	-0.008	0.998	61741		3.35(1.78-5.35)		780	
D 28 13C5 PFNA										
468.00 > 423.00	8.393	8.401	-0.008		2978117	0.0613		123	17042	
29 Perfluorononanoic acid										
463.00 > 419.00	8.393	8.401	-0.008	1.000	483780	0.008949	Target=8.05	85.7	757	
463.00 > 169.00	8.393	8.401	-0.008	1.000	66471		7.28(4.02-12.07)		515	
D 30 13C8 FOSA										
506.00 > 78.00	8.930	8.931	-0.001		1499479	0.0651		130	7475	
31 Perfluorooctanesulfonamide										
498.00 > 78.00	8.930	8.931	-0.001	1.000	290405	0.008719		83.5	2243	
32 Perfluorononanesulfonic acid										
549.00 > 80.00	8.946	8.947	-0.001	1.068	174010	NC	Target=5.86		1794	
549.00 > 99.00	8.946	8.947	-0.001	1.068	30603		5.69(2.93-8.80)		355	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2 PFDA										
515.00 > 470.00	8.977	8.978	-0.001		2702287	0.0612		122	15142	
35 Perfluorodecanoic acid										
513.00 > 469.00	8.977	8.978	-0.001	1.000	413028	0.008366	Target=15.03	80.1	1398	
513.00 > 169.00	8.977	8.978	-0.001	1.000	27142		15.22(7.51-22.54)		229	
D 34 M2-8:2 FTS										
529.00 > 81.00	8.977	8.978	-0.001		463540	0.0553		115	1224	
36 8:2 FTS										
527.00 > 507.00	8.977	8.978	-0.001	1.000	178631	0.007648	Target=2.30	76.5	2253	
527.00 > 81.00	8.977	8.978	-0.001	1.000	72675		2.46(1.15-3.45)		297	
38 NMeFOSAA										
570.00 > 419.00	9.273	9.259	0.014	1.002	135090	0.007251	Target=13.09	69.5	518	
570.00 > 483.00	9.258	9.259	-0.001	1.000	9493		14.23(6.55-19.64)		148	
D 37 d3-NMeFOSAA										
573.00 > 419.00	9.258	9.259	-0.001		1050411	0.0658		132	3199	
39 Perfluorodecanesulfonic acid										
599.00 > 80.00	9.482	9.479	0.003	1.132	113739	0.006955	Target=2.56	69.1	1506	
599.00 > 99.00	9.482	9.479	0.003	1.132	43804		2.60(1.28-3.84)		1036	
D 42 13C2 PFUnA										
565.00 > 520.00	9.531	9.528	0.003		2430919	0.0619		124	21335	
D 40 d5-NEtFOSAA										
589.00 > 419.00	9.531	9.528	0.003		1058749	0.0666		133	5558	
41 Perfluoroundecanoic acid										
563.00 > 519.00	9.531	9.528	0.003	1.000	351799	0.007359	Target=21.16	70.5	1281	
563.00 > 169.00	9.531	9.528	0.003	1.000	16514		21.30(10.58-31.74)		296	
43 NEtFOSA										
584.00 > 419.00	9.548	9.544	0.004	1.002	130027	0.006692	Target=17.56	64.1	872	
584.00 > 483.00	9.548	9.544	0.004	1.002	10155		12.80(8.78-26.34)		134	
44 11C1FOS										
631.00 > 451.00	9.771	9.762	0.009	1.167	798353	NC			5358	
D 45 13C2 PFDaA										
615.00 > 570.00	10.049	10.055	-0.006		2655097	0.0601		120	16356	
46 Perfluorododecanoic acid										
613.00 > 569.00	10.049	10.055	-0.006	1.000	336994	0.006827	Target=16.24	65.4	287	
613.00 > 169.00	10.049	10.055	-0.006	1.000	22167		15.20(8.12-24.35)		339	
47 10:2 FTS										
627.00 > 607.00	10.093	10.077	0.016	1.124	151161	NC	Target=32.00		2483	
627.00 > 81.00	10.093	10.077	0.016	1.124	5215		28.99(16.00-48.00)		77.0	
48 PFDoS										
699.00 > 80.00	10.494	10.501	-0.007	1.253	46280	NC	Target=0.53		404	
699.00 > 99.00	10.494	10.501	-0.007	1.253	90501		0.51(0.27-0.80)		1102	
49 Perfluorotridecanoic acid										
663.00 > 619.00	10.553	10.560	-0.007	1.050	471298	0.007493	Target=18.23	71.8	358	
663.00 > 169.00	10.553	10.560	-0.007	1.050	26198		17.99(9.12-27.35)		620	
50 Perfluorotetradecanoic acid										
713.00 > 169.00	11.037	11.044	-0.007	1.000	14936	0.006150	Target=1.27	58.9	437	
713.00 > 219.00	11.037	11.044	-0.007	1.000	12712		1.17(0.63-1.90)		261	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 51 13C2 PFTeDA										
715.00 > 670.00	11.037	11.044	-0.007		2767431	0.0753		151	13599	
54 Perfluorohexadecanoic acid										
813.00 > 769.00	11.927	11.945	-0.018	1.000	318551	0.006853	Target=29.24	65.6	262	
813.00 > 169.00	11.927	11.945	-0.018	1.000	11150		28.57(14.62-43.86)		198	
D 52 13C2 PFHxDA										
815.00 > 770.00	11.927	11.945	-0.018		2134640	0.0862		172	9142	
53 Perfluorooctadecanoic acid										
913.00 > 869.00	12.825	12.841	-0.016	1.075	130118	0.007312	Target=34.72	70.0	149	
913.00 > 169.00	12.825	12.841	-0.016	1.075	3868		33.64(17.36-52.08)		89.8	

**QC Flag Legend**

Processing Flags

NC - Not Calibrated



Data File: \\chromfs\Sacramento\ChromData\A10\20210609-120753.b\2021.06.10\_A10\_DI\_A\_014.d

Injection Date: 10-Jun-2021 13:38:24

Instrument ID: A10

Lims ID: 320-74597-A-28-C MSD

Client ID: BH20210604-POSTGAC

Operator ID: Sac\_inst\_A10

ALS Bottle#: 14

Worklist Smp#: 61

Injection Vol: 950.0 ul

Dil. Factor: 1.0000

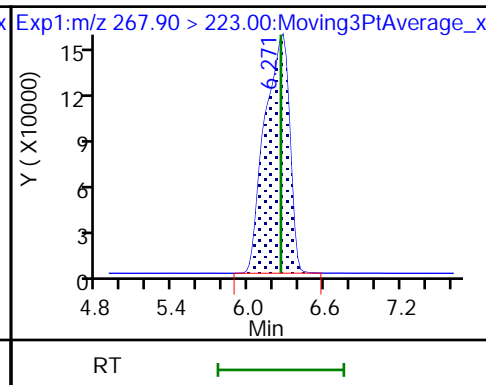
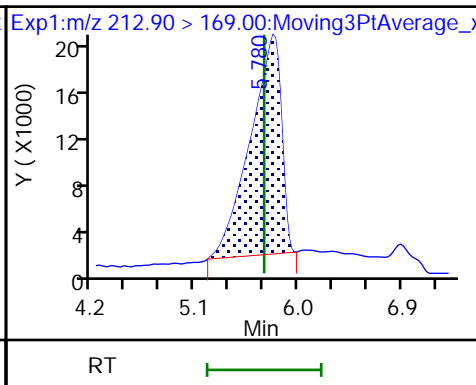
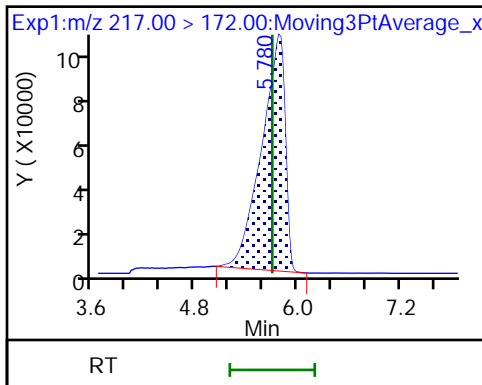
Method: A10\_In\_Line\_SPE

Limit Group: LC PFAS\_DW ICAL

D 2 13C4 PFBA

1 Perfluorobutanoic acid

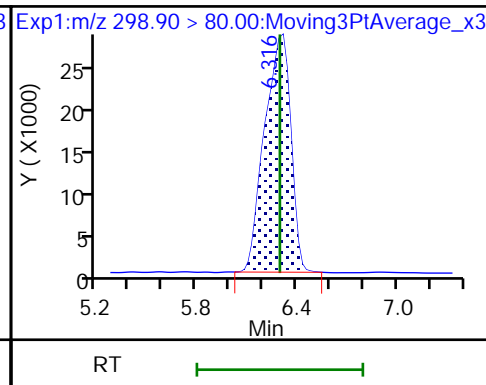
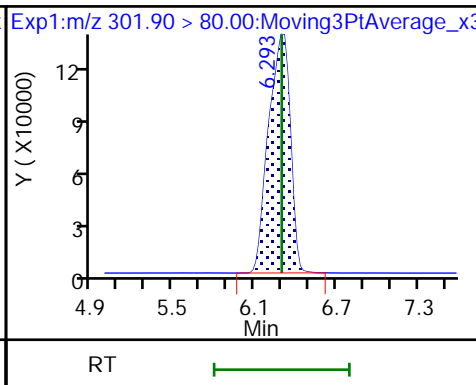
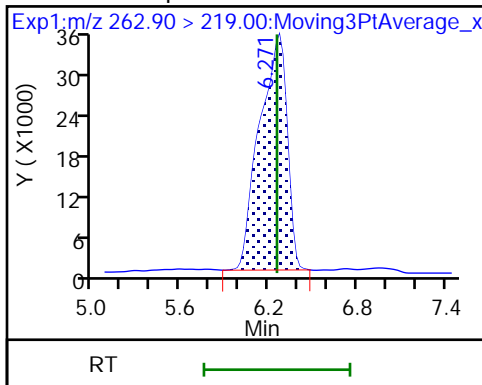
D 4 13C5 PFPeA



5 Perfluoropentanoic acid

D 3 13C3 PFBS

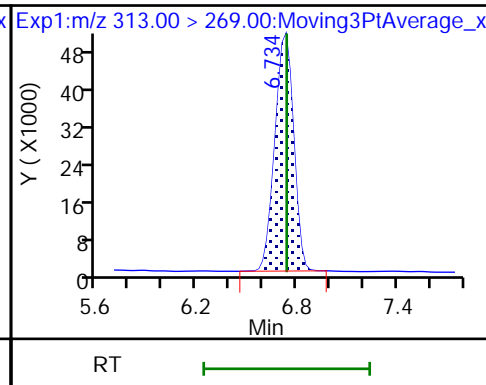
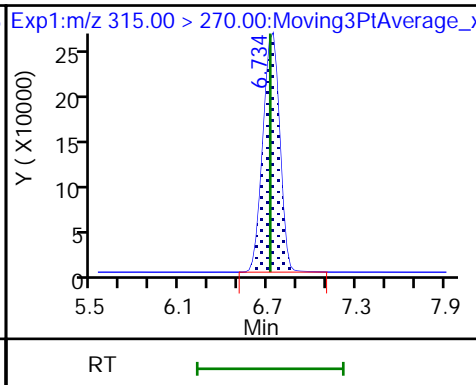
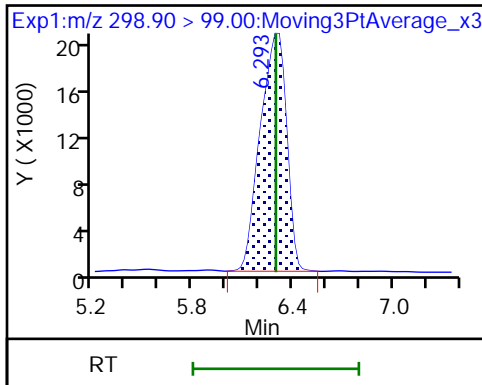
6 Perfluorobutanesulfonic acid



6 Perfluorobutanesulfonic acid

D 9 13C2 PFHxA

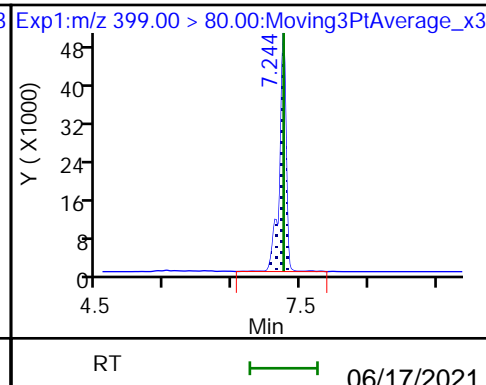
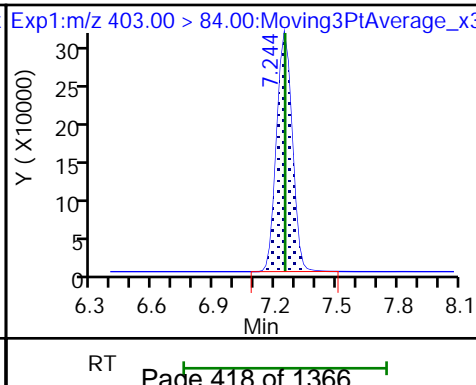
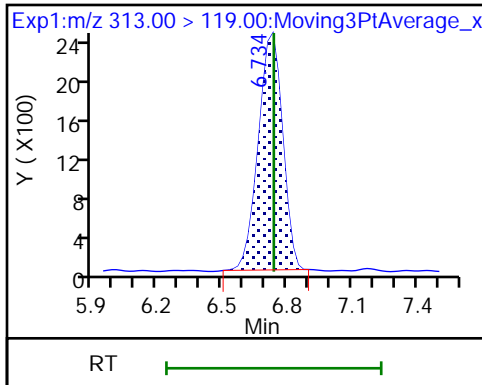
10 Perfluorohexanoic acid

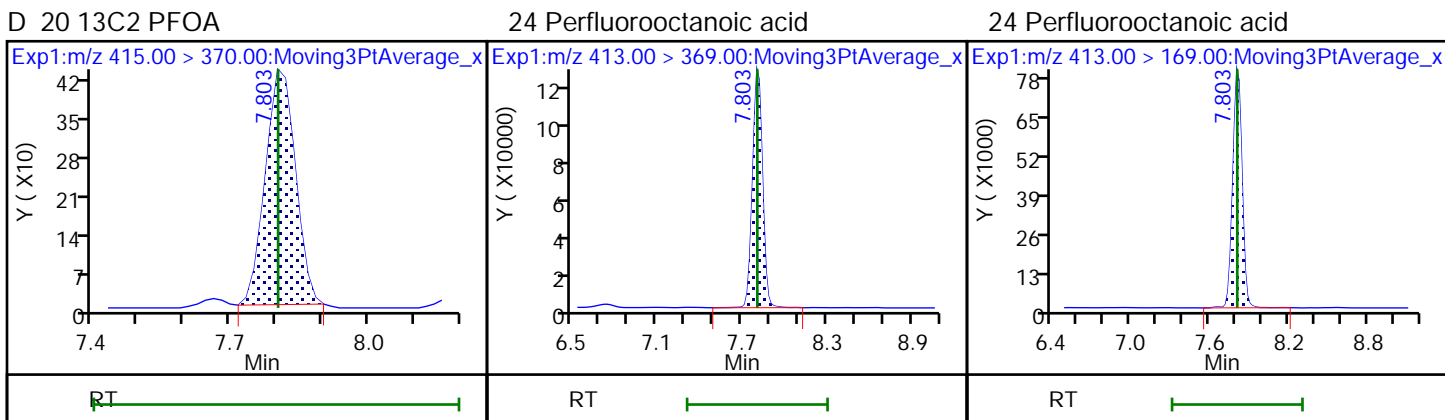
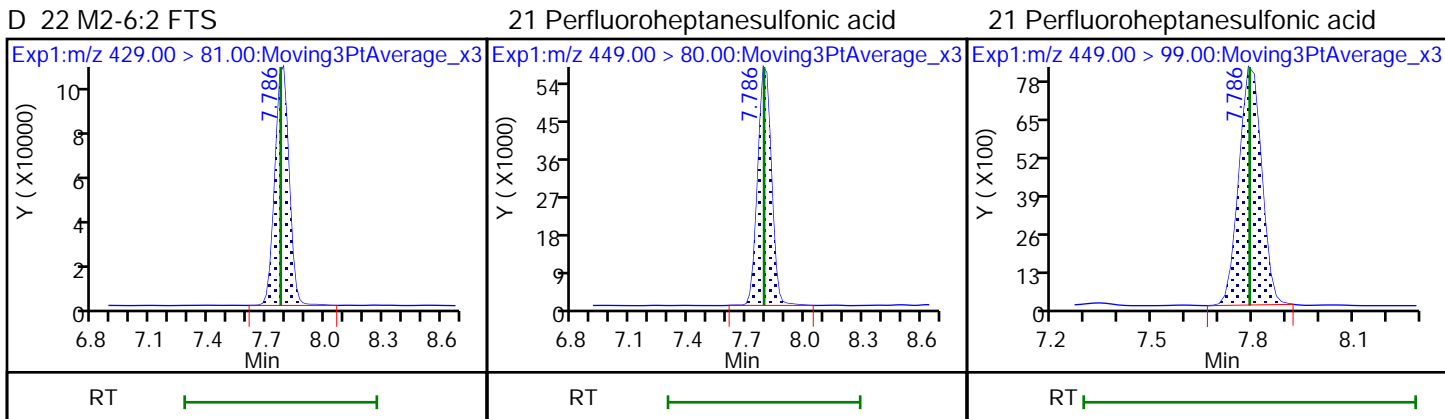
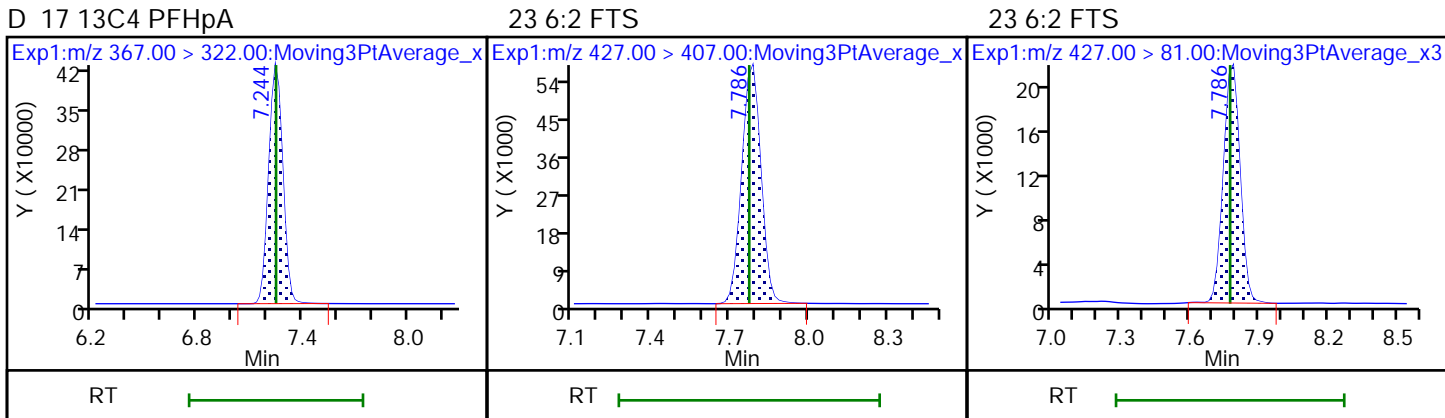
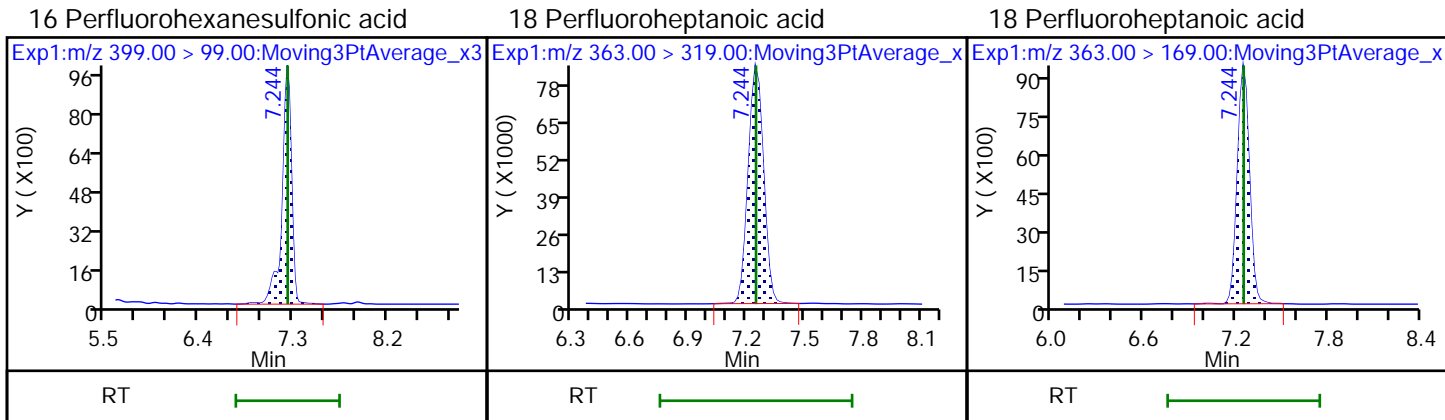


10 Perfluorohexanoic acid

D 15 18O2 PFHxS

16 Perfluorohexanesulfonic acid

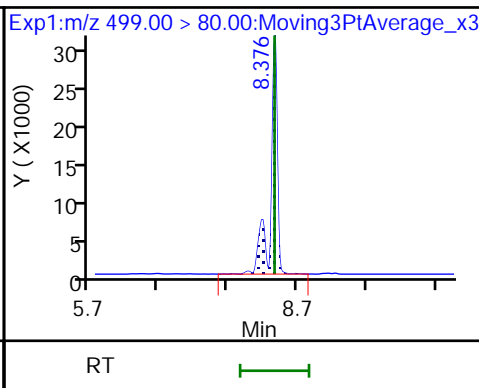
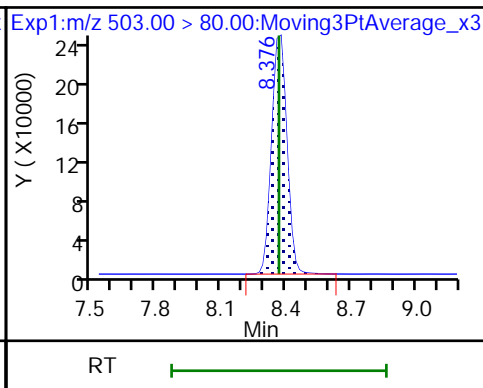
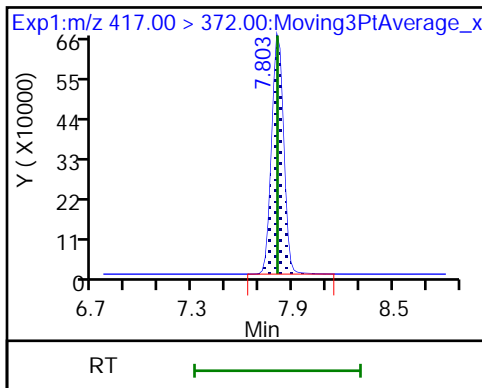




D 25 13C4 PFOA

D 26 13C4 PFOS

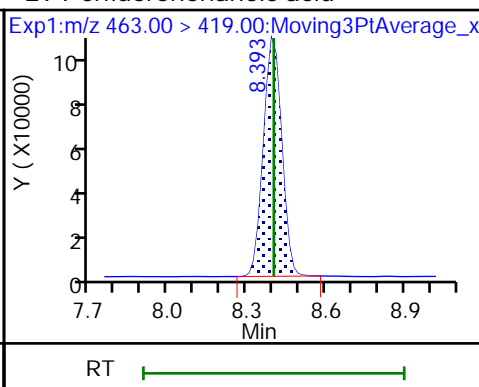
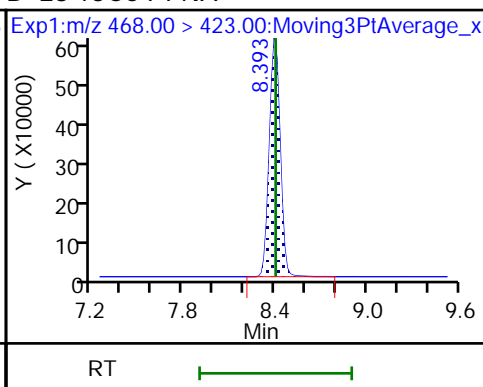
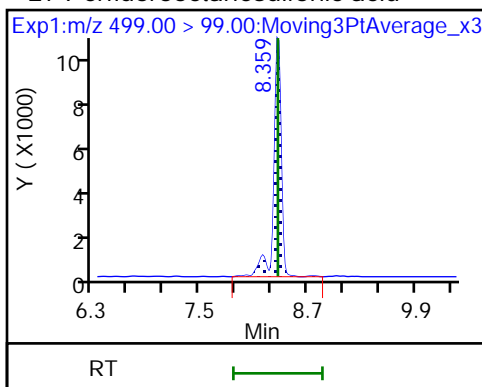
27 Perfluorooctanesulfonic acid



27 Perfluorooctanesulfonic acid

D 28 13C5 PFNA

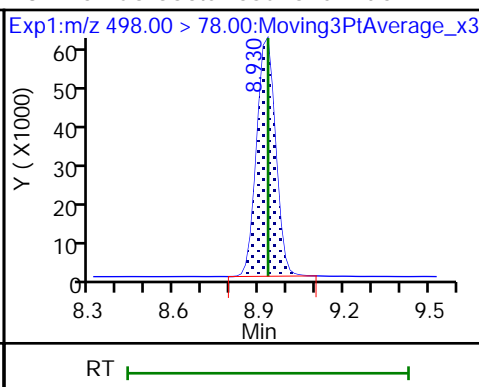
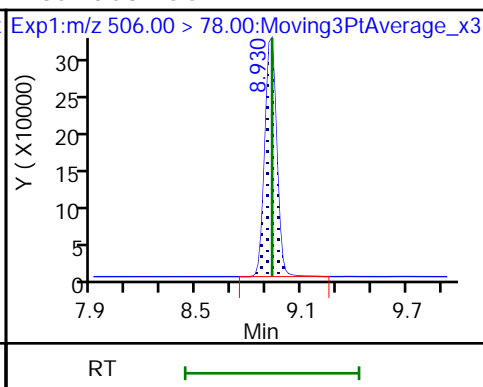
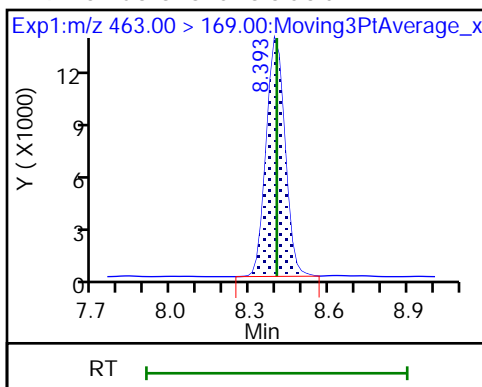
29 Perfluorononanoic acid



29 Perfluorononanoic acid

D 30 13C8 FOSA

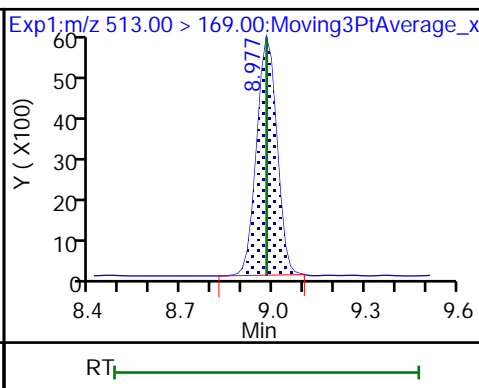
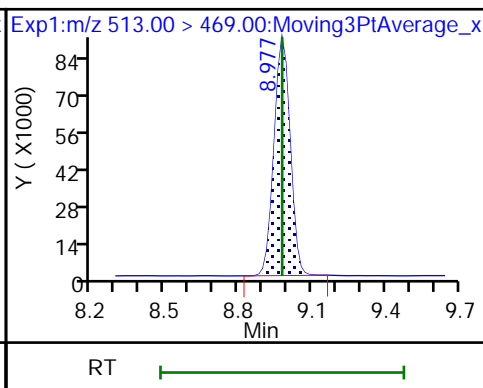
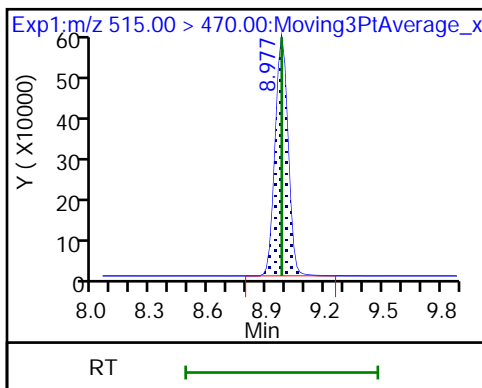
31 Perfluorooctanesulfonamide



D 33 13C2 PFDA

35 Perfluorodecanoic acid

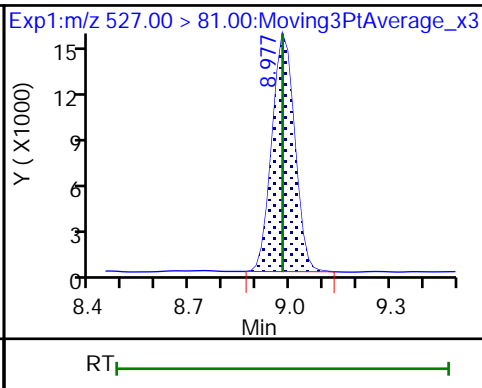
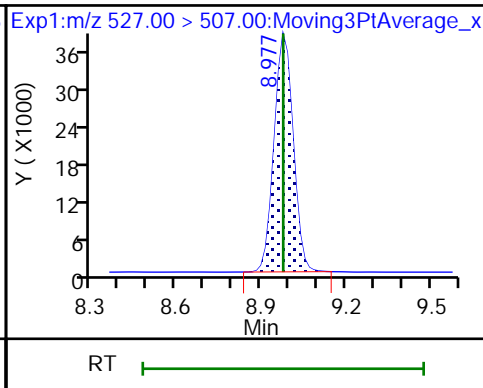
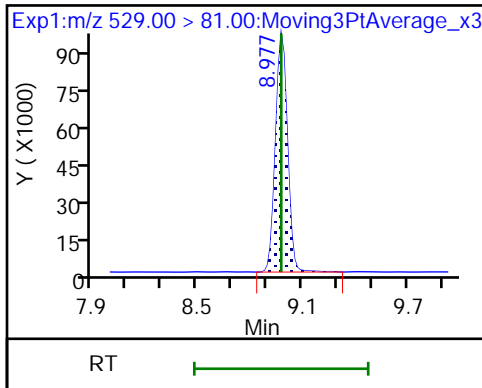
35 Perfluorodecanoic acid



D 34 M2-8:2 FTS

36 8:2 FTS

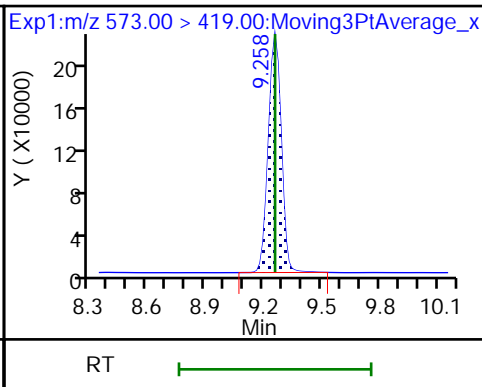
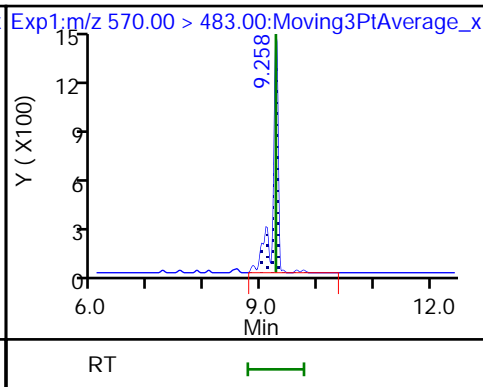
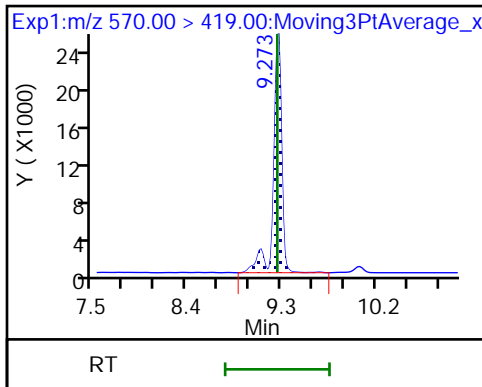
36 8:2 FTS



38 NMeFOSAA

38 NMeFOSAA

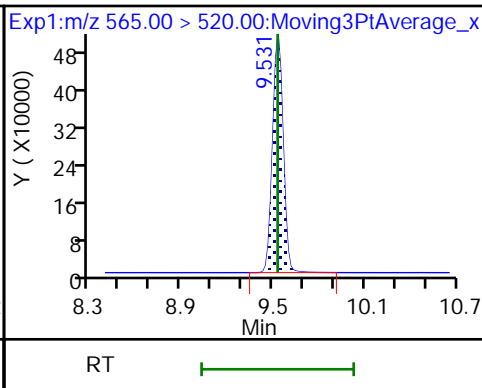
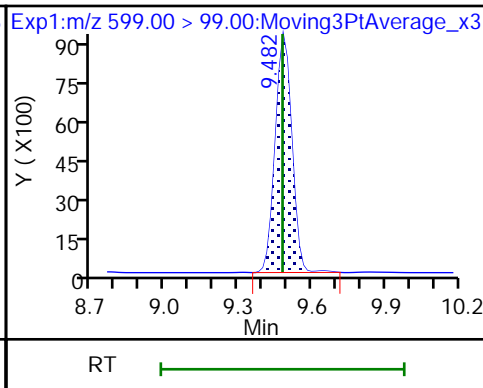
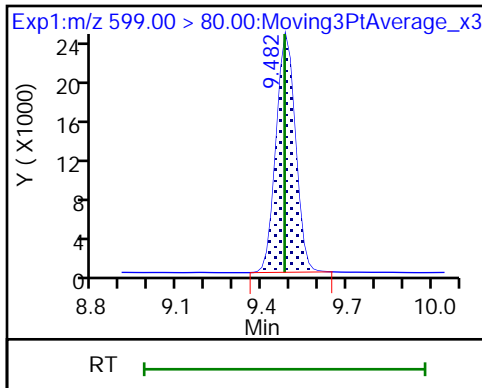
D 37 d3-NMeFOSAA



39 Perfluorodecanesulfonic acid

39 Perfluorodecanesulfonic acid

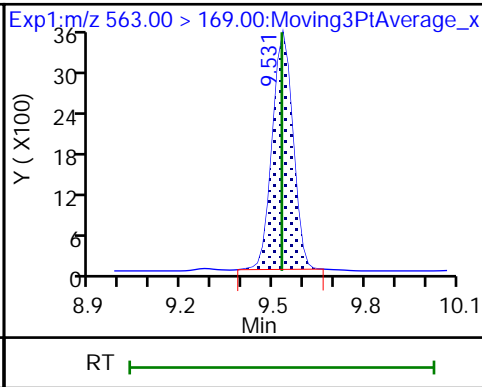
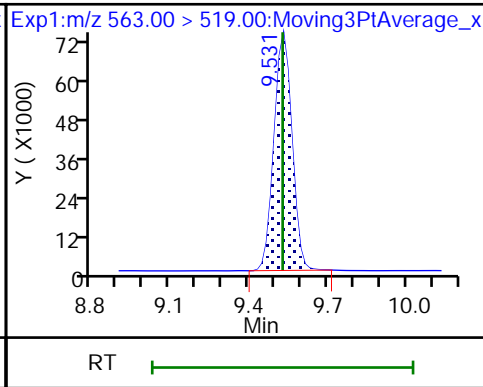
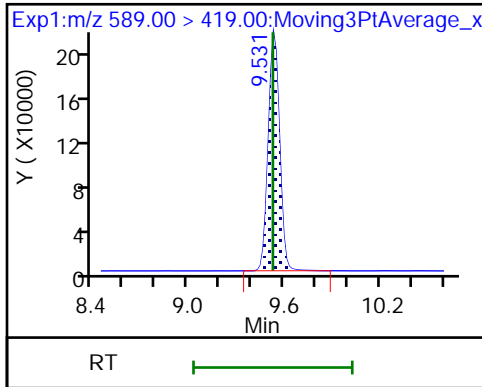
D 42 13C2 PFUnA

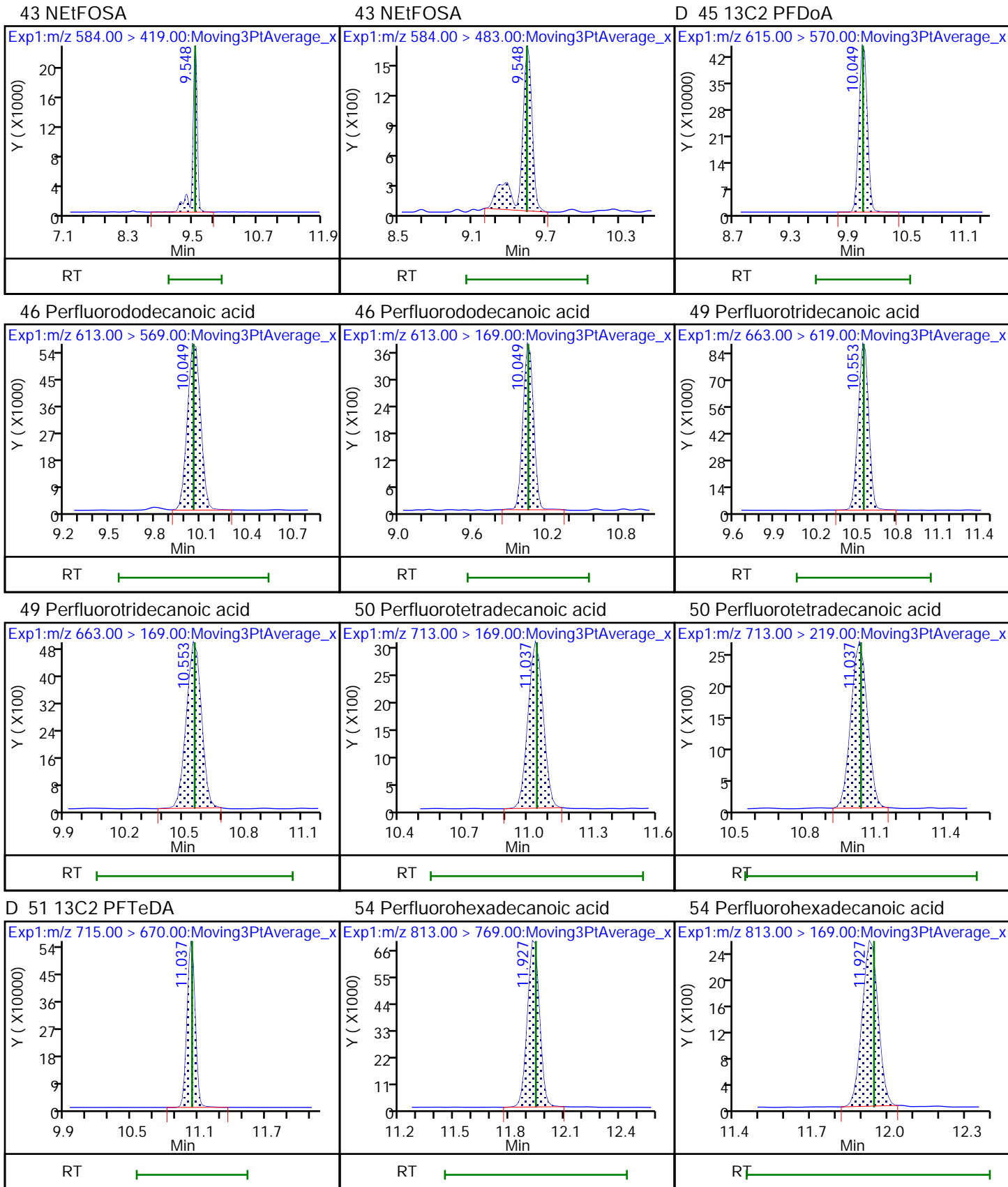


D 40 d5-NEtFOSAA

41 Perfluoroundecanoic acid

41 Perfluoroundecanoic acid

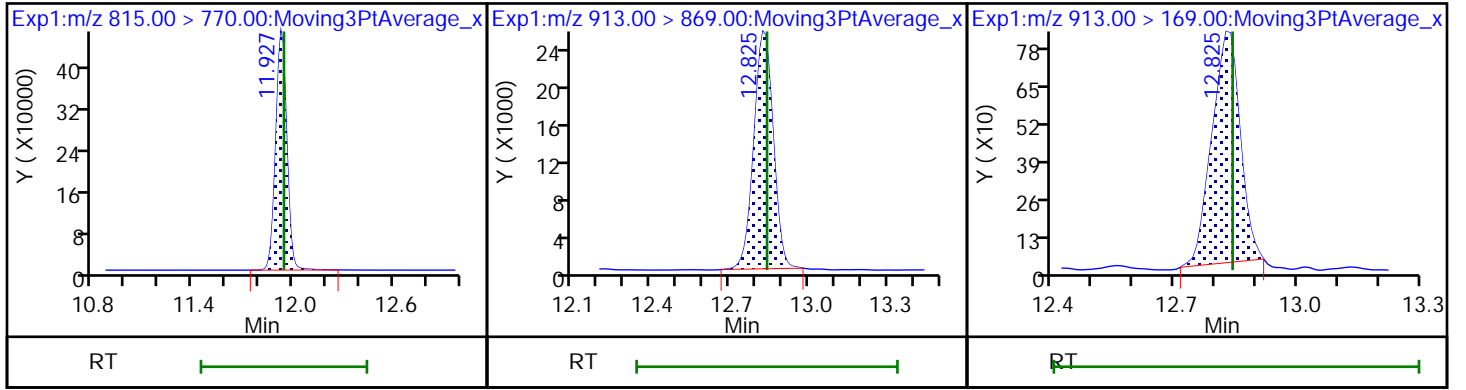




D 52 13C2 PFHxDA

53 Perfluorooctadecanoic acid

53 Perfluorooctadecanoic acid



LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A10 Start Date: 06/07/2021 14:46

Analysis Batch Number: 496403 End Date: 06/08/2021 11:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-496403/2		06/07/2021 14:46	1	2021.06.07_A10_ DI ICAL 005.d	GeminiC18 3x100 3(mm)
IC 320-496403/3		06/07/2021 15:05	1	2021.06.07_A10_ DI ICAL 006.d	GeminiC18 3x100 3(mm)
IC 320-496403/4		06/07/2021 15:23	1	2021.06.07_A10_ DI ICAL 007.d	GeminiC18 3x100 3(mm)
IC 320-496403/5		06/07/2021 15:42	1	2021.06.07_A10_ DI ICAL 008.d	GeminiC18 3x100 3(mm)
IC 320-496403/6		06/07/2021 16:00	1	2021.06.07_A10_ DI ICAL 009.d	GeminiC18 3x100 3(mm)
IC 320-496403/7		06/07/2021 16:18	1	2021.06.07_A10_ DI ICAL 010.d	GeminiC18 3x100 3(mm)
IC 320-496403/8		06/07/2021 16:37	1	2021.06.07_A10_ DI ICAL 011.d	GeminiC18 3x100 3(mm)
IC 320-496403/9		06/07/2021 16:55	1	2021.06.07_A10_ DI ICAL 012.d	GeminiC18 3x100 3(mm)
ICB 320-496403/10		06/07/2021 17:14	1	2021.06.07_A10_ DI ICAL 013.d	GeminiC18 3x100 3(mm)
ICV 320-496403/14		06/08/2021 11:01	1	2021.06.07_A10_ DI ICAL 017.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 11:20	1		GeminiC18 3x100 3(mm)

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A10 Start Date: 06/08/2021 12:07

Analysis Batch Number: 496697 End Date: 06/09/2021 05:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 320-496697/1		06/08/2021 12:07	1	2021.06.08_A10_ DI C 004.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 12:25	1		GeminiC18 3x100 3(mm)
CCV 320-496697/3		06/08/2021 13:02	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 13:21	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 13:39	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 13:58	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 14:16	1		GeminiC18 3x100 3(mm)
CCV 320-496697/8		06/08/2021 14:35	1		GeminiC18 3x100 3(mm)
CCV 320-496697/13		06/08/2021 16:07	1		GeminiC18 3x100 3(mm)
CCV 320-496697/24		06/08/2021 19:30	1		GeminiC18 3x100 3(mm)
CCV 320-496697/31		06/08/2021 21:39	1		GeminiC18 3x100 3(mm)
CCV 320-496697/36		06/08/2021 23:11	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 23:30	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/08/2021 23:48	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 00:07	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 00:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 00:44	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 01:02	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 01:21	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 01:39	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 01:57	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 02:16	1		GeminiC18 3x100 3(mm)
CCV 320-496697/45		06/09/2021 02:34	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 02:53	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 03:11	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 03:30	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 03:48	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 04:07	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 04:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 04:43	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 05:02	1		GeminiC18 3x100 3(mm)
CCV 320-496697/56		06/09/2021 05:20	1		GeminiC18 3x100 3(mm)



LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A10 Start Date: 06/09/2021 19:11

Analysis Batch Number: 496915 End Date: 06/10/2021 19:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-496915/1		06/09/2021 19:11	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 19:29	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 19:48	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 20:06	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 20:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 20:43	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 21:02	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 21:20	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 21:39	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 21:57	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 22:15	1		GeminiC18 3x100 3(mm)
CCV 320-496915/12		06/09/2021 22:34	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 22:52	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 23:11	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 23:29	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/09/2021 23:48	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 00:06	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 00:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 00:43	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 01:01	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 01:20	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 01:38	1		GeminiC18 3x100 3(mm)
CCV 320-496915/23		06/10/2021 01:57	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 02:15	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 02:34	1		GeminiC18 3x100 3(mm)
CCV 320-496915/26		06/10/2021 02:52	1		GeminiC18 3x100 3(mm)
CCV 320-496915/28		06/10/2021 03:29	1		GeminiC18 3x100 3(mm)
CCV 320-496915/39		06/10/2021 06:52	1		GeminiC18 3x100 3(mm)
CCV 320-496915/47		06/10/2021 09:19	1	2021.06.08_A10_ DI C 054.d	GeminiC18 3x100 3(mm)
MB 320-497181/1-A		06/10/2021 09:38	1	2021.06.10_A10_ DI A 001.d	GeminiC18 3x100 3(mm)
LCS 320-497181/2-A		06/10/2021 09:56	1	2021.06.10_A10_ DI A 002.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/10/2021 10:15	1		GeminiC18 3x100 3(mm)
320-74597-21	BH20210604-PRE-GAC	06/10/2021 10:33	1	2021.06.10_A10_ DI A 004.d	GeminiC18 3x100 3(mm)
320-74597-22	BH20210604-1MID	06/10/2021 10:52	1	2021.06.10_A10_ DI A 005.d	GeminiC18 3x100 3(mm)
320-74597-23	BH20210604-1POST	06/10/2021 11:10	1	2021.06.10_A10_ DI A 006.d	GeminiC18 3x100 3(mm)
320-74597-24	BH20210604-2MID	06/10/2021 11:29	1	2021.06.10_A10_ DI A 007.d	GeminiC18 3x100 3(mm)
320-74597-25	BH20210604-2POST	06/10/2021 11:47	1	2021.06.10_A10_ DI A 008.d	GeminiC18 3x100 3(mm)
320-74597-26	BH20210604-3MID	06/10/2021 12:06	1	2021.06.10_A10_ DI A 009.d	GeminiC18 3x100 3(mm)
320-74597-27	BH20210604-3POST	06/10/2021 12:24	1	2021.06.10_A10_ DI A 010.d	GeminiC18 3x100 3(mm)
CCV 320-496915/58		06/10/2021 12:42	1	2021.06.10_A10_ DI A 011.d	GeminiC18 3x100 3(mm)

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A10 Start Date: 06/09/2021 19:11

Analysis Batch Number: 496915 End Date: 06/10/2021 19:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
320-74597-28	BH20210604-POSTGAC	06/10/2021 13:01	1	2021.06.10_A10_ DI A 012.d	GeminiC18 3x100 3(mm)
320-74597-28 MS	BH20210604-POSTGAC MS	06/10/2021 13:19	1	2021.06.10_A10_ DI A 013.d	GeminiC18 3x100 3(mm)
320-74597-28 MSD	BH20210604-POSTGAC MSD	06/10/2021 13:38	1	2021.06.10_A10_ DI A 014.d	GeminiC18 3x100 3(mm)
320-74597-29	BH20210604-POSTGAC (DUP)	06/10/2021 13:56	1	2021.06.10_A10_ DI A 015.d	GeminiC18 3x100 3(mm)
CCV 320-496915/63		06/10/2021 14:15	1	2021.06.10_A10_ DI A 016.d	GeminiC18 3x100 3(mm)
CCV 320-496915/74		06/10/2021 17:38	1		GeminiC18 3x100 3(mm)
CCV 320-496915/81		06/10/2021 19:47	1		GeminiC18 3x100 3(mm)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 497181 Batch Start Date: 06/09/21 19:29 Batch Analyst: Xiong, Fong C

Batch Method: PFAS Prep Batch End Date: 06/09/21 22:59

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LCMPFCLLSU 00218	LCPFCSF 00391	AnalysisComment	
MB 320-497181/1		PFAS Prep, WS-LC-0025 Att1		1.00 mL	1.66 mL	83 uL			
LCS 320-497181/2		PFAS Prep, WS-LC-0025 Att1		1.00 mL	1.66 mL	83 uL	1 uL	Spiked with 250 uL of 0.02 ppm into 250 mL. Aliquot of 1 mL taken.	
320-74597-A-21	BH20210604-PRE-G AC	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-22	BH20210604-1MID	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-23	BH20210604-1POST	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-24	BH20210604-2MID	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-25	BH20210604-2POST	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-26	BH20210604-3MID	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-27	BH20210604-3POST	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-28	BH20210604-POSTG AC	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			
320-74597-A-28 MS	BH20210604-POSTG AC	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL	0.8823 uL	Spiked with 250 uL of 0.02 ppm into 283.34 mL. Aliquot of 1 mL taken.	
320-74597-A-28 MSD	BH20210604-POSTG AC	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL	0.8665 uL	Spiked with 250 uL of 0.02 ppm into 288.53 mL. Aliquot of 1 mL taken.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 497181 Batch Start Date: 06/09/21 19:29 Batch Analyst: Xiong, Fong C

Batch Method: PFAS Prep Batch End Date: 06/09/21 22:59

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LCMPFCLLSU 00218	LCPFCSP 00391	AnalysisComment	
320-74597-A-29	BH20210604-POSTG AC (DUP)	PFAS Prep, WS-LC-0025 Att1	T	1.00 mL	1.66 mL	83 uL			

Batch Notes	
Batch Comment	Client labels match Eurofins labels: FX 06/09/2021,
Methanol ID	2512895
Pipette ID	J38744I / L40057I
Analyst ID - IDA Reagent Drop	FX
Analyst ID - IDA Reagent Drop Witness	PV
Analyst ID - TA Reagent Drop	FX
Analyst ID - TA Reagent Drop Witness	PV

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Method PFC IDA

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Fluorinated Hydrocarbons by Method  
PFAS IDA

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	C3PFBS #	PFHxA #	C4PFHA #	PFHxS #	M262FTS #	PFOA #
BH20210604-2N-25	320-74597-1	93	101	105	105	109	113	105	102
BH20210604-2N-50	320-74597-2	89	100	101	96	99	102	104	97
BH20210604-2N-75	320-74597-3	89	92	97	96	100	102	154 *5+	95
BH20210604-2S-25	320-74597-4	101	102	107	97	106	105	102	100
BH20210604-2S-50	320-74597-5	101	99	104	96	100	103	88	95
BH20210604-2S-75	320-74597-6	110	102	104	99	106	103	87	104
BH20210604-3N-25	320-74597-7	87	98	98	96	101	100	96	100
BH20210604-3N-50	320-74597-8	88	102	106	100	100	112	99	100
BH20210604-3N-75	320-74597-9	95	94	99	97	101	98	90	96
BH20210604-3S-25	320-74597-10	101	101	105	96	104	108	85	103
	MB 320-496405/1-A	95	99	104	94	101	100	100	96
	LCS 320-496405/2-A	103	100	109	102	107	110	96	100
	LCSD 320-496405/3-A	100	102	107	100	106	108	89	99

QC LIMITS

PFBA = 13C4 PFBA	25-150
PFPeA = 13C5 PFPeA	25-150
C3PFBS = 13C3 PFBS	25-150
PFHxA = 13C2 PFHxA	25-150
PFHxS = 18O2 PFHxS	25-150
C4PFHA = 13C4 PFHpA	25-150
M262FTS = M2-6:2 FTS	25-150
PFOA = 13C4 PFOA	25-150

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFOS #	PFNA #	PFOSA #	PFDA #	M282FTS #	d3NMFOS #	d5NEFOS #	PFUnA #
BH20210604-2N-25	320-74597-1	111	109	116	104	108	119	121	96
BH20210604-2N-50	320-74597-2	104	95	114	94	105	98	108	87
BH20210604-2N-75	320-74597-3	99	102	106	96	115	100	111	94
BH20210604-2S-25	320-74597-4	98	102	106	96	100	95	104	87
BH20210604-2S-50	320-74597-5	100	99	107	94	96	96	106	93
BH20210604-2S-75	320-74597-6	104	102	111	103	100	105	110	98
BH20210604-3N-25	320-74597-7	98	96	103	94	95	93	105	91
BH20210604-3N-50	320-74597-8	105	104	107	96	96	100	108	92
BH20210604-3N-75	320-74597-9	100	100	104	91	93	99	111	96
BH20210604-3S-25	320-74597-10	102	102	107	91	95	100	116	97
	MB 320-496405/1-A	98	99	104	97	102	99	113	94
	LCS 320-496405/2-A	102	101	109	103	108	103	109	88
	LCSD 320-496405/3-A	102	103	110	100	99	101	108	84

	<u>QC LIMITS</u>
PFOS = 13C4 PFOS	25-150
PFNA = 13C5 PFNA	25-150
PFOSA = 13C8 FOSA	25-150
PFDA = 13C2 PFDA	25-150
M282FTS = M2-8:2 FTS	25-150
d3NMFOS = d3-NMeFOSAA	25-150
d5NEFOS = d5-NEtFOSAA	25-150
PFUnA = 13C2 PFUnA	25-150

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDa #	PFTDA #
BH20210604-2N-25	320-74597-1	110	103
BH20210604-2N-50	320-74597-2	100	90
BH20210604-2N-75	320-74597-3	103	90
BH20210604-2S-25	320-74597-4	93	83
BH20210604-2S-50	320-74597-5	101	89
BH20210604-2S-75	320-74597-6	113	110
BH20210604-3N-25	320-74597-7	99	87
BH20210604-3N-50	320-74597-8	94	88
BH20210604-3N-75	320-74597-9	99	89
BH20210604-3S-25	320-74597-10	104	87
	MB 320-496405/1-A	105	87
	LCS 320-496405/2-A	101	95
	LCSD 320-496405/3-A	102	93

PFDa = 13C2 PFDa  
PFTDA = 13C2 PFTeDA

QC LIMITS  
25-150  
25-150

# Column to be used to flag recovery values

FORM II 537 (modified)



FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	C3PFBS #	PFHxA #	C4PFHA #	PFHxS #	M262FTS #	PFOA #
BH20210604-3S-50	320-74597-11	99	103	101	97	101	106	85	98
BH20210604-3RAW	320-74597-12	91	102	105	100	104	111	89	97
BH20210604-PREGAC	320-74597-13	90	101	108	101	107	102	94	100
BH20210604-POSTGAC	320-74597-14	101	102	103	99	106	107	86	103
BH20210604-1N-25	320-74597-15	89	102	104	99	104	103	89	102
BH20210604-1N-50	320-74597-16	98	102	107	100	108	111	84	103
BH20210604-1N-75	320-74597-17	98	101	102	98	105	109	88	101
BH20210604-1S-25	320-74597-18	106	97	108	99	104	110	89	102
BH20210604-1S-50	320-74597-19	103	100	110	98	105	112	91	103
BH20210604-1S-75	320-74597-20	102	104	106	100	110	113	90	105
BH20210604-3S-75	320-74597-30	99	103	107	95	99	108	78	104
	MB 320-496408/1-A	103	101	101	92	104	109	86	99
	LCS 320-496408/2-A	98	95	97	92	98	102	74	94
	LCSD 320-496408/3-A	100	99	102	95	99	108	75	98

QC LIMITS

PFBA = 13C4 PFBA	25-150
PFPeA = 13C5 PFPeA	25-150
C3PFBS = 13C3 PFBS	25-150
PFHxA = 13C2 PFHxA	25-150
PFHxS = 18O2 PFHxS	25-150
C4PFHA = 13C4 PFHxA	25-150
M262FTS = M2-6:2 FTS	25-150
PFOA = 13C4 PFOA	25-150

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFOS #	PFNA #	PFOSA #	PFDA #	M282FTS #	d3NMFOS #	PFUnA #	d5NEFOS #
BH20210604-3S-50	320-74597-11	102	103	105	95	91	97	96	110
BH20210604-3RAW	320-74597-12	100	109	106	105	97	95	88	103
BH20210604-PREGAC	320-74597-13	107	105	111	103	98	99	100	112
BH20210604-POSTGAC	320-74597-14	105	105	108	104	100	100	97	109
BH20210604-1N-25	320-74597-15	103	102	110	99	103	99	96	106
BH20210604-1N-50	320-74597-16	110	103	112	98	101	100	94	111
BH20210604-1N-75	320-74597-17	104	101	110	98	94	100	93	110
BH20210604-1S-25	320-74597-18	105	110	111	95	96	83	95	99
BH20210604-1S-50	320-74597-19	105	104	117	98	93	107	95	111
BH20210604-1S-75	320-74597-20	109	102	115	104	99	99	96	112
BH20210604-3S-75	320-74597-30	104	99	113	101	94	93	95	114
	MB 320-496408/1-A	100	101	113	100	95	104	102	108
	LCS 320-496408/2-A	95	95	102	92	84	95	89	99
	LCSD 320-496408/3-A	105	102	107	92	88	94	94	105

QC LIMITS

PFOS = 13C4 PFOS	25-150
PFNA = 13C5 PFNA	25-150
PFOSA = 13C8 FOSA	25-150
PFDA = 13C2 PFDA	25-150
M282FTS = M2-8:2 FTS	25-150
d3NMFOS = d3-NMeFOSAA	25-150
PFUnA = 13C2 PFUnA	25-150
d5NEFOS = d5-NEtFOSAA	25-150

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM II  
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDa #	PFTDA #
BH20210604-3S-50	320-74597-11	101	91
BH20210604-3RAW	320-74597-12	97	103
BH20210604-PREGAC	320-74597-13	109	100
BH20210604-POSTGAC	320-74597-14	108	94
BH20210604-1N-25	320-74597-15	102	102
BH20210604-1N-50	320-74597-16	104	97
BH20210604-1N-75	320-74597-17	107	89
BH20210604-1S-25	320-74597-18	106	100
BH20210604-1S-50	320-74597-19	105	100
BH20210604-1S-75	320-74597-20	108	89
BH20210604-3S-75	320-74597-30	104	89
	MB 320-496408/1-A	104	88
	LCS 320-496408/2-A	100	83
	LCSD 320-496408/3-A	105	86

PFDa = 13C2 PFDa  
PFTDA = 13C2 PFTeDA

QC LIMITS  
25-150  
25-150

# Column to be used to flag recovery values

FORM II 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_008.d

Lab ID: LCS 320-496405/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	41.2	103	76-136	
Perfluoropentanoic acid (PFPeA)	40.0	39.7	99	71-131	
Perfluorohexanoic acid (PFHxA)	40.0	39.5	99	73-133	
Perfluoroheptanoic acid (PFHpA)	40.0	40.9	102	72-132	
Perfluorooctanoic acid (PFOA)	40.0	44.1	110	70-130	
Perfluorononanoic acid (PFNA)	40.0	43.3	108	75-135	
Perfluorodecanoic acid (PFDA)	40.0	36.3	91	76-136	
Perfluoroundecanoic acid (PFUnA)	40.0	44.0	110	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	40.6	101	71-131	
Perfluorotridecanoic acid (PFTriA)	40.0	47.4	118	71-131	
Perfluorotetradecanoic acid (PFTeA)	40.0	39.1	98	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.3	100	67-127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.5	95	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.5	104	76-136	
Perfluorooctanesulfonic acid (PFOS)	37.1	39.6	107	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	38.5	100	71-131	
Perfluorooctanesulfonamide (FOSA)	40.0	39.9	100	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.5	96	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.7	97	76-136	
6:2 FTS	37.9	37.8	100	59-175	
8:2 FTS	38.3	42.5	111	75-135	
13C4 PFBA	50.0	51.7	103	25-150	
13C5 PFPeA	50.0	49.9	100	25-150	
13C2 PFHxA	50.0	51.0	102	25-150	
13C4 PFHpA	50.0	53.6	107	25-150	
13C4 PFOA	50.0	50.0	100	25-150	
13C5 PFNA	50.0	50.3	101	25-150	
13C2 PFDA	50.0	51.4	103	25-150	
13C2 PFUnA	50.0	43.9	88	25-150	
13C2 PFDoA	50.0	50.7	101	25-150	
13C2 PFTeDA	50.0	47.5	95	25-150	

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water      Level: Low      Lab File ID: 2021.06.09\_A15\_PFC+\_E\_008.d  
 Lab ID: LCS 320-496405/2-A      Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C3 PFBS	46.5	50.8	109	25-150	
18O2 PFHxS	47.3	52.0	110	25-150	
13C4 PFOS	47.8	48.6	102	25-150	
13C8 FOSA	50.0	54.7	109	25-150	
d3-NMeFOSAA	50.0	51.3	103	25-150	
d5-NEtFOSAA	50.0	54.4	109	25-150	
M2-6:2 FTS	47.5	45.6	96	25-150	
M2-8:2 FTS	47.9	51.8	108	25-150	

# Column to be used to flag recovery and RPD values  
 FORM III 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_026.d

Lab ID: LCS 320-496408/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	40.7	102	76-136	
Perfluoropentanoic acid (PFPeA)	40.0	40.5	101	71-131	
Perfluorohexanoic acid (PFHxA)	40.0	42.8	107	73-133	
Perfluoroheptanoic acid (PFHpA)	40.0	41.5	104	72-132	
Perfluorooctanoic acid (PFOA)	40.0	41.8	105	70-130	
Perfluorononanoic acid (PFNA)	40.0	42.5	106	75-135	
Perfluorodecanoic acid (PFDA)	40.0	38.1	95	76-136	
Perfluoroundecanoic acid (PFUnA)	40.0	39.2	98	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	40.6	102	71-131	
Perfluorotridecanoic acid (PFTriA)	40.0	43.1	108	71-131	
Perfluorotetradecanoic acid (PFTeA)	40.0	41.0	103	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	38.7	109	67-127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.8	98	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	44.0	115	76-136	
Perfluorooctanesulfonic acid (PFOS)	37.1	41.4	112	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	41.0	106	71-131	
Perfluorooctanesulfonamide (FOSA)	40.0	40.1	100	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.8	97	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.3	103	76-136	
6:2 FTS	37.9	38.3	101	59-175	
8:2 FTS	38.3	42.0	110	75-135	
13C4 PFBA	50.0	48.9	98	25-150	
13C5 PFPeA	50.0	47.4	95	25-150	
13C2 PFHxA	50.0	46.0	92	25-150	
13C4 PFHpA	50.0	49.1	98	25-150	
13C4 PFOA	50.0	46.9	94	25-150	
13C5 PFNA	50.0	47.6	95	25-150	
13C2 PFDA	50.0	46.0	92	25-150	
13C2 PFUnA	50.0	44.6	89	25-150	
13C2 PFDoA	50.0	49.9	100	25-150	
13C2 PFTeDA	50.0	41.6	83	25-150	

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water      Level: Low      Lab File ID: 2021.06.09\_A15\_PFC+\_E\_026.d  
 Lab ID: LCS 320-496408/2-A      Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C3 PFBS	46.5	44.9	97	25-150	
18O2 PFHxS	47.3	48.2	102	25-150	
13C4 PFOS	47.8	45.6	95	25-150	
13C8 FOSA	50.0	50.8	102	25-150	
d3-NMeFOSAA	50.0	47.3	95	25-150	
d5-NEtFOSAA	50.0	49.5	99	25-150	
M2-6:2 FTS	47.5	35.2	74	25-150	
M2-8:2 FTS	47.9	40.3	84	25-150	

# Column to be used to flag recovery and RPD values  
 FORM III 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_009.d  
 Lab ID: LCSD 320-496405/3-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorobutanoic acid (PFBA)	40.0	40.6	102	1	30	76-136	
Perfluoropentanoic acid (PFPeA)	40.0	38.4	96	3	30	71-131	
Perfluorohexanoic acid (PFHxA)	40.0	39.3	98	1	30	73-133	
Perfluoroheptanoic acid (PFHpA)	40.0	40.5	101	1	30	72-132	
Perfluorooctanoic acid (PFOA)	40.0	41.2	103	7	30	70-130	
Perfluorononanoic acid (PFNA)	40.0	39.5	99	9	30	75-135	
Perfluorodecanoic acid (PFDA)	40.0	35.7	89	2	30	76-136	
Perfluoroundecanoic acid (PFUnA)	40.0	42.5	106	4	30	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	41.1	103	1	30	71-131	
Perfluorotridecanoic acid (PFTriA)	40.0	39.3	98	19	30	71-131	
Perfluorotetradecanoic acid (PFTeA)	40.0	40.9	102	5	30	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.8	101	2	30	67-127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.5	92	3	30	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.6	104	0	30	76-136	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.9	102	4	30	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	36.4	94	6	30	71-131	
Perfluorooctanesulfonamide (FOSA)	40.0	37.7	94	6	30	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6	94	2	30	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.4	96	1	30	76-136	
6:2 FTS	37.9	40.2	106	6	30	59-175	
8:2 FTS	38.3	39.2	102	8	30	75-135	
13C4 PFBA	50.0	50.0	100			25-150	
13C5 PFPeA	50.0	51.1	102			25-150	
13C2 PFHxA	50.0	50.2	100			25-150	
13C4 PFHpA	50.0	53.1	106			25-150	
13C4 PFOA	50.0	49.4	99			25-150	
13C5 PFNA	50.0	51.6	103			25-150	
13C2 PFDA	50.0	49.9	100			25-150	
13C2 PFUnA	50.0	42.0	84			25-150	
13C2 PFDoA	50.0	51.0	102			25-150	
13C2 PFTeDA	50.0	46.4	93			25-150	

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)



FORM III  
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_009.d

Lab ID: LCSD 320-496405/3-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
13C3 PFBS	46.5	49.9	107			25-150	
18O2 PFHxS	47.3	51.2	108			25-150	
13C4 PFOS	47.8	48.7	102			25-150	
13C8 FOSA	50.0	55.0	110			25-150	
d3-NMeFOSAA	50.0	50.3	101			25-150	
d5-NEtFOSAA	50.0	53.9	108			25-150	
M2-6:2 FTS	47.5	42.4	89			25-150	
M2-8:2 FTS	47.9	47.5	99			25-150	

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III  
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_027.d  
 Lab ID: LCSD 320-496408/3-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorobutanoic acid (PFBA)	40.0	41.1	103	1	30	76-136	
Perfluoropentanoic acid (PFPeA)	40.0	39.7	99	2	30	71-131	
Perfluorohexanoic acid (PFHxA)	40.0	42.4	106	1	30	73-133	
Perfluoroheptanoic acid (PFHpA)	40.0	43.9	110	6	30	72-132	
Perfluorooctanoic acid (PFOA)	40.0	42.7	107	2	30	70-130	
Perfluorononanoic acid (PFNA)	40.0	42.1	105	1	30	75-135	
Perfluorodecanoic acid (PFDA)	40.0	40.6	102	7	30	76-136	
Perfluoroundecanoic acid (PFUnA)	40.0	39.1	98	0	30	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	38.3	96	6	30	71-131	
Perfluorotridecanoic acid (PFTriA)	40.0	40.6	101	6	30	71-131	
Perfluorotetradecanoic acid (PFTeA)	40.0	42.5	106	3	30	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	37.1	105	4	30	67-127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6	95	3	30	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.9	102	12	30	76-136	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.6	101	10	30	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8	95	11	30	71-131	
Perfluorooctanesulfonamide (FOSA)	40.0	39.0	98	3	30	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.9	95	2	30	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.9	97	6	30	76-136	
6:2 FTS	37.9	38.5	101	0	30	59-175	
8:2 FTS	38.3	42.1	110	0	30	75-135	
13C4 PFBA	50.0	50.0	100			25-150	
13C5 PFPeA	50.0	49.6	99			25-150	
13C2 PFHxA	50.0	47.3	95			25-150	
13C4 PFHpA	50.0	49.4	99			25-150	
13C4 PFOA	50.0	48.8	98			25-150	
13C5 PFNA	50.0	50.8	102			25-150	
13C2 PFDA	50.0	46.2	92			25-150	
13C2 PFUnA	50.0	47.1	94			25-150	
13C2 PFDoA	50.0	52.7	105			25-150	
13C2 PFTeDA	50.0	43.0	86			25-150	

# Column to be used to flag recovery and RPD values

FORM III  
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: 2021.06.09\_A15\_PFC+\_E\_027.d

Lab ID: LCSD 320-496408/3-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
13C3 PFBS	46.5	47.5	102			25-150	
18O2 PFHxS	47.3	51.1	108			25-150	
13C4 PFOS	47.8	50.3	105			25-150	
13C8 FOSA	50.0	53.6	107			25-150	
d3-NMeFOSAA	50.0	47.2	94			25-150	
d5-NEtFOSAA	50.0	52.7	105			25-150	
M2-6:2 FTS	47.5	35.4	75			25-150	
M2-8:2 FTS	47.9	42.3	88			25-150	

# Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV  
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_007.d Lab Sample ID: MB 320-496405/1-A  
 Matrix: Water Date Extracted: 06/08/2021 04:41  
 Instrument ID: A15 Date Analyzed: 06/10/2021 04:47  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-496405/2-A	2021.06.09_A15_PFC+_E_008.d	06/10/2021 04:56
	LCSD 320-496405/3-A	2021.06.09_A15_PFC+_E_009.d	06/10/2021 05:06
BH20210604-2N-25	320-74597-1	2021.06.09_A15_PFC+_E_010.d	06/10/2021 05:15
BH20210604-2N-50	320-74597-2	2021.06.09_A15_PFC+_E_011.d	06/10/2021 05:24
BH20210604-2N-75	320-74597-3	2021.06.09_A15_PFC+_E_012.d	06/10/2021 05:33
BH20210604-2S-25	320-74597-4	2021.06.09_A15_PFC+_E_013.d	06/10/2021 05:42
BH20210604-2S-50	320-74597-5	2021.06.09_A15_PFC+_E_014.d	06/10/2021 05:51
BH20210604-2S-75	320-74597-6	2021.06.09_A15_PFC+_E_015.d	06/10/2021 06:00
BH20210604-3N-25	320-74597-7	2021.06.09_A15_PFC+_E_016.d	06/10/2021 06:10
BH20210604-3N-50	320-74597-8	2021.06.09_A15_PFC+_E_019.d	06/10/2021 06:37
BH20210604-3N-75	320-74597-9	2021.06.09_A15_PFC+_E_020.d	06/10/2021 06:46
BH20210604-3S-25	320-74597-10	2021.06.09_A15_PFC+_E_021.d	06/10/2021 06:55

FORM IV  
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento      Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_025.d      Lab Sample ID: MB 320-496408/1-A  
 Matrix: Water      Date Extracted: 06/08/2021 04:52  
 Instrument ID: A15      Date Analyzed: 06/10/2021 07:32  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-496408/2-A	2021.06.09_A15_PFC+_E_026.d	06/10/2021 07:41
	LCSD 320-496408/3-A	2021.06.09_A15_PFC+_E_027.d	06/10/2021 07:50
BH20210604-3S-50	320-74597-11	2021.06.09_A15_PFC+_E_028.d	06/10/2021 07:59
BH20210604-3RAW	320-74597-12	2021.06.09_A15_PFC+_E_029.d	06/10/2021 08:08
BH20210604-PREGAC	320-74597-13	2021.06.09_A15_PFC+_E_030.d	06/10/2021 08:17
BH20210604-POSTGAC	320-74597-14	2021.06.09_A15_PFC+_E_031.d	06/10/2021 08:27
BH20210604-1N-25	320-74597-15	2021.06.09_A15_PFC+_E_032.d	06/10/2021 08:36
BH20210604-1N-50	320-74597-16	2021.06.09_A15_PFC+_E_033.d	06/10/2021 08:45
BH20210604-1N-75	320-74597-17	2021.06.09_A15_PFC+_E_034.d	06/10/2021 08:54
BH20210604-1S-25	320-74597-18	2021.06.09_A15_PFC+_E_037.d	06/10/2021 09:21
BH20210604-1S-50	320-74597-19	2021.06.09_A15_PFC+_E_038.d	06/10/2021 09:31
BH20210604-1S-75	320-74597-20	2021.06.09_A15_PFC+_E_039.d	06/10/2021 09:40
BH20210604-3S-75	320-74597-30	2021.06.09_A15_PFC+_E_040.d	06/10/2021 09:49

FORM VIII  
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: IC 320-494451/5 Date Analyzed: 06/01/2021 14:34  
 Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3 (mm)  
 Lab File ID (Standard): 2021.06.01\_A15\_PFC+ Heated Purge: (Y/N) N  
 Calibration ID: 55515

	13PFOA		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	6708817	3.89				
UPPER LIMIT	10063226	4.09				
LOWER LIMIT	3354409	3.69				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICB 320-494451/9		7201220	3.89			
ICV 320-494451/10		6854587	3.89			
CCV 320-497061/3 CCVIS		6678235	3.83			

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area  
 RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCV 320-497061/3 Date Analyzed: 06/10/2021 04:38  
 Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3 (mm)  
 Lab File ID (Standard): 2021.06.09\_A15\_PFC+ Heated Purge: (Y/N) N  
 Calibration ID: 55515

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		6678235	3.83				
UPPER LIMIT		10017353	4.03				
LOWER LIMIT		3339118	3.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-497061/1		6848578	3.84				
CCVL 320-497061/2		6789336	3.83				
MB 320-496405/1-A		6203314	3.83				
LCS 320-496405/2-A		5808974	3.83				
LCSD 320-496405/3-A		5965031	3.84				
320-74597-1	BH20210604-2N-25	5782782	3.84				
320-74597-2	BH20210604-2N-50	6361465	3.83				
320-74597-3	BH20210604-2N-75	6362895	3.84				
320-74597-4	BH20210604-2S-25	6024705	3.84				
320-74597-5	BH20210604-2S-50	6228796	3.83				
320-74597-6	BH20210604-2S-75	5784408	3.83				
320-74597-7	BH20210604-3N-25	6324361	3.83				
CCV 320-497061/15		6448181	3.83				
320-74597-8	BH20210604-3N-50	5928712	3.82				
320-74597-9	BH20210604-3N-75	6210406	3.83				
320-74597-10	BH20210604-3S-25	6114062	3.83				
CCV 320-497061/20		6625851	3.84				
CCV 320-497065/1		6437977	3.83				
MB 320-496408/1-A		6057595	3.83				
LCS 320-496408/2-A		6343616	3.84				
LCSD 320-496408/3-A		6300778	3.83				
320-74597-11	BH20210604-3S-50	6183971	3.84				
320-74597-12	BH20210604-3RAW	5779951	3.84				
320-74597-13	BH20210604-PREGAC	6111466	3.83				
320-74597-14	BH20210604-POSTGAC	6003668	3.83				
320-74597-15	BH20210604-1N-25	5873129	3.82				
320-74597-16	BH20210604-1N-50	5850608	3.82				
320-74597-17	BH20210604-1N-75	6074021	3.82				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area  
 RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCV 320-497061/3 Date Analyzed: 06/10/2021 04:38  
 Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3 (mm)  
 Lab File ID (Standard): 2021.06.09\_A15\_PFC+ Heated Purge: (Y/N) N  
 Calibration ID: 55515

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		6678235	3.83				
UPPER LIMIT		10017353	4.03				
LOWER LIMIT		3339118	3.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 320-497065/13		6442579	3.85				
320-74597-18	BH20210604-1S-25	5813697	3.83				
320-74597-19	BH20210604-1S-50	5766409	3.83				
320-74597-20	BH20210604-1S-75	5579828	3.83				
320-74597-30	BH20210604-3S-75	6003434	3.83				
CCV 320-497065/19		6491956	3.83				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area  
 RT Limit = ± 0.2 minutes of internal standard RT

# Column used to flag values outside QC limits



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-25 Lab Sample ID: 320-74597-1  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_010.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:53  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 279.5 (mL) Date Analyzed: 06/10/2021 05:15  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.7		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.0		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	2.5		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.6		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.4		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-25 Lab Sample ID: 320-74597-1  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_010.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:53  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 279.5 (mL) Date Analyzed: 06/10/2021 05:15  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	93		25-150
STL01893	13C5 PFPeA	101		25-150
STL00993	13C2 PFHxA	105		25-150
STL01892	13C4 PFHpA	109		25-150
STL00990	13C4 PFOA	102		25-150
STL00995	13C5 PFNA	109		25-150
STL00996	13C2 PFDA	104		25-150
STL00997	13C2 PFUnA	96		25-150
STL00998	13C2 PFDoA	110		25-150
STL02116	13C2 PFTeDA	103		25-150
STL02337	13C3 PFBS	105		25-150
STL00994	18O2 PFHxS	113		25-150
STL00991	13C4 PFOS	111		25-150
STL01056	13C8 FOSA	116		25-150
STL02118	d3-NMeFOSAA	119		25-150
STL02117	d5-NEtFOSAA	121		25-150
STL02279	M2-6:2 FTS	105		25-150
STL02280	M2-8:2 FTS	108		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
 Lims ID: 320-74597-A-1-A  
 Client ID: BH20210604-2N-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 05:15:17 ALS Bottle#: 4 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-1-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:40:34 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:40:34  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	337195	0.0832		96.8		
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	5353379	1.16		92.8	35093	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.652	2.650	0.002	1.000	477205	0.1036		125		M
D 17 13C5 PFPeA										
267.90 > 223.00	2.652	2.661	-0.009	0.691	5495275	1.26		101	33278	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.682	0.002	0.700	3722691	1.23		105	9907	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.693	-0.009	1.000	147740	0.0408	Target=2.41	116		M
298.90 > 99.00	2.684	2.693	-0.009	1.000	61999		2.38(1.20-3.61)	99.1		
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	418888	0.0830	Target=13.85	321		M
313.00 > 119.00	3.019	3.019	0.0	1.000	28022		14.95(6.92-20.77)	228		
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	5634590	1.31		105	47040	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.424	3.433	-0.009	1.000	223745	0.0456	Target=3.98	243		
363.00 > 169.00	3.433	3.433	0.0	1.003	55273		4.05(1.99-5.97)	837		
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	194064	0.0722	Target=3.33	778		M
399.00 > 99.00	3.433	3.433	0.0	1.000	57188		3.39(1.66-4.99)	389		
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2876154	1.33		113	52910	
D 37 13C4 PFHpA										
367.00 > 322.00	3.424	3.433	-0.009	0.893	5806080	1.37		109	56007	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										
427.00 > 407.00	3.806	3.814	-0.008	0.998	18658	0.008804	Target=2.13	99.2		
427.00 > 79.96	3.816	3.814	0.002	1.000	7054		2.65(1.07-3.20)	22.0		
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.814	0.002	0.995	1221694	1.25		105	7129	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6169890	1.28		102	59538	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		5782782	1.25			42480	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.826	3.834	-0.008	0.912	3893	0.001825	Target=4.85	21.3		
449.00 > 99.00	3.826	3.834	-0.008	0.912	963		4.04(2.43-7.28)	8.7		
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.834	0.001	1.000	365840	0.0709	Target=2.90	455		M
413.00 > 169.00	3.835	3.834	0.001	1.000	132496		2.76(1.45-4.35)	1221		M
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.194	4.201	-0.007	1.000	258335	0.1228	Target=5.77	1056		M
499.00 > 99.00	4.194	4.201	-0.007	1.000	39246		6.58(2.88-8.65)	489		M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.094	2233943	1.32		111	19656	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.217	-0.007	1.098	6258529	1.36		109	82640	
64 Perfluorononanoic acid										
463.00 > 419.00	4.210	4.217	-0.007	1.000	53141	0.0107	Target=8.24	113		
463.00 > 169.00	4.210	4.217	-0.007	1.000	7043		7.55(4.12-12.36)	103		
D 71 13C8 FOSA										
506.00 > 78.00	4.525	4.523	0.002	1.180	4148164	1.46		116	53815	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.525	4.532	-0.007	1.000	10970	0.003293		190		
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.559	0.002	1.002	38900	0.007968	Target=8.21	152		
513.00 > 169.00	4.561	4.559	0.002	1.002	4123		9.43(4.10-12.31)	71.8		
D 74 13C2 PFDA										
515.00 > 470.00	4.552	4.559	-0.007	1.187	5969232	1.29		104	66893	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.569	-0.008	1.189	1984668	1.30		108	18914	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.231	2906857	1.49		119	21810	
79 NMeFOSAA										
570.00 > 419.00	4.719	4.729	-0.010	1.000	2729	0.001586	Target=0.83	28.7		
570.00 > 483.00	4.719	4.729	-0.010	1.000	2507		1.09(0.41-1.24)	45.3		
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	5337263	1.20		96.1	76459	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.874	4.882	-0.008	1.271	2925559	1.51		121	28501	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
84 NEtFOSAA										M
584.00 > 419.00	4.913	4.891	0.022	1.008	1776	0.001059	Target=0.77	54.4		
584.00 > 526.10	4.894	4.891	0.003	1.004	2774		0.64(0.38-1.15)	23.7		M
D 97 13C2 PFDaA										
615.00 > 570.00	5.159	5.156	0.003	1.345	6597306	1.37		110	69813	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.658	-0.007	1.474	5712827	1.29		103	64711	
105 Perfluorotetradecanoic acid										RM
713.00 > 169.00	5.651	5.658	-0.007	1.000	1414	0.002517	Target=1.03	32.4		RM
713.00 > 219.00	5.651	5.658	-0.007	1.000	654		2.16(0.51-1.54)	27.6		

**QC Flag Legend**

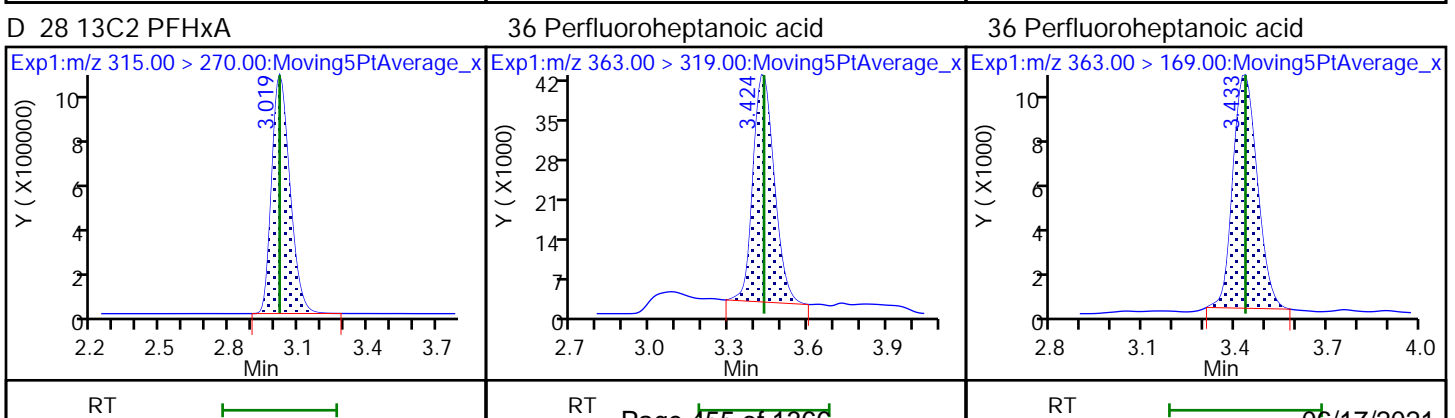
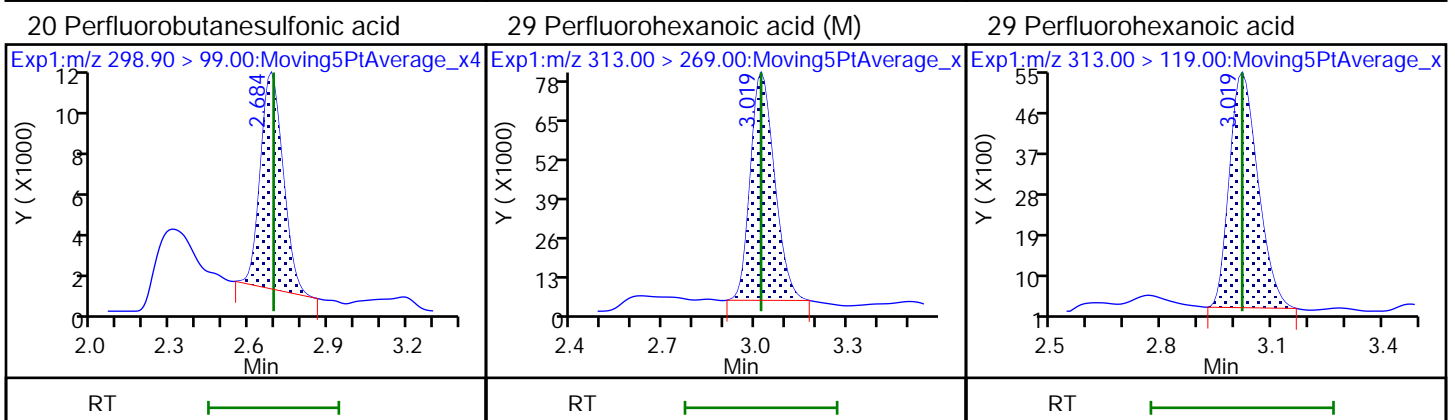
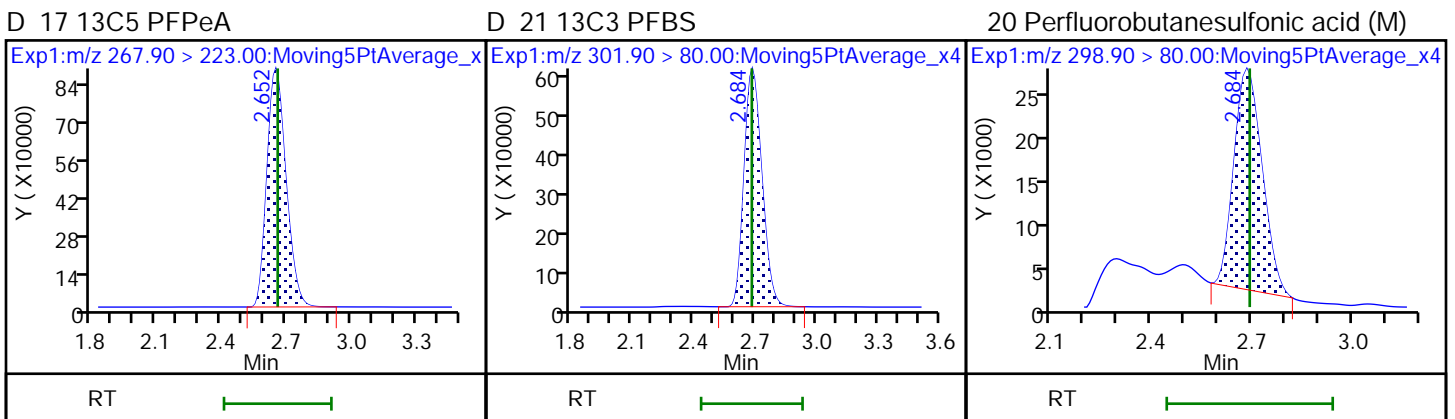
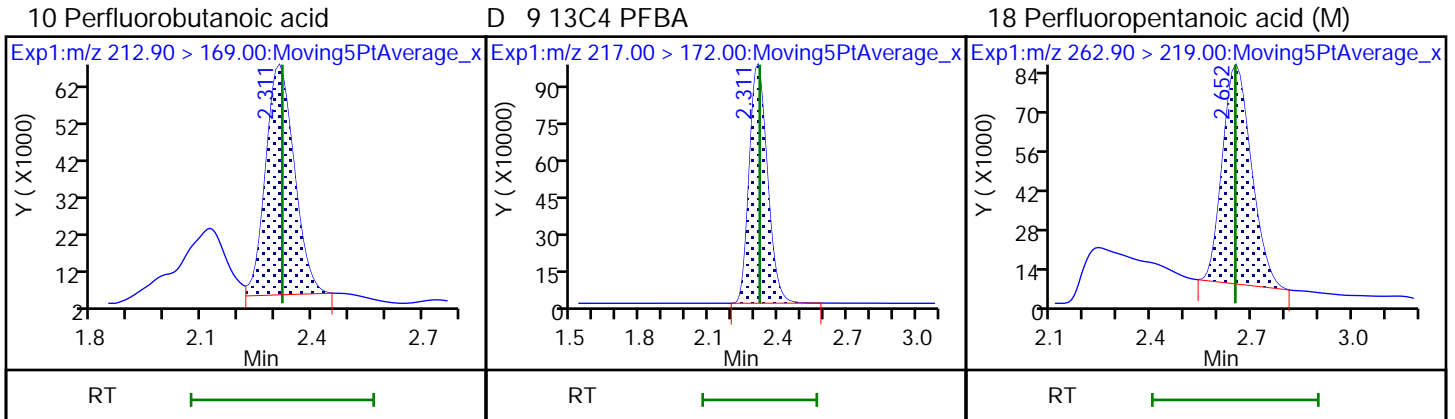
Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

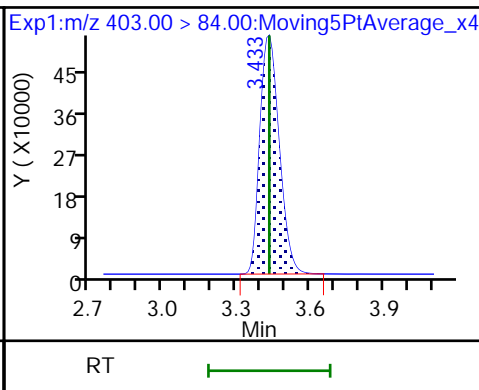
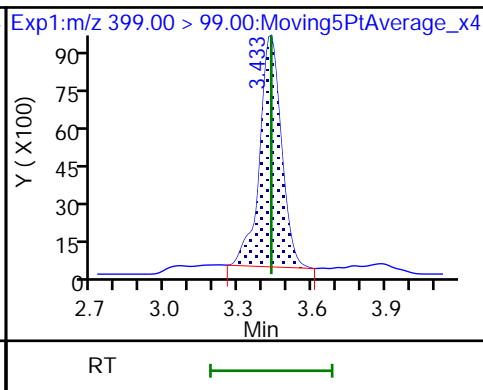
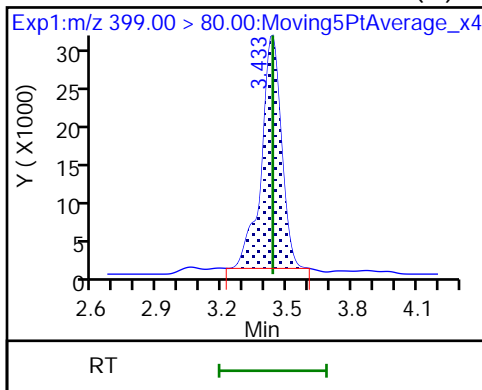
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
 Injection Date: 10-Jun-2021 05:15:17 Instrument ID: A15  
 Lims ID: 320-74597-A-1-A Lab Sample ID: 320-74597-1  
 Client ID: BH20210604-2N-25  
 Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid

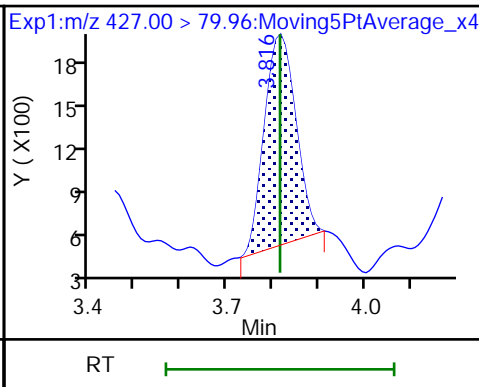
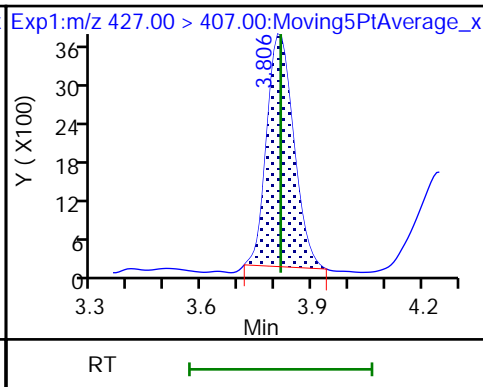
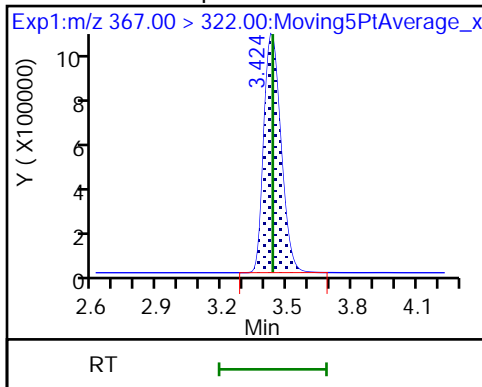
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS

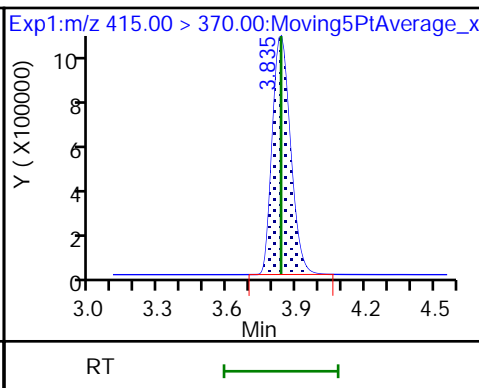
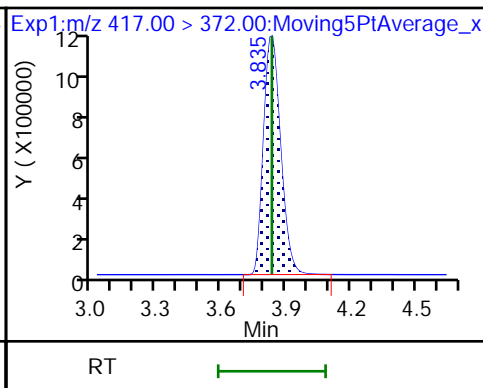
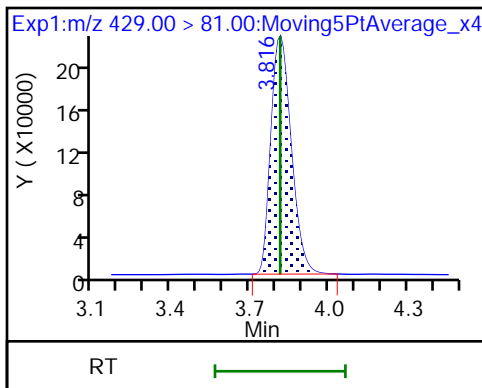
53 6:2 FTS



D 52 M2-6:2 FTS

D 56 13C4 PFOA

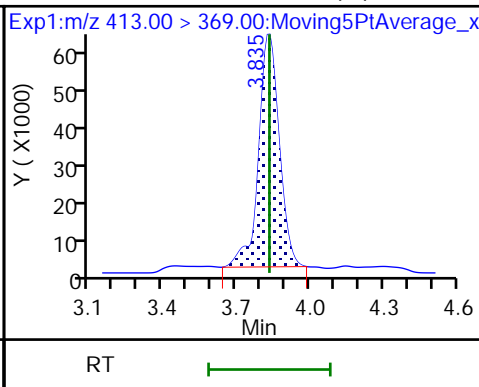
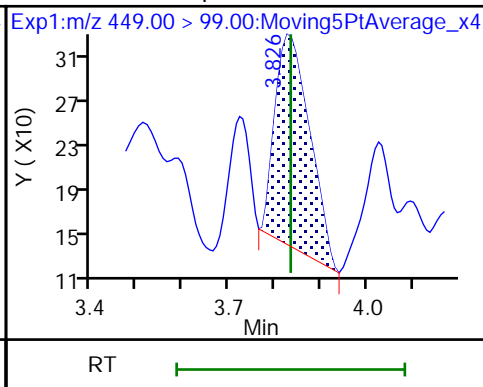
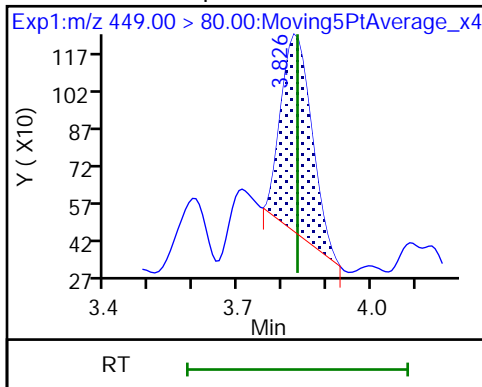
\* 57 13C2 PFOA

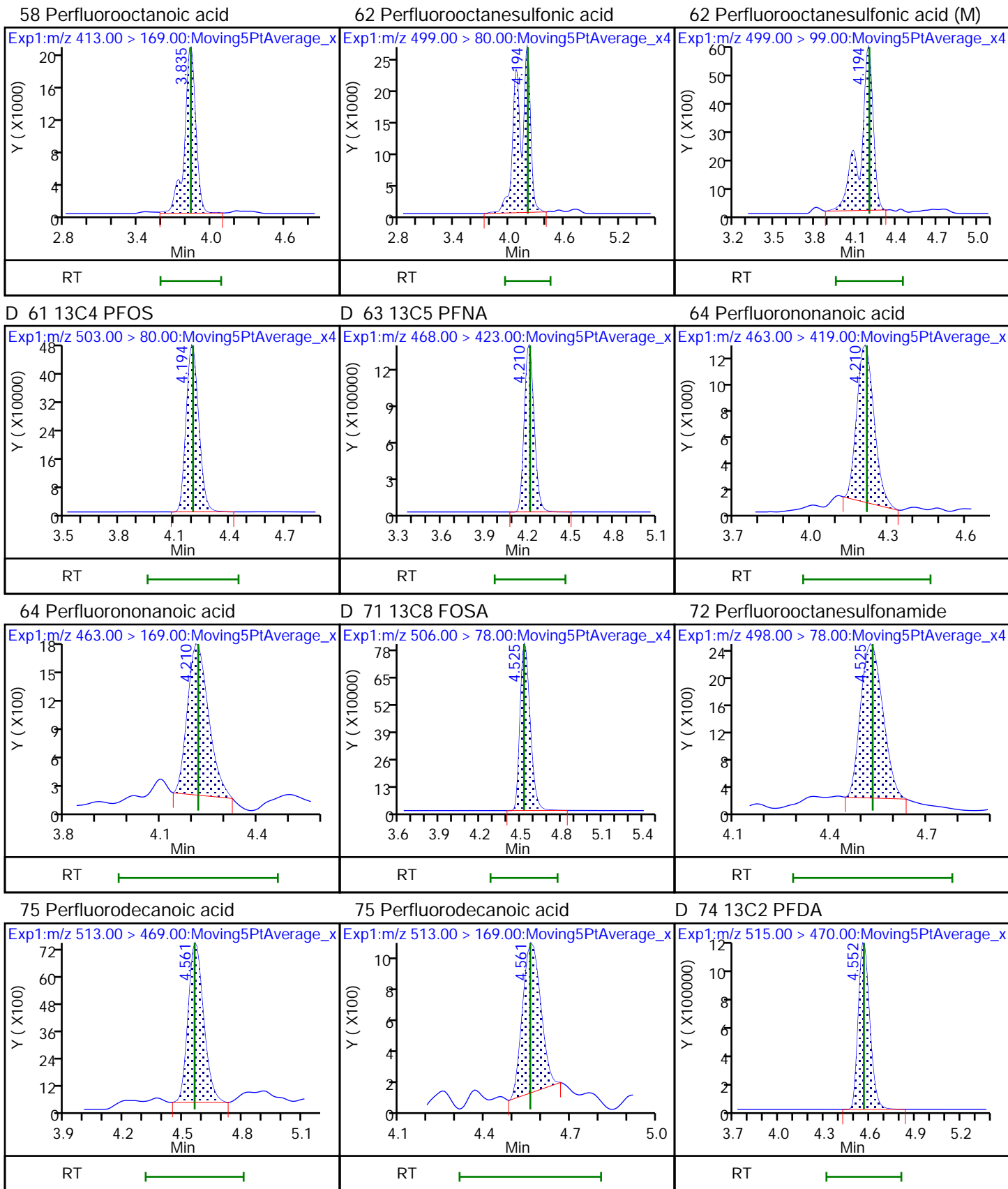


54 Perfluoroheptanesulfonic acid

54 Perfluoroheptanesulfonic acid

58 Perfluorooctanoic acid (M)



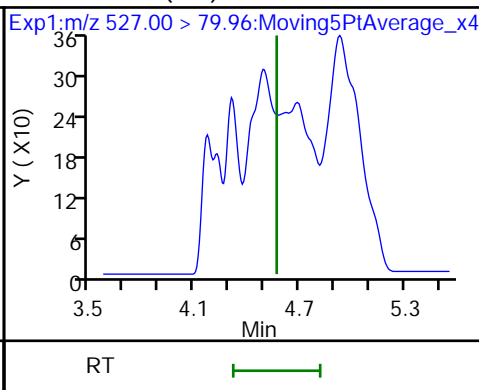
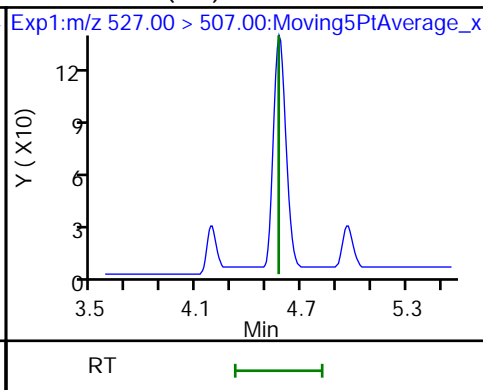
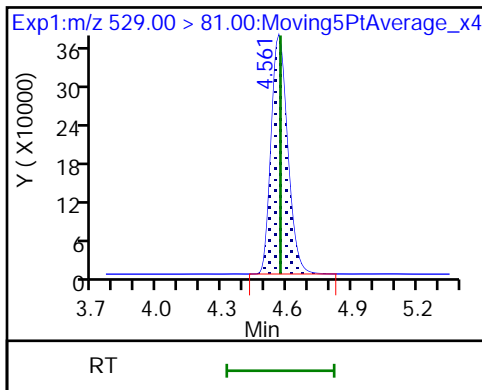




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

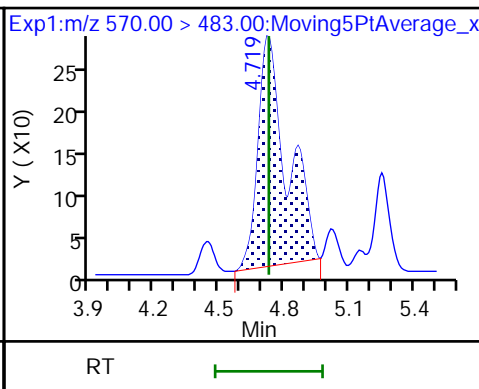
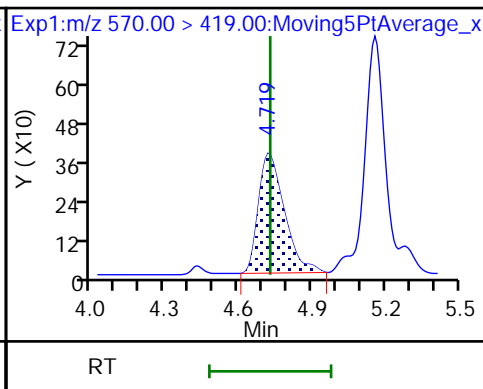
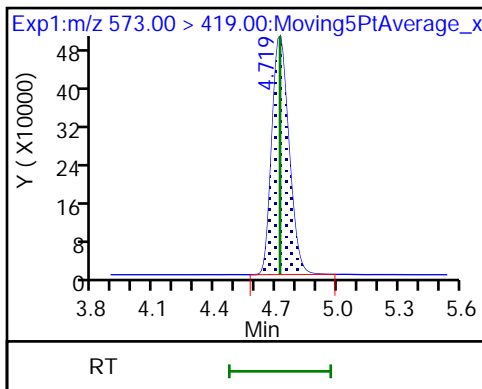
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA

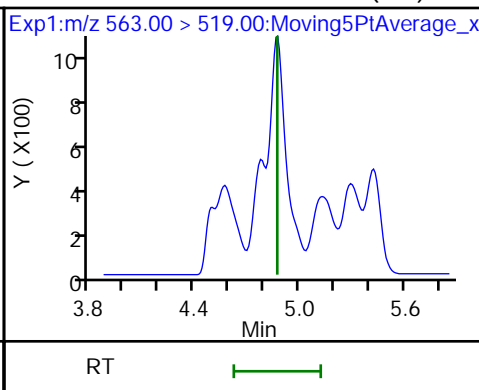
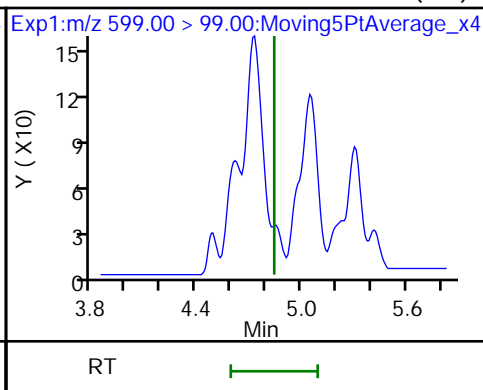
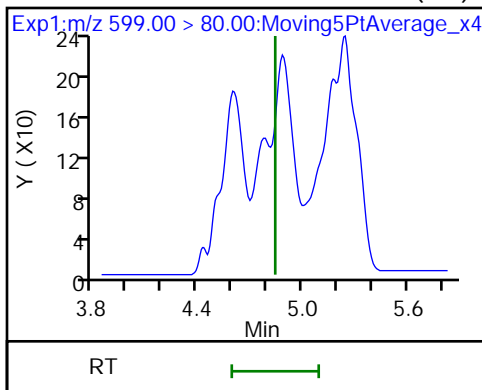
79 NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

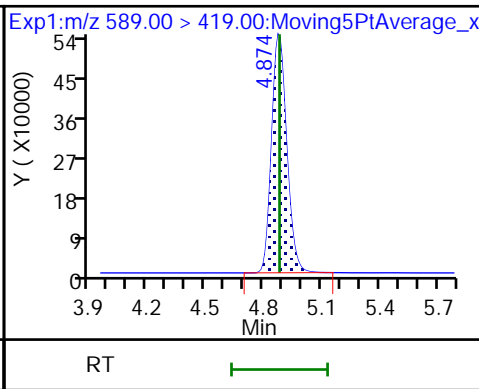
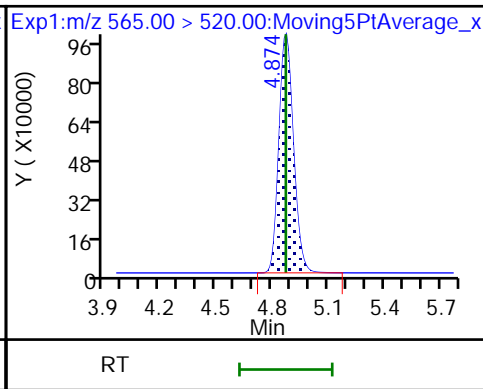
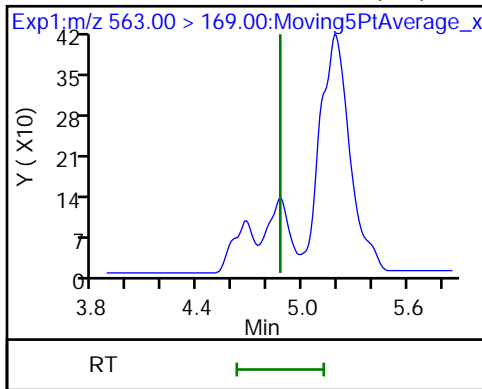
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

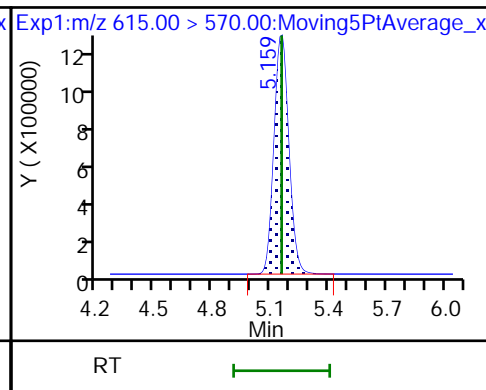
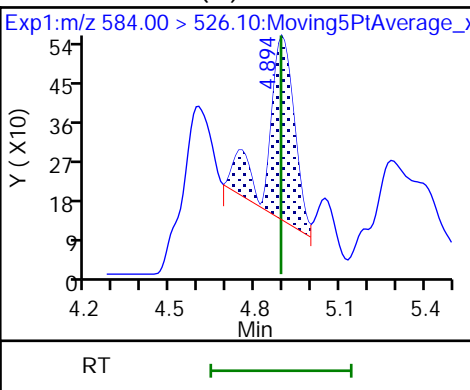
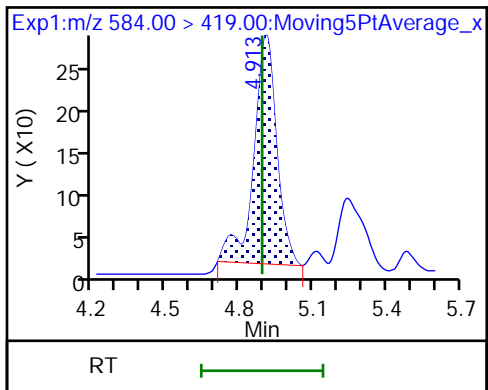
D 83 d5-NEtFOSAA



84 NEtFOSAA

84 NEtFOSAA (M)

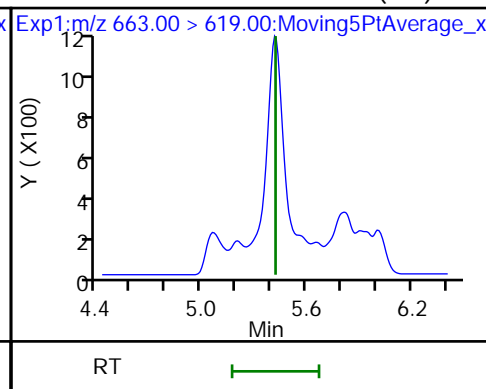
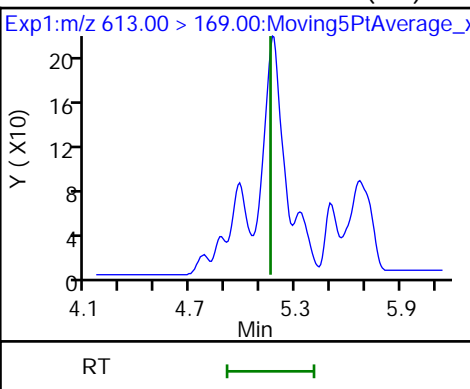
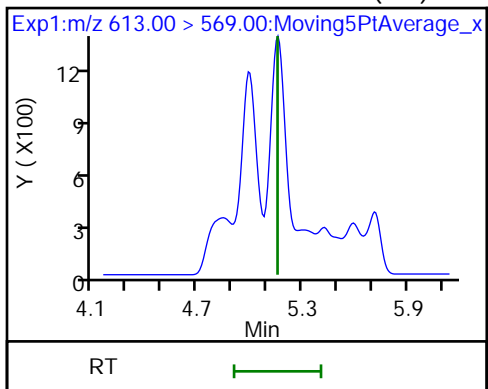
D 97 13C2 PFDaA



98 Perfluorododecanoic acid (ND)

98 Perfluorododecanoic acid (ND)

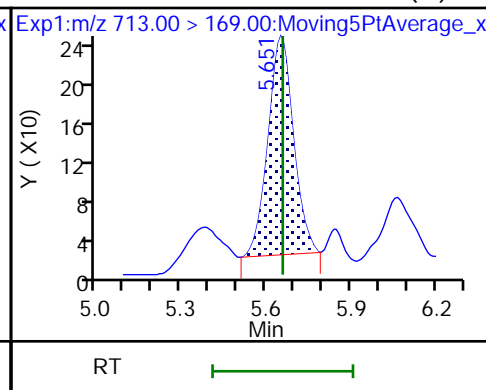
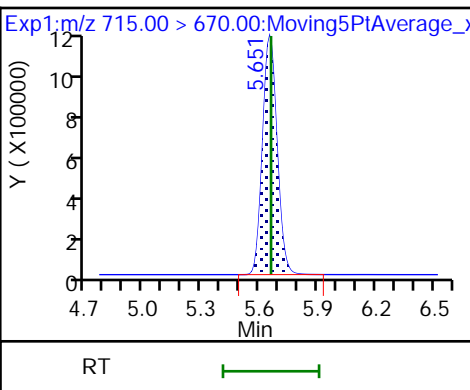
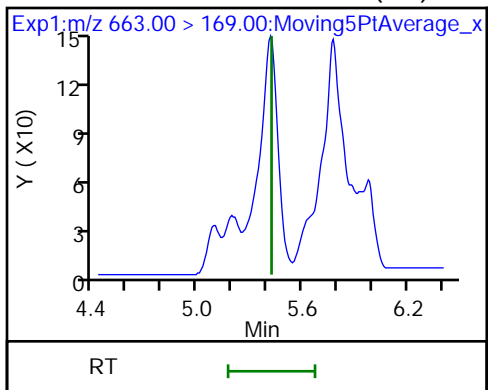
103 Perfluorotridecanoic acid (ND)



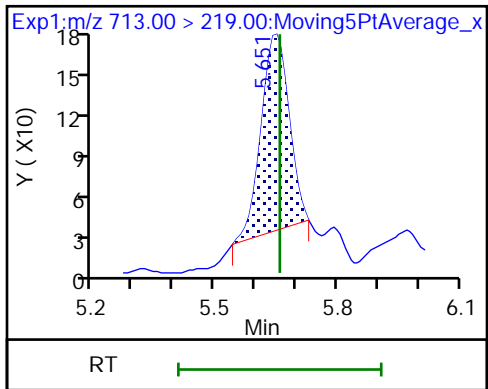
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

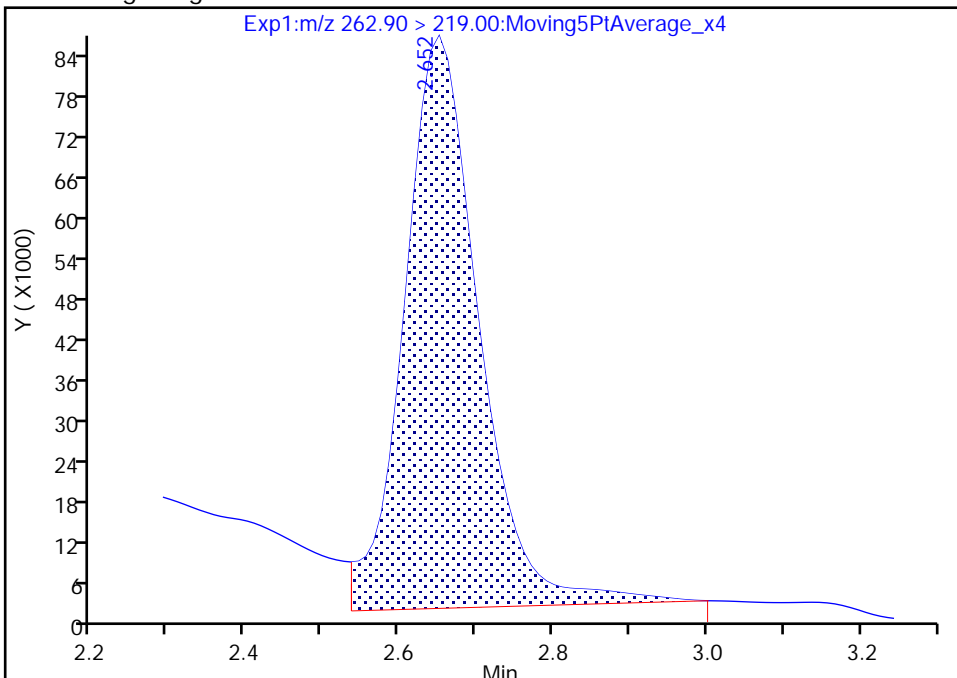
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_010.d		
Injection Date:	10-Jun-2021 05:15:17	Instrument ID:	A15
Lims ID:	320-74597-A-1-A	Lab Sample ID:	320-74597-1
Client ID:	BH20210604-2N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	4
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	7

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

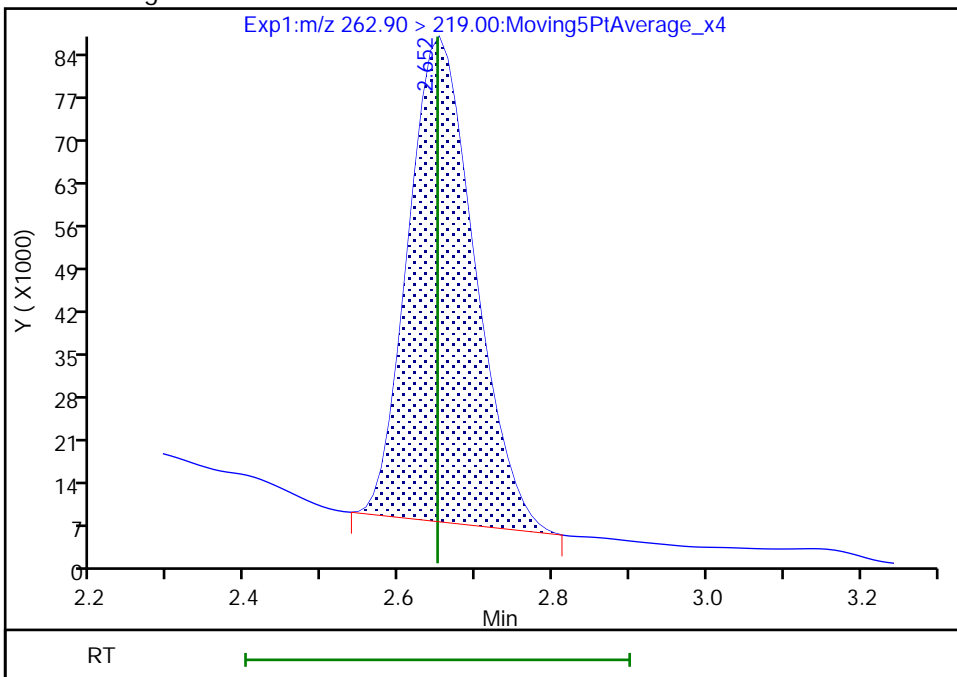
RT: 2.65  
 Area: 572645  
 Amount: 0.124307  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
 Area: 477205  
 Amount: 0.103589  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:39:35  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

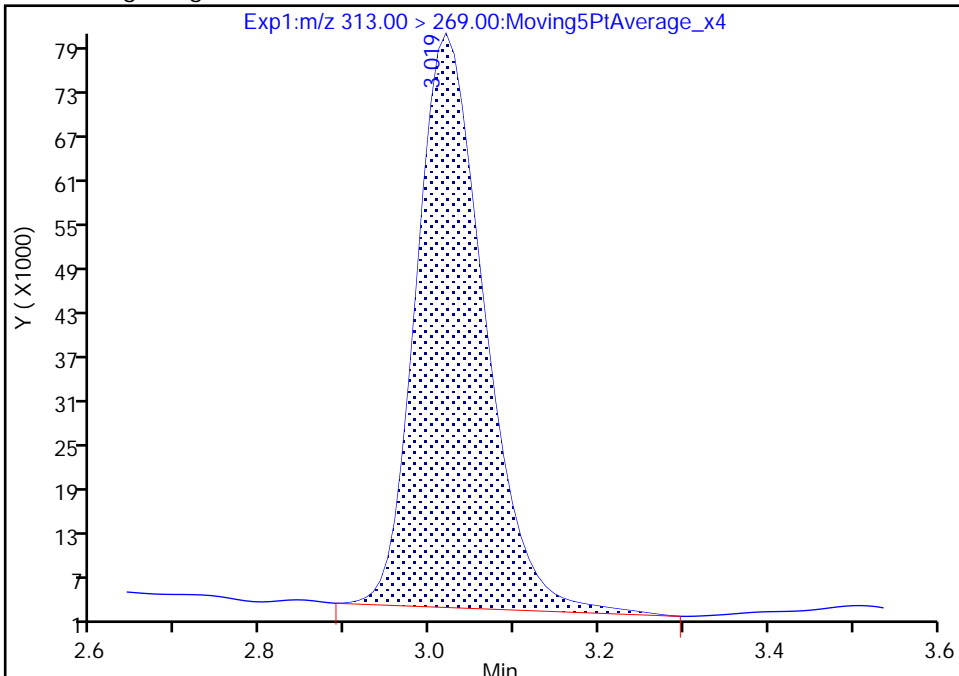
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
Injection Date: 10-Jun-2021 05:15:17 Instrument ID: A15  
Lims ID: 320-74597-A-1-A Lab Sample ID: 320-74597-1  
Client ID: BH20210604-2N-25  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

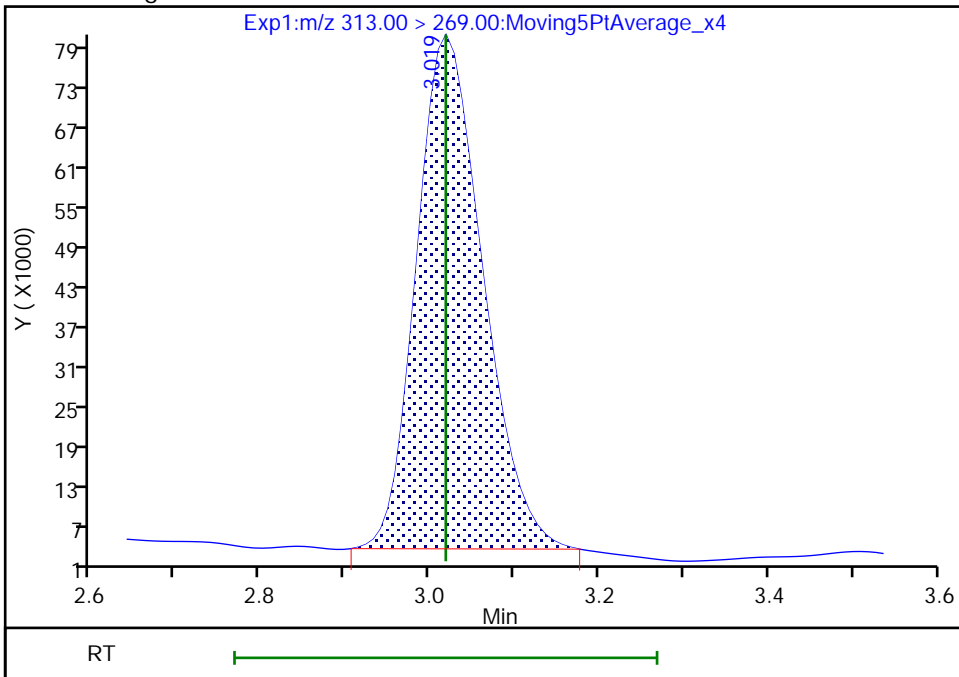
RT: 3.02  
Area: 434963  
Amount: 0.086138  
Amount Units: ng/ml

Processing Integration Results



RT: 3.02  
Area: 418888  
Amount: 0.082955  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

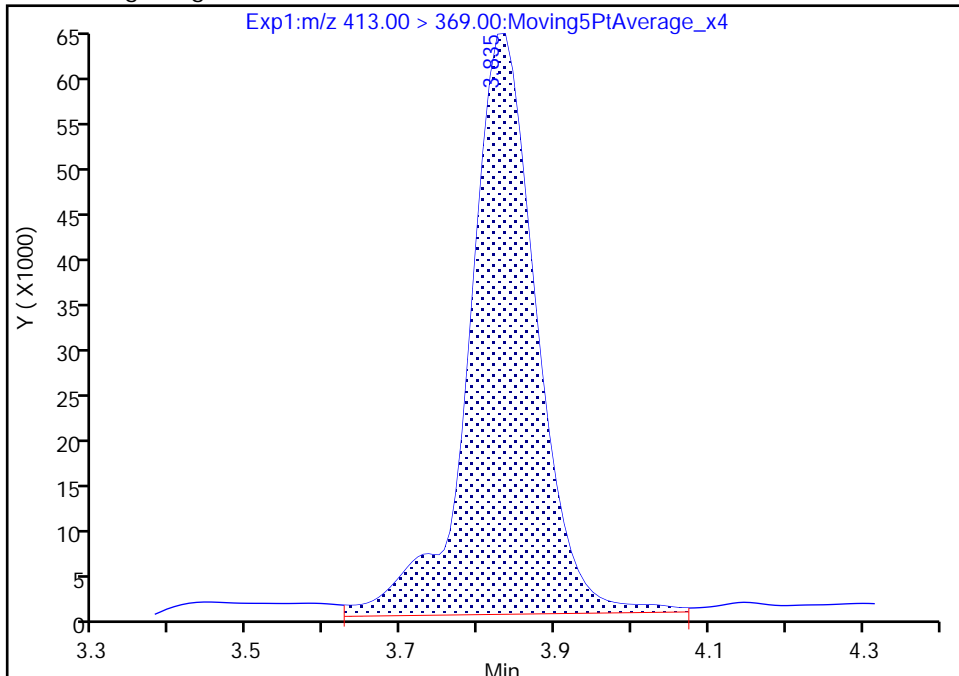
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
Injection Date: 10-Jun-2021 05:15:17 Instrument ID: A15  
Lims ID: 320-74597-A-1-A Lab Sample ID: 320-74597-1  
Client ID: BH20210604-2N-25  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

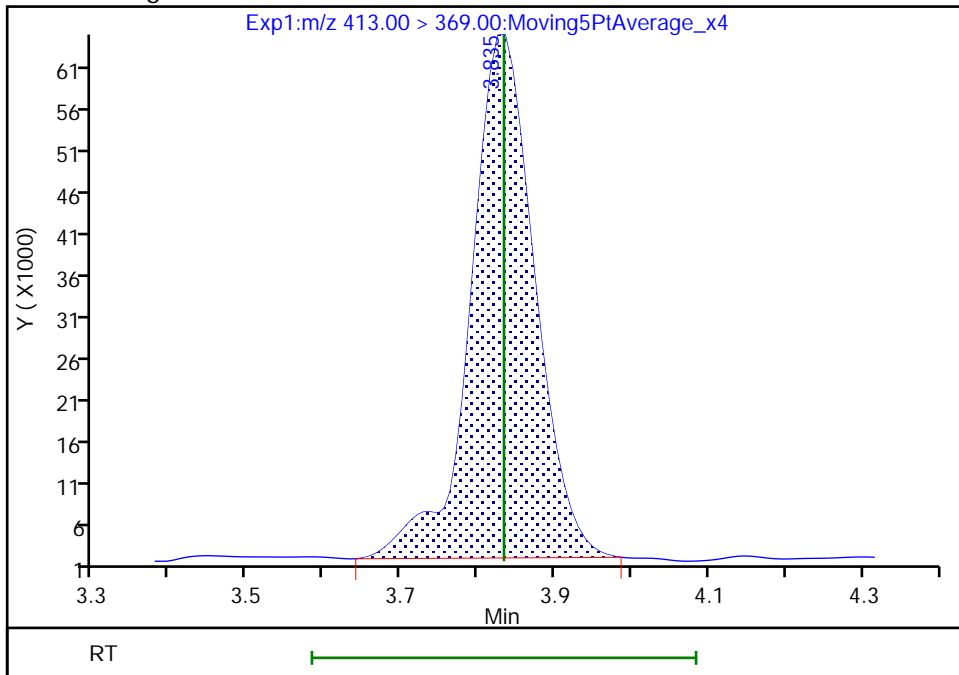
RT: 3.84  
Area: 393531  
Amount: 0.076293  
Amount Units: ng/ml

Processing Integration Results



RT: 3.84  
Area: 365840  
Amount: 0.070925  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:39:58  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

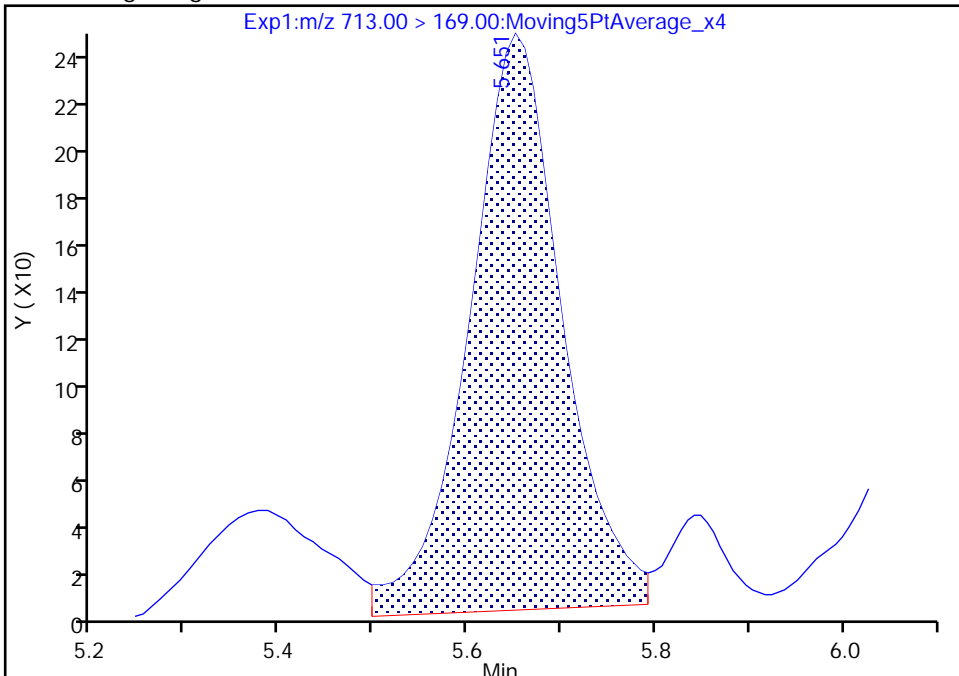
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
Injection Date: 10-Jun-2021 05:15:17 Instrument ID: A15  
Lims ID: 320-74597-A-1-A Lab Sample ID: 320-74597-1  
Client ID: BH20210604-2N-25  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

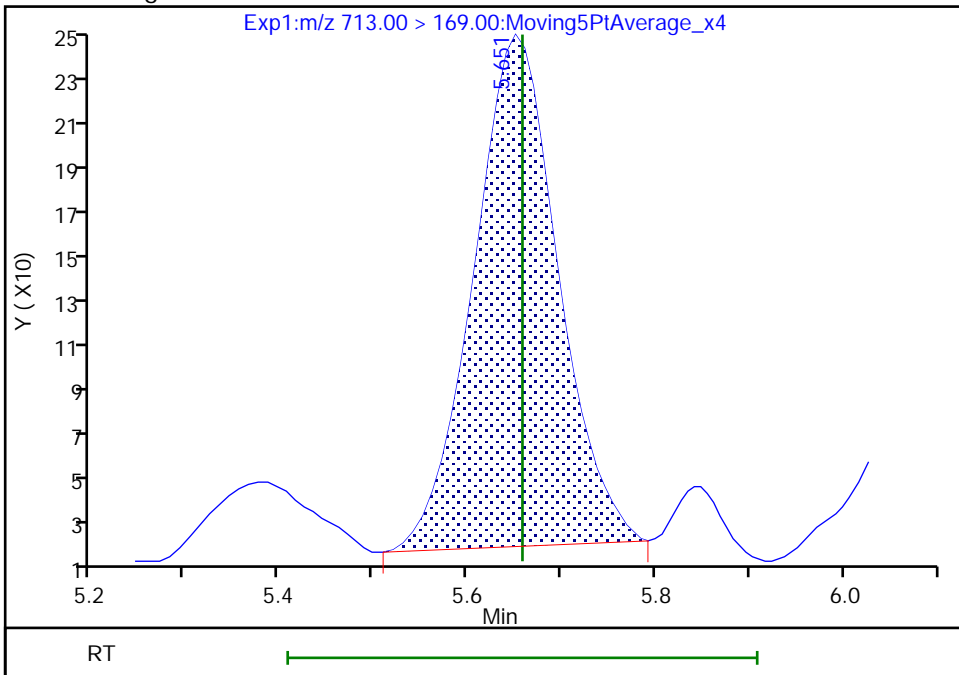
RT: 5.65  
Area: 1641  
Amount: 0.002921  
Amount Units: ng/ml

Processing Integration Results



RT: 5.65  
Area: 1414  
Amount: 0.002517  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:40:30  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

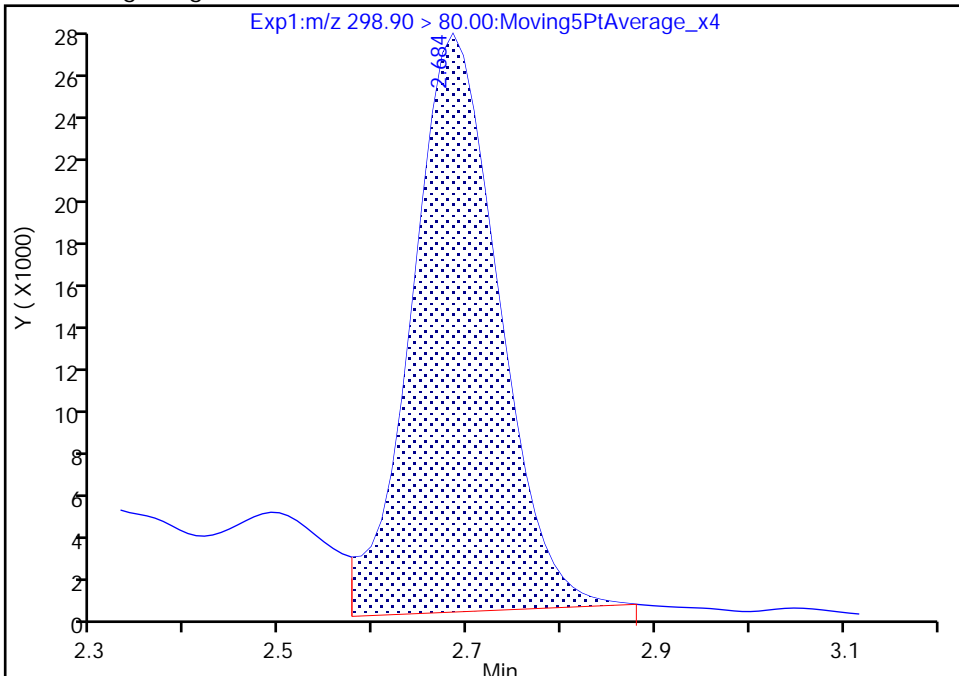
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_010.d		
Injection Date:	10-Jun-2021 05:15:17	Instrument ID:	A15
Lims ID:	320-74597-A-1-A	Lab Sample ID:	320-74597-1
Client ID:	BH20210604-2N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	4
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	7

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

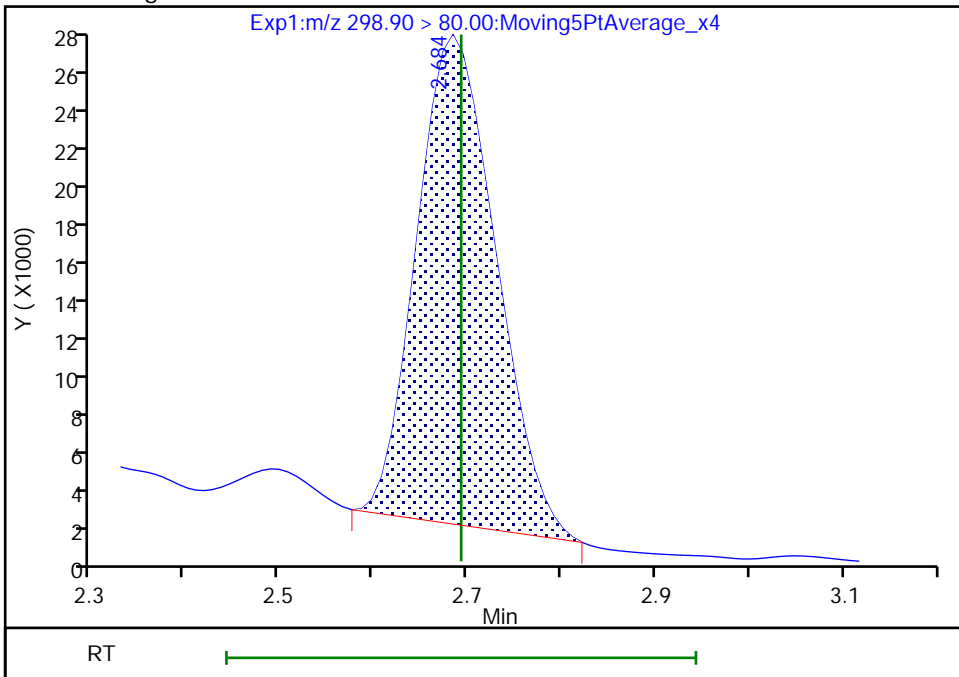
RT: 2.68  
 Area: 173476  
 Amount: 0.047908  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
 Area: 147740  
 Amount: 0.040801  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:39:41  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

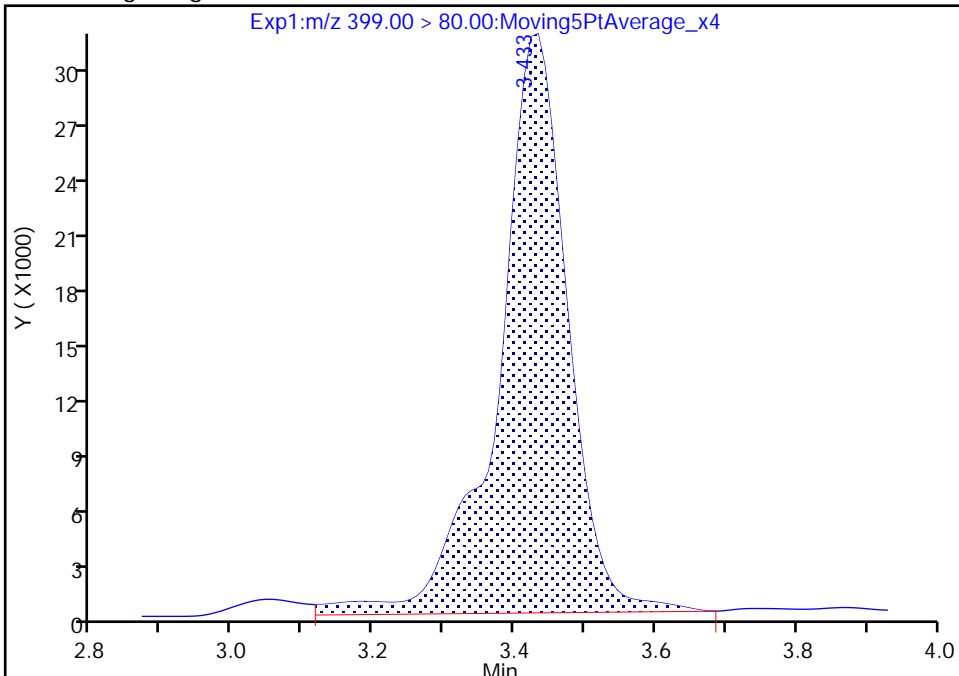
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_010.d  
Injection Date: 10-Jun-2021 05:15:17 Instrument ID: A15  
Lims ID: 320-74597-A-1-A Lab Sample ID: 320-74597-1  
Client ID: BH20210604-2N-25  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

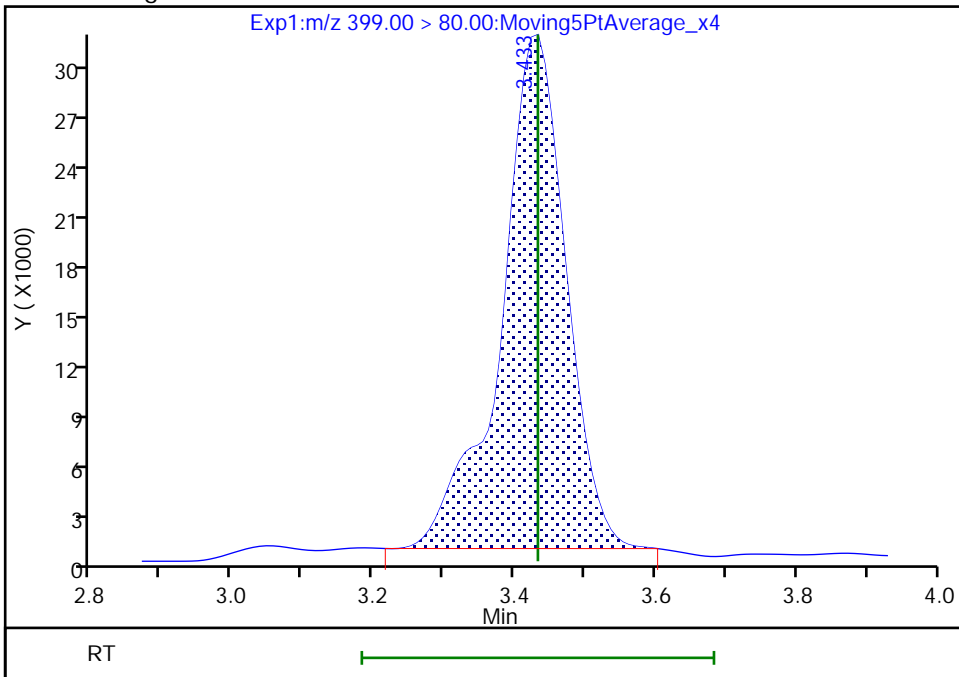
RT: 3.43  
Area: 212269  
Amount: 0.078922  
Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
Area: 194064  
Amount: 0.072154  
Amount Units: ng/ml

Manual Integration Results





Eurofins TestAmerica, Sacramento

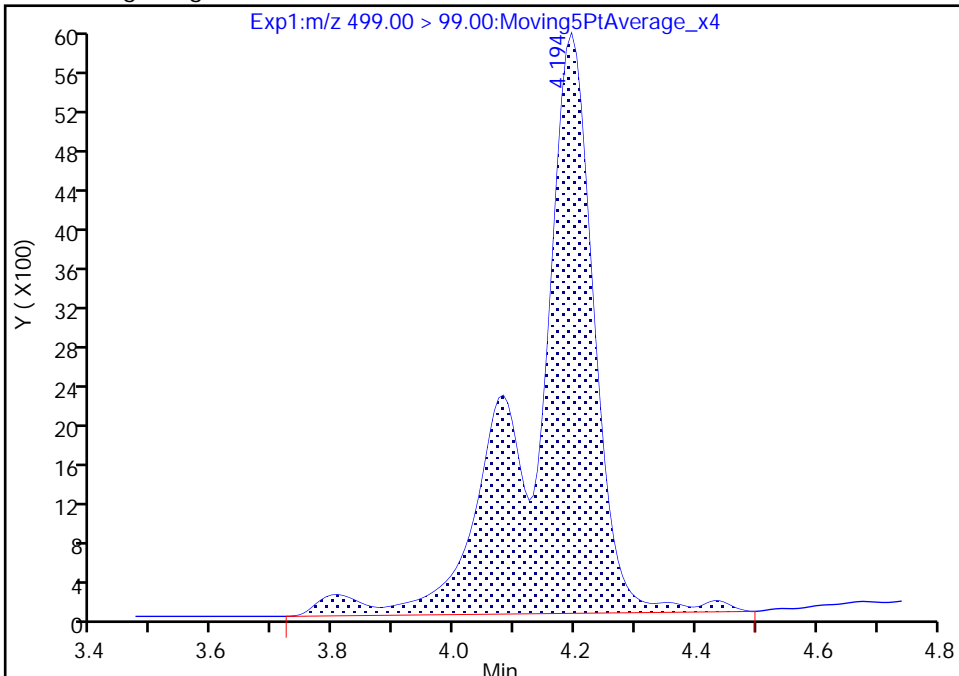
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_010.d		
Injection Date:	10-Jun-2021 05:15:17	Instrument ID:	A15
Lims ID:	320-74597-A-1-A	Lab Sample ID:	320-74597-1
Client ID:	BH20210604-2N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	4
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.0um)	Detector:	EXP1
		Worklist Smp#:	7

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

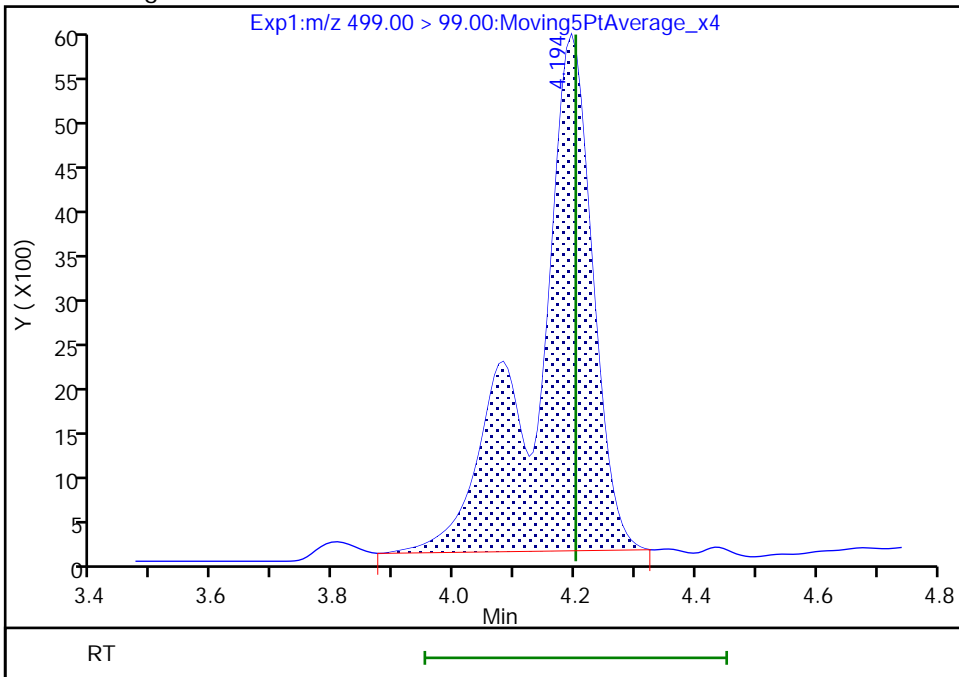
RT: 4.19  
 Area: 43347  
 Amount: 0.122827  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
 Area: 39246  
 Amount: 0.122827  
 Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

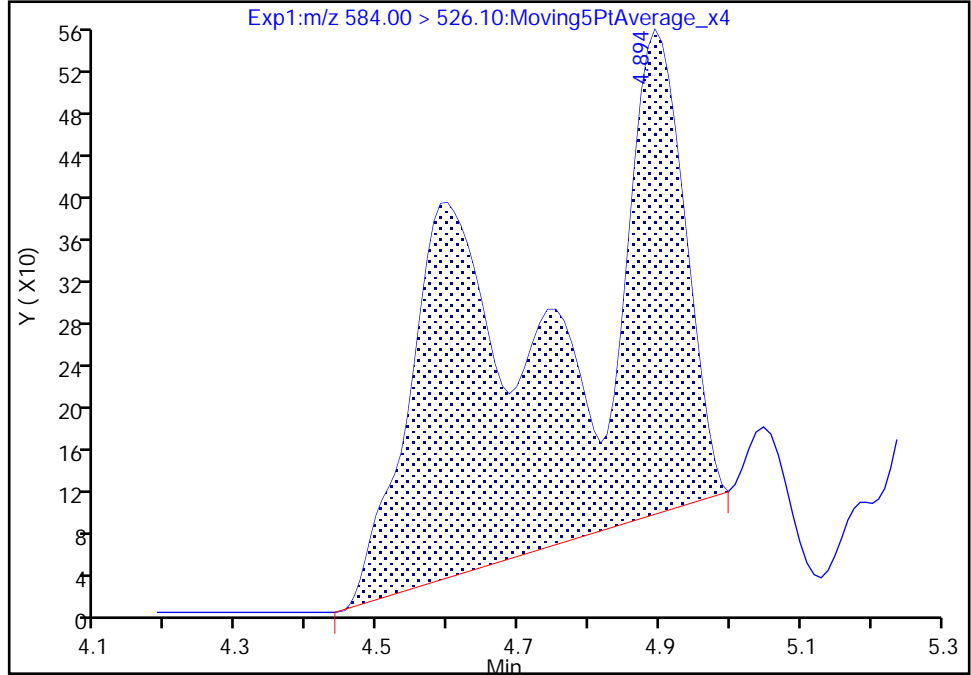
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_010.d		
Injection Date:	10-Jun-2021 05:15:17	Instrument ID:	A15
Lims ID:	320-74597-A-1-A	Lab Sample ID:	320-74597-1
Client ID:	BH20210604-2N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	4
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	7

84 NEtFOSAA, CAS: 2991-50-6

Signal: 2

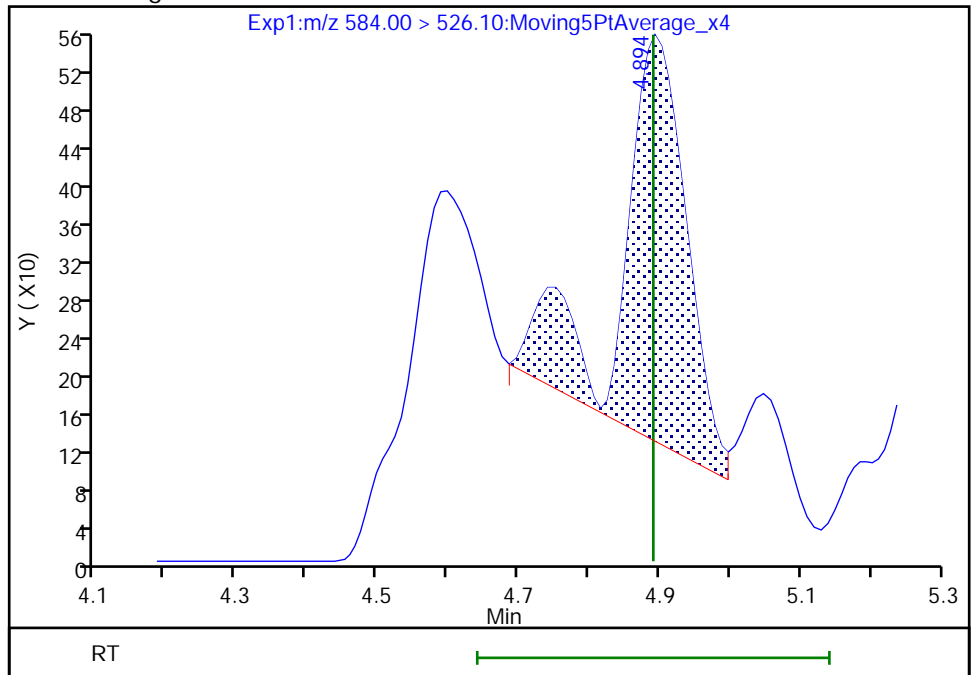
RT: 4.89  
 Area: 6720  
 Amount: 0.001059  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.89  
 Area: 2774  
 Amount: 0.001059  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-50 Lab Sample ID: 320-74597-2  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_011.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:54  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 275.5 (mL) Date Analyzed: 06/10/2021 05:24  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.6		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.0		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	2.0		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.0		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.5		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-50 Lab Sample ID: 320-74597-2  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_011.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:54  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 275.5 (mL) Date Analyzed: 06/10/2021 05:24  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	89		25-150
STL01893	13C5 PFPeA	100		25-150
STL00993	13C2 PFHxA	96		25-150
STL01892	13C4 PFHpA	99		25-150
STL00990	13C4 PFOA	97		25-150
STL00995	13C5 PFNA	95		25-150
STL00996	13C2 PFDA	94		25-150
STL00997	13C2 PFUnA	87		25-150
STL00998	13C2 PFDoA	100		25-150
STL02116	13C2 PFTeDA	90		25-150
STL02337	13C3 PFBS	101		25-150
STL00994	18O2 PFHxS	102		25-150
STL00991	13C4 PFOS	104		25-150
STL01056	13C8 FOSA	114		25-150
STL02118	d3-NMeFOSAA	98		25-150
STL02117	d5-NEtFOSAA	108		25-150
STL02279	M2-6:2 FTS	104		25-150
STL02280	M2-8:2 FTS	105		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
 Lims ID: 320-74597-A-2-A  
 Client ID: BH20210604-2N-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 05:24:23 ALS Bottle#: 5 Worklist Smp#: 8  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-2-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:43:00 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:43:00  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.310	2.319	-0.009	1.000	341209	0.0801			114	
D 9 13C4 PFBA										
217.00 > 172.00	2.310	2.319	-0.009	0.603	5632572	1.11		88.8	44833	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	501853	0.1001			160	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.691	5982131	1.25		99.9	39181	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.700	3910415	1.17		101	10680	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.693	-0.010	1.000	129351	0.0340	Target=2.41		114	M
298.90 > 99.00	2.683	2.693	-0.010	1.000	52198		2.48(1.20-3.61)		79.3	M
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	419035	0.0820	Target=13.85		354	
313.00 > 119.00	3.019	3.019	0.0	1.000	26580		15.77(6.92-20.77)		205	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	5704544	1.20		96.2	69534	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	183630	0.0374	Target=3.98		227	
363.00 > 169.00	3.433	3.433	0.0	1.000	44734		4.10(1.99-5.97)		461	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	148320	0.0552	Target=3.33		549	M
399.00 > 99.00	3.433	3.433	0.0	1.000	40547		3.66(1.66-4.99)		347	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.896	2870759	1.21		102	52799	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.896	5802767	1.24		99.4	44528	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										M
427.00 > 407.00	3.815	3.814	0.001	1.000	14378	0.006220	Target=2.13	72.9		
427.00 > 79.96	3.815	3.814	0.001	1.000	8057		1.78(1.07-3.20)	27.2		M
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1332573	1.24		104	8959	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.834	3.834	0.0	1.000	297710	0.0551	Target=2.90	407		M
413.00 > 169.00	3.834	3.834	0.0	1.000	106657		2.79(1.45-4.35)	898		M
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6361465	1.25			47580	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6457021	1.22		97.3	74939	
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.080	4.201	-0.121	0.971	149963	0.0692	Target=5.77	568		M
499.00 > 99.00	4.194	4.201	-0.007	0.998	19274		7.78(2.88-8.65)	95.8		M
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2301606	1.24		104	22308	
D 63 13C5 PFNA										
468.00 > 423.00	4.217	4.217	0.0	1.100	6041262	1.19		95.3	96879	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.000	40351	0.008432	Target=8.24	93.5		
463.00 > 169.00	4.217	4.217	0.0	1.000	6020		6.70(4.12-12.36)	86.6		
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	4462962	1.42		114	54040	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.541	4.532	0.009	1.002	9201	0.002567			163	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.569	4.559	0.010	1.002	37409	0.007707	Target=8.21	149		
513.00 > 169.00	4.569	4.559	0.010	1.002	4219		8.87(4.10-12.31)	63.4		
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	5934999	1.17		93.6	56211	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.569	0.0	1.192	2112034	1.25		105	21182	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2609999	1.22		97.5	16007	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5319568	1.09		87.0	70484	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2866995	1.35		108	33334	
D 97 13C2 PFDaA										
615.00 > 570.00	5.156	5.156	0.0	1.345	6609514	1.25		100.0	90733	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.658	0.0	1.476	5469395	1.12		89.8	65213	
105 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.658	5.658	0.0	1.000	1144	0.002127	Target=1.03	34.0		M
713.00 > 219.00	5.649	5.658	-0.009	0.998	1087		1.05(0.51-1.54)	43.2		

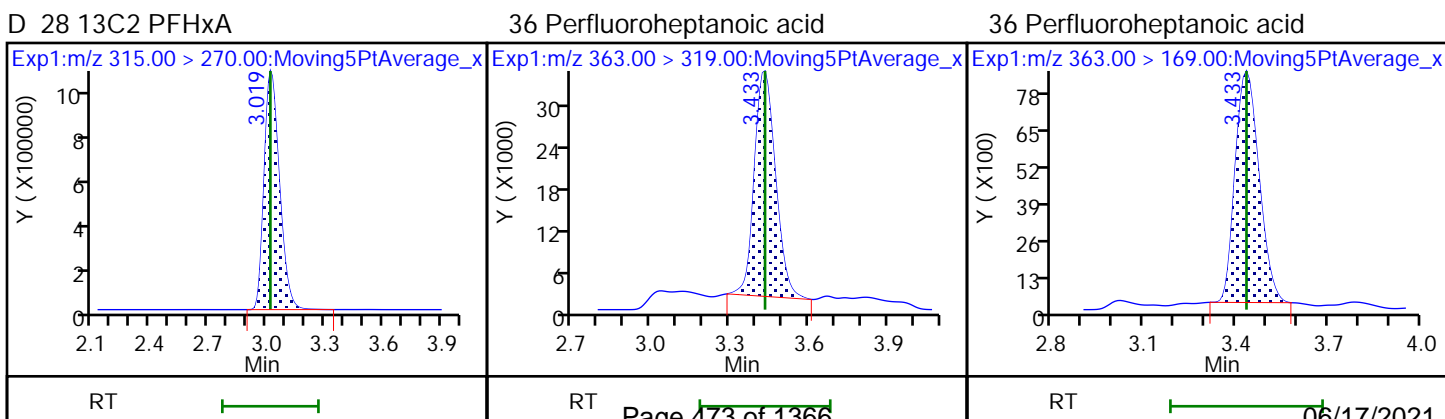
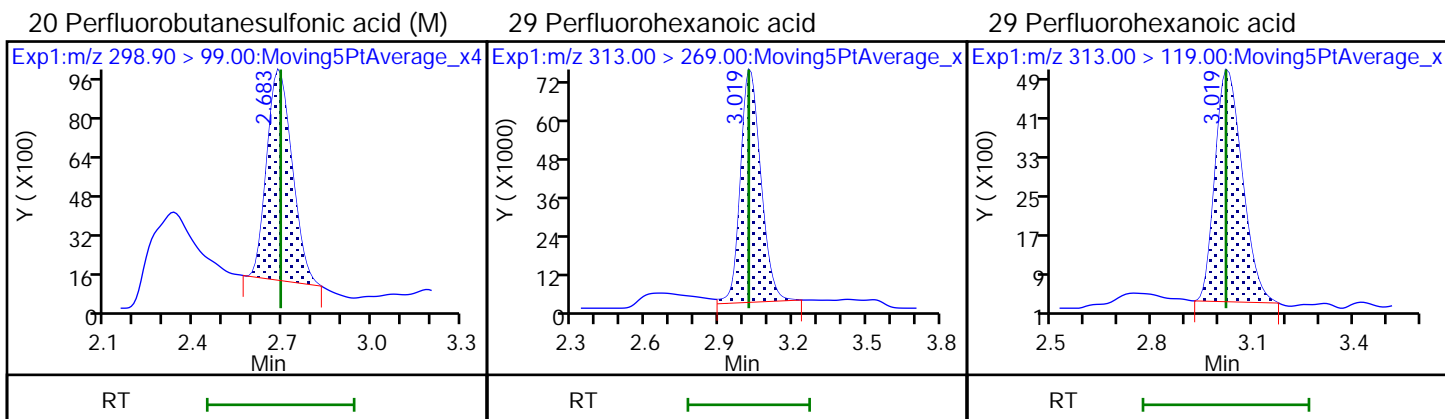
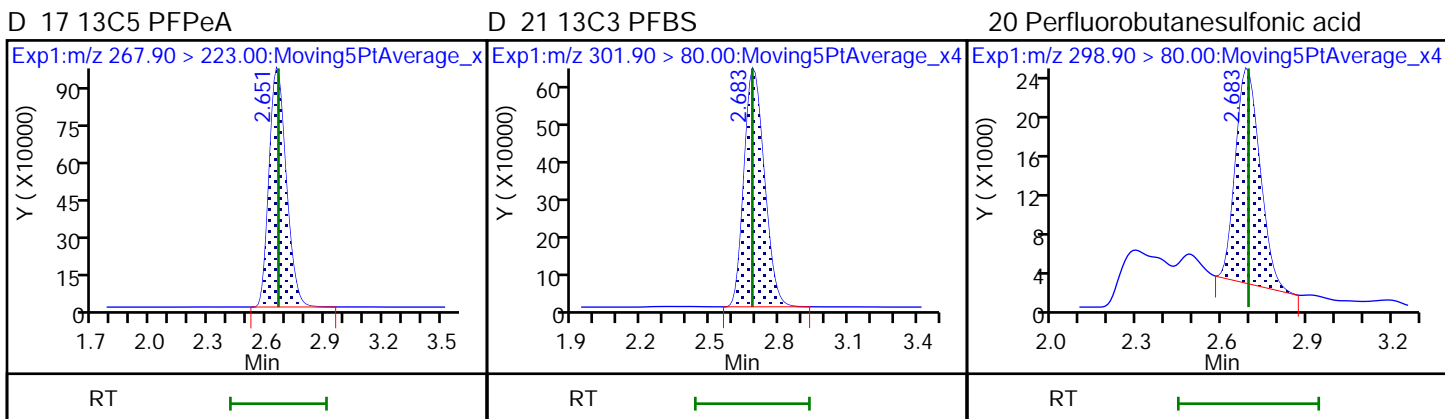
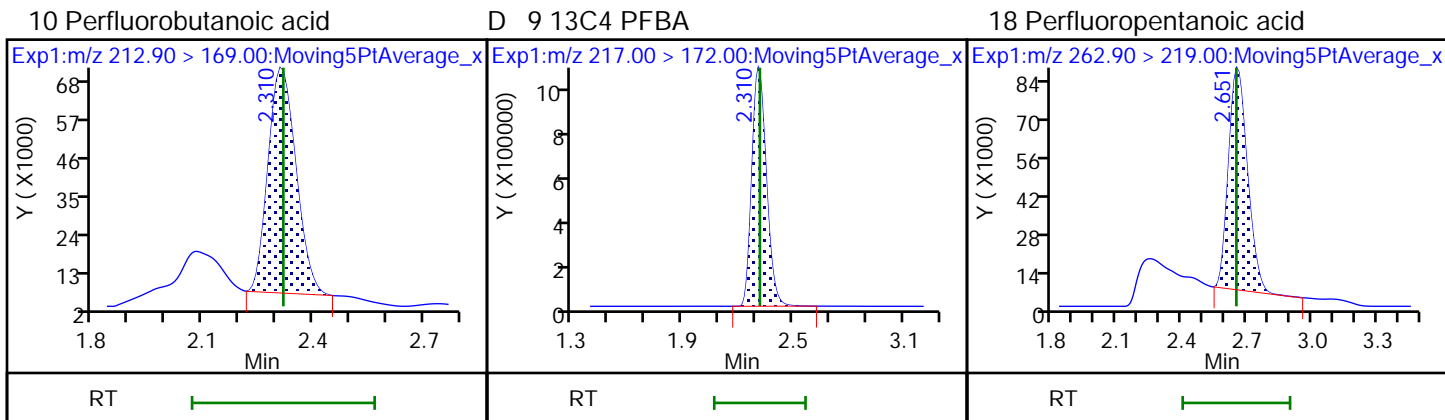
[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
 Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
 Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
 Client ID: BH20210604-2N-50  
 Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL

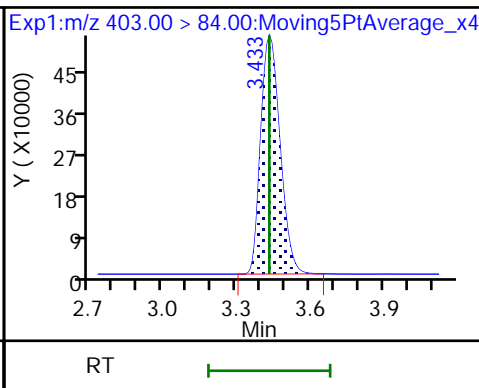
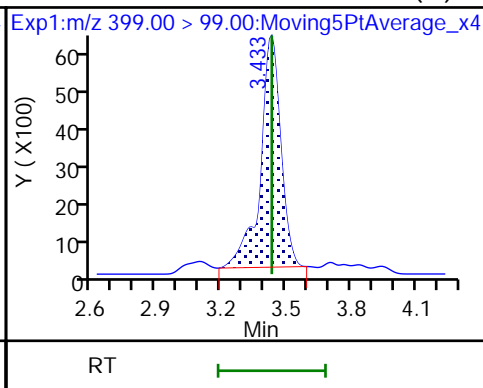
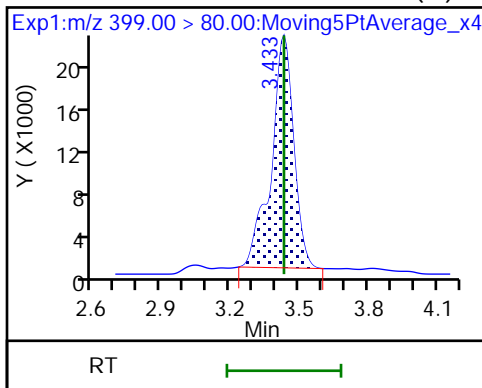




39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid (M)

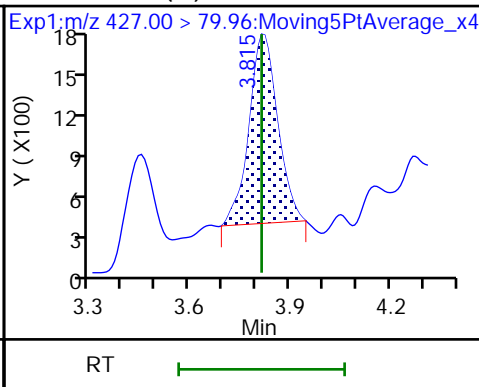
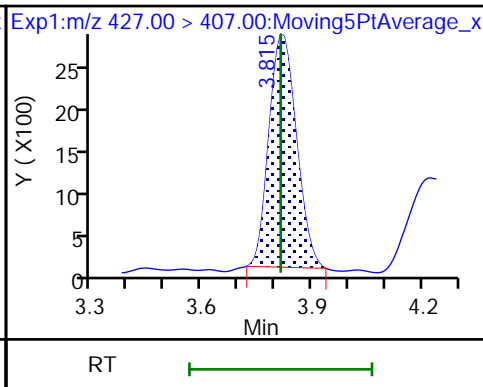
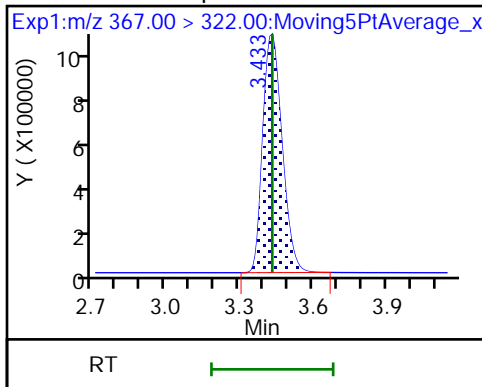
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS

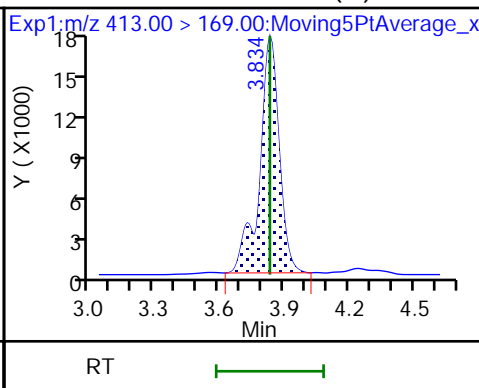
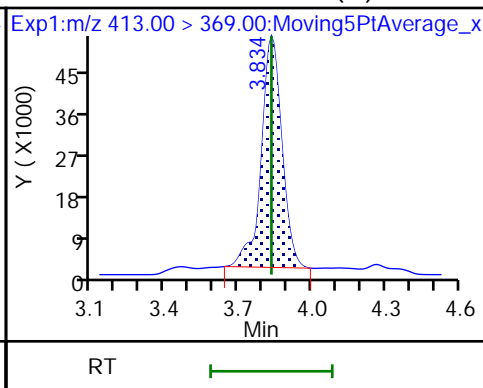
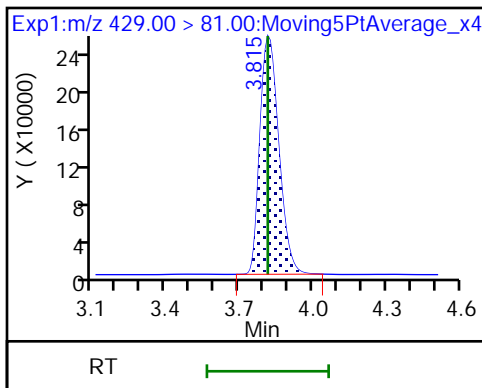
53 6:2 FTS (M)



D 52 M2-6:2 FTS

58 Perfluorooctanoic acid (M)

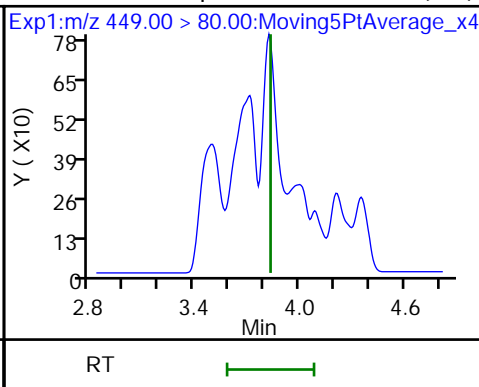
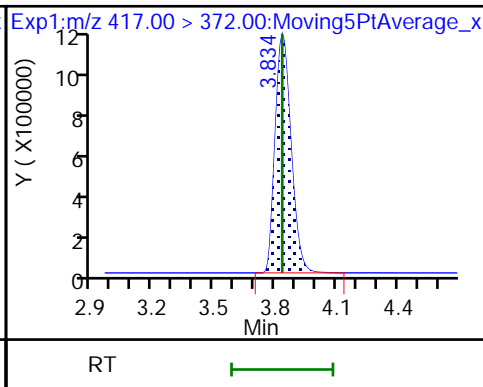
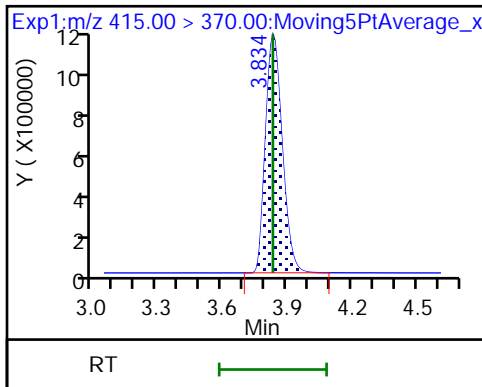
58 Perfluorooctanoic acid (M)



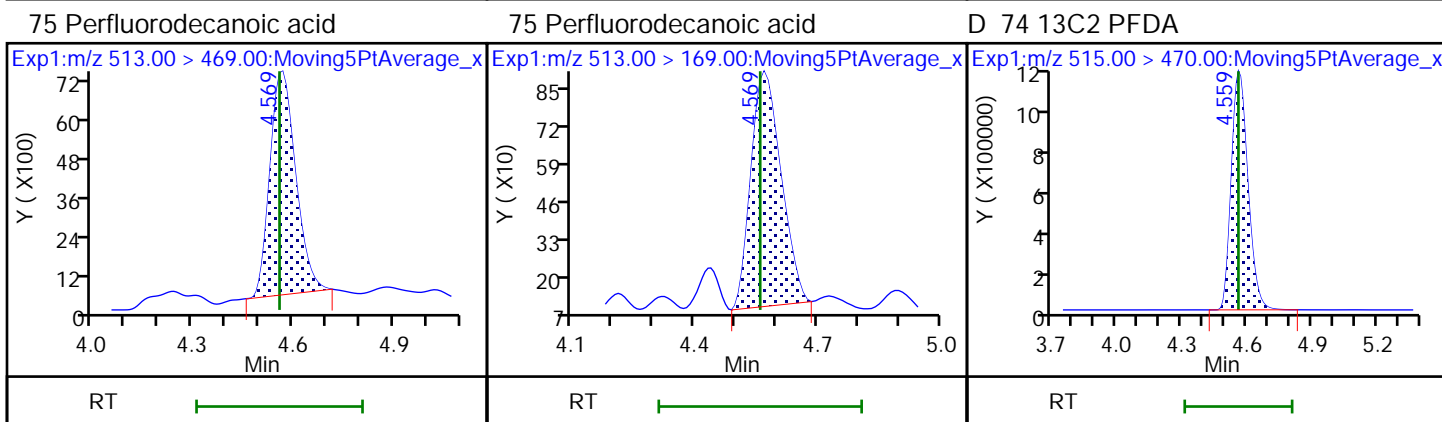
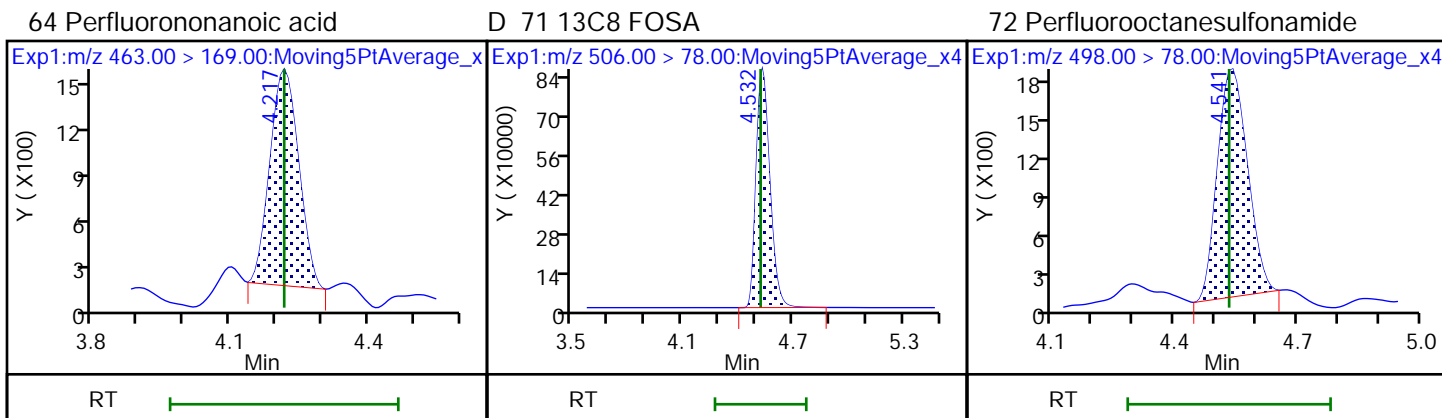
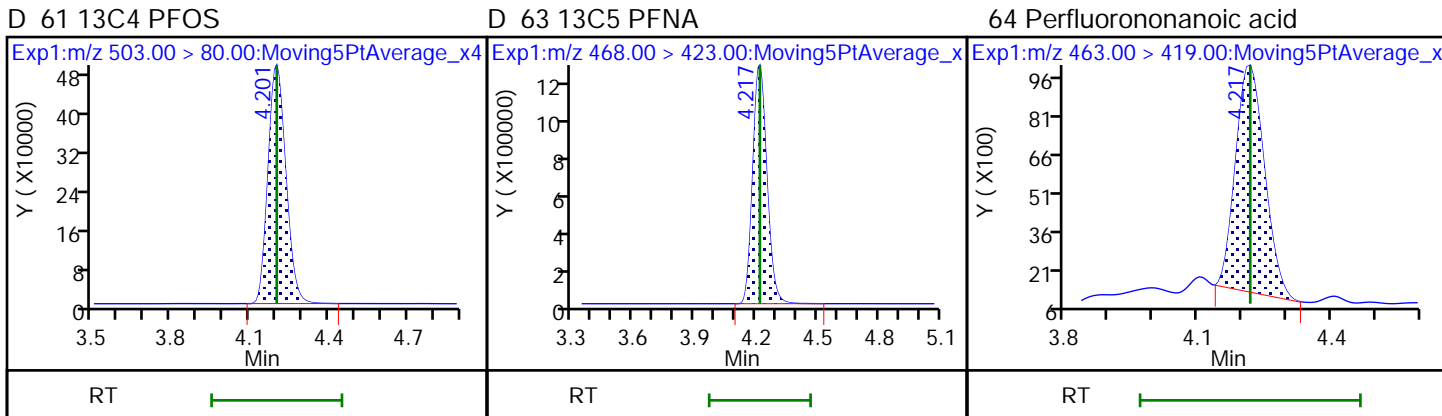
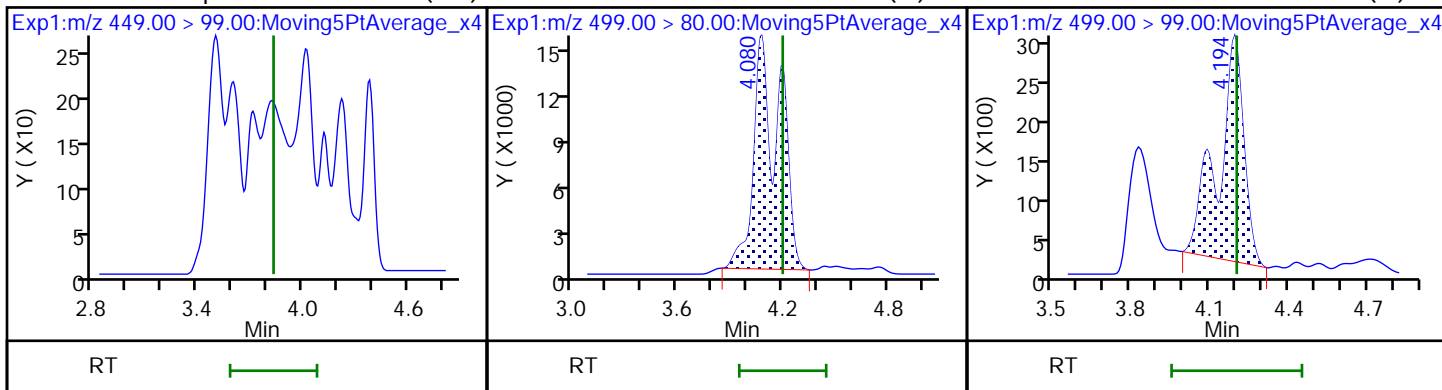
\* 57 13C2 PFOA

D 56 13C4 PFOA

54 Perfluoroheptanesulfonic acid (ND)



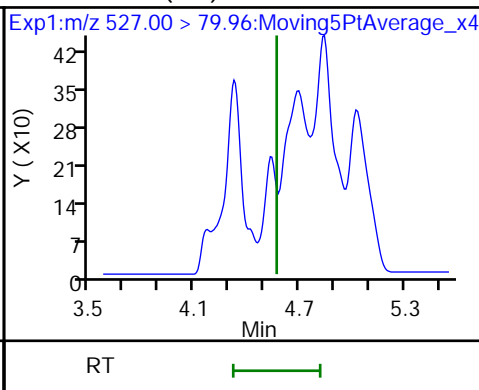
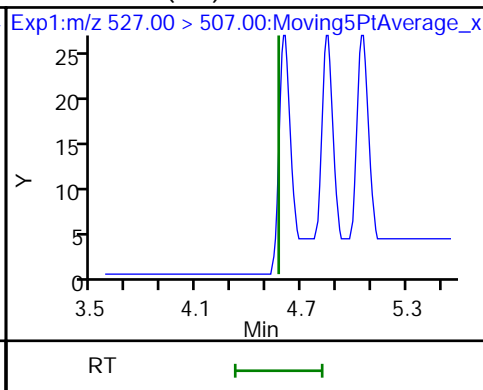
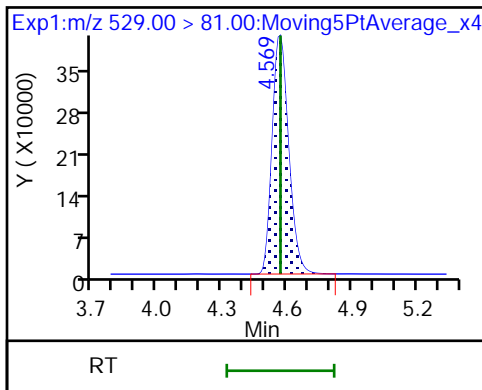
54 Perfluoroheptanesulfonic acid (ND) 62 Perfluorooctanesulfonic acid (M) 62 Perfluorooctanesulfonic acid (M)



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

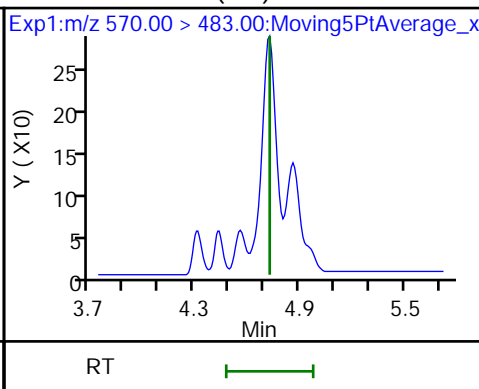
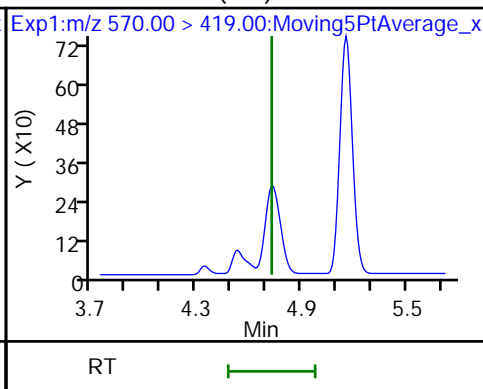
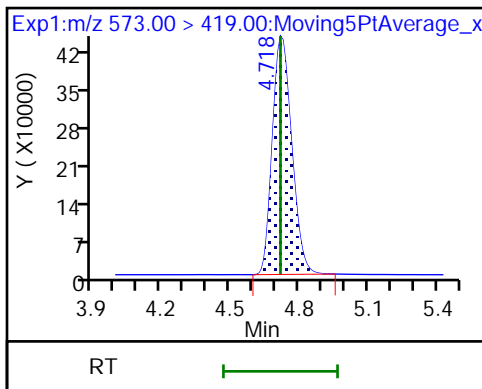
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

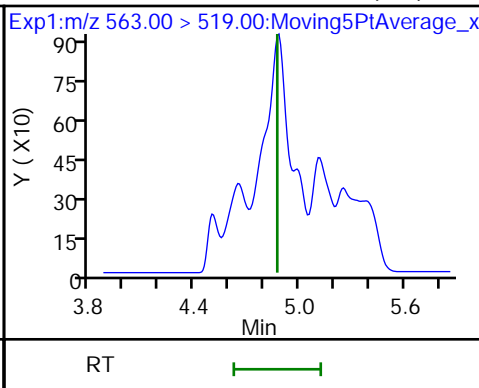
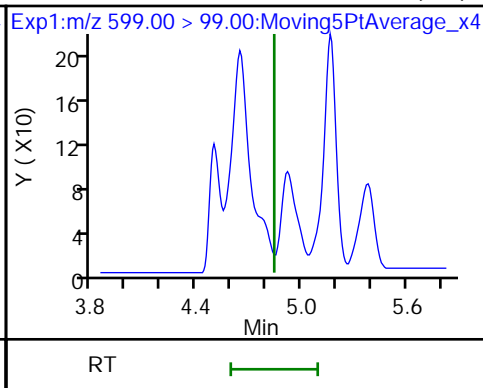
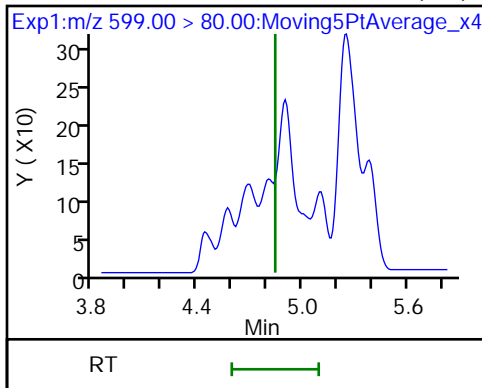
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

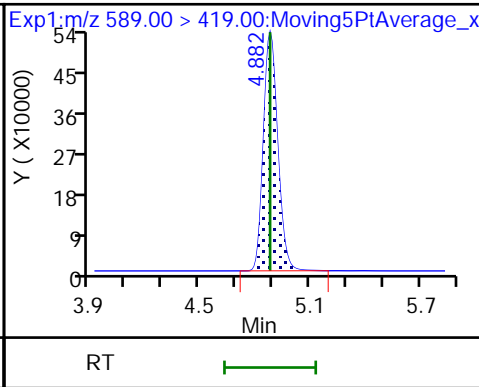
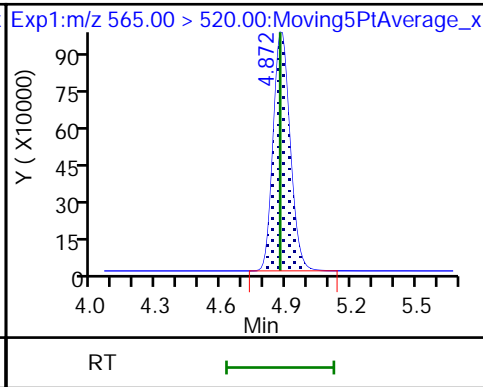
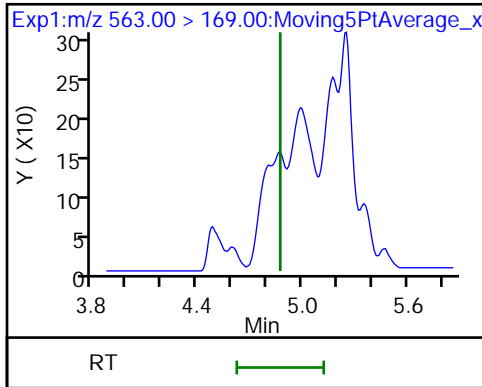
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

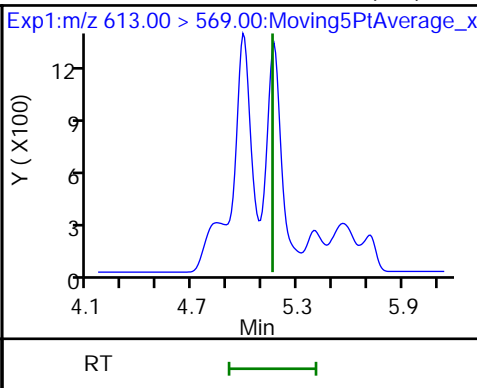
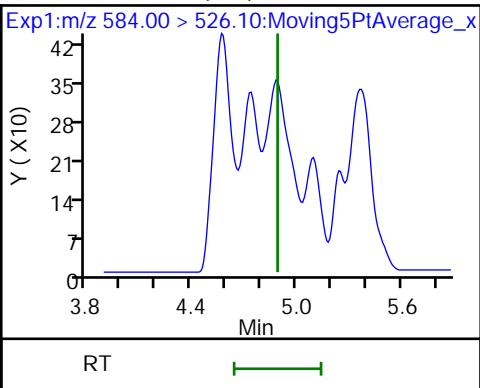
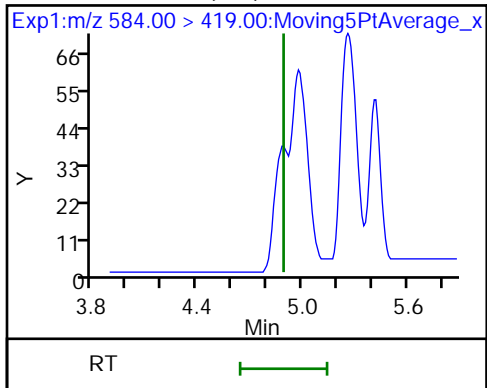
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

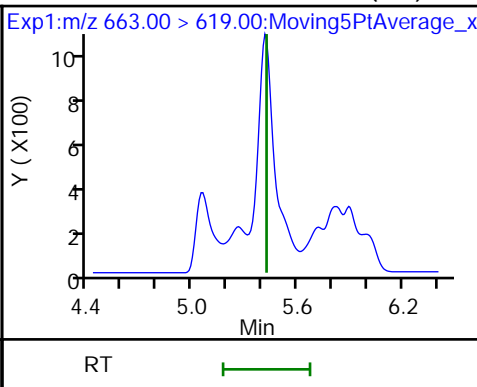
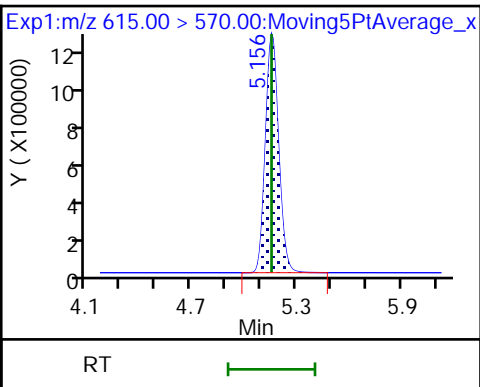
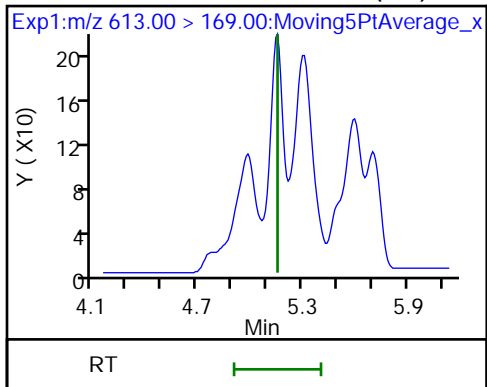
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

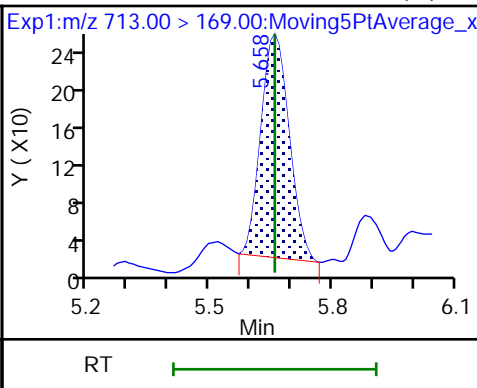
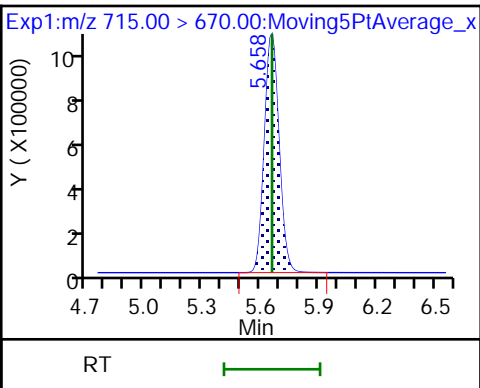
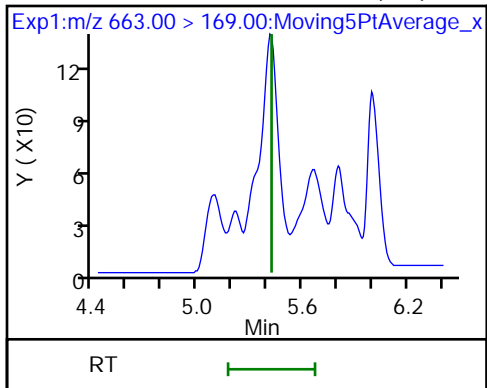
103 Perfluorotridecanoic acid (ND)



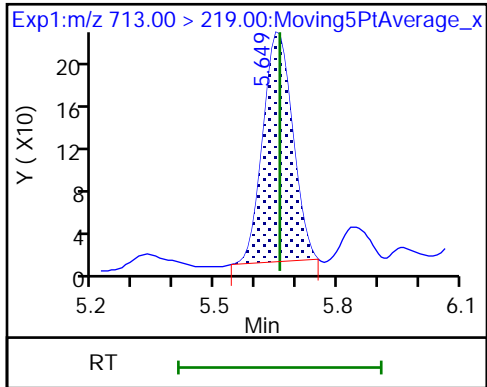
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

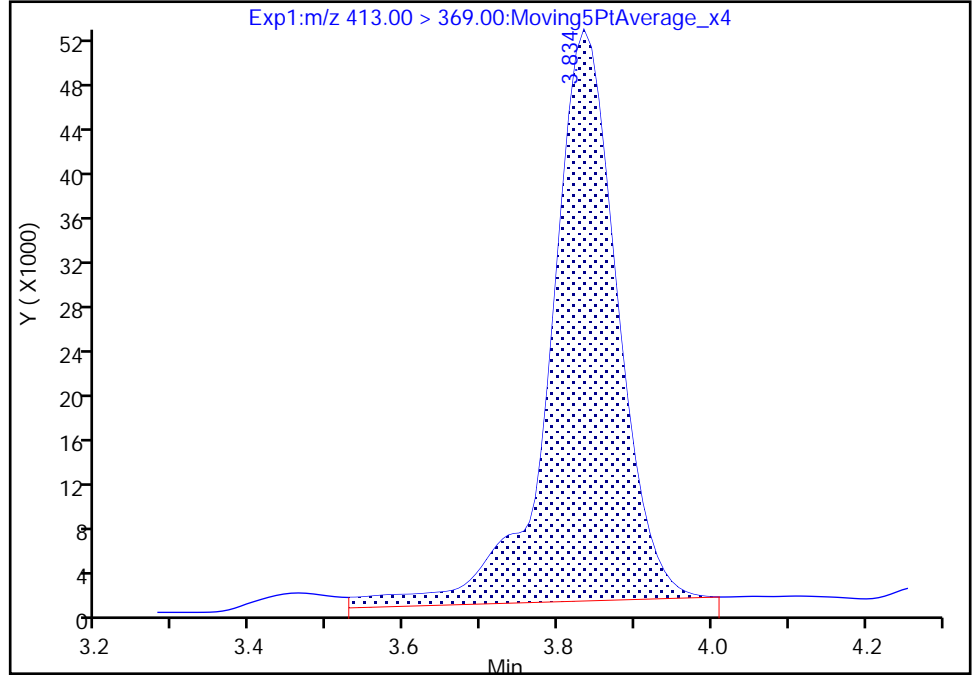
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

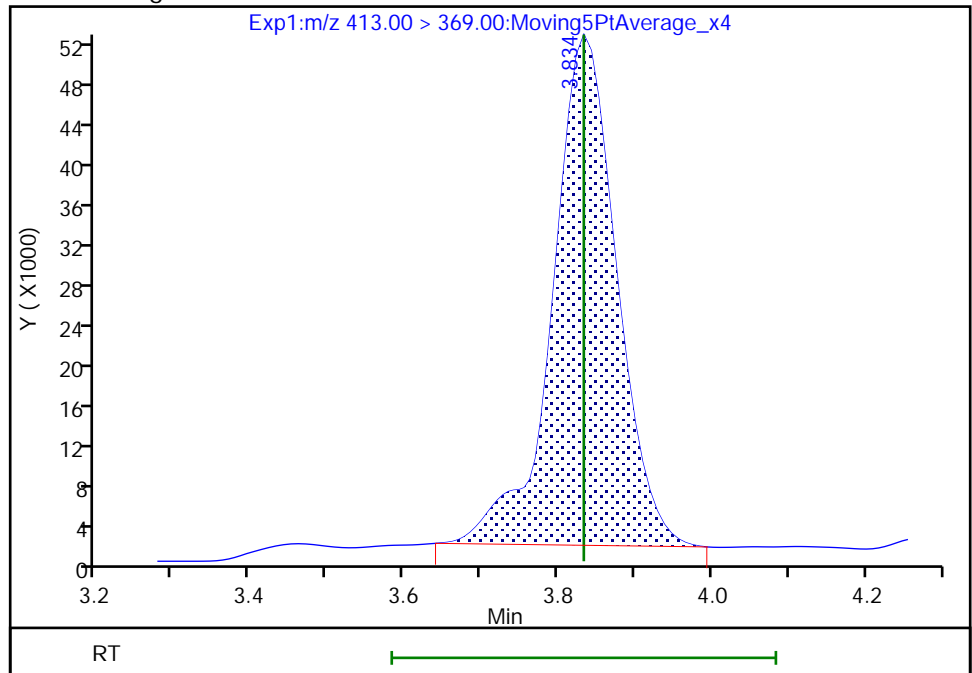
RT: 3.83  
Area: 317981  
Amount: 0.058905  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 297710  
Amount: 0.055150  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

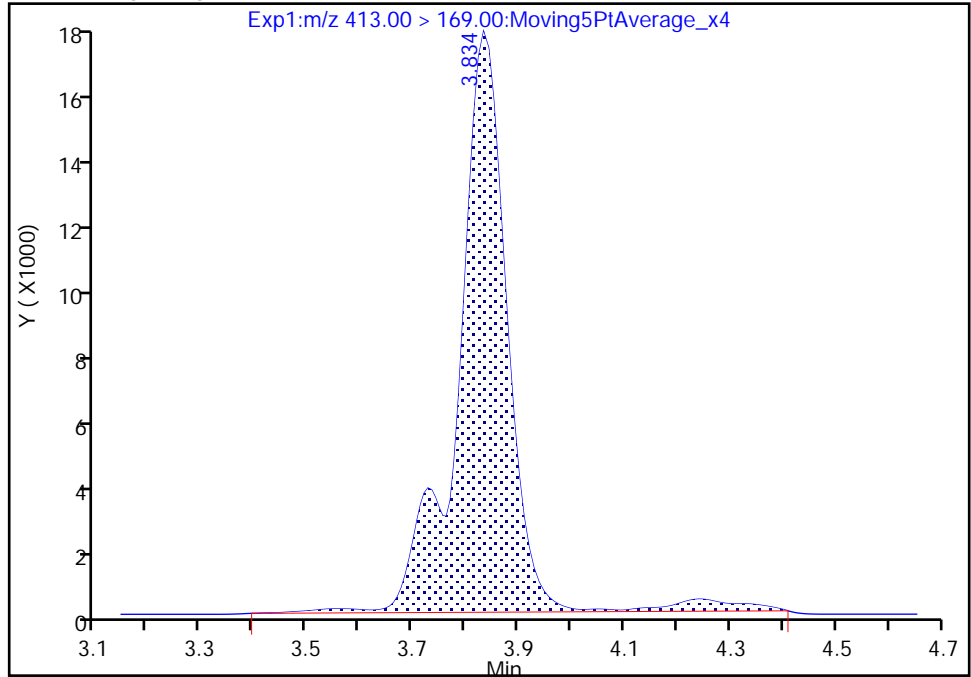
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

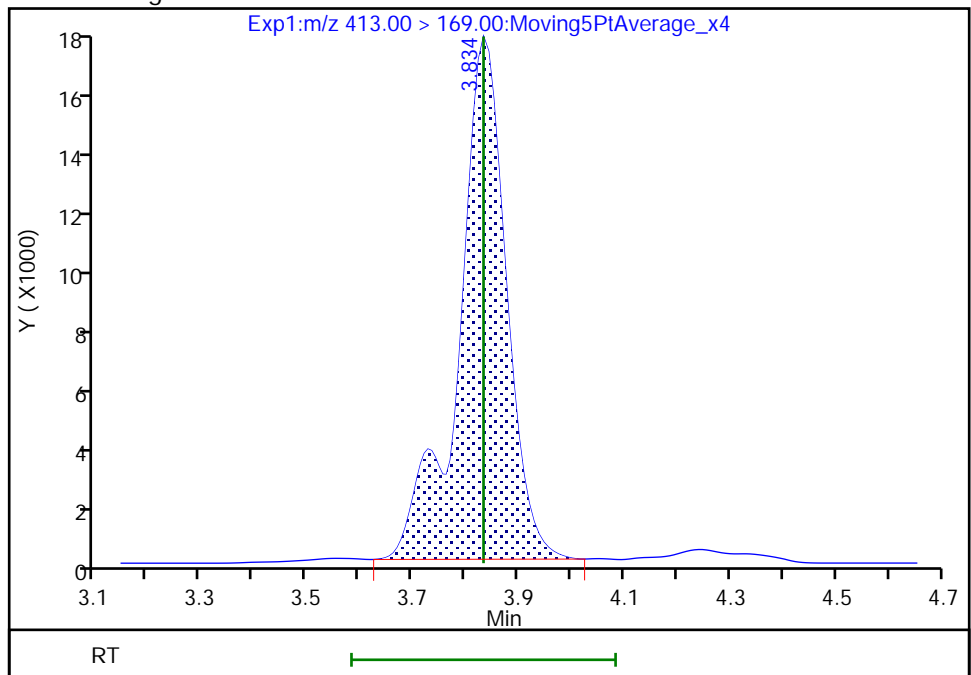
RT: 3.83  
Area: 112834  
Amount: 0.058905  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 106657  
Amount: 0.055150  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:42:32

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

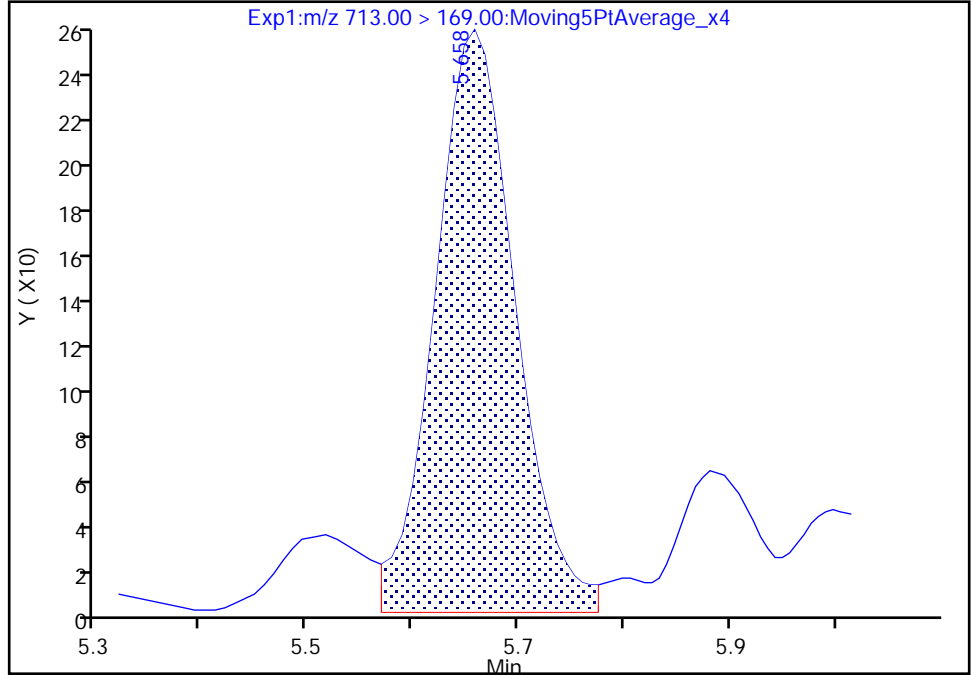
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

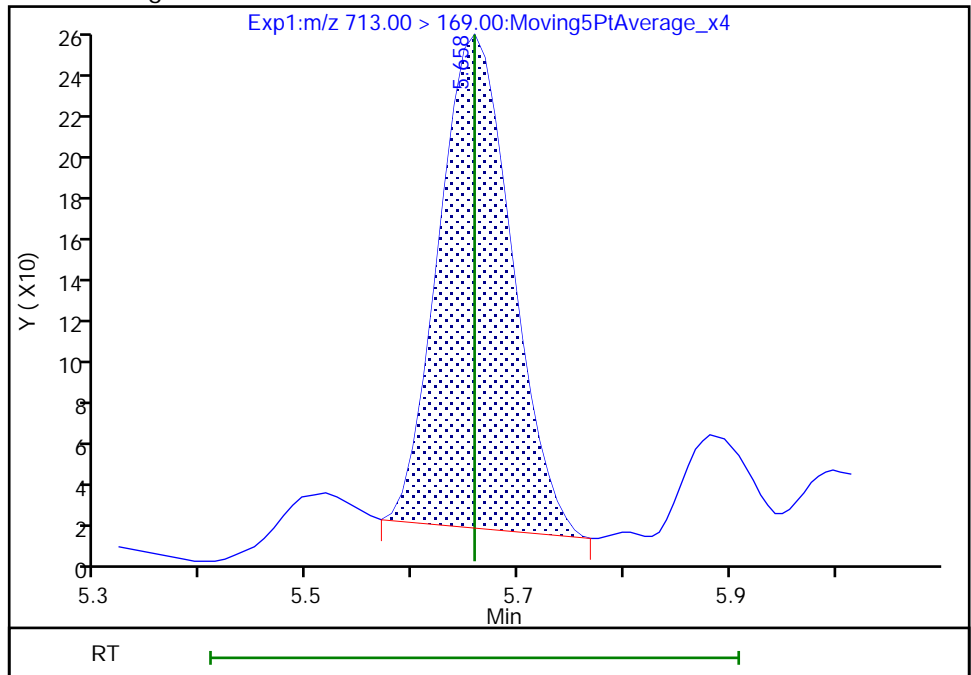
RT: 5.66  
Area: 1345  
Amount: 0.002501  
Amount Units: ng/ml

Processing Integration Results



RT: 5.66  
Area: 1144  
Amount: 0.002127  
Amount Units: ng/ml

Manual Integration Results



Euofins TestAmerica, Sacramento

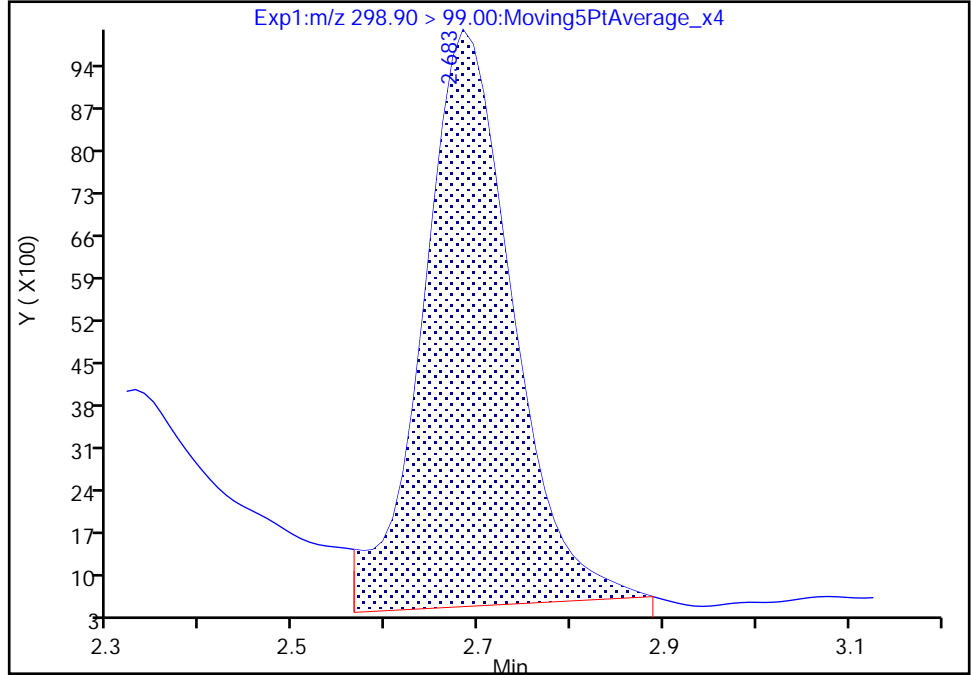
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_011.d		
Injection Date:	10-Jun-2021 05:24:23	Instrument ID:	A15
Lims ID:	320-74597-A-2-A	Lab Sample ID:	320-74597-2
Client ID:	BH20210604-2N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	8

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

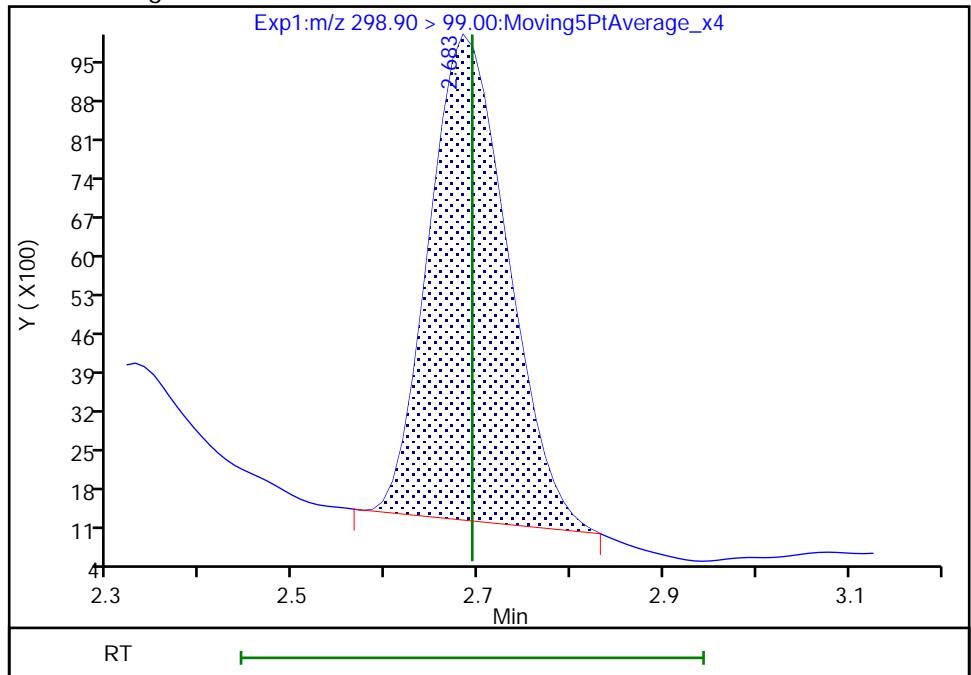
RT: 2.68  
 Area: 64177  
 Amount: 0.034008  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
 Area: 52198  
 Amount: 0.034008  
 Amount Units: ng/ml

Manual Integration Results





Eurofins TestAmerica, Sacramento

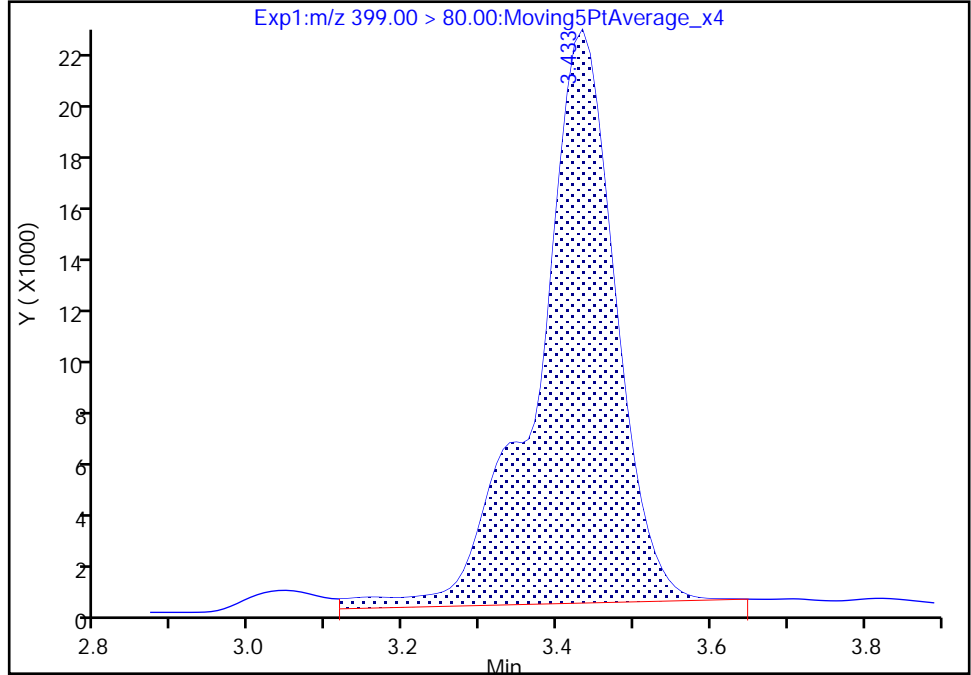
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

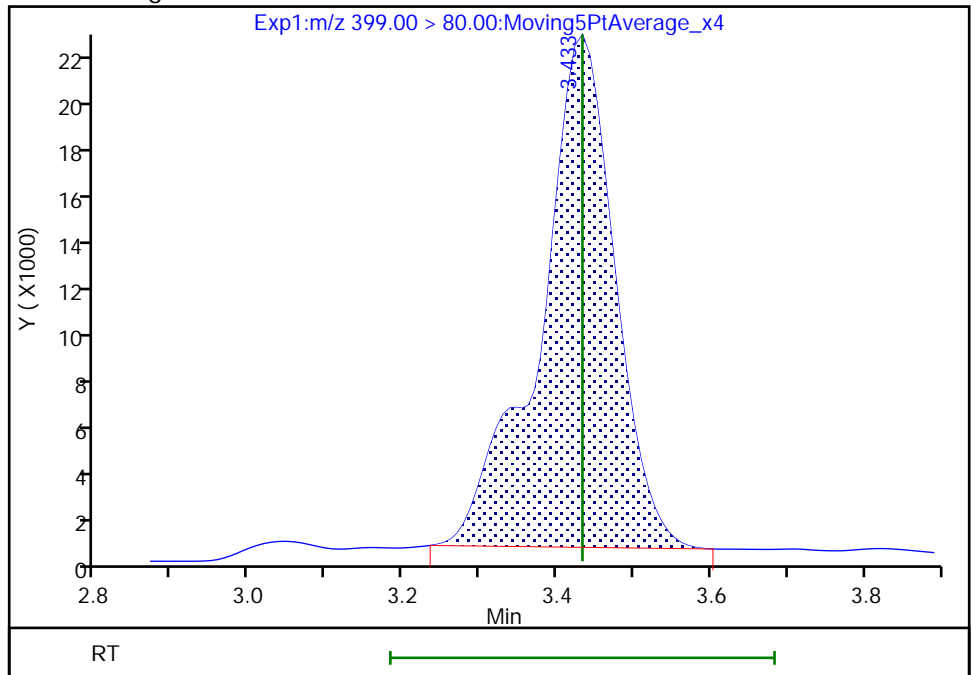
RT: 3.43  
Area: 156764  
Amount: 0.058395  
Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
Area: 148320  
Amount: 0.055250  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

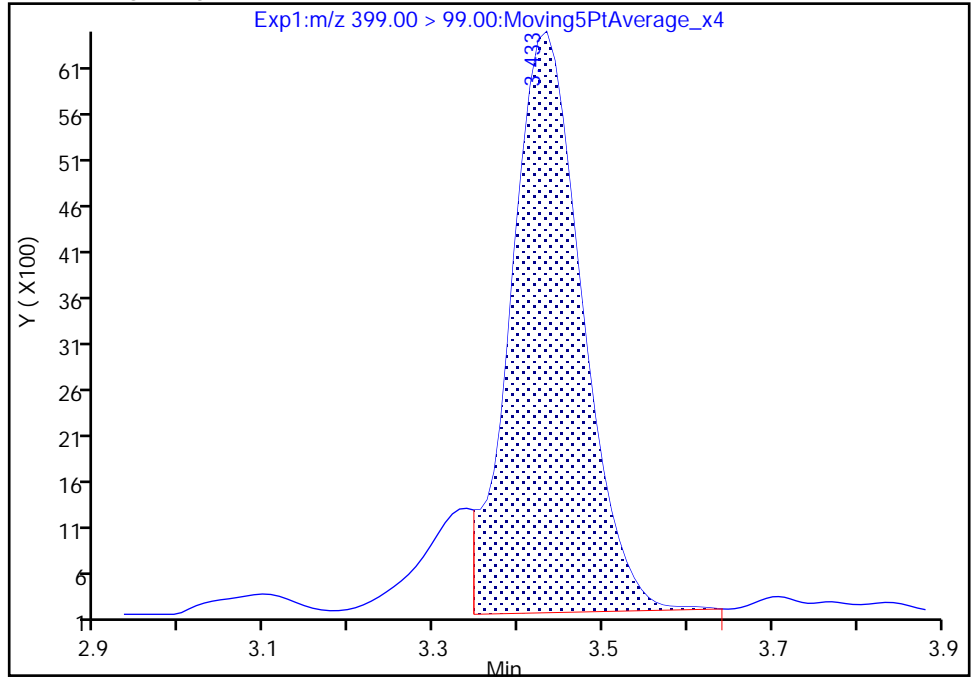
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

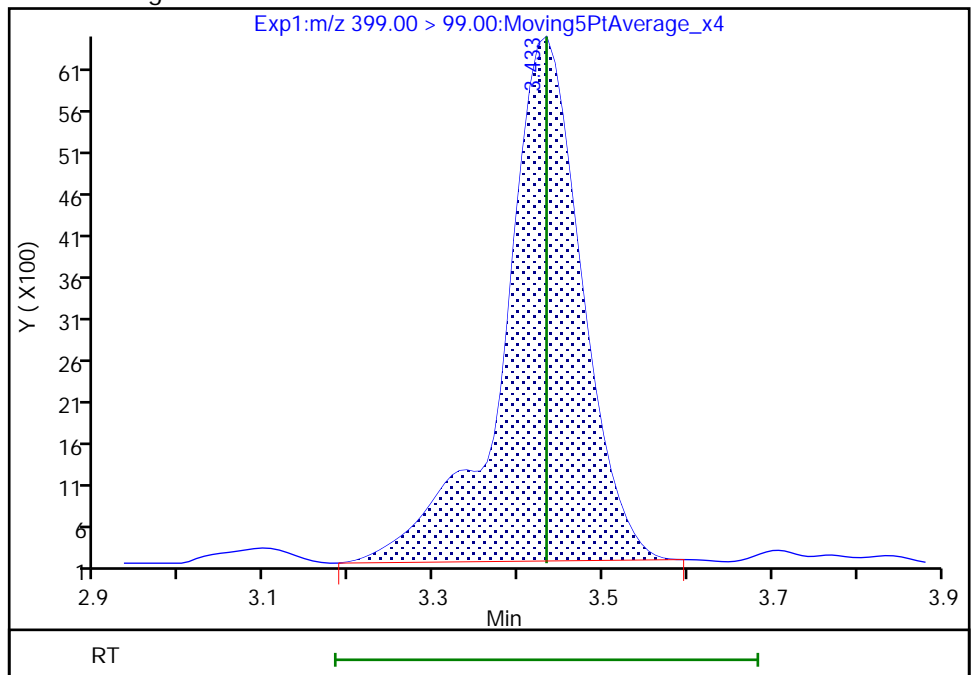
RT: 3.43  
Area: 36766  
Amount: 0.058395  
Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
Area: 40547  
Amount: 0.055250  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

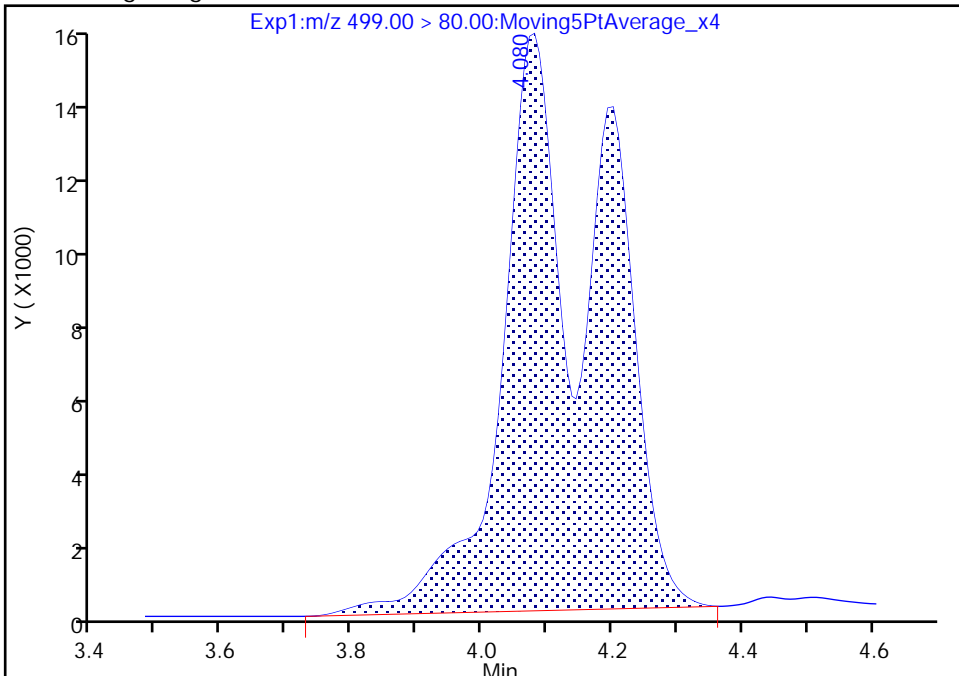
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_011.d  
Injection Date: 10-Jun-2021 05:24:23 Instrument ID: A15  
Lims ID: 320-74597-A-2-A Lab Sample ID: 320-74597-2  
Client ID: BH20210604-2N-50  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

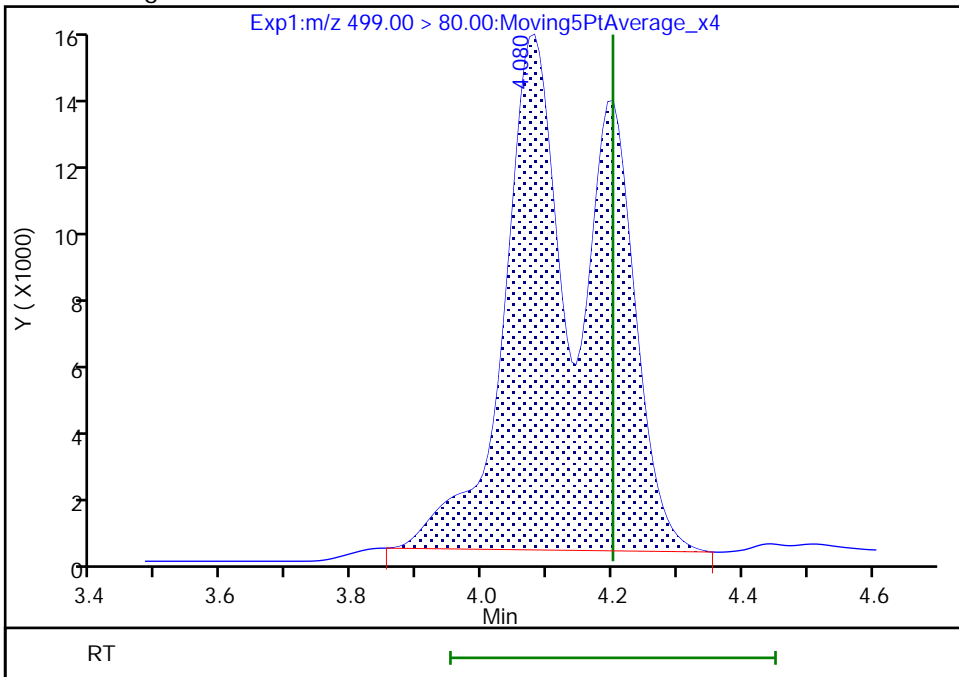
RT: 4.08  
Area: 156154  
Amount: 0.072062  
Amount Units: ng/ml

Processing Integration Results



RT: 4.08  
Area: 149963  
Amount: 0.069205  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:42:39  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

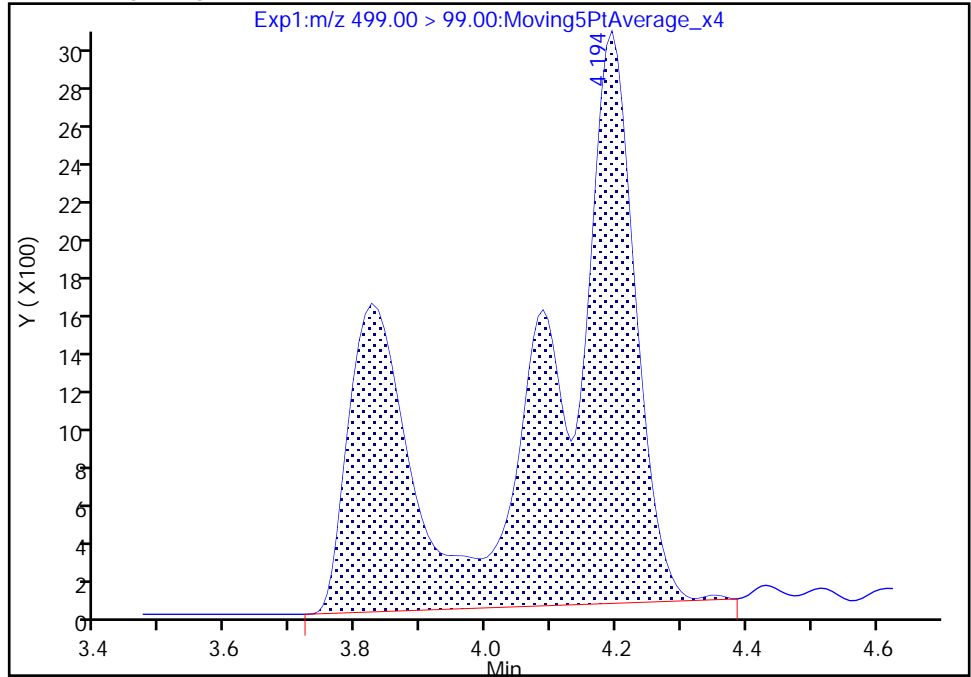
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_011.d		
Injection Date:	10-Jun-2021 05:24:23	Instrument ID:	A15
Lims ID:	320-74597-A-2-A	Lab Sample ID:	320-74597-2
Client ID:	BH20210604-2N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	8

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

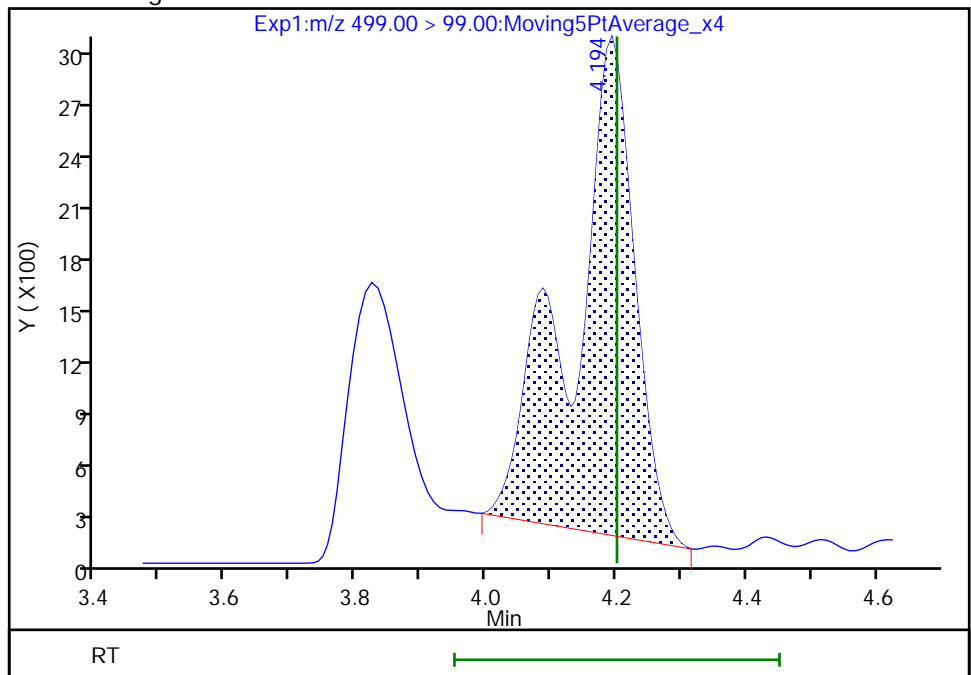
RT: 4.19  
 Area: 32586  
 Amount: 0.072062  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
 Area: 19274  
 Amount: 0.069205  
 Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

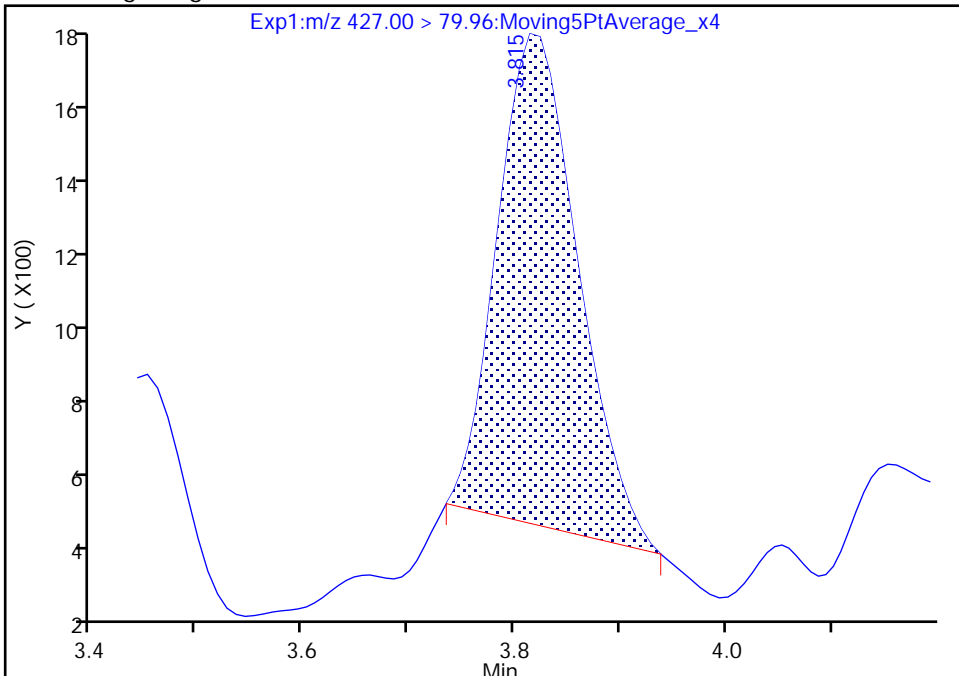
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_011.d		
Injection Date:	10-Jun-2021 05:24:23	Instrument ID:	A15
Lims ID:	320-74597-A-2-A	Lab Sample ID:	320-74597-2
Client ID:	BH20210604-2N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

53 6:2 FTS, CAS: 27619-97-2

Signal: 2

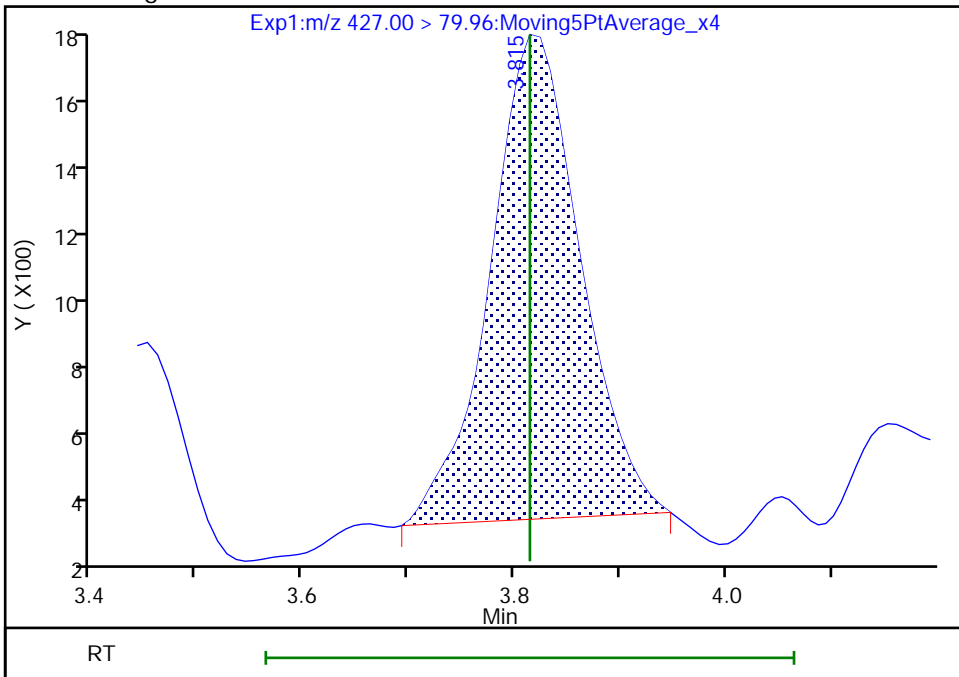
RT: 3.81  
 Area: 6621  
 Amount: 0.006220  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.81  
 Area: 8057  
 Amount: 0.006220  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:42:22  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-75 Lab Sample ID: 320-74597-3  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_012.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:55  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 278.7 (mL) Date Analyzed: 06/10/2021 05:33  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.3		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.2		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2N-75 Lab Sample ID: 320-74597-3  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_012.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:55  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 278.7 (mL) Date Analyzed: 06/10/2021 05:33  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	89		25-150
STL01893	13C5 PFPeA	92		25-150
STL00993	13C2 PFHxA	96		25-150
STL01892	13C4 PFHpA	100		25-150
STL00990	13C4 PFOA	95		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	96		25-150
STL00997	13C2 PFUnA	94		25-150
STL00998	13C2 PFDoA	103		25-150
STL02116	13C2 PFTeDA	90		25-150
STL02337	13C3 PFBS	97		25-150
STL00994	18O2 PFHxS	102		25-150
STL00991	13C4 PFOS	99		25-150
STL01056	13C8 FOSA	106		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	111		25-150
STL02279	M2-6:2 FTS	154	*5+	25-150
STL02280	M2-8:2 FTS	115		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
 Lims ID: 320-74597-A-3-A  
 Client ID: BH20210604-2N-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 05:33:33 ALS Bottle#: 6 Worklist Smp#: 9  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-3-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:44:15 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:44:15  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	360472	0.0843			149	
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	5653015	1.11		89.1	40670	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	417766	0.0909			165	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.691	5484091	1.14		91.5	31984	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.700	3768887	1.13		97.0	13728	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.693	-0.010	1.000	78773	0.0215	Target=2.41		91.9	
298.90 > 99.00	2.683	2.693	-0.010	1.000	34122		2.31(1.20-3.61)		57.6	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	309498	0.0604	Target=13.85		318	
313.00 > 119.00	3.019	3.019	0.0	1.000	18767		16.49(6.92-20.77)		142	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	5714951	1.20		96.4	47480	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.424	3.433	-0.009	1.000	123087	0.0250	Target=3.98		166	
363.00 > 169.00	3.424	3.433	-0.009	1.000	33198		3.71(1.99-5.97)		406	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.424	3.433	-0.009	0.997	71403	0.0267	Target=3.33		313	M
399.00 > 99.00	3.433	3.433	0.0	1.000	19004		3.76(1.66-4.99)		158	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2856592	1.20		102	58432	
D 37 13C4 PFHpA										
367.00 > 322.00	3.424	3.433	-0.009	0.893	5818368	1.25		99.7	76801	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										R
427.00 > 407.00	3.816	3.814	0.002	1.000	7333	0.002144	Target=2.13	31.7		R
427.00 > 79.96	3.816	3.814	0.002	1.000	6939		1.06(1.07-3.20)	23.7		
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.814	0.002	0.995	1971473	1.83		154	18001	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		6362895	1.25			65040	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.835	3.834	0.001	1.000	164085	0.0310	Target=2.90	225		M
413.00 > 169.00	3.835	3.834	0.001	1.000	62772		2.61(1.45-4.35)	581		M
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6327450	1.19		95.3	73396	
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.074	4.201	-0.127	0.971	60005	0.0290	Target=5.77	253		M
499.00 > 99.00	4.186	4.201	-0.015	0.998	10541		5.69(2.88-8.65)	27.5		M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.094	2194492	1.18		98.7	20160	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.217	-0.007	1.098	6475109	1.28		102	64707	
64 Perfluorononanoic acid										
463.00 > 419.00	4.210	4.217	-0.007	1.000	15452	0.003013	Target=8.24	39.7		
463.00 > 169.00	4.210	4.217	-0.007	1.000	2091		7.39(4.12-12.36)	34.2		
D 71 13C8 FOSA										
506.00 > 78.00	4.533	4.523	0.010	1.182	4147883	1.32		106	53359	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.533	4.532	0.001	1.000	10548	0.003166			233	
75 Perfluorodecanoic acid										R
513.00 > 469.00	4.561	4.559	0.002	1.000	35342	0.007071	Target=8.21	172		R
513.00 > 169.00	4.552	4.559	-0.007	0.998	2819		12.54(4.10-12.31)	41.6		
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	6111266	1.20		96.4	89688	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.569	-0.008	1.189	2324145	1.38		115	26220	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.231	2676587	1.25		100.0	24058	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	5741233	1.17		93.9	90621	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.874	4.882	-0.008	1.271	2951552	1.39		111	22520	
D 97 13C2 PFDaA										
615.00 > 570.00	5.158	5.156	0.002	1.345	6837484	1.29		103	87417	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.658	-0.007	1.474	5472333	1.12		89.8	55468	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.651	5.658	-0.007	1.000	1363	0.002533	Target=1.03	37.5		
713.00 > 219.00	5.651	5.658	-0.007	1.000	996		1.37(0.51-1.54)	33.3		

**QC Flag Legend**

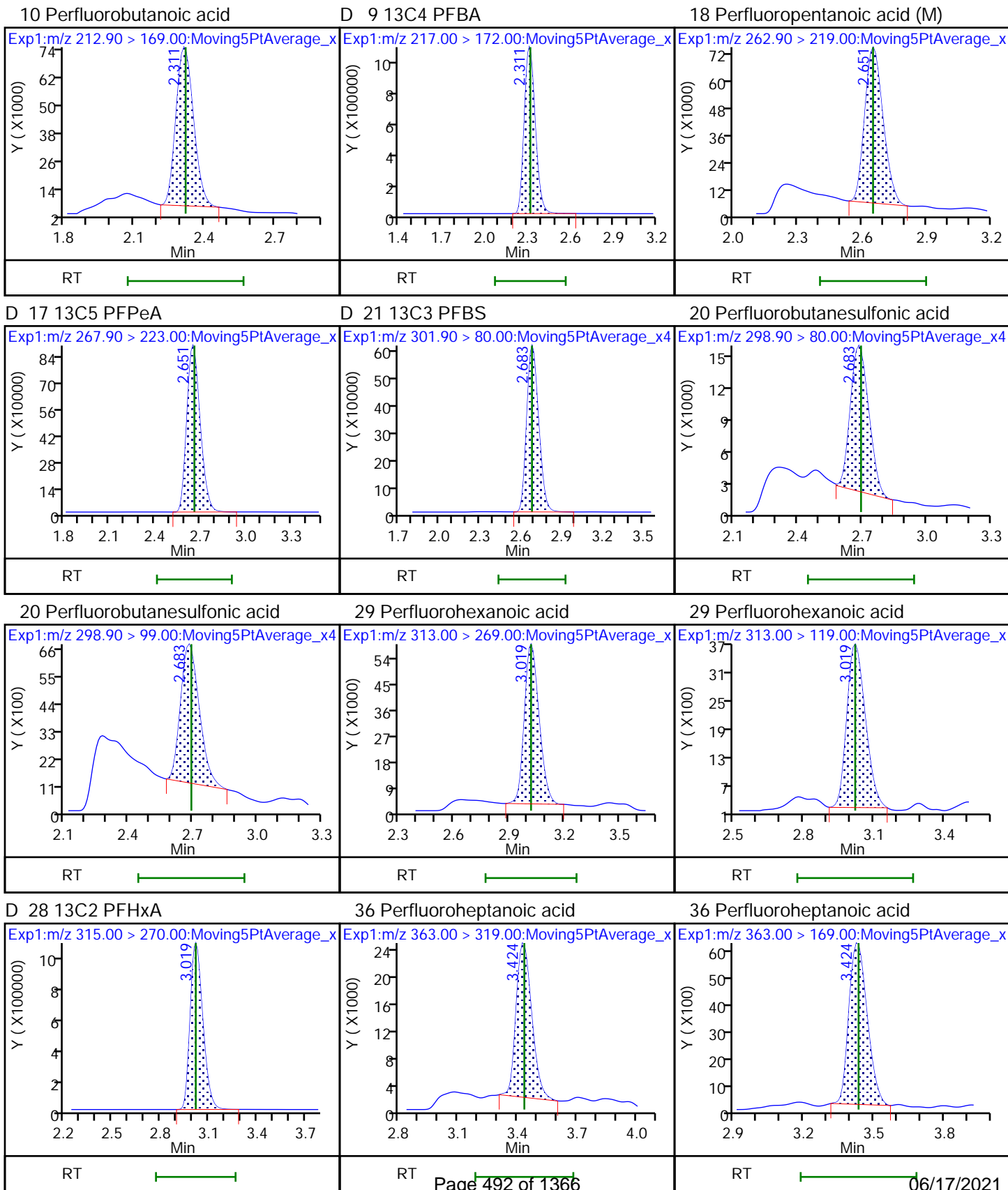
Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

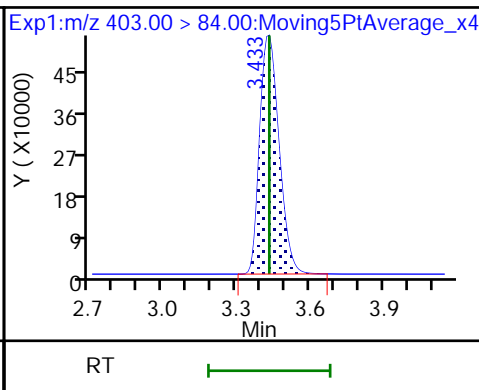
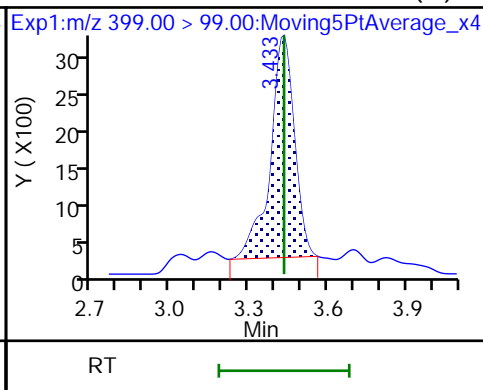
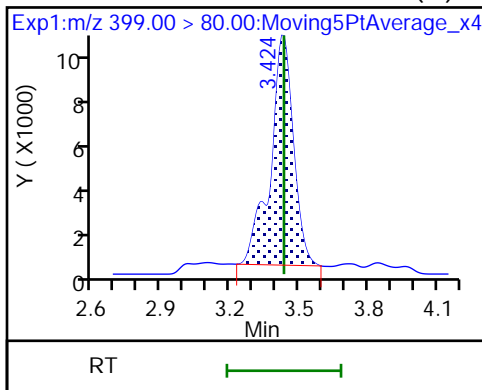
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
 Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
 Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
 Client ID: BH20210604-2N-75  
 Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid (M)

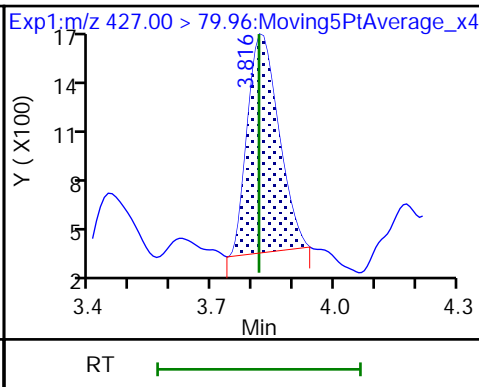
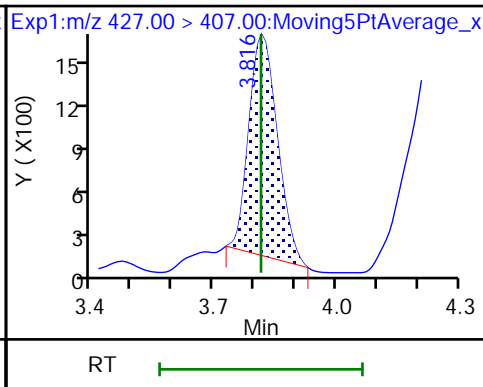
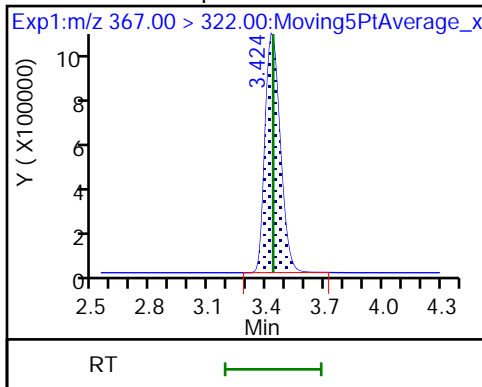
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS

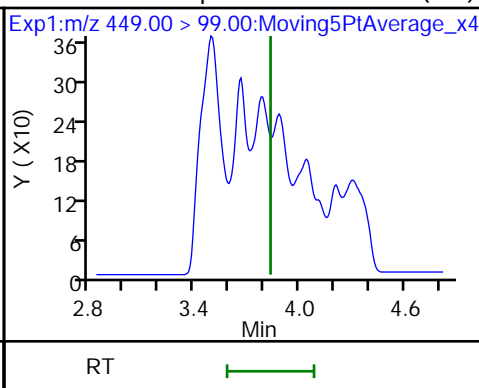
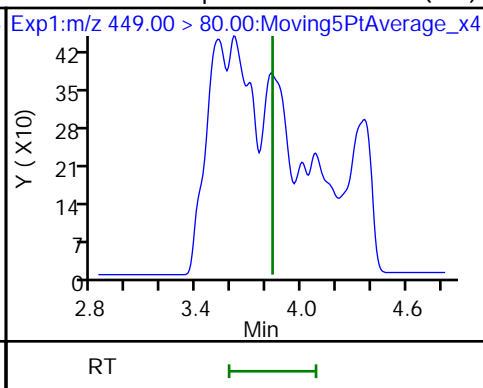
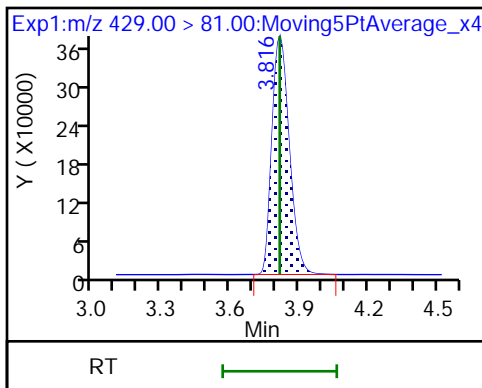
53 6:2 FTS



D 52 M2-6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

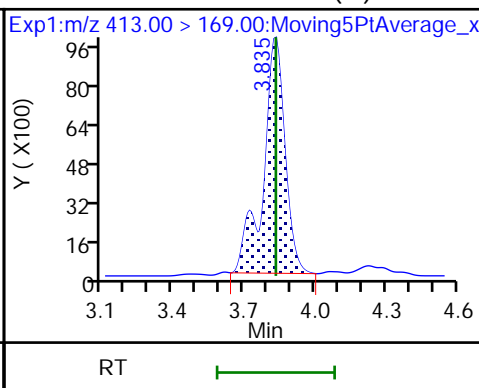
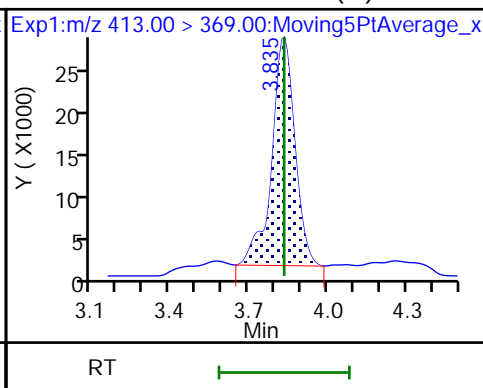
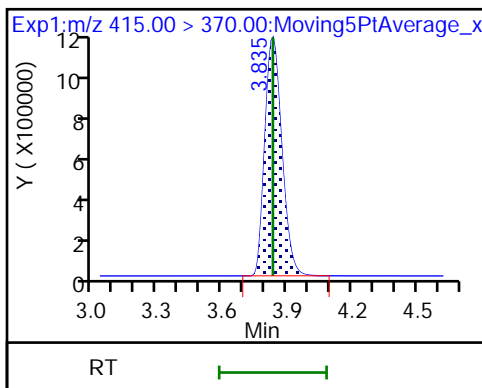
54 Perfluoroheptanesulfonic acid (ND)



\* 57 13C2 PFOA

58 Perfluorooctanoic acid (M)

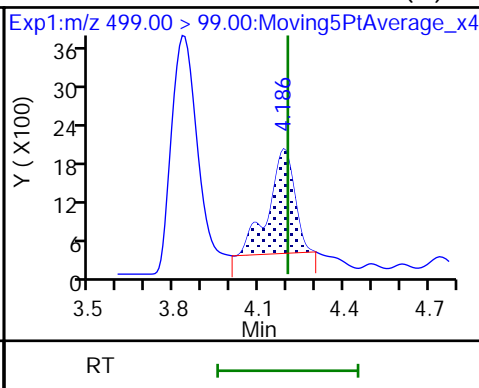
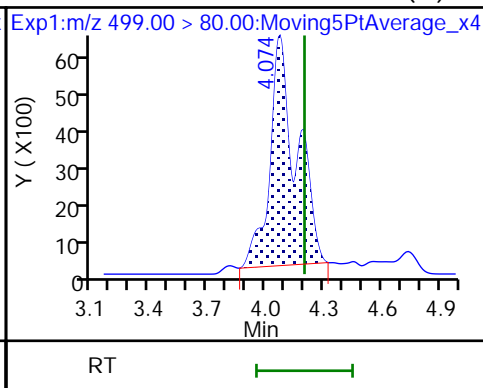
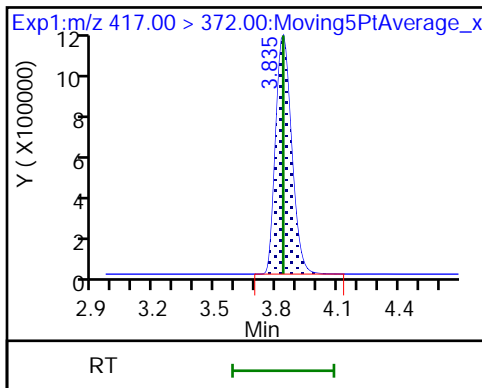
58 Perfluorooctanoic acid (M)



D 56 13C4 PFOA

62 Perfluorooctanesulfonic acid (M)

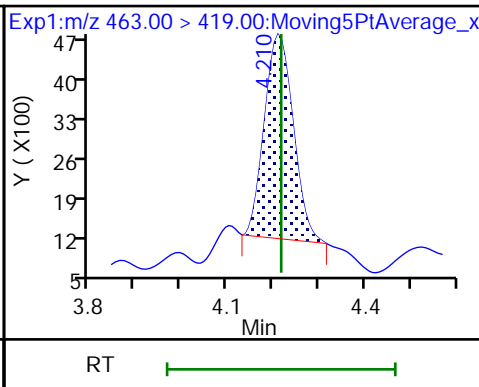
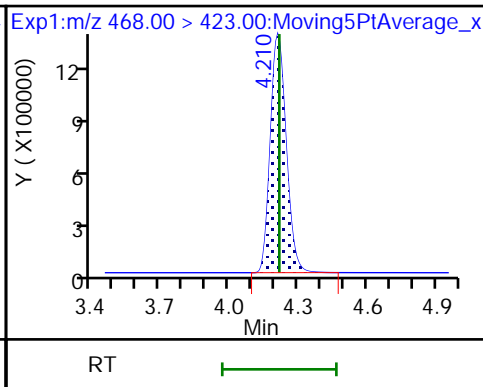
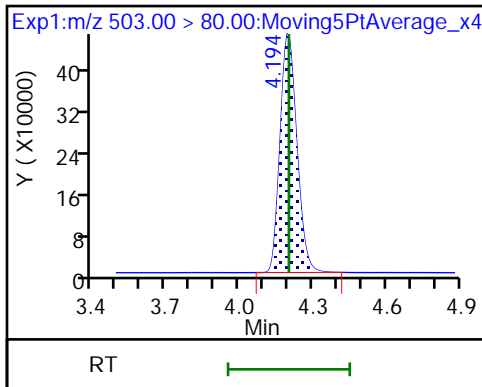
62 Perfluorooctanesulfonic acid (M)



D 61 13C4 PFOS

D 63 13C5 PFNA

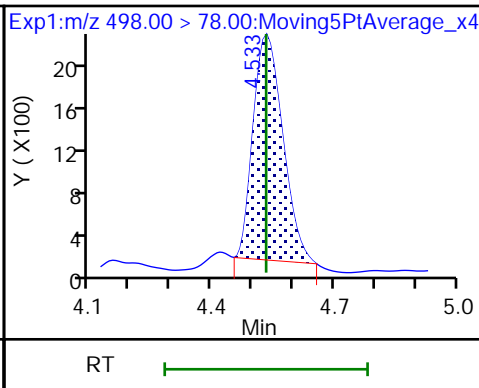
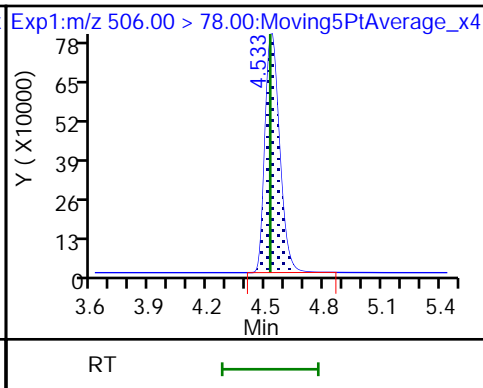
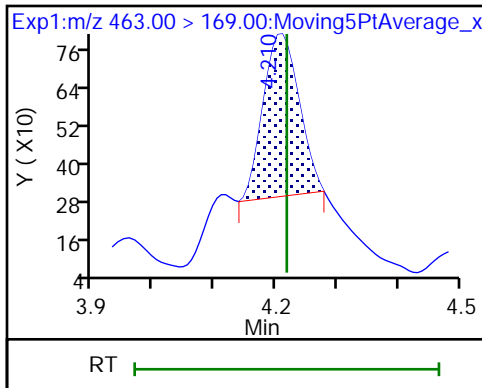
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

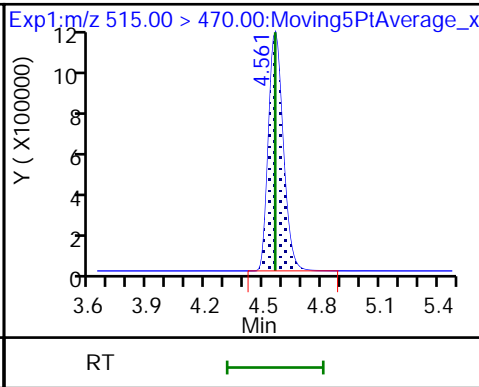
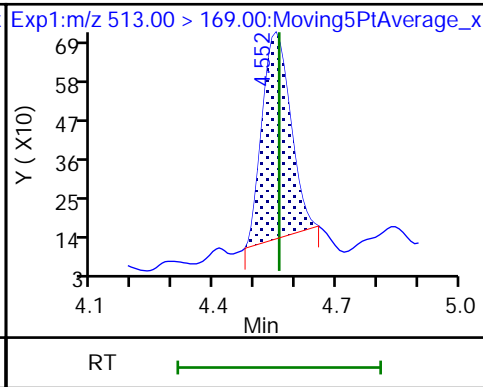
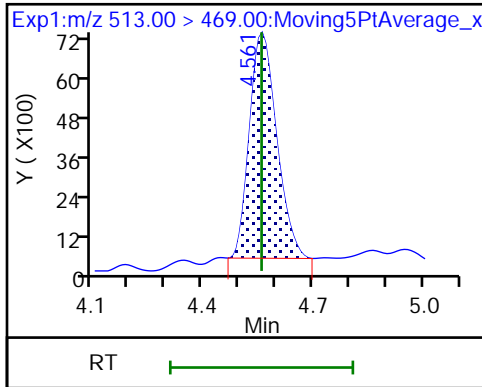
72 Perfluorooctanesulfonamide



75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

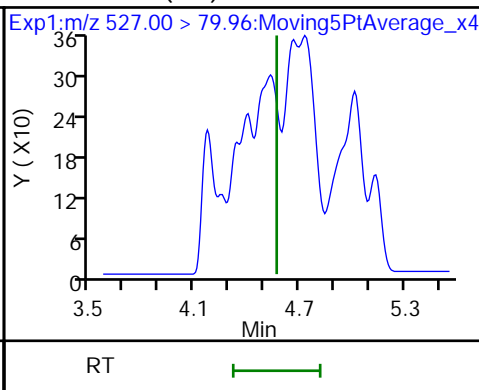
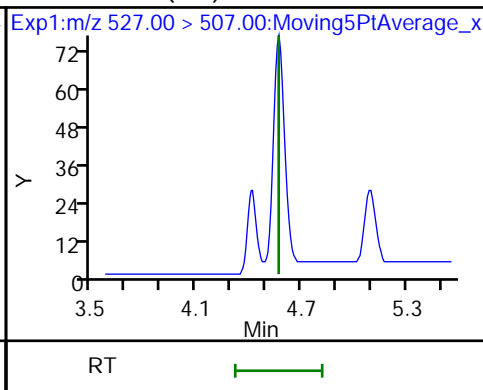
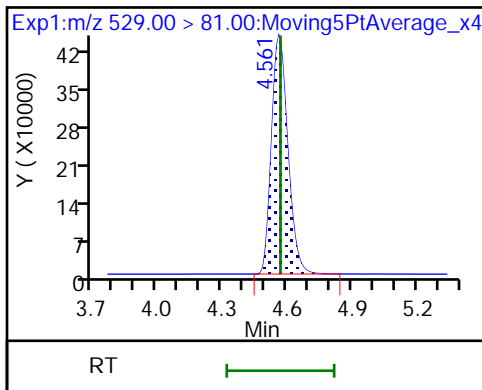
D 74 13C2 PFDA



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

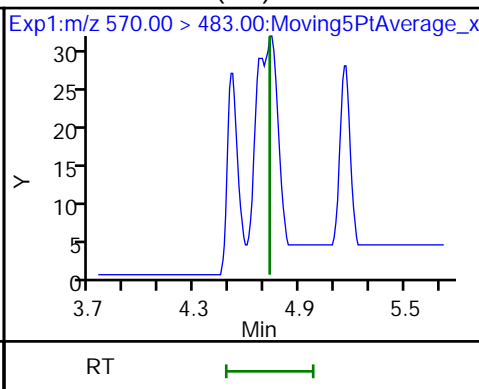
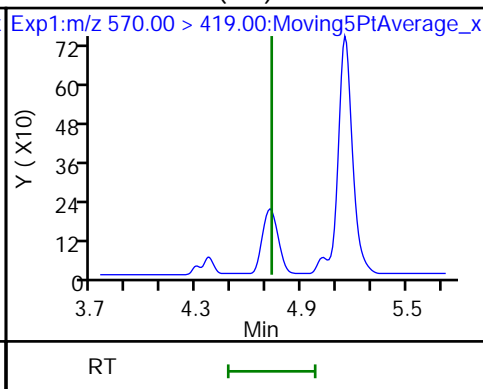
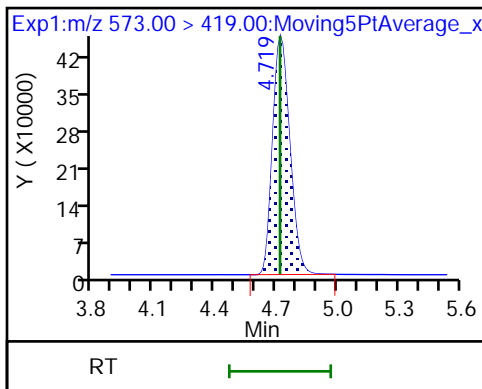
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

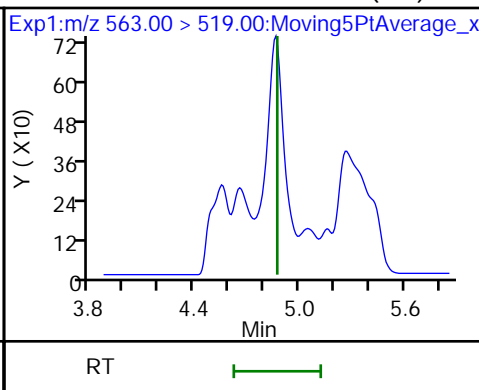
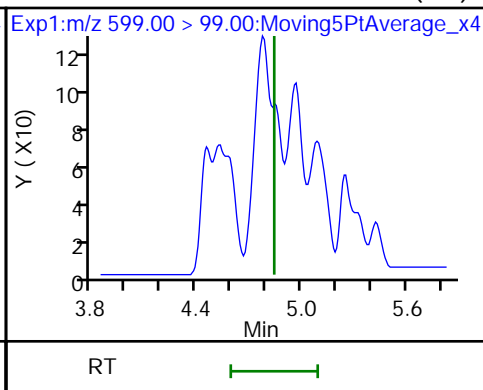
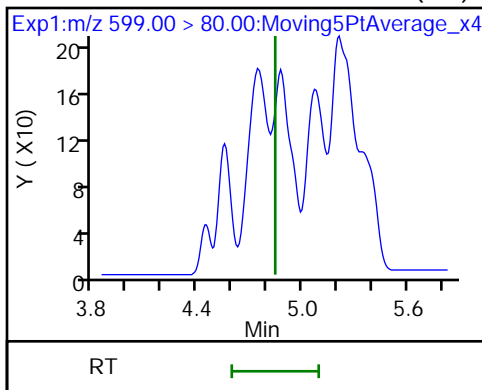
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

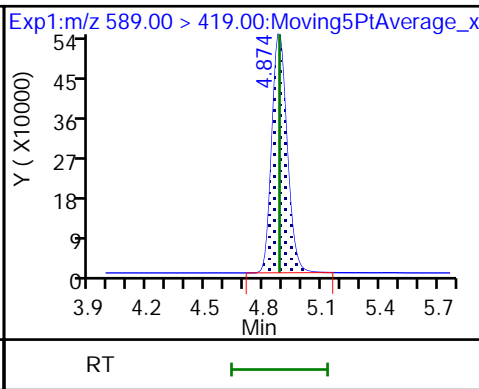
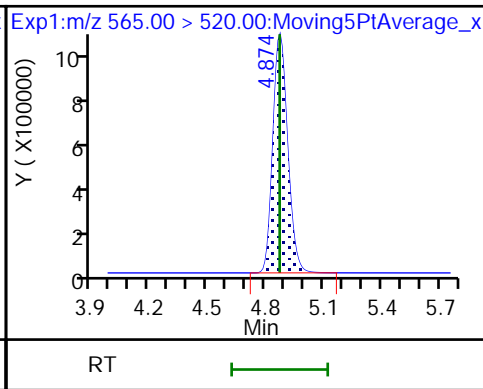
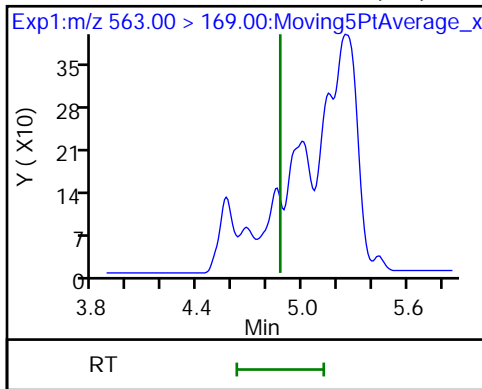
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

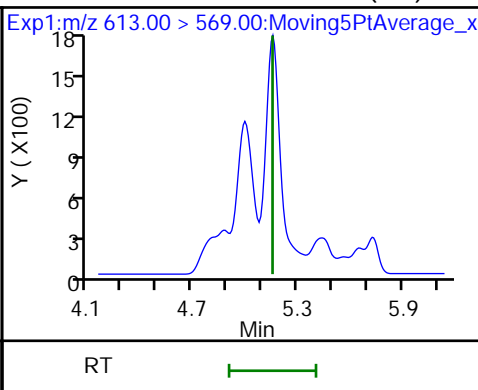
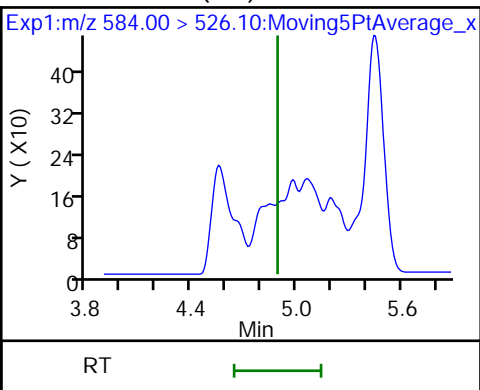
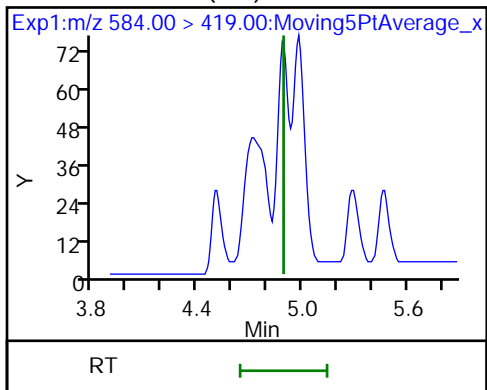
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

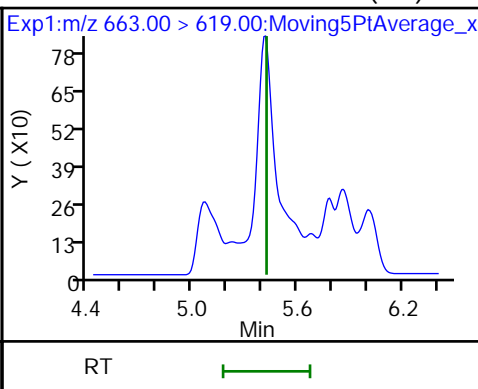
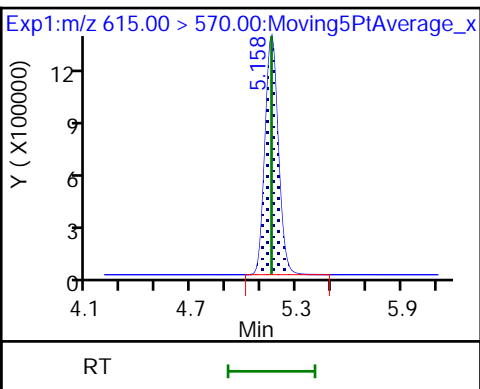
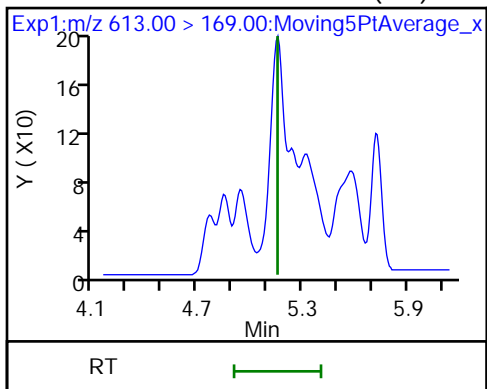
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

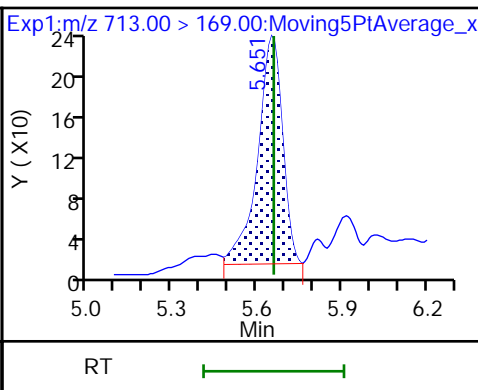
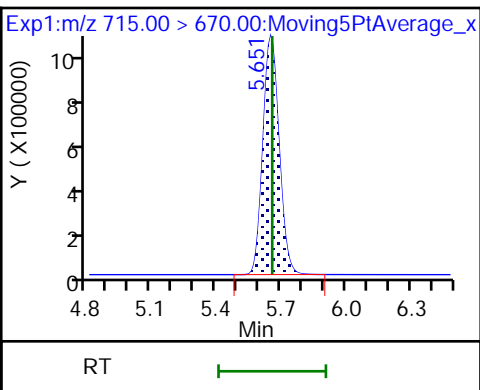
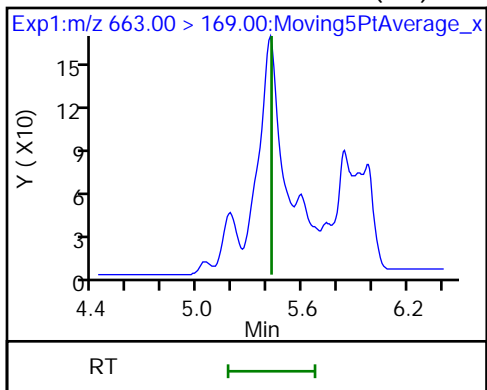
103 Perfluorotridecanoic acid (ND)



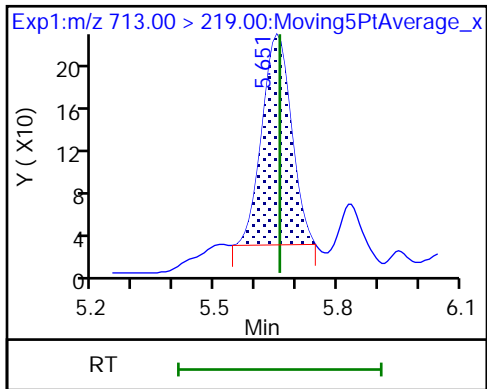
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

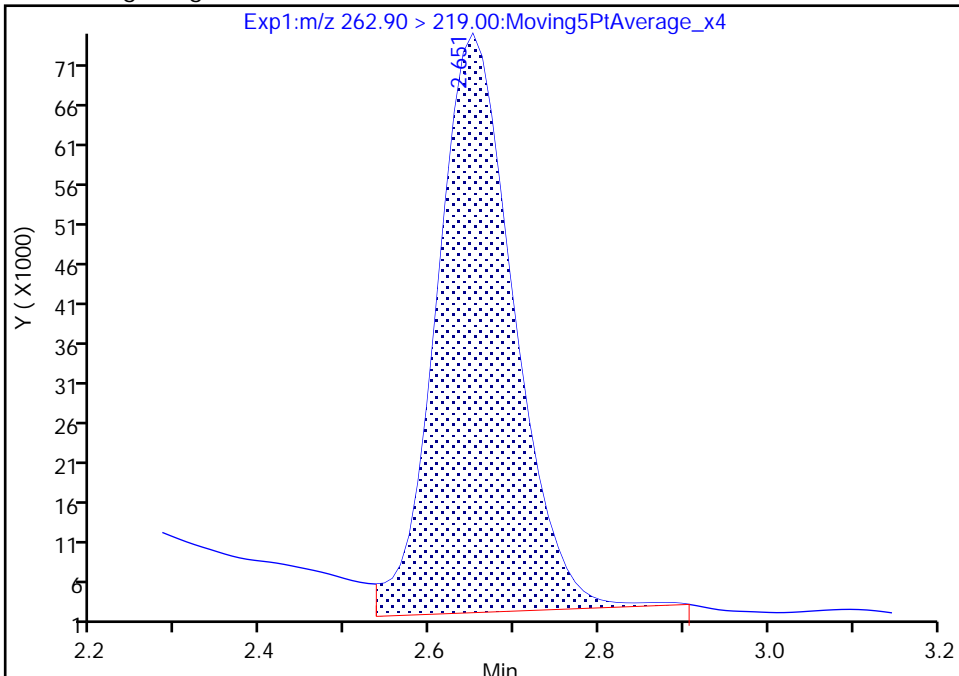
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Injection Date:	10-Jun-2021 05:33:33	Instrument ID:	A15
Lims ID:	320-74597-A-3-A	Lab Sample ID:	320-74597-3
Client ID:	BH20210604-2N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	9

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

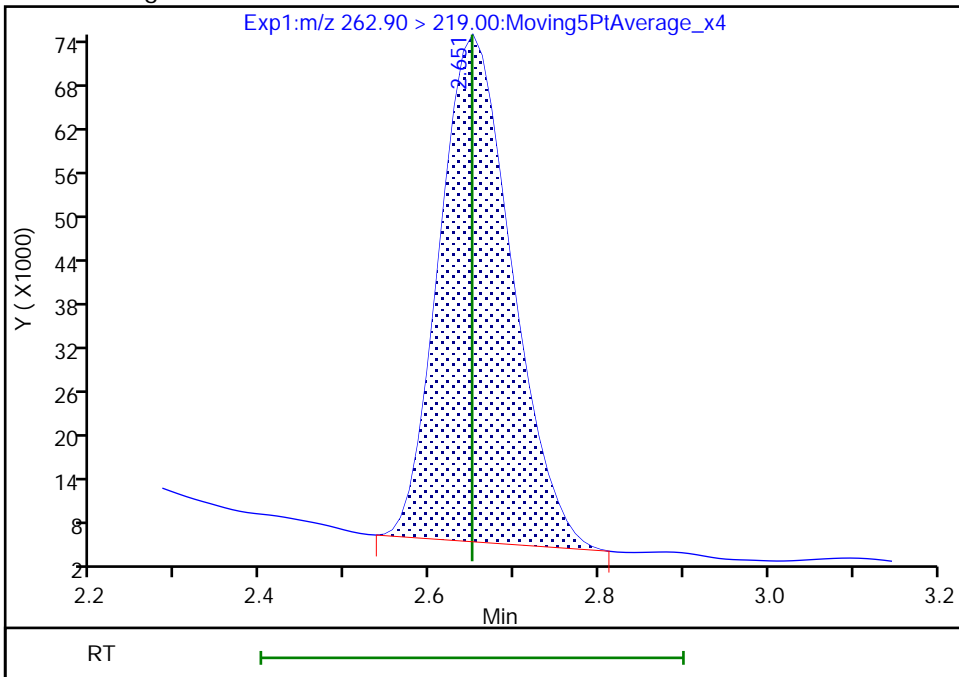
RT: 2.65  
 Area: 459134  
 Amount: 0.099869  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
 Area: 417766  
 Amount: 0.090871  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:43:24  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

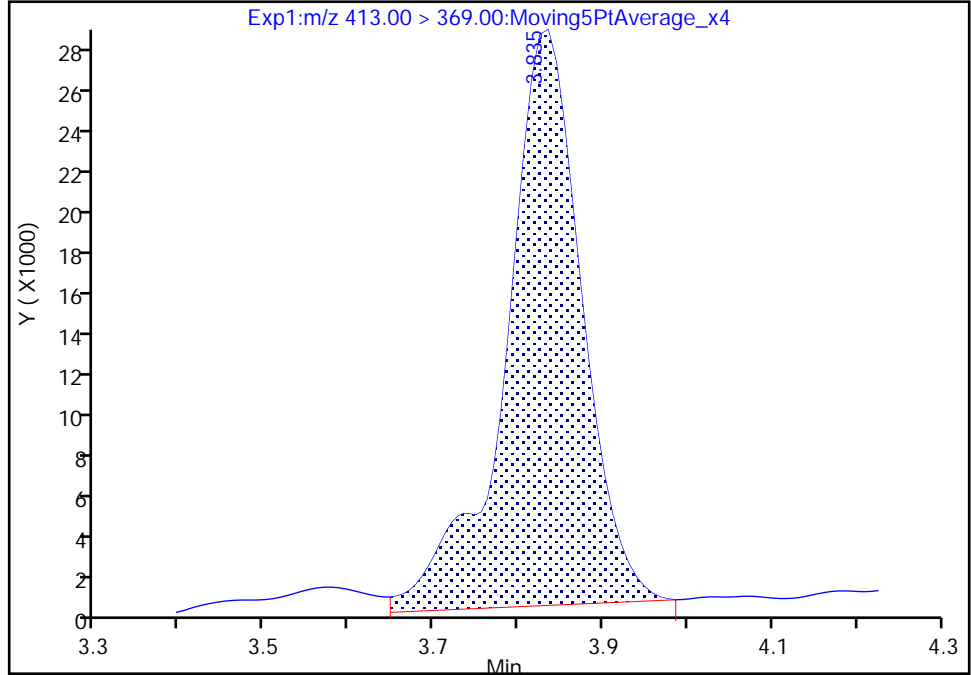
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
Client ID: BH20210604-2N-75  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

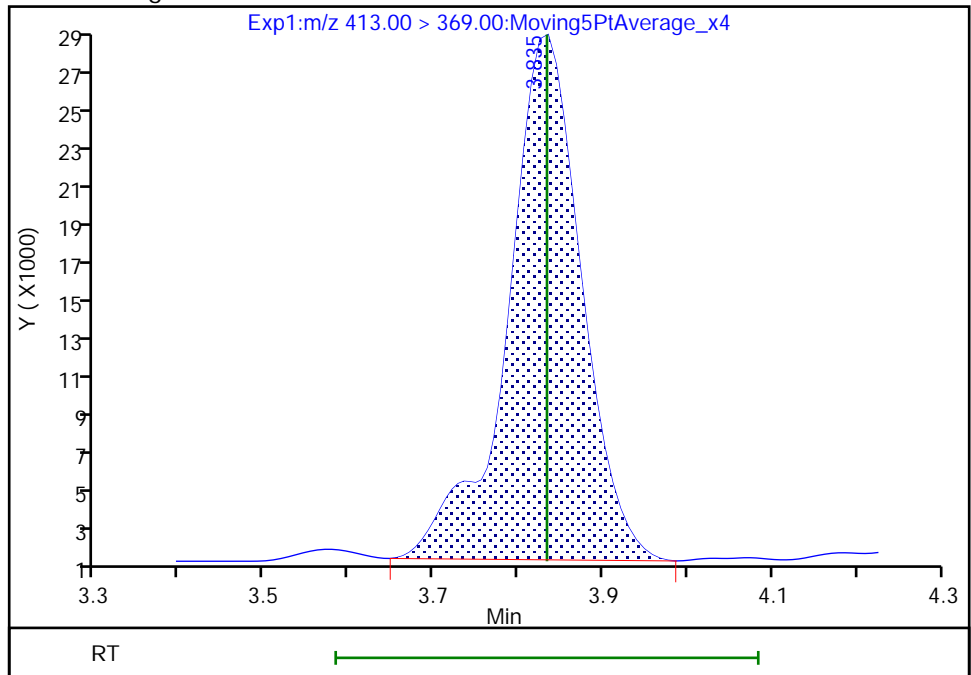
RT: 3.83  
Area: 171444  
Amount: 0.032410  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 164085  
Amount: 0.031019  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

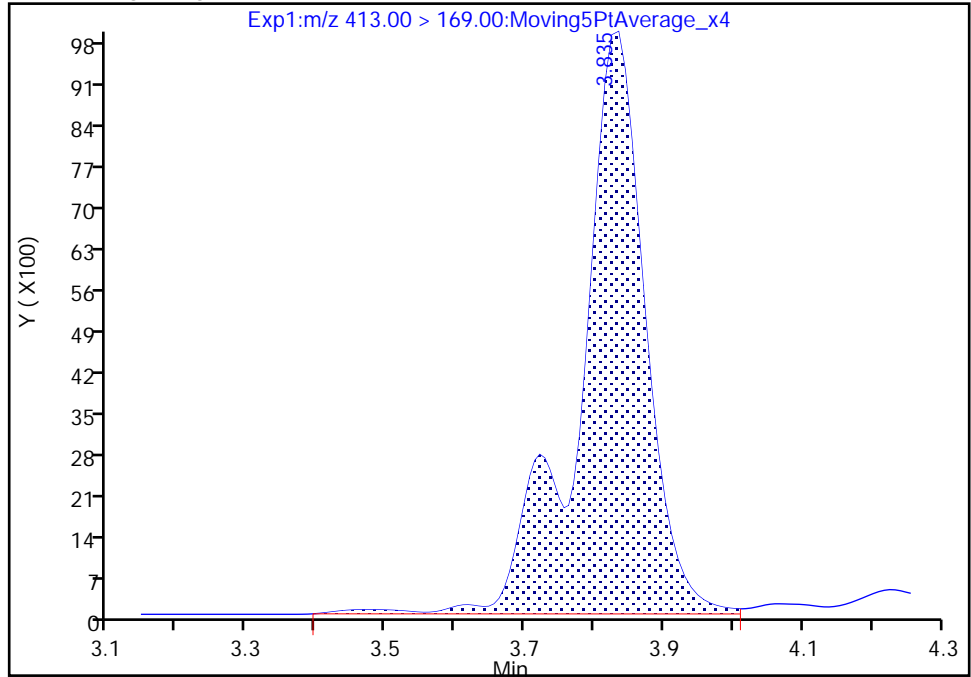
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
Client ID: BH20210604-2N-75  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

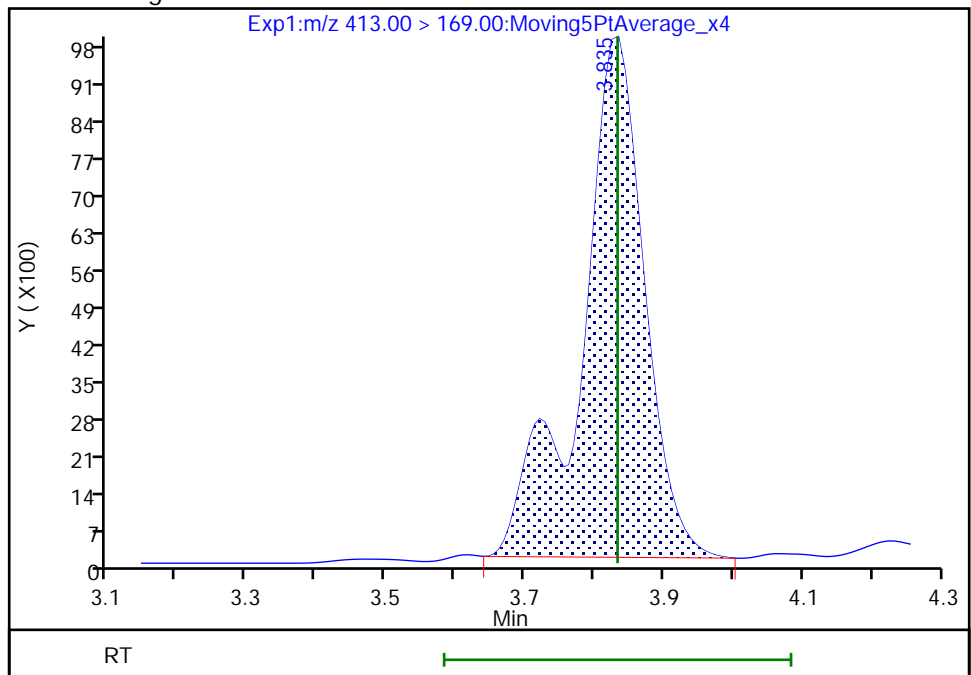
RT: 3.83  
Area: 66061  
Amount: 0.032410  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 62772  
Amount: 0.031019  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

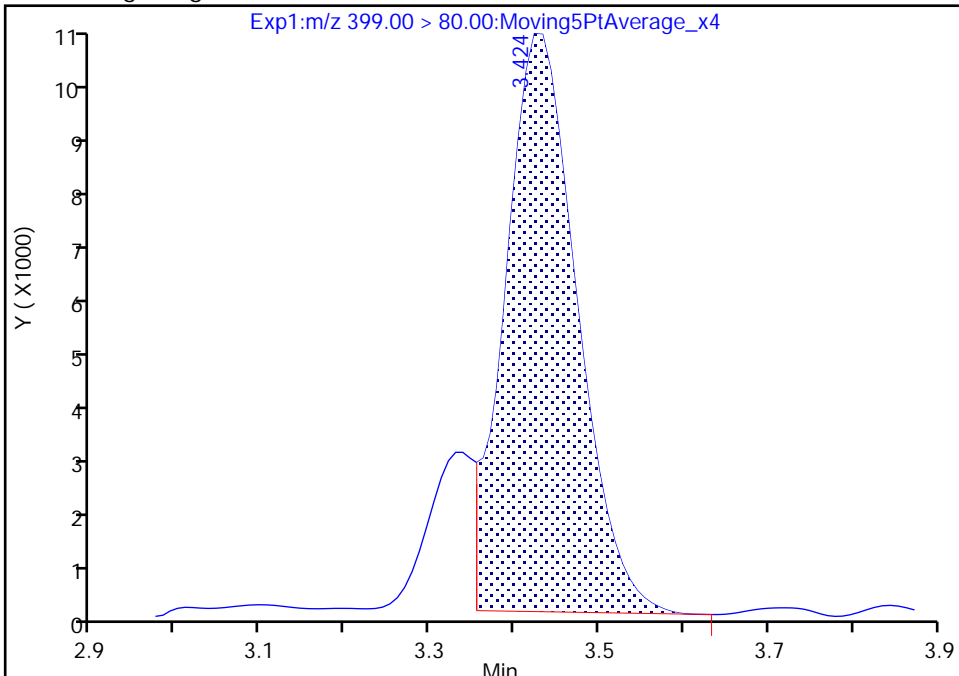
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Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
Client ID: BH20210604-2N-75  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

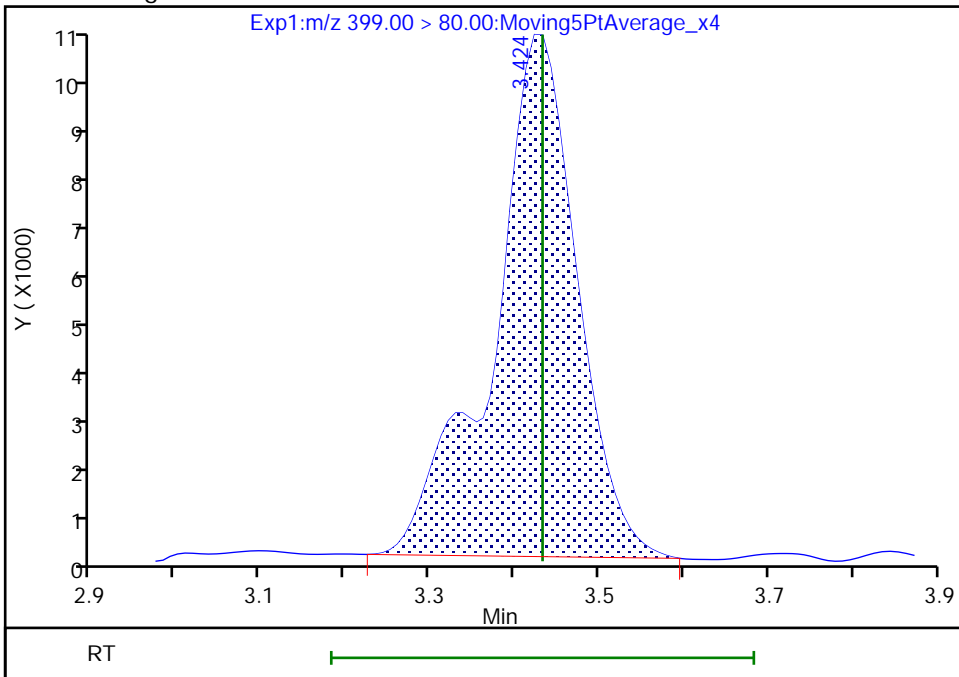
RT: 3.42  
Area: 61068  
Amount: 0.022861  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 71403  
Amount: 0.026730  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:43:33  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

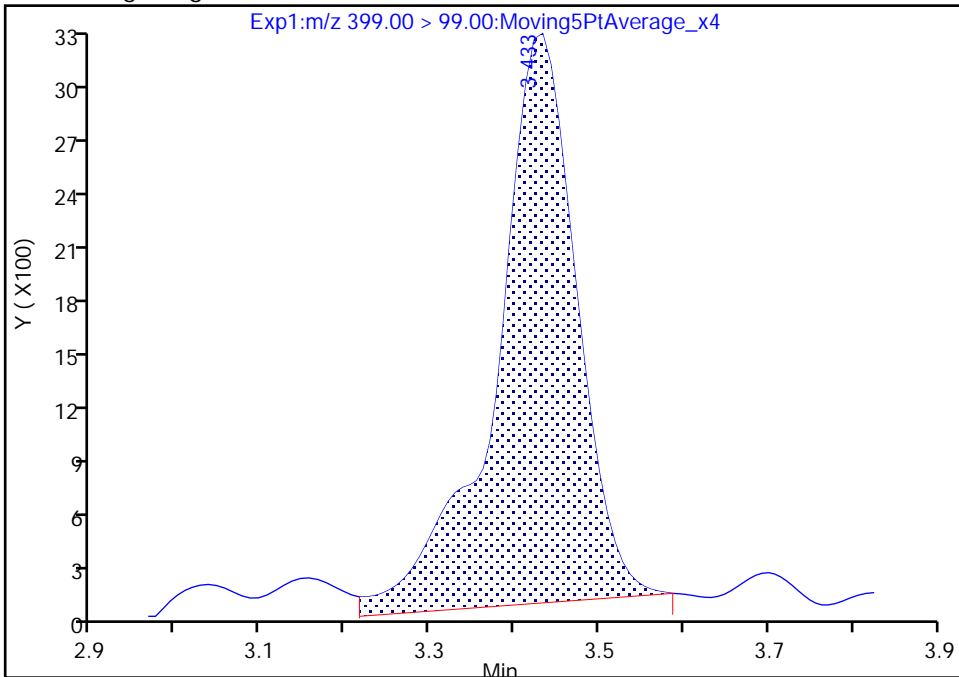
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Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
Client ID: BH20210604-2N-75  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

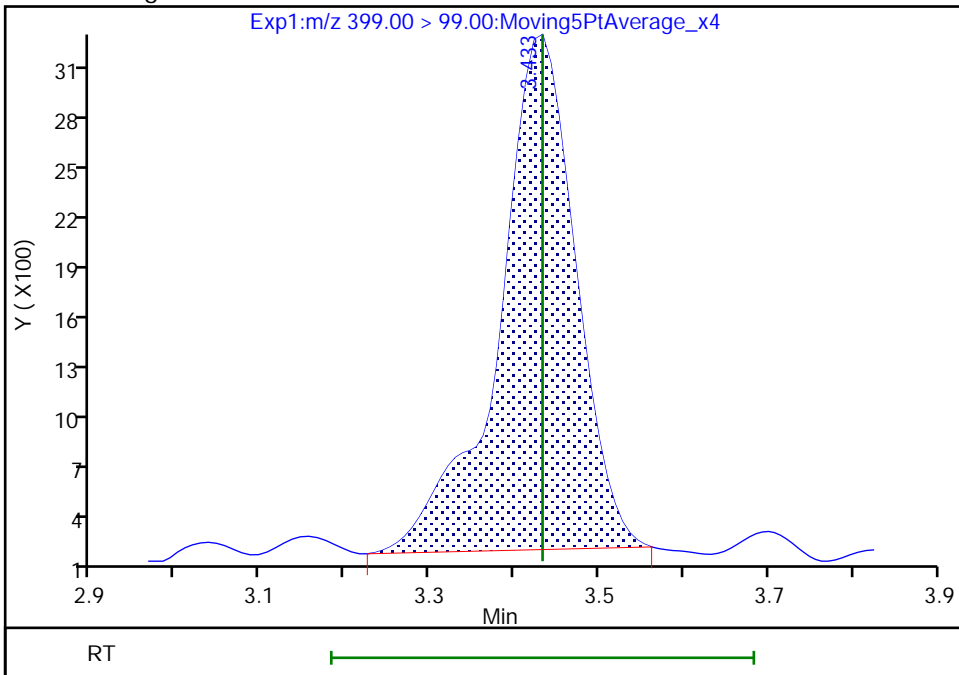
RT: 3.43  
Area: 20395  
Amount: 0.022861  
Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
Area: 19004  
Amount: 0.026730  
Amount Units: ng/ml

Manual Integration Results



Euofins TestAmerica, Sacramento

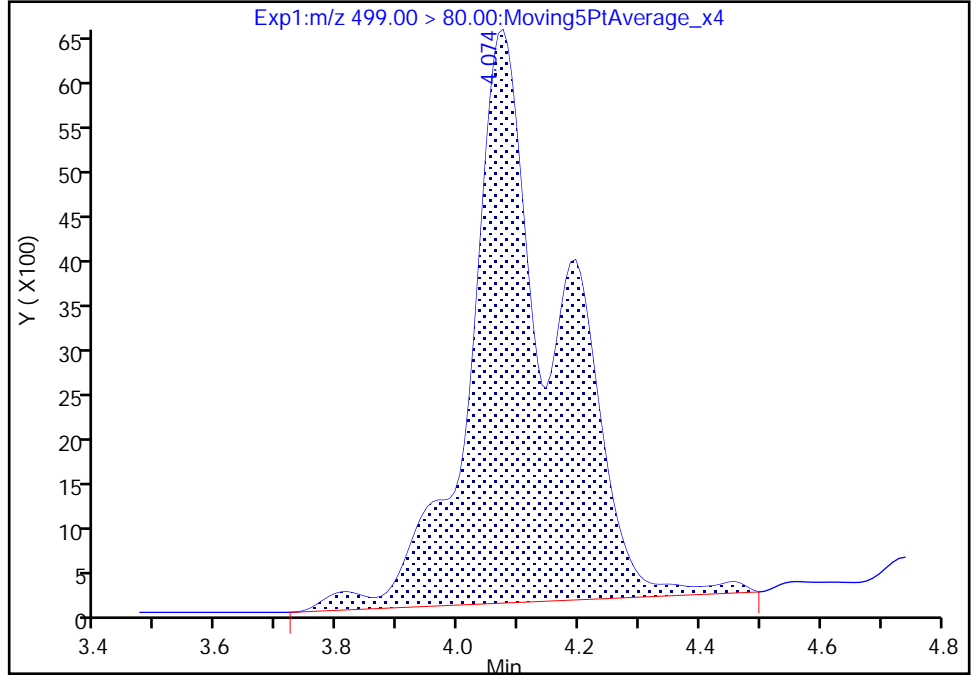
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
Client ID: BH20210604-2N-75  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

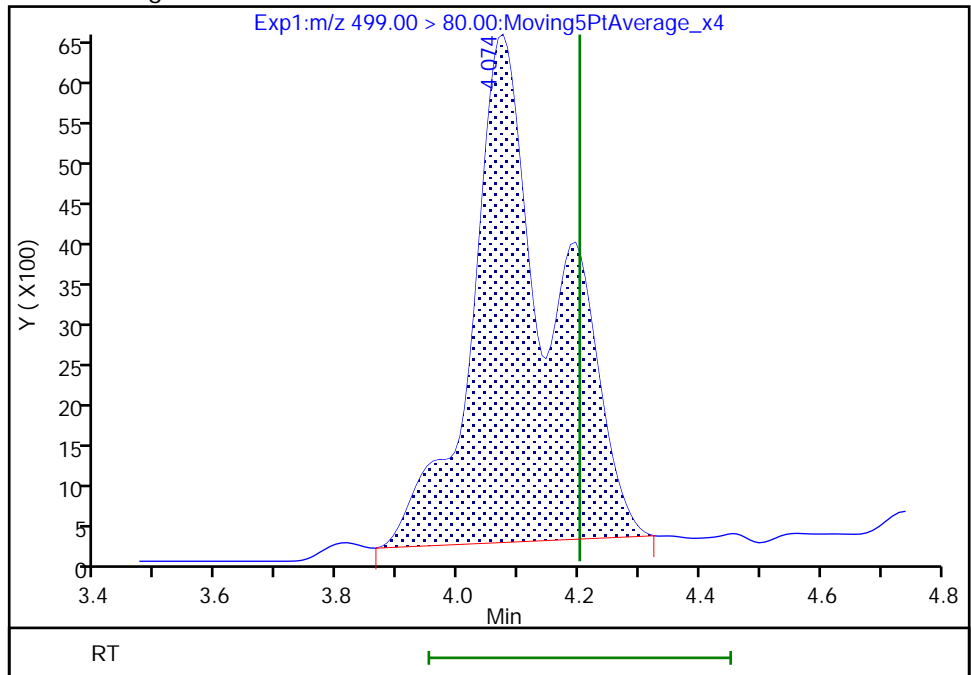
RT: 4.07  
Area: 65599  
Amount: 0.031750  
Amount Units: ng/ml

Processing Integration Results



RT: 4.07  
Area: 60005  
Amount: 0.029043  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

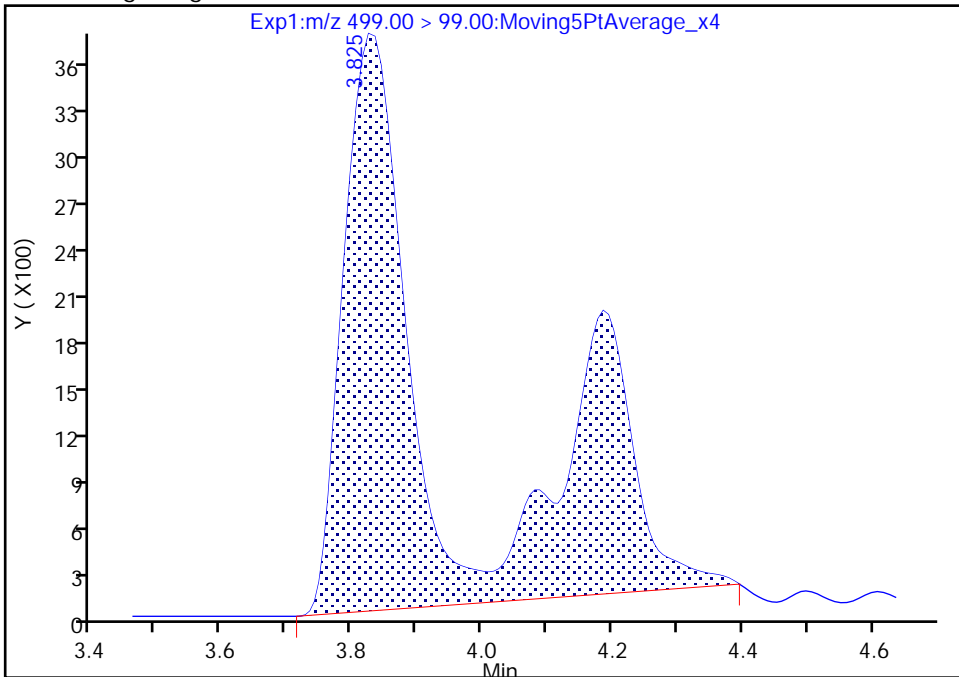
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_012.d  
 Injection Date: 10-Jun-2021 05:33:33 Instrument ID: A15  
 Lims ID: 320-74597-A-3-A Lab Sample ID: 320-74597-3  
 Client ID: BH20210604-2N-75  
 Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 9  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

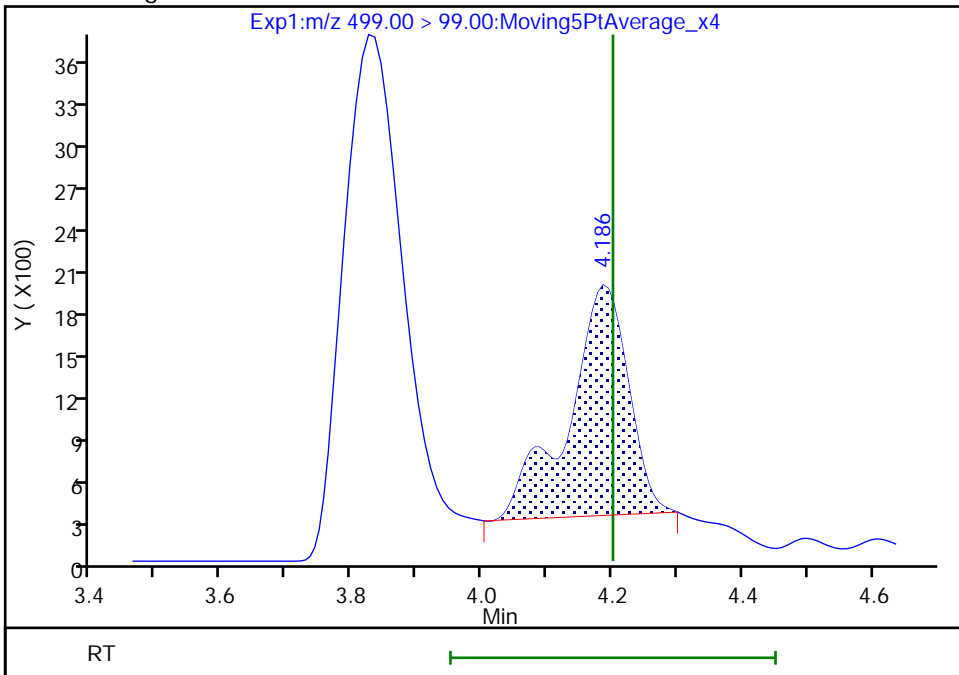
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 Area: 38707  
 Amount: 0.031750  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
 Area: 10541  
 Amount: 0.029043  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-25 Lab Sample ID: 320-74597-4  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_013.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:01  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 246.8 (mL) Date Analyzed: 06/10/2021 05:42  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		5.1	
2706-90-3	Perfluoropentanoic acid (PFPeA)	4.2		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.1		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.1	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.1	
27619-97-2	6:2 FTS	ND		5.1	
39108-34-4	8:2 FTS	ND		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-25 Lab Sample ID: 320-74597-4  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_013.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:01  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 246.8 (mL) Date Analyzed: 06/10/2021 05:42  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	101		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	97		25-150
STL01892	13C4 PFHpA	106		25-150
STL00990	13C4 PFOA	100		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	96		25-150
STL00997	13C2 PFUnA	87		25-150
STL00998	13C2 PFDoA	93		25-150
STL02116	13C2 PFTeDA	83		25-150
STL02337	13C3 PFBS	107		25-150
STL00994	18O2 PFHxS	105		25-150
STL00991	13C4 PFOS	98		25-150
STL01056	13C8 FOSA	106		25-150
STL02118	d3-NMeFOSAA	95		25-150
STL02117	d5-NEtFOSAA	104		25-150
STL02279	M2-6:2 FTS	102		25-150
STL02280	M2-8:2 FTS	100		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_013.d  
 Lims ID: 320-74597-A-4-A  
 Client ID: BH20210604-2S-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 05:42:39 ALS Bottle#: 7 Worklist Smp#: 10  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-4-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:31:21 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:31:21  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.310	2.319	-0.009	1.000	483011	0.1057			221	
D 9 13C4 PFBA										
217.00 > 172.00	2.310	2.319	-0.009	0.602	6040656	1.26		101	50654	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.650	2.650	0.0	1.000	506654	0.1045			342	
D 17 13C5 PFPeA										
267.90 > 223.00	2.650	2.661	-0.011	0.691	5784833	1.27		102	36328	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.700	3924452	1.24		107	20968	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.693	-0.010	1.000	33625	0.008809	Target=2.41		71.6	
298.90 > 99.00	2.683	2.693	-0.010	1.000	15857		2.12(1.20-3.61)		44.5	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.019	-0.001	1.000	257916	0.0528	Target=13.85		389	
313.00 > 119.00	3.018	3.019	-0.001	1.000	18001		14.33(6.92-20.77)		194	
D 28 13C2 PFHxA										
315.00 > 270.00	3.018	3.019	-0.001	0.787	5447228	1.21		97.0	55260	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	70816	0.0143	Target=3.98		144	
363.00 > 169.00	3.423	3.433	-0.010	1.000	17161		4.13(1.99-5.97)		227	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	19619	0.007508	Target=3.33		141	M
399.00 > 99.00	3.433	3.433	0.0	1.000	6476		3.03(1.66-4.99)		50.1	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2794261	1.24		105	64571	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5845397	1.32		106	76233	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.814	0.002	0.995	1235696	1.21		102	12798	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6282689	1.25		100.0	50818	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		6024705	1.25			79652	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.835	3.834	0.001	1.000	81697	0.0156	Target=2.90	145		M
413.00 > 169.00	3.835	3.834	0.001	1.000	31745		2.57(1.45-4.35)	250		M
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.081	4.201	-0.120	0.973	19744	0.0101	Target=5.77	62.4		M
499.00 > 99.00	4.178	4.201	-0.023	0.996	6093		3.24(2.88-8.65)	65.3		M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.094	2071090	1.18		98.4	17412	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.217	-0.007	1.098	6135103	1.28		102	75761	
D 71 13C8 FOSA										
506.00 > 78.00	4.533	4.523	0.010	1.182	3918219	1.32		106	42281	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.533	4.532	0.001	1.000	35950	0.0114		791		
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.559	0.002	1.000	39687	0.008415	Target=8.21	236		
513.00 > 169.00	4.552	4.559	-0.007	0.998	3710		10.70(4.10-12.31)	81.4		
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	5766576	1.20		96.0	64451	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.569	-0.008	1.189	1908755	1.20		100.0	21256	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.231	2398888	1.18		94.6	37072	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	5054177	1.09		87.3	49606	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.882	0.002	1.274	2618510	1.30		104	23006	
D 97 13C2 PFDoA										
615.00 > 570.00	5.159	5.156	0.003	1.345	5812902	1.16		92.8	79079	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.416	5.422	-0.006	1.050	19710	0.004568	Target=6.20	152		
663.00 > 169.00	5.416	5.422	-0.006	1.050	2559		7.70(3.10-9.30)	57.1		
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.658	-0.007	1.474	4789418	1.04		83.0	46402	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.661	5.658	0.003	1.002	4117	0.008741	Target=1.03	125		
713.00 > 219.00	5.651	5.658	-0.007	1.000	2784		1.48(0.51-1.54)	112		

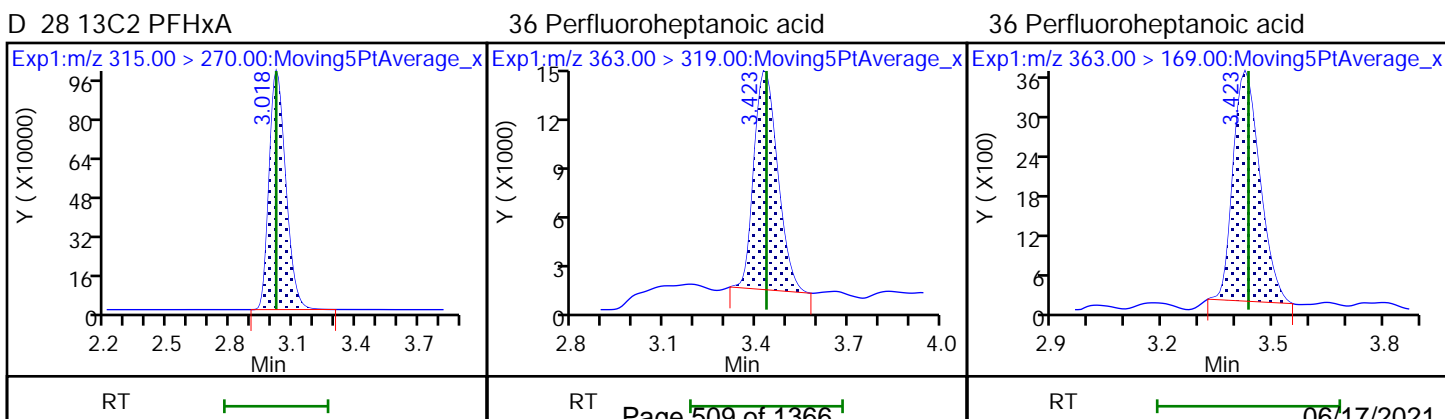
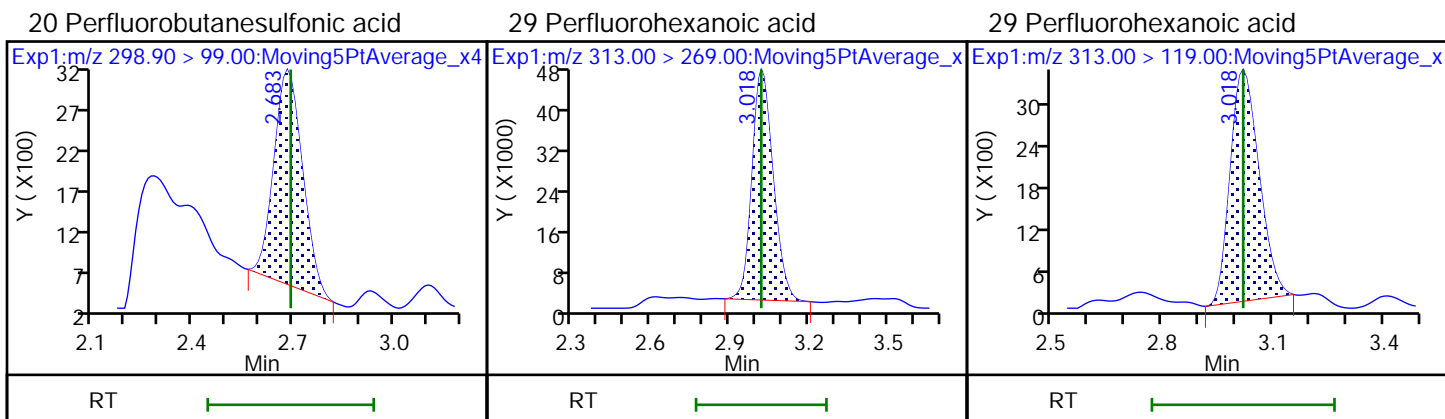
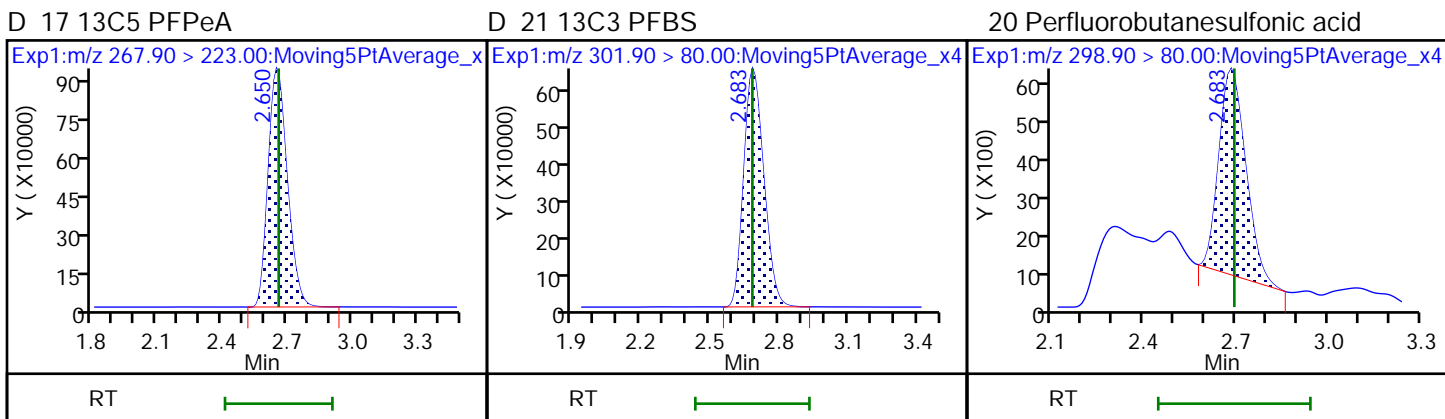
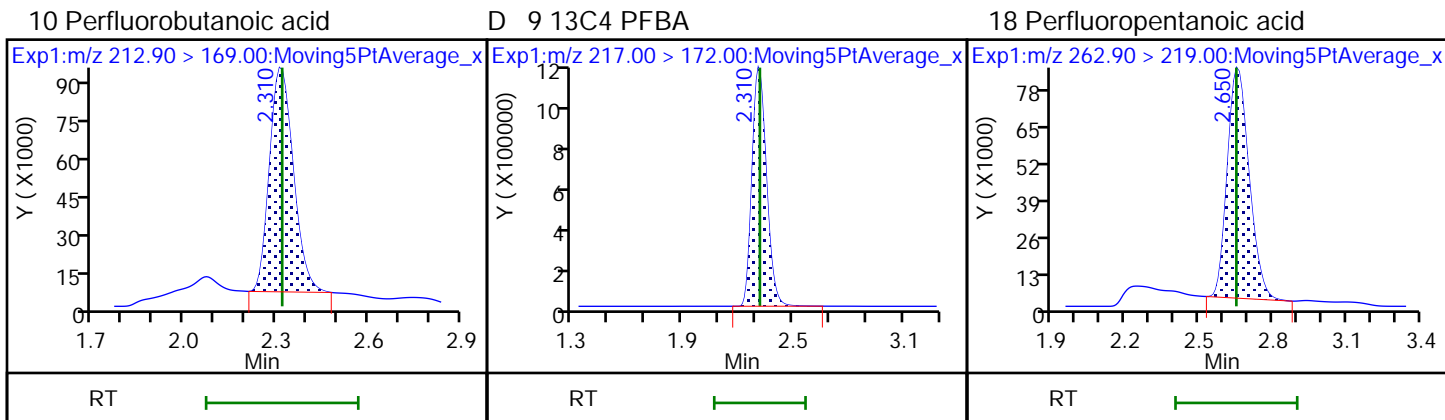
[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

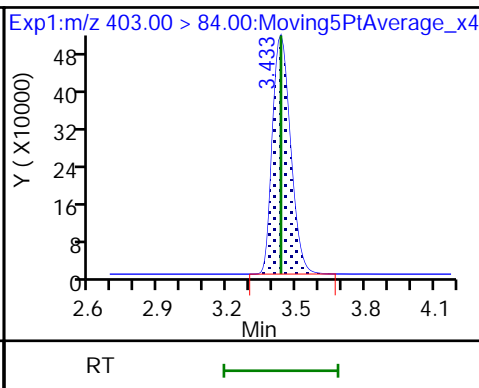
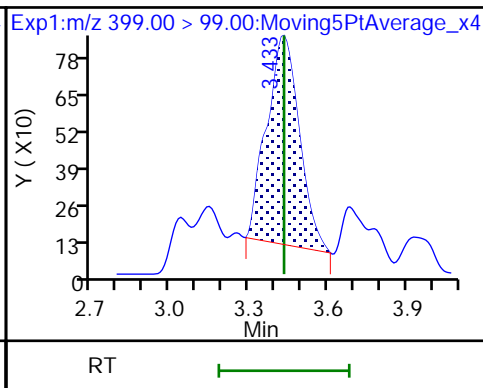
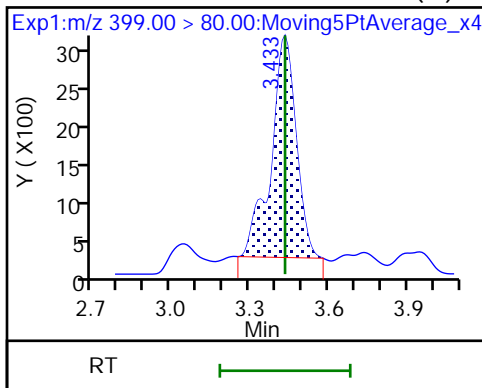
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Injection Date: 10-Jun-2021 05:42:39 Instrument ID: A15  
Lims ID: 320-74597-A-4-A Lab Sample ID: 320-74597-4  
Client ID: BH20210604-2S-25  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid

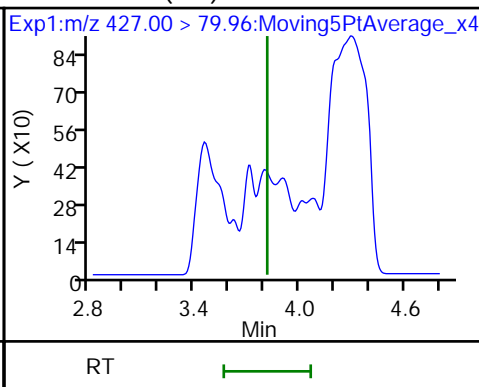
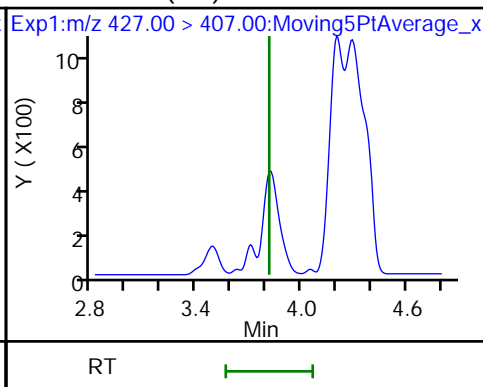
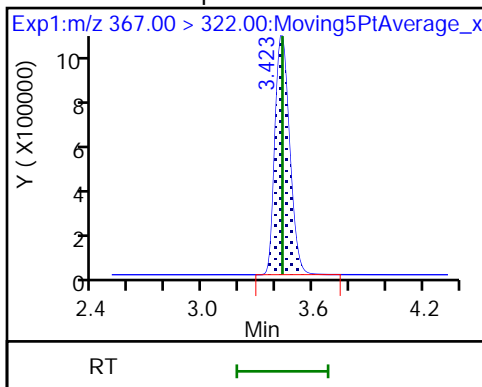
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS (ND)

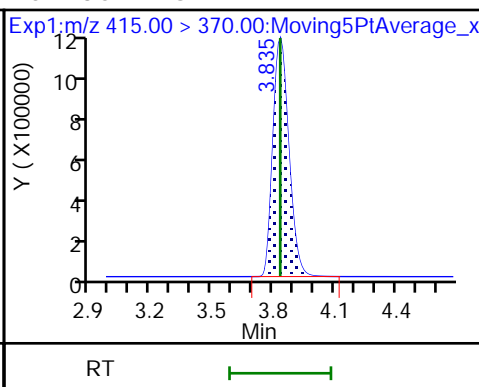
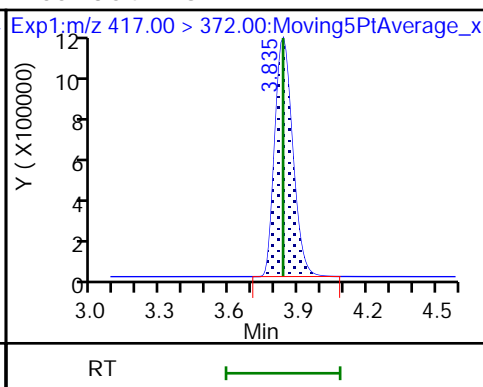
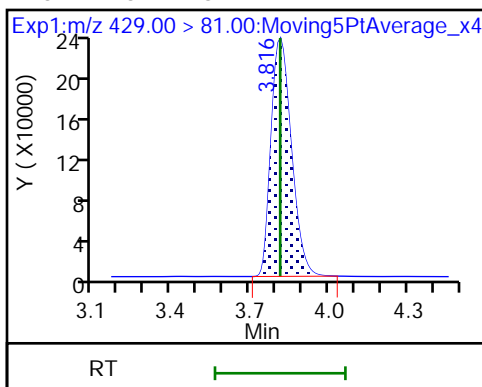
53 6:2 FTS (ND)



D 52 M2-6:2 FTS

D 56 13C4 PFOA

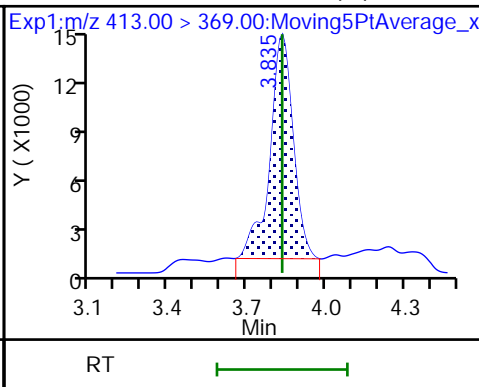
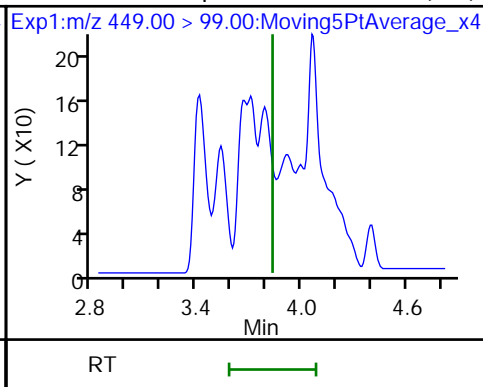
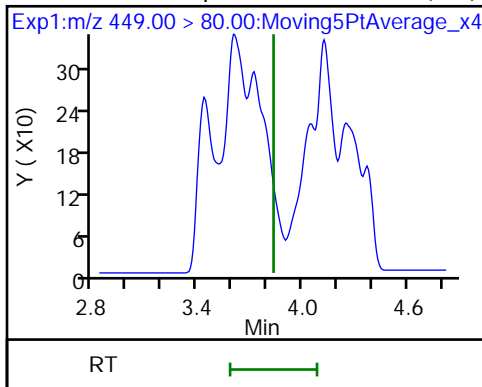
\* 57 13C2 PFOA

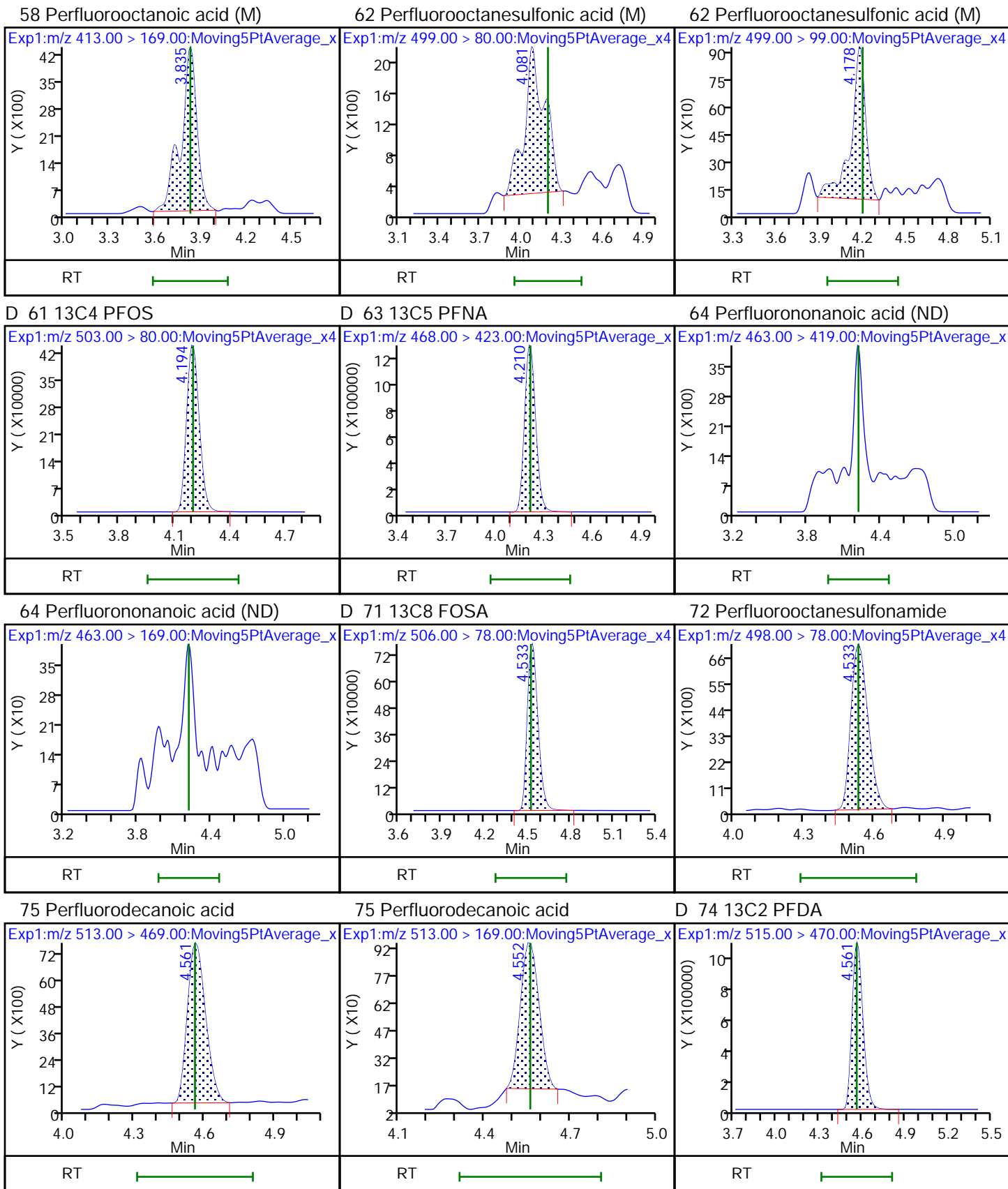


54 Perfluoroheptanesulfonic acid (ND)

54 Perfluoroheptanesulfonic acid (ND)

58 Perfluorooctanoic acid (M)

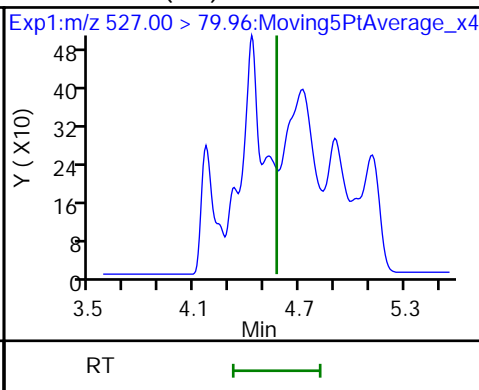
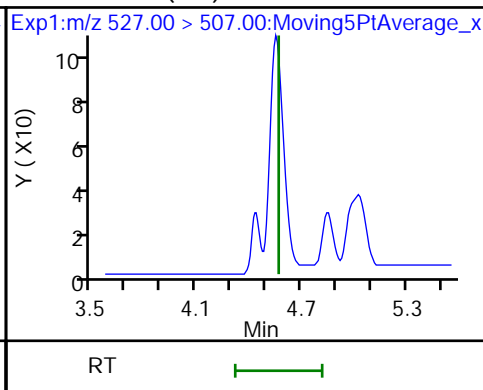
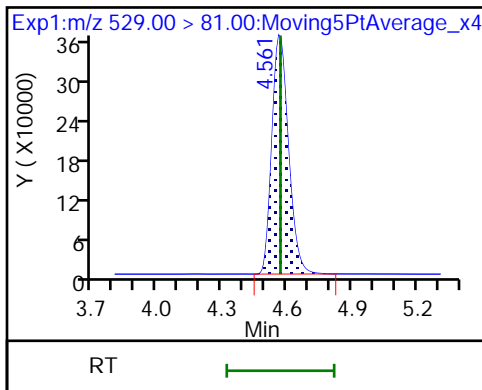




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

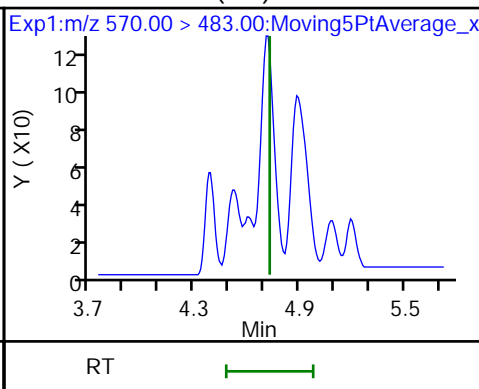
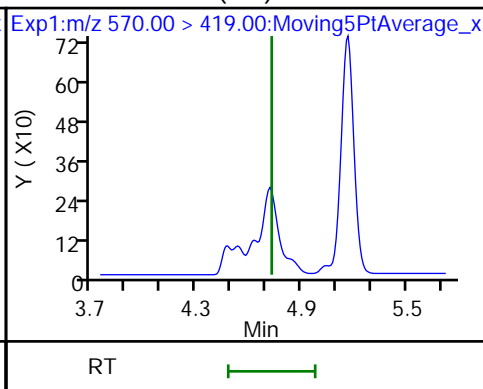
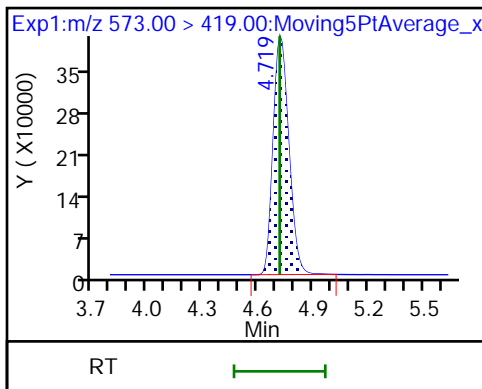
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

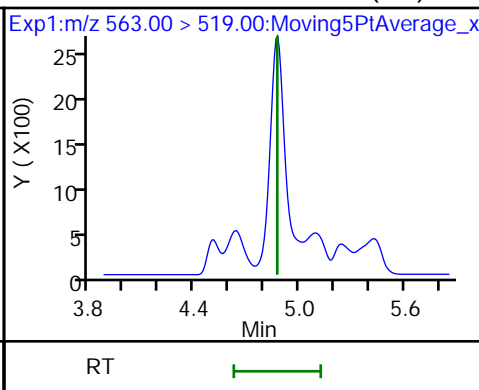
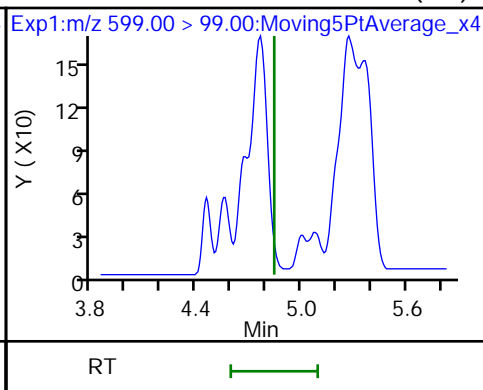
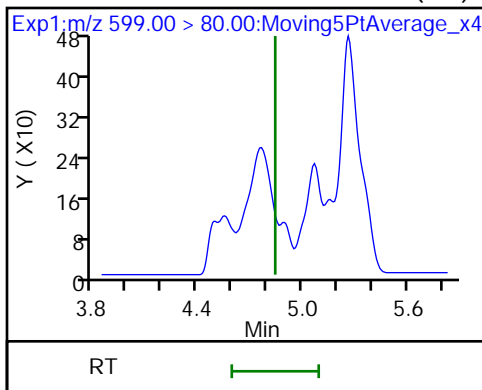
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

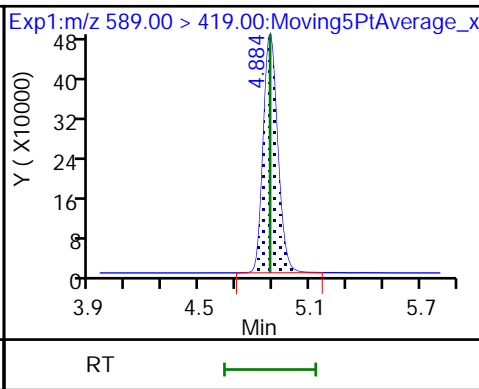
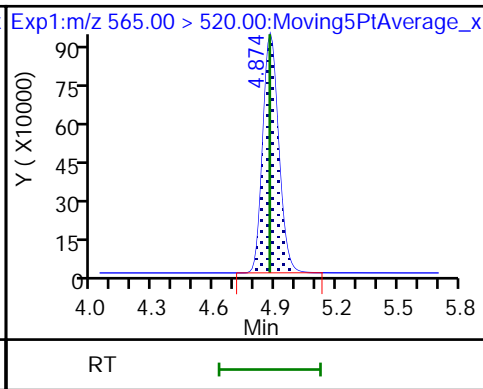
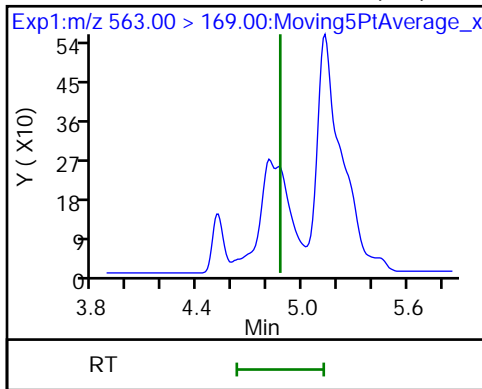
81 Perfluoroundecanoic acid (ND)

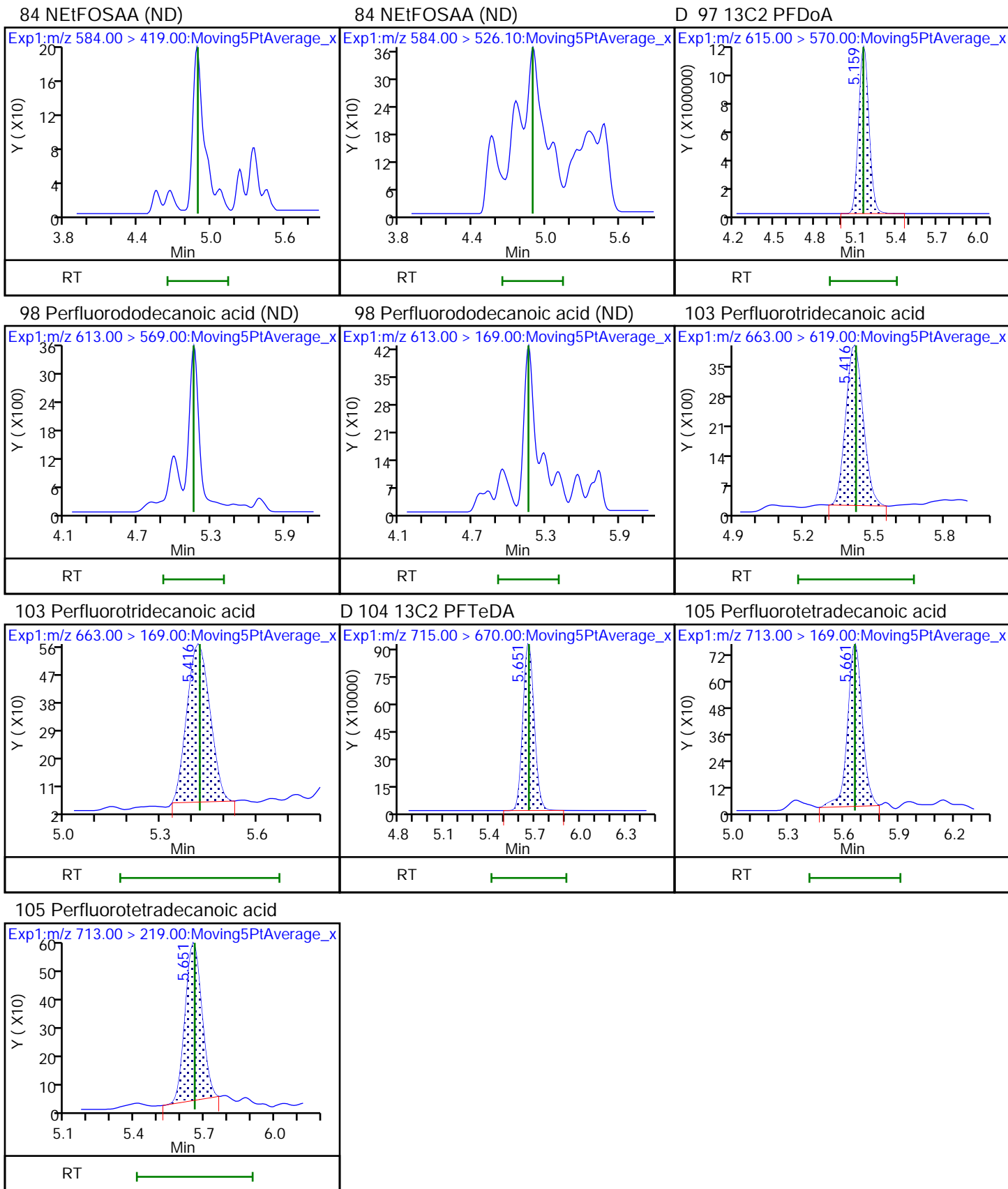


81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

D 83 d5-NEtFOSAA







Eurofins TestAmerica, Sacramento

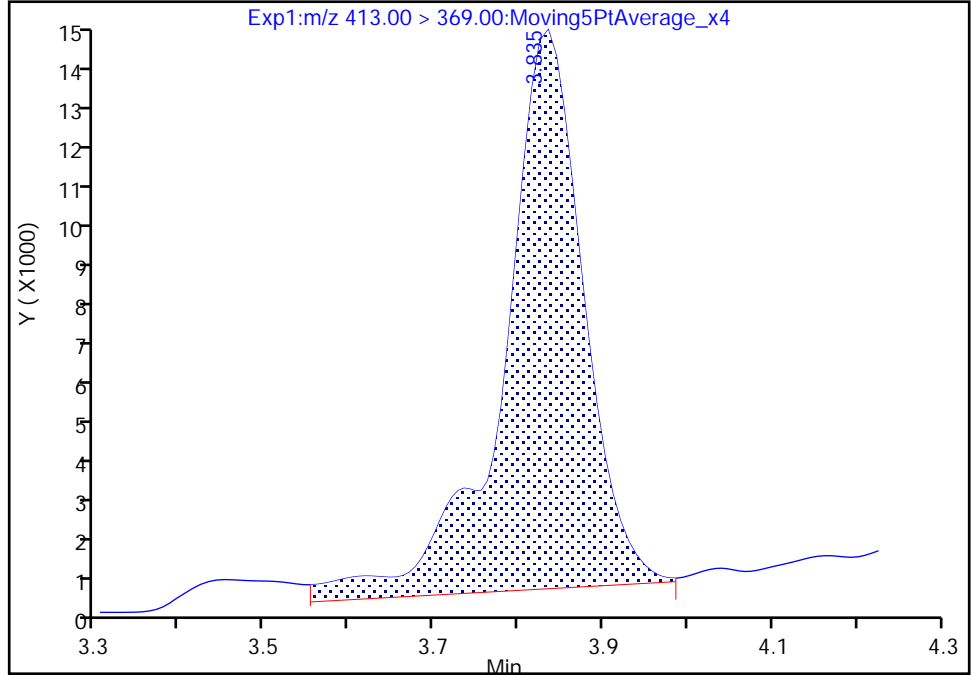
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Injection Date: 10-Jun-2021 05:42:39 Instrument ID: A15  
Lims ID: 320-74597-A-4-A Lab Sample ID: 320-74597-4  
Client ID: BH20210604-2S-25  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

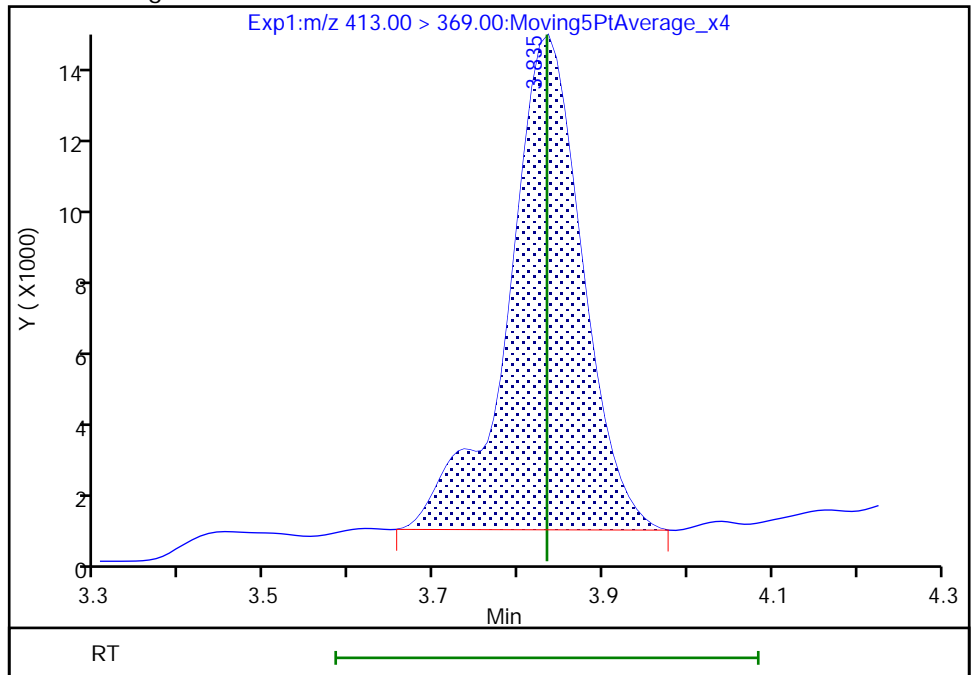
RT: 3.84  
Area: 90452  
Amount: 0.017221  
Amount Units: ng/ml

Processing Integration Results



RT: 3.84  
Area: 81697  
Amount: 0.015554  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:30:30  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

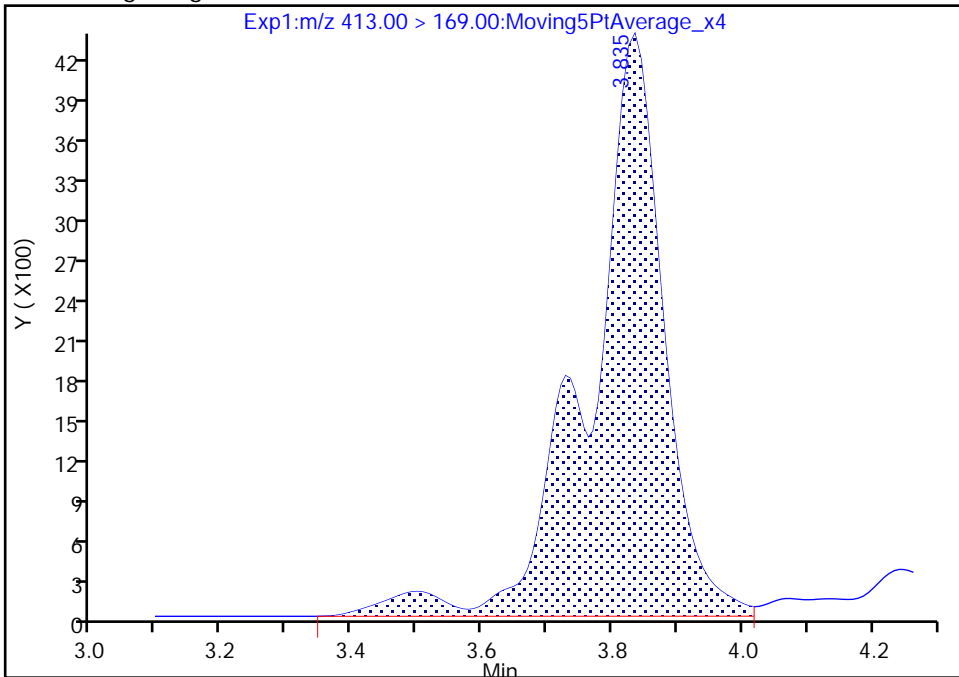
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Lims ID: 320-74597-A-4-A Lab Sample ID: 320-74597-4  
Client ID: BH20210604-2S-25  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

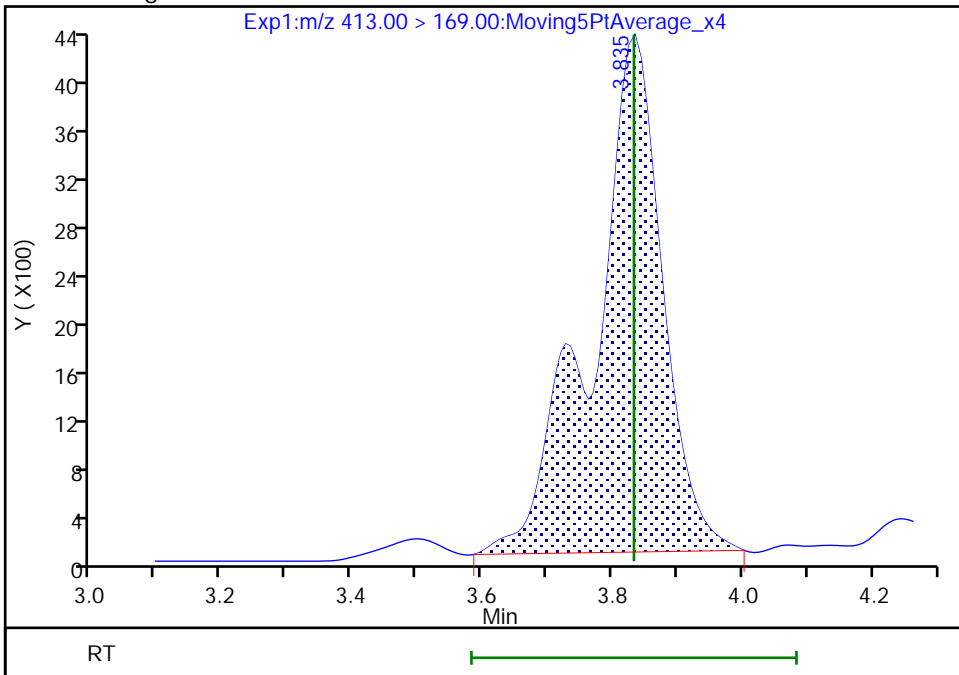
RT: 3.84  
Area: 34876  
Amount: 0.017221  
Amount Units: ng/ml

Processing Integration Results



RT: 3.84  
Area: 31745  
Amount: 0.015554  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

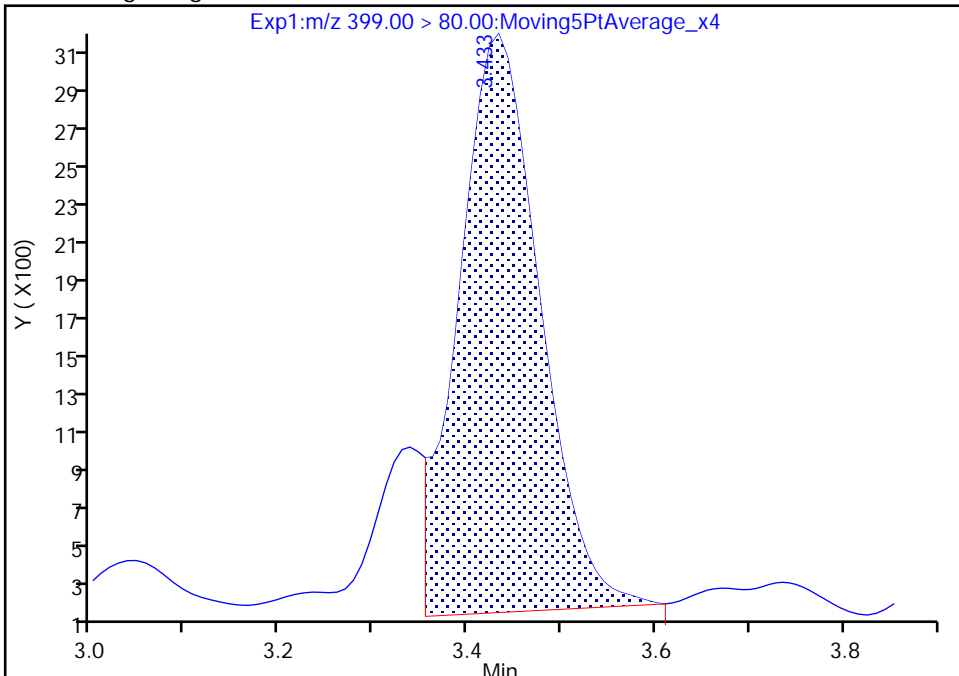
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_013.d		
Injection Date:	10-Jun-2021 05:42:39	Instrument ID:	A15
Lims ID:	320-74597-A-4-A	Lab Sample ID:	320-74597-4
Client ID:	BH20210604-2S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

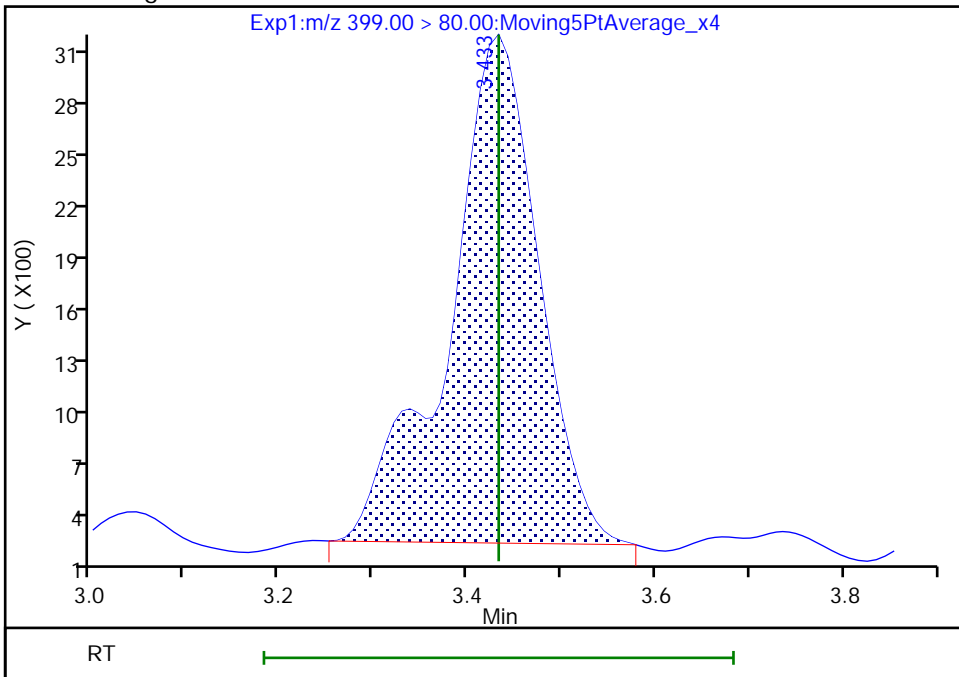
RT: 3.43  
 Area: 18292  
 Amount: 0.007000  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
 Area: 19619  
 Amount: 0.007508  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:29:57  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

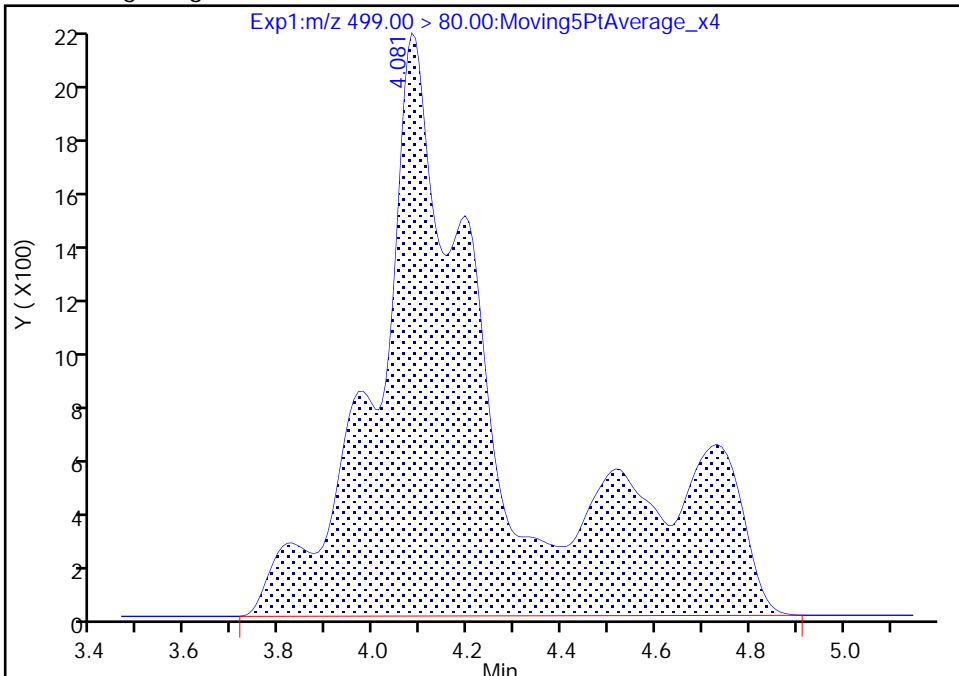
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_013.d		
Injection Date:	10-Jun-2021 05:42:39	Instrument ID:	A15
Lims ID:	320-74597-A-4-A	Lab Sample ID:	320-74597-4
Client ID:	BH20210604-2S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	10

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

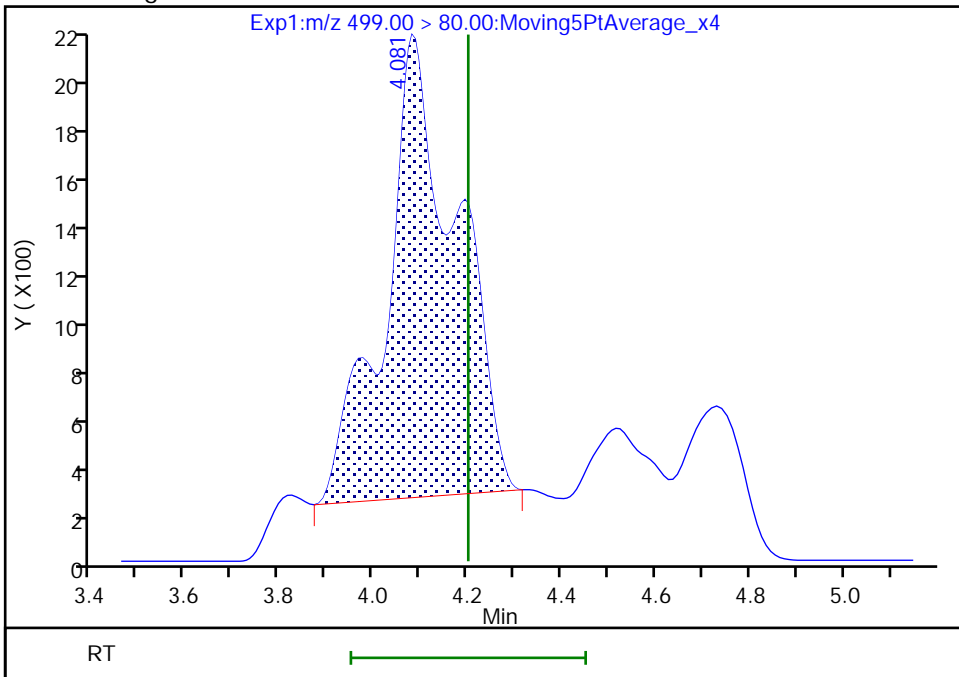
RT: 4.08  
 Area: 40518  
 Amount: 0.020779  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.08  
 Area: 19744  
 Amount: 0.010126  
 Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

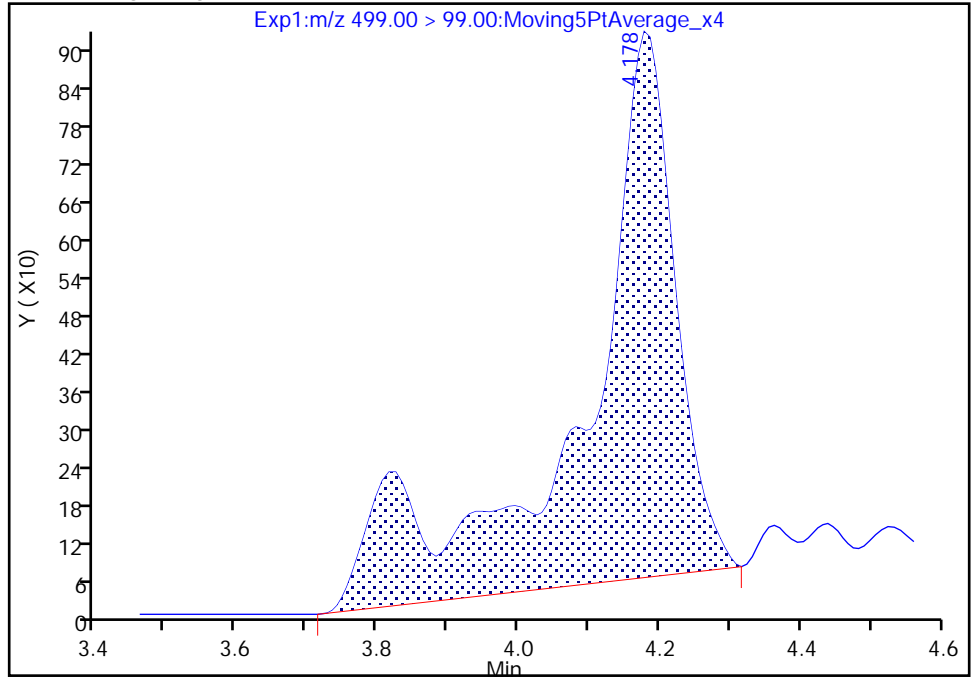
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_013.d  
Injection Date: 10-Jun-2021 05:42:39 Instrument ID: A15  
Lims ID: 320-74597-A-4-A Lab Sample ID: 320-74597-4  
Client ID: BH20210604-2S-25  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

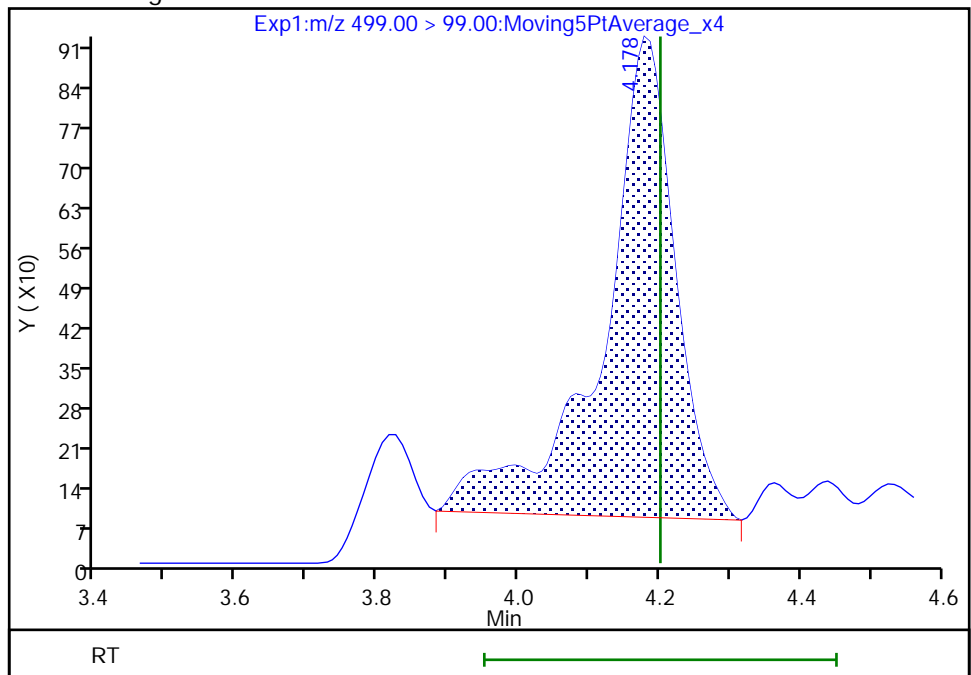
RT: 4.18  
Area: 8104  
Amount: 0.020779  
Amount Units: ng/ml

Processing Integration Results



RT: 4.18  
Area: 6093  
Amount: 0.010126  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:30:45

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-50 Lab Sample ID: 320-74597-5  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_014.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:03  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 279.8 (mL) Date Analyzed: 06/10/2021 05:51  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.9		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-50 Lab Sample ID: 320-74597-5  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_014.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:03  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 279.8 (mL) Date Analyzed: 06/10/2021 05:51  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	101		25-150
STL01893	13C5 PFPeA	99		25-150
STL00993	13C2 PFHxA	96		25-150
STL01892	13C4 PFHpA	100		25-150
STL00990	13C4 PFOA	95		25-150
STL00995	13C5 PFNA	99		25-150
STL00996	13C2 PFDA	94		25-150
STL00997	13C2 PFUnA	93		25-150
STL00998	13C2 PFDoA	101		25-150
STL02116	13C2 PFTeDA	89		25-150
STL02337	13C3 PFBS	104		25-150
STL00994	18O2 PFHxS	103		25-150
STL00991	13C4 PFOS	100		25-150
STL01056	13C8 FOSA	107		25-150
STL02118	d3-NMeFOSAA	96		25-150
STL02117	d5-NEtFOSAA	106		25-150
STL02279	M2-6:2 FTS	88		25-150
STL02280	M2-8:2 FTS	96		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
 Lims ID: 320-74597-A-5-A  
 Client ID: BH20210604-2S-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 05:51:48 ALS Bottle#: 8 Worklist Smp#: 11  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-5-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:33:40 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:33:40  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.312	2.319	-0.007	1.004	348870	0.0733			185	
D 9 13C4 PFBA										
217.00 > 172.00	2.302	2.319	-0.017	0.602	6290226	1.27		101	45254	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.004	258050	0.0529			194	
D 17 13C5 PFPeA										
267.90 > 223.00	2.640	2.661	-0.021	0.690	5822065	1.24		99.3	43235	
D 21 13C3 PFBS										
301.90 > 80.00	2.672	2.682	-0.010	0.699	3935167	1.20		104	21457	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.672	2.693	-0.021	1.000	24555	0.006415	Target=2.41		57.2	M
298.90 > 99.00	2.683	2.693	-0.010	1.004	11447		2.15(1.20-3.61)		34.9	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.010	3.019	-0.009	1.000	152832	0.0307	Target=13.85		217	
313.00 > 119.00	3.010	3.019	-0.009	1.000	10516		14.53(6.92-20.77)		105	
D 28 13C2 PFHxA										
315.00 > 270.00	3.010	3.019	-0.009	0.787	5554005	1.20		95.7	63511	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.424	3.433	-0.009	1.000	21816	0.004495	Target=3.98		44.3	
363.00 > 169.00	3.414	3.433	-0.019	0.997	6425		3.40(1.99-5.97)		98.0	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.424	3.433	-0.009	1.000	18750	0.007103	Target=3.33		125	M
399.00 > 99.00	3.424	3.433	-0.009	1.000	6064		3.09(1.66-4.99)		51.1	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.424	3.433	-0.009	0.895	2822973	1.21		103	52108	
D 37 13C4 PFHpA										
367.00 > 322.00	3.424	3.433	-0.009	0.895	5741249	1.26		100	50288	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.807	3.814	-0.007	0.995	1098615	1.04		87.6	9738	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.826	3.834	-0.008	1.000	47794	0.009279	Target=2.90	78.1		M
413.00 > 169.00	3.826	3.834	-0.008	1.000	20677		2.31(1.45-4.35)	180		M
* 57 13C2 PFOA										
415.00 > 370.00	3.826	3.834	-0.008		6228796	1.25			63536	
D 56 13C4 PFOA										
417.00 > 372.00	3.826	3.834	-0.008	1.000	6160830	1.19		94.8	57167	
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.178	4.201	-0.023	0.996	15601	0.007608	Target=5.77	41.0		M
499.00 > 99.00	4.202	4.201	0.001	1.002	3738		4.17(2.88-8.65)	41.4		M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.096	2178044	1.20		100	24312	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.217	-0.007	1.101	6175618	1.24		99.5	76691	
D 71 13C8 FOSA										
506.00 > 78.00	4.525	4.523	0.002	1.183	4120578	1.34		107	44615	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.525	4.532	-0.007	1.000	5756	0.001739			114	
D 74 13C2 PFDA										
515.00 > 470.00	4.552	4.559	-0.007	1.190	5822046	1.17		93.8	61888	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.569	-0.008	1.192	1893342	1.15		95.9	22438	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.234	2510040	1.20		95.8	20229	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.274	5566891	1.16		93.0	69612	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.874	4.882	-0.008	1.274	2753020	1.32		106	25490	
D 97 13C2 PFDoA										
615.00 > 570.00	5.149	5.156	-0.007	1.346	6563777	1.27		101	83508	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.658	-0.007	1.477	5287823	1.11		88.7	56119	
105 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.651	5.658	-0.007	1.000	1091	0.002098	Target=1.03	34.5		M
713.00 > 219.00	5.651	5.658	-0.007	1.000	1383		0.79(0.51-1.54)	52.2		

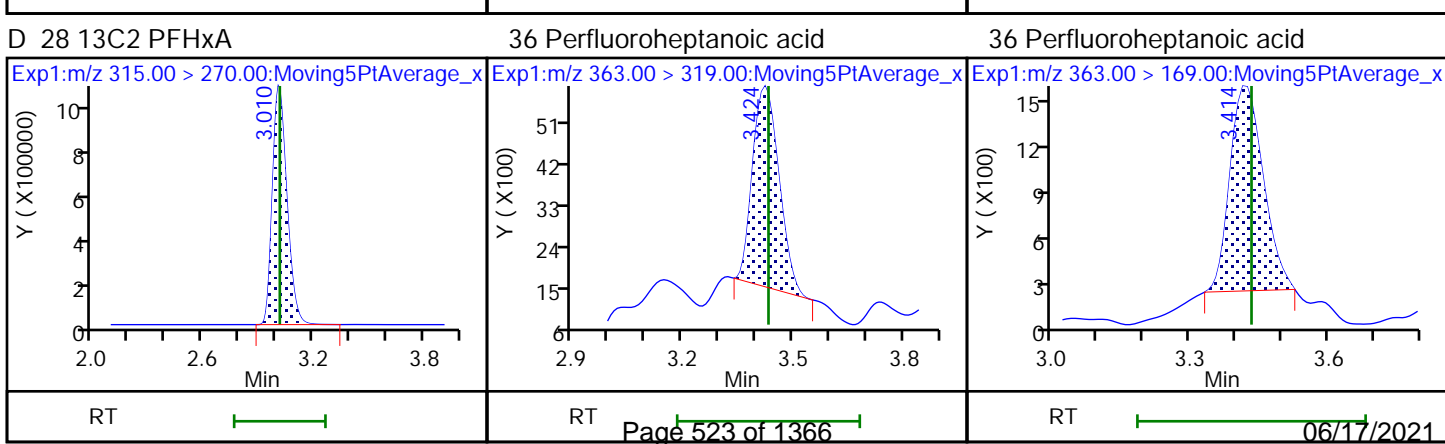
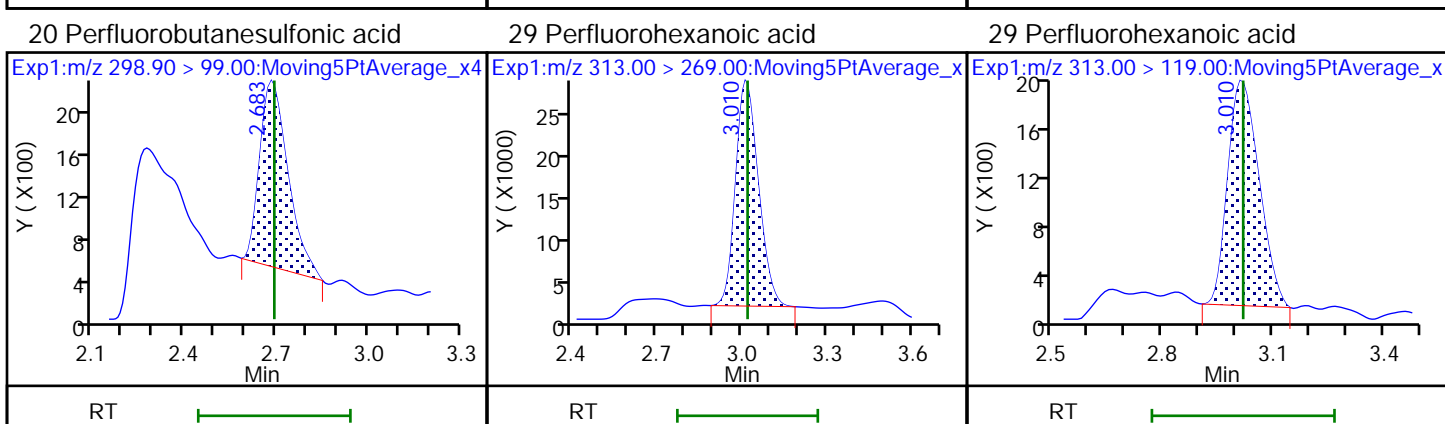
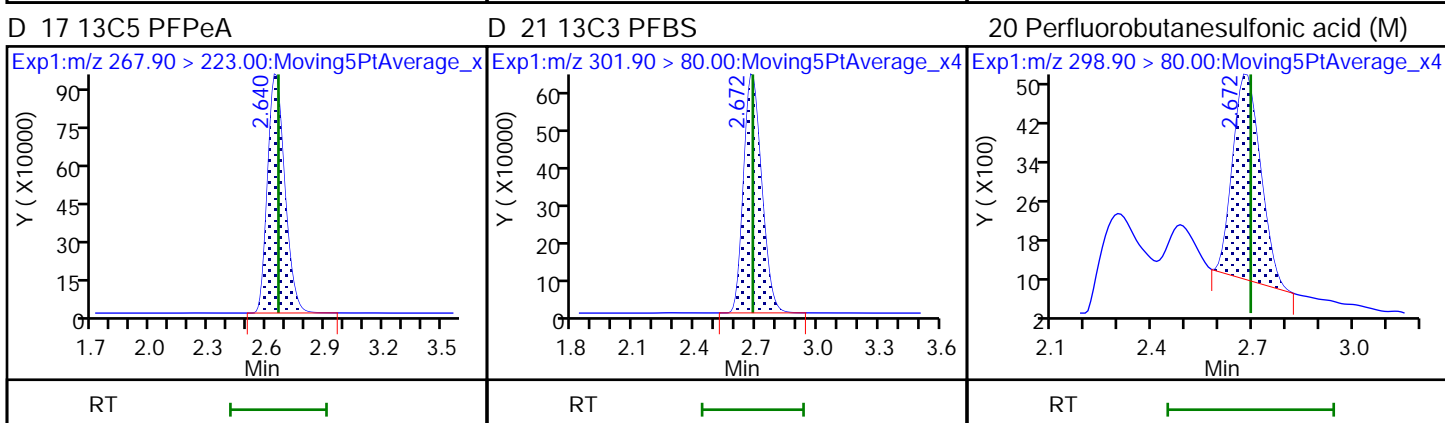
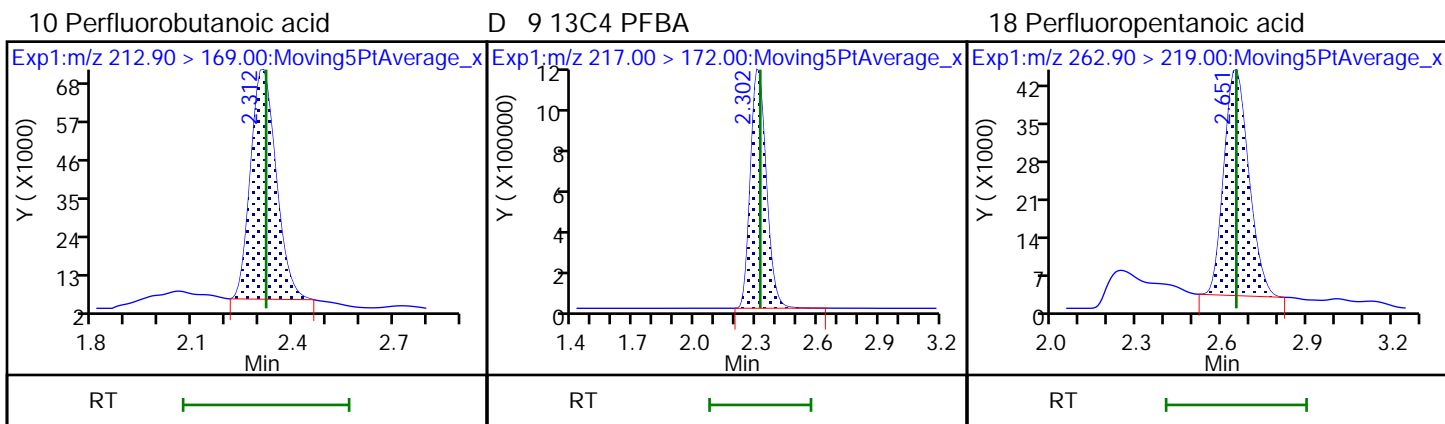
QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

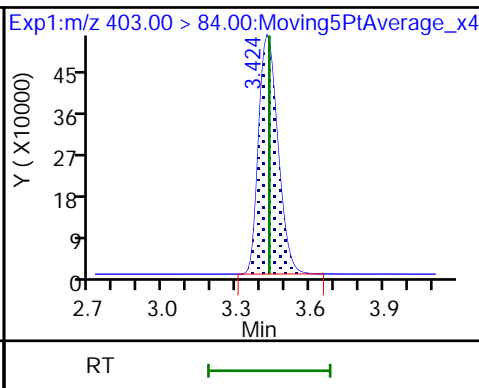
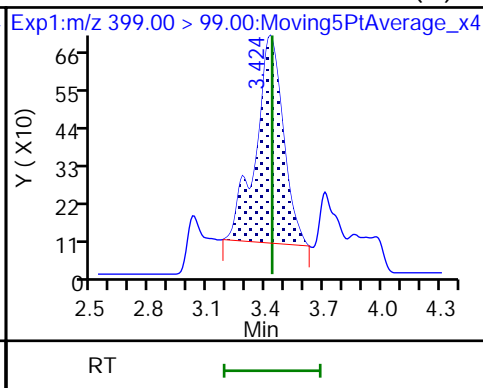
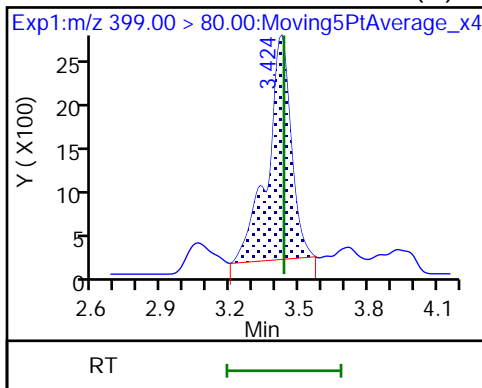
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Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid (M)

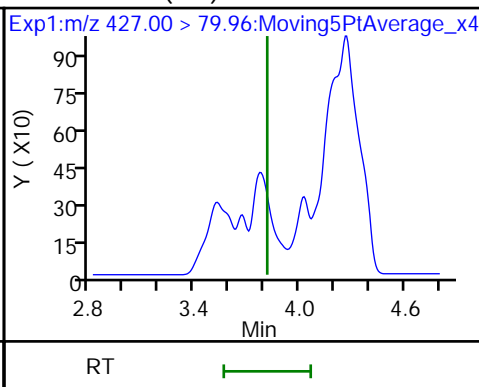
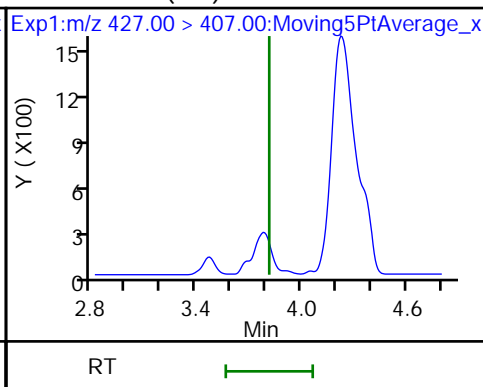
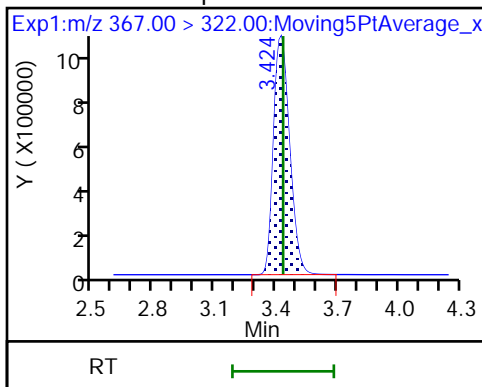
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS (ND)

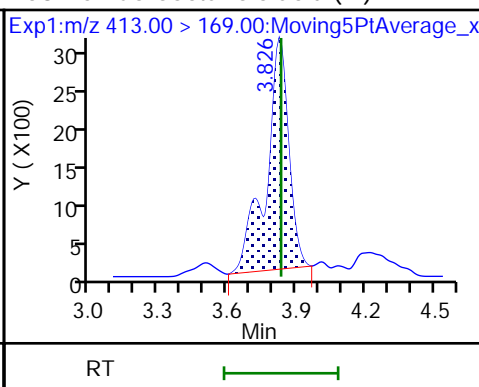
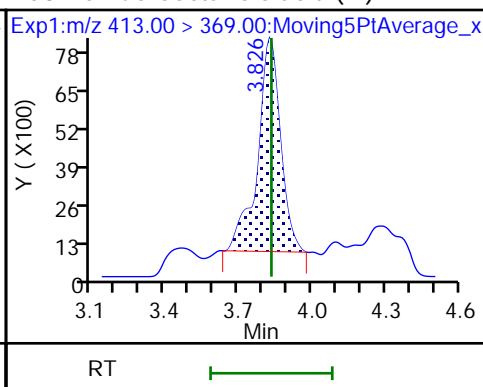
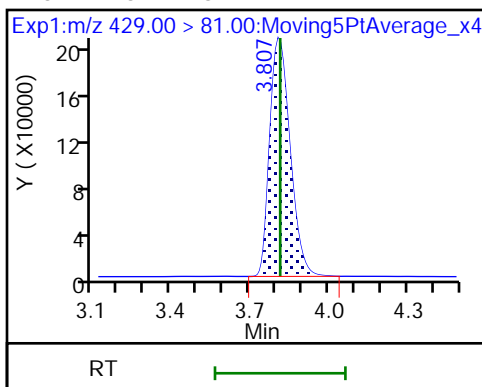
53 6:2 FTS (ND)



D 52 M2-6:2 FTS

58 Perfluorooctanoic acid (M)

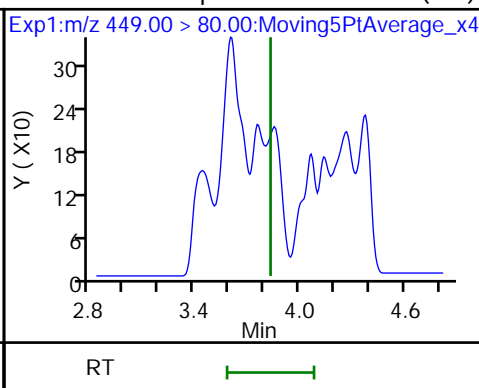
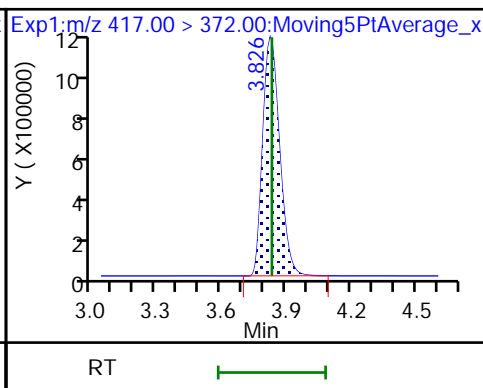
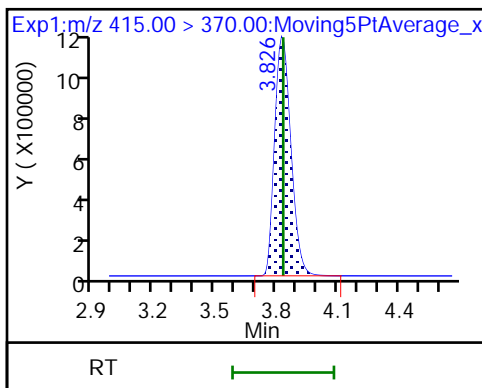
58 Perfluorooctanoic acid (M)



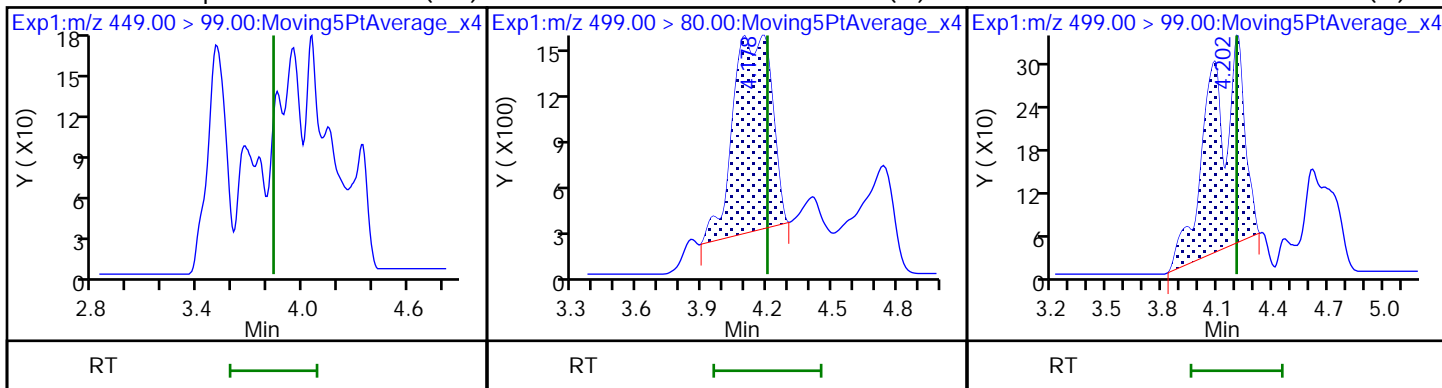
\* 57 13C2 PFOA

D 56 13C4 PFOA

54 Perfluoroheptanesulfonic acid (ND)



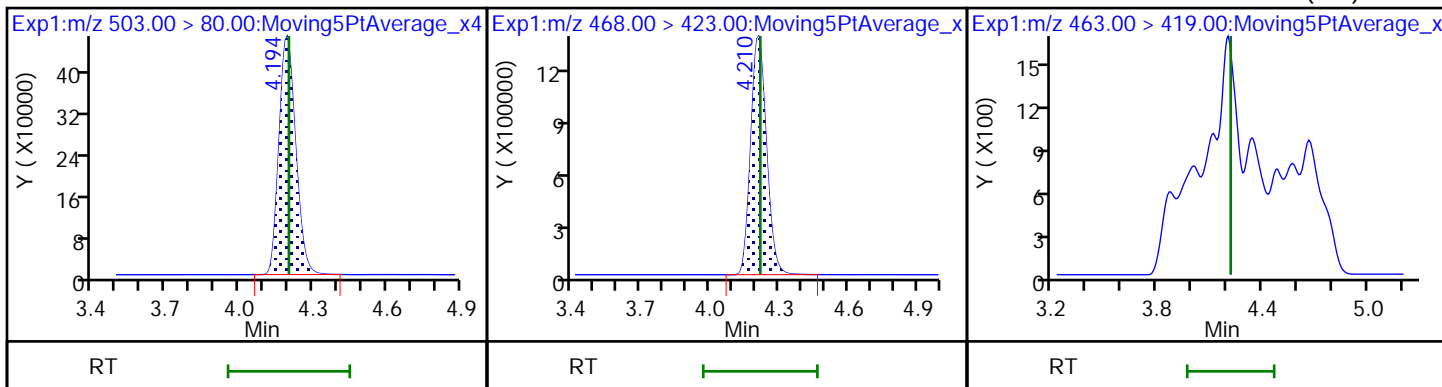
54 Perfluoroheptanesulfonic acid (ND) 62 Perfluorooctanesulfonic acid (M) 62 Perfluorooctanesulfonic acid (M)



D 61 13C4 PFOS

D 63 13C5 PFNA

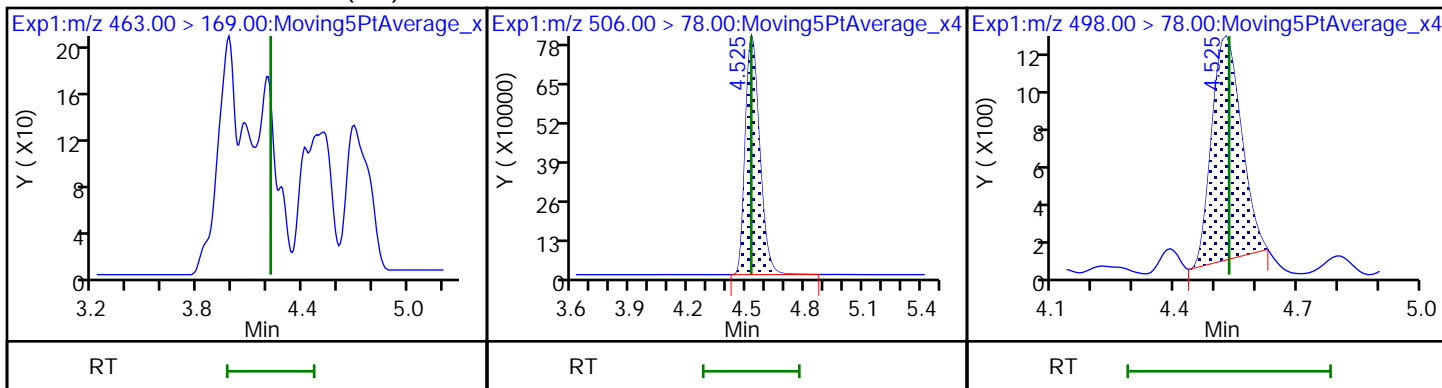
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

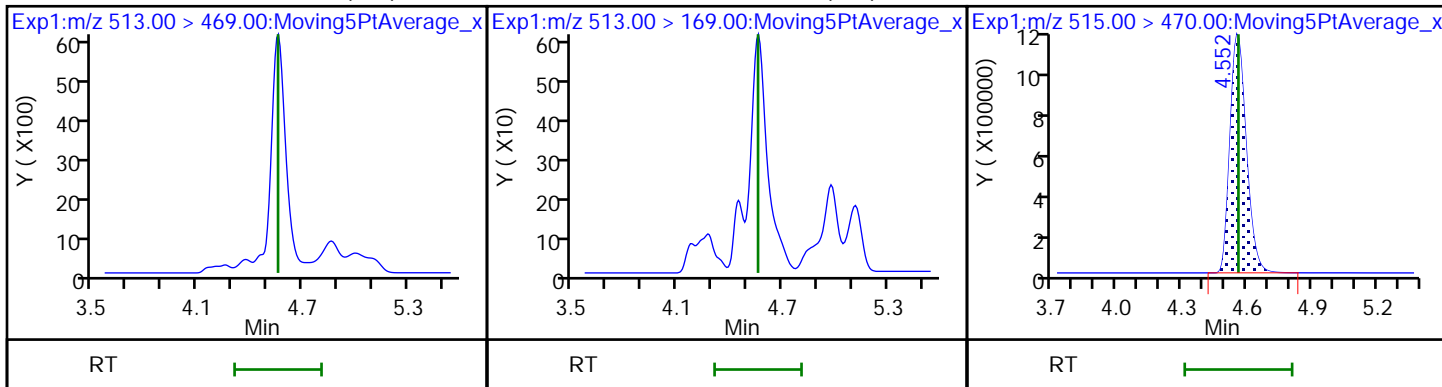
72 Perfluorooctanesulfonamide



75 Perfluorodecanoic acid (ND)

75 Perfluorodecanoic acid (ND)

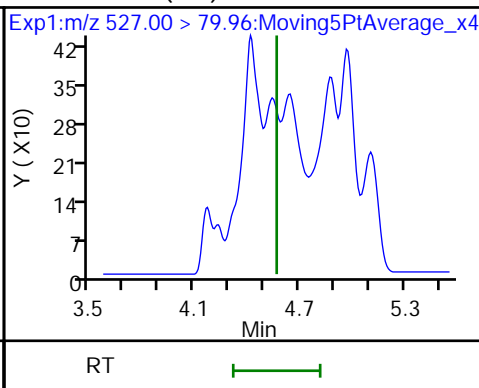
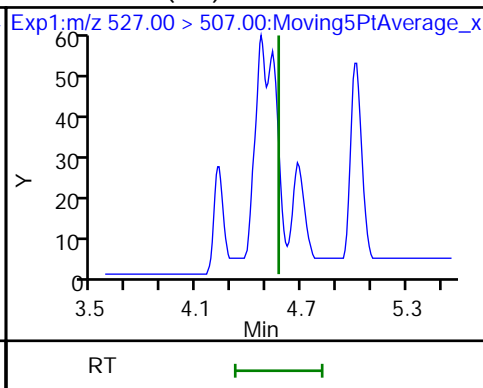
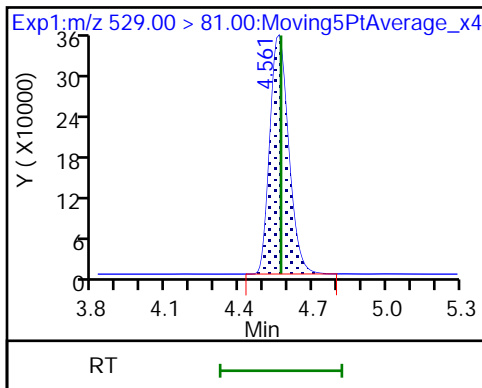
D 74 13C2 PFDA



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

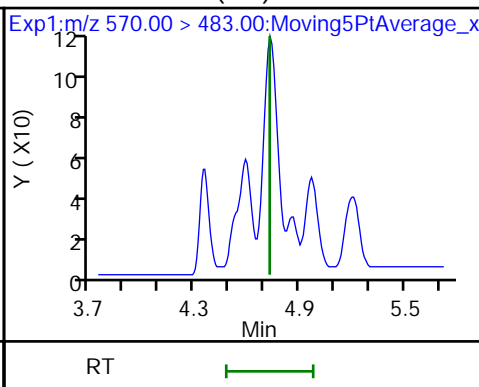
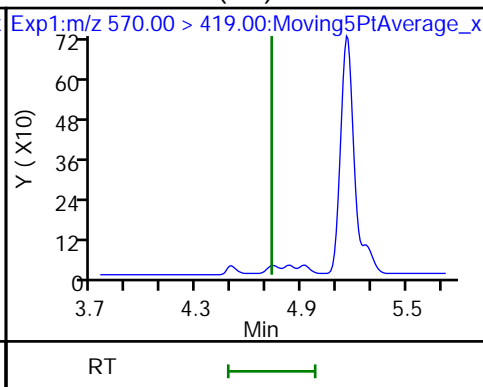
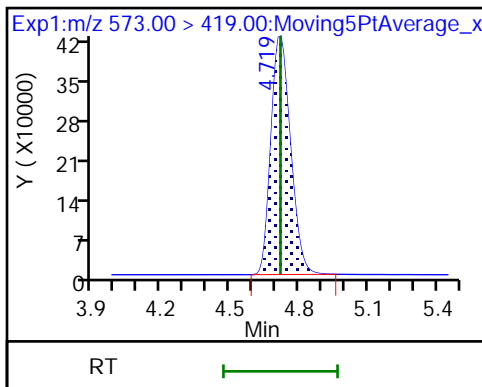
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

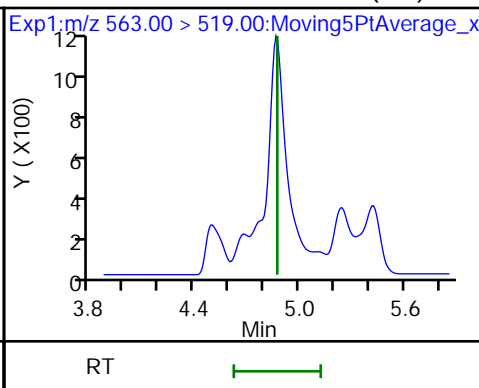
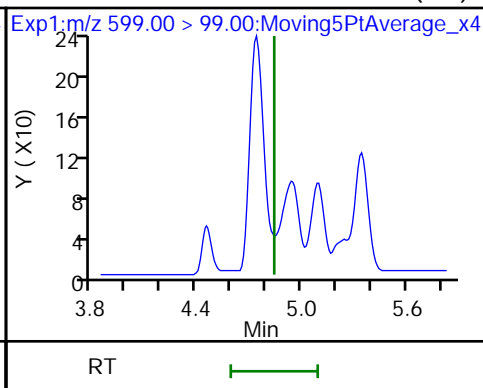
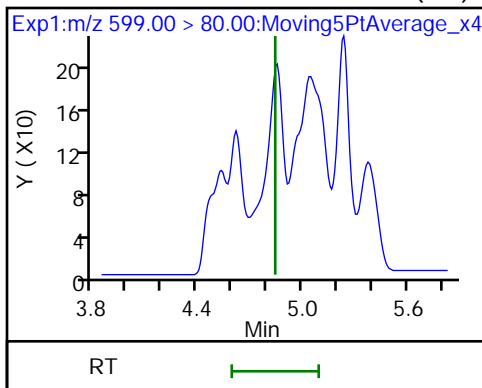
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

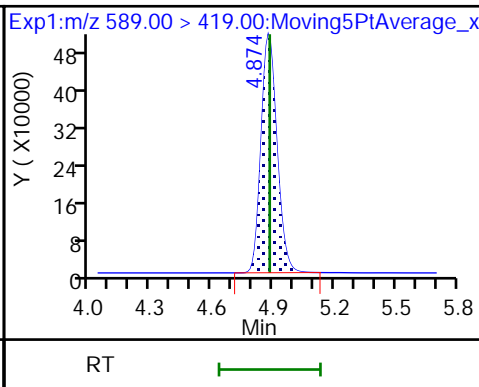
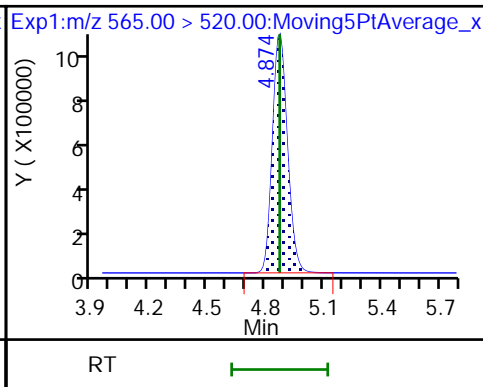
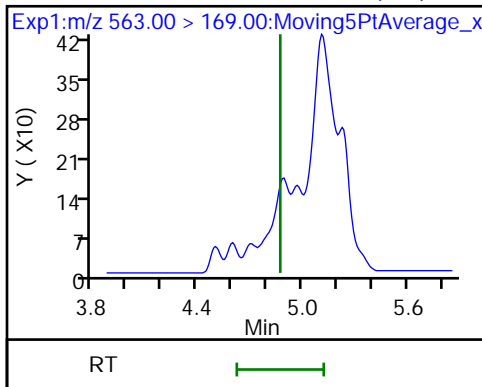
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

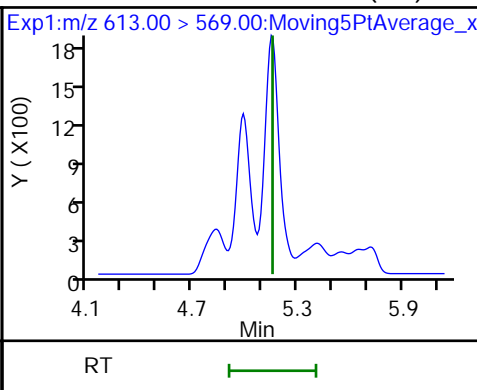
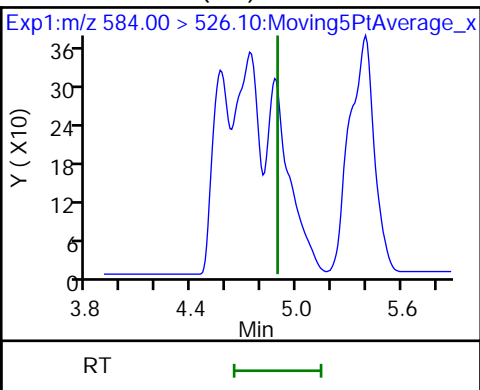
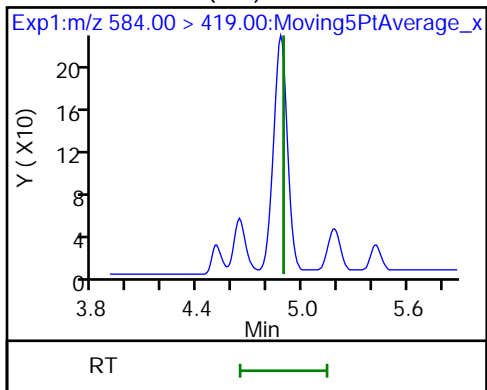
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

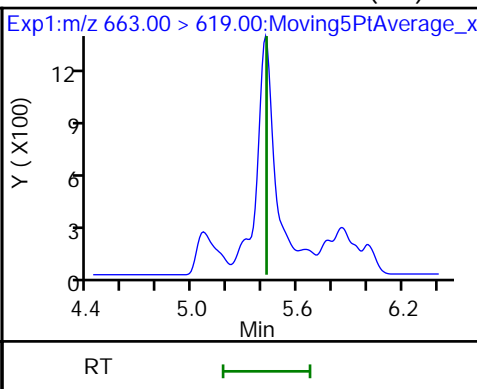
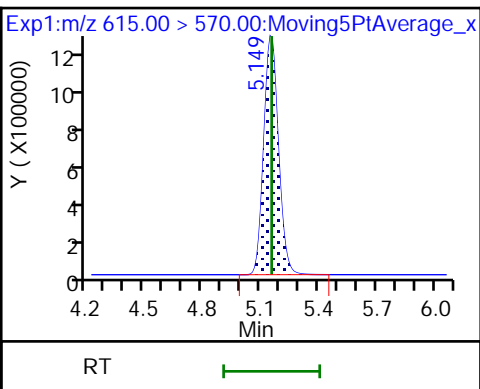
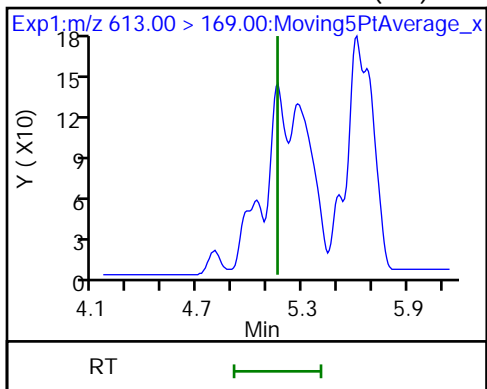
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

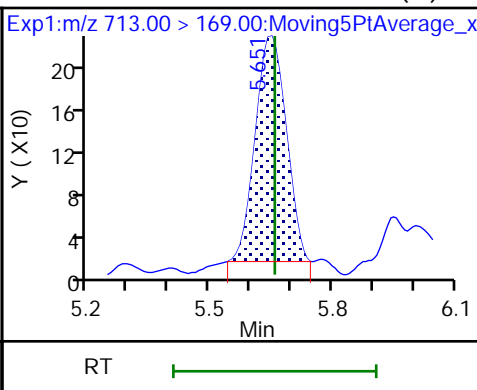
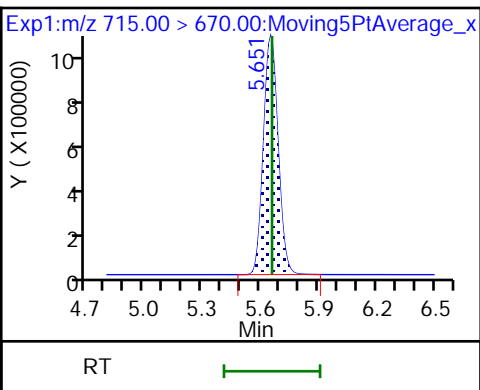
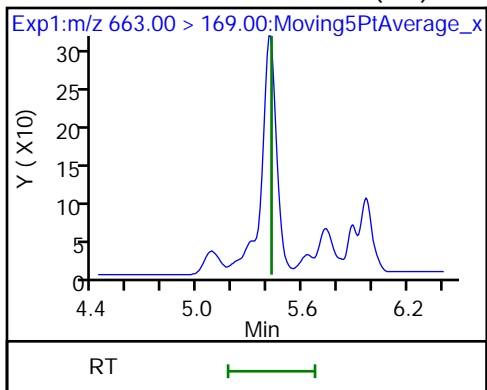
103 Perfluorotridecanoic acid (ND)



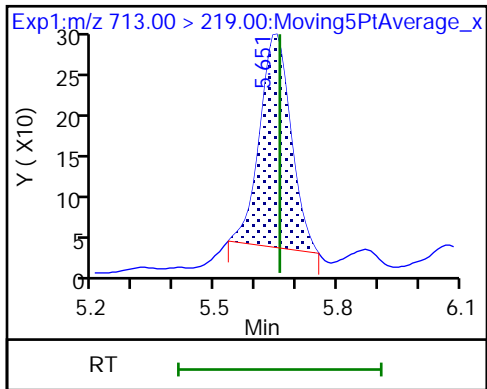
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

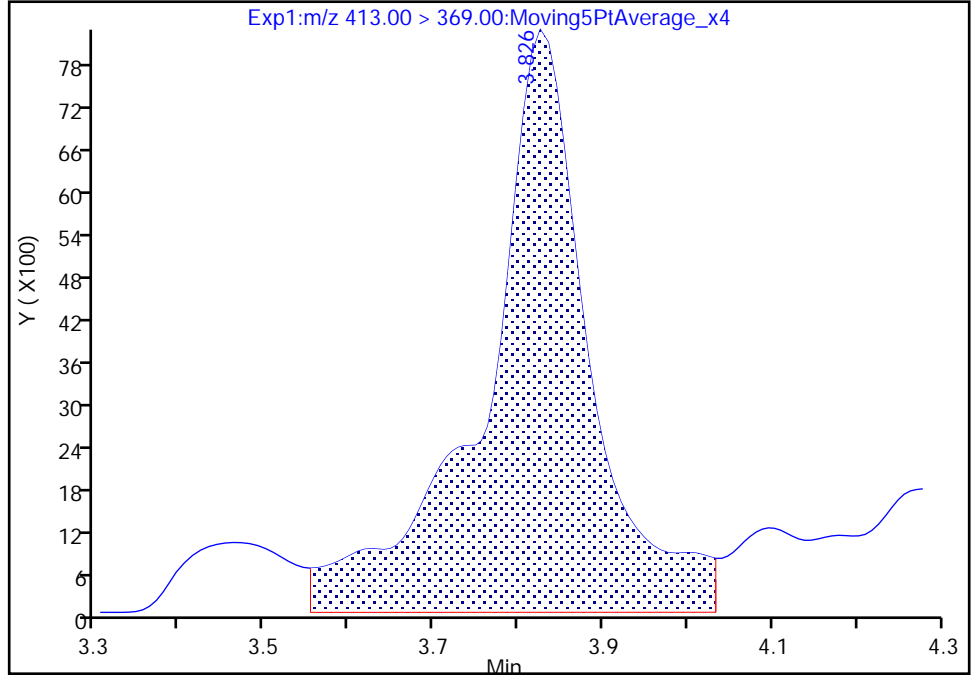
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

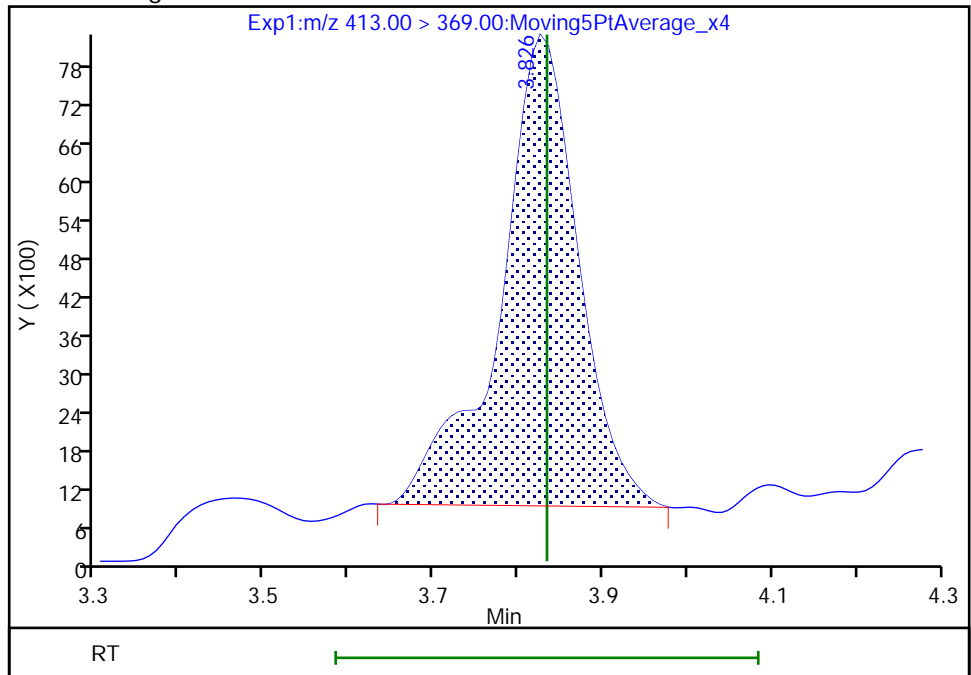
RT: 3.83  
Area: 72261  
Amount: 0.014030  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 47794  
Amount: 0.009279  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

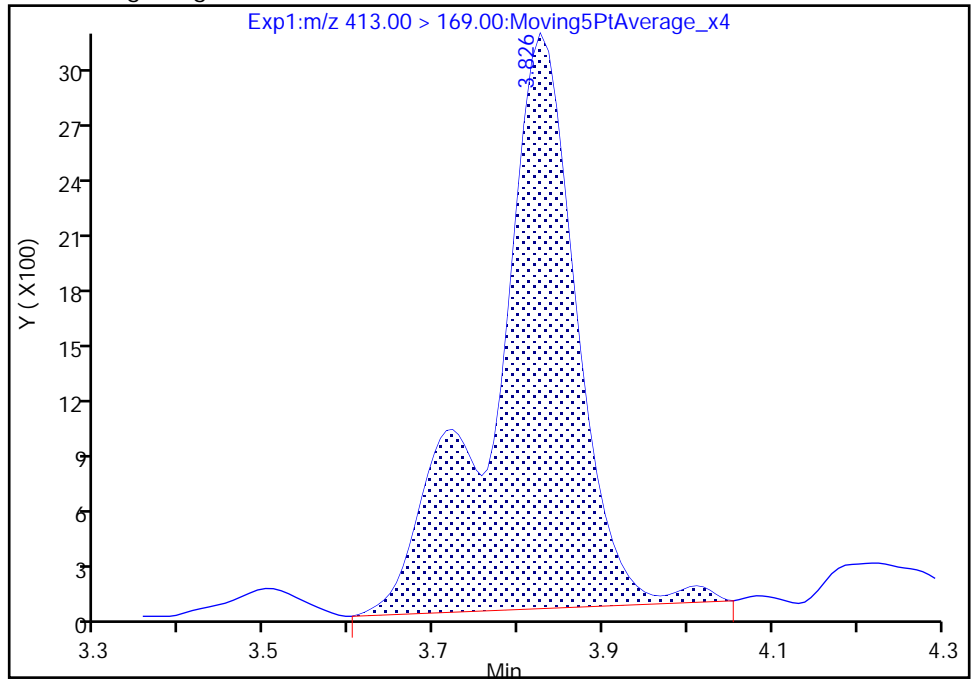
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

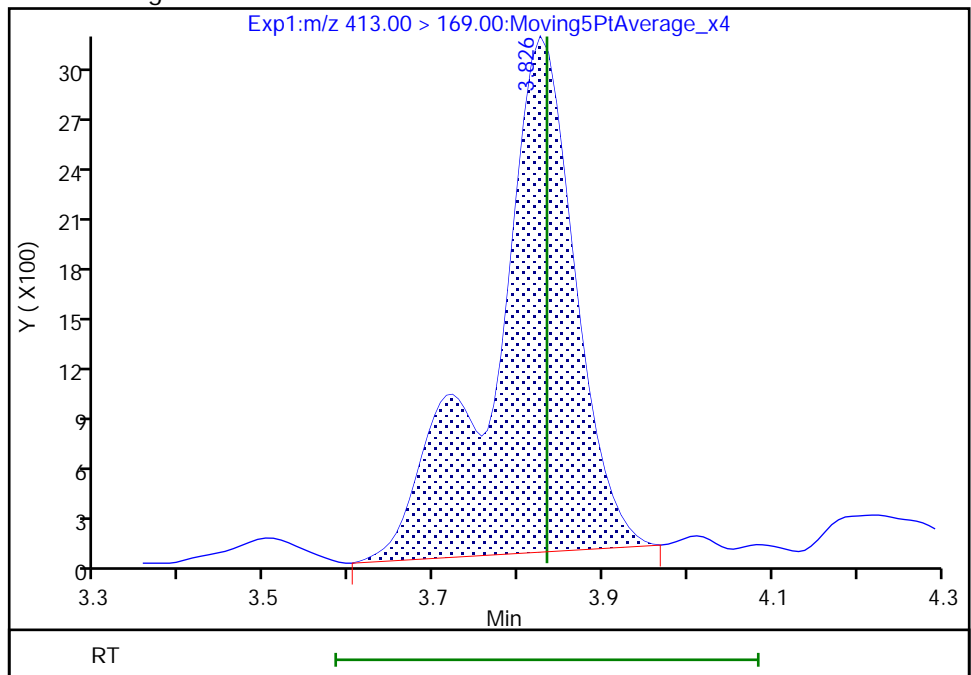
RT: 3.83  
Area: 21385  
Amount: 0.014030  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 20677  
Amount: 0.009279  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:32:29

Audit Action: Manually Integrated

Audit Reason: Isomers



Euofins TestAmerica, Sacramento

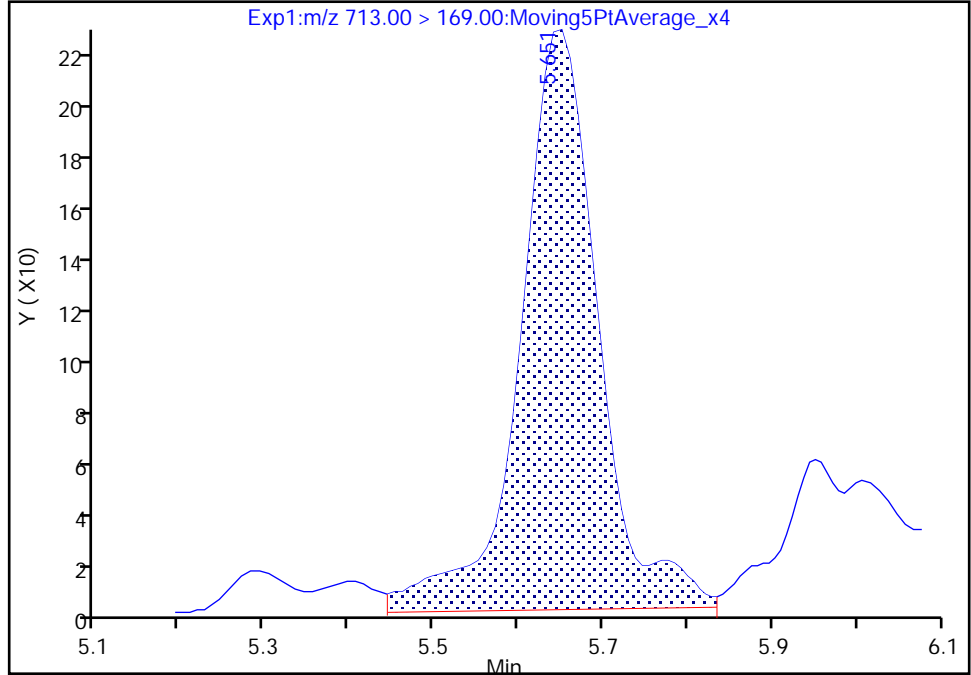
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

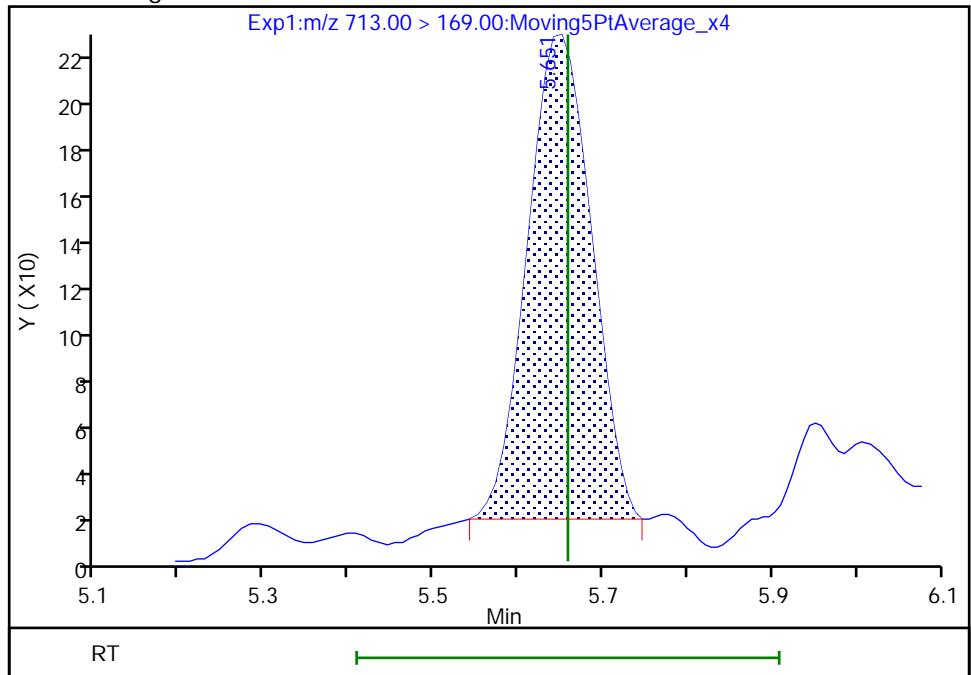
RT: 5.65  
Area: 1440  
Amount: 0.002769  
Amount Units: ng/ml

Processing Integration Results



RT: 5.65  
Area: 1091  
Amount: 0.002098  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:33:37  
Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

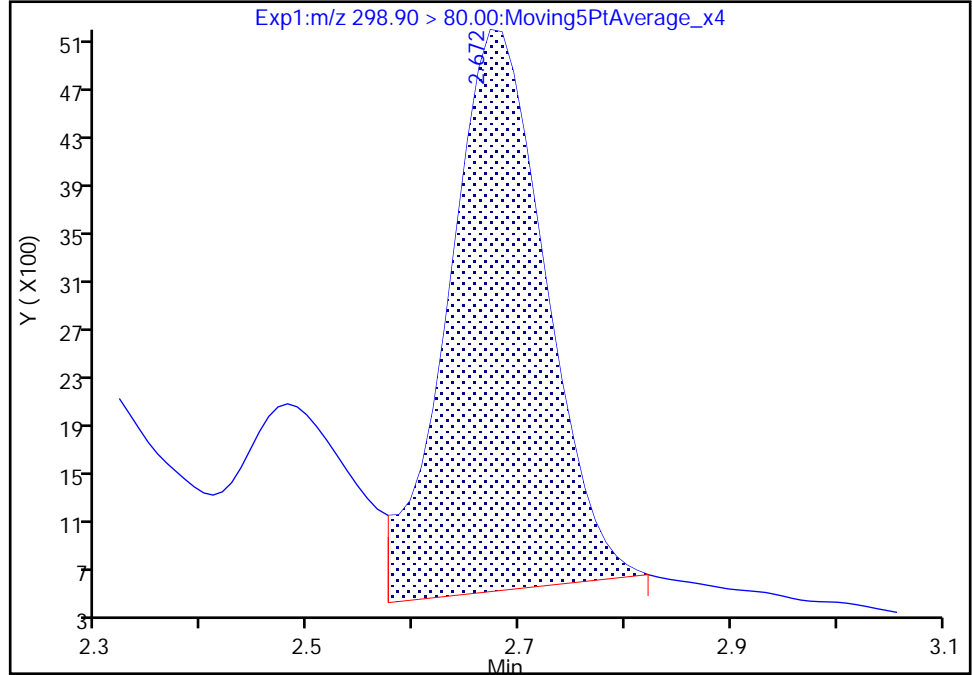
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

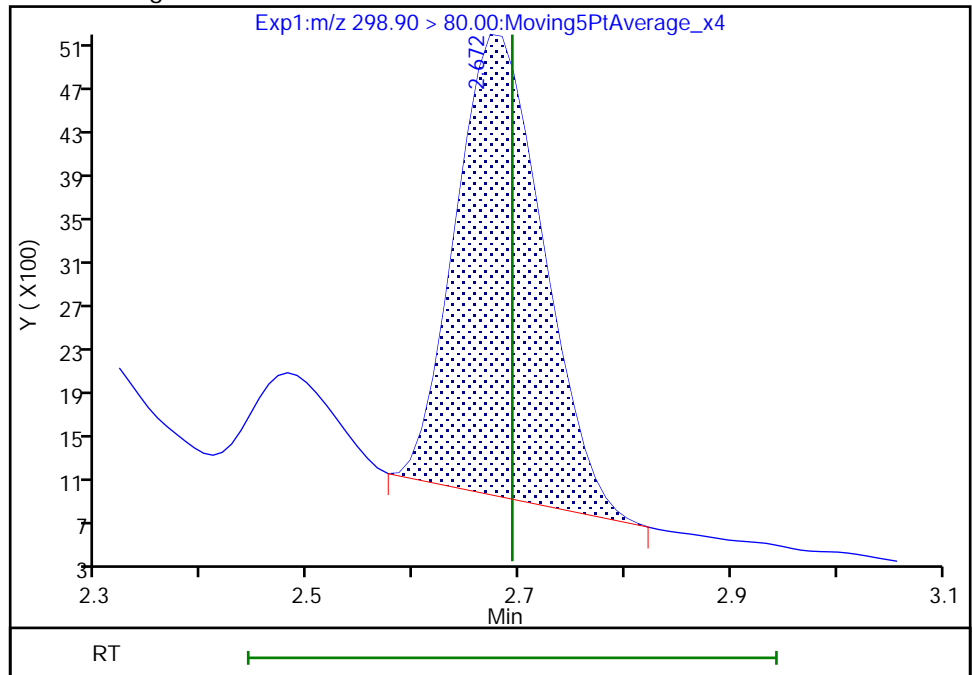
RT: 2.67  
Area: 29897  
Amount: 0.007811  
Amount Units: ng/ml

Processing Integration Results



RT: 2.67  
Area: 24555  
Amount: 0.006415  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:31:46  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

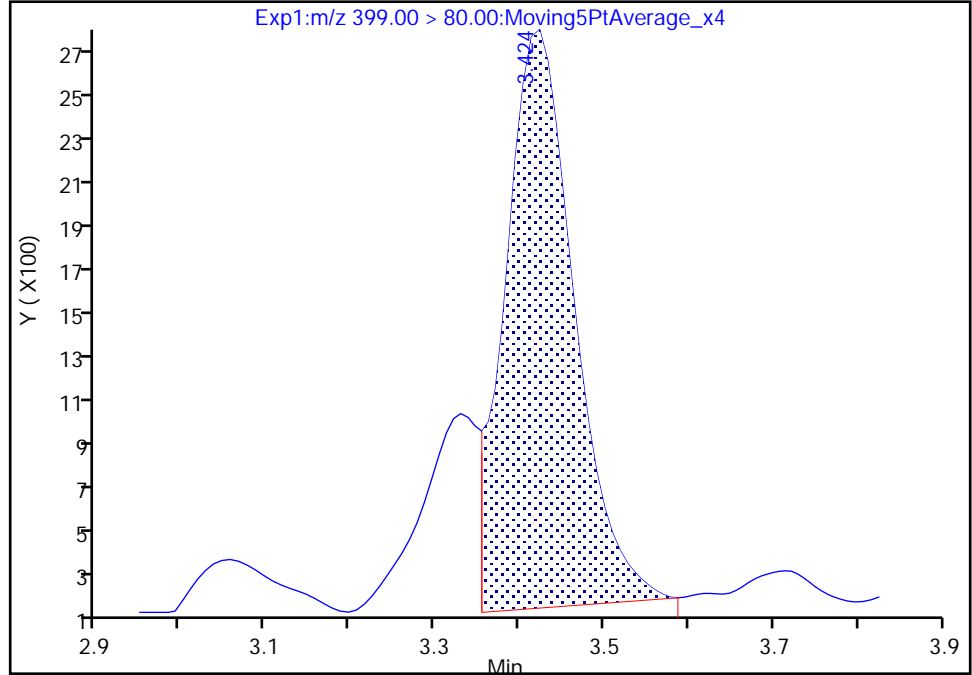
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

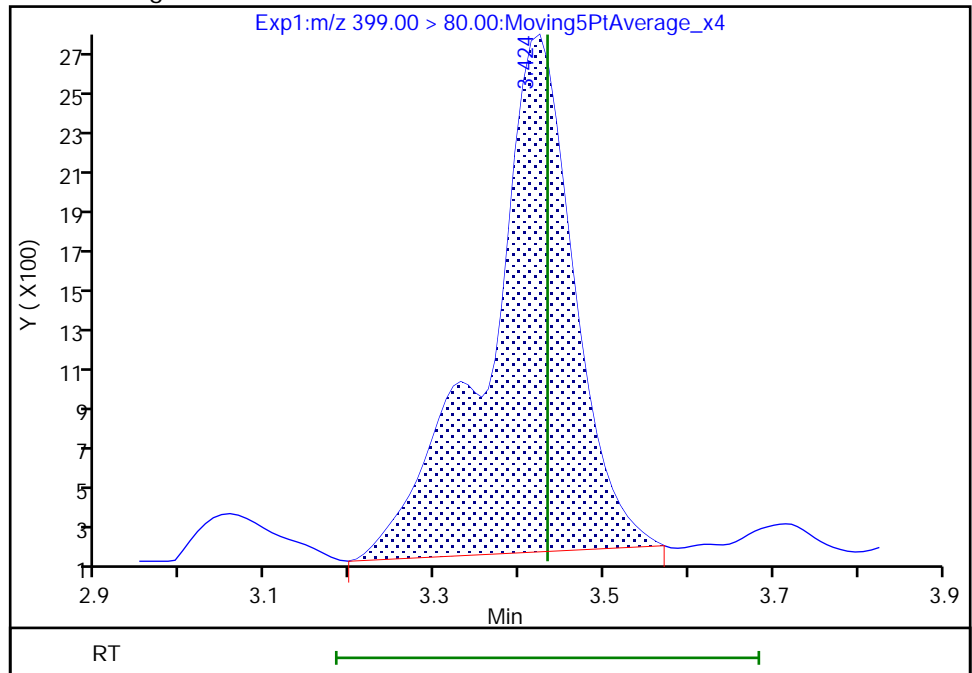
RT: 3.42  
Area: 15002  
Amount: 0.005683  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 18750  
Amount: 0.007103  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:32:12  
Audit Action: Manually Integrated

Audit Reason: Isomers

Eurofins TestAmerica, Sacramento

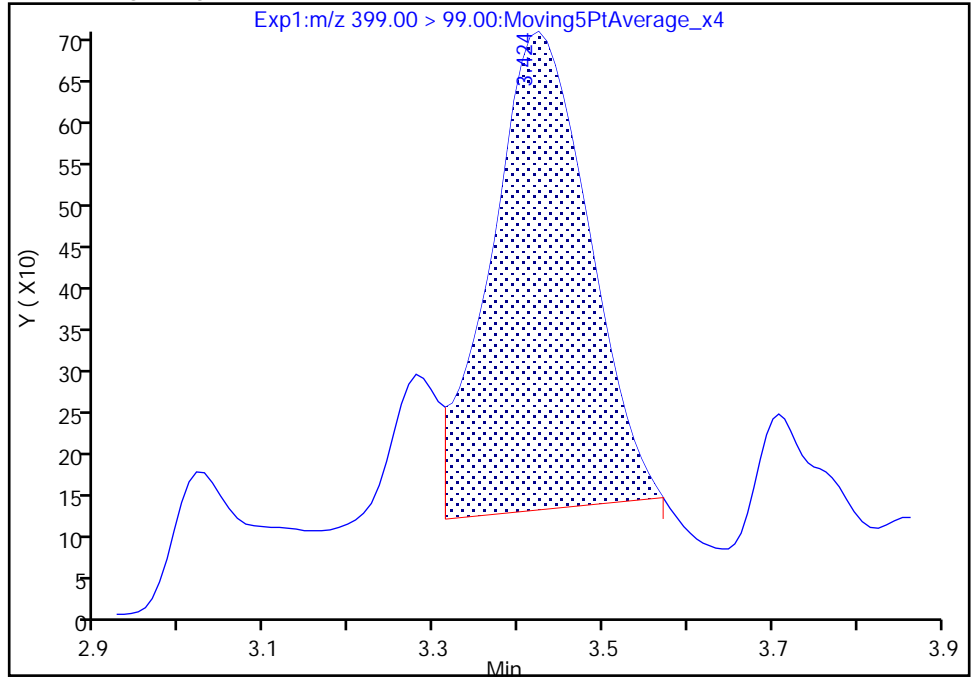
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_014.d		
Injection Date:	10-Jun-2021 05:51:48	Instrument ID:	A15
Lims ID:	320-74597-A-5-A	Lab Sample ID:	320-74597-5
Client ID:	BH20210604-2S-50		
Operator ID:	SACINSTA15	ALS Bottle#:	8
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	11

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

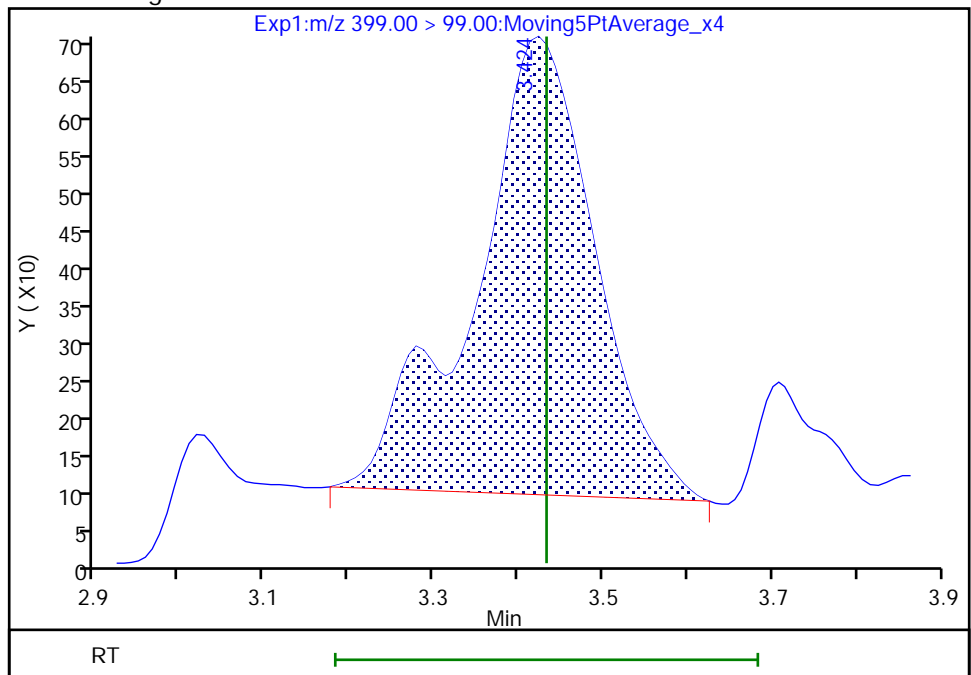
RT: 3.42  
 Area: 4645  
 Amount: 0.005683  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
 Area: 6064  
 Amount: 0.007103  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:32:15

Audit Action: Manually Integrated

Audit Reason: Isomers

Eurofins TestAmerica, Sacramento

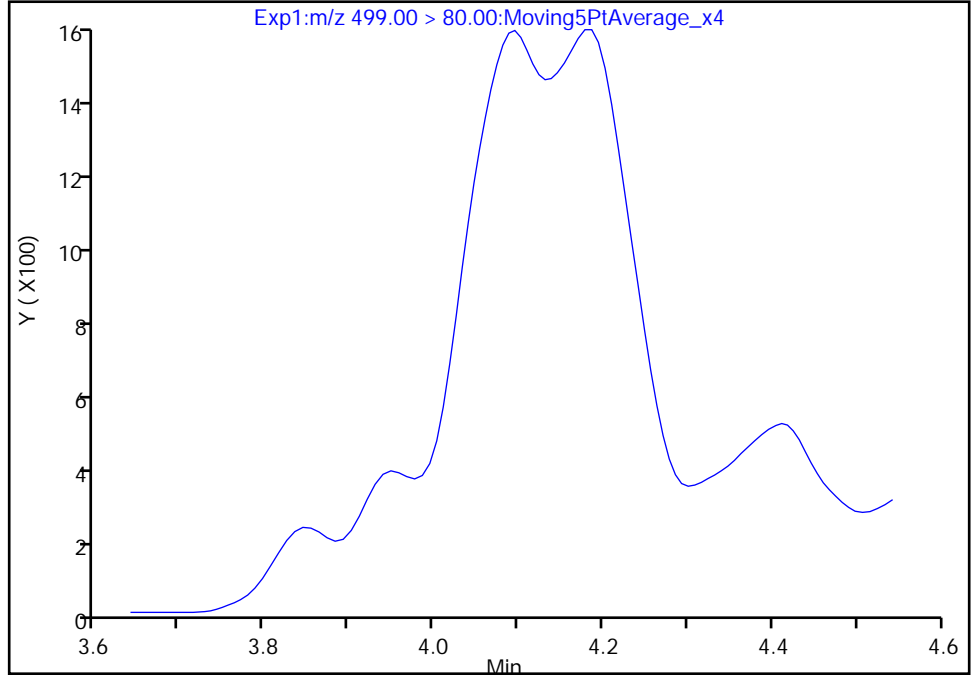
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

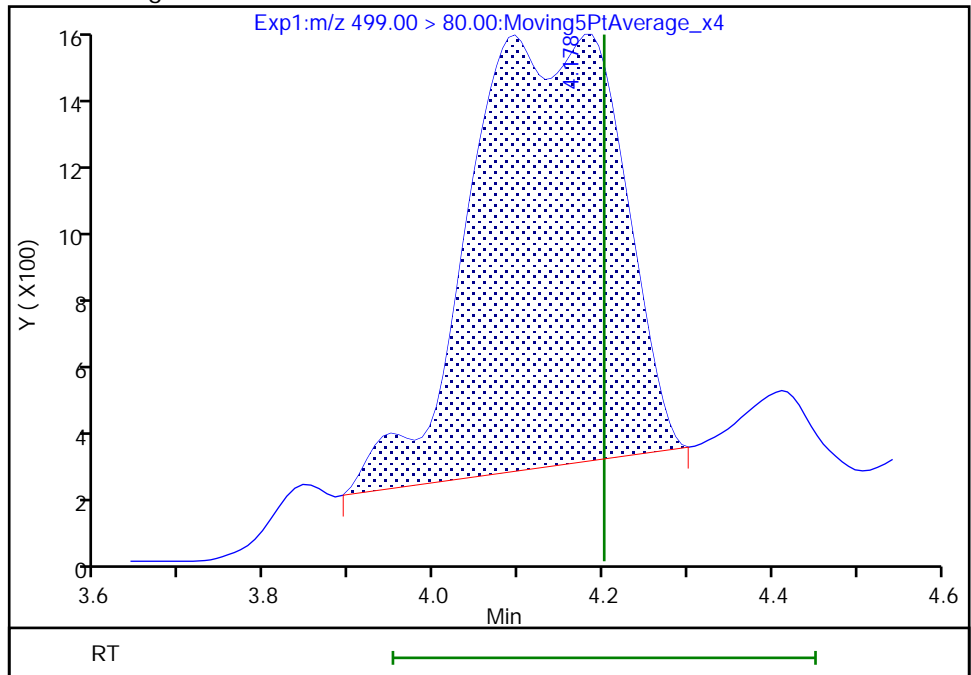
Not Detected  
Expected RT: 4.20

Processing Integration Results



Manual Integration Results

RT: 4.18  
Area: 15601  
Amount: 0.007608  
Amount Units: ng/ml



Reviewer: mongkols, 11-Jun-2021 09:32:58  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

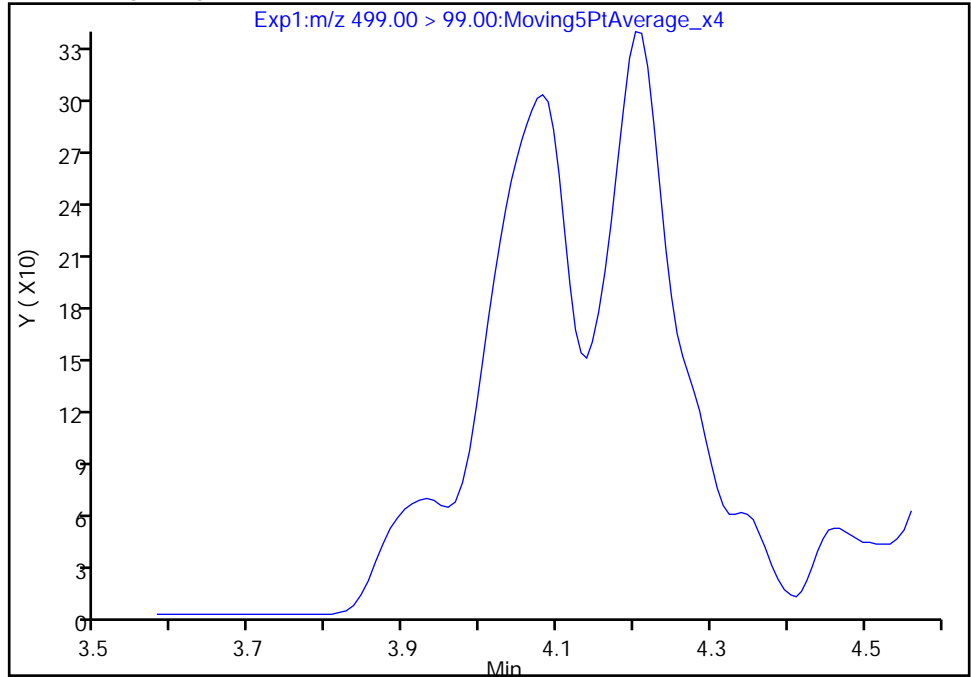
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_014.d  
Injection Date: 10-Jun-2021 05:51:48 Instrument ID: A15  
Lims ID: 320-74597-A-5-A Lab Sample ID: 320-74597-5  
Client ID: BH20210604-2S-50  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

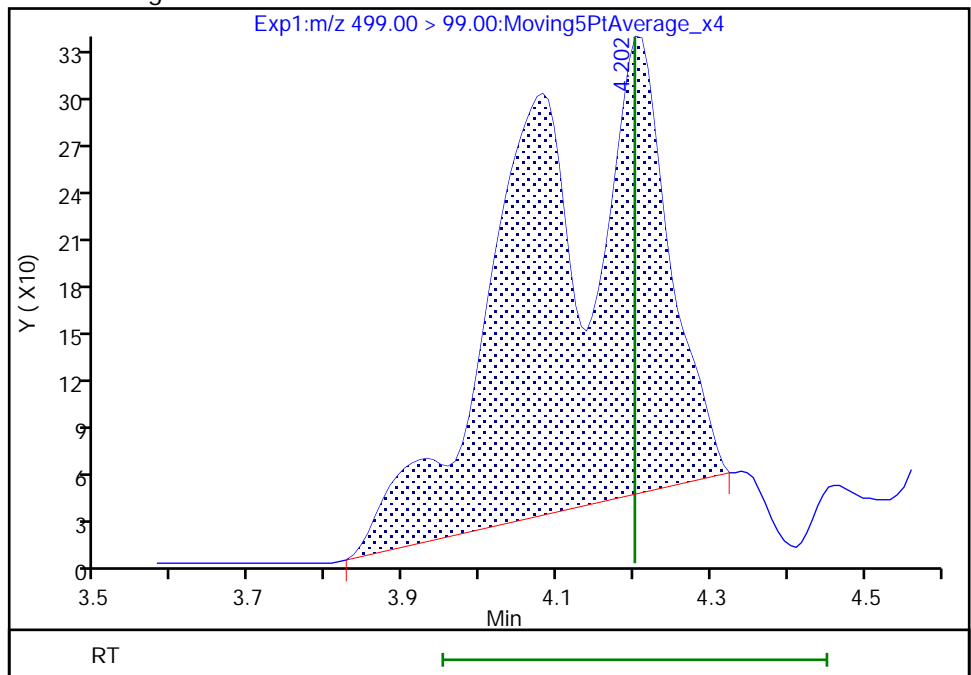
Not Detected  
Expected RT: 4.20

Processing Integration Results



Manual Integration Results

RT: 4.20  
Area: 3738  
Amount: 0.007608  
Amount Units: ng/ml



Reviewer: mongkols, 11-Jun-2021 09:33:03

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-75 Lab Sample ID: 320-74597-6  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_015.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:05  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 272.5 (mL) Date Analyzed: 06/10/2021 06:00  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.6	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	
27619-97-2	6:2 FTS	ND		4.6	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-2S-75 Lab Sample ID: 320-74597-6  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_015.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:05  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 272.5 (mL) Date Analyzed: 06/10/2021 06:00  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	110		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	99		25-150
STL01892	13C4 PFHpA	106		25-150
STL00990	13C4 PFOA	104		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	103		25-150
STL00997	13C2 PFUnA	98		25-150
STL00998	13C2 PFDoA	113		25-150
STL02116	13C2 PFTeDA	110		25-150
STL02337	13C3 PFBS	104		25-150
STL00994	18O2 PFHxS	103		25-150
STL00991	13C4 PFOS	104		25-150
STL01056	13C8 FOSA	111		25-150
STL02118	d3-NMeFOSAA	105		25-150
STL02117	d5-NEtFOSAA	110		25-150
STL02279	M2-6:2 FTS	87		25-150
STL02280	M2-8:2 FTS	100		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_015.d  
 Lims ID: 320-74597-A-6-A  
 Client ID: BH20210604-2S-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 06:00:57 ALS Bottle#: 9 Worklist Smp#: 12  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-6-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:35:36 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:35:36  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.310	2.319	-0.009	1.000	341686	0.0709			276	
D 9 13C4 PFBA										
217.00 > 172.00	2.310	2.319	-0.009	0.603	6371675	1.38		110	47671	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	139684	0.0301			186	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.691	5543399	1.27		102	45311	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.700	3670317	1.21		104	30192	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	63185	0.0132	Target=13.85		117	
313.00 > 119.00	3.019	3.019	0.0	1.000	3950		16.00(6.92-20.77)		45.2	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	5335089	1.24		99.0	46447	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	11390	0.004621	Target=3.33		169	
399.00 > 99.00	3.433	3.433	0.0	1.000	2785		4.09(1.66-4.99)		31.9	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2635956	1.22		103	48455	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5623811	1.32		106	64501	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1013238	1.03		87.0	12520	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		5784408	1.25			50979	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanoic acid										
413.00 > 369.00	3.824	3.834	-0.010	0.998	40376	0.007687	Target=2.90		54.8	
413.00 > 169.00	3.824	3.834	-0.010	0.998	9485		4.26(1.45-4.35)		113	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6282675	1.30		104	58458	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.094	2098762	1.24		104	20124	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.217	-0.008	1.098	5867399	1.27		102	58717	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	3947613	1.38		111	54426	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	9263	0.002922			217	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.560	4.559	0.001	1.000	28367	0.005848	Target=8.21		178	
513.00 > 169.00	4.550	4.559	-0.009	0.998	2651		10.70(4.10-12.31)		42.8	
D 74 13C2 PFDA										
515.00 > 470.00	4.560	4.559	0.001	1.189	5930498	1.29		103	67172	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.560	4.569	-0.009	1.189	1838183	1.20		100	20609	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2554004	1.31		105	31339	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5469005	1.23		98.4	60072	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2665318	1.38		110	22253	
D 97 13C2 PFDoA										
615.00 > 570.00	5.157	5.156	0.001	1.345	6773159	1.41		113	87153	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.658	-0.009	1.473	6065890	1.37		110	55900	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.649	5.658	-0.009	1.000	1227	0.002057	Target=1.03		33.3	M
713.00 > 219.00	5.658	5.658	0.0	1.002	948		1.29(0.51-1.54)		39.0	

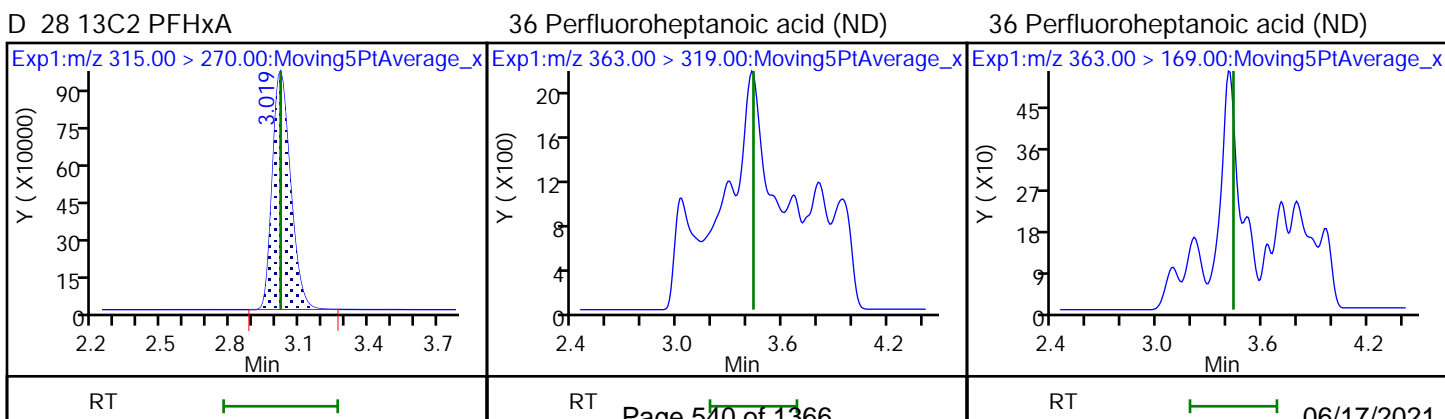
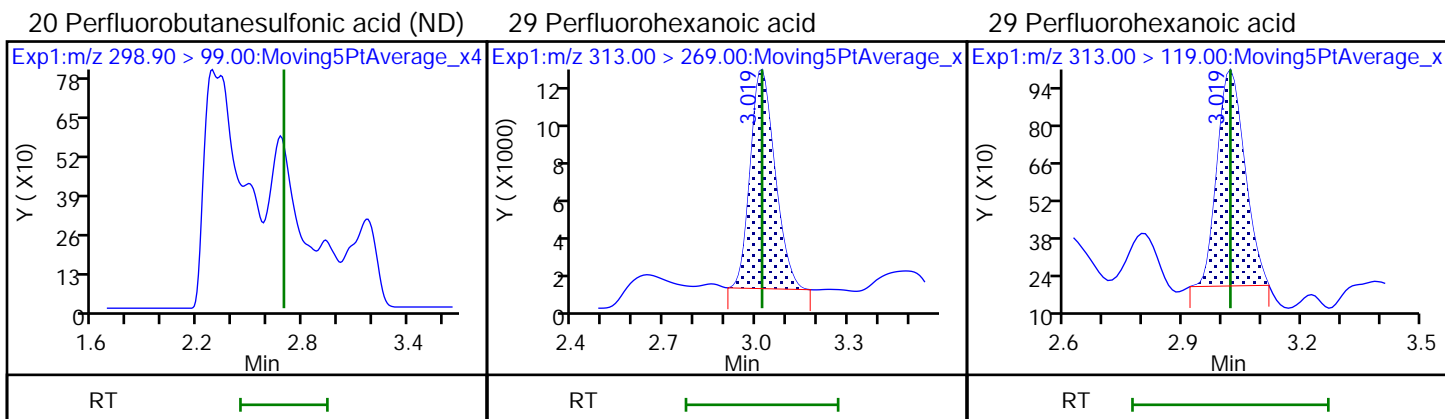
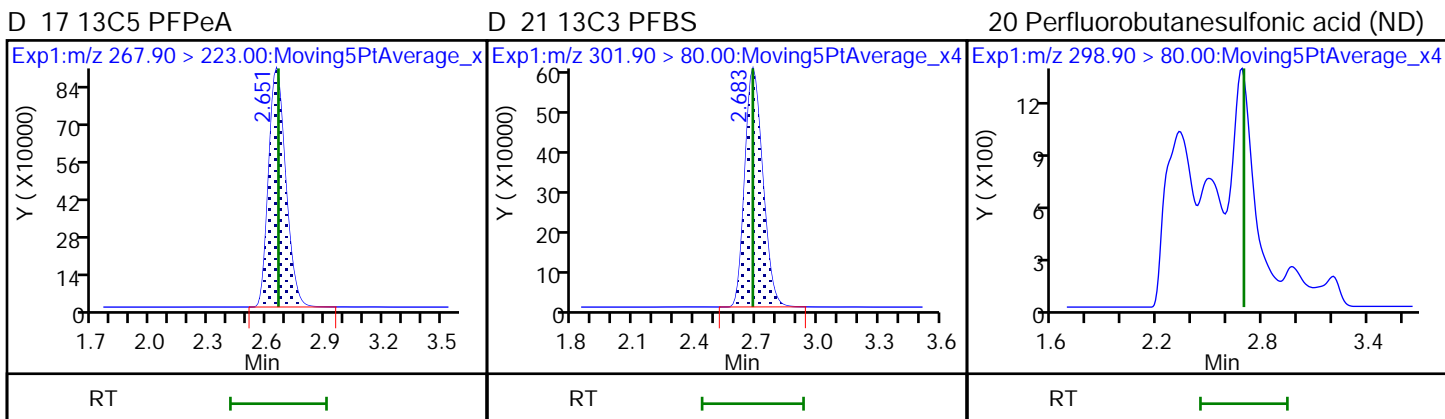
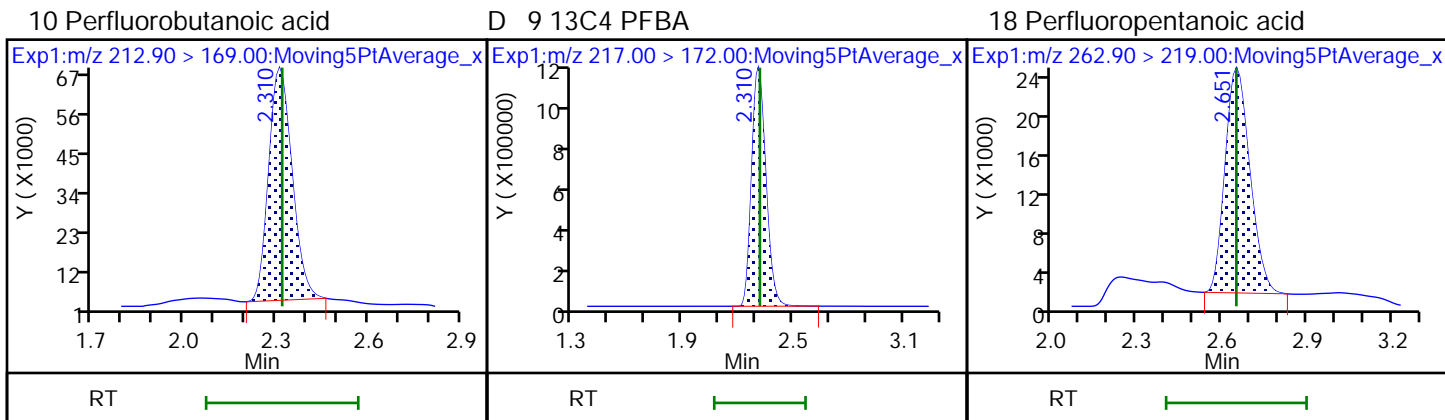
**QC Flag Legend**

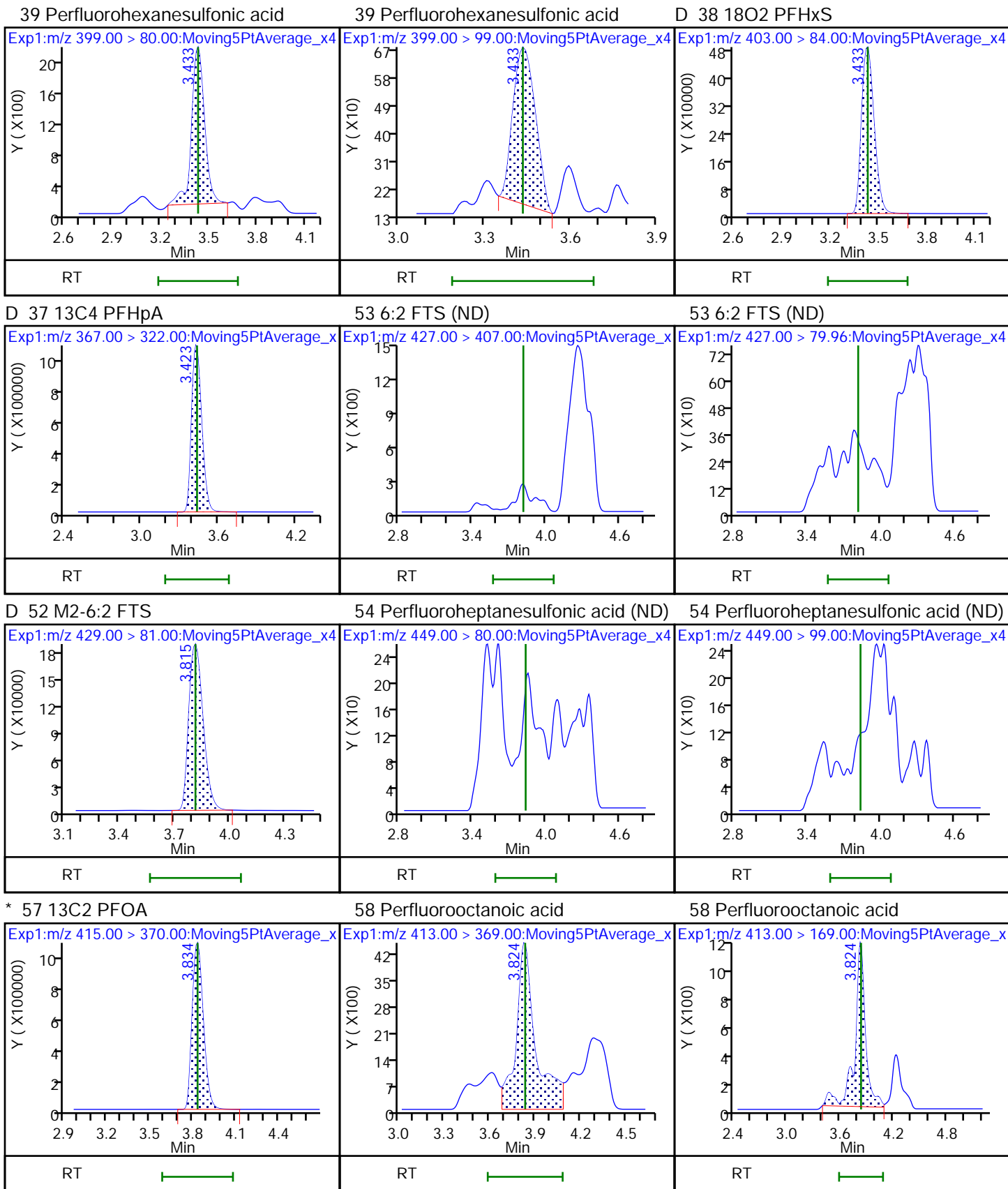
Processing Flags

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_015.d  
Injection Date: 10-Jun-2021 06:00:57 Instrument ID: A15  
Lims ID: 320-74597-A-6-A Lab Sample ID: 320-74597-6  
Client ID: BH20210604-2S-75  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 12  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

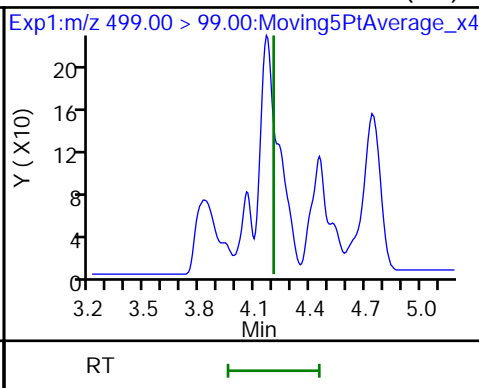
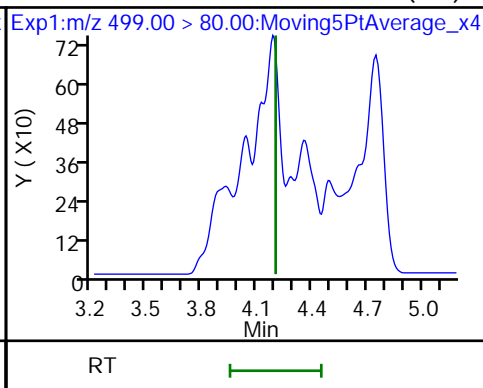
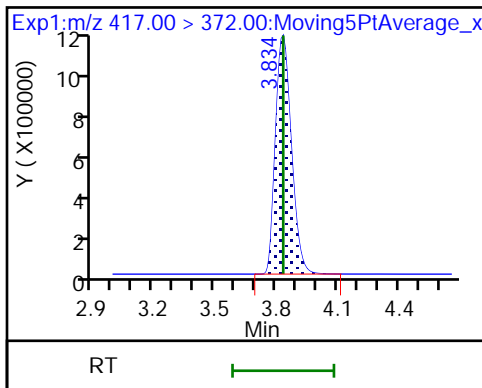




D 56 13C4 PFOA

62 Perfluorooctanesulfonic acid (ND)

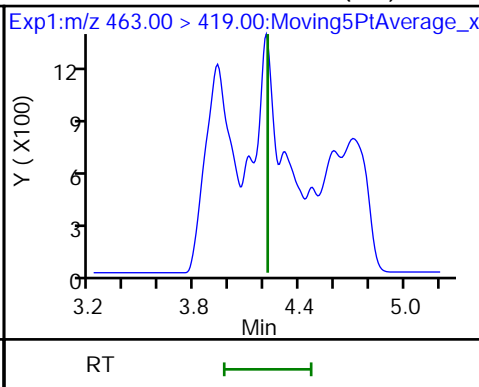
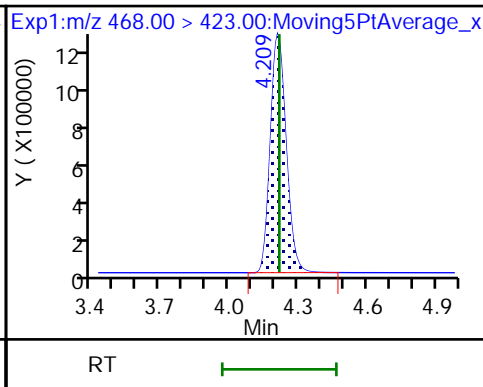
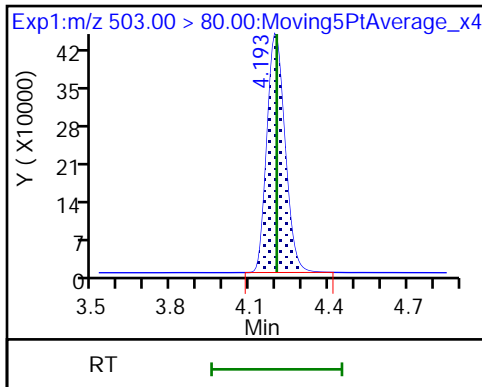
62 Perfluorooctanesulfonic acid (ND)



D 61 13C4 PFOS

D 63 13C5 PFNA

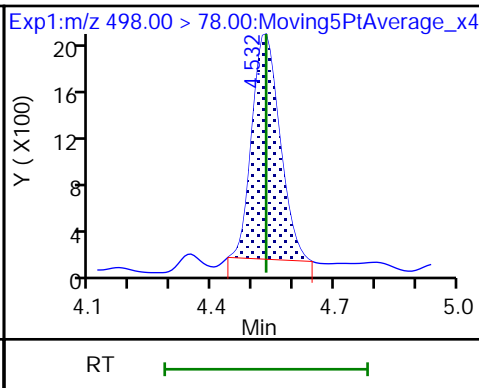
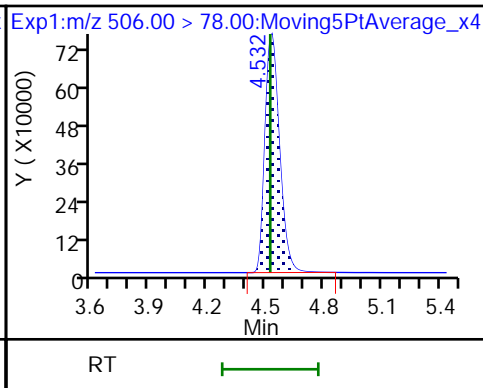
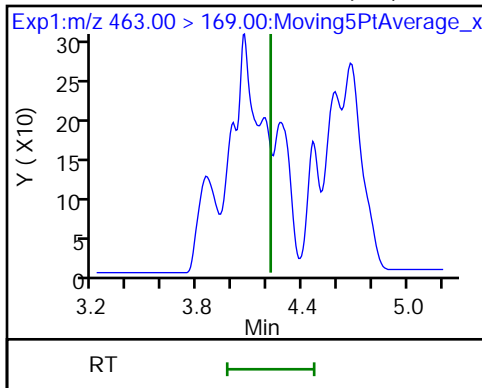
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

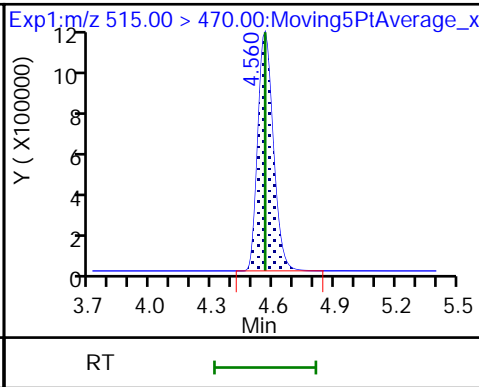
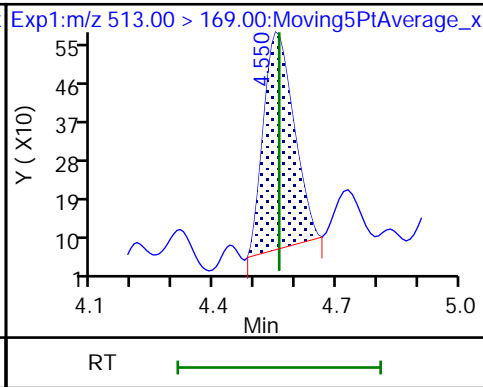
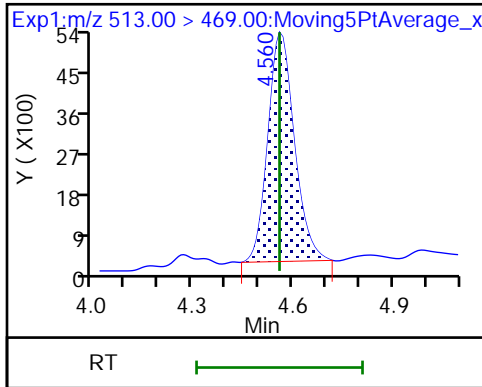
72 Perfluorooctanesulfonamide



75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

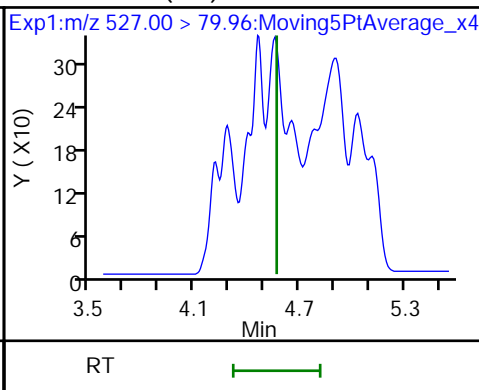
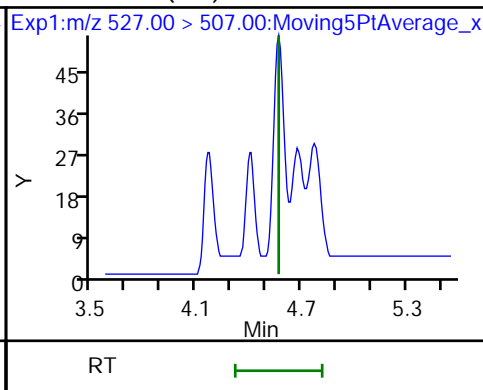
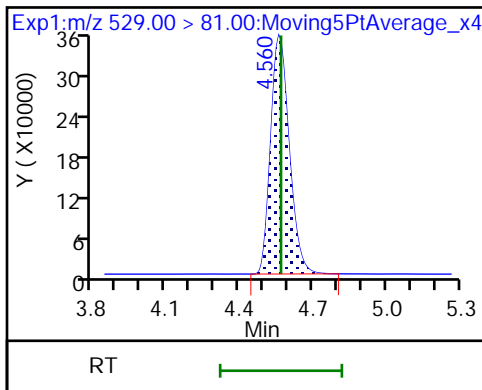
D 74 13C2 PFDA



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

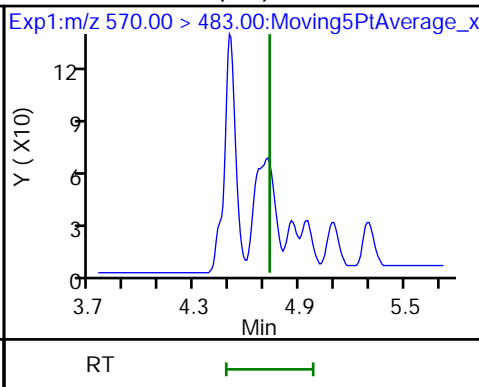
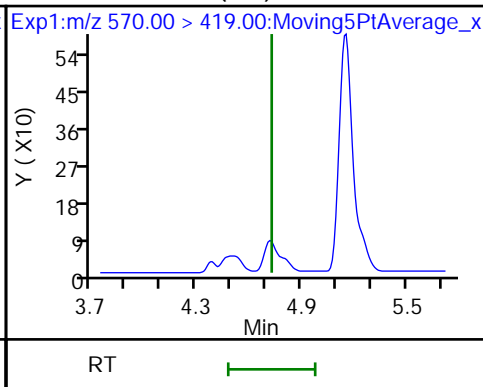
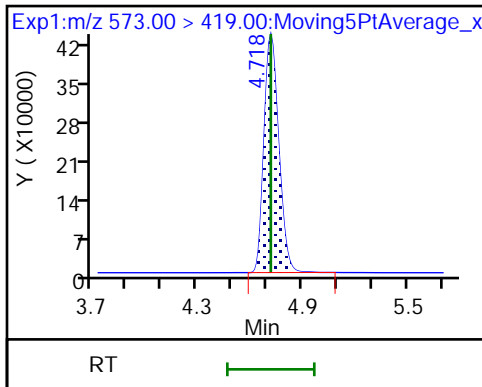
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

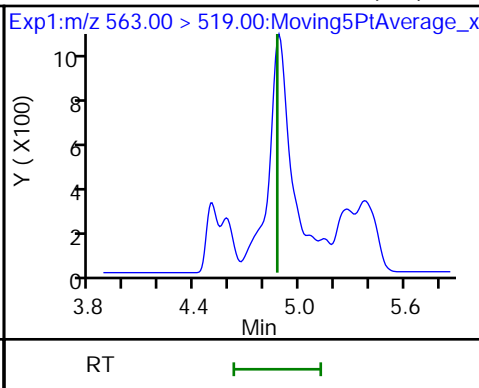
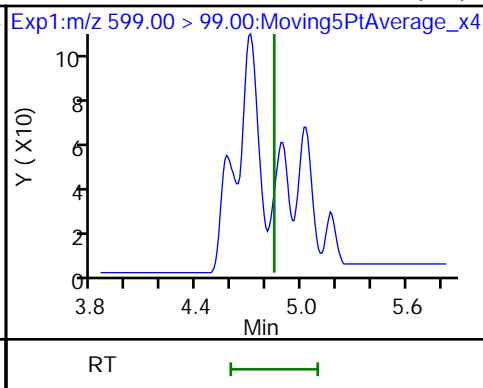
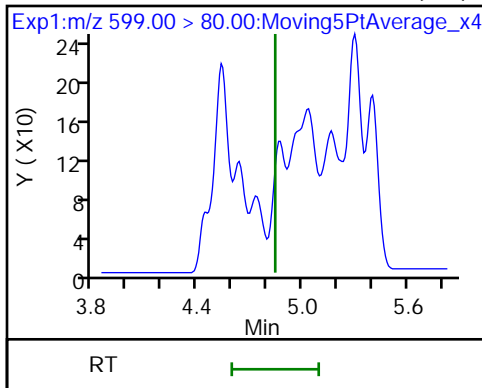
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

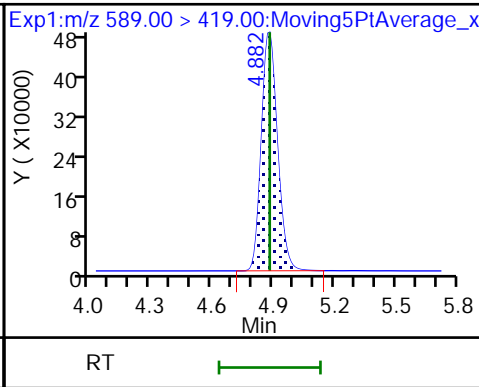
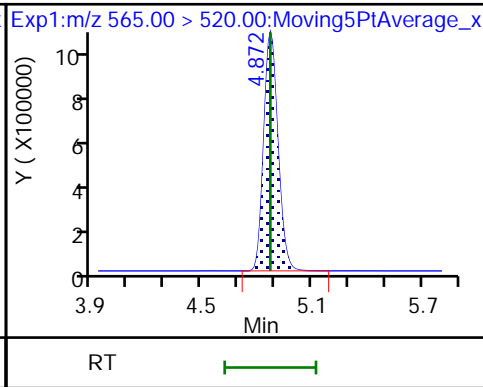
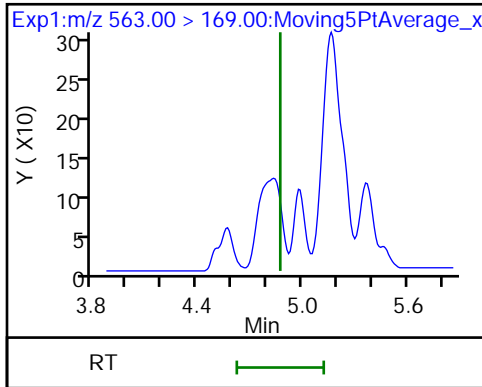
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

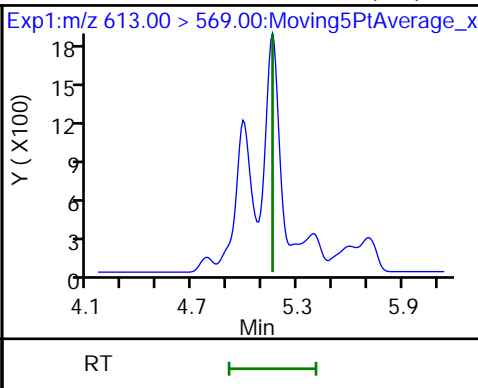
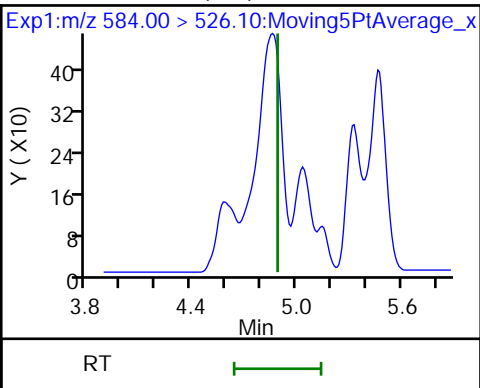
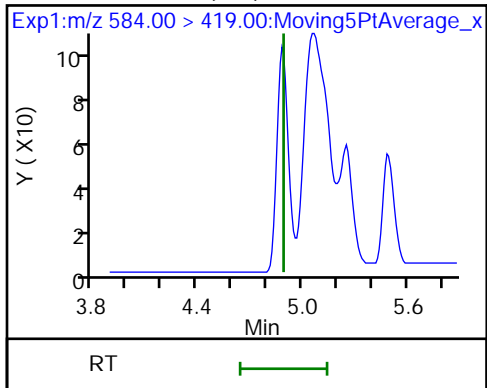
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

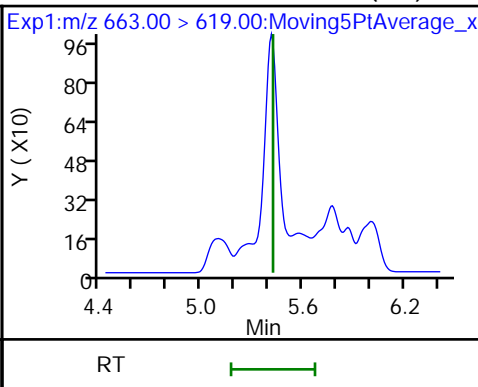
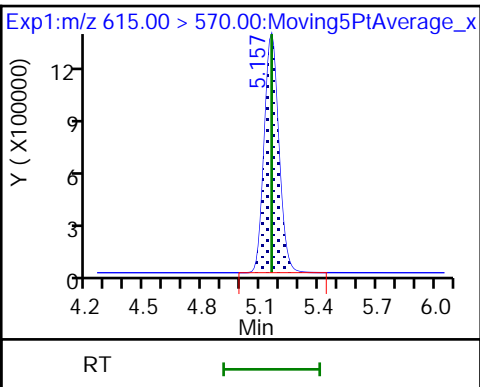
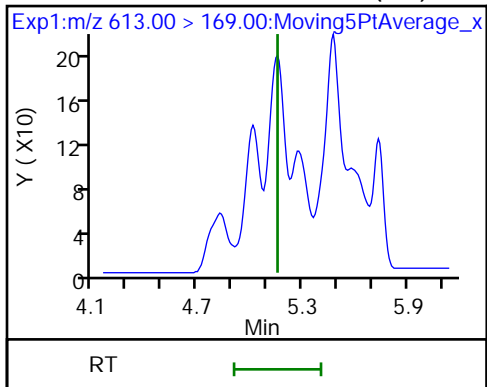
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

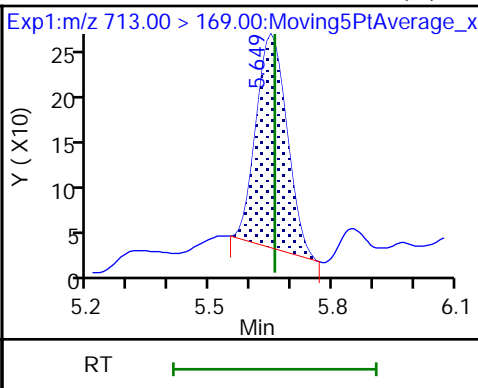
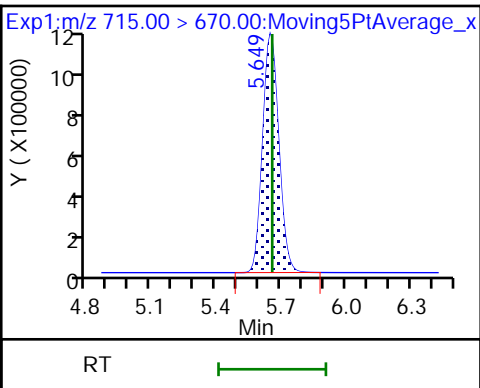
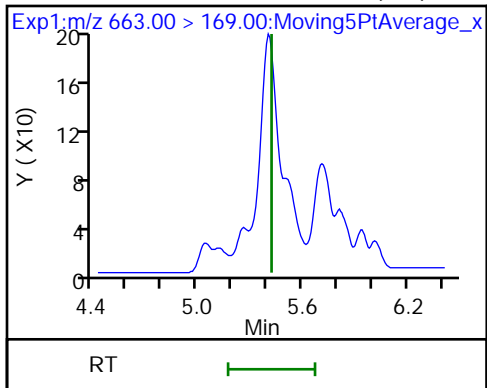
103 Perfluorotridecanoic acid (ND)



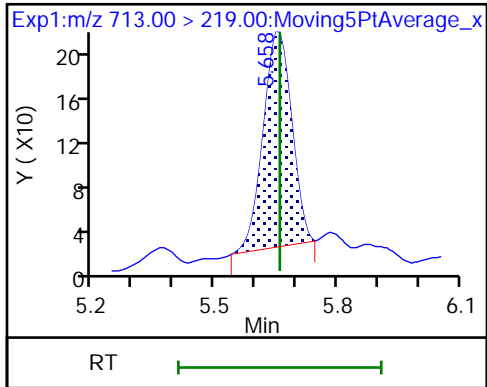
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

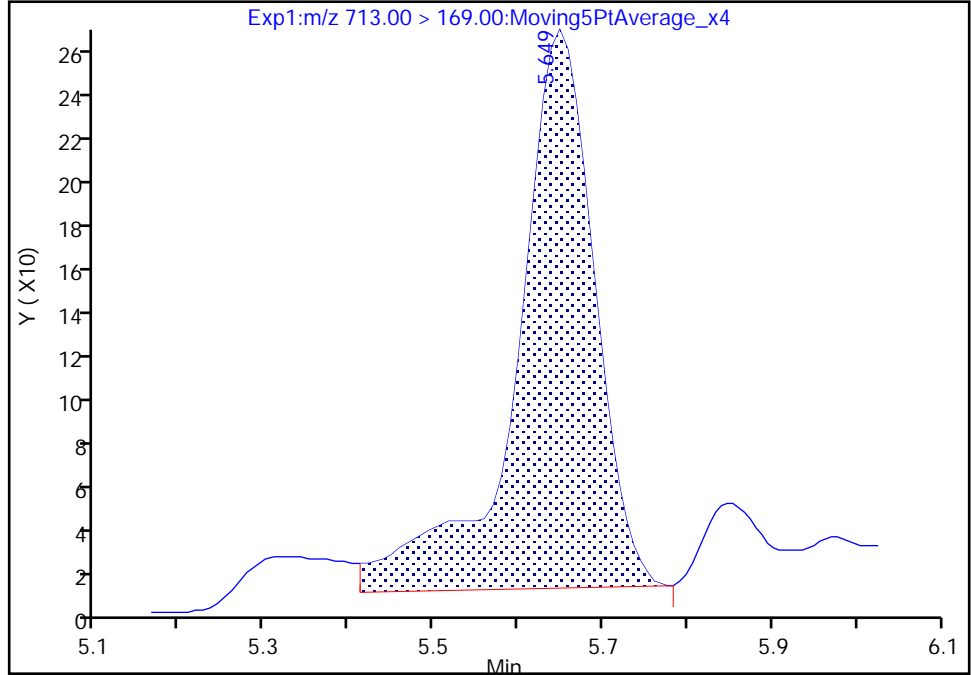
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Injection Date: 10-Jun-2021 06:00:57 Instrument ID: A15  
Lims ID: 320-74597-A-6-A Lab Sample ID: 320-74597-6  
Client ID: BH20210604-2S-75  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 12  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

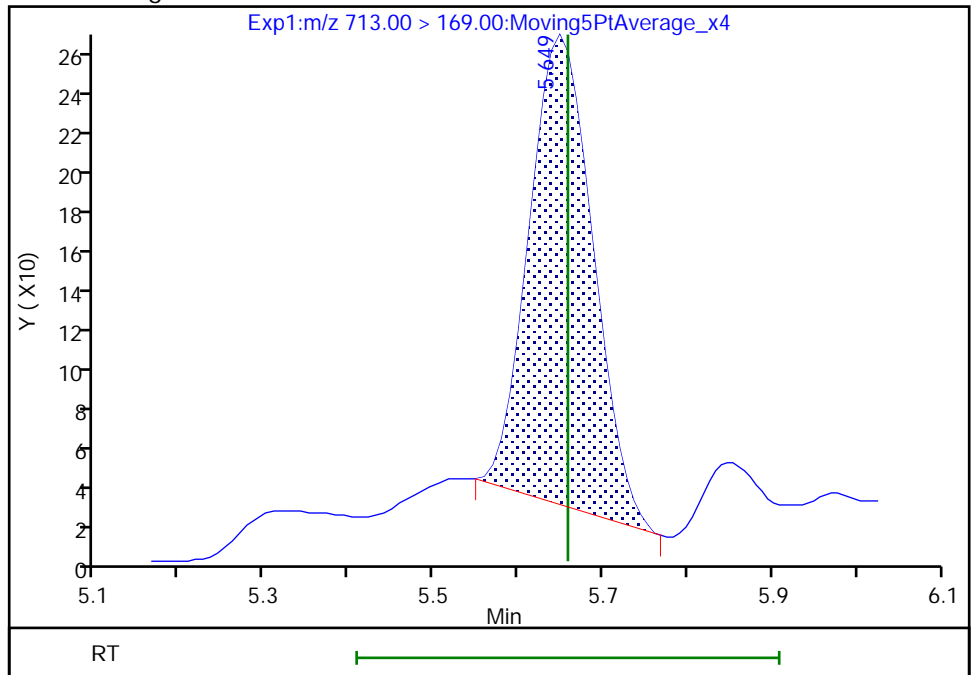
RT: 5.65  
Area: 1628  
Amount: 0.002729  
Amount Units: ng/ml

Processing Integration Results



RT: 5.65  
Area: 1227  
Amount: 0.002057  
Amount Units: ng/ml

Manual Integration Results





FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-25 Lab Sample ID: 320-74597-7  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_016.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:13  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 257(mL) Date Analyzed: 06/10/2021 06:10  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.9	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.8		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.0		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	2.4		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.9		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.9		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9	
27619-97-2	6:2 FTS	ND		4.9	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-25 Lab Sample ID: 320-74597-7  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_016.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:13  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 257(mL) Date Analyzed: 06/10/2021 06:10  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	87		25-150
STL01893	13C5 PFPeA	98		25-150
STL00993	13C2 PFHxA	96		25-150
STL01892	13C4 PFHpA	101		25-150
STL00990	13C4 PFOA	100		25-150
STL00995	13C5 PFNA	96		25-150
STL00996	13C2 PFDA	94		25-150
STL00997	13C2 PFUnA	91		25-150
STL00998	13C2 PFDoA	99		25-150
STL02116	13C2 PFTeDA	87		25-150
STL02337	13C3 PFBS	98		25-150
STL00994	18O2 PFHxS	100		25-150
STL00991	13C4 PFOS	98		25-150
STL01056	13C8 FOSA	103		25-150
STL02118	d3-NMeFOSAA	93		25-150
STL02117	d5-NEtFOSAA	105		25-150
STL02279	M2-6:2 FTS	96		25-150
STL02280	M2-8:2 FTS	95		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
 Lims ID: 320-74597-A-7-A  
 Client ID: BH20210604-3N-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 06:10:03 ALS Bottle#: 10 Worklist Smp#: 13  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-7-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:37:01 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:37:01  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										M
212.90 > 169.00	2.302	2.319	-0.017	1.000	312876	0.0753		90.4		M
D 9 13C4 PFBA										
217.00 > 172.00	2.302	2.319	-0.017	0.600	5489698	1.09		87.0	45301	
18 Perfluoropentanoic acid										M
262.90 > 219.00	2.651	2.650	0.001	1.000	474227	0.0965		134		M
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.691	5864437	1.23		98.5	33063	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.700	3769838	1.14		97.7	11448	
20 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.683	2.693	-0.010	1.000	130877	0.0357	Target=2.41	107		M
298.90 > 99.00	2.683	2.693	-0.010	1.000	63765		2.05(1.20-3.61)	111		
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	394143	0.0777	Target=13.85	342		
313.00 > 119.00	3.019	3.019	0.0	1.000	29964		13.15(6.92-20.77)	251		
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	5657250	1.20		96.0	48950	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	209712	0.0422	Target=3.98	244		
363.00 > 169.00	3.423	3.433	-0.010	1.000	51182		4.10(1.99-5.97)	616		
39 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.433	3.433	0.0	1.000	192519	0.0738	Target=3.33	882		M
399.00 > 99.00	3.423	3.433	-0.010	0.997	45691		4.21(1.66-4.99)	380		M
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2791250	1.18		100	56821	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5876666	1.27		101	51351	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										
427.00 > 407.00	3.805	3.814	-0.009	0.997	15394	0.007249	Target=2.13		73.8	
427.00 > 79.96	3.815	3.814	0.001	1.000	9571		1.61(1.07-3.20)		32.8	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1224208	1.14		96.2	5613	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6570340	1.25		99.6	50731	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6324361	1.25			65208	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	339975	0.0619	Target=2.90		443	M
413.00 > 169.00	3.834	3.834	0.0	1.000	126489		2.69(1.45-4.35)		1071	M
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.194	4.201	-0.007	1.000	257088	0.1262	Target=5.77		1059	M
499.00 > 99.00	4.194	4.201	-0.007	1.000	45926		5.60(2.88-8.65)		409	M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.094	2163474	1.17		97.9	21699	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.217	-0.008	1.098	6064594	1.20		96.2	70084	
64 Perfluorononanoic acid										
463.00 > 419.00	4.209	4.217	-0.008	1.000	64553	0.0134	Target=8.24		135	
463.00 > 169.00	4.217	4.217	0.0	1.002	6450		10.01(4.12-12.36)		78.9	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	4015920	1.29		103	35277	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	5952	0.001845			95.9	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.560	4.559	0.001	1.000	40743	0.008453	Target=8.21		170	M
513.00 > 169.00	4.569	4.559	0.010	1.002	5871		6.94(4.10-12.31)		88.9	M
D 74 13C2 PFDA										
515.00 > 470.00	4.560	4.559	0.001	1.189	5892999	1.17		93.5	75513	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.560	4.569	-0.009	1.189	1901164	1.14		94.9	13367	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2481660	1.17		93.3	15540	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5505778	1.13		90.6	60761	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2792149	1.32		105	25770	
D 97 13C2 PFDaA										
615.00 > 570.00	5.157	5.156	0.001	1.345	6526614	1.24		99.3	83981	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.658	-0.009	1.473	5264870	1.09		86.9	50645	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.649	5.658	-0.009	1.000	1063	0.002053	Target=1.03		35.5	M
713.00 > 219.00	5.649	5.658	-0.009	1.000	1529		0.70(0.51-1.54)		55.8	

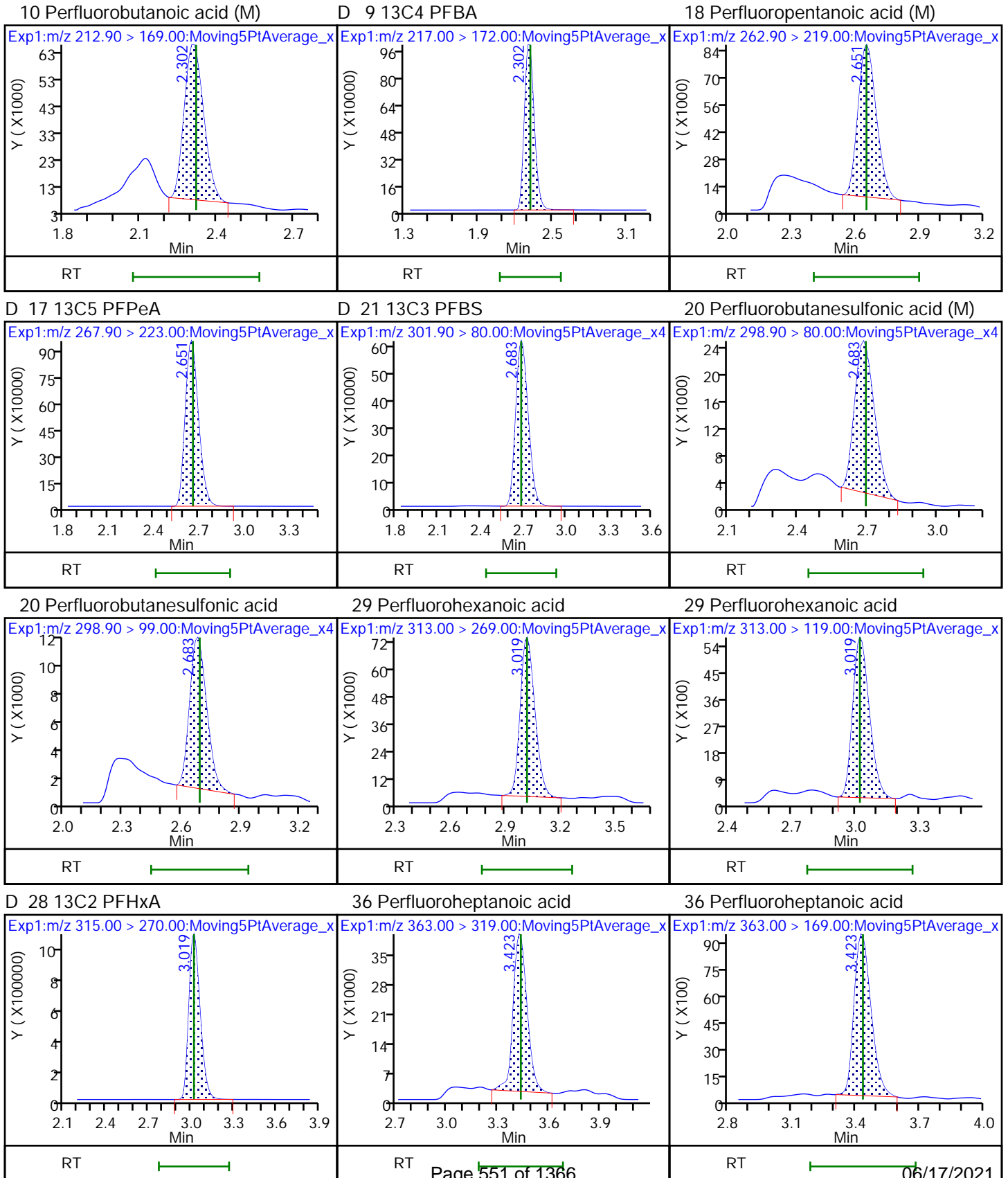
[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

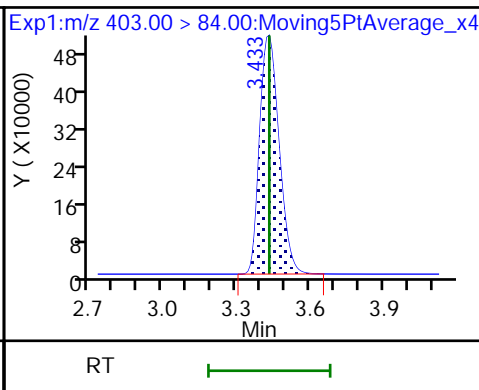
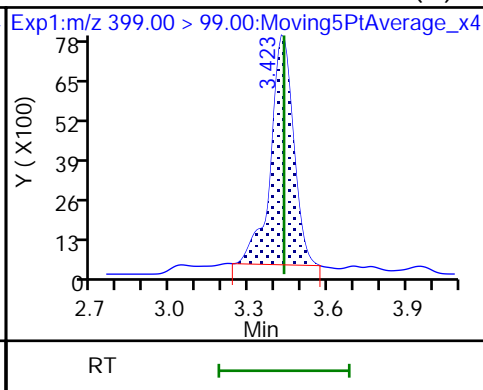
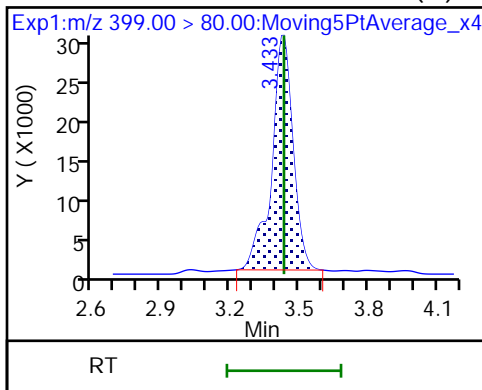
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Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid (M)

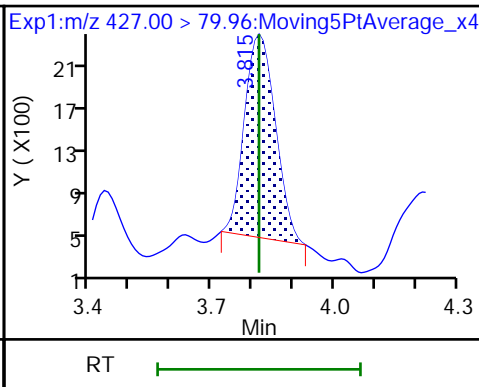
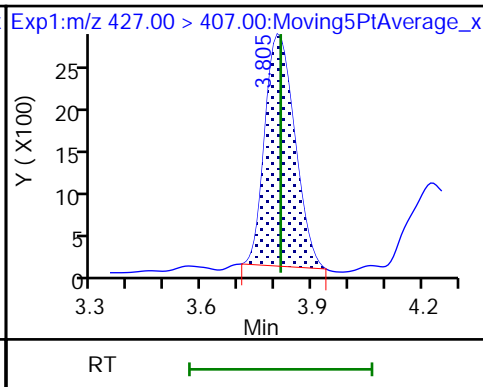
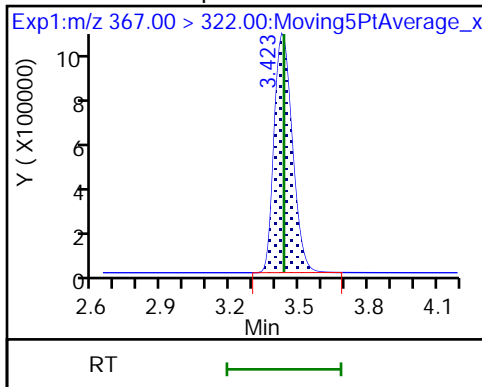
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS

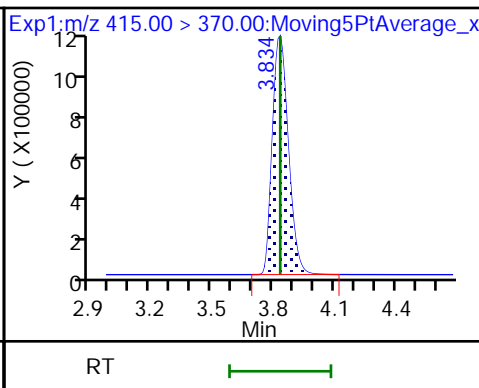
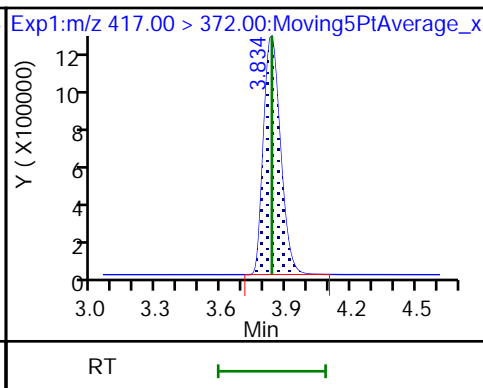
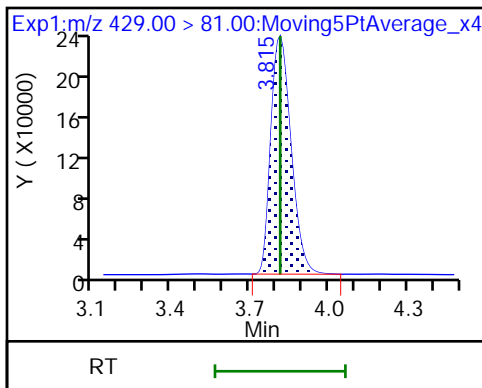
53 6:2 FTS



D 52 M2-6:2 FTS

D 56 13C4 PFOA

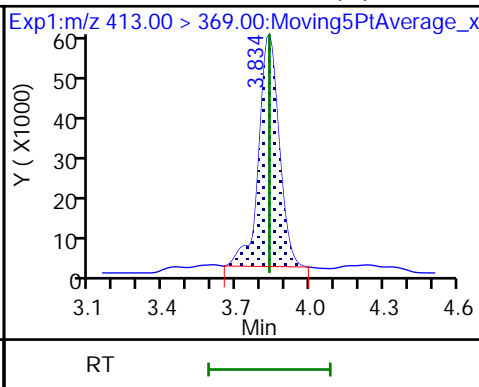
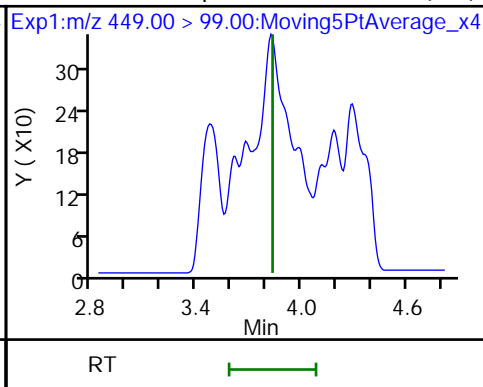
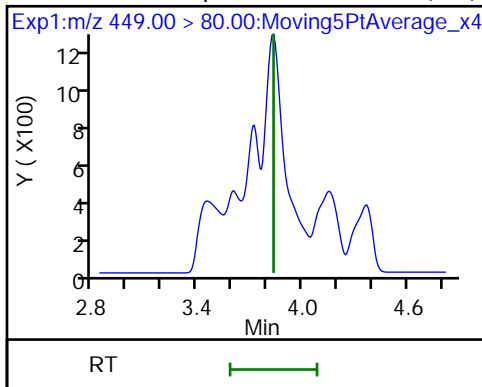
\* 57 13C2 PFOA

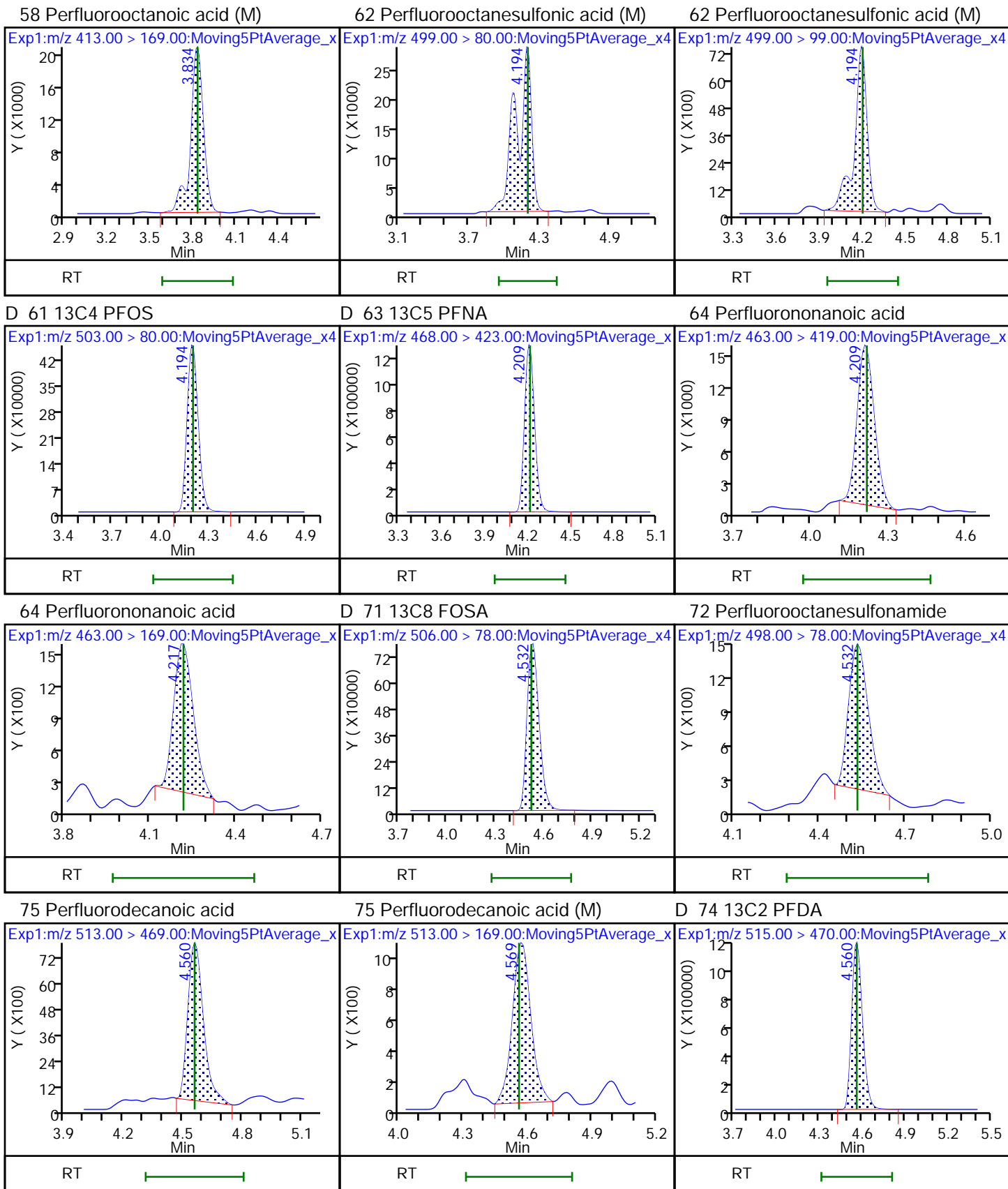


54 Perfluoroheptanesulfonic acid (ND)

54 Perfluoroheptanesulfonic acid (ND)

58 Perfluorooctanoic acid (M)



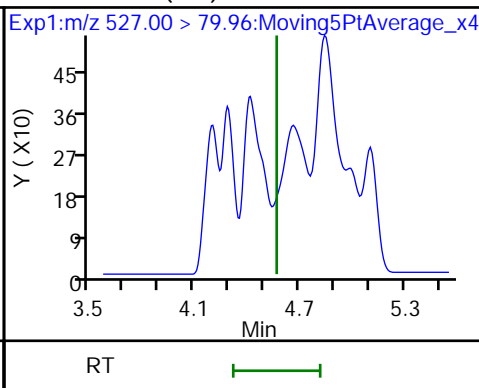
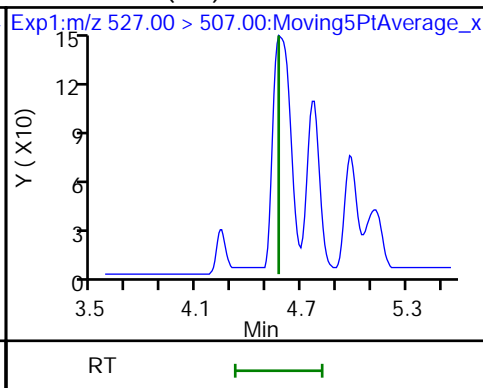
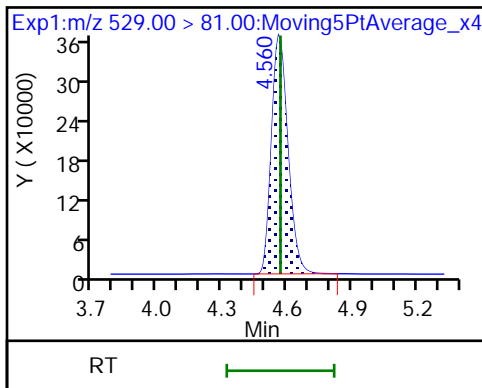




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

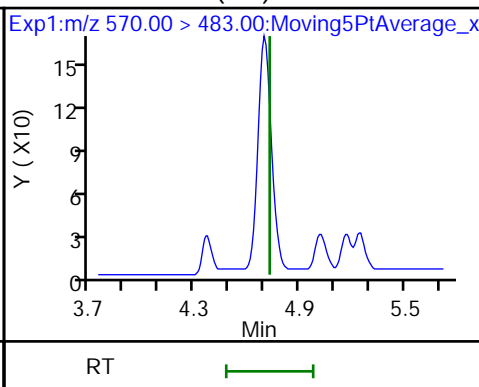
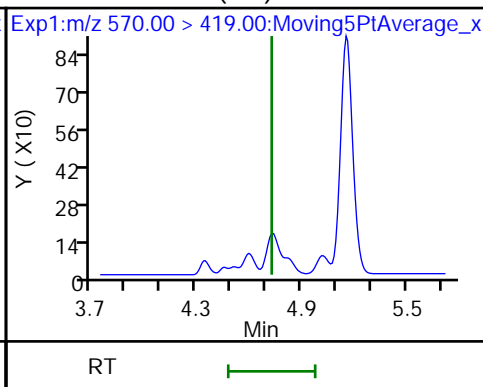
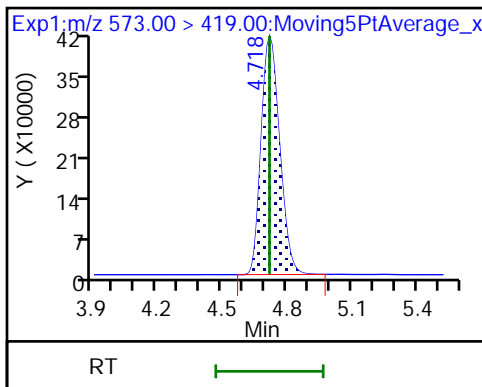
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

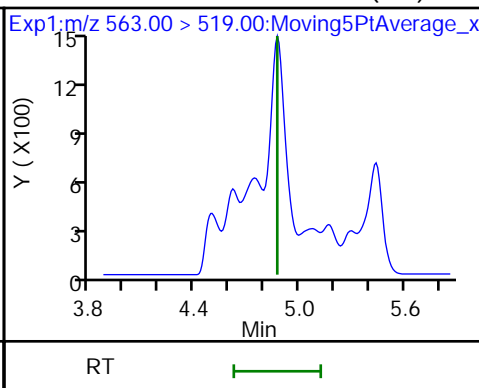
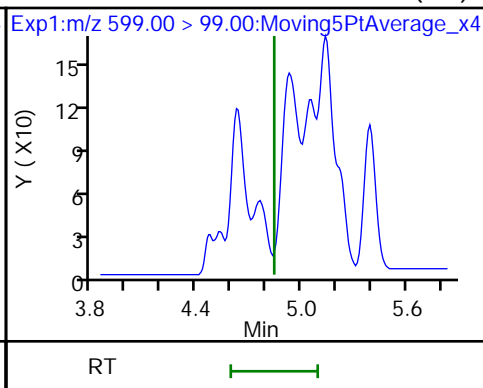
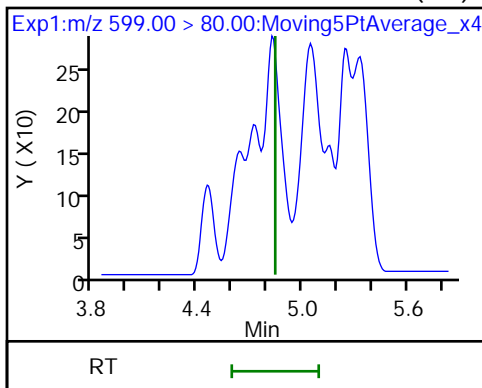
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

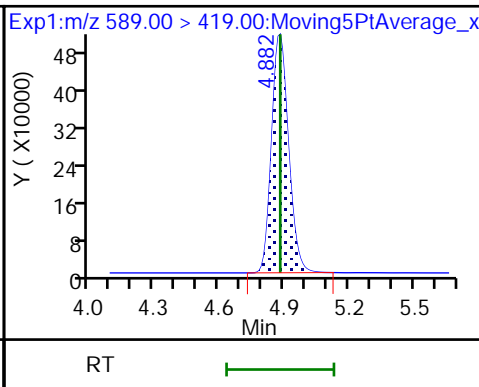
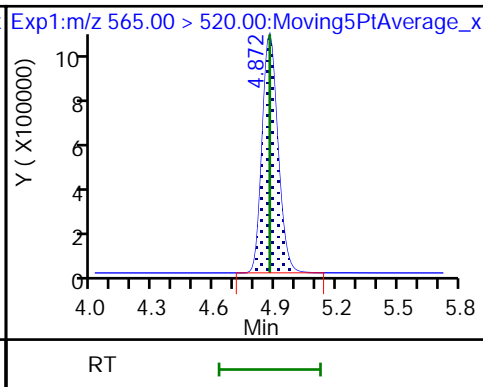
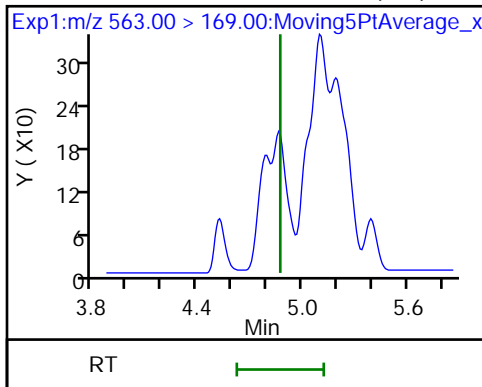
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

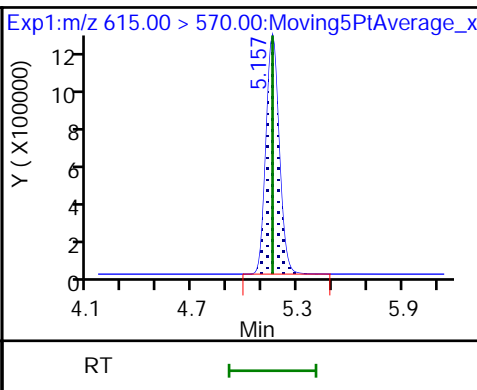
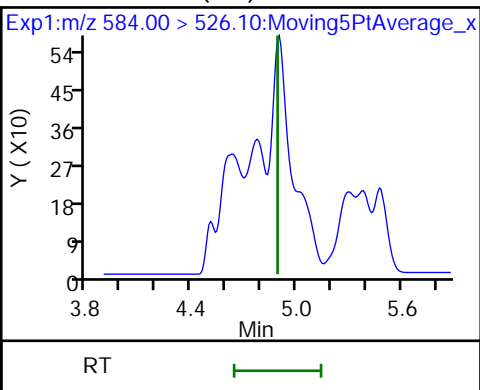
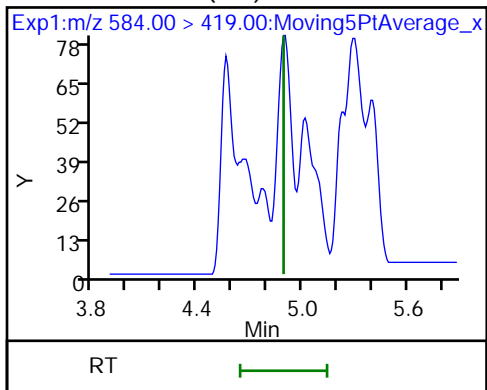
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

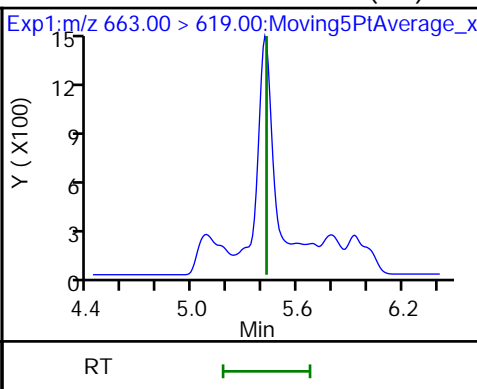
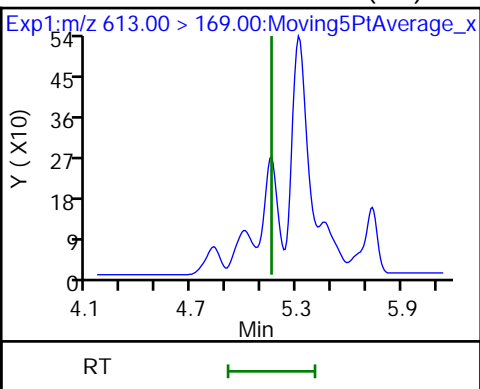
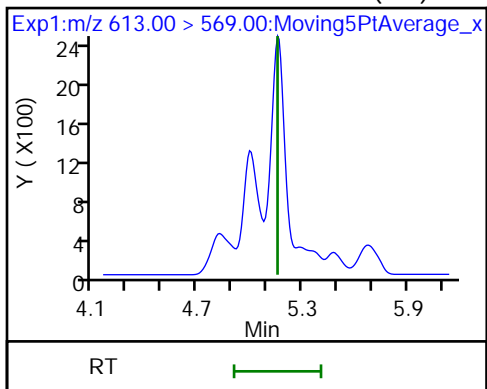
D 97 13C2 PFDaA



98 Perfluorododecanoic acid (ND)

98 Perfluorododecanoic acid (ND)

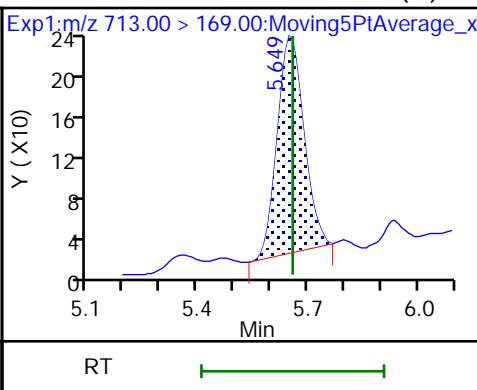
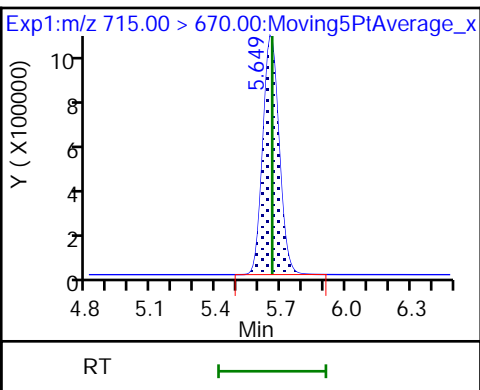
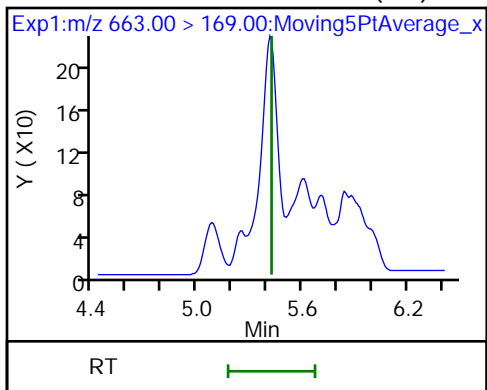
103 Perfluorotridecanoic acid (ND)



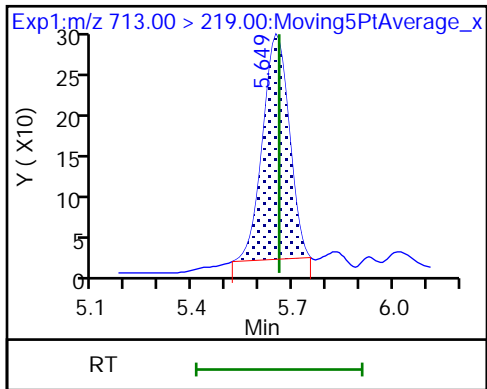
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

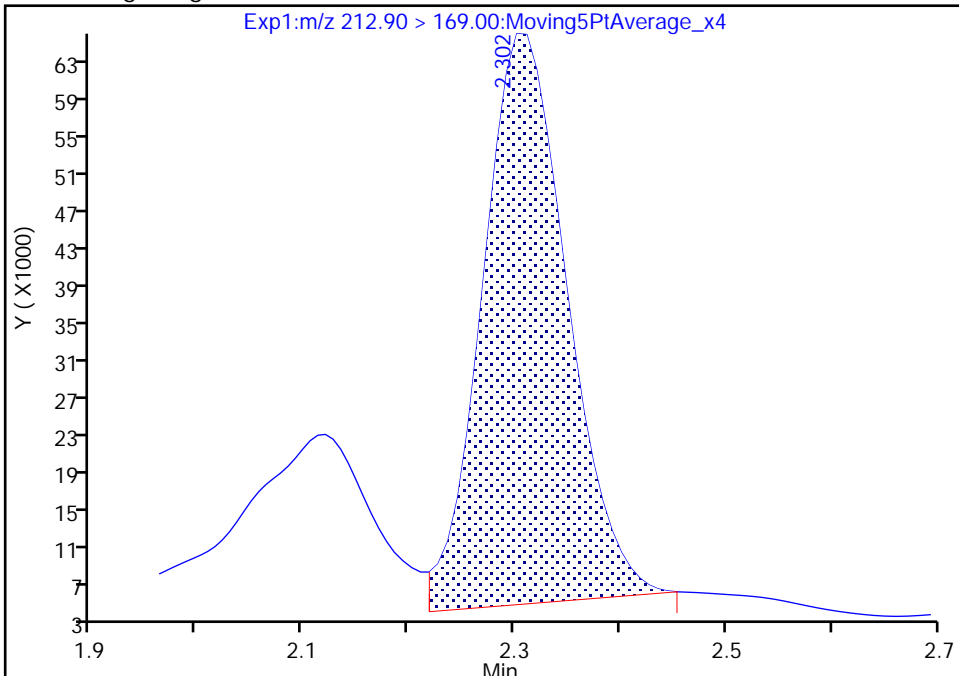
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Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

10 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

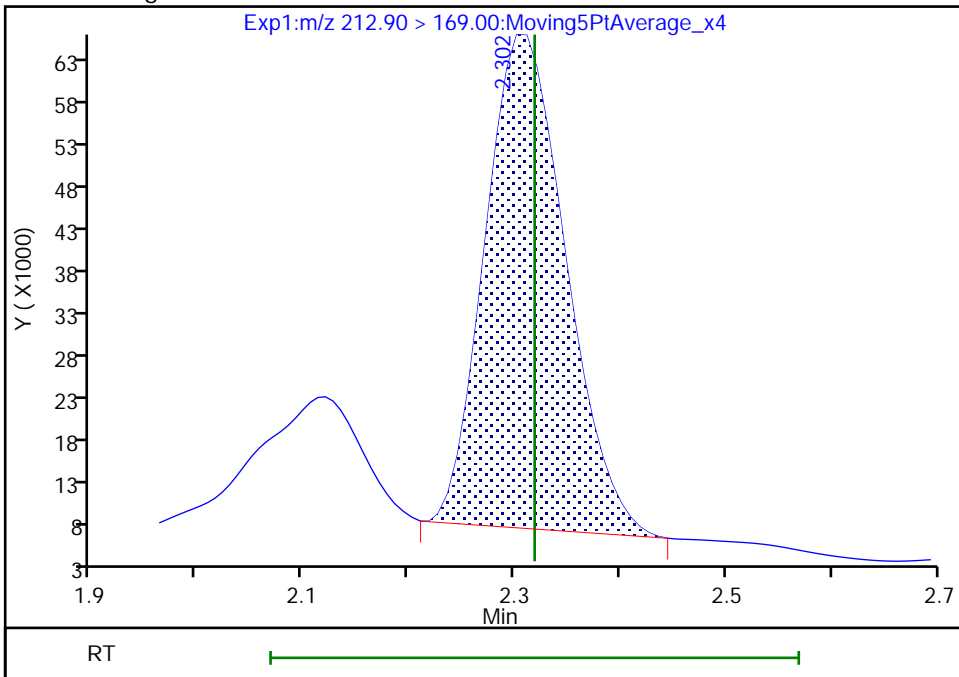
RT: 2.30  
Area: 342464  
Amount: 0.082436  
Amount Units: ng/ml

Processing Integration Results



RT: 2.30  
Area: 312876  
Amount: 0.075314  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:35:59  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

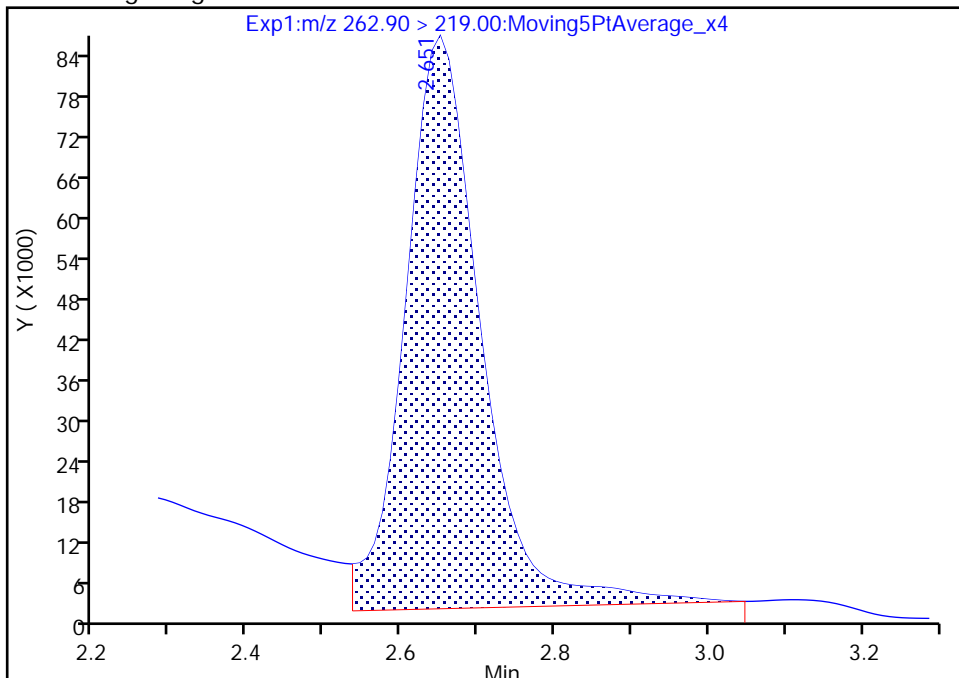
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Injection Date:	10-Jun-2021 06:10:03	Instrument ID:	A15
Lims ID:	320-74597-A-7-A	Lab Sample ID:	320-74597-7
Client ID:	BH20210604-3N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	13

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

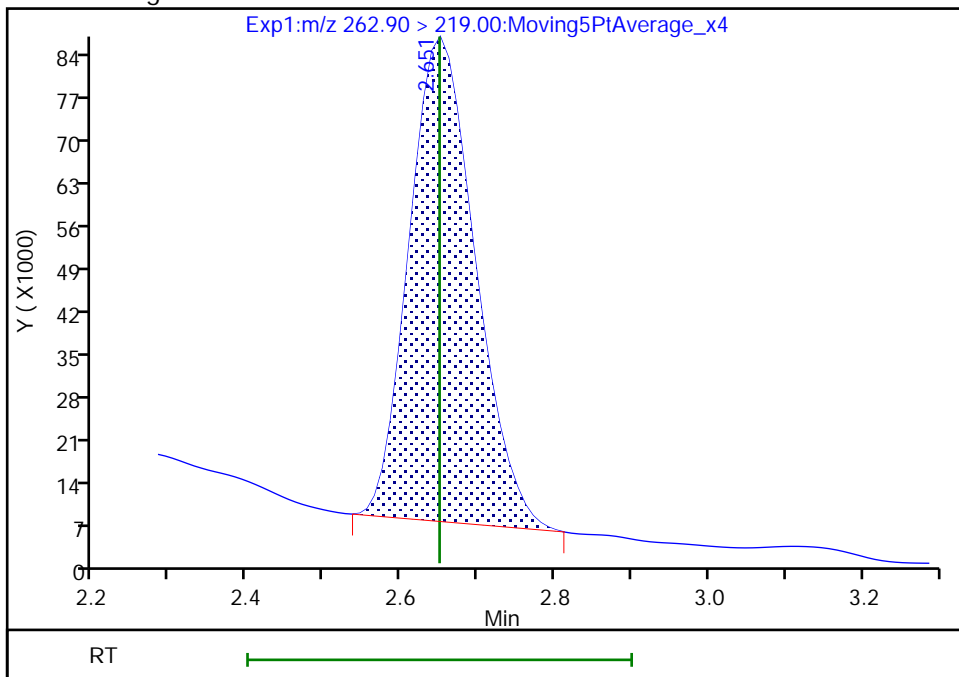
RT: 2.65  
 Area: 579006  
 Amount: 0.117775  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
 Area: 474227  
 Amount: 0.096462  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:04  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

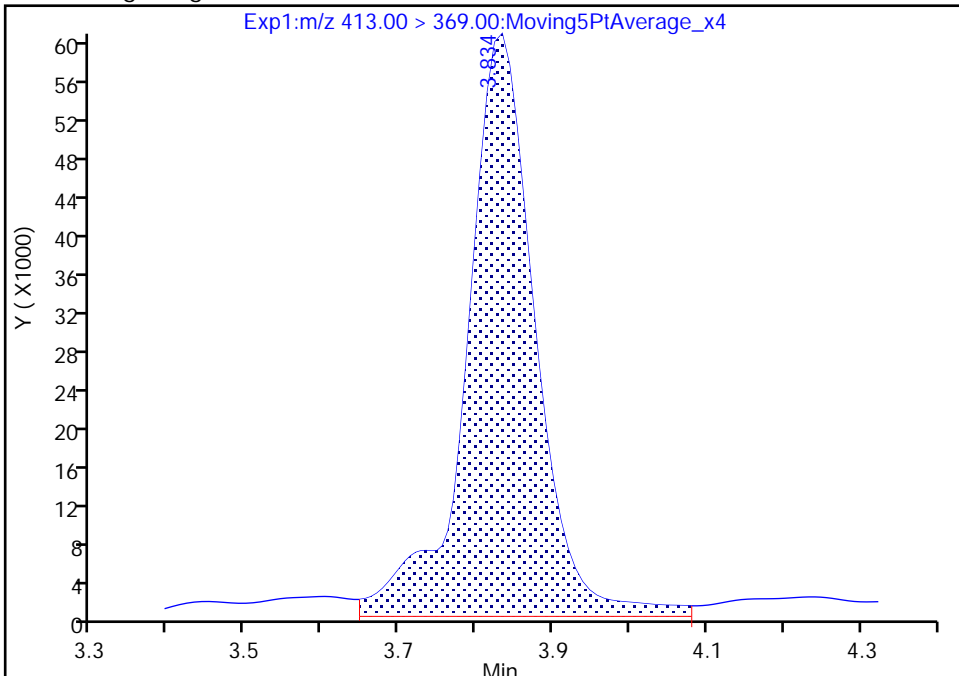
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Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

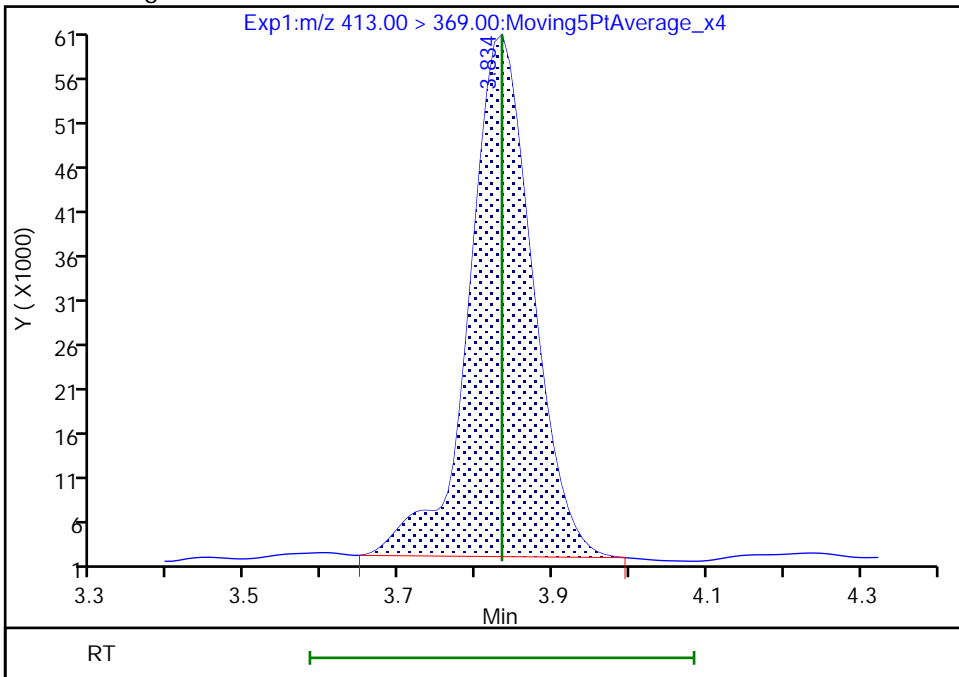
RT: 3.83  
Area: 380486  
Amount: 0.069268  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 339975  
Amount: 0.061893  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:27  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

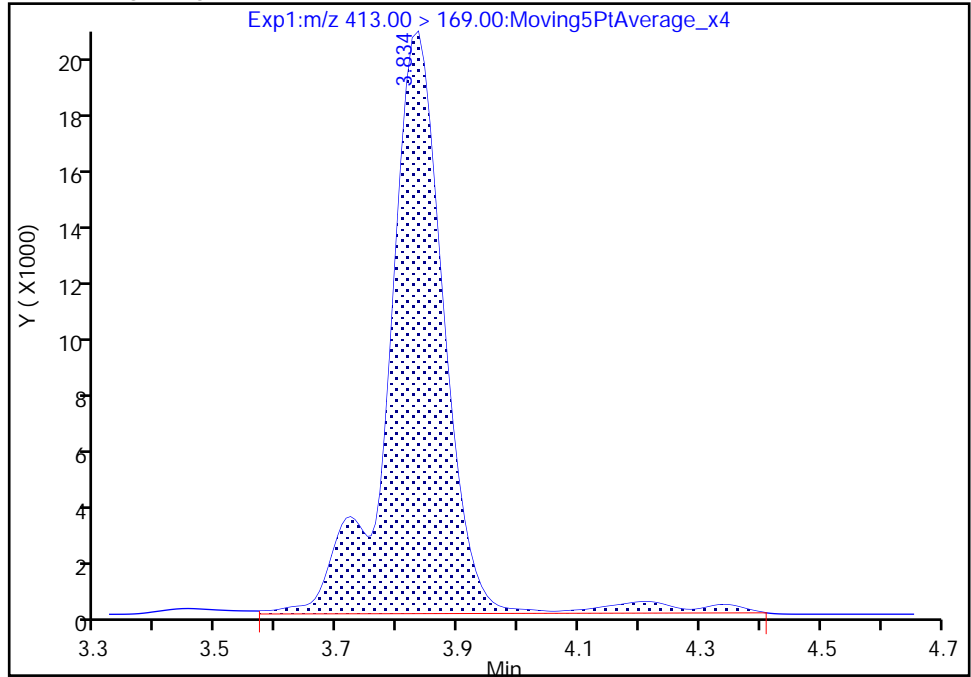
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Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

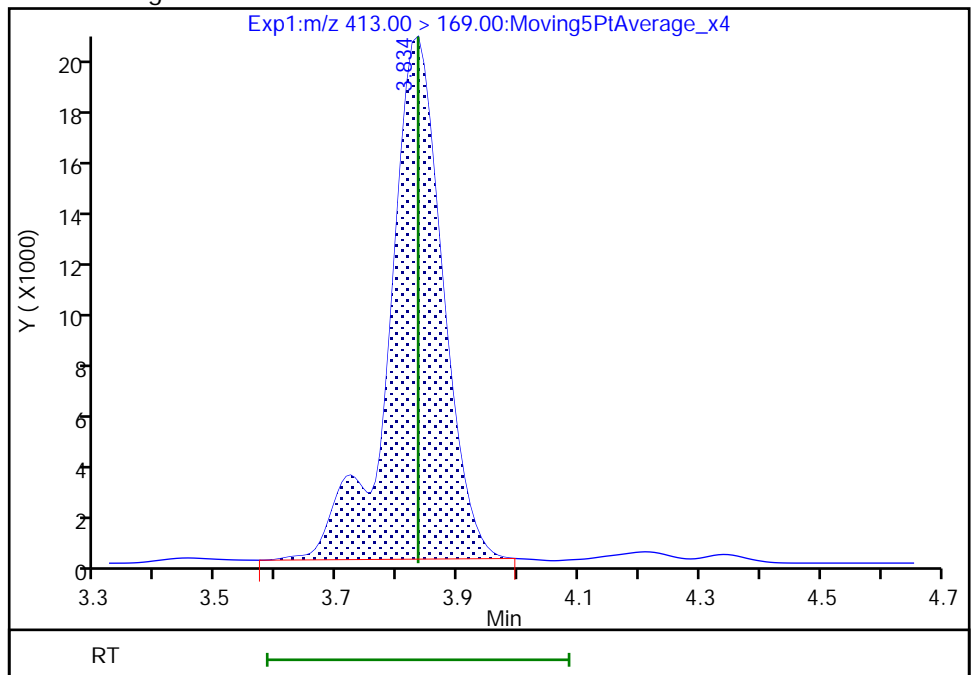
RT: 3.83  
Area: 134572  
Amount: 0.069268  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 126489  
Amount: 0.061893  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:30

Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

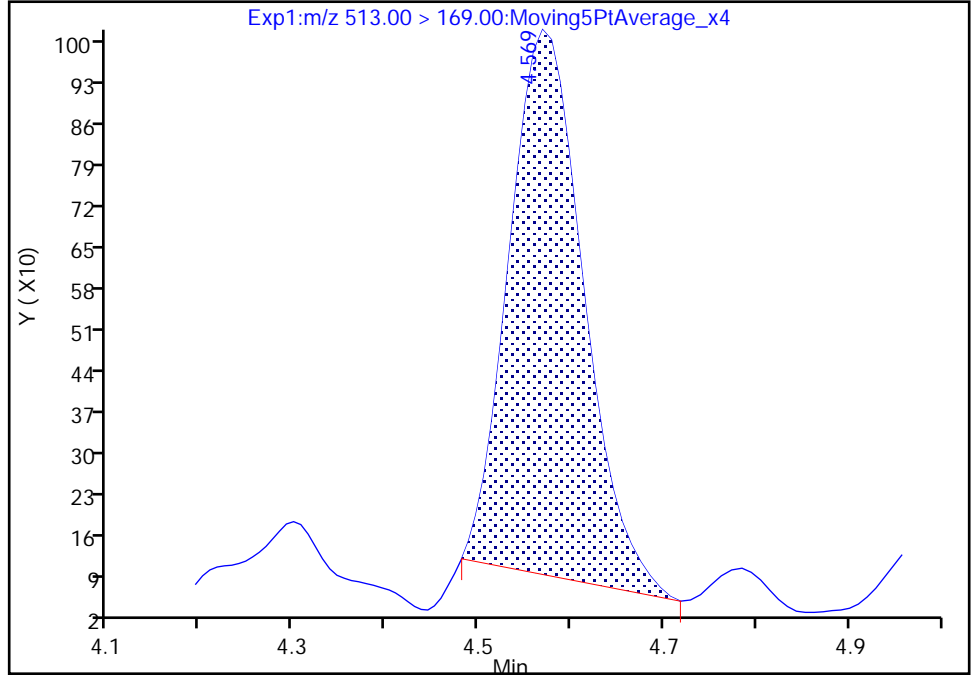
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

75 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

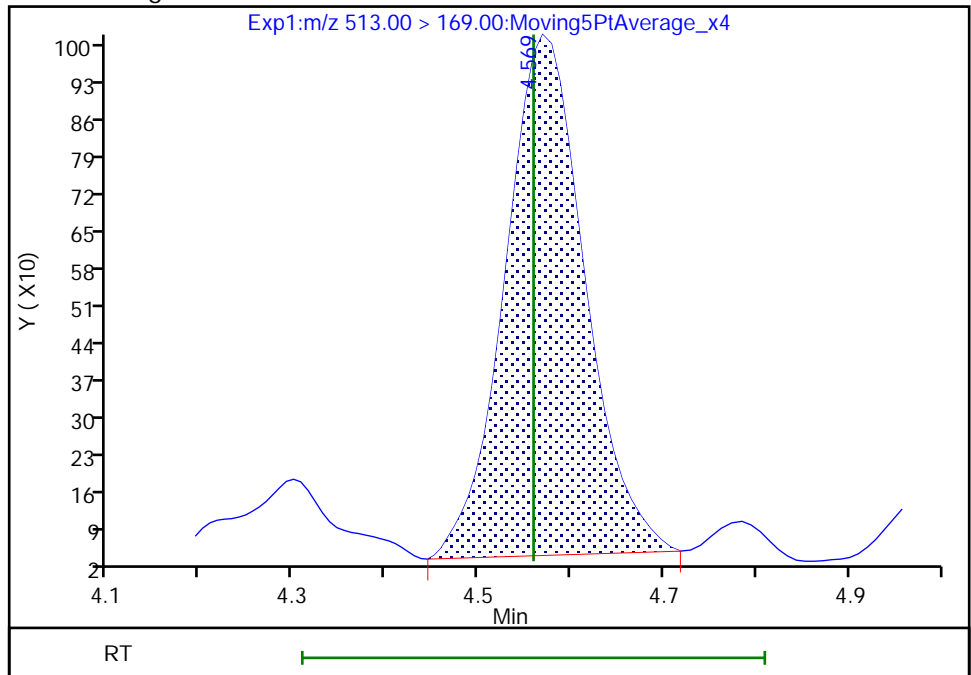
RT: 4.57  
Area: 5193  
Amount: 0.008453  
Amount Units: ng/ml

Processing Integration Results



RT: 4.57  
Area: 5871  
Amount: 0.008453  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:49  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

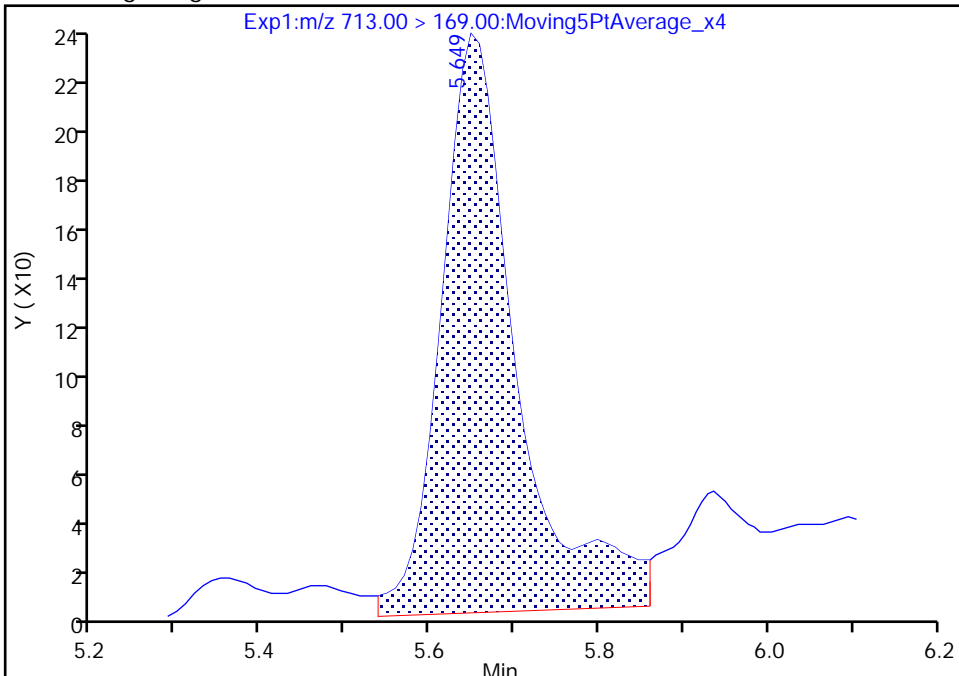
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

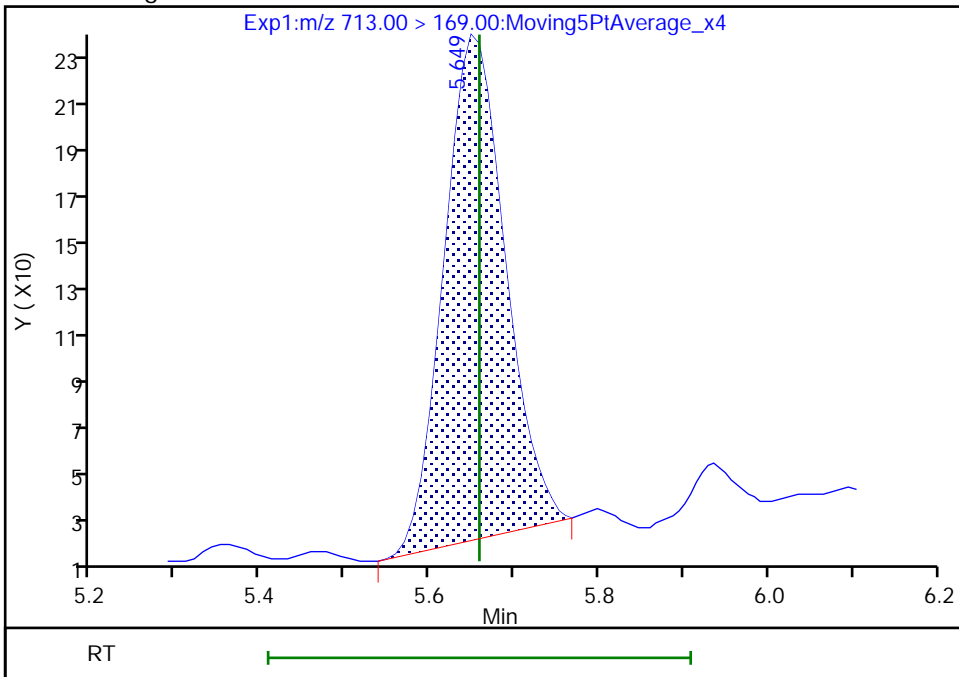
RT: 5.65  
Area: 1403  
Amount: 0.002710  
Amount Units: ng/ml

Processing Integration Results



RT: 5.65  
Area: 1063  
Amount: 0.002053  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:57  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

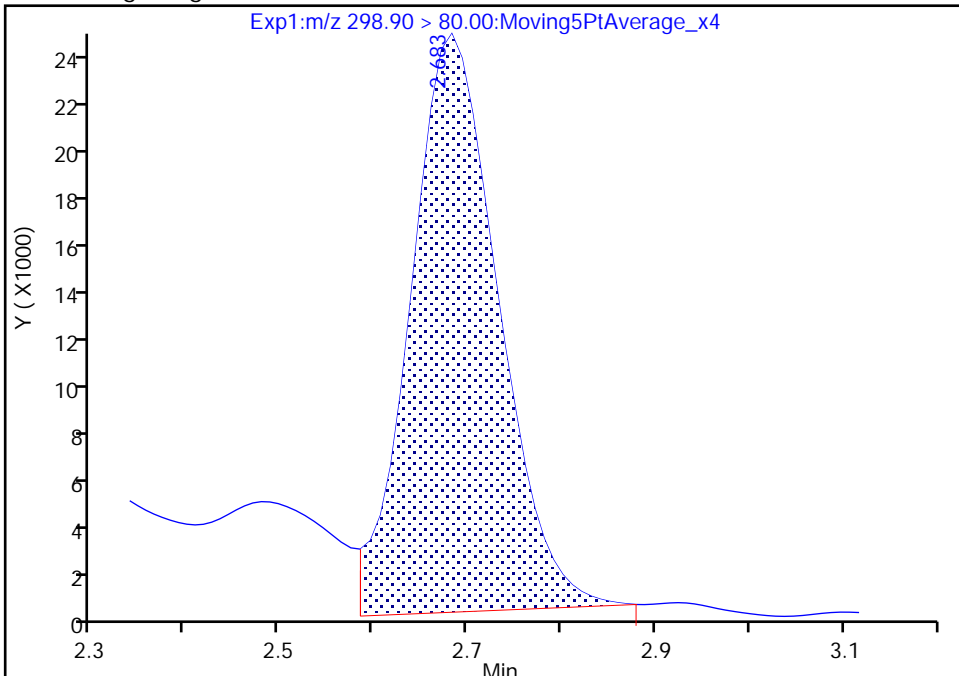
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

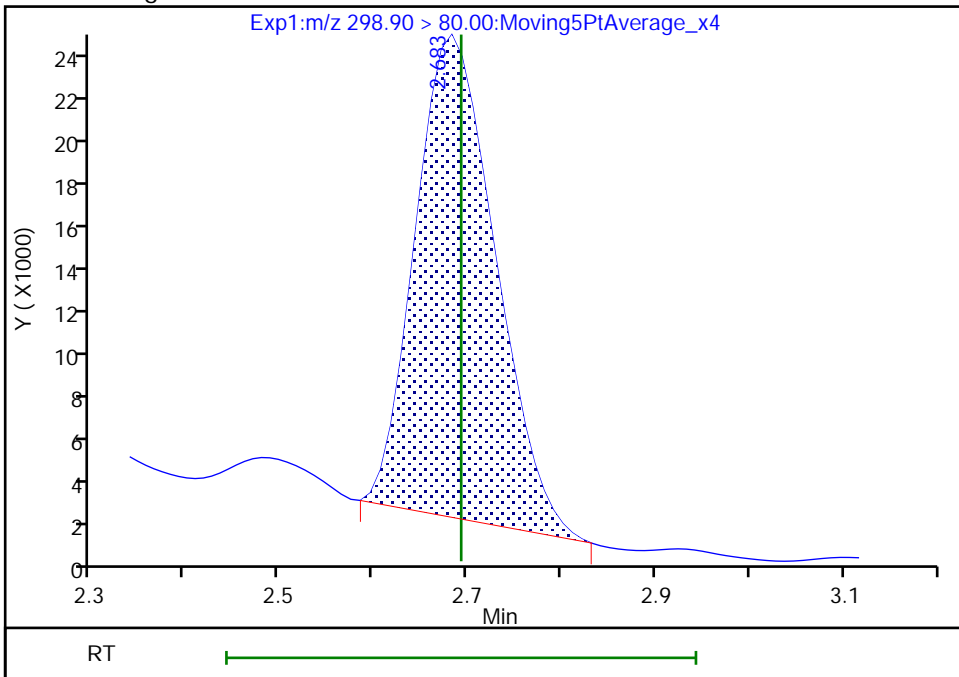
RT: 2.68  
Area: 154785  
Amount: 0.042212  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 130877  
Amount: 0.035692  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:09  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

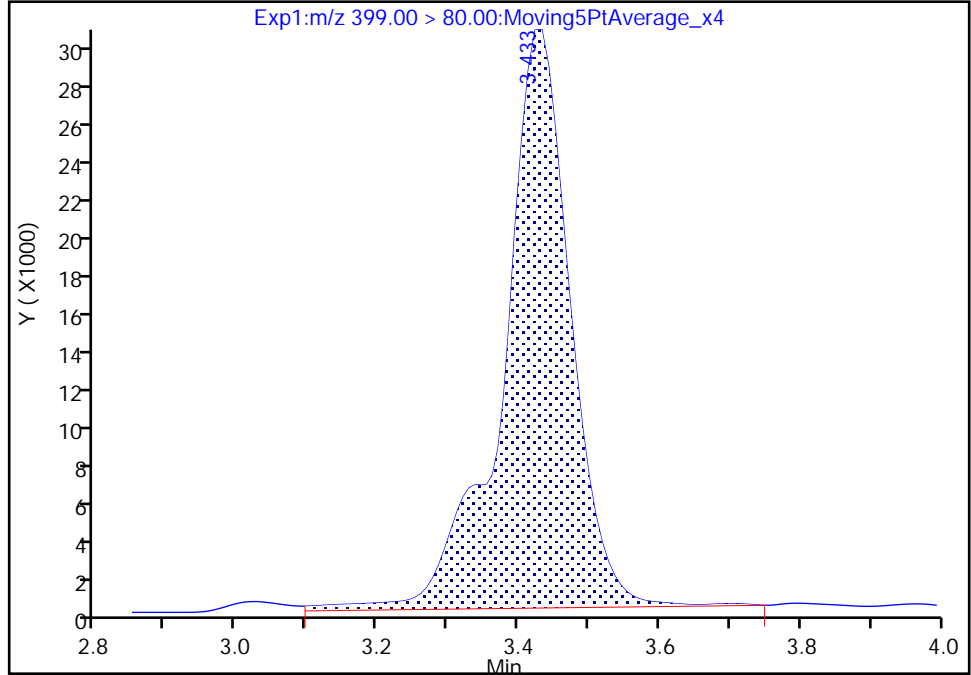
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_016.d		
Injection Date:	10-Jun-2021 06:10:03	Instrument ID:	A15
Lims ID:	320-74597-A-7-A	Lab Sample ID:	320-74597-7
Client ID:	BH20210604-3N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	13

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

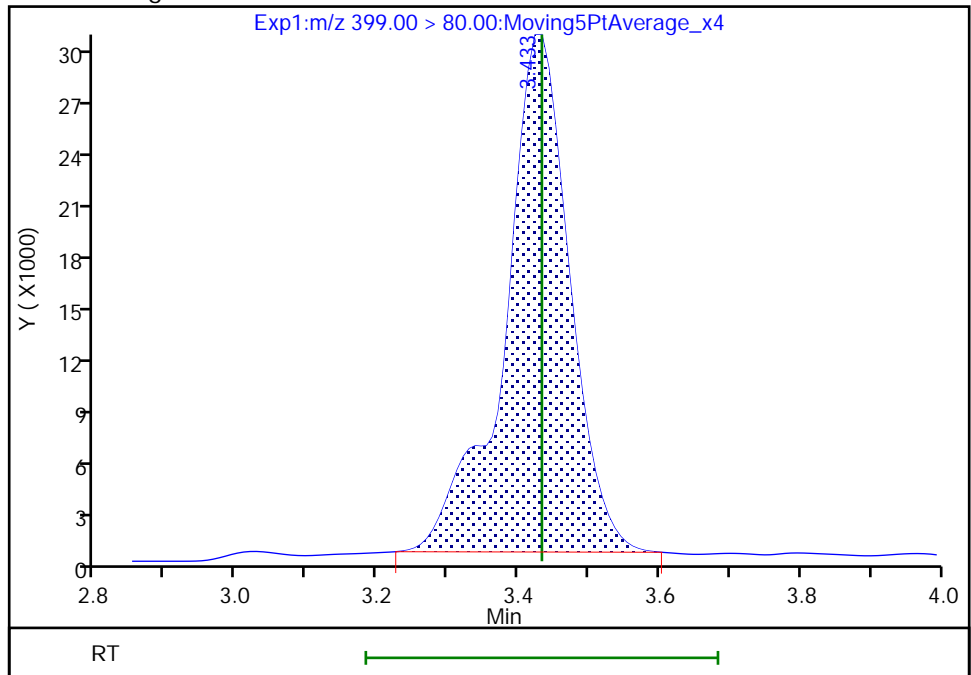
RT: 3.43  
 Area: 203038  
 Amount: 0.077786  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
 Area: 192519  
 Amount: 0.073757  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:17  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

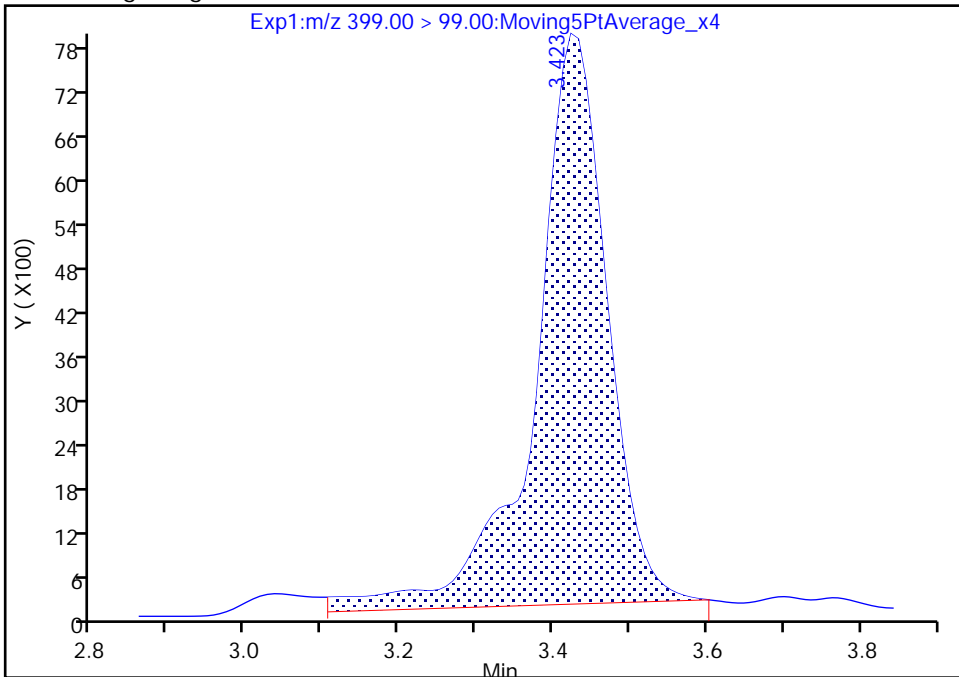
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_016.d		
Injection Date:	10-Jun-2021 06:10:03	Instrument ID:	A15
Lims ID:	320-74597-A-7-A	Lab Sample ID:	320-74597-7
Client ID:	BH20210604-3N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	13

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

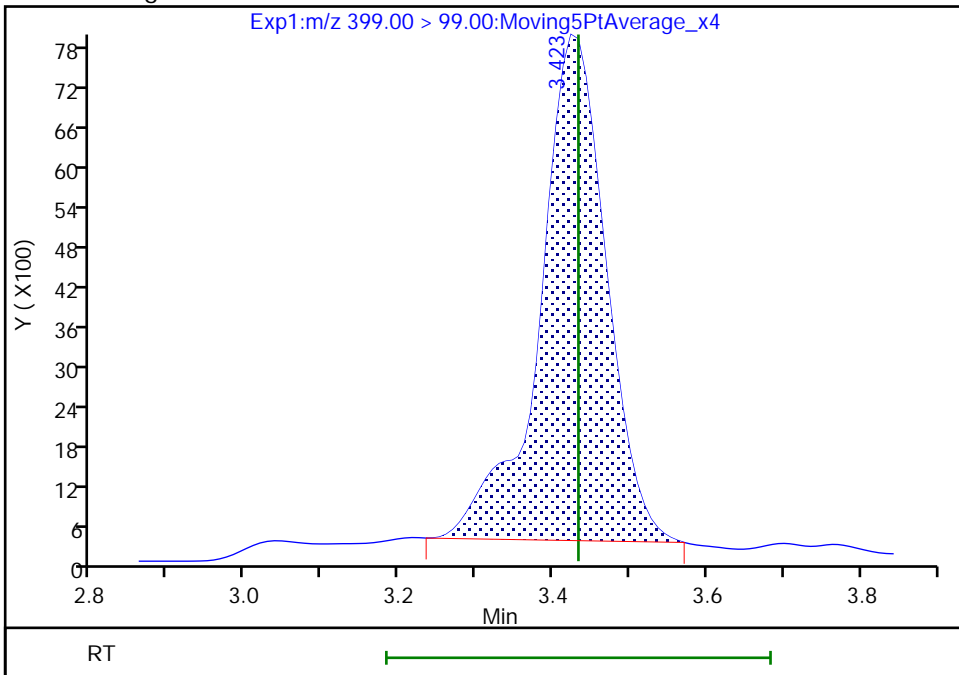
RT: 3.42  
 Area: 50565  
 Amount: 0.077786  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
 Area: 45691  
 Amount: 0.073757  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:20

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

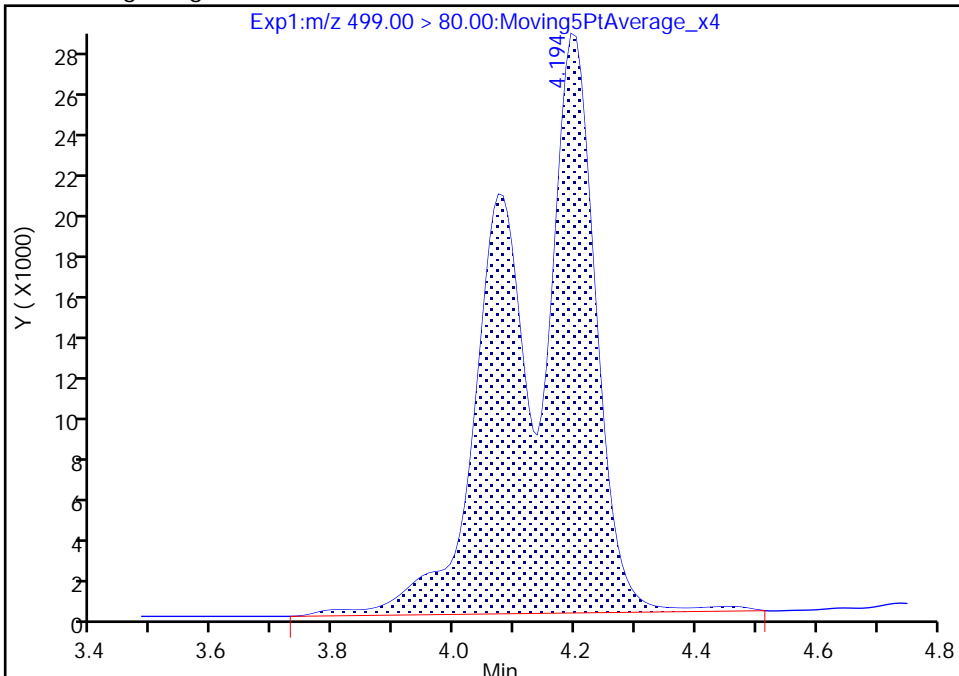
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

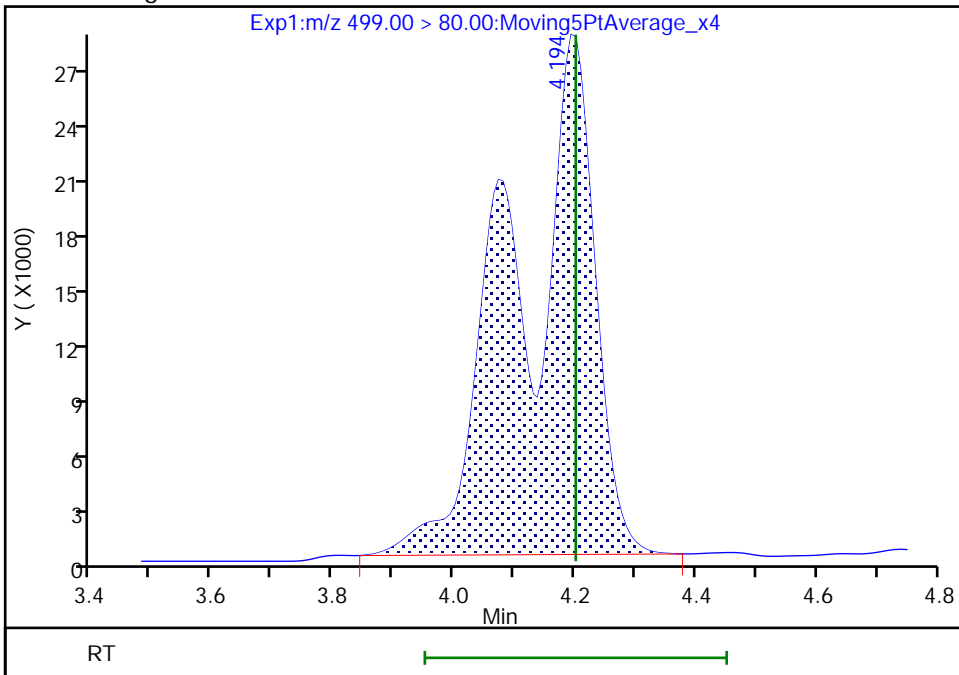
RT: 4.19  
Area: 266790  
Amount: 0.130979  
Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
Area: 257088  
Amount: 0.126216  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:36:36  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

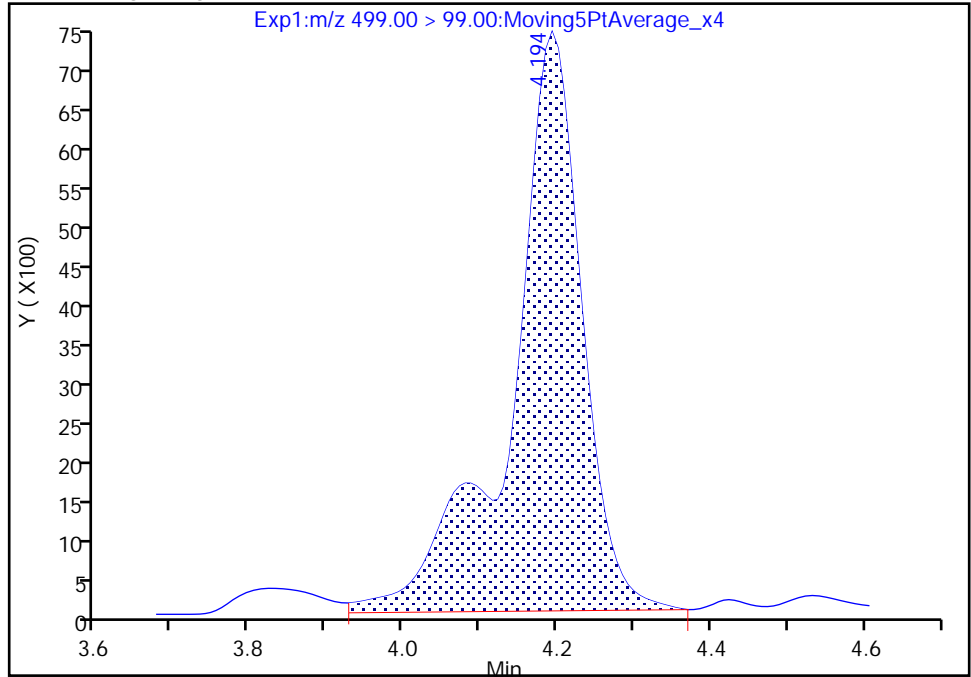
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_016.d  
Injection Date: 10-Jun-2021 06:10:03 Instrument ID: A15  
Lims ID: 320-74597-A-7-A Lab Sample ID: 320-74597-7  
Client ID: BH20210604-3N-25  
Operator ID: SACINSTA15 ALS Bottle#: 10 Worklist Smp#: 13  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

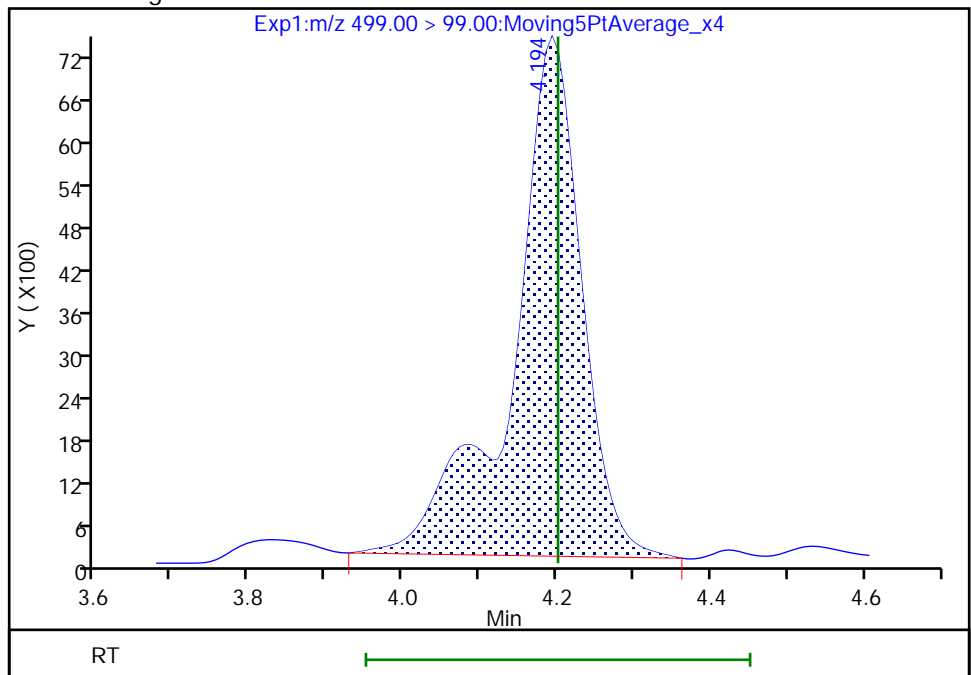
RT: 4.19  
Area: 47707  
Amount: 0.130979  
Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
Area: 45926  
Amount: 0.126216  
Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-50 Lab Sample ID: 320-74597-8  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_019.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:14  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 267.4 (mL) Date Analyzed: 06/10/2021 06:37  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.7	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.6		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.8		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	1.9		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.6		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	
27619-97-2	6:2 FTS	ND		4.7	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-50 Lab Sample ID: 320-74597-8  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_019.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:14  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 267.4 (mL) Date Analyzed: 06/10/2021 06:37  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	88		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	100		25-150
STL01892	13C4 PFHpA	100		25-150
STL00990	13C4 PFOA	100		25-150
STL00995	13C5 PFNA	104		25-150
STL00996	13C2 PFDA	96		25-150
STL00997	13C2 PFUnA	92		25-150
STL00998	13C2 PFDoA	94		25-150
STL02116	13C2 PFTeDA	88		25-150
STL02337	13C3 PFBS	106		25-150
STL00994	18O2 PFHxS	112		25-150
STL00991	13C4 PFOS	105		25-150
STL01056	13C8 FOSA	107		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	108		25-150
STL02279	M2-6:2 FTS	99		25-150
STL02280	M2-8:2 FTS	96		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
 Lims ID: 320-74597-A-8-A  
 Client ID: BH20210604-3N-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 06:37:28 ALS Bottle#: 11 Worklist Smp#: 16  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-8-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:53:10 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:53:10  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_018.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.310	2.319	-0.009	1.000	317617	0.0802			117	
D 9 13C4 PFBA										
217.00 > 172.00	2.310	2.319	-0.009	0.604	5233365	1.11		88.5	38652	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.650	2.650	0.0	1.000	455560	0.0959			143	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.650	2.661	-0.011	0.693	5667316	1.27		102	33261	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.702	3819473	1.23		106	11302	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.693	-0.010	1.000	113548	0.0306	Target=2.41		113	M
298.90 > 99.00	2.683	2.693	-0.010	1.000	46671		2.43(1.21-3.62)		82.5	M
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.019	-0.001	1.003	370174	0.0749	Target=13.70		353	
313.00 > 119.00	3.018	3.019	-0.001	1.003	28426		13.02(6.85-20.55)		289	
D 28 13C2 PFHxA										
315.00 > 270.00	3.010	3.019	-0.009	0.787	5513095	1.25		99.8	59184	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	164445	0.0356	Target=3.91		210	
363.00 > 169.00	3.423	3.433	-0.010	1.000	42001		3.92(1.96-5.87)		458	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.423	3.433	-0.010	1.000	134713	0.0490	Target=3.51		652	M
399.00 > 99.00	3.423	3.433	-0.010	1.000	38230		3.52(1.76-5.27)		289	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.423	3.433	-0.010	0.895	2939067	1.33		112	45079	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.895	5465911	1.26		100	52763	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										
427.00 > 407.00	3.805	3.814	-0.009	1.000	10935	0.005355	Target=2.07		56.2	
427.00 > 79.96	3.805	3.814	-0.009	1.000	6353		1.72(1.03-3.10)		22.9	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.805	3.814	-0.009	0.995	1177276	1.17		98.7	7428	
* 57 13C2 PFOA										
415.00 > 370.00	3.824	3.834	-0.010		5928712	1.25			60676	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.002	257989	0.0498	Target=2.88		375	M
413.00 > 169.00	3.824	3.834	-0.010	1.000	101971		2.53(1.44-4.31)		1122	
D 56 13C4 PFOA										
417.00 > 372.00	3.824	3.834	-0.010	1.000	6194937	1.25		100	57383	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.073	4.201	-0.128	0.971	139812	0.0686	Target=5.76		544	M
499.00 > 99.00	4.194	4.201	-0.007	1.000	19175		7.29(2.88-8.64)		216	M
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.097	2165583	1.25		105	17541	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.217	-0.008	1.101	6119287	1.29		104	67378	
64 Perfluorononanoic acid										
463.00 > 419.00	4.209	4.217	-0.008	1.000	41125	0.008484	Target=7.41		94.8	M
463.00 > 169.00	4.209	4.217	-0.008	1.000	4908		8.38(3.70-11.11)		55.1	
D 71 13C8 FOSA										
506.00 > 78.00	4.523	4.523	0.0	1.183	3917520	1.34		107	47395	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.002	6372	0.002025			159	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.002	37285	0.008062	Target=8.78		187	
513.00 > 169.00	4.559	4.559	0.0	1.002	3510		10.62(4.39-13.18)		63.7	
D 74 13C2 PFDA										
515.00 > 470.00	4.550	4.559	-0.009	1.190	5654702	1.20		95.7	59884	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.569	-0.010	1.192	1809698	1.15		96.3	15568	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.234	2495362	1.25		100	26432	
79 NMeFOSAA										
570.00 > 419.00	4.740	4.729	0.011	1.005	4001	0.002709	Target=0.83		33.8	M
570.00 > 483.00	4.729	4.729	0.0	1.002	3391		1.18(0.42-1.25)		89.2	M
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.274	5212683	1.14		91.5	108242	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.872	4.882	-0.010	1.274	2671733	1.35		108	24620	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.891	0.0	1.004	5988	0.003910	Target=0.79		97.6	
584.00 > 526.10	4.901	4.891	0.010	1.006	8393		0.71(0.39-1.18)		49.8	M
D 97 13C2 PFDaA										
615.00 > 570.00	5.157	5.156	0.001	1.348	5793319	1.18		94.0	83387	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 104 13C2 PFTeDA										
715.00 > 670.00	5.648	5.658	-0.010	1.477	5010101	1.10		88.3	52760	
105 Perfluorotetradecanoic acid										RM
713.00 > 169.00	5.658	5.658	0.0	1.002	1996	0.004051	Target=1.00		61.0	RM
713.00 > 219.00	5.648	5.658	-0.010	1.000	1289		1.55(0.50-1.50)		49.8	

**QC Flag Legend**

Processing Flags

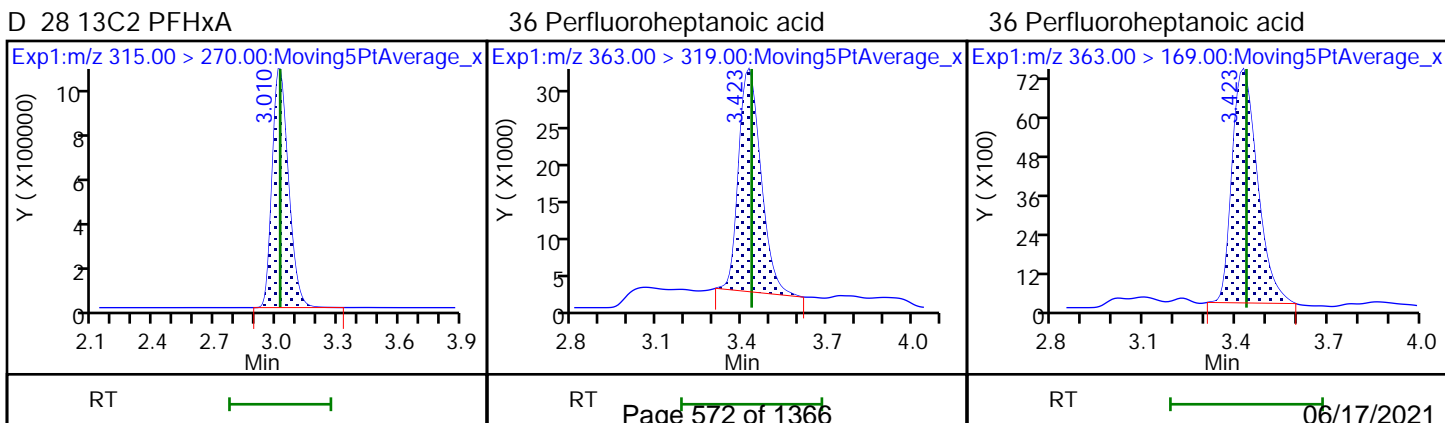
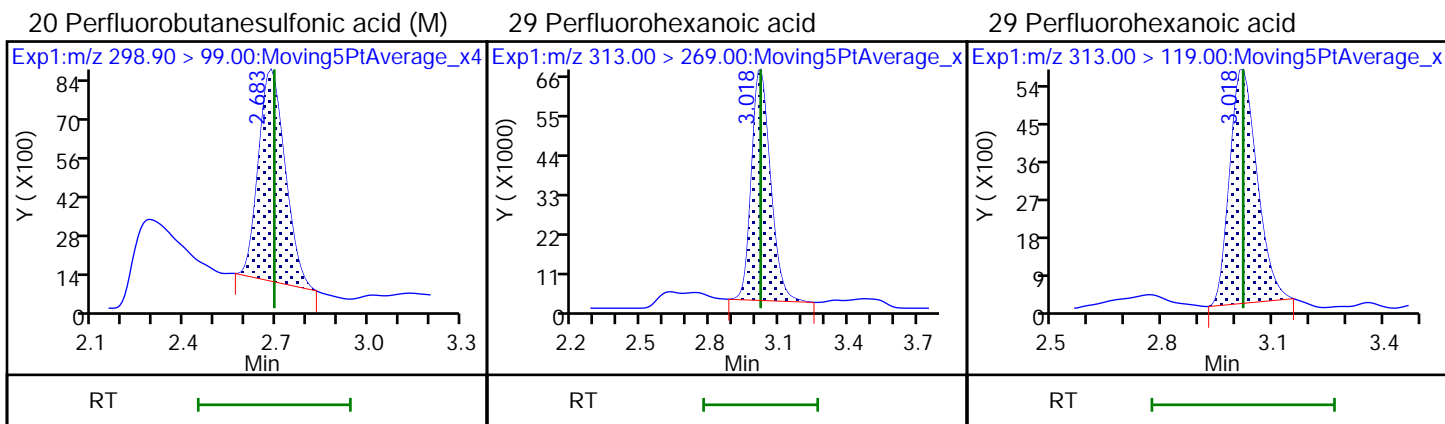
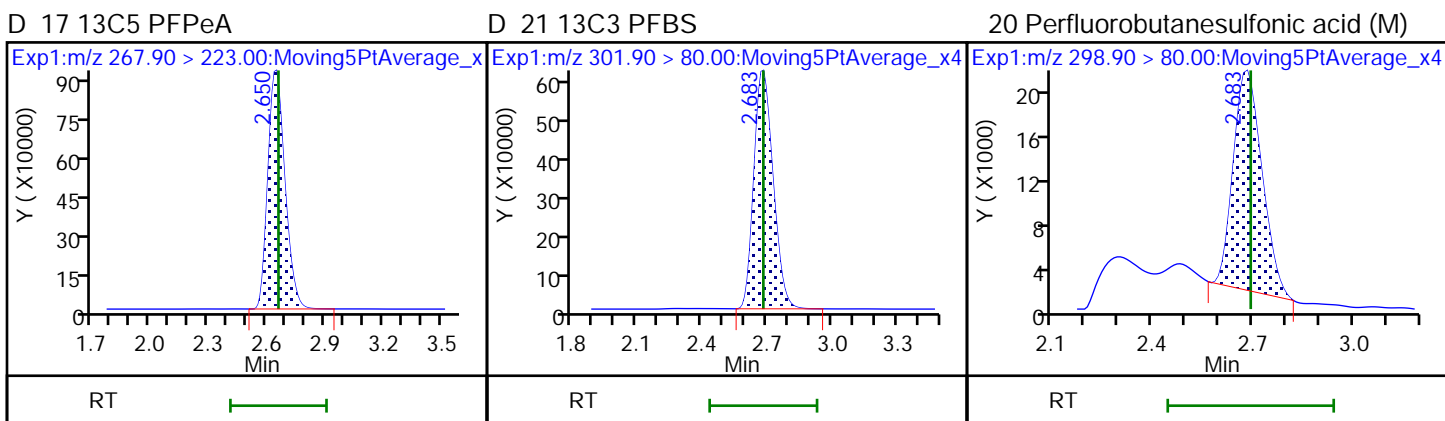
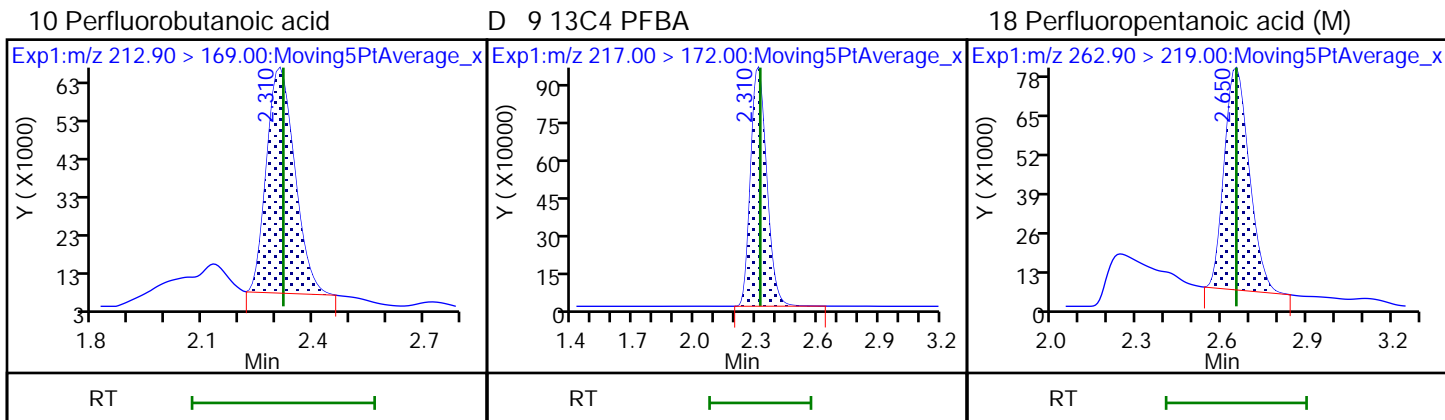
R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Sacramento

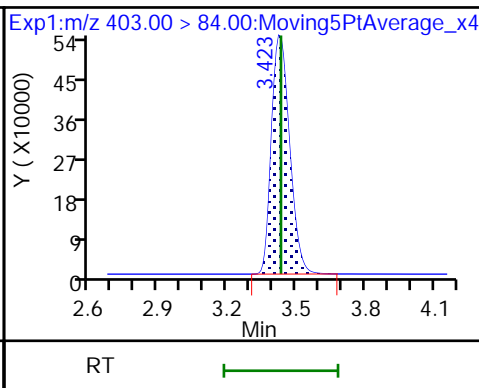
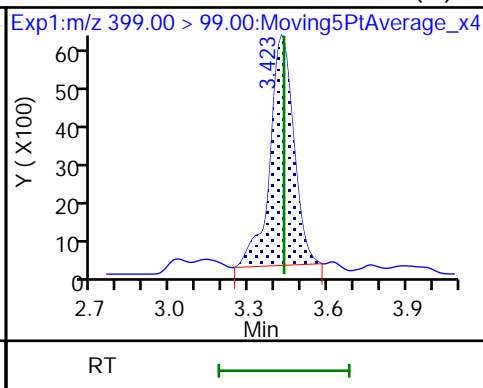
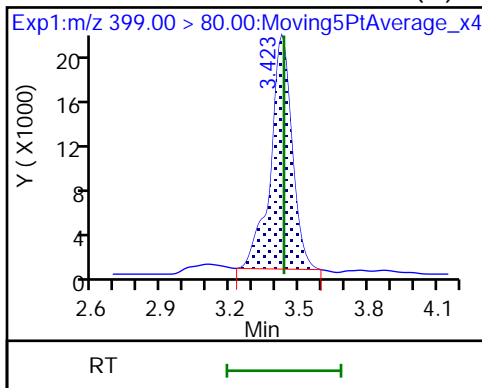
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
Injection Date: 10-Jun-2021 06:37:28 Instrument ID: A15  
Lims ID: 320-74597-A-8-A Lab Sample ID: 320-74597-8  
Client ID: BH20210604-3N-50  
Operator ID: SACINSTA15 ALS Bottle#: 11 Worklist Smp#: 16  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid (M)

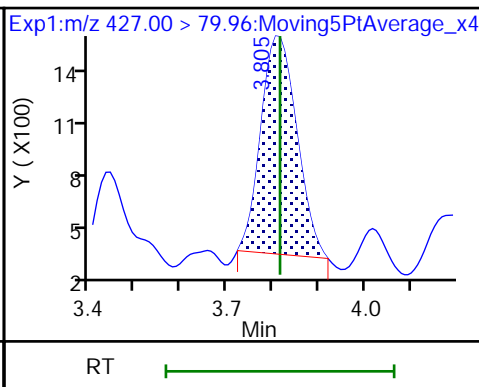
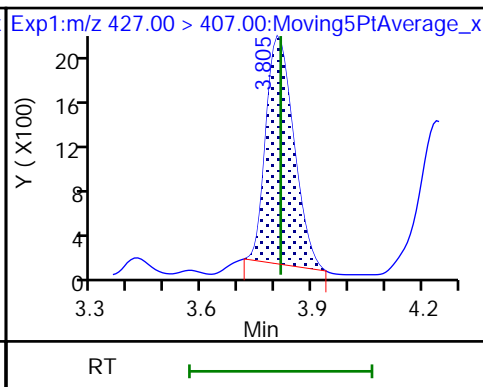
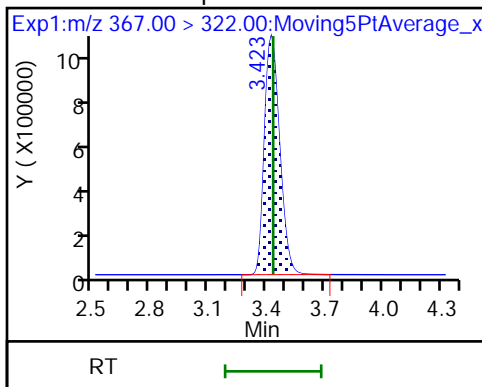
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS

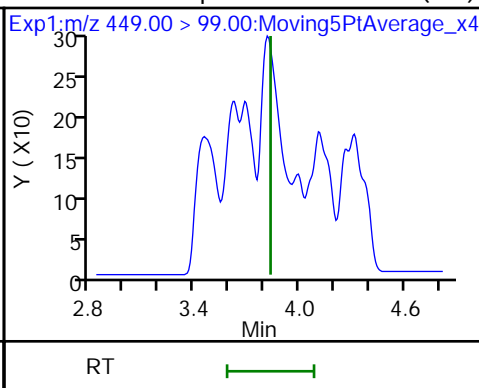
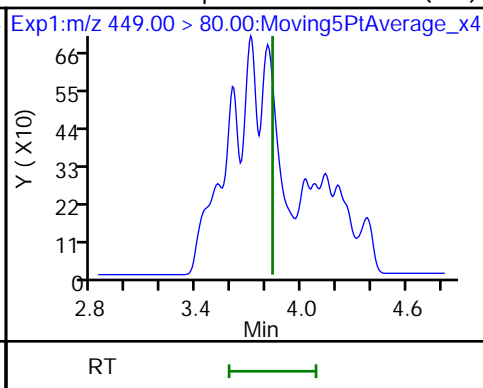
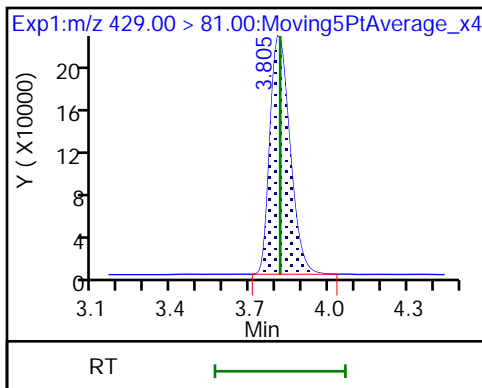
53 6:2 FTS



D 52 M2-6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

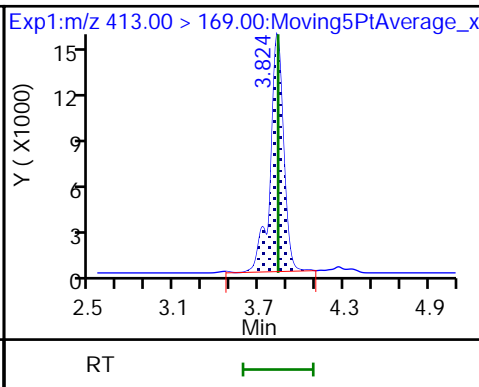
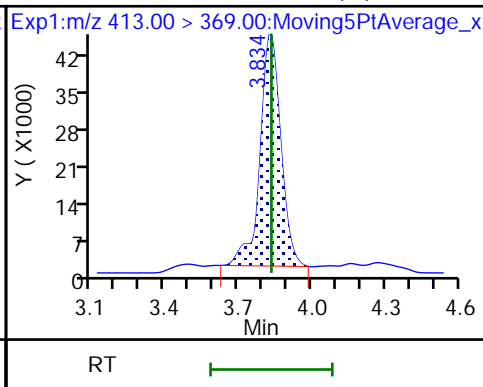
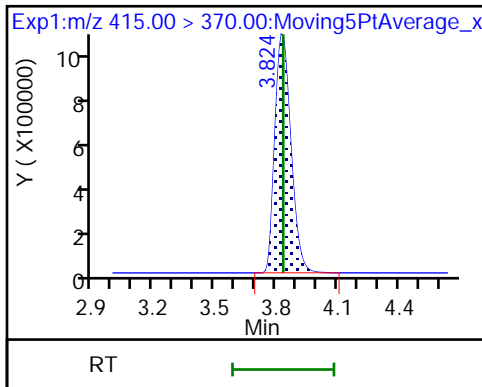
54 Perfluoroheptanesulfonic acid (ND)



\* 57 13C2 PFOA

58 Perfluorooctanoic acid (M)

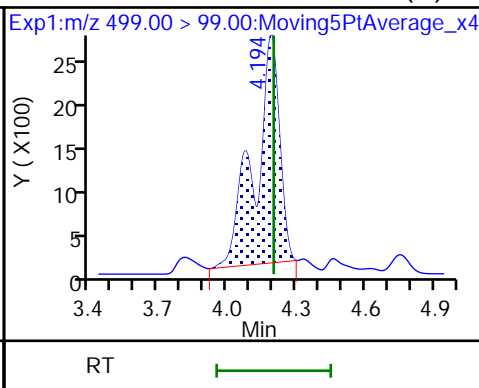
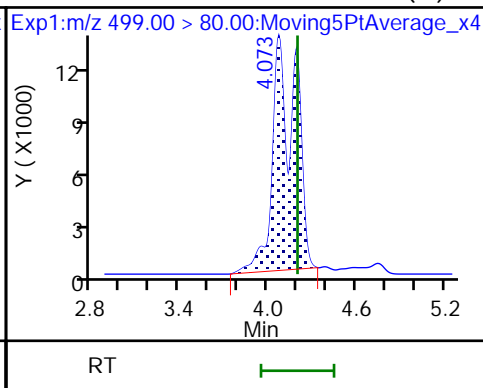
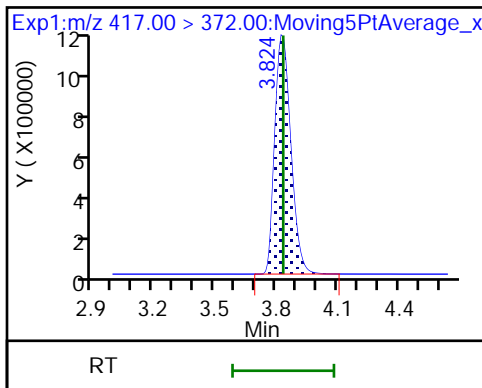
58 Perfluorooctanoic acid



D 56 13C4 PFOA

62 Perfluorooctanesulfonic acid (M)

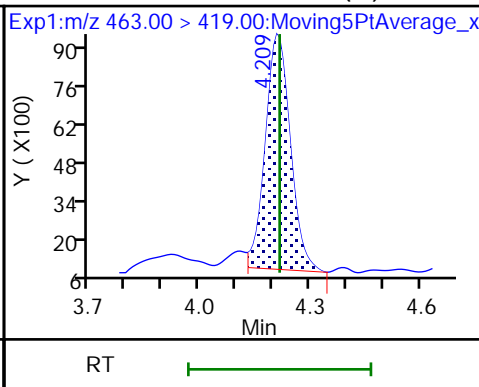
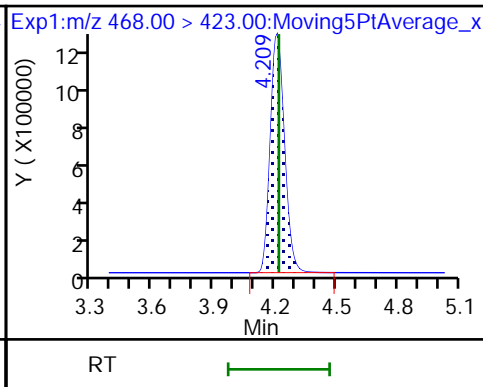
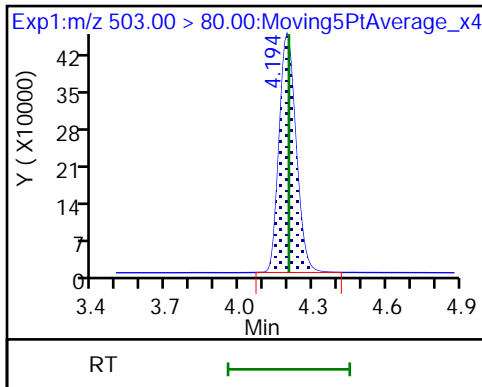
62 Perfluorooctanesulfonic acid (M)



D 61 13C4 PFOS

D 63 13C5 PFNA

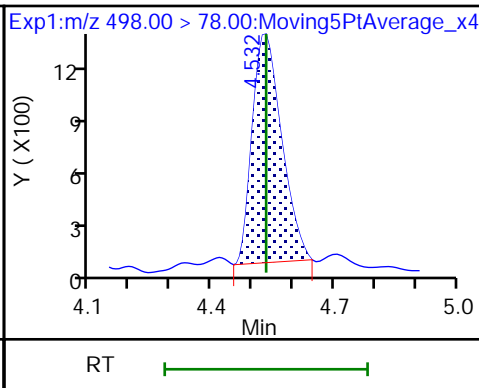
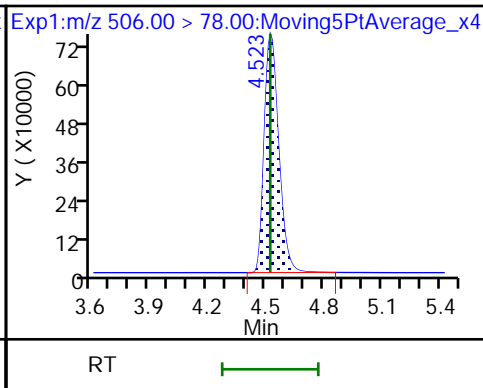
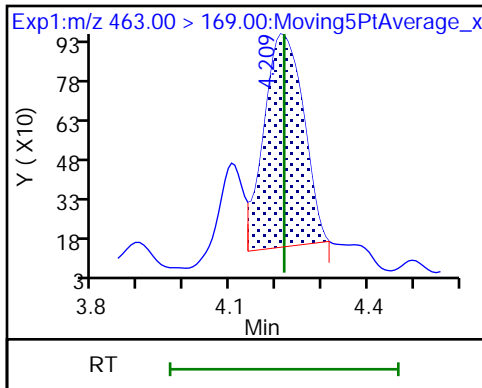
64 Perfluorononanoic acid (M)



64 Perfluorononanoic acid

D 71 13C8 FOSA

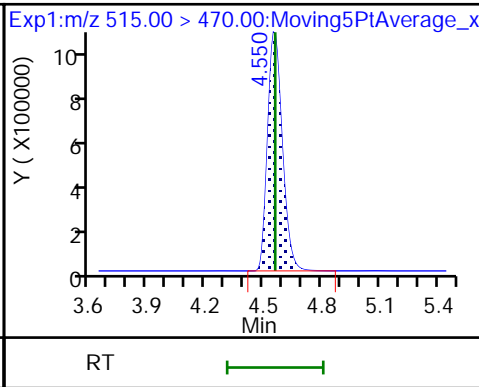
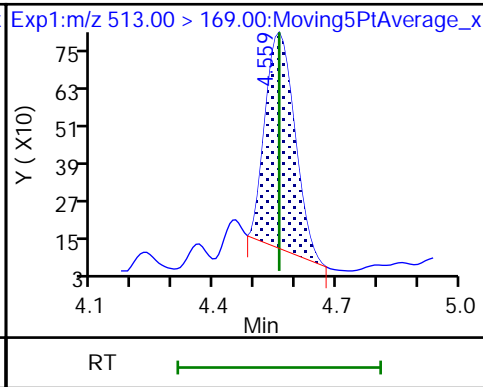
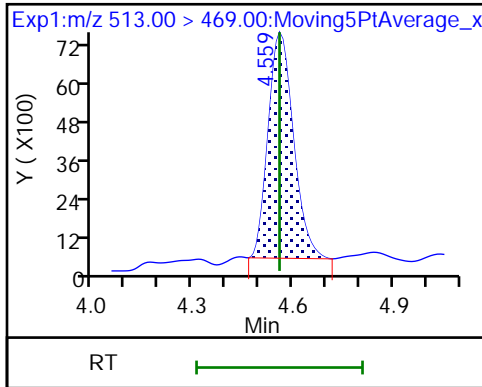
72 Perfluorooctanesulfonamide



75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

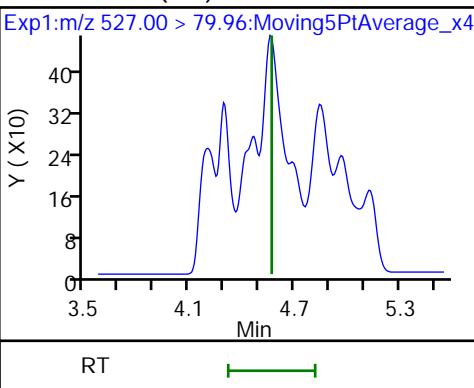
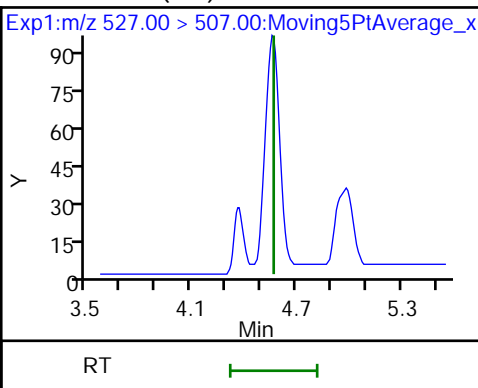
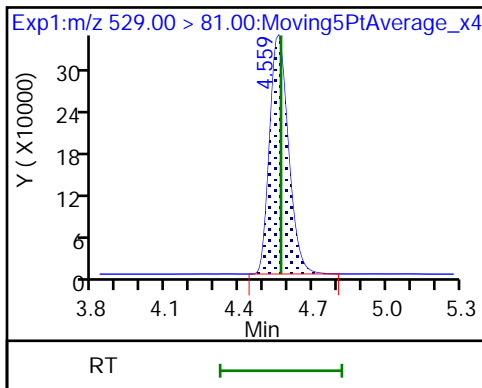
D 74 13C2 PFDA



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

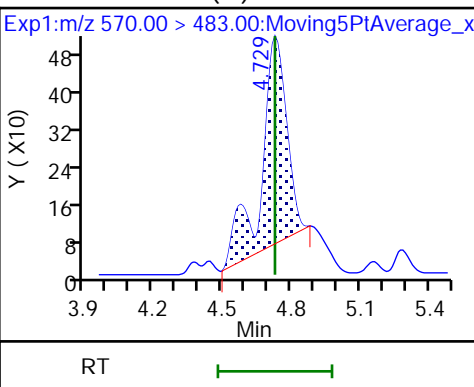
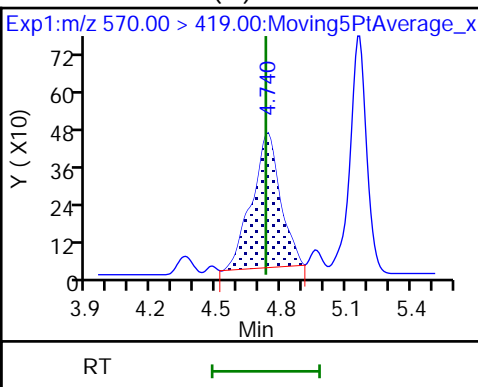
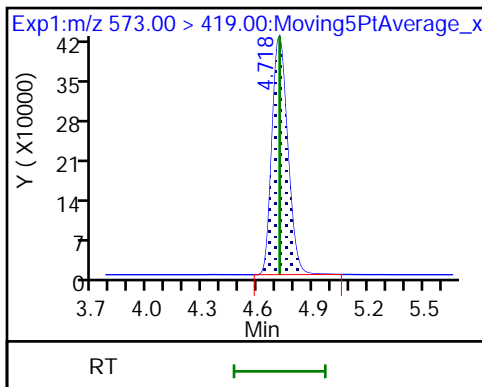
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (M)

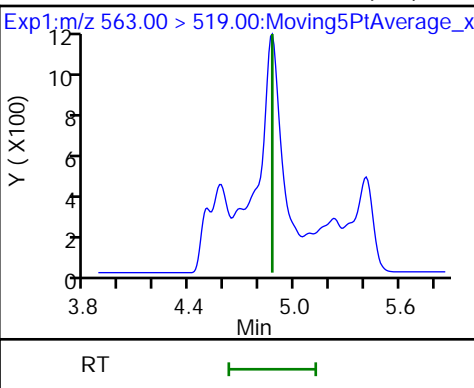
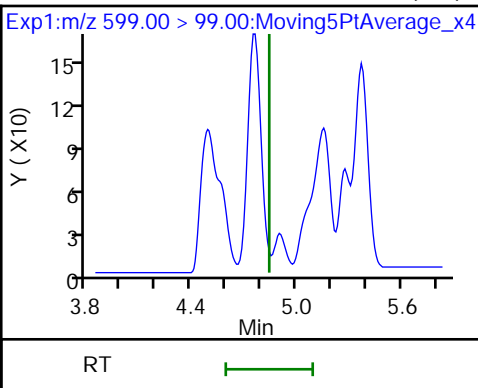
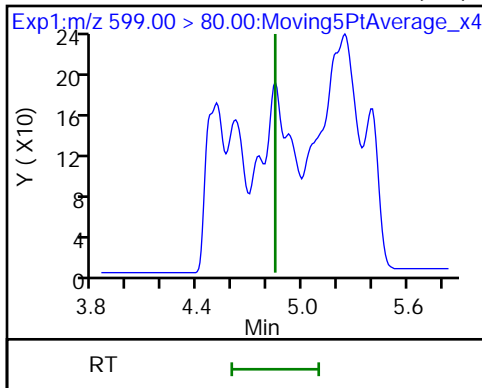
79 NMeFOSAA (M)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

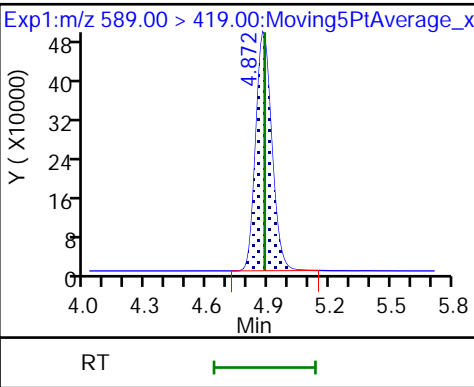
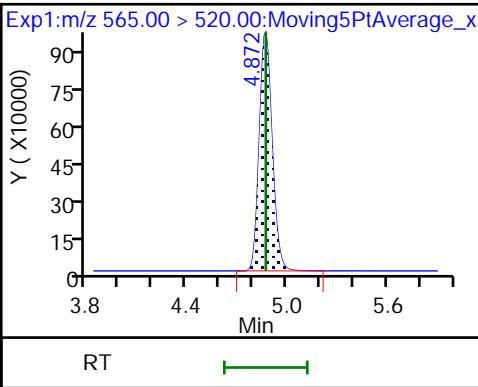
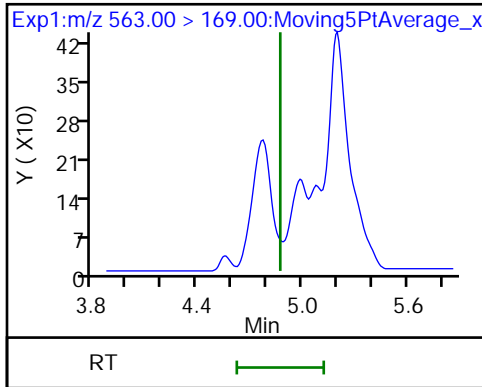
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

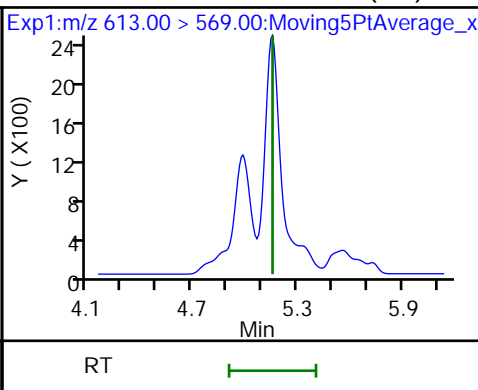
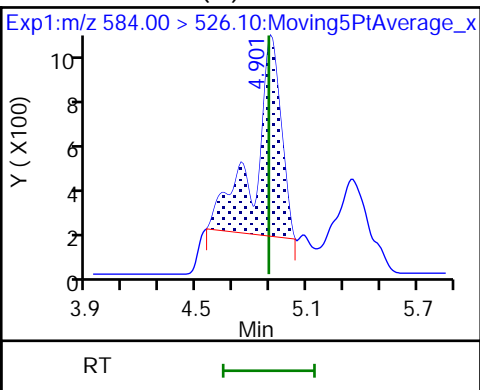
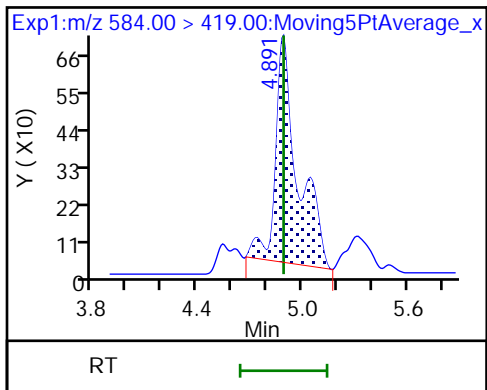
D 83 d5-NEtFOSAA



84 NEtFOSAA

84 NEtFOSAA (M)

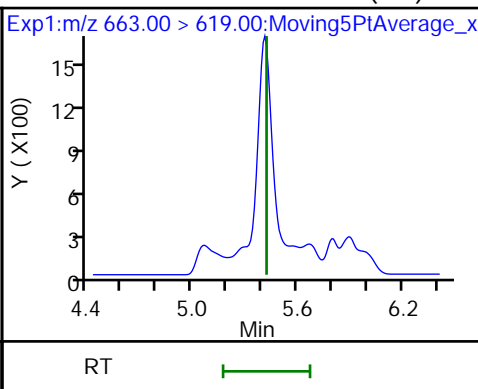
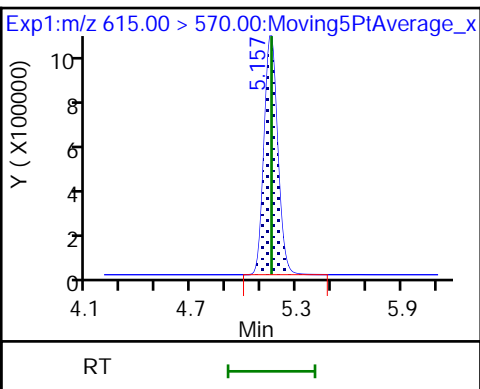
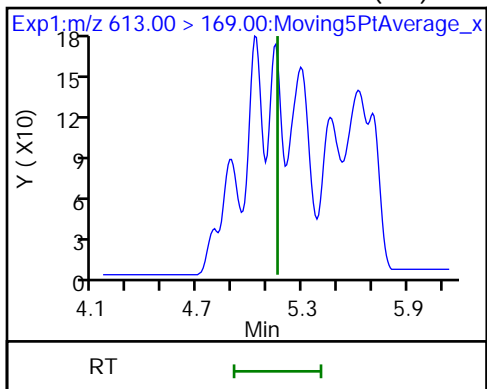
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

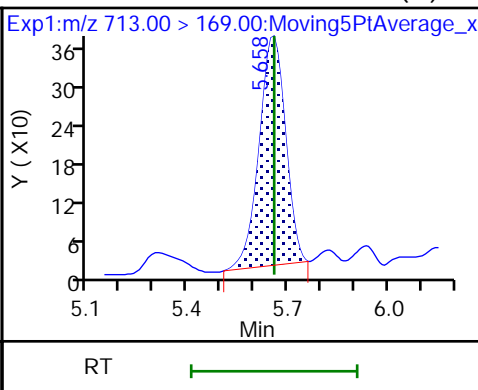
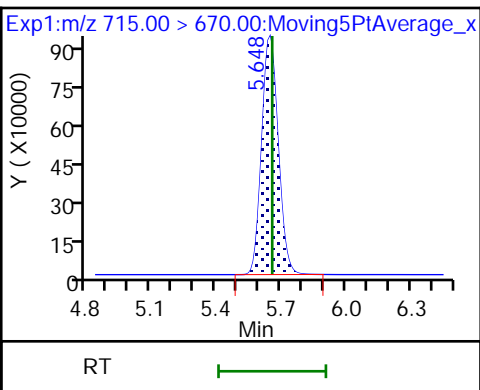
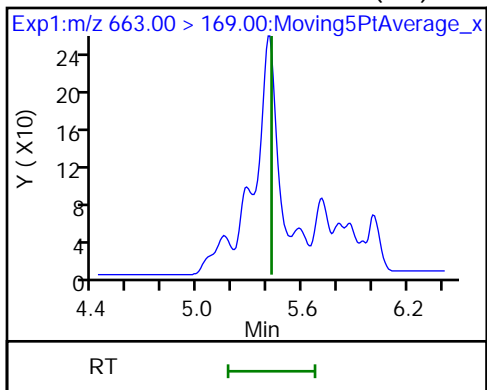
103 Perfluorotridecanoic acid (ND)



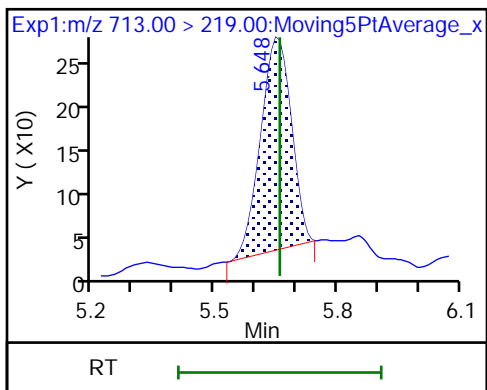
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid (M)



105 Perfluorotetradecanoic acid



Euofins TestAmerica, Sacramento

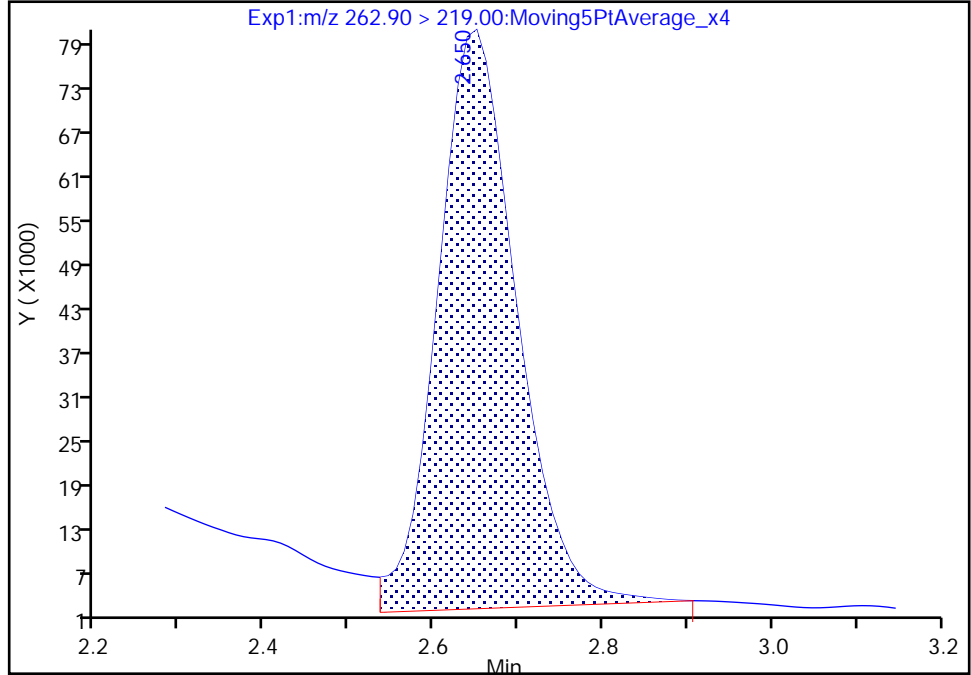
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

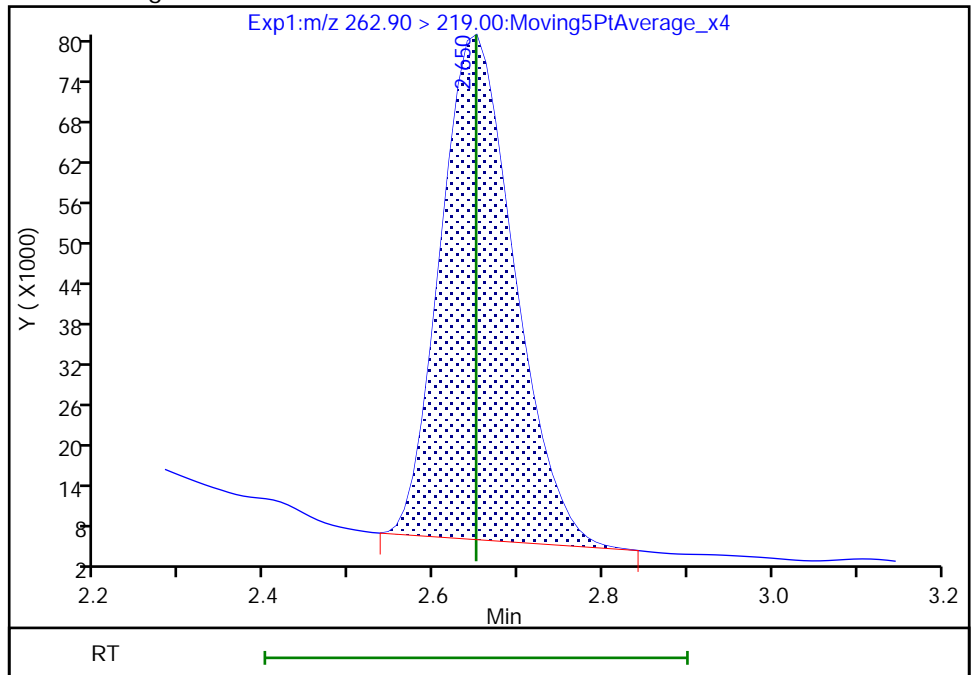
RT: 2.65  
 Area: 507808  
 Amount: 0.106886  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
 Area: 455560  
 Amount: 0.095888  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:51:42  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

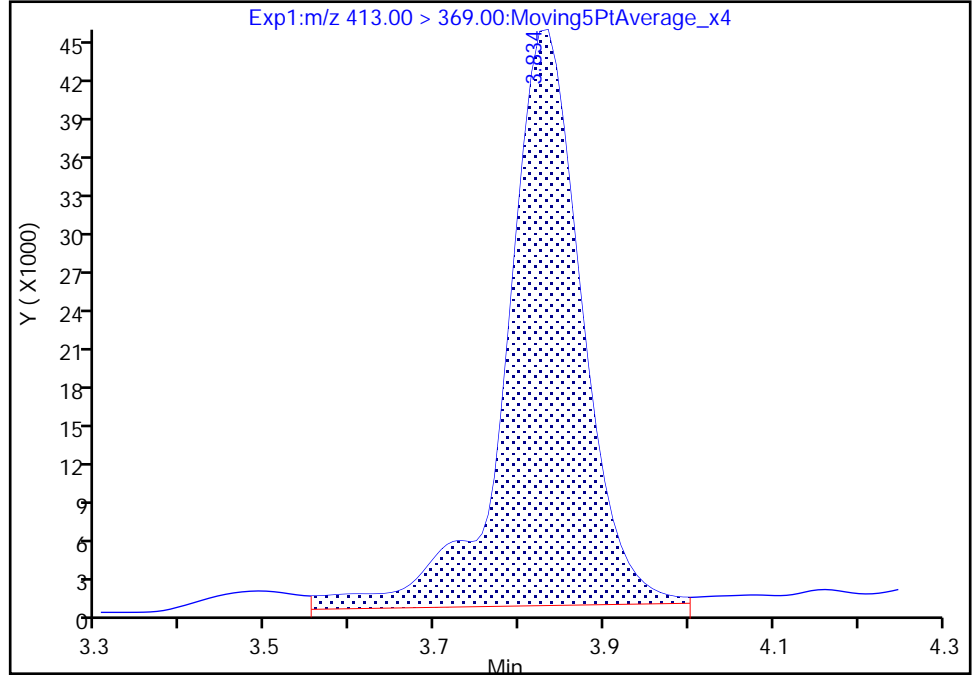
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

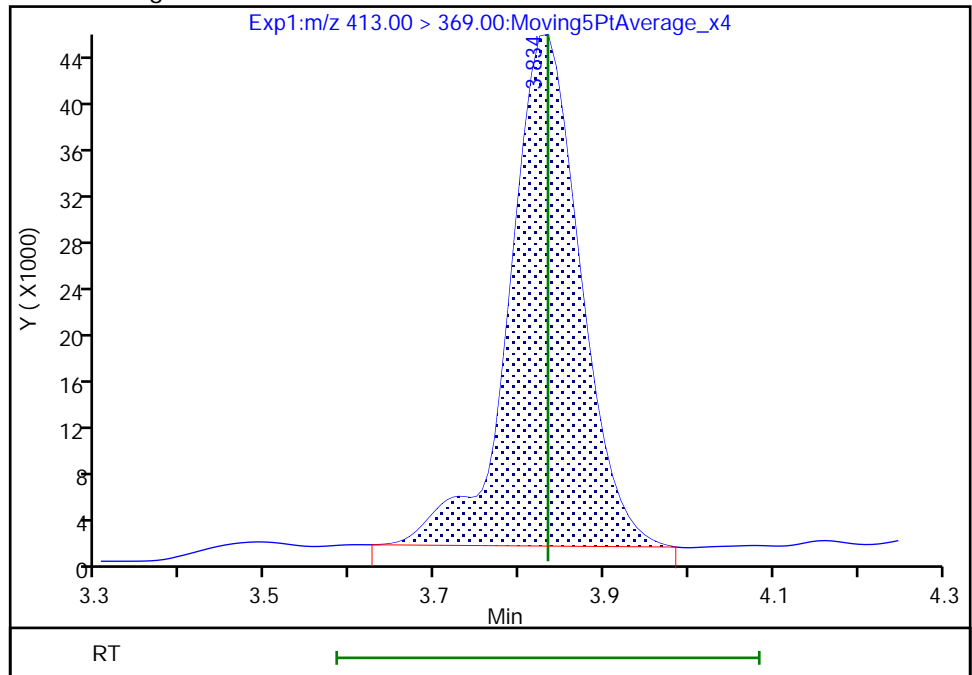
RT: 3.83  
 Area: 280785  
 Amount: 0.054215  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 257989  
 Amount: 0.049814  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:09  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

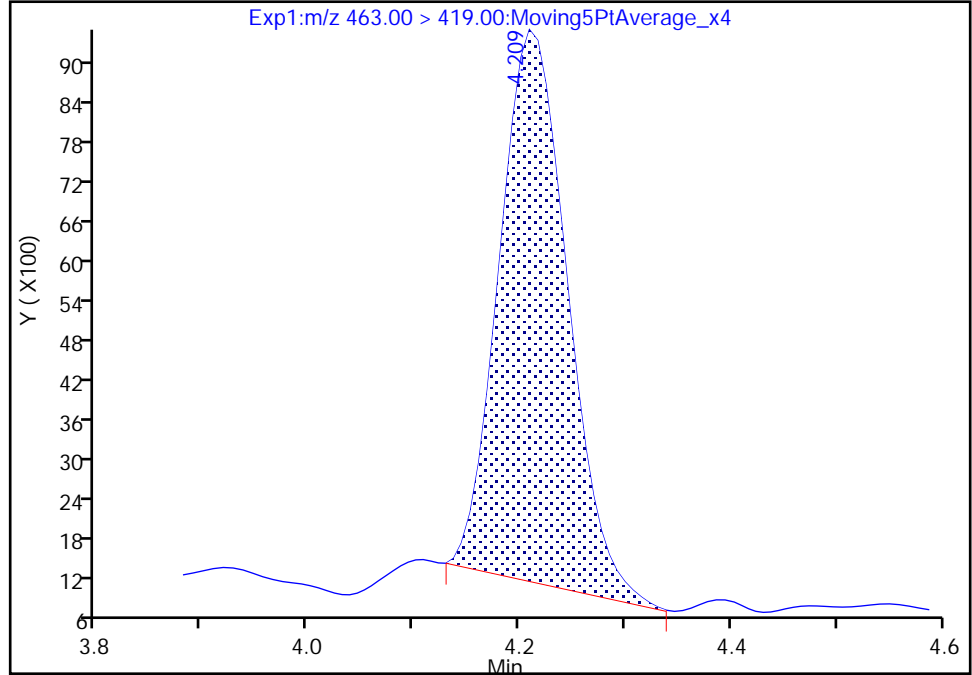
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
Injection Date: 10-Jun-2021 06:37:28 Instrument ID: A15  
Lims ID: 320-74597-A-8-A Lab Sample ID: 320-74597-8  
Client ID: BH20210604-3N-50  
Operator ID: SACINSTA15 ALS Bottle#: 11 Worklist Smp#: 16  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

64 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

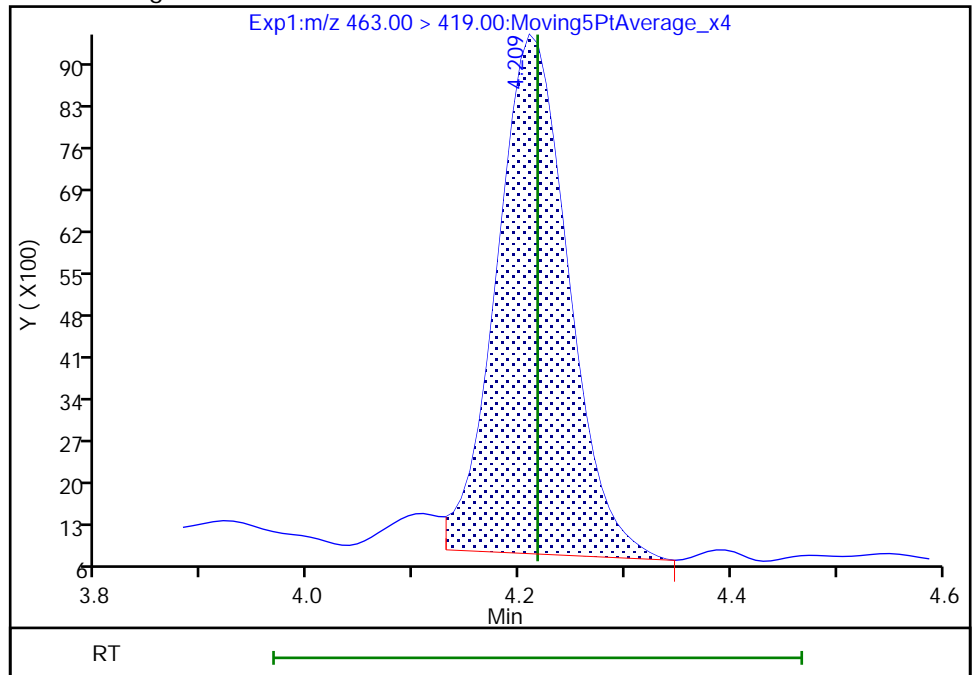
RT: 4.21  
Area: 37698  
Amount: 0.007777  
Amount Units: ng/ml

Processing Integration Results



RT: 4.21  
Area: 41125  
Amount: 0.008484  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:30  
Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

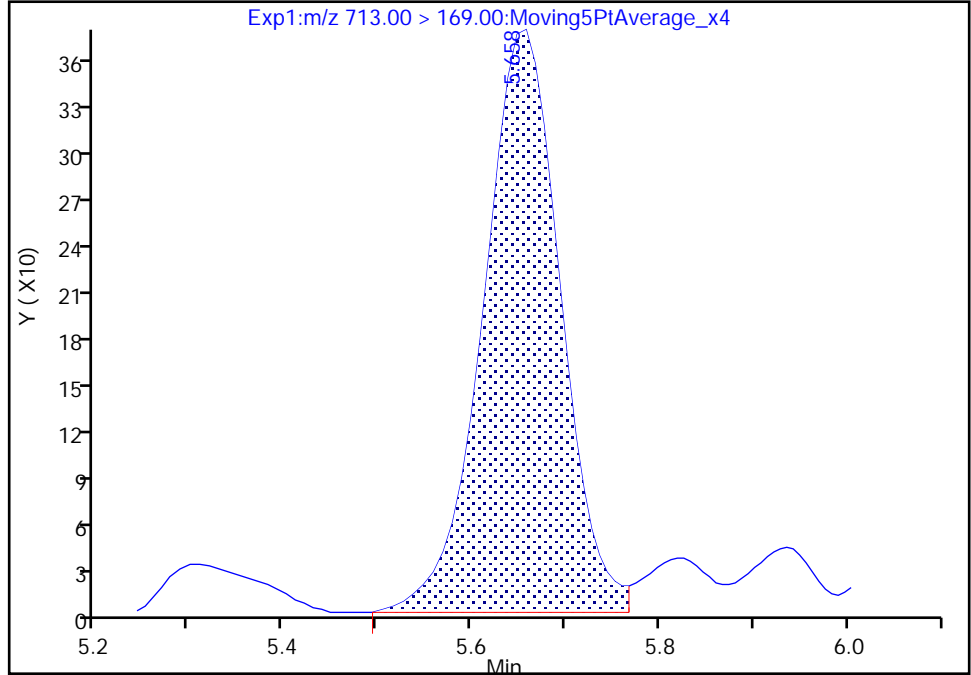
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

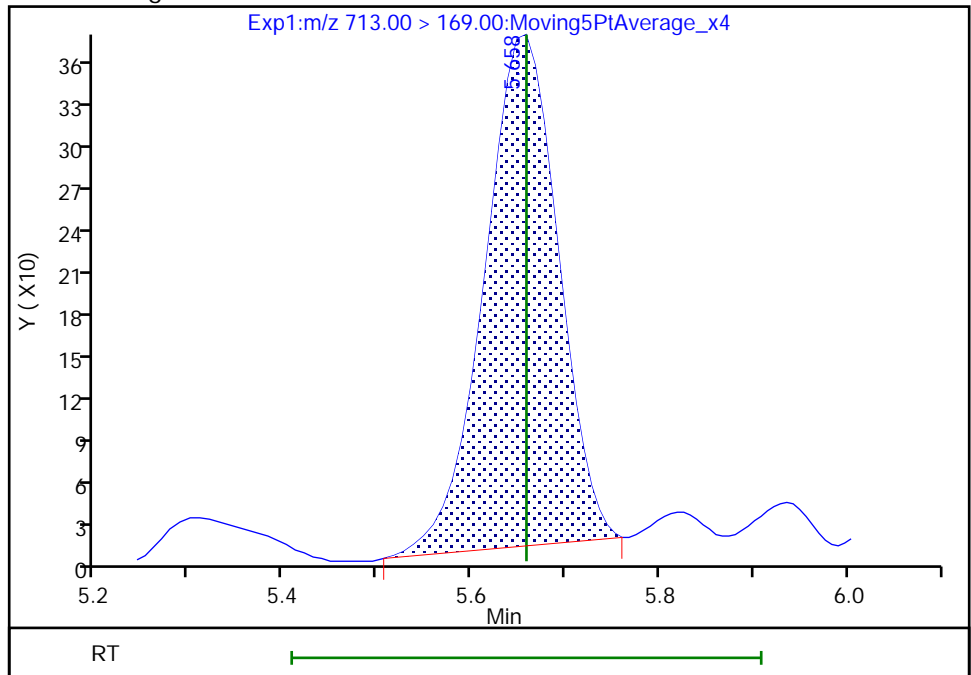
RT: 5.66  
 Area: 2149  
 Amount: 0.004362  
 Amount Units: ng/ml

Processing Integration Results



RT: 5.66  
 Area: 1996  
 Amount: 0.004051  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:53:07  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

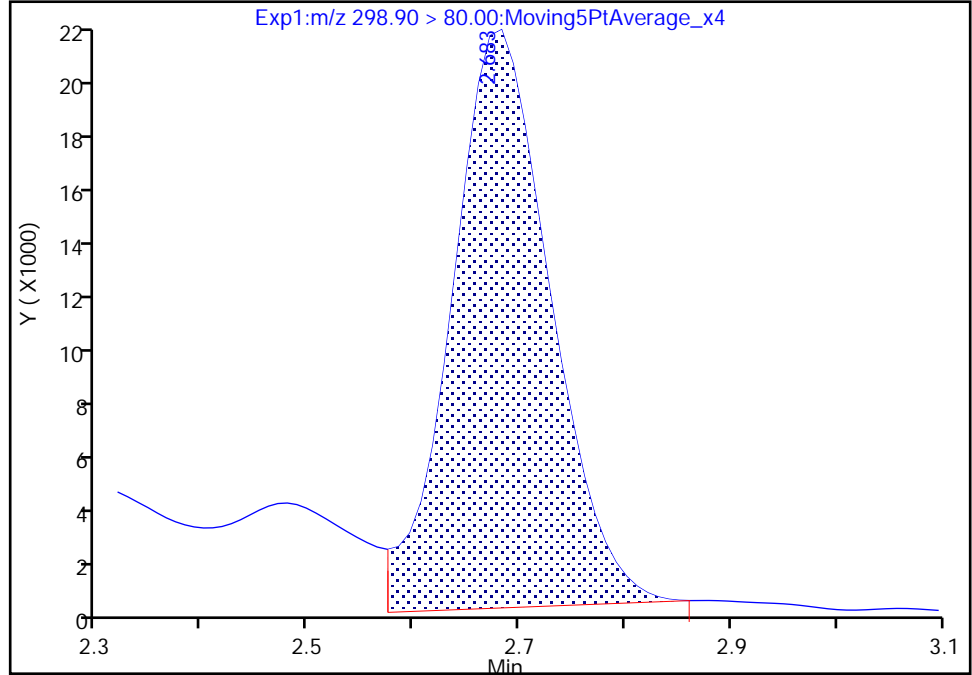
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

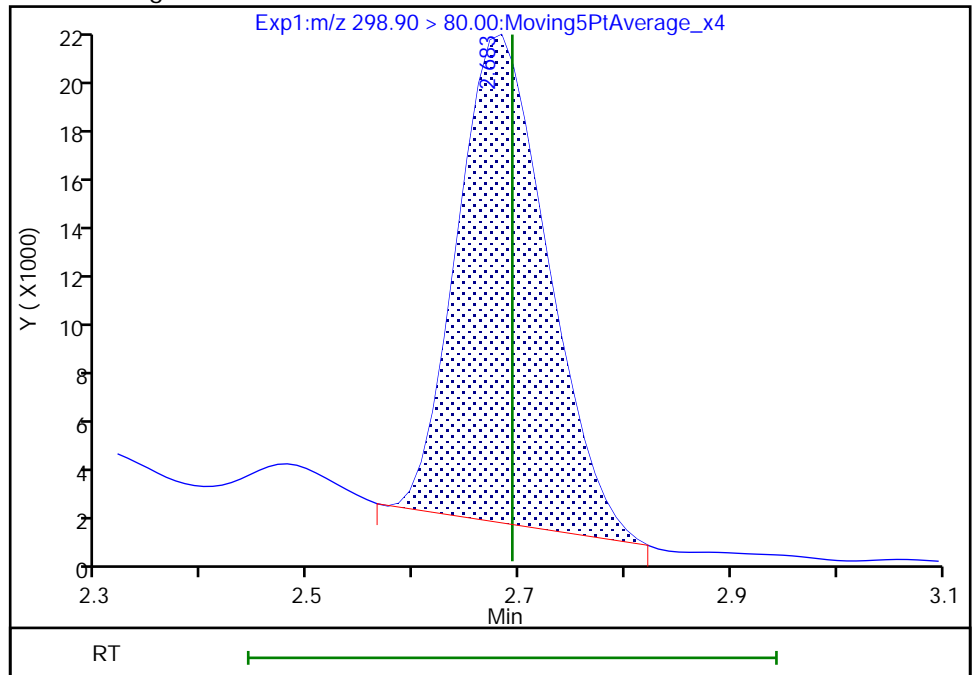
RT: 2.68  
 Area: 132865  
 Amount: 0.035763  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
 Area: 113548  
 Amount: 0.030564  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:51:48  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

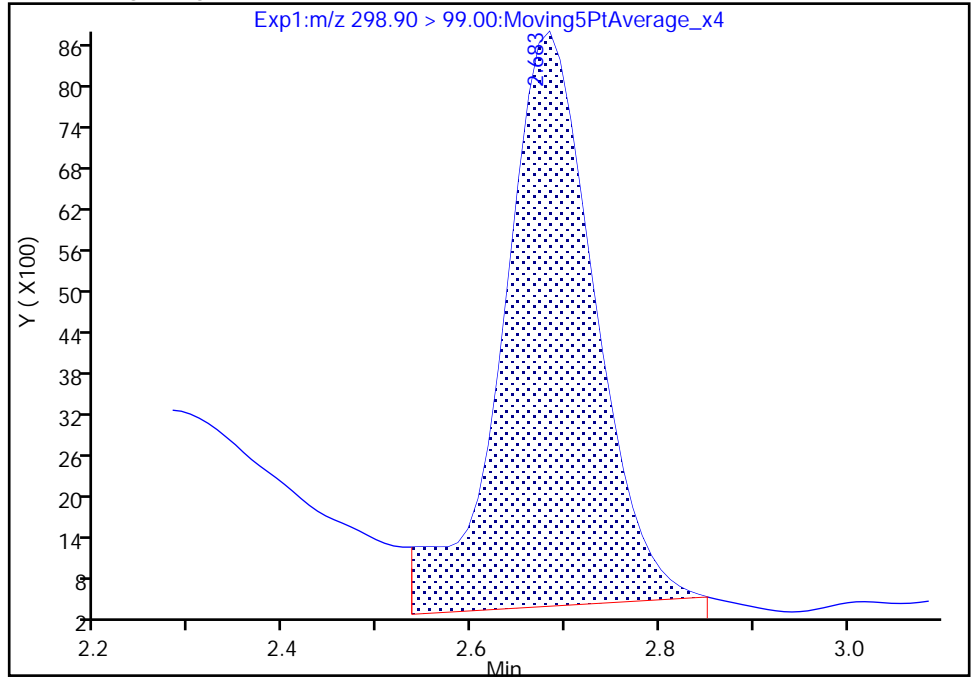
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
Injection Date: 10-Jun-2021 06:37:28 Instrument ID: A15  
Lims ID: 320-74597-A-8-A Lab Sample ID: 320-74597-8  
Client ID: BH20210604-3N-50  
Operator ID: SACINSTA15 ALS Bottle#: 11 Worklist Smp#: 16  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

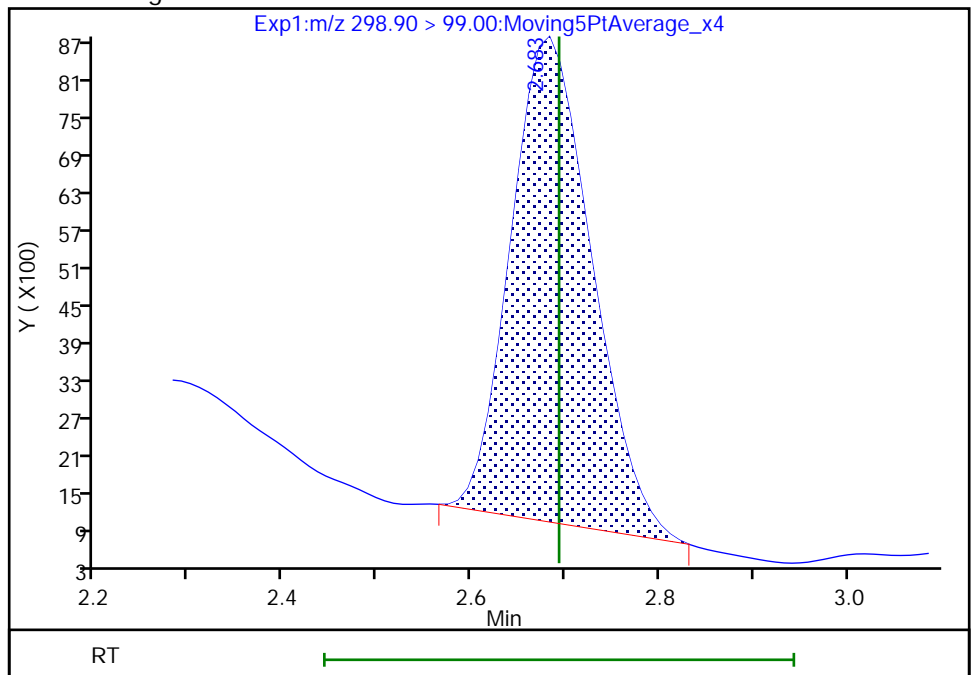
RT: 2.68  
Area: 56799  
Amount: 0.035763  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 46671  
Amount: 0.030564  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

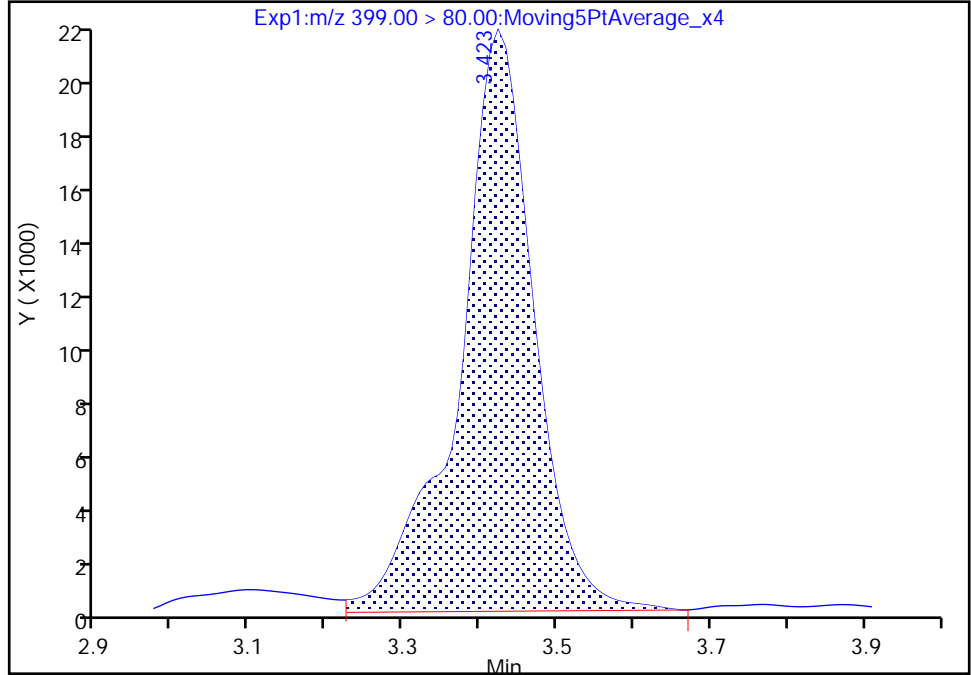
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

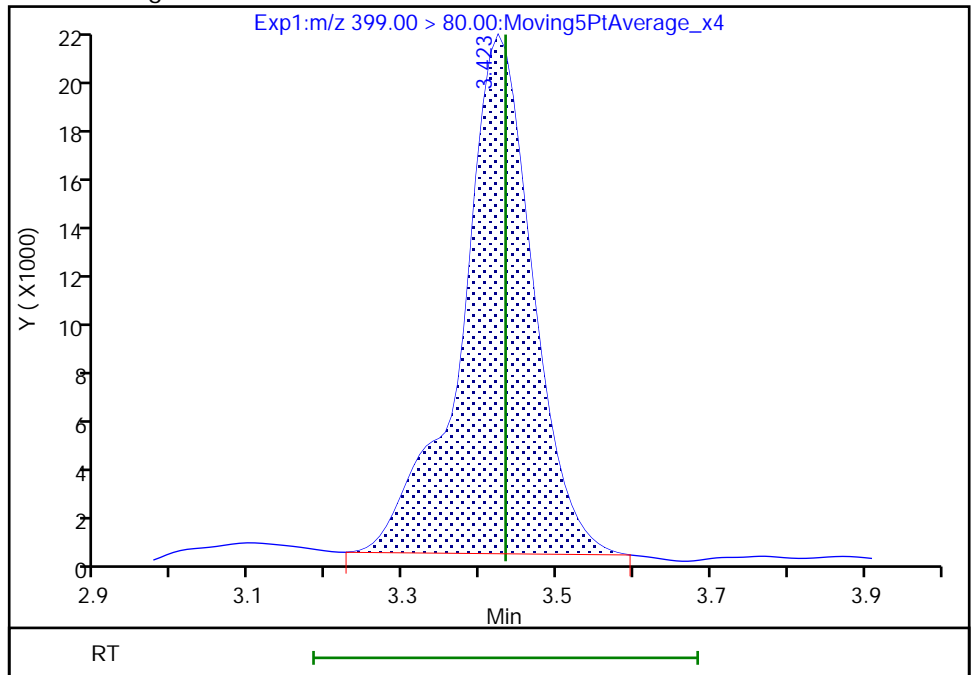
RT: 3.42  
 Area: 143206  
 Amount: 0.052105  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
 Area: 134713  
 Amount: 0.049015  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:51:58  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

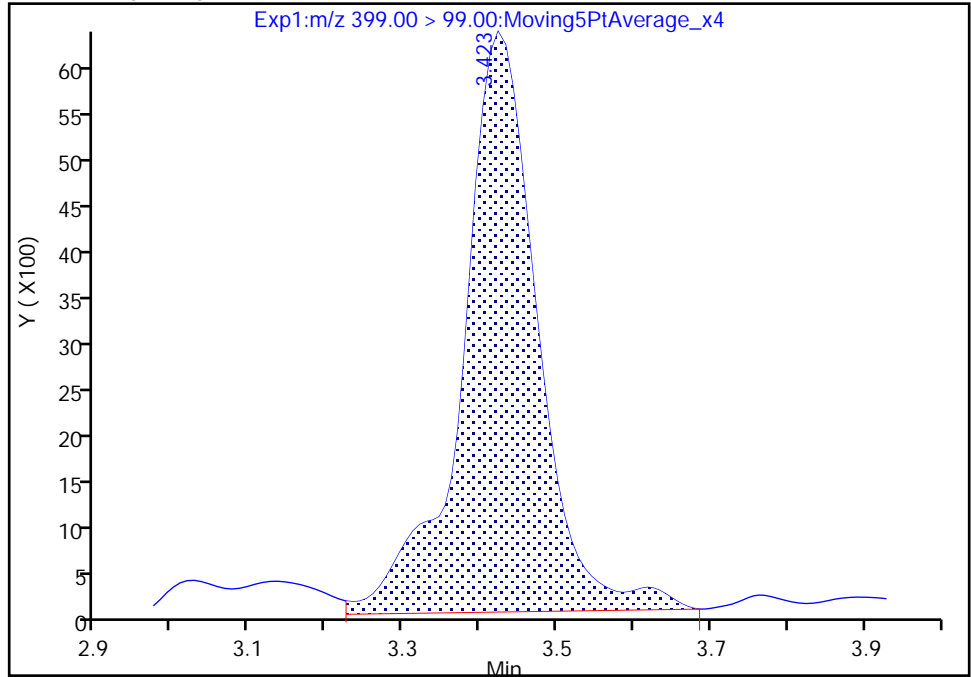
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

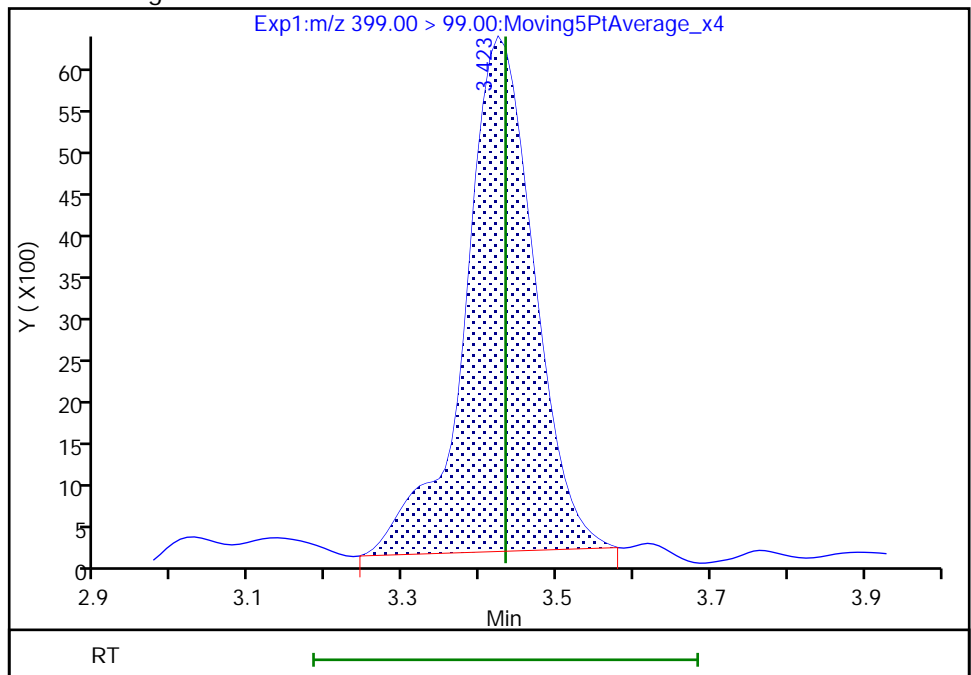
RT: 3.42  
Area: 42727  
Amount: 0.052105  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 38230  
Amount: 0.049015  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:02

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

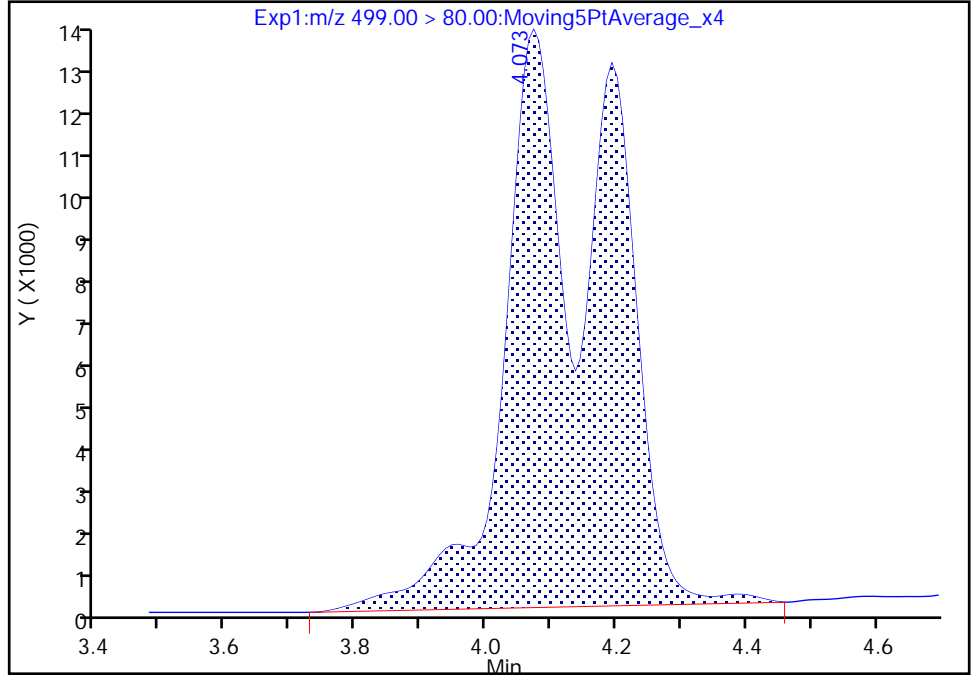
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

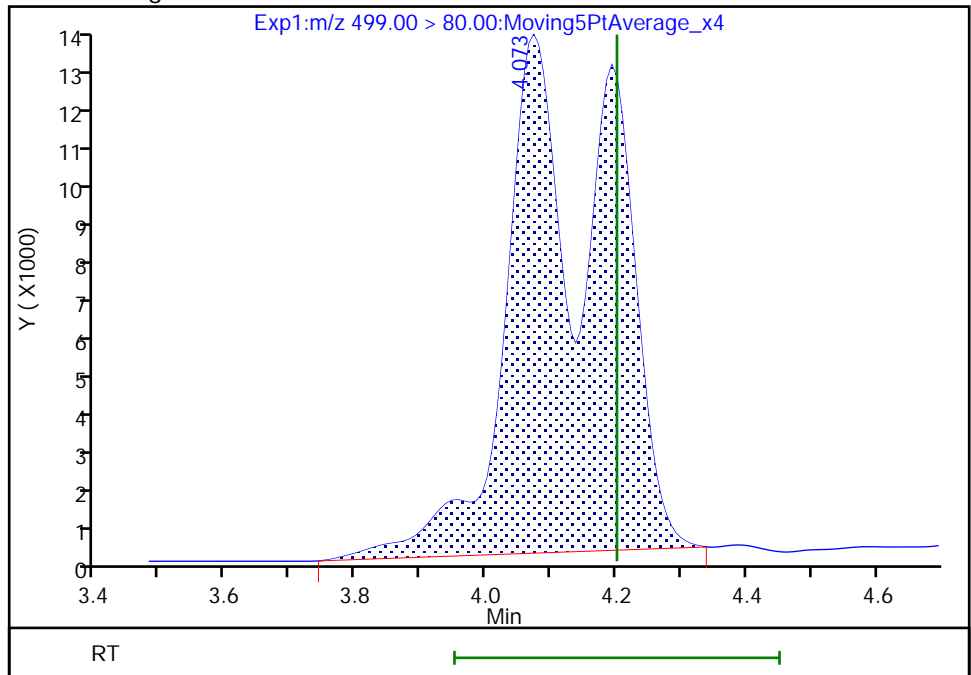
RT: 4.07  
 Area: 143826  
 Amount: 0.070542  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.07  
 Area: 139812  
 Amount: 0.068573  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:15  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

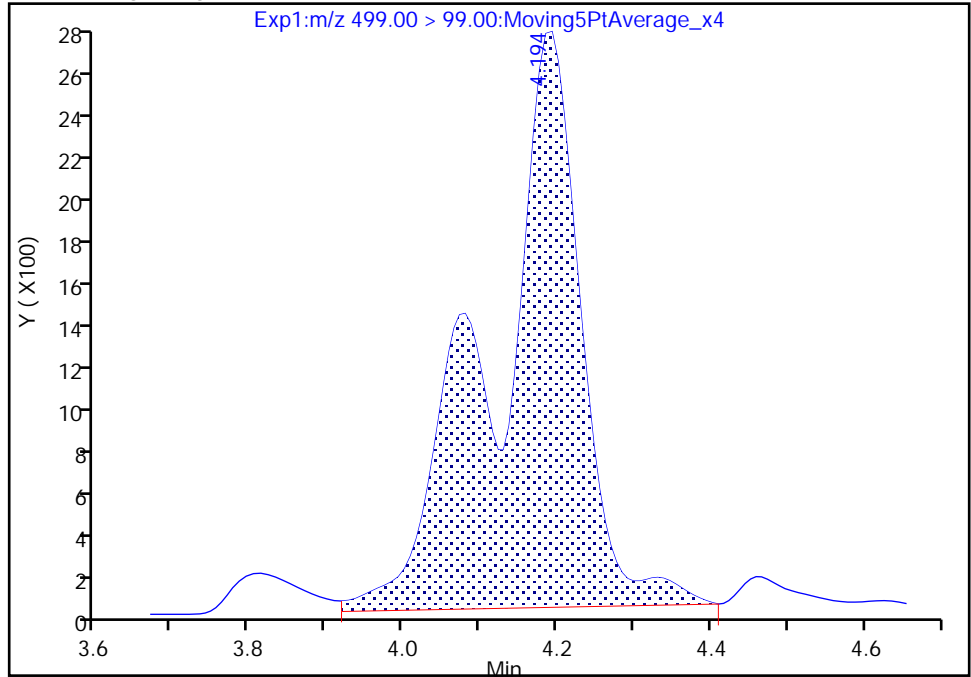
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
Injection Date: 10-Jun-2021 06:37:28 Instrument ID: A15  
Lims ID: 320-74597-A-8-A Lab Sample ID: 320-74597-8  
Client ID: BH20210604-3N-50  
Operator ID: SACINSTA15 ALS Bottle#: 11 Worklist Smp#: 16  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

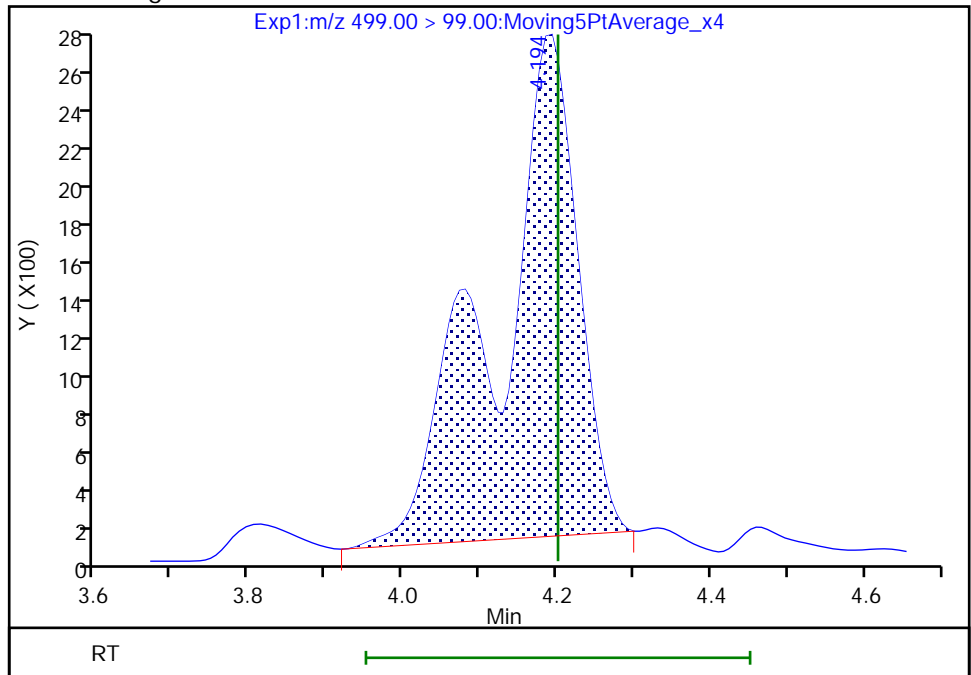
RT: 4.19  
Area: 21570  
Amount: 0.070542  
Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
Area: 19175  
Amount: 0.068573  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:20

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

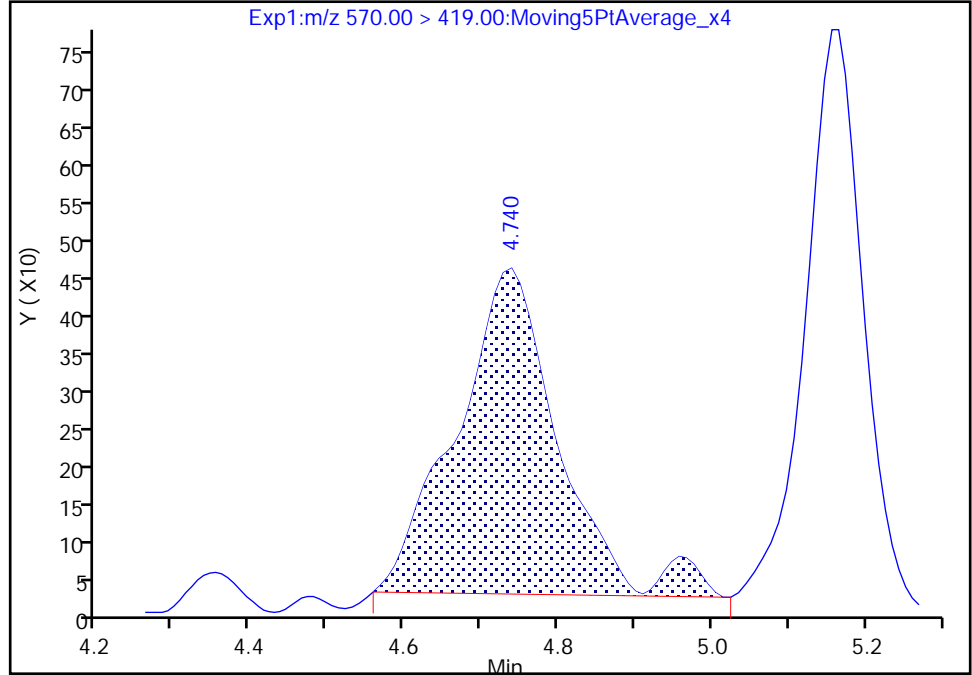
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_019.d  
Injection Date: 10-Jun-2021 06:37:28 Instrument ID: A15  
Lims ID: 320-74597-A-8-A Lab Sample ID: 320-74597-8  
Client ID: BH20210604-3N-50  
Operator ID: SACINSTA15 ALS Bottle#: 11 Worklist Smp#: 16  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

79 NMeFOSAA, CAS: 2355-31-9

Signal: 1

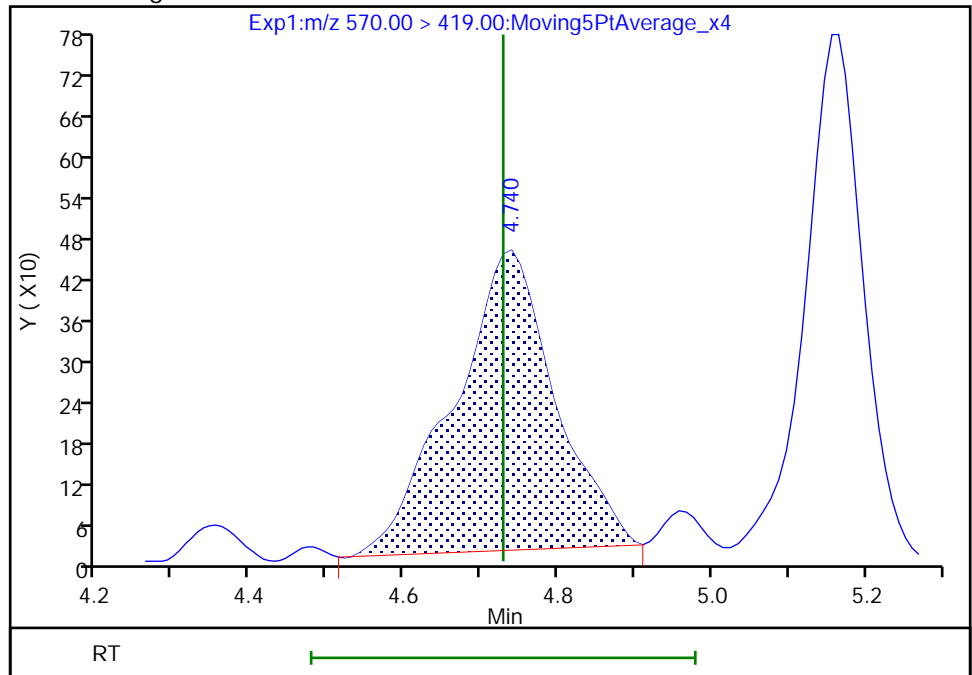
RT: 4.74  
Area: 3986  
Amount: 0.002699  
Amount Units: ng/ml

Processing Integration Results



RT: 4.74  
Area: 4001  
Amount: 0.002709  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:39  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

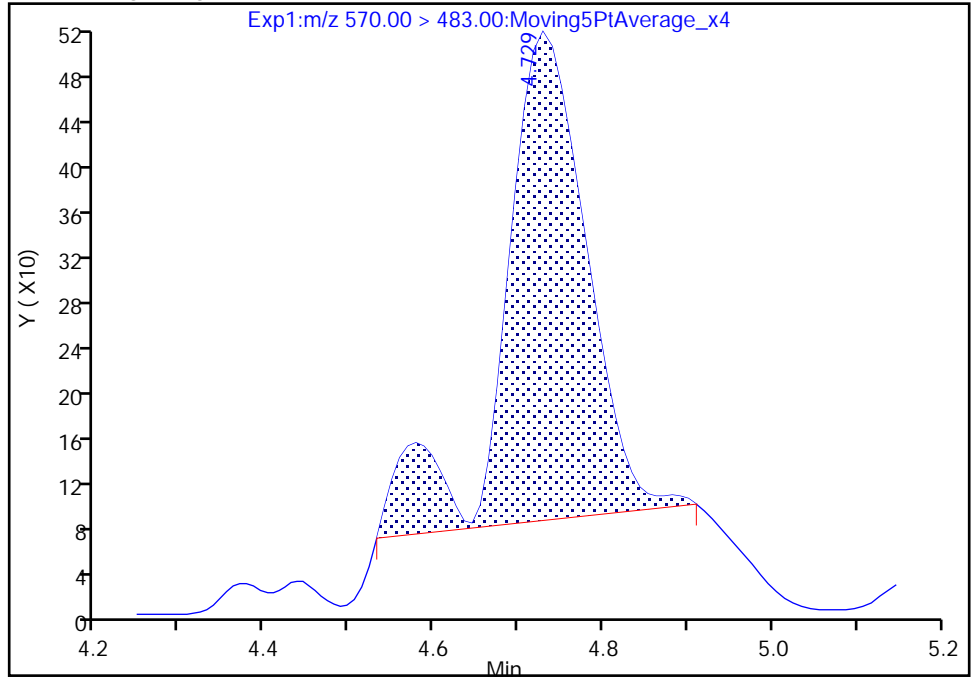
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

79 NMeFOSAA, CAS: 2355-31-9

Signal: 2

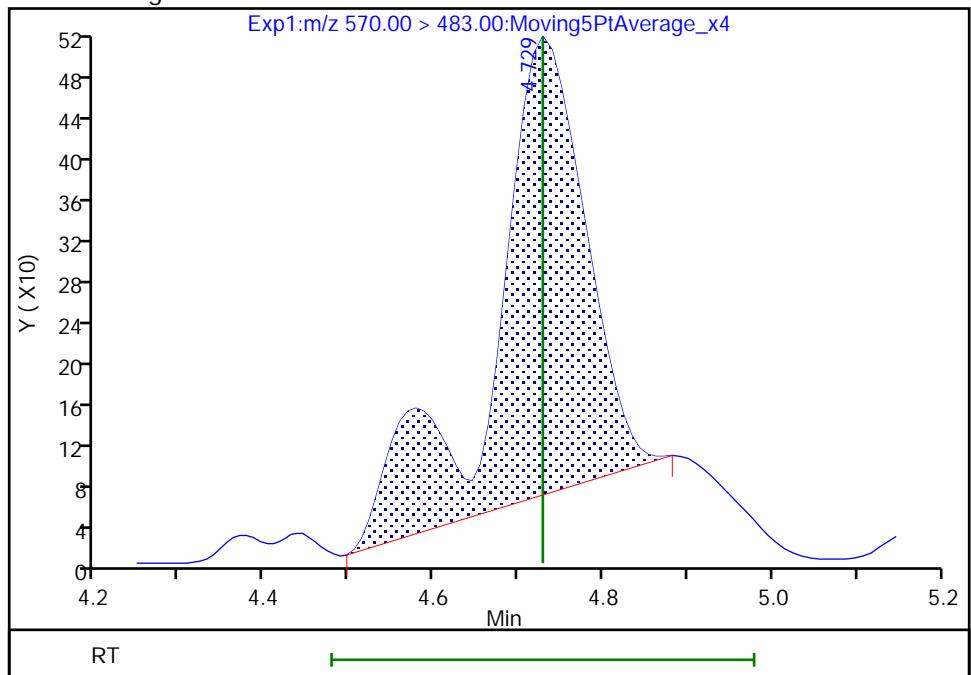
RT: 4.73  
 Area: 2949  
 Amount: 0.002699  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.73  
 Area: 3391  
 Amount: 0.002709  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:49

Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

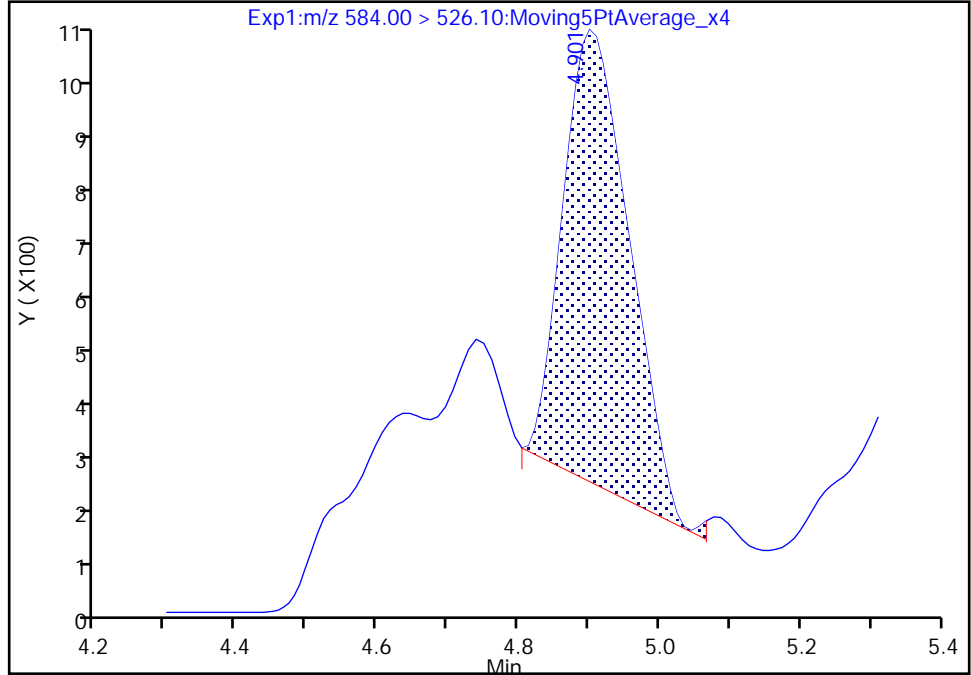
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_019.d		
Injection Date:	10-Jun-2021 06:37:28	Instrument ID:	A15
Lims ID:	320-74597-A-8-A	Lab Sample ID:	320-74597-8
Client ID:	BH20210604-3N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	11
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

84 NEtFOSAA, CAS: 2991-50-6

Signal: 2

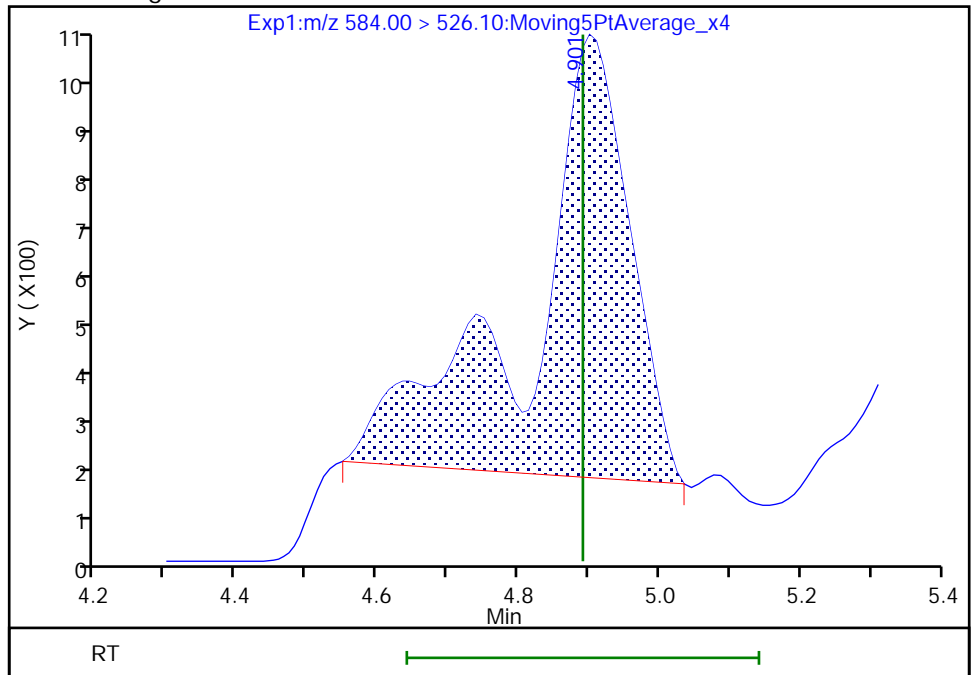
RT: 4.90  
 Area: 5139  
 Amount: 0.003910  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.90  
 Area: 8393  
 Amount: 0.003910  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:52:59  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-75 Lab Sample ID: 320-74597-9  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_020.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:15  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 280.9(mL) Date Analyzed: 06/10/2021 06:46  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.2		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.0		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	
27619-97-2	6:2 FTS	ND		4.4	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3N-75 Lab Sample ID: 320-74597-9  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_020.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:15  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 280.9(mL) Date Analyzed: 06/10/2021 06:46  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	95		25-150
STL01893	13C5 PFPeA	94		25-150
STL00993	13C2 PFHxA	97		25-150
STL01892	13C4 PFHpA	101		25-150
STL00990	13C4 PFOA	96		25-150
STL00995	13C5 PFNA	100		25-150
STL00996	13C2 PFDA	91		25-150
STL00997	13C2 PFUnA	96		25-150
STL00998	13C2 PFDoA	99		25-150
STL02116	13C2 PFTeDA	89		25-150
STL02337	13C3 PFBS	99		25-150
STL00994	18O2 PFHxS	98		25-150
STL00991	13C4 PFOS	100		25-150
STL01056	13C8 FOSA	104		25-150
STL02118	d3-NMeFOSAA	99		25-150
STL02117	d5-NEtFOSAA	111		25-150
STL02279	M2-6:2 FTS	90		25-150
STL02280	M2-8:2 FTS	93		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
 Lims ID: 320-74597-A-9-A  
 Client ID: BH20210604-3N-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 06:46:37 ALS Bottle#: 12 Worklist Smp#: 17  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-9-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:55:48 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:55:48  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_018.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.309	2.319	-0.010	1.000	358760	0.0805			171	
D 9 13C4 PFBA										
217.00 > 172.00	2.309	2.319	-0.010	0.604	5886534	1.19		95.0	45545	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.650	2.650	0.0	1.004	421400	0.0910			168	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.639	2.661	-0.022	0.690	5524781	1.18		94.5	31242	
D 21 13C3 PFBS										
301.90 > 80.00	2.671	2.682	-0.011	0.698	3761766	1.15		99.2	13971	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.682	2.693	-0.011	1.004	77016	0.0210	Target=2.41		97.4	M
298.90 > 99.00	2.671	2.693	-0.022	1.000	33213		2.32(1.21-3.62)		73.1	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.010	3.019	-0.009	1.000	287752	0.0572	Target=13.70		336	M
313.00 > 119.00	3.010	3.019	-0.009	1.000	22131		13.00(6.85-20.55)		238	
D 28 13C2 PFHxA										
315.00 > 270.00	3.010	3.019	-0.009	0.787	5608783	1.21		96.9	42868	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.003	109019	0.0224	Target=3.91		151	M
363.00 > 169.00	3.423	3.433	-0.010	1.003	30127		3.62(1.96-5.87)		377	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.414	3.433	-0.019	0.997	68305	0.0272	Target=3.51		319	
399.00 > 99.00	3.414	3.433	-0.019	0.997	19113		3.57(1.76-5.27)		190	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.423	3.433	-0.010	0.895	2686208	1.16		98.0	49558	
D 37 13C4 PFHpA										
367.00 > 322.00	3.414	3.433	-0.019	0.892	5755547	1.26		101	58656	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.806	3.814	-0.008	0.995	1127328	1.07		90.2	8174	
D 56 13C4 PFOA										
417.00 > 372.00	3.825	3.834	-0.009	1.000	6198469	1.20		95.7	64052	
* 57 13C2 PFOA										
415.00 > 370.00	3.825	3.834	-0.009		6210406	1.25			60777	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.825	3.834	-0.009	1.000	152585	0.0294	Target=2.88	235		M
413.00 > 169.00	3.825	3.834	-0.009	1.000	58015		2.63(1.44-4.31)	484		M
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.067	4.201	-0.134	0.971	64204	0.0314	Target=5.76	262		M
499.00 > 99.00	4.187	4.201	-0.014	1.000	12982		4.95(2.88-8.64)	158		
D 61 13C4 PFOS										
503.00 > 80.00	4.187	4.201	-0.014	1.094	2173064	1.20		100	21856	
D 63 13C5 PFNA										
468.00 > 423.00	4.202	4.217	-0.015	1.099	6190473	1.25		100	81509	
D 71 13C8 FOSA										
506.00 > 78.00	4.516	4.523	-0.007	1.180	3980498	1.30		104	45309	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.525	4.532	-0.007	1.002	6686	0.002091		156		
75 Perfluorodecanoic acid										
513.00 > 469.00	4.552	4.559	-0.007	1.000	29945	0.006468	Target=8.78	161		
513.00 > 169.00	4.552	4.559	-0.007	1.000	3593		8.33(4.39-13.18)	58.7		
D 74 13C2 PFDA										
515.00 > 470.00	4.552	4.559	-0.007	1.190	5660245	1.14		91.5	59592	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.552	4.569	-0.017	1.190	1832282	1.11		93.1	19290	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.709	4.718	-0.009	1.231	2594185	1.24		99.3	20174	
79 NMeFOSAA										M
570.00 > 419.00	4.731	4.729	0.001	1.005	1722	0.001122	Target=0.83	20.5		M
570.00 > 483.00	4.720	4.729	-0.009	1.002	2879		0.60(0.42-1.25)	72.2		M
D 82 13C2 PFUnA										
565.00 > 520.00	4.865	4.872	-0.007	1.272	5711249	1.20		95.7	71488	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.865	4.882	-0.017	1.272	2884564	1.39		111	24131	
D 97 13C2 PFDoA										
615.00 > 570.00	5.149	5.156	-0.007	1.346	6373506	1.23		98.7	75309	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.642	5.658	-0.016	1.475	5276313	1.11		88.7	62576	
105 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.642	5.658	-0.016	1.000	579	0.001116	Target=1.00	17.9		M
713.00 > 219.00	5.651	5.658	-0.007	1.002	613		0.94(0.50-1.50)	26.0		



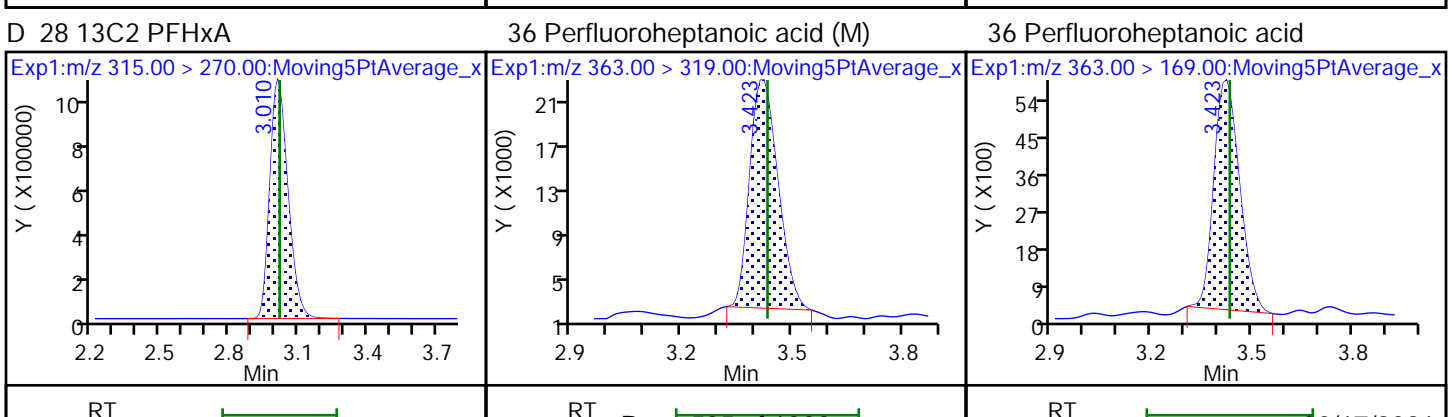
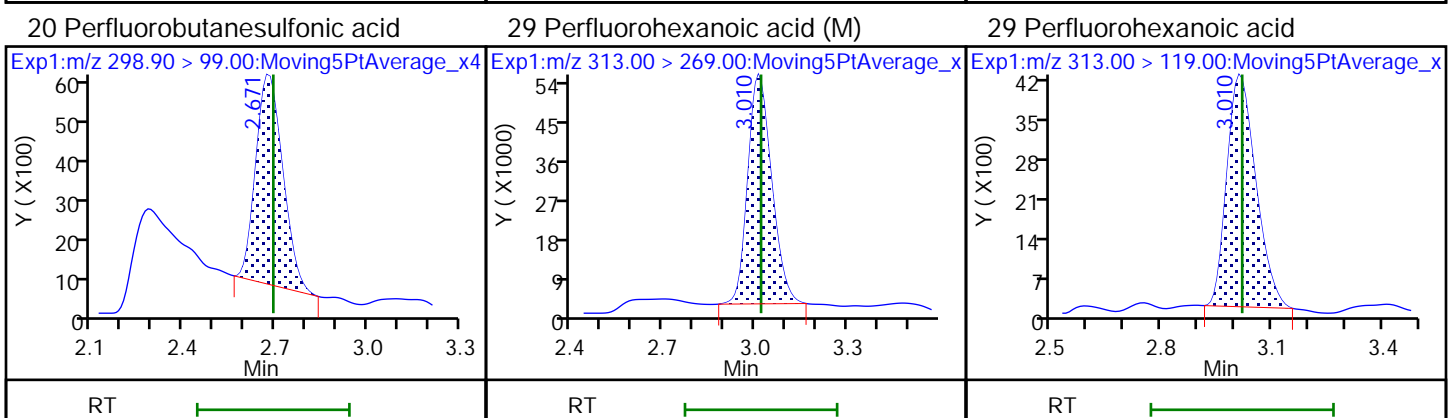
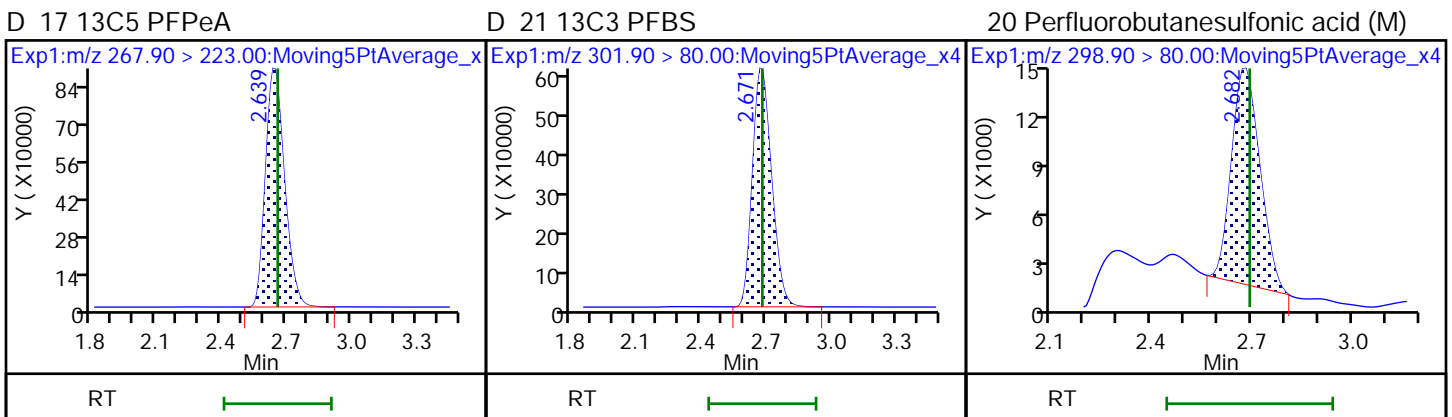
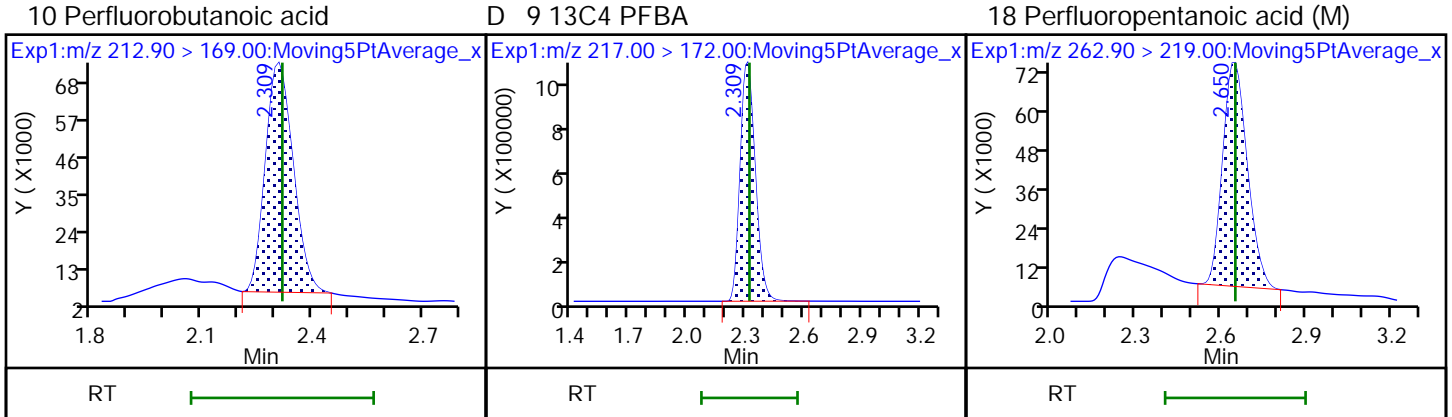
[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

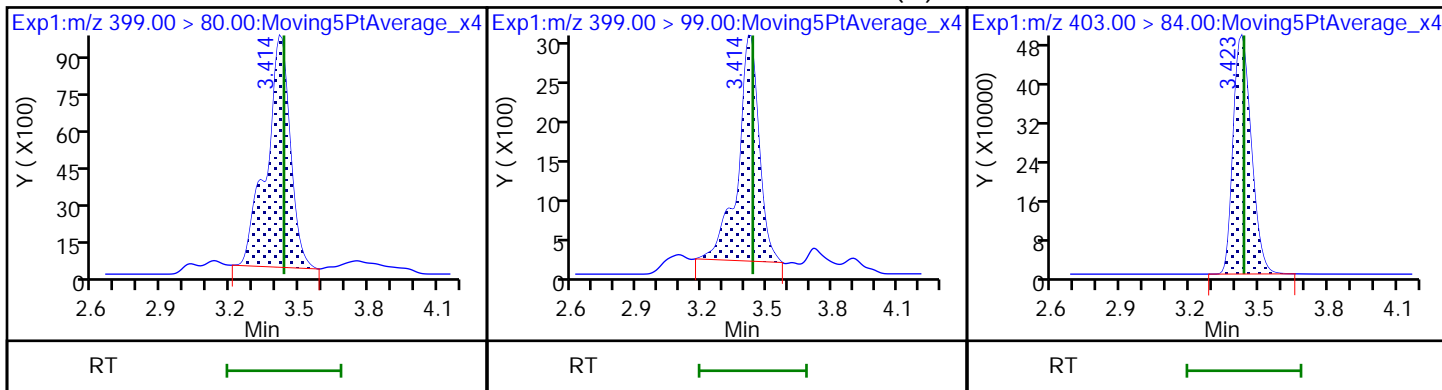
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid

39 Perfluorohexanesulfonic acid (M)

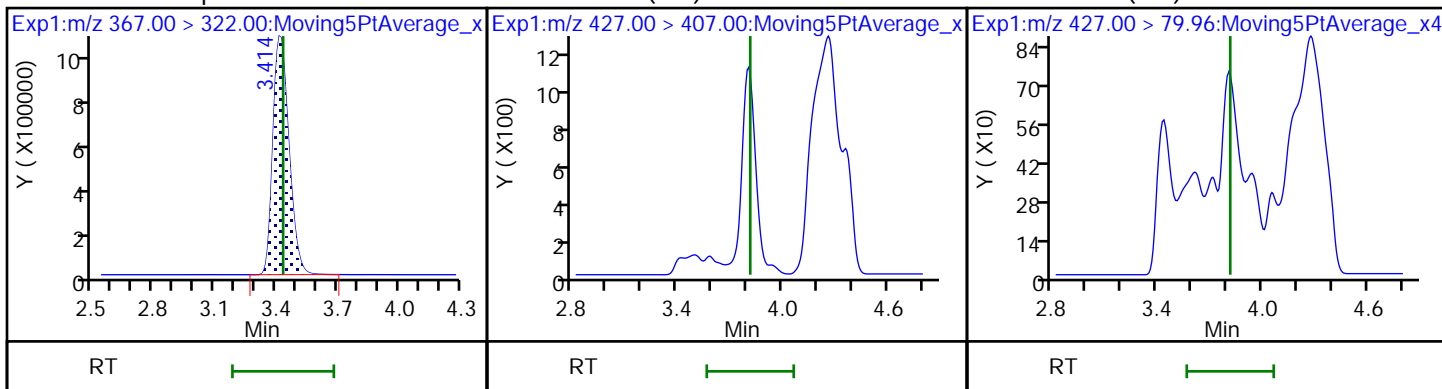
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS (ND)

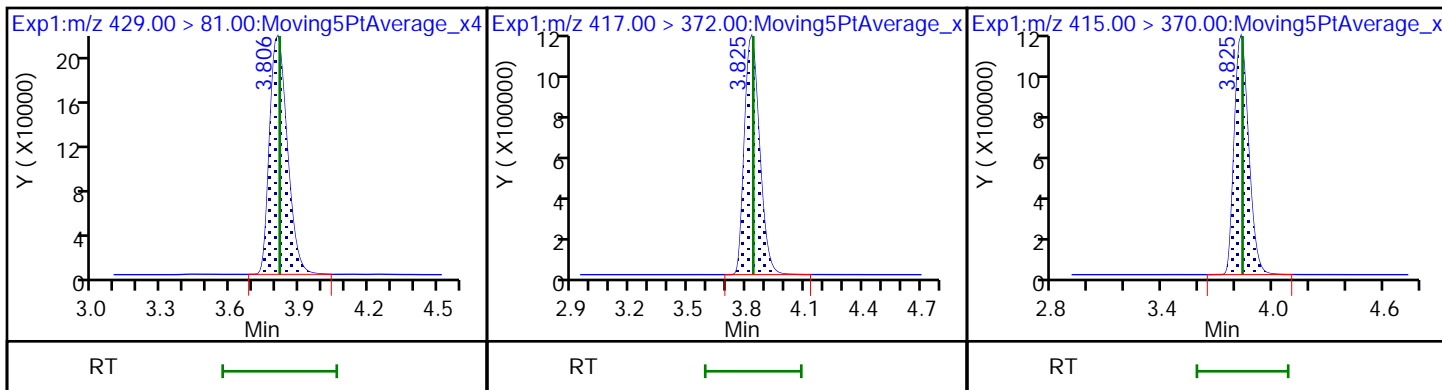
53 6:2 FTS (ND)



D 52 M2-6:2 FTS

D 56 13C4 PFOA

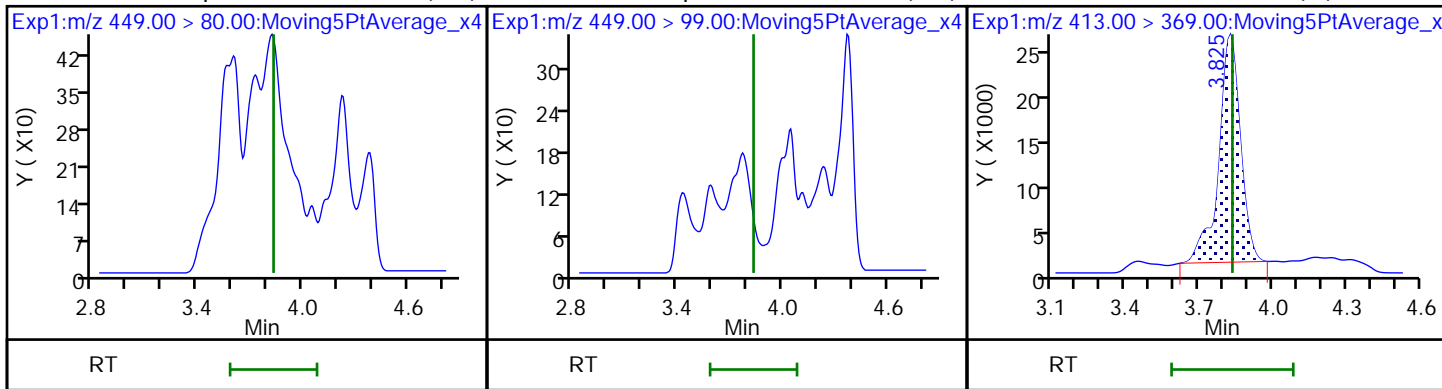
\* 57 13C2 PFOA

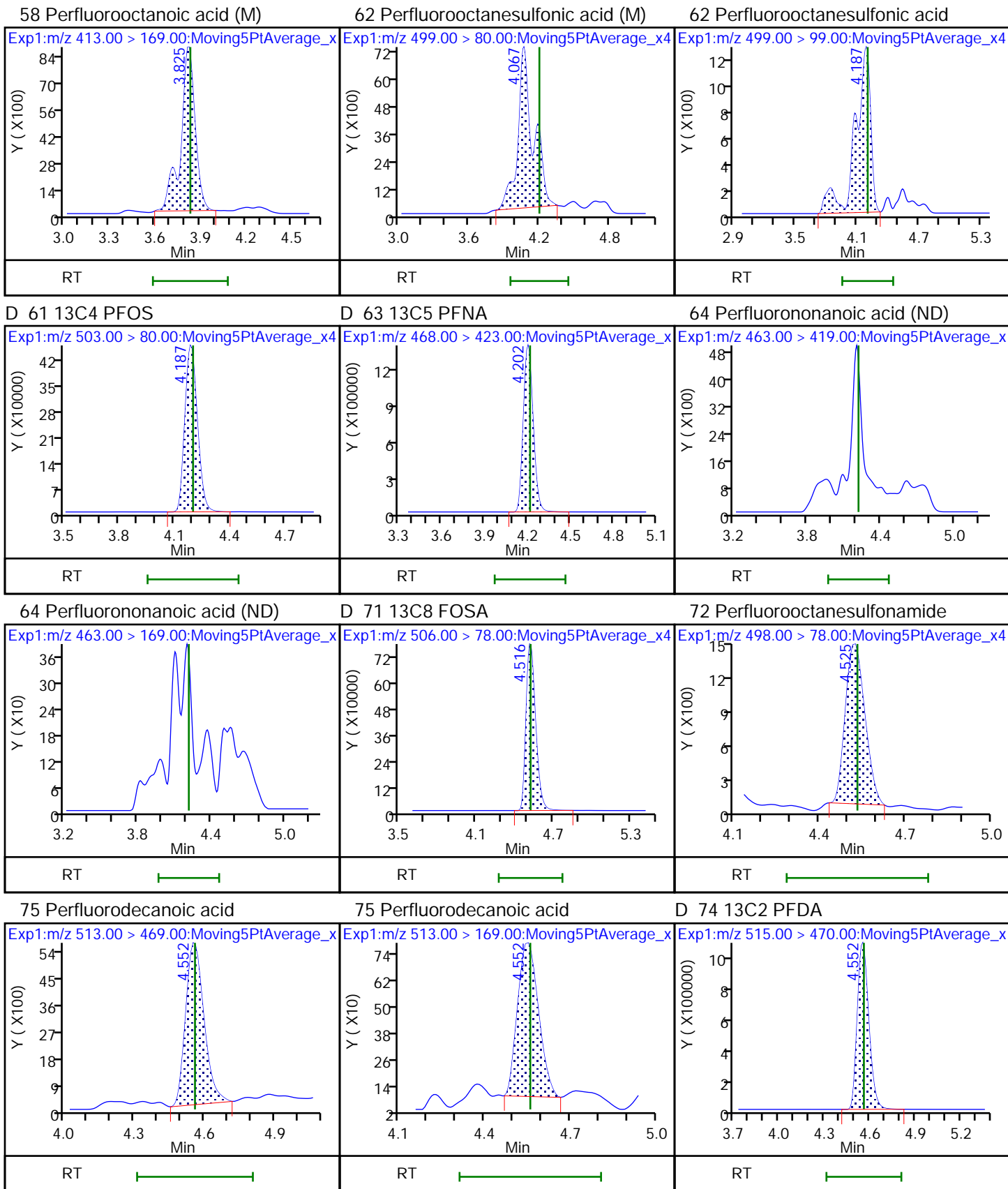


54 Perfluoroheptanesulfonic acid (ND)

54 Perfluoroheptanesulfonic acid (ND)

58 Perfluorooctanoic acid (M)

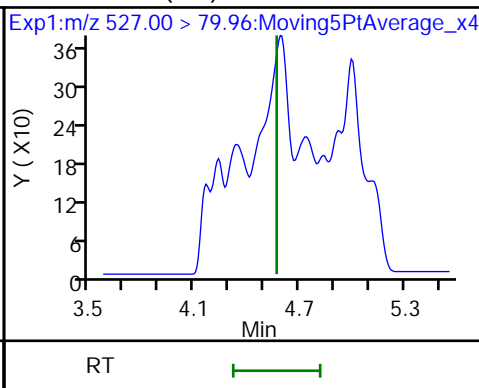
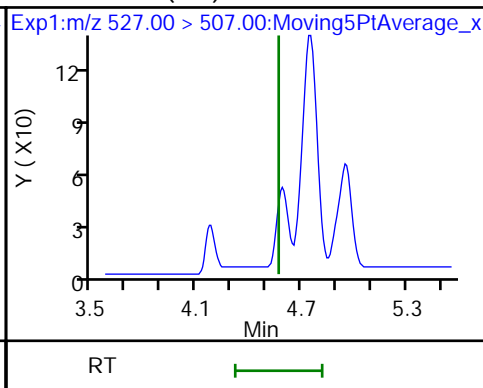
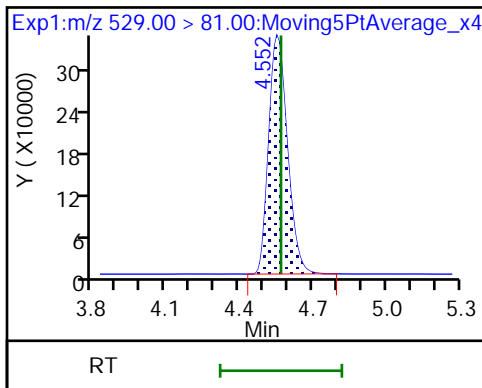




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

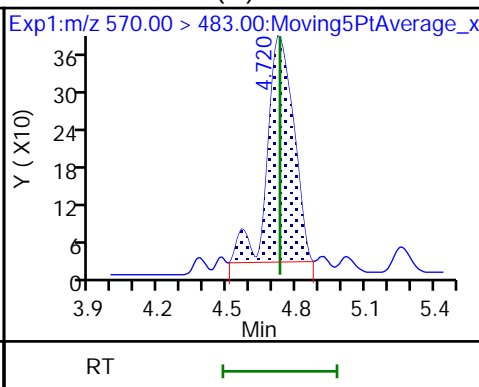
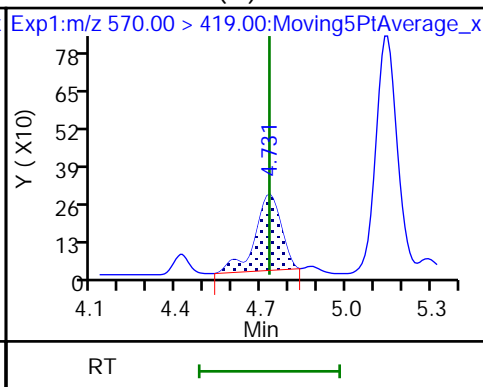
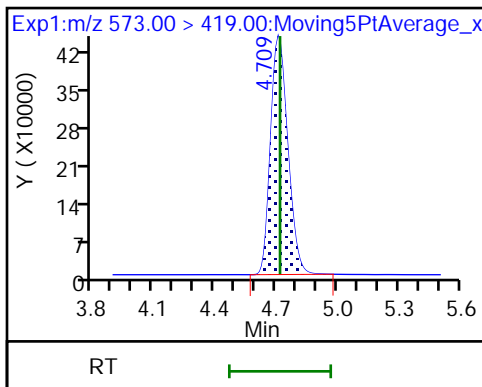
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (M)

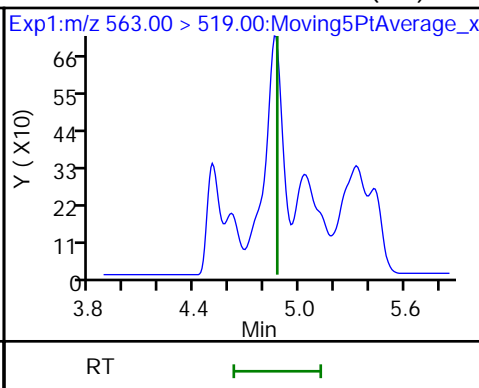
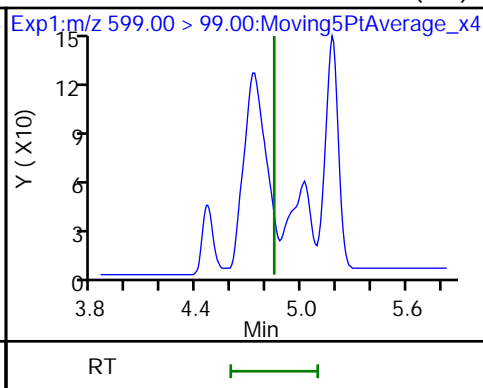
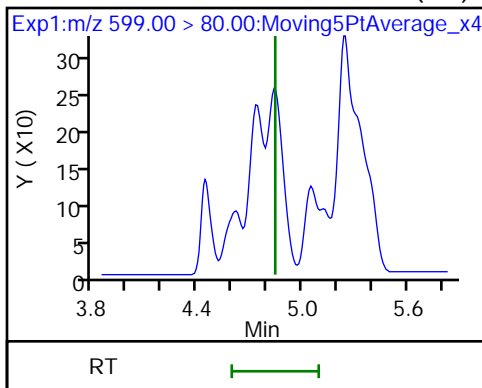
79 NMeFOSAA (M)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

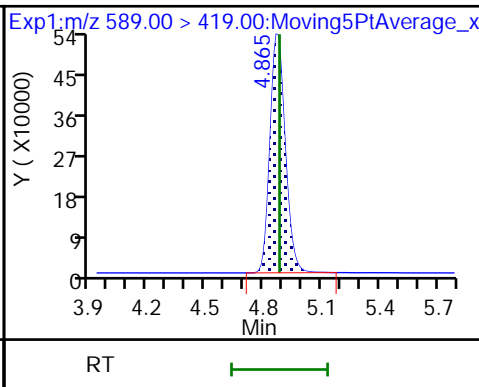
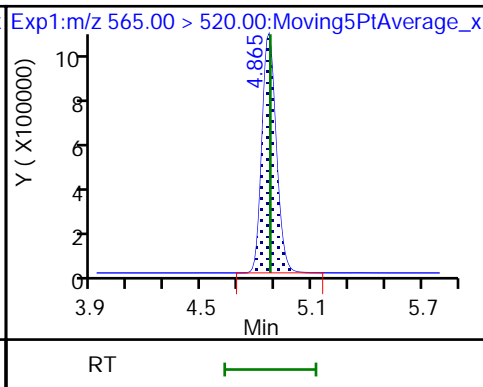
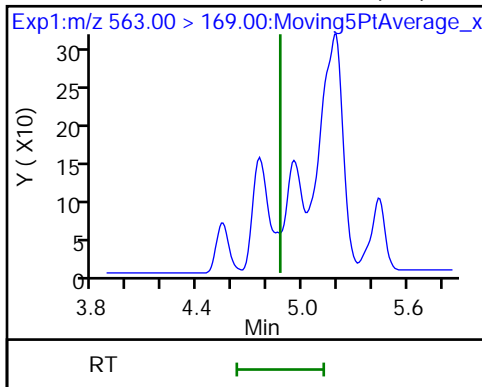
81 Perfluoroundecanoic acid (ND)

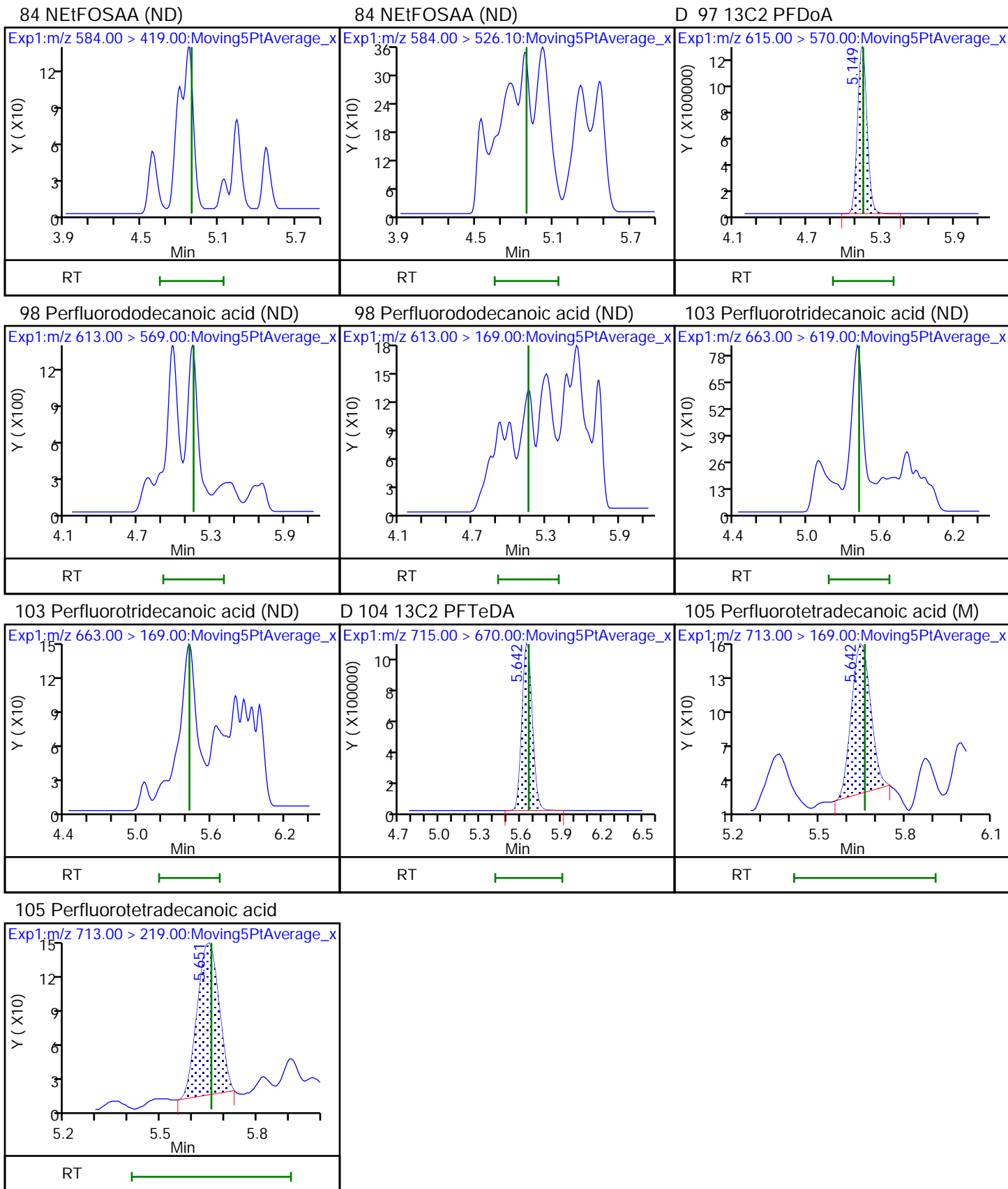


81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

D 83 d5-NEtFOSAA





Eurofins TestAmerica, Sacramento

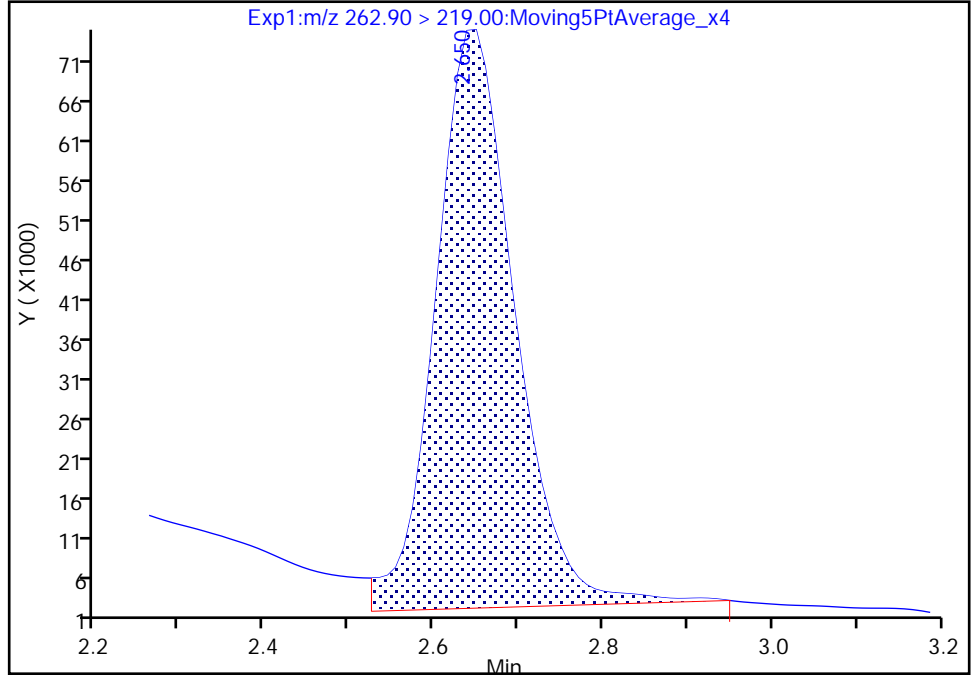
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

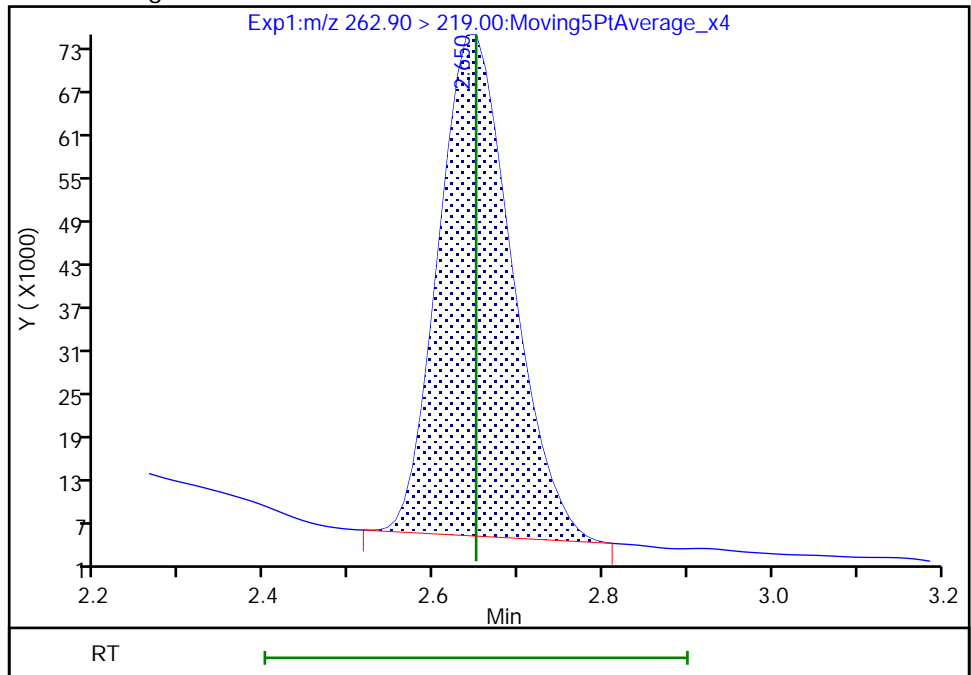
RT: 2.65  
Area: 474522  
Amount: 0.102456  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 421400  
Amount: 0.090987  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:54:42  
Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

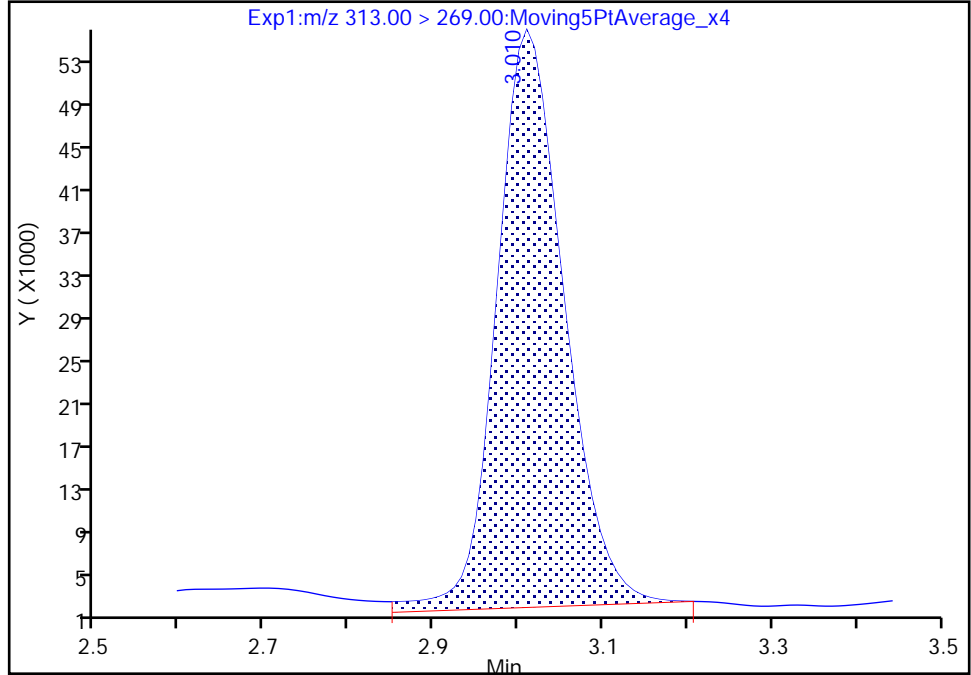
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

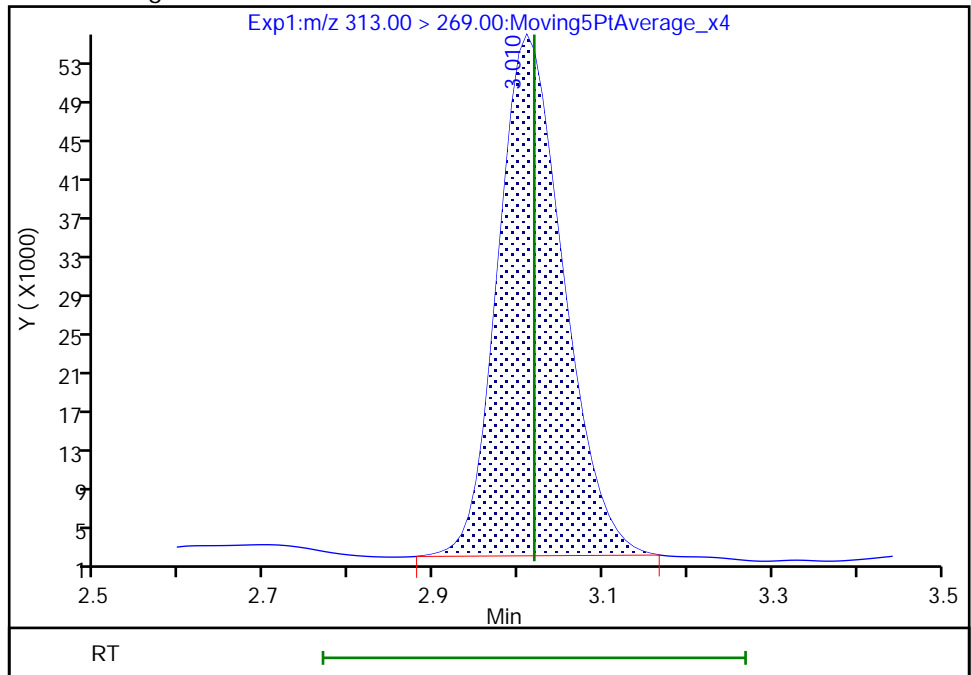
RT: 3.01  
Area: 300785  
Amount: 0.059840  
Amount Units: ng/ml

Processing Integration Results



RT: 3.01  
Area: 287752  
Amount: 0.057247  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:54:52  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

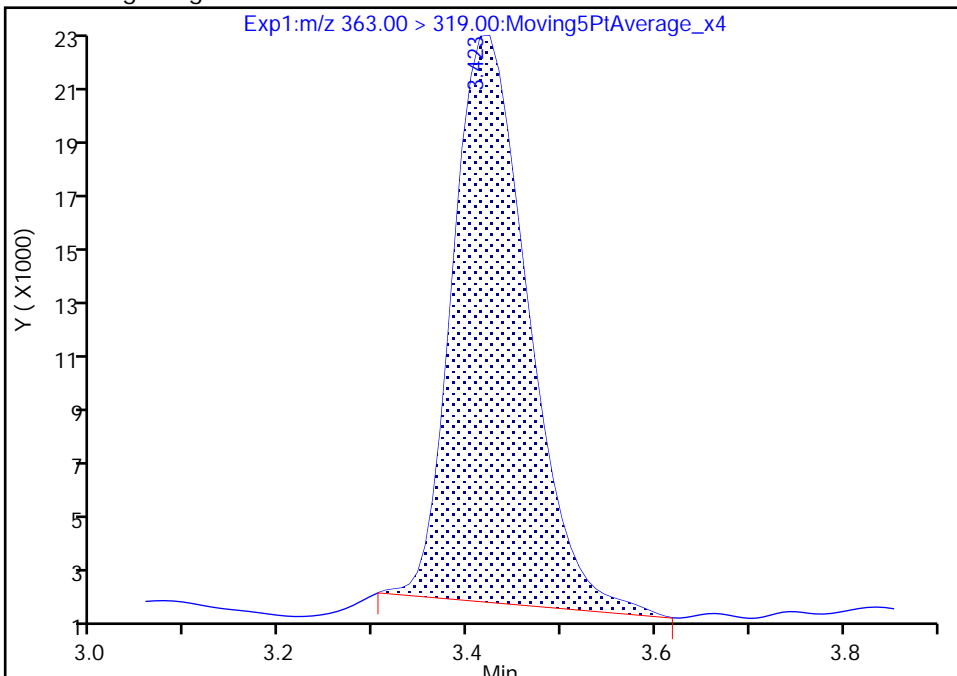
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

36 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

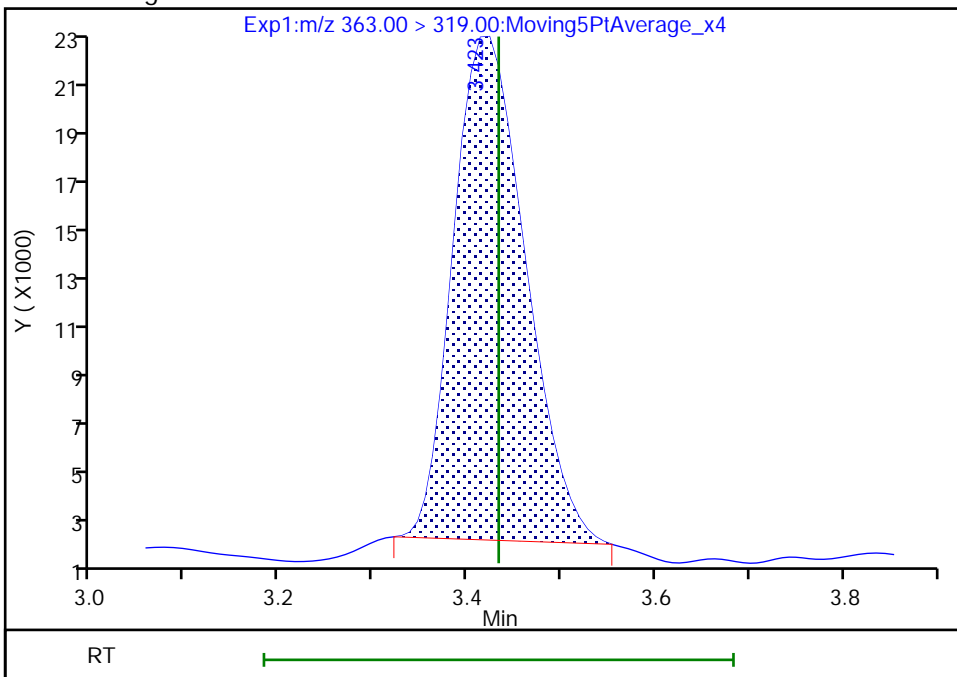
RT: 3.42  
Area: 115466  
Amount: 0.023732  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 109019  
Amount: 0.022407  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:54:57  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

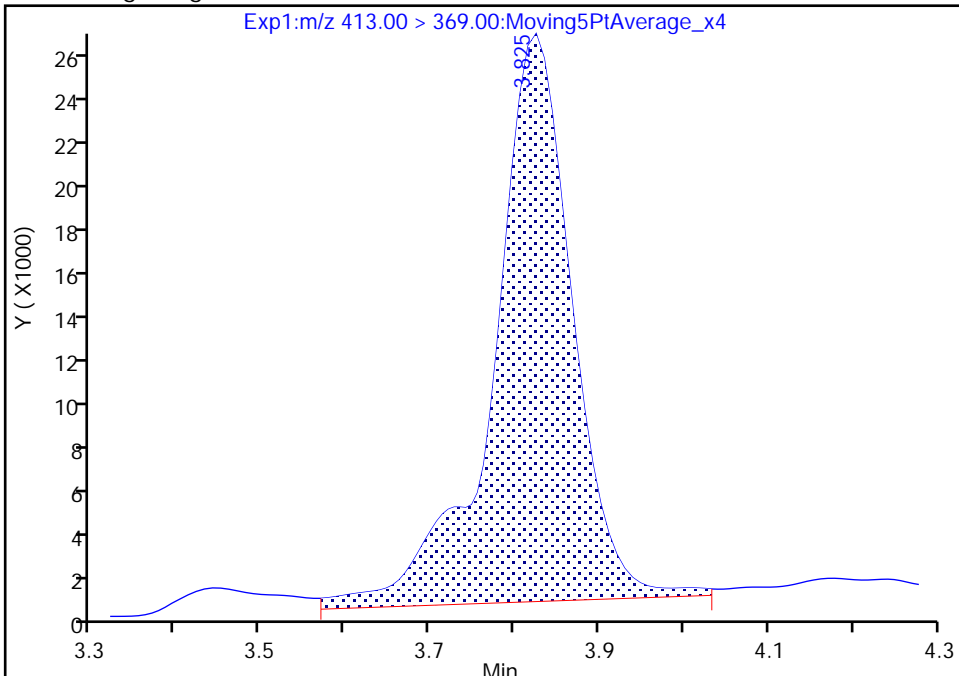
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_020.d		
Injection Date:	10-Jun-2021 06:46:37	Instrument ID:	A15
Lims ID:	320-74597-A-9-A	Lab Sample ID:	320-74597-9
Client ID:	BH20210604-3N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	17

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

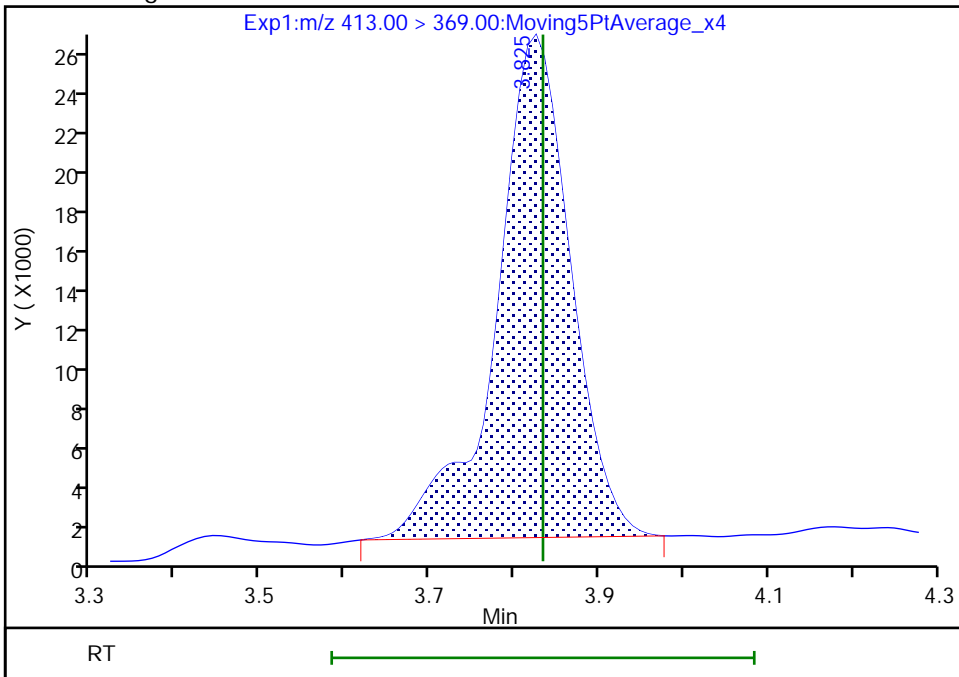
RT: 3.83  
 Area: 166854  
 Amount: 0.032198  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 152585  
 Amount: 0.029445  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:09  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

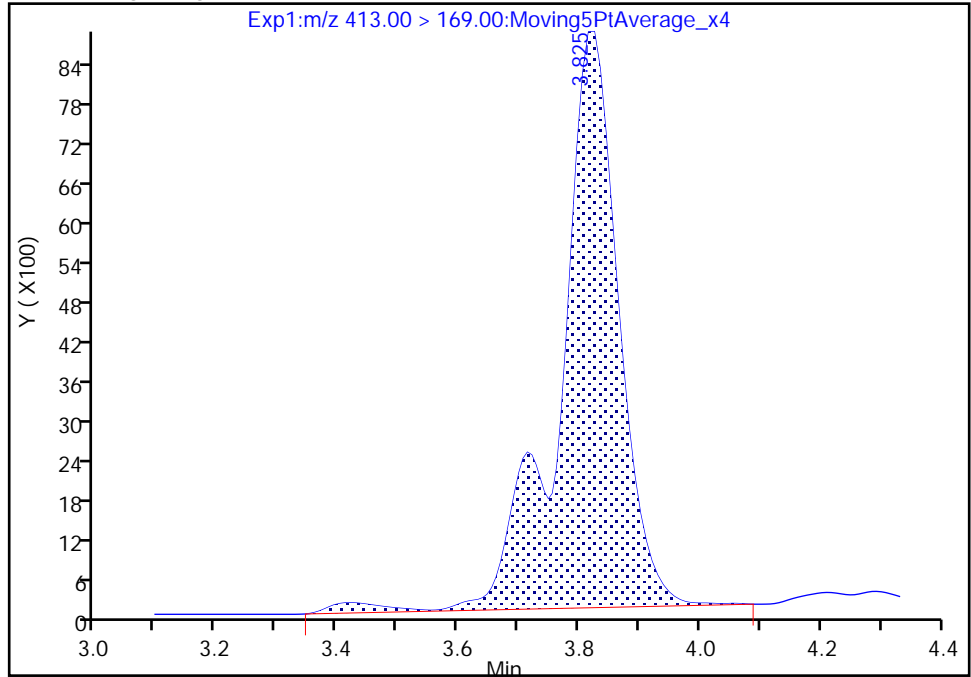
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_020.d		
Injection Date:	10-Jun-2021 06:46:37	Instrument ID:	A15
Lims ID:	320-74597-A-9-A	Lab Sample ID:	320-74597-9
Client ID:	BH20210604-3N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	17

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

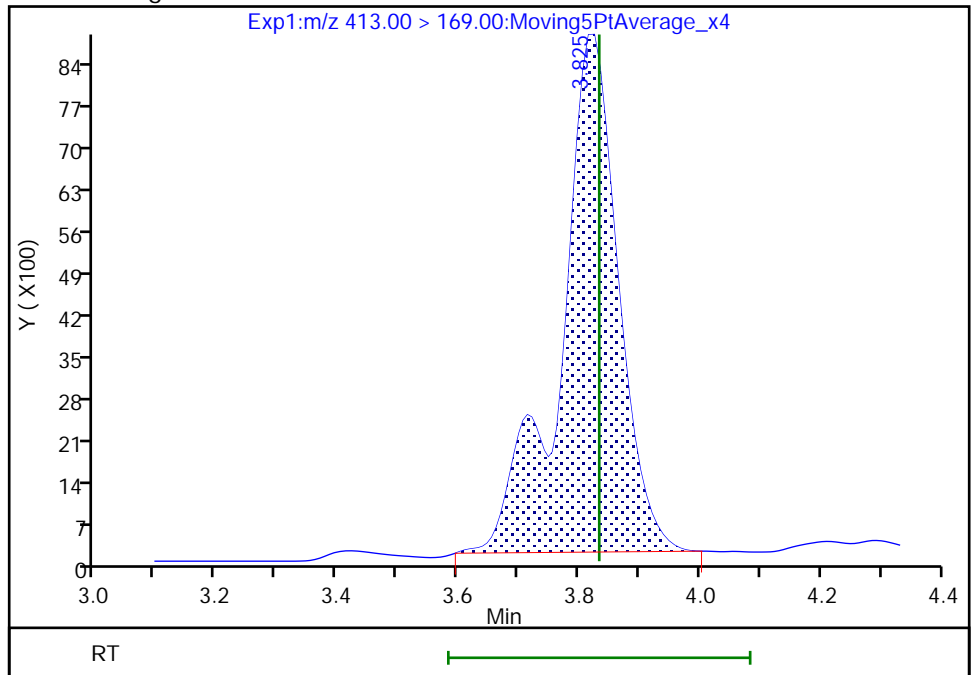
RT: 3.83  
 Area: 60550  
 Amount: 0.032198  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 58015  
 Amount: 0.029445  
 Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

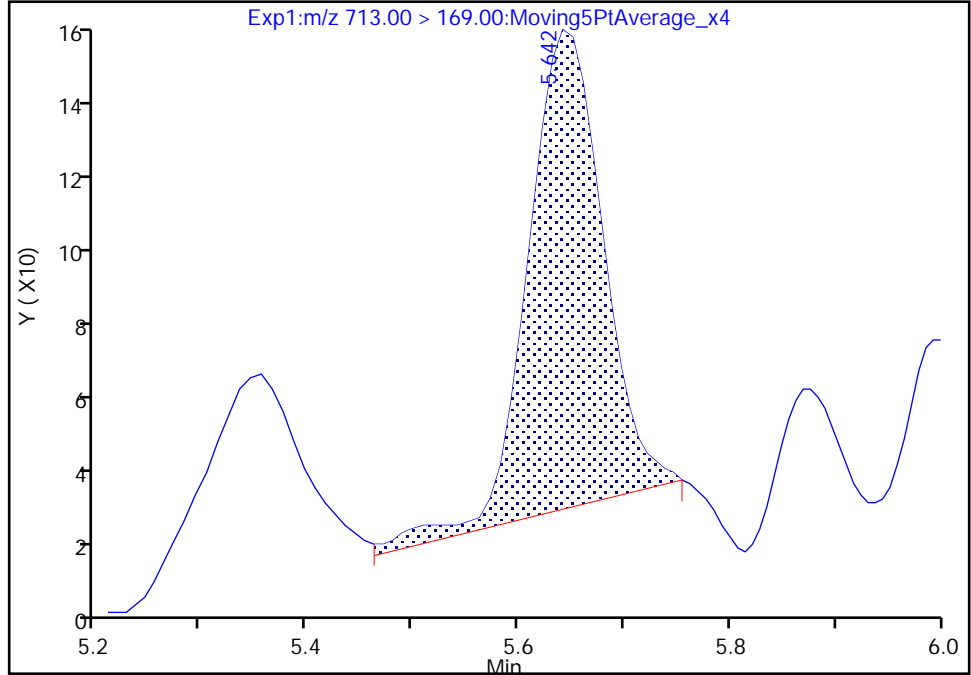
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

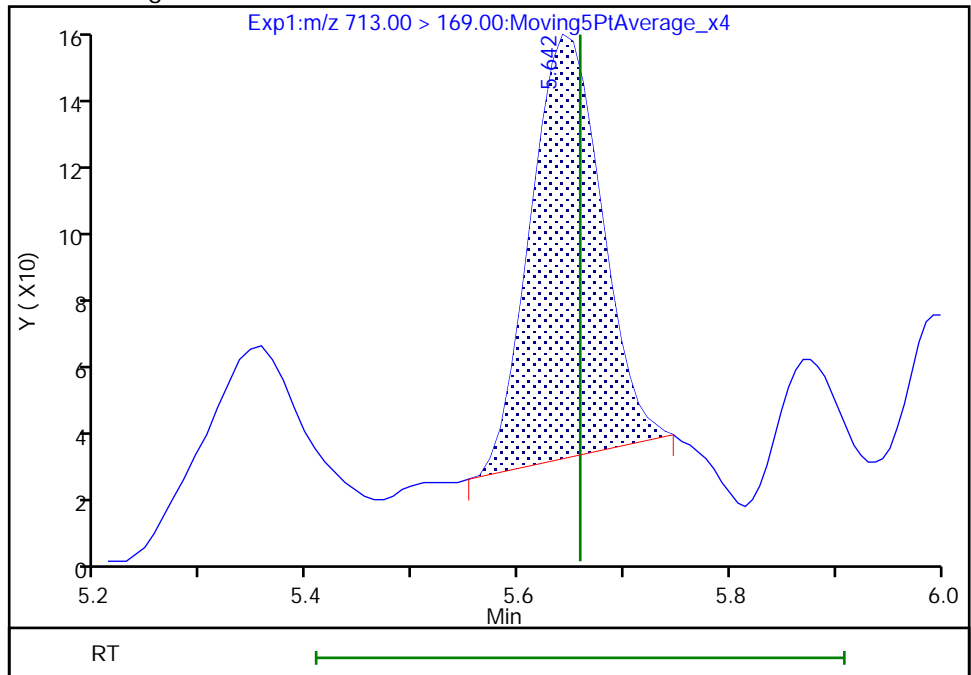
RT: 5.64  
Area: 630  
Amount: 0.001214  
Amount Units: ng/ml

Processing Integration Results



RT: 5.64  
Area: 579  
Amount: 0.001116  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:44  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

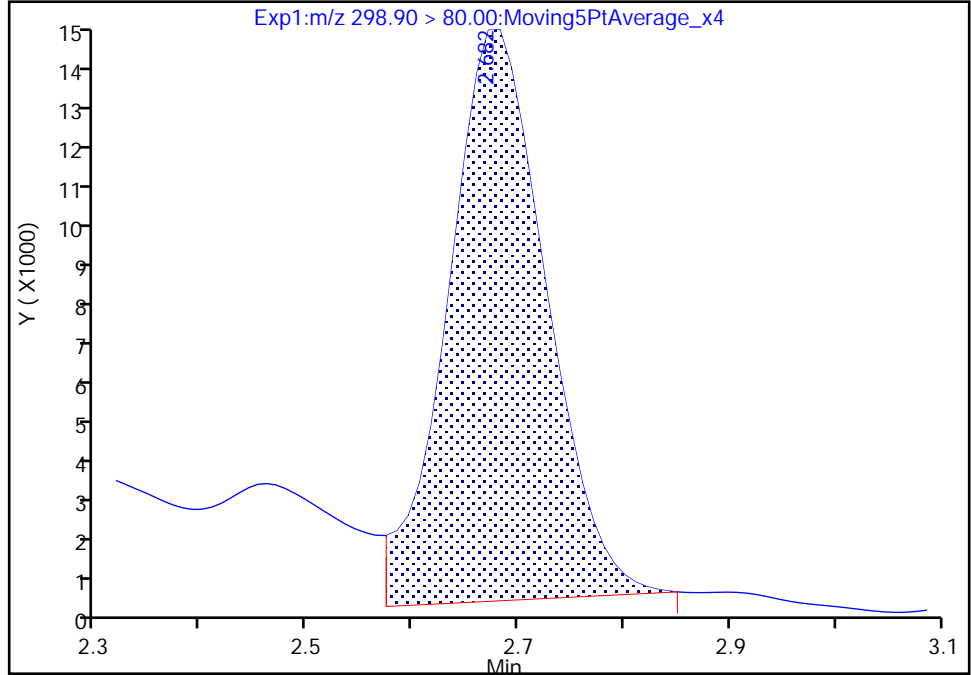
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

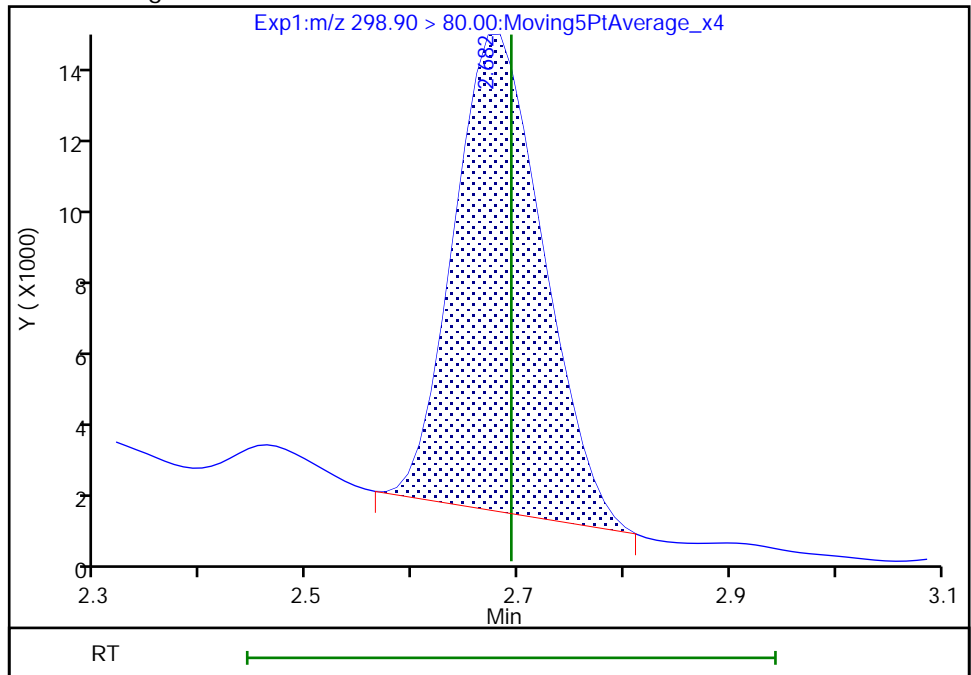
RT: 2.68  
Area: 91503  
Amount: 0.025008  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 77016  
Amount: 0.021048  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:54:47  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

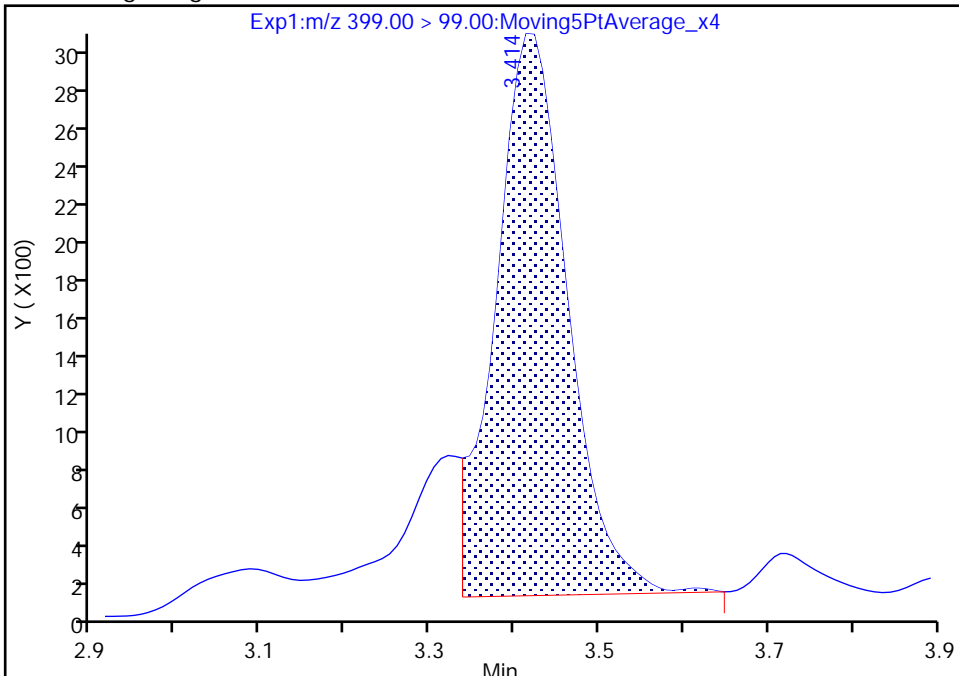
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_020.d  
Injection Date: 10-Jun-2021 06:46:37 Instrument ID: A15  
Lims ID: 320-74597-A-9-A Lab Sample ID: 320-74597-9  
Client ID: BH20210604-3N-75  
Operator ID: SACINSTA15 ALS Bottle#: 12 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

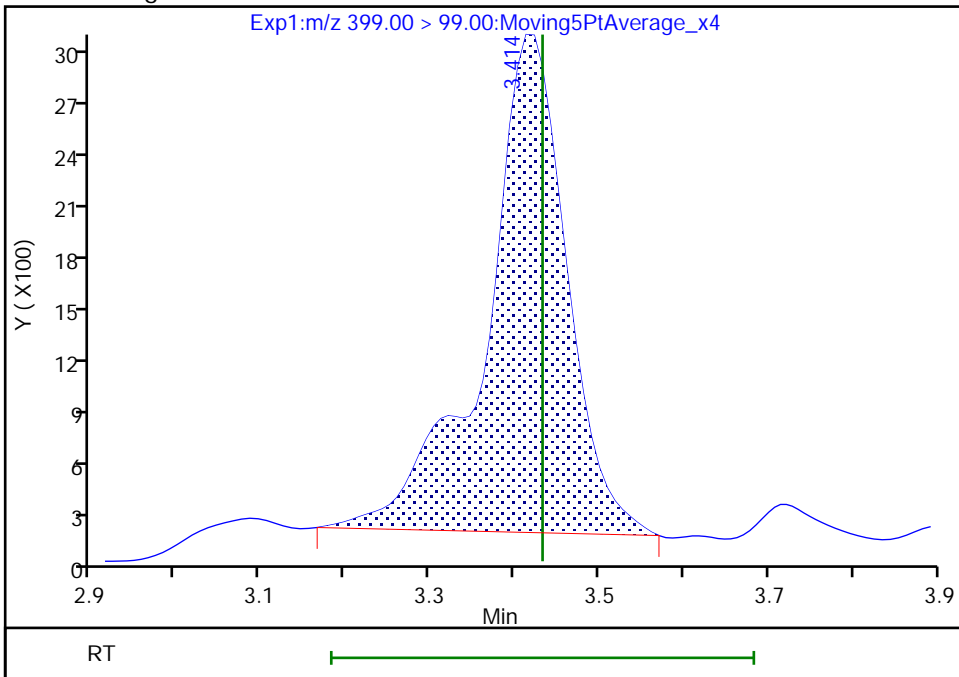
RT: 3.41  
Area: 17183  
Amount: 0.027192  
Amount Units: ng/ml

Processing Integration Results



RT: 3.41  
Area: 19113  
Amount: 0.027192  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:02  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

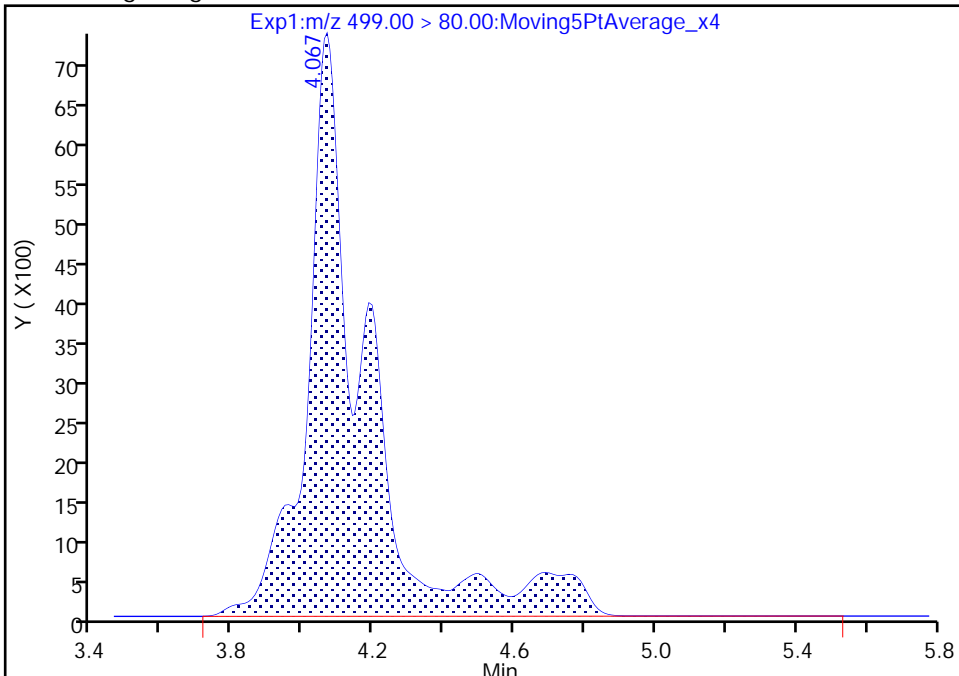
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_020.d		
Injection Date:	10-Jun-2021 06:46:37	Instrument ID:	A15
Lims ID:	320-74597-A-9-A	Lab Sample ID:	320-74597-9
Client ID:	BH20210604-3N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	17

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

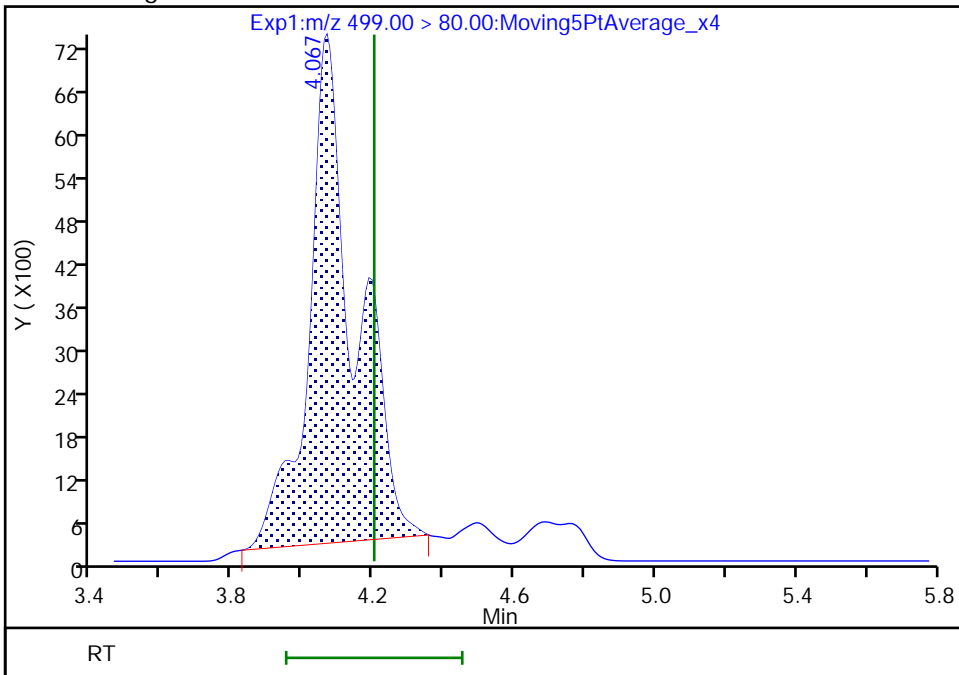
RT: 4.07  
 Area: 84541  
 Amount: 0.041322  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.07  
 Area: 64204  
 Amount: 0.031381  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:19  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

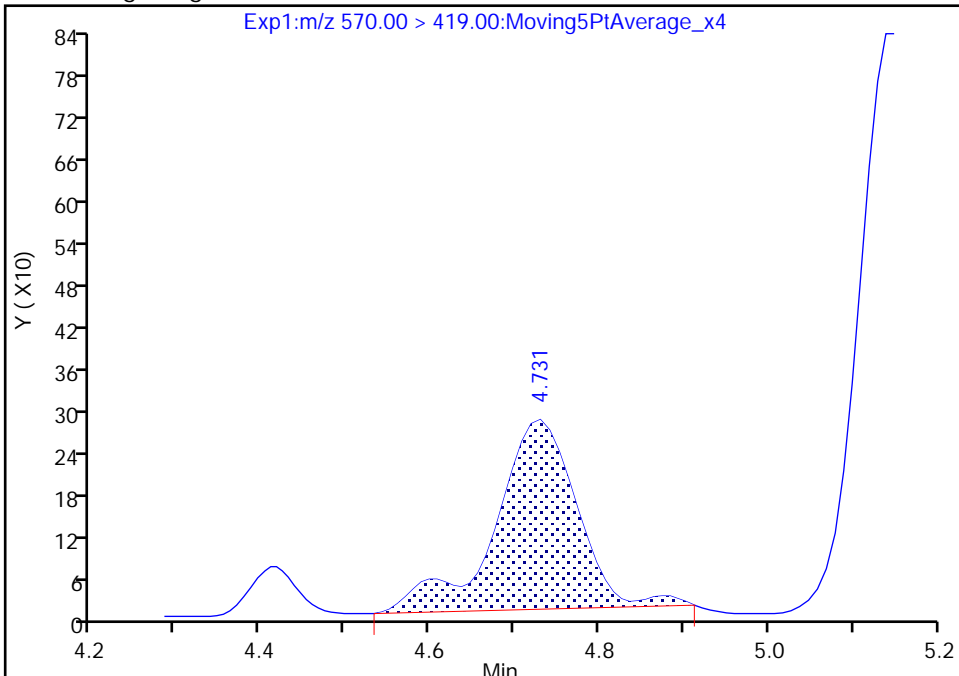
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_020.d		
Injection Date:	10-Jun-2021 06:46:37	Instrument ID:	A15
Lims ID:	320-74597-A-9-A	Lab Sample ID:	320-74597-9
Client ID:	BH20210604-3N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

79 NMeFOSAA, CAS: 2355-31-9

Signal: 1

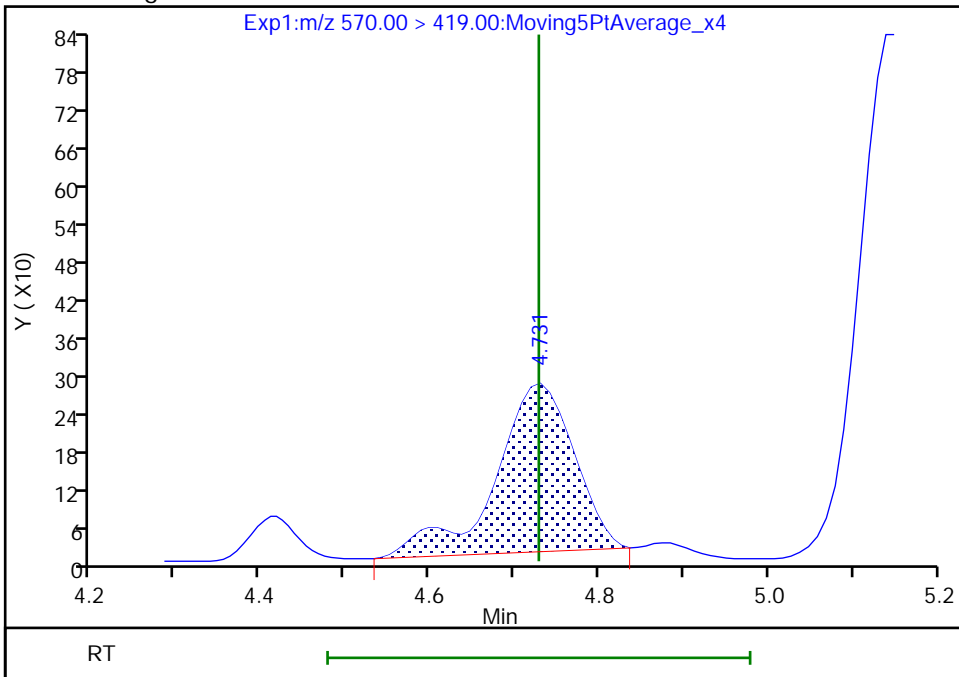
RT: 4.73  
 Area: 1834  
 Amount: 0.001195  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.73  
 Area: 1722  
 Amount: 0.001122  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:31  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

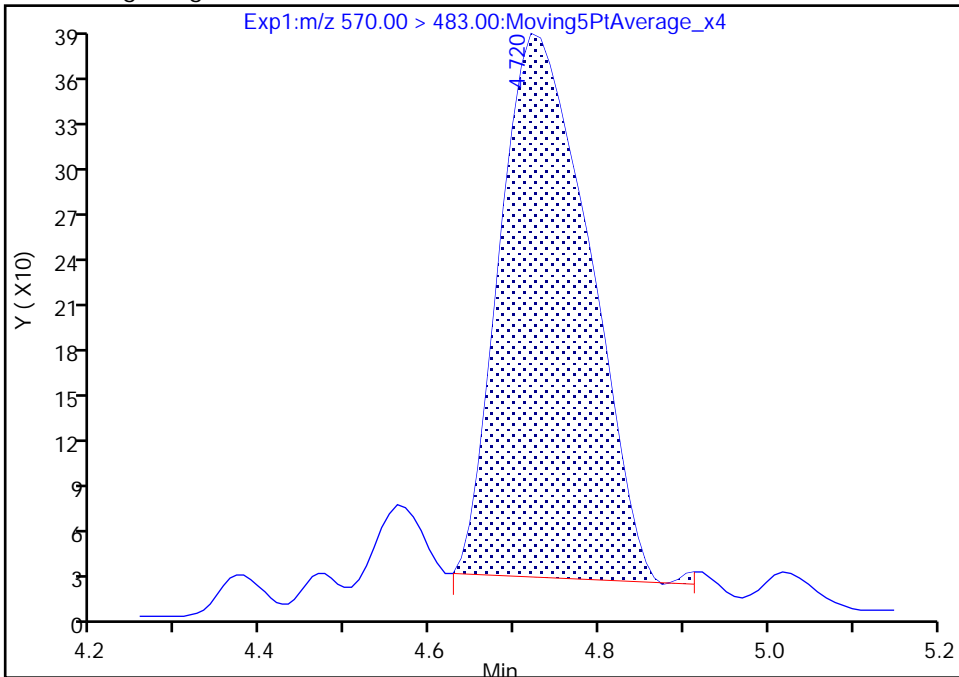
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_020.d		
Injection Date:	10-Jun-2021 06:46:37	Instrument ID:	A15
Lims ID:	320-74597-A-9-A	Lab Sample ID:	320-74597-9
Client ID:	BH20210604-3N-75		
Operator ID:	SACINSTA15	ALS Bottle#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	17

79 NMeFOSAA, CAS: 2355-31-9

Signal: 2

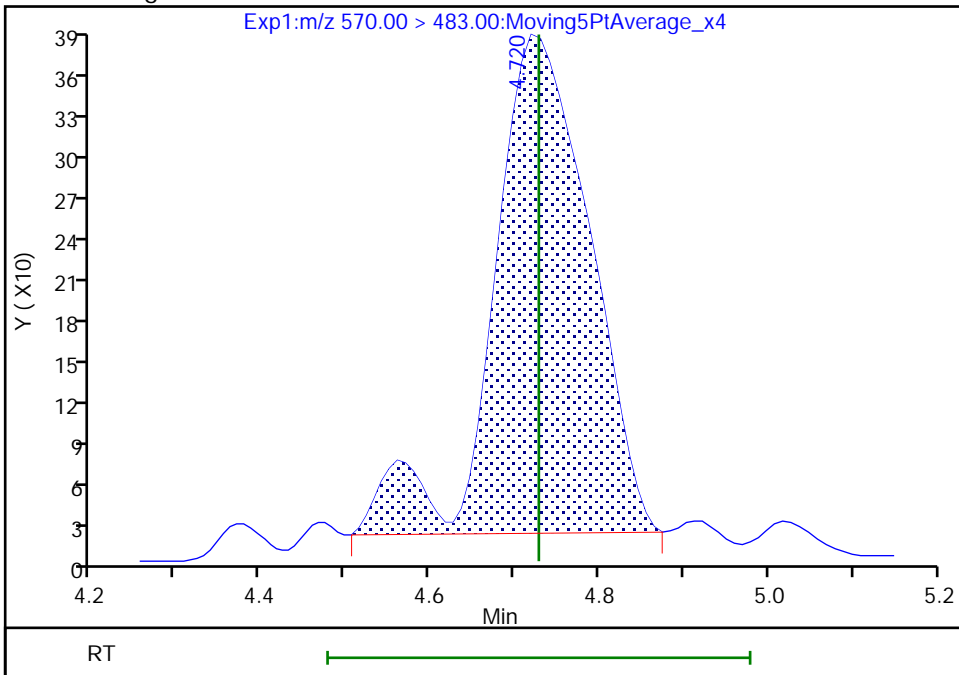
RT: 4.72  
 Area: 2611  
 Amount: 0.001195  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.72  
 Area: 2879  
 Amount: 0.001122  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:55:36

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-25 Lab Sample ID: 320-74597-10  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_021.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:31  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 269.3 (mL) Date Analyzed: 06/10/2021 06:55  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.6	
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.6		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	
27619-97-2	6:2 FTS	ND		4.6	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-25 Lab Sample ID: 320-74597-10  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_021.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:31  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 269.3 (mL) Date Analyzed: 06/10/2021 06:55  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	101		25-150
STL01893	13C5 PFPeA	101		25-150
STL00993	13C2 PFHxA	96		25-150
STL01892	13C4 PFHpA	104		25-150
STL00990	13C4 PFOA	103		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	91		25-150
STL00997	13C2 PFUnA	97		25-150
STL00998	13C2 PFDoA	104		25-150
STL02116	13C2 PFTeDA	87		25-150
STL02337	13C3 PFBS	105		25-150
STL00994	18O2 PFHxS	108		25-150
STL00991	13C4 PFOS	102		25-150
STL01056	13C8 FOSA	107		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	116		25-150
STL02279	M2-6:2 FTS	85		25-150
STL02280	M2-8:2 FTS	95		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_021.d  
 Lims ID: 320-74597-A-10-A  
 Client ID: BH20210604-3S-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 06:55:46 ALS Bottle#: 13 Worklist Smp#: 18  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-10-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:57:14 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 09:57:14  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_018.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	361729	0.0774			196	
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.604	6173969	1.27		101	47849	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	347792	0.0713		238		M
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.693	5822553	1.26		101	43481	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.682	0.001	0.701	3930331	1.22		105	24848	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.693	-0.010	1.000	41682	0.0109	Target=2.41		106	
298.90 > 99.00	2.683	2.693	-0.010	1.000	17116		2.44(1.21-3.62)		51.2	M
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	-0.001	1.000	196591	0.0401	Target=13.70		322	
313.00 > 119.00	3.019	3.019	-0.001	1.000	16141		12.18(6.85-20.55)		232	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	-0.001	0.789	5473710	1.20		96.1	49697	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.424	3.433	-0.009	1.000	53388	0.0109	Target=3.91		110	
363.00 > 169.00	3.424	3.433	-0.009	1.000	13306		4.01(1.96-5.87)		201	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.424	3.433	-0.009	1.000	25845	0.009481	Target=3.51		158	M
399.00 > 99.00	3.424	3.433	-0.009	1.000	8717		2.96(1.76-5.27)		95.6	
D 38 18O2 PFHxS										
403.00 > 84.00	3.424	3.433	-0.009	0.895	2915123	1.28		108	44791	
D 37 13C4 PFHpA										
367.00 > 322.00	3.424	3.433	-0.009	0.895	5809049	1.29		104	59411	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.806	3.814	-0.008	0.995	1051887	1.02		85.5	8912	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.835	3.834	0.001	1.002	65838	0.0120	Target=2.88		126	M
413.00 > 169.00	3.835	3.834	0.001	1.002	24818		2.65(1.44-4.31)		214	M
* 57 13C2 PFOA										
415.00 > 370.00	3.825	3.834	-0.009		6114062	1.25			49295	
D 56 13C4 PFOA										
417.00 > 372.00	3.825	3.834	-0.009	1.000	6547550	1.28		103	71281	
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.096	2189585	1.22		102	21896	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.217	-0.007	1.101	6229774	1.28		102	80979	
D 71 13C8 FOSA										
506.00 > 78.00	4.524	4.523	0.001	1.183	4015826	1.33		107	29986	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.524	4.532	-0.008	1.000	14420	0.004471			418	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.551	4.559	-0.008	1.000	25187	0.005564	Target=8.78		176	
513.00 > 169.00	4.542	4.559	-0.017	0.998	2558		9.85(4.39-13.18)		36.1	
D 74 13C2 PFDA										
515.00 > 470.00	4.551	4.559	-0.008	1.190	5534621	1.14		90.8	55447	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.569	-0.008	1.192	1845291	1.14		95.2	13972	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.234	2576567	1.25		100	33410	
D 82 13C2 PFUnA										
565.00 > 520.00	4.864	4.872	-0.008	1.272	5719391	1.22		97.4	87499	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.874	4.882	-0.008	1.274	2974014	1.45		116	32315	
D 97 13C2 PFDoA										
615.00 > 570.00	5.149	5.156	-0.007	1.346	6621956	1.30		104	97452	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.658	-0.007	1.477	5109868	1.09		87.3	49014	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.661	5.658	0.003	1.002	869	0.001729	Target=1.00		22.4	
713.00 > 219.00	5.651	5.658	-0.007	1.000	1100		0.79(0.50-1.50)		40.8	

QC Flag Legend

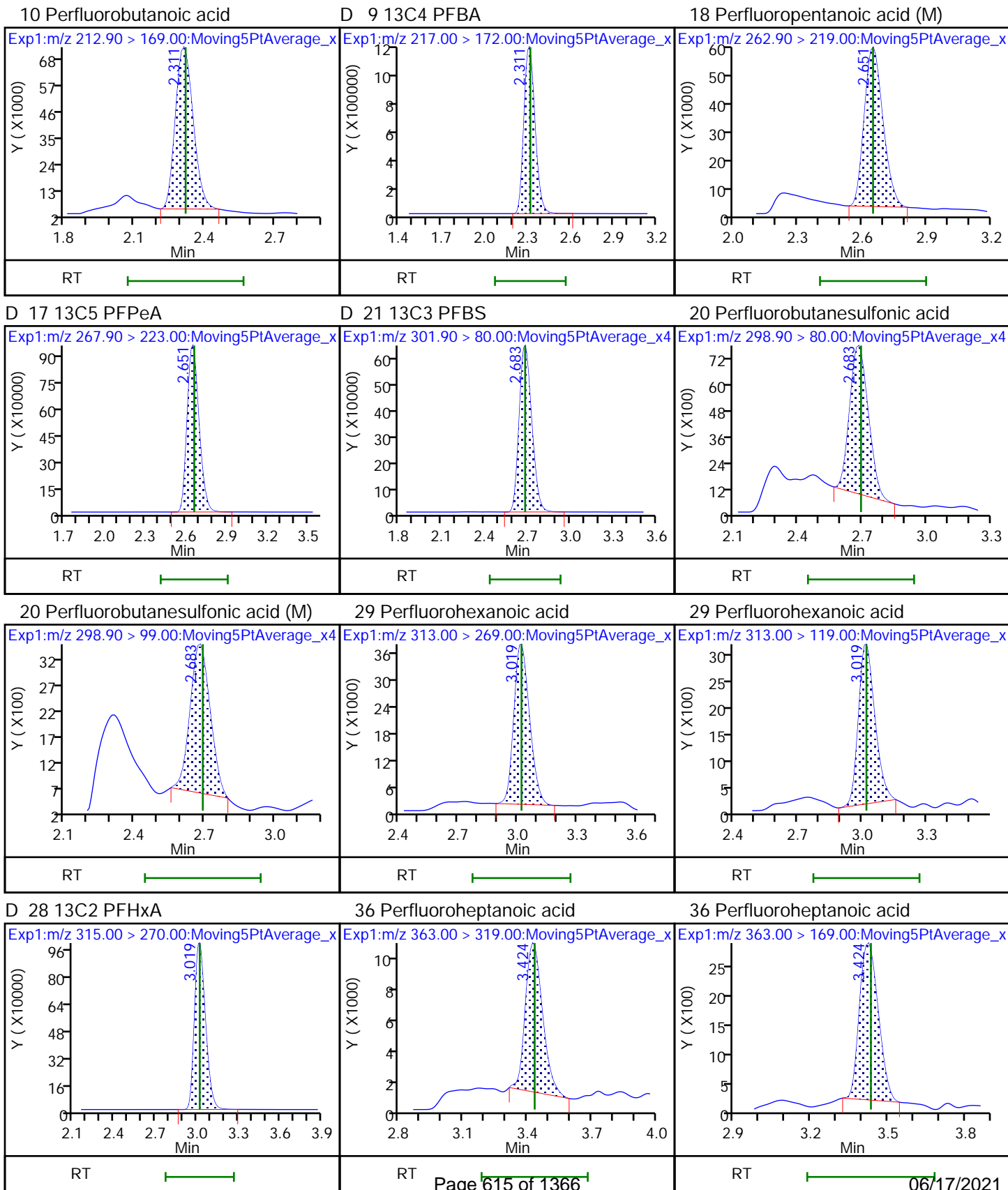
Processing Flags

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Sacramento

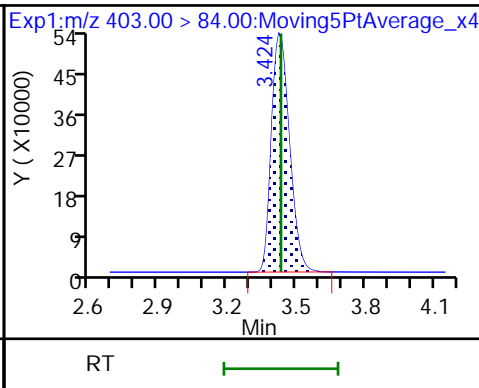
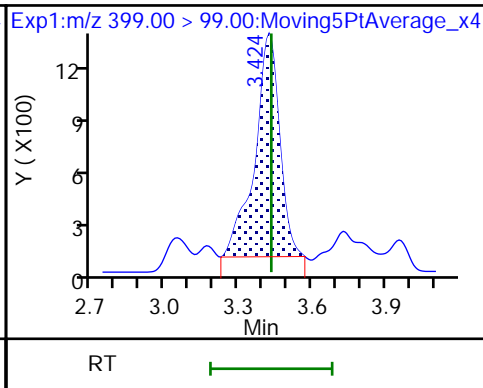
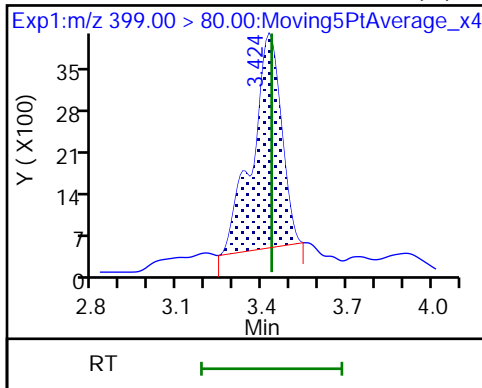
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_021.d  
Injection Date: 10-Jun-2021 06:55:46 Instrument ID: A15  
Lims ID: 320-74597-A-10-A Lab Sample ID: 320-74597-10  
Client ID: BH20210604-3S-25  
Operator ID: SACINSTA15 ALS Bottle#: 13 Worklist Smp#: 18  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL



39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid

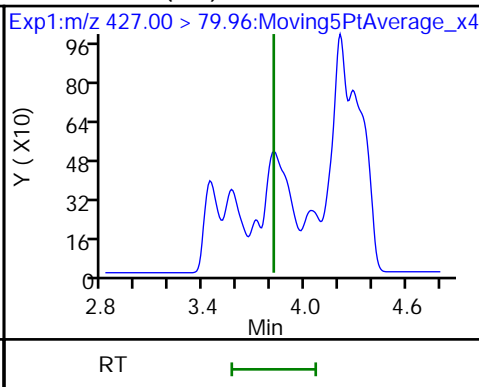
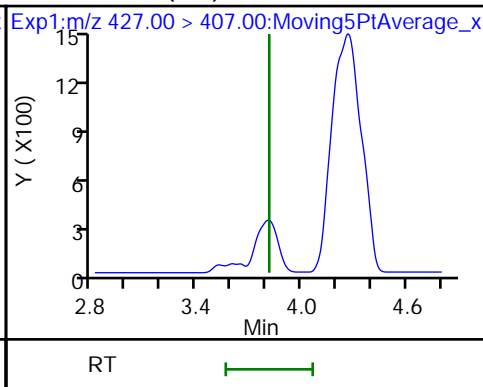
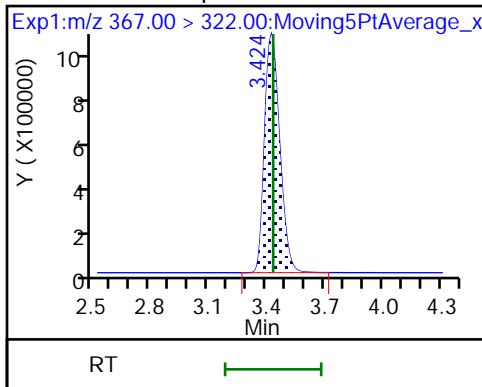
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS (ND)

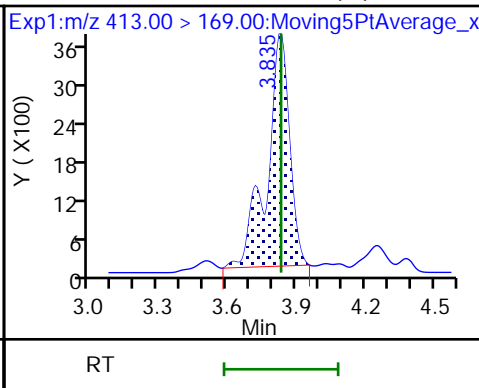
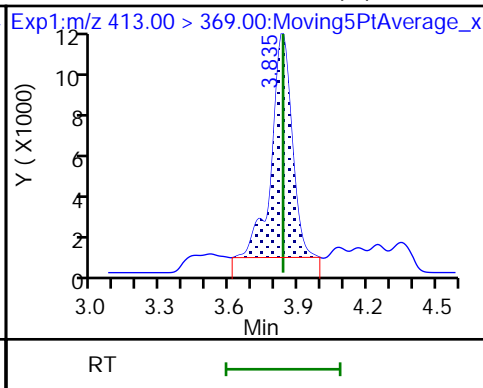
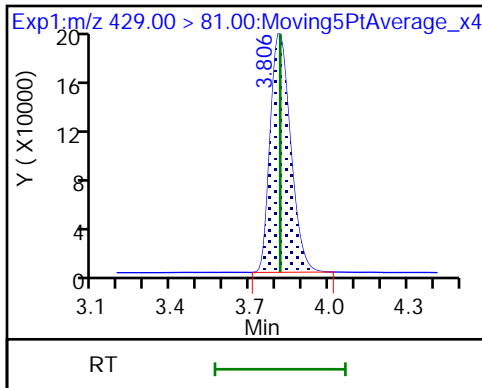
53 6:2 FTS (ND)



D 52 M2-6:2 FTS

58 Perfluorooctanoic acid (M)

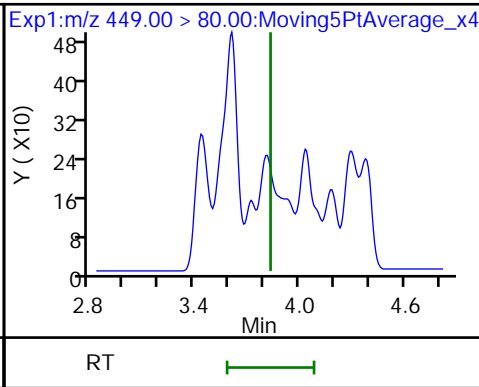
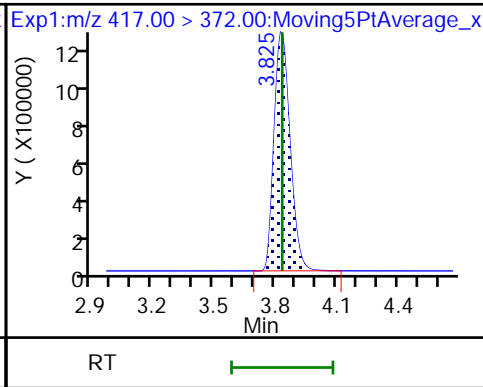
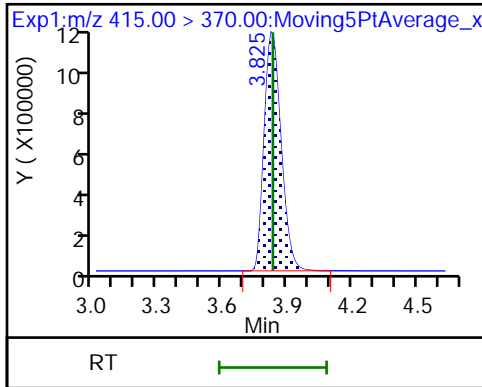
58 Perfluorooctanoic acid (M)



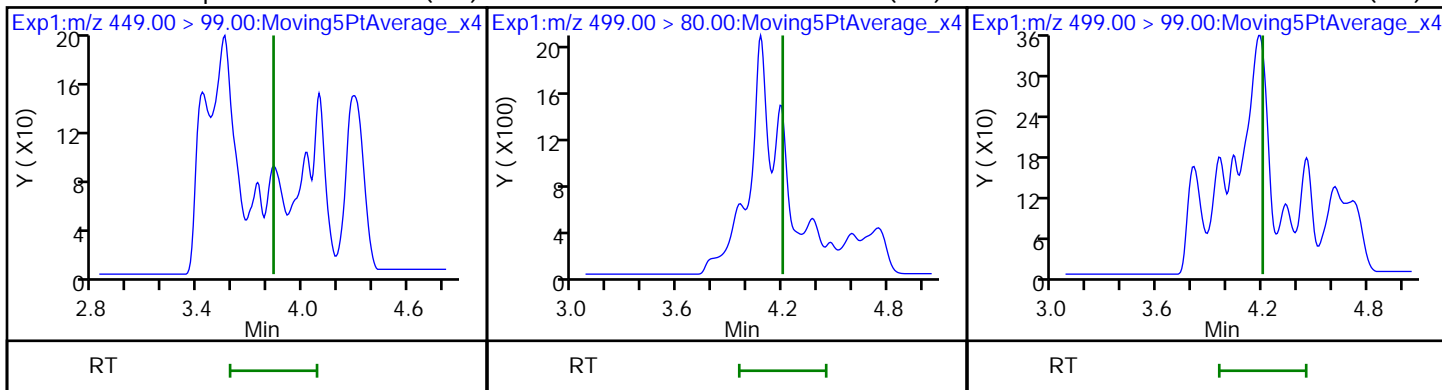
\* 57 13C2 PFOA

D 56 13C4 PFOA

54 Perfluoroheptanesulfonic acid (ND)



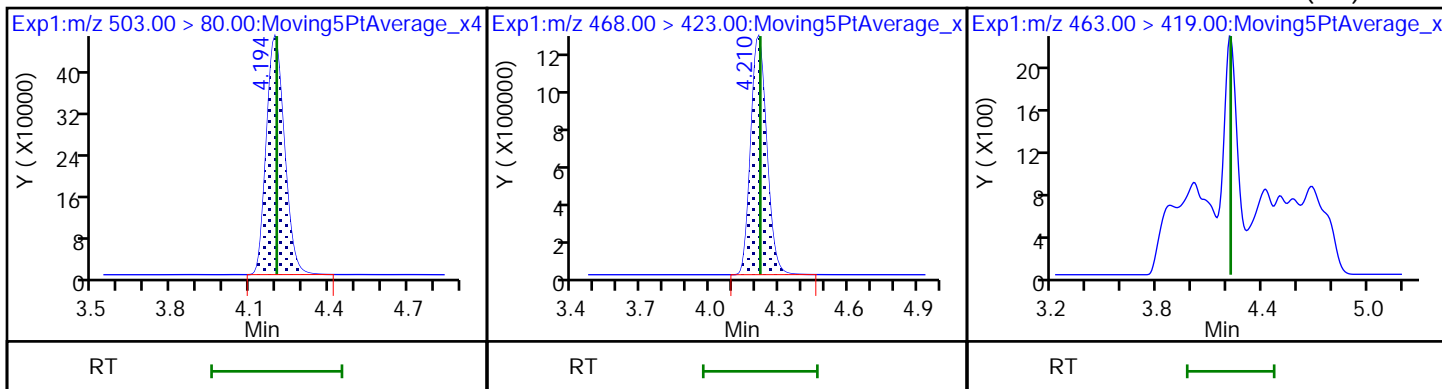
54 Perfluoroheptanesulfonic acid (ND) 62 Perfluorooctanesulfonic acid (ND) 62 Perfluorooctanesulfonic acid (ND)



D 61 13C4 PFOS

D 63 13C5 PFNA

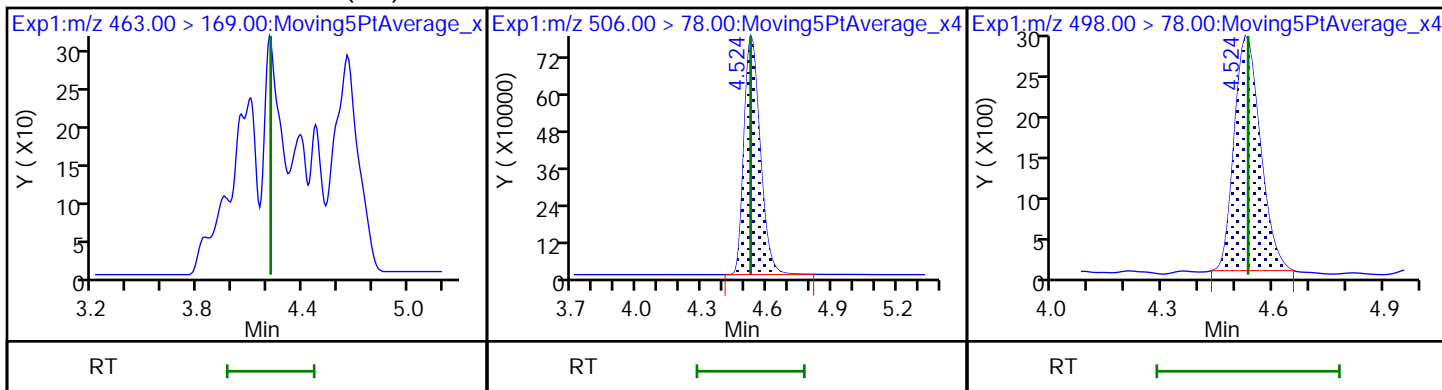
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

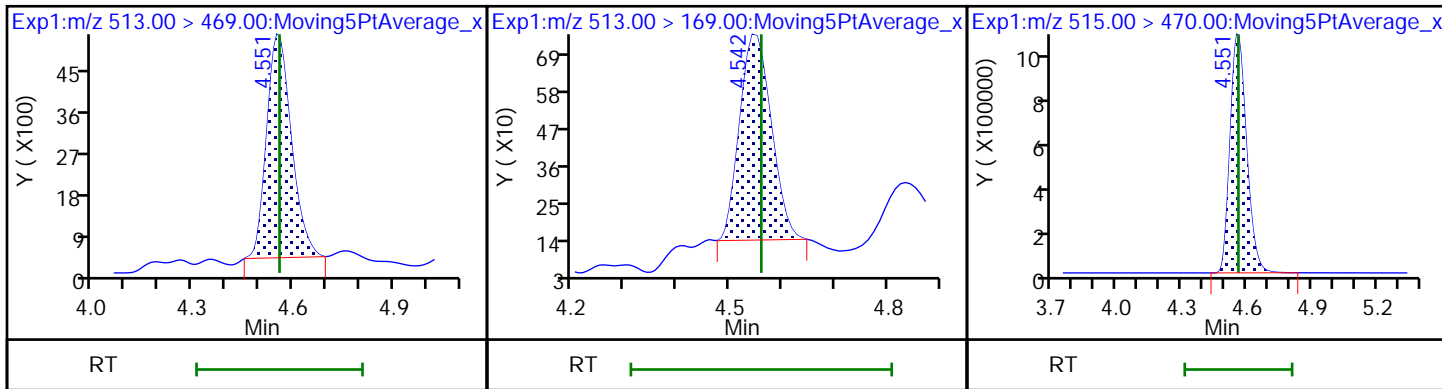
72 Perfluorooctanesulfonamide



75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

D 74 13C2 PFDA

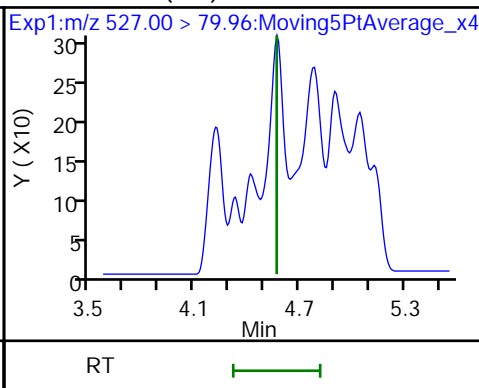
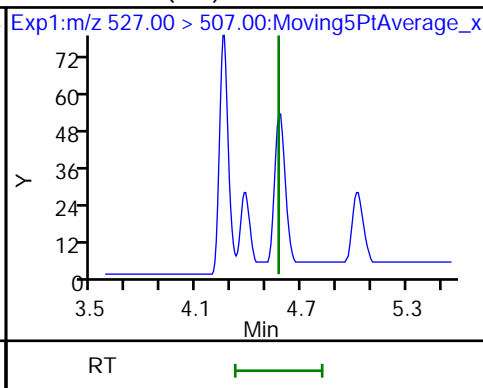
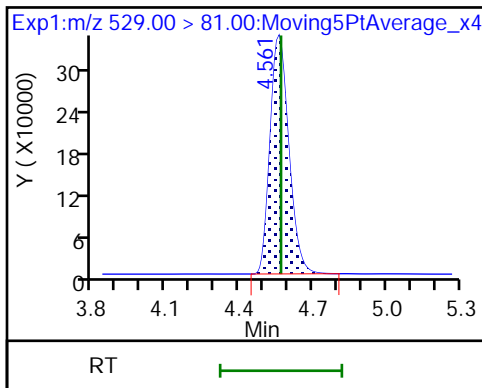




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

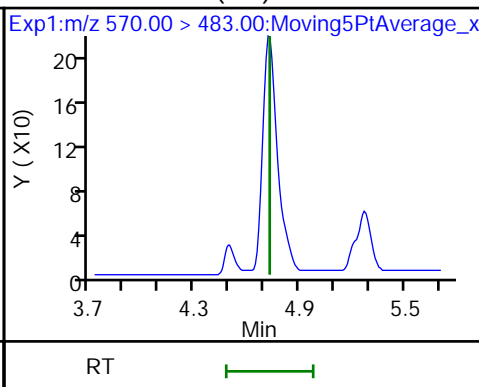
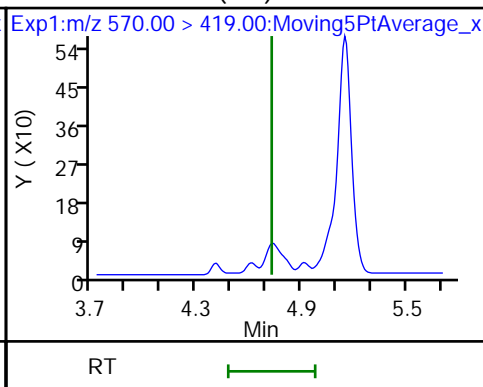
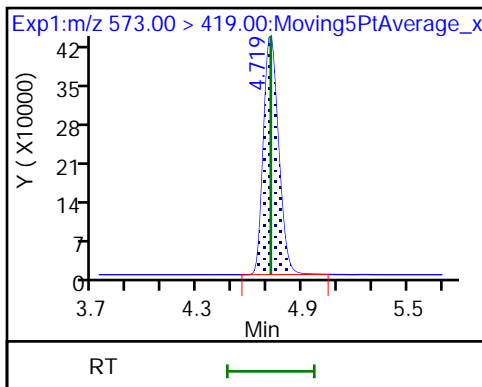
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA (ND)

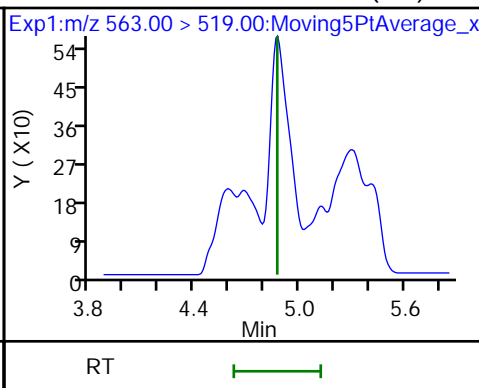
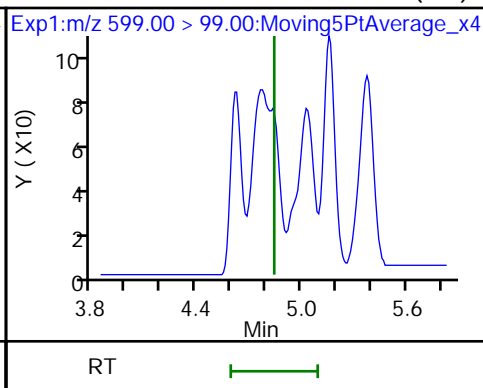
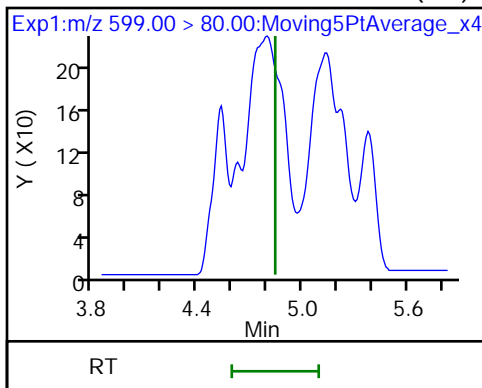
79 NMeFOSAA (ND)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

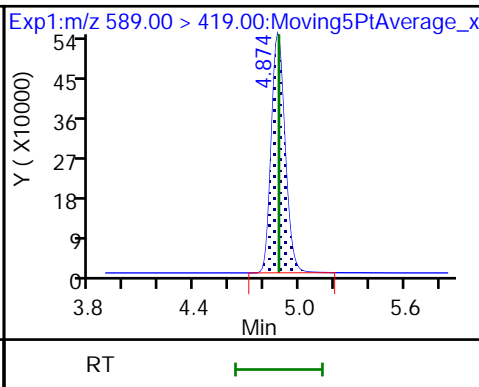
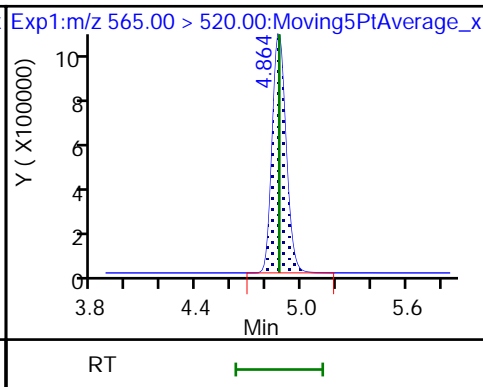
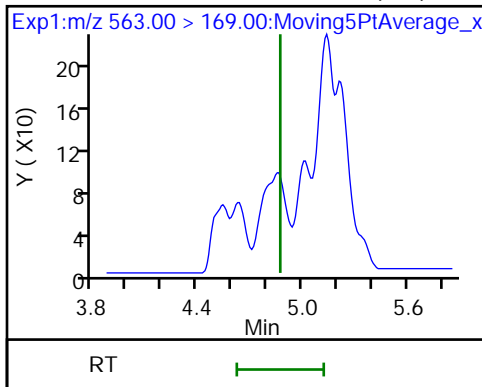
81 Perfluoroundecanoic acid (ND)



81 Perfluoroundecanoic acid (ND)

D 82 13C2 PFUnA

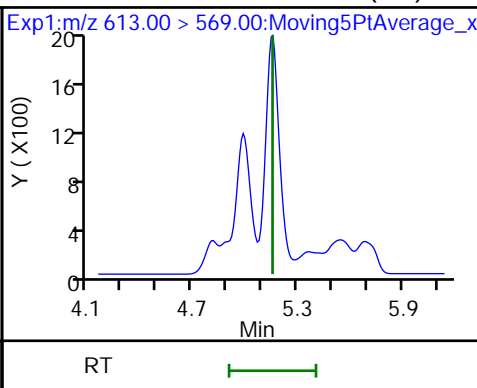
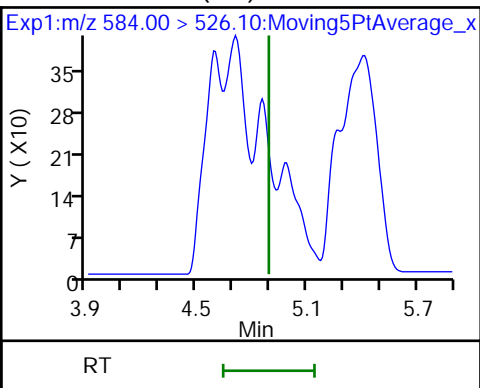
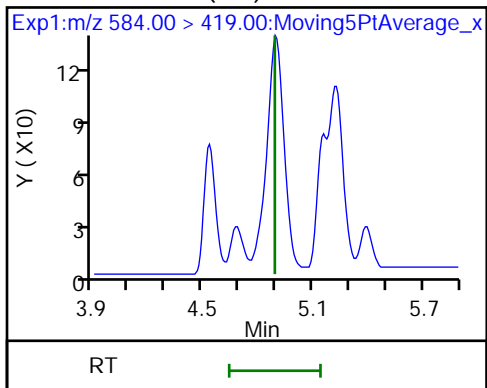
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

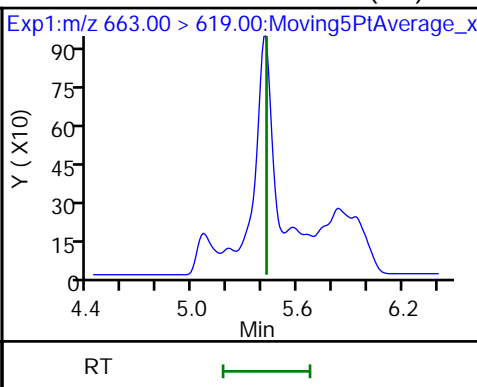
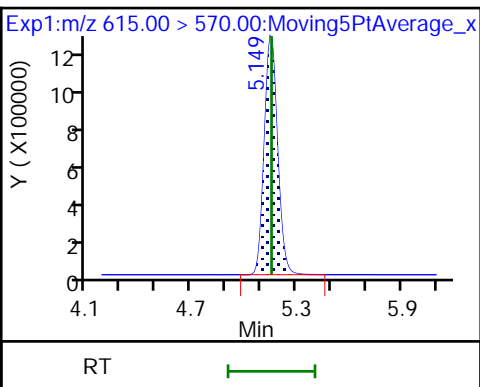
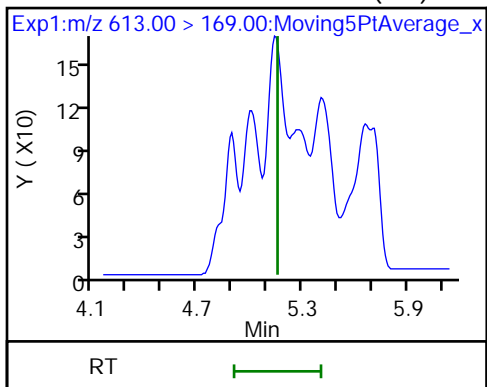
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

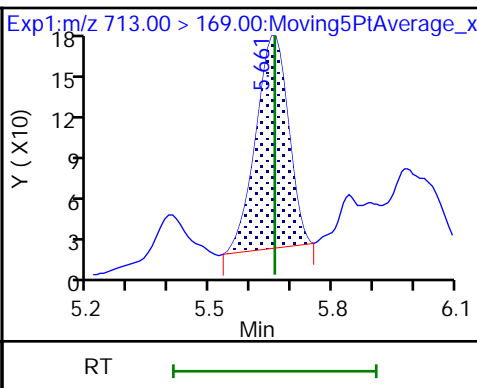
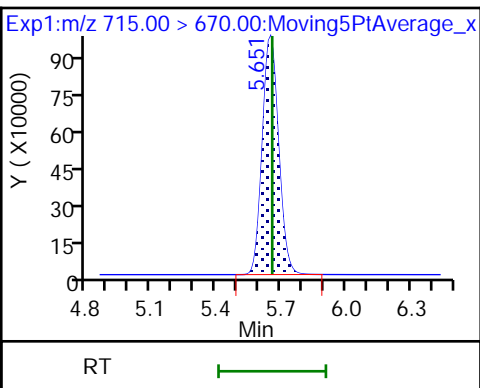
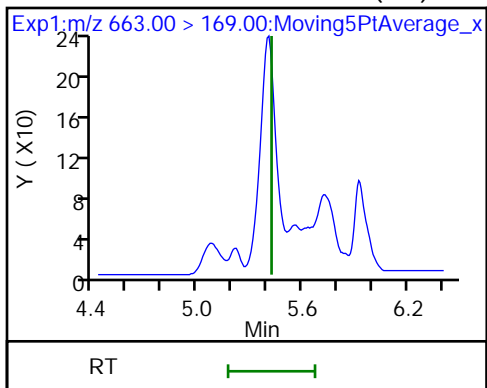
103 Perfluorotridecanoic acid (ND)



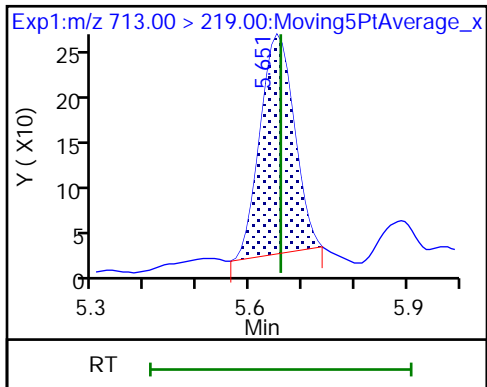
103 Perfluorotridecanoic acid (ND)

D 104 13C2 PFTeDA

105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid



Eurofins TestAmerica, Sacramento

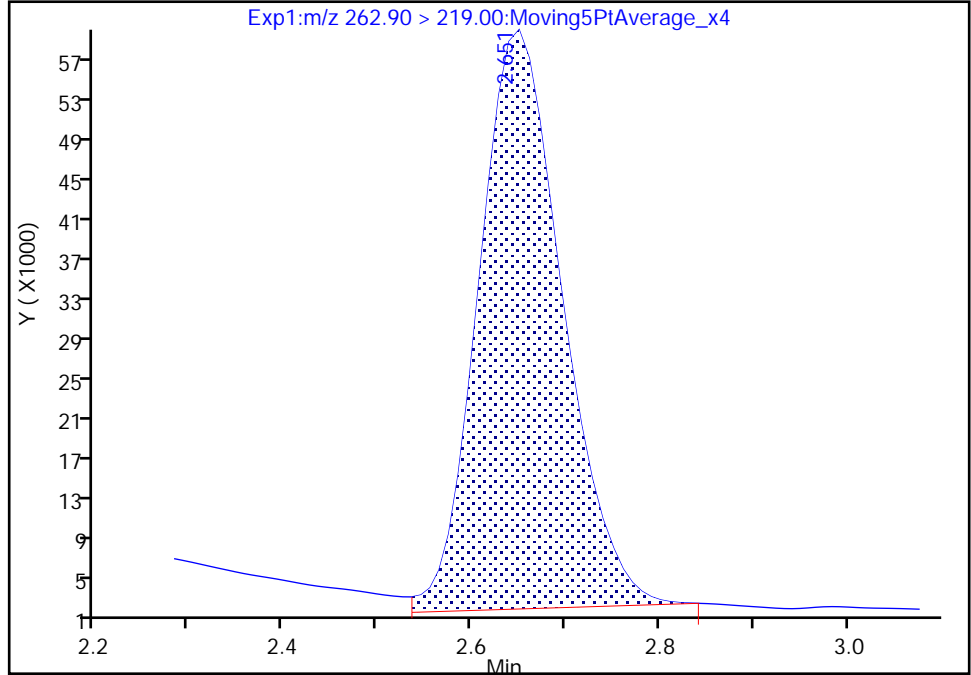
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Injection Date: 10-Jun-2021 06:55:46 Instrument ID: A15  
Lims ID: 320-74597-A-10-A Lab Sample ID: 320-74597-10  
Client ID: BH20210604-3S-25  
Operator ID: SACINSTA15 ALS Bottle#: 13 Worklist Smp#: 18  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

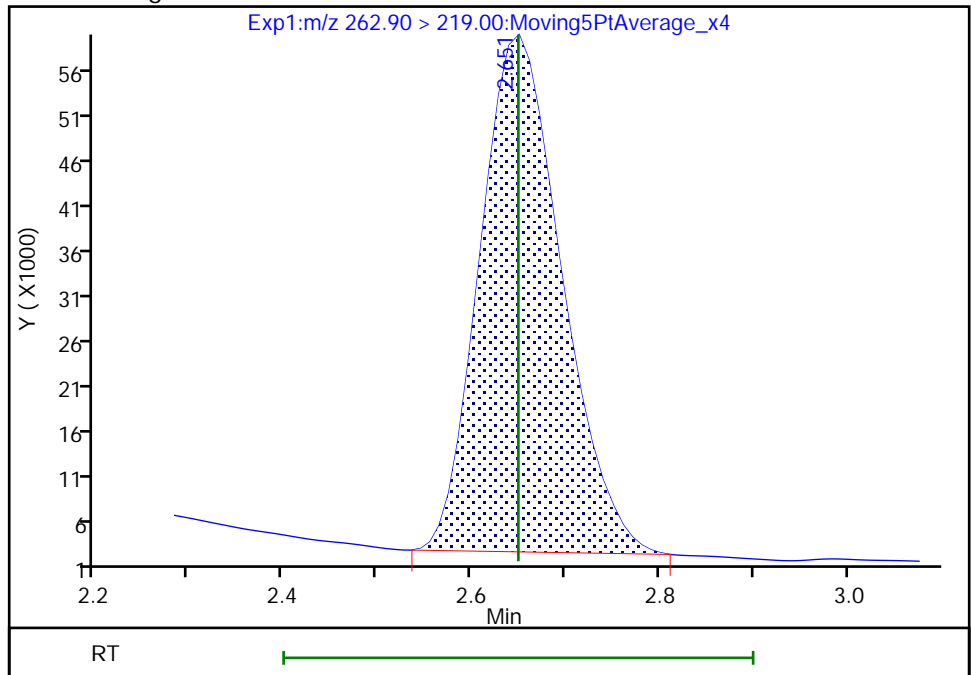
RT: 2.65  
Area: 362906  
Amount: 0.074350  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 347792  
Amount: 0.071253  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:56:42  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

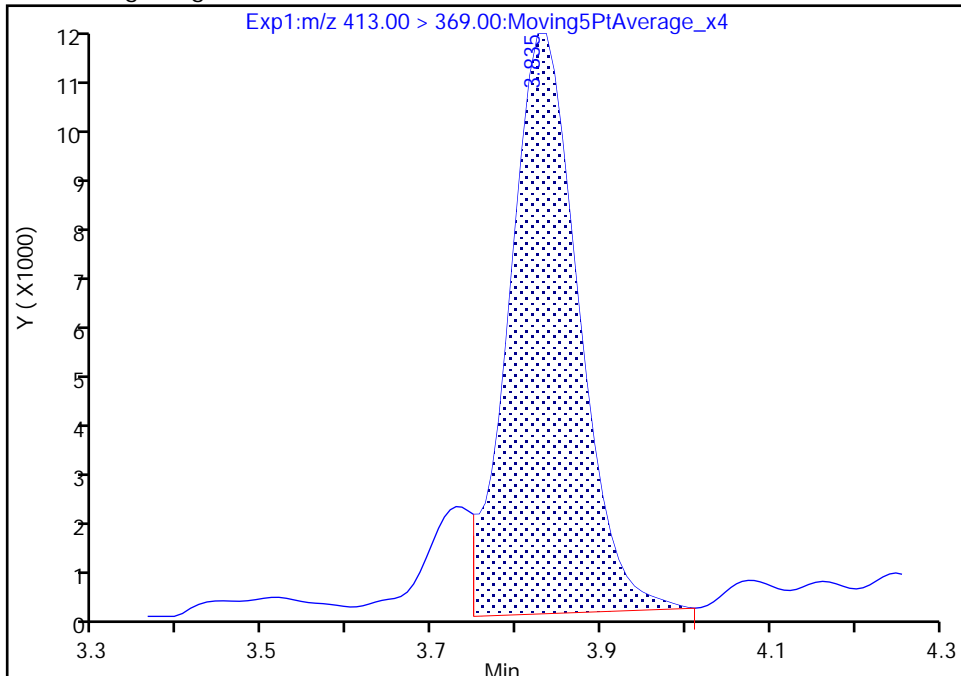
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Injection Date: 10-Jun-2021 06:55:46 Instrument ID: A15  
Lims ID: 320-74597-A-10-A Lab Sample ID: 320-74597-10  
Client ID: BH20210604-3S-25  
Operator ID: SACINSTA15 ALS Bottle#: 13 Worklist Smp#: 18  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

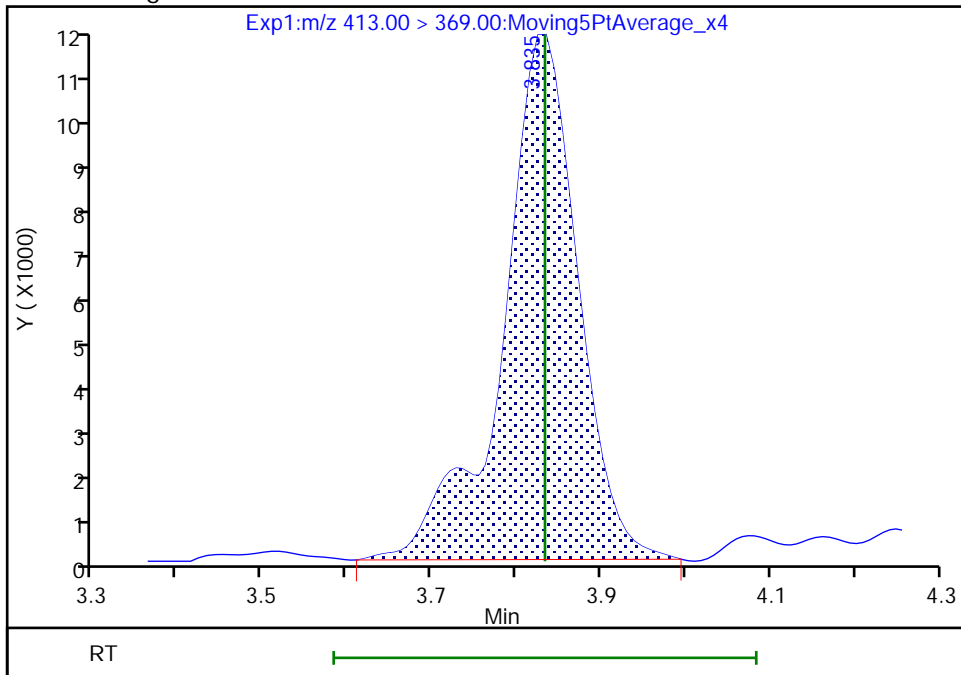
RT: 3.83  
Area: 61037  
Amount: 0.011151  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 65838  
Amount: 0.012028  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

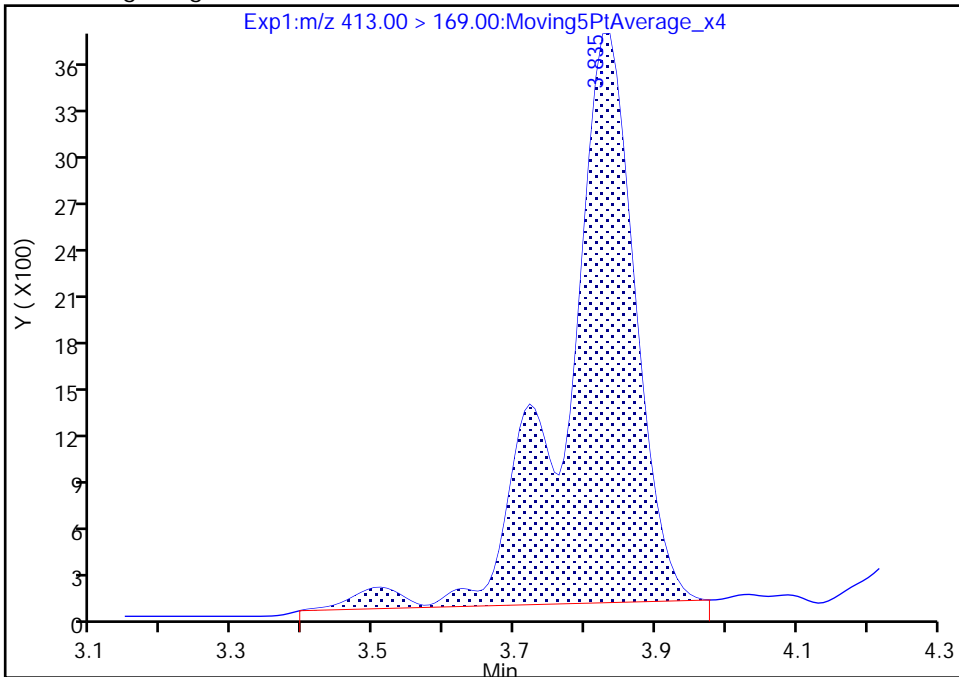
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Injection Date:	10-Jun-2021 06:55:46	Instrument ID:	A15
Lims ID:	320-74597-A-10-A	Lab Sample ID:	320-74597-10
Client ID:	BH20210604-3S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	13
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.0um)	Detector:	EXP1
		Worklist Smp#:	18

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

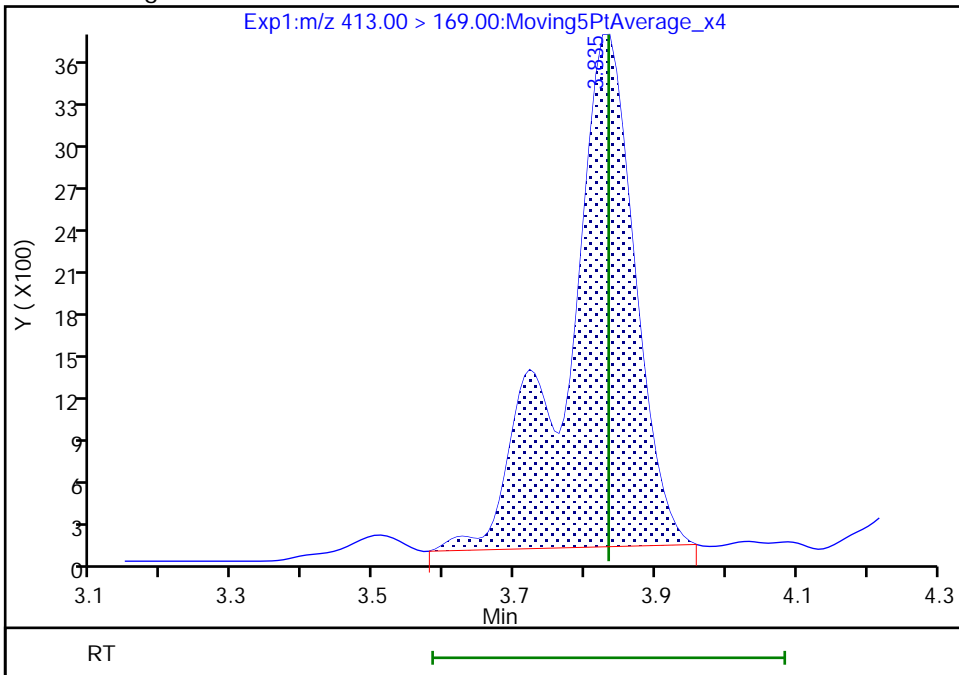
RT: 3.83  
 Area: 25844  
 Amount: 0.011151  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 24818  
 Amount: 0.012028  
 Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

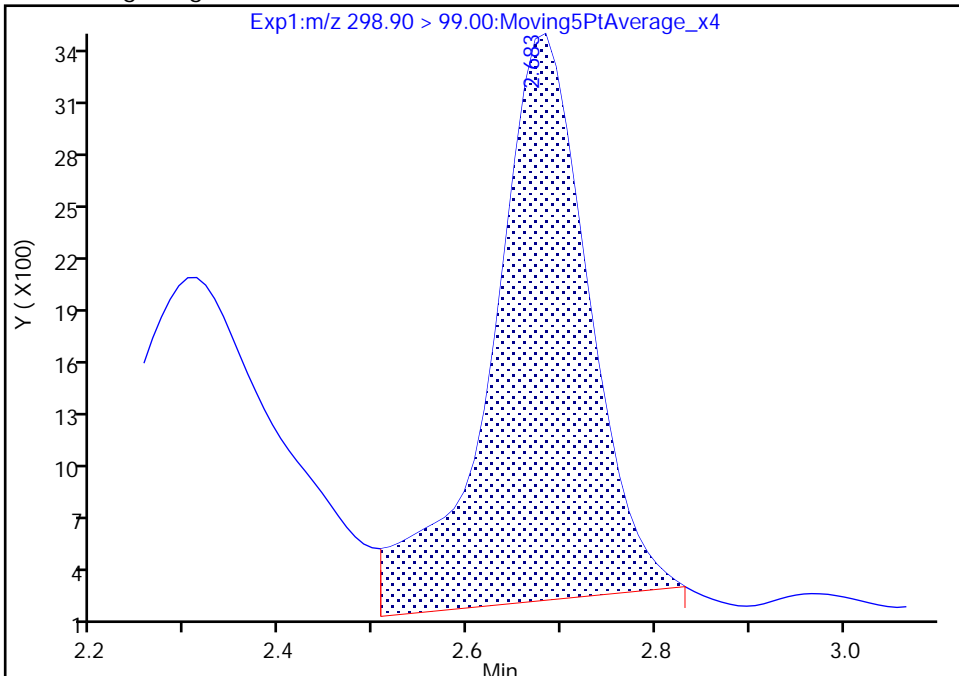
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Injection Date:	10-Jun-2021 06:55:46	Instrument ID:	A15
Lims ID:	320-74597-A-10-A	Lab Sample ID:	320-74597-10
Client ID:	BH20210604-3S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	13
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	18

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

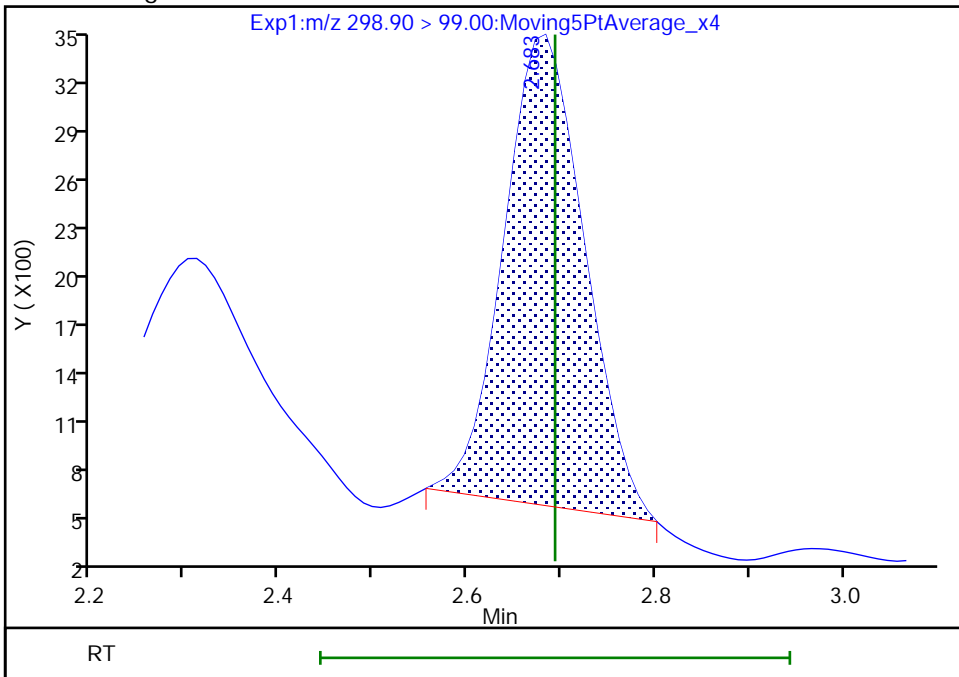
RT: 2.68  
 Area: 22913  
 Amount: 0.010903  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
 Area: 17116  
 Amount: 0.010903  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 09:56:47  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

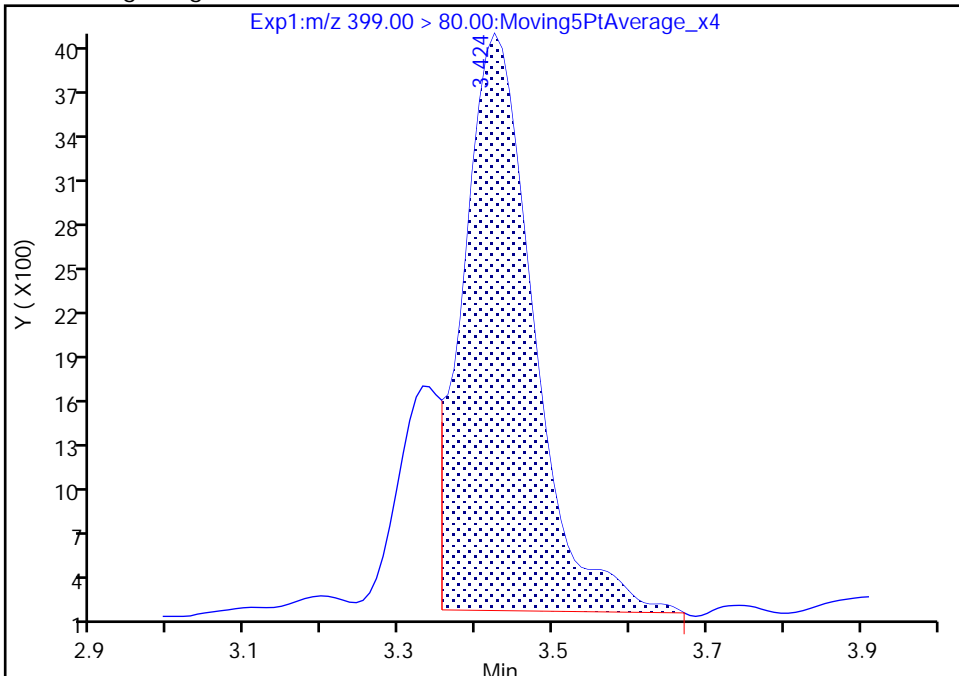
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09_A15_PFC+_E_021.d		
Injection Date:	10-Jun-2021 06:55:46	Instrument ID:	A15
Lims ID:	320-74597-A-10-A	Lab Sample ID:	320-74597-10
Client ID:	BH20210604-3S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	13
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	18

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

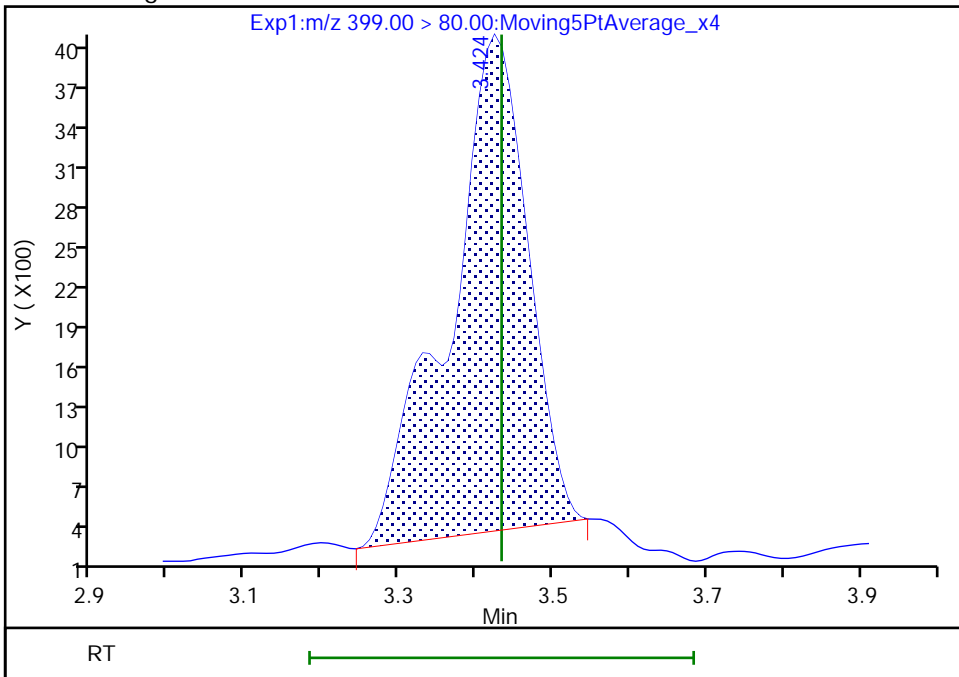
RT: 3.42  
 Area: 24238  
 Amount: 0.008891  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
 Area: 25845  
 Amount: 0.009481  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-50 Lab Sample ID: 320-74597-11  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_028.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:32  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.7(mL) Date Analyzed: 06/10/2021 07:59  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.1		1.7	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.7	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.7	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.7	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.7	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	
27619-97-2	6:2 FTS	ND		4.4	
39108-34-4	8:2 FTS	ND		1.7	



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-50 Lab Sample ID: 320-74597-11  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_028.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:32  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.7(mL) Date Analyzed: 06/10/2021 07:59  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	99		25-150
STL01893	13C5 PFPeA	103		25-150
STL00993	13C2 PFHxA	97		25-150
STL01892	13C4 PFHpA	101		25-150
STL00990	13C4 PFOA	98		25-150
STL00995	13C5 PFNA	103		25-150
STL00996	13C2 PFDA	95		25-150
STL00997	13C2 PFUnA	96		25-150
STL00998	13C2 PFDoA	101		25-150
STL02116	13C2 PFTeDA	91		25-150
STL02337	13C3 PFBS	101		25-150
STL00994	18O2 PFHxS	106		25-150
STL00991	13C4 PFOS	102		25-150
STL01056	13C8 FOSA	105		25-150
STL02118	d3-NMeFOSAA	97		25-150
STL02117	d5-NEtFOSAA	110		25-150
STL02279	M2-6:2 FTS	85		25-150
STL02280	M2-8:2 FTS	91		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_028.d  
 Lims ID: 320-74597-A-11-A  
 Client ID: BH20210604-3S-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 07:59:40 ALS Bottle#: 17 Worklist Smp#: 5  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-11-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:48:47 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:48:47  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	6122483	1.24		99.2	40229	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	392621	0.0847			261	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	296638	0.0588			301	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.650	0.001	0.691	6014313	1.29		103	43168	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.683	0.0	1.000	24682	0.006634	Target=2.31		76.6	
298.90 > 99.00	2.683	2.683	0.0	1.000	12913		1.91(1.15-3.46)		50.5	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.683	0.0	0.700	3825057	1.18		101	25084	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.018	0.001	1.000	154605	0.0310	Target=13.85		298	
313.00 > 119.00	3.019	3.018	0.001	1.000	11375		13.59(6.93-20.78)		202	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.018	0.001	0.787	5563573	1.21		96.5	46081	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	18069	0.006681	Target=3.47		140	
399.00 > 99.00	3.443	3.433	0.010	1.003	4149		4.36(1.73-5.20)		46.7	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2892029	1.25		106	66908	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.895	5739785	1.26		101	45758	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	0.997	32707	0.006741	Target=4.00		76.7	
363.00 > 169.00	3.433	3.433	0.0	1.000	9506		3.44(2.00-6.00)		121	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.815	0.001	0.995	1059272	1.01		85.1	10974	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6331013	1.23		98.2	64748	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.834	0.001	1.000	40410	0.007635	Target=3.05	80.3		
413.00 > 169.00	3.835	3.834	0.001	1.000	18222		2.22(1.53-4.58)	123		
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		6183971	1.25			57073	
D 61 13C4 PFOS										
503.00 > 80.00	4.202	4.201	0.001	1.096	2196221	1.21		102	30883	
D 63 13C5 PFNA										
468.00 > 423.00	4.218	4.209	0.009	1.100	6358144	1.29		103	83280	
D 71 13C8 FOSA										
506.00 > 78.00	4.534	4.532	0.002	1.182	3999787	1.31		105	55113	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.534	4.532	0.002	1.000	8507	0.002648			211	
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	5849109	1.19		94.9	84282	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.559	0.002	1.000	30000	0.006271	Target=8.80	209		
513.00 > 169.00	4.561	4.559	0.002	1.000	4940		6.07(4.40-13.19)	70.9		
D 76 M2-8:2 FTS										
529.00 > 81.00	4.571	4.559	0.012	1.192	1789562	1.09		91.3	20953	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.720	4.718	0.002	1.231	2514661	1.21		96.6	16424	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	5725185	1.20		96.4	76766	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.882	0.002	1.274	2840231	1.37		110	21951	
D 97 13C2 PFDoA										
615.00 > 570.00	5.159	5.156	0.003	1.345	6493517	1.26		101	105189	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.670	5.649	0.021	1.003	966	0.001814	Target=1.13	26.7		
713.00 > 219.00	5.651	5.649	0.002	1.000	991		0.97(0.57-1.70)	33.2		
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.649	0.002	1.474	5415232	1.14		91.5	49673	

QC Flag Legend

Processing Flags

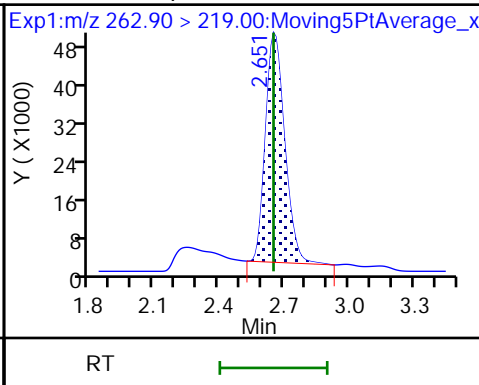
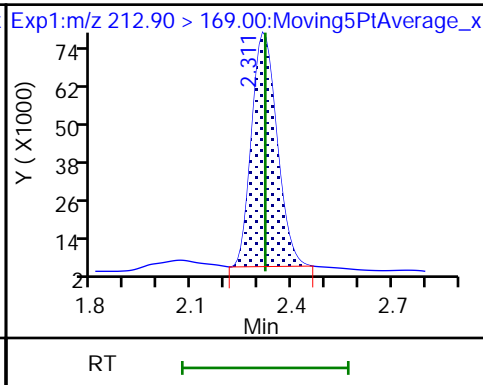
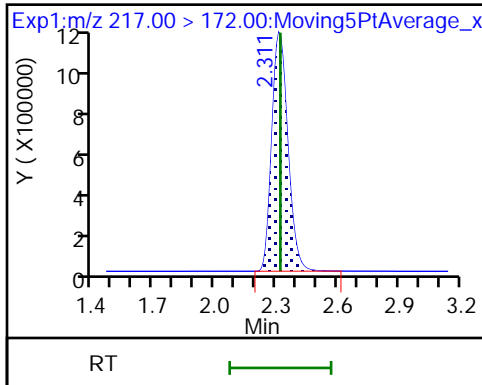
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_028.d  
Injection Date: 10-Jun-2021 07:59:40 Instrument ID: A15  
Lims ID: 320-74597-A-11-A Lab Sample ID: 320-74597-11  
Client ID: BH20210604-3S-50  
Operator ID: SACINSTA15 ALS Bottle#: 17 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

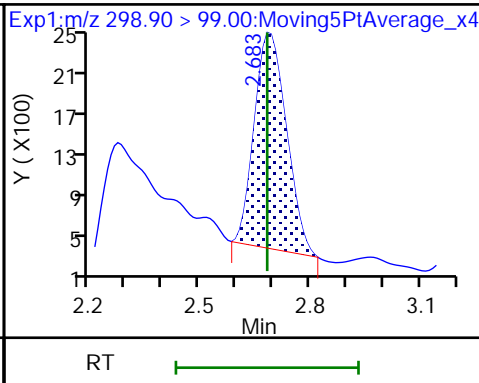
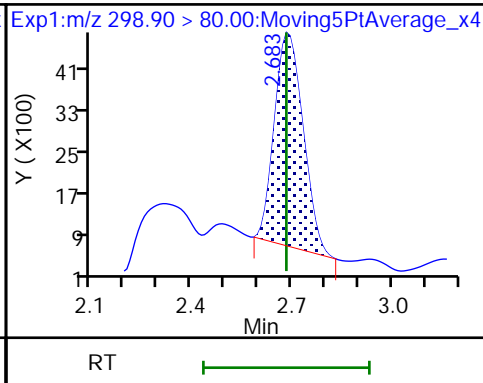
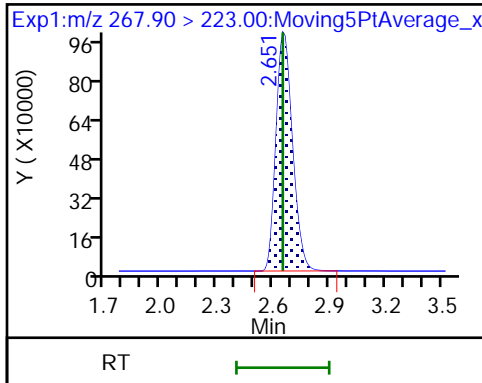
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

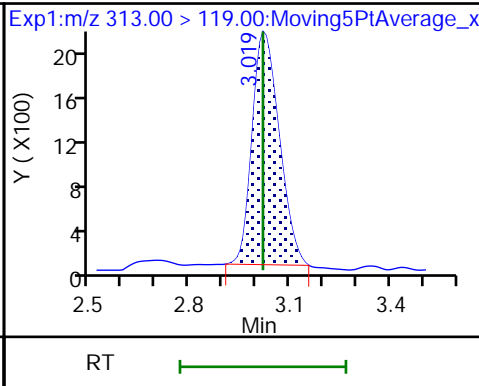
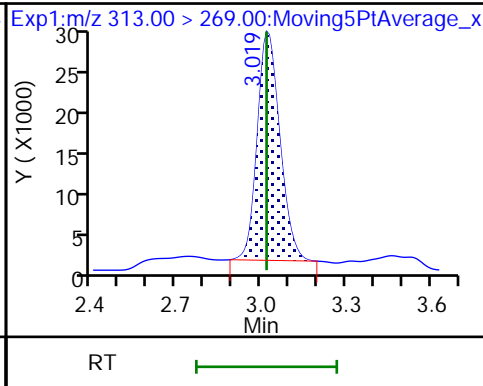
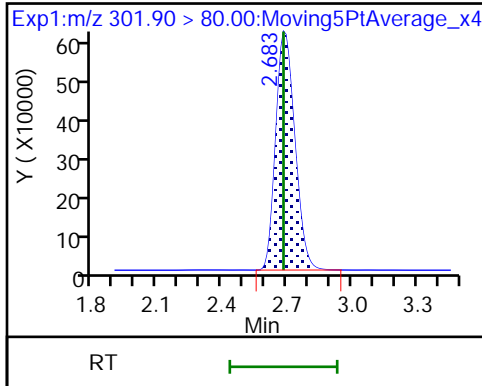
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

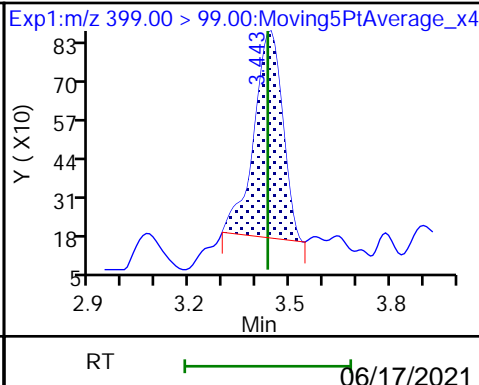
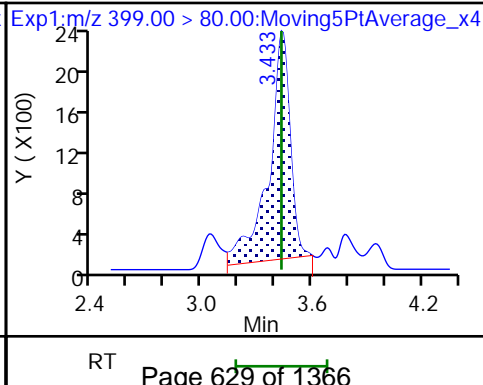
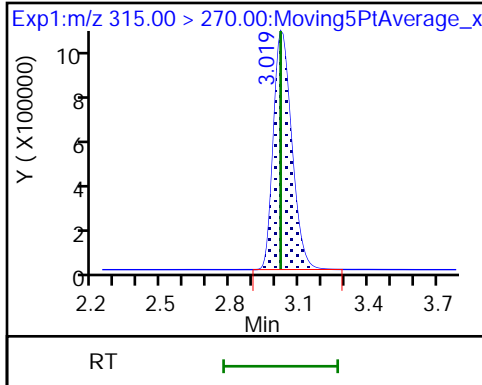
29 Perfluorohexanoic acid



D 28 13C2 PFXhA

39 Perfluorohexanesulfonic acid

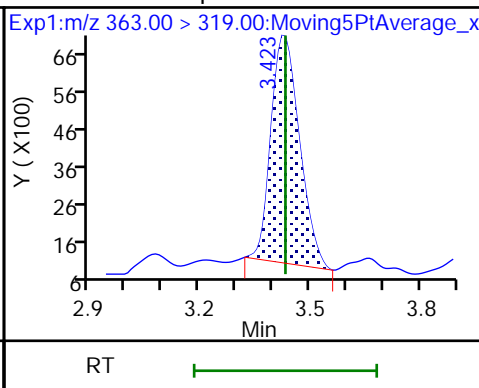
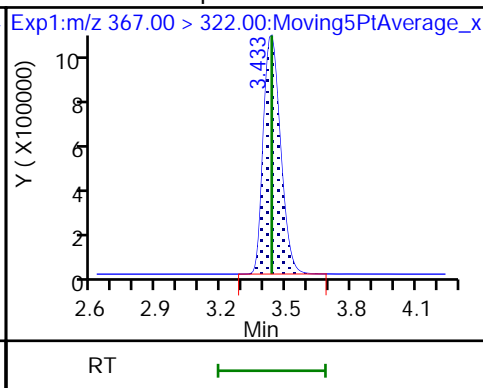
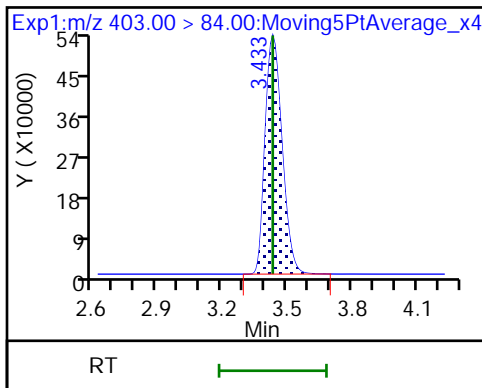
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

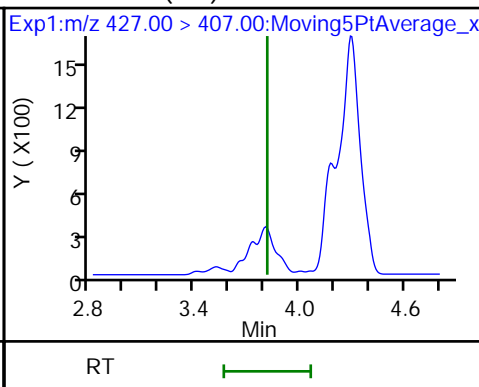
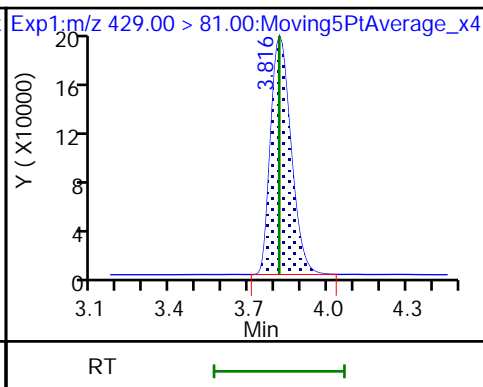
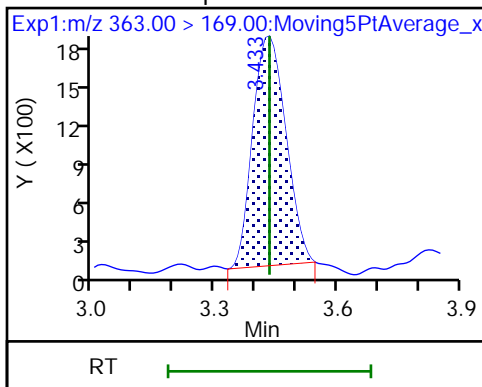
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

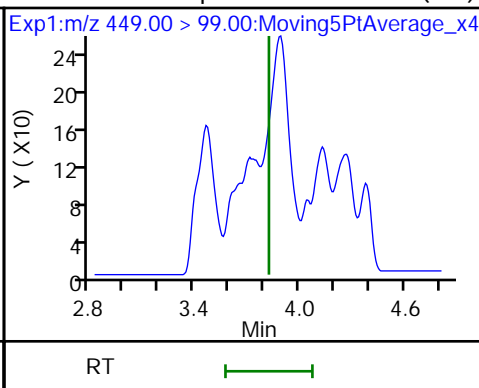
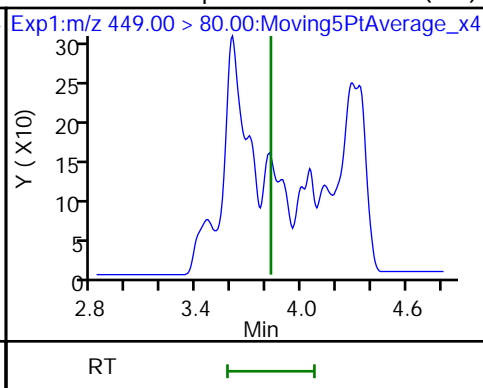
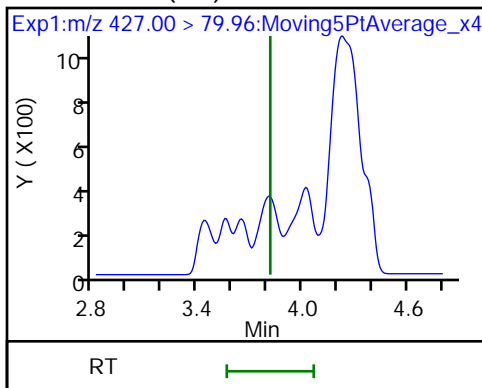
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

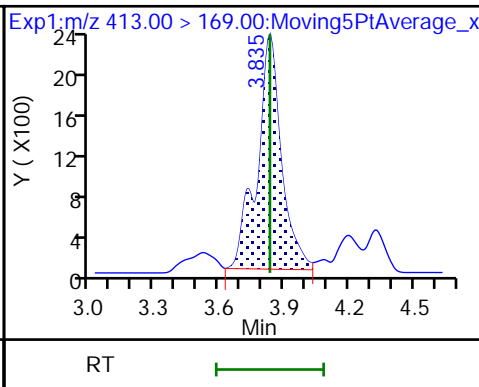
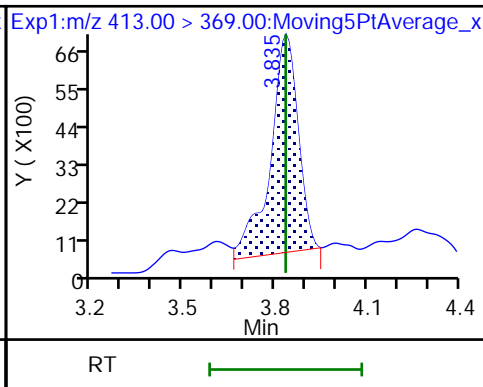
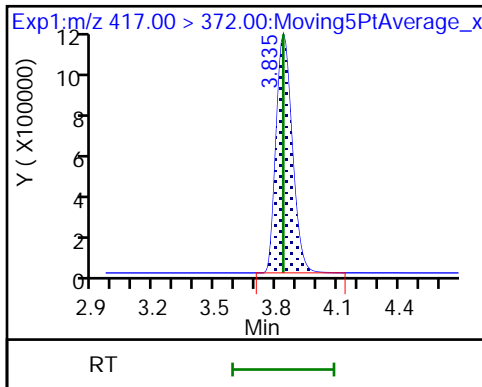
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid

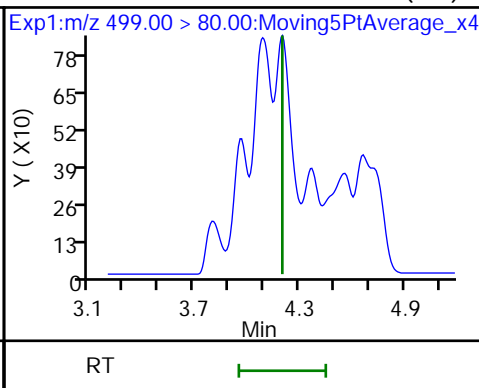
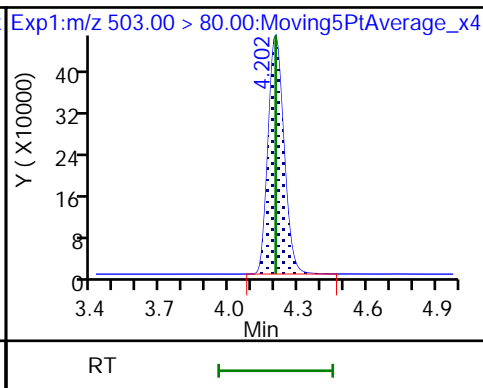
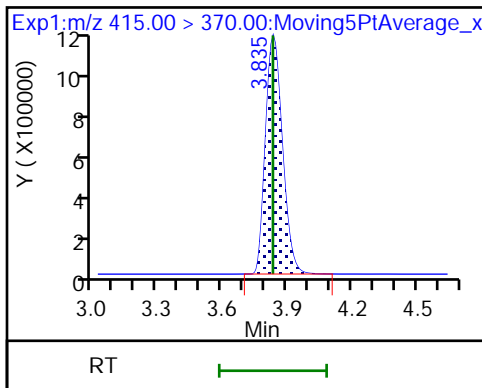
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

D 61 13C4 PFOS

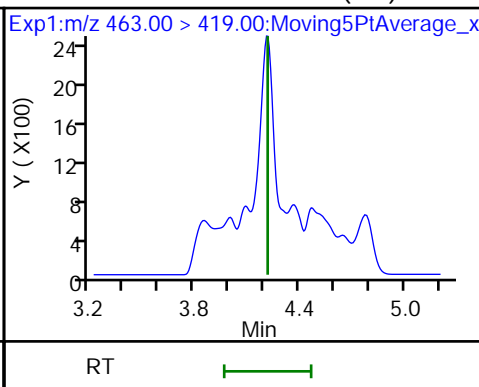
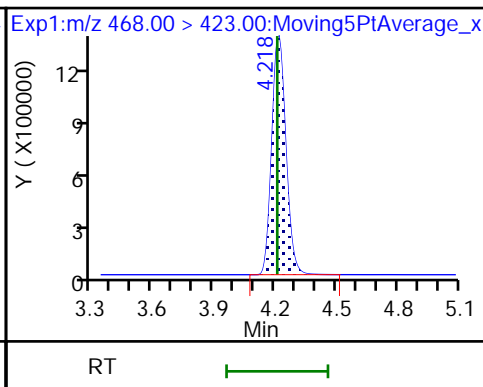
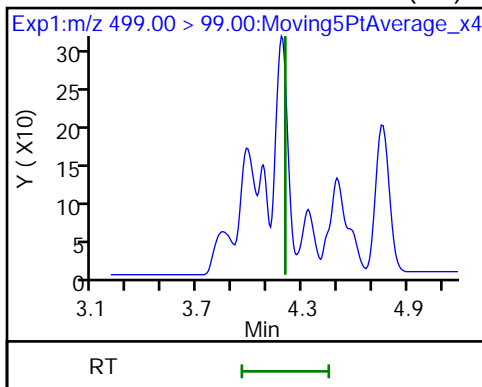
62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND)

D 63 13C5 PFNA

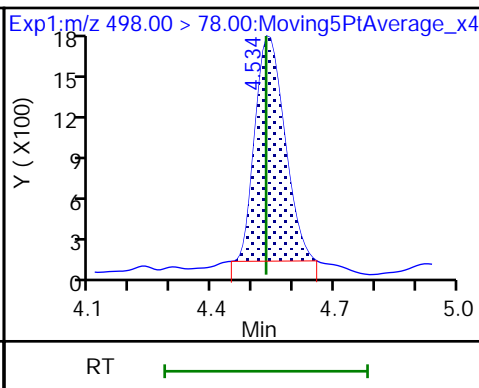
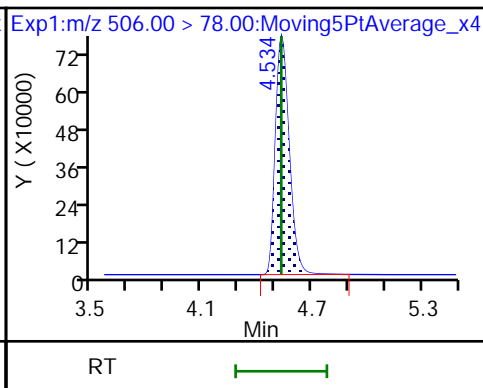
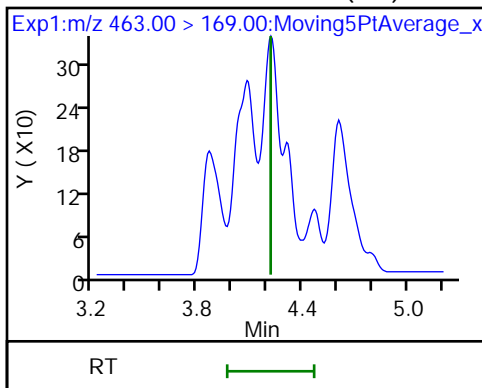
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

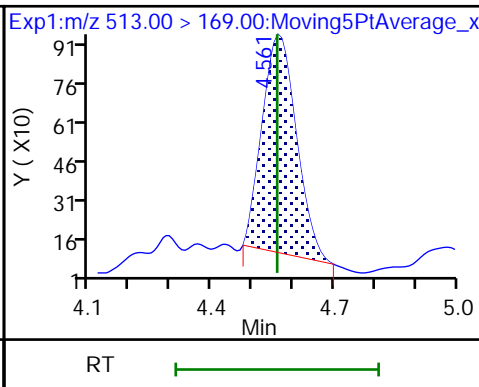
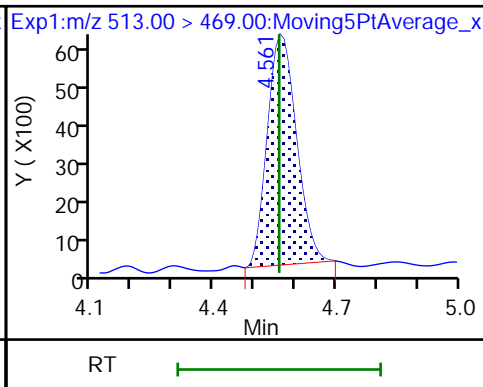
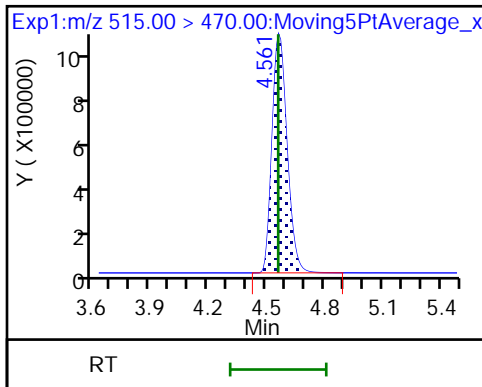
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

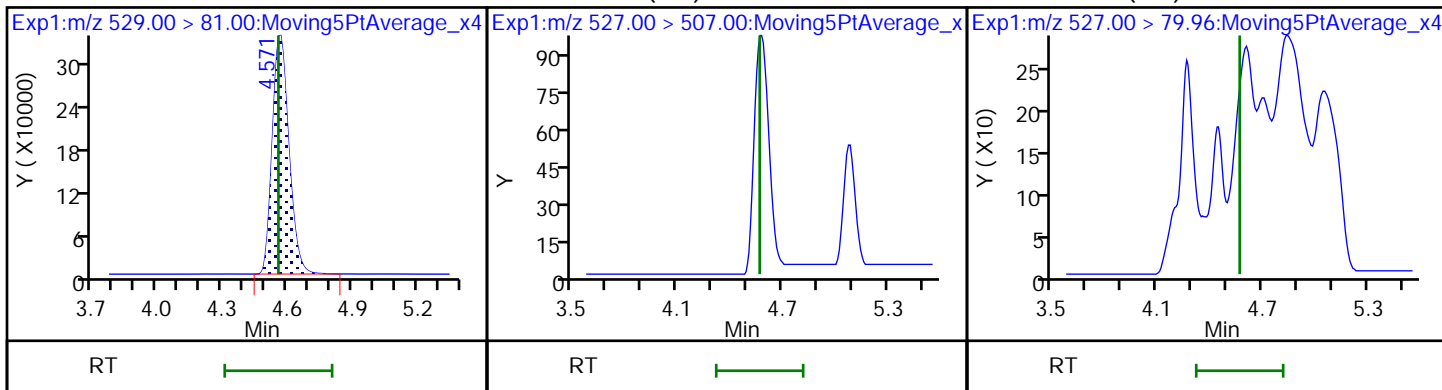
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

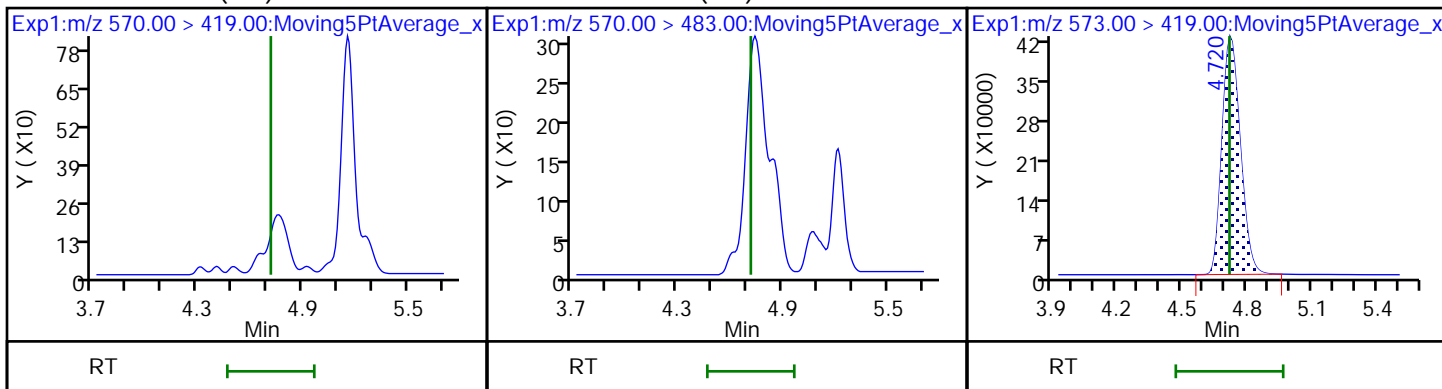
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

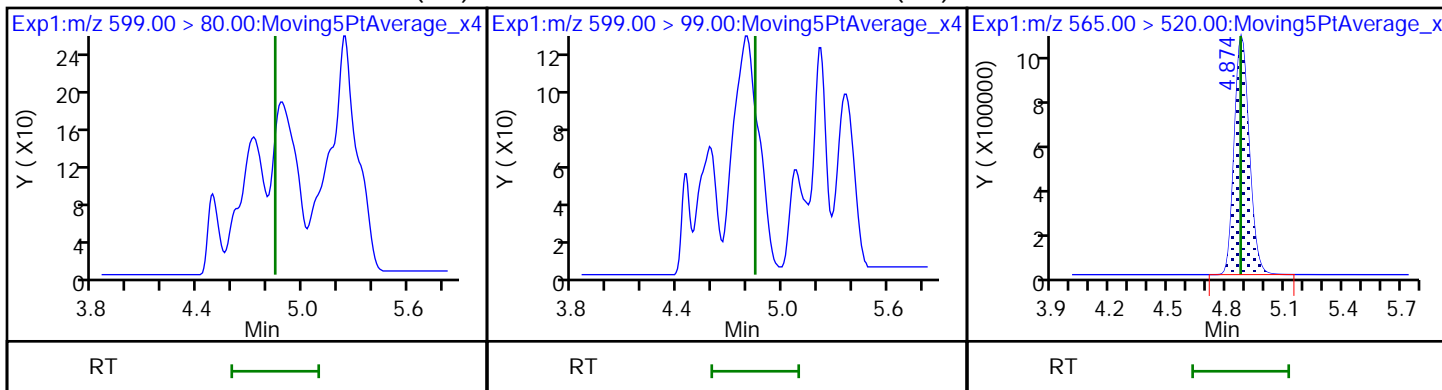
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

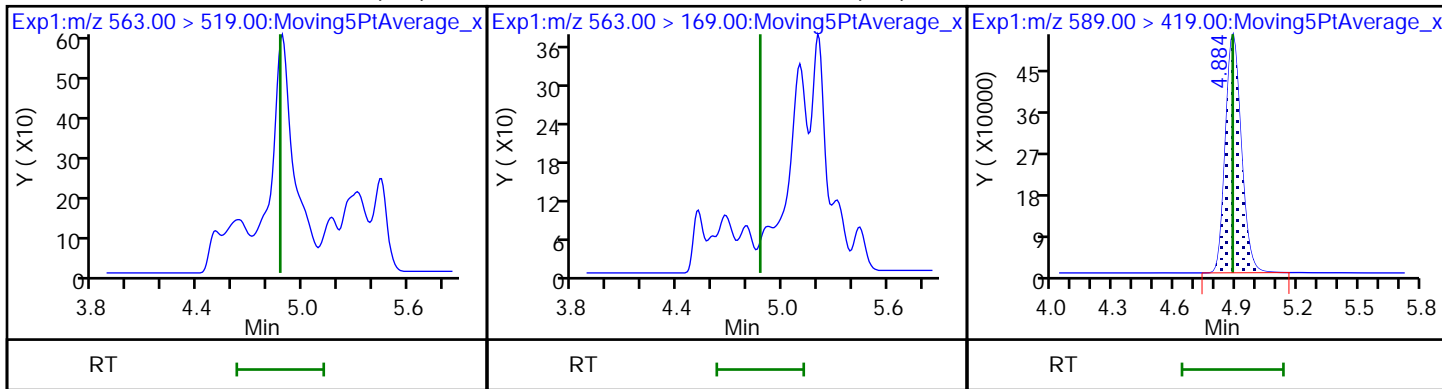
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

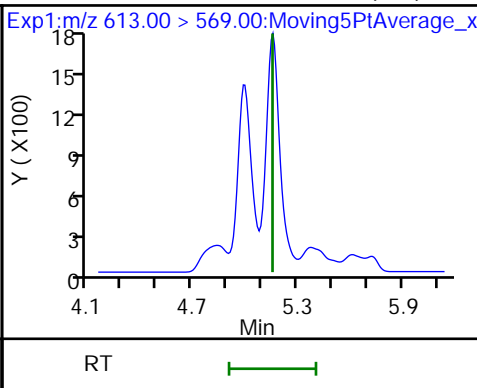
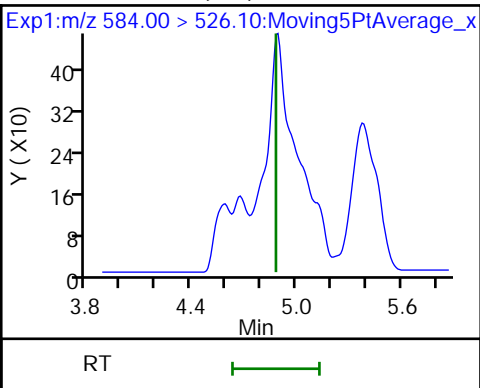
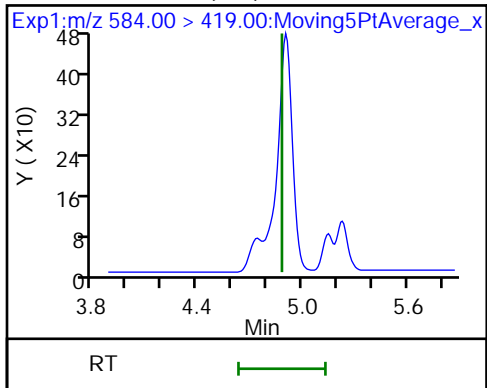
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

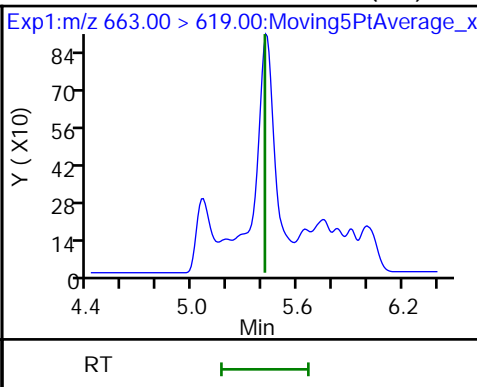
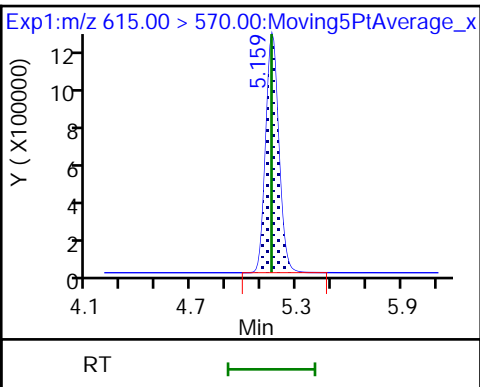
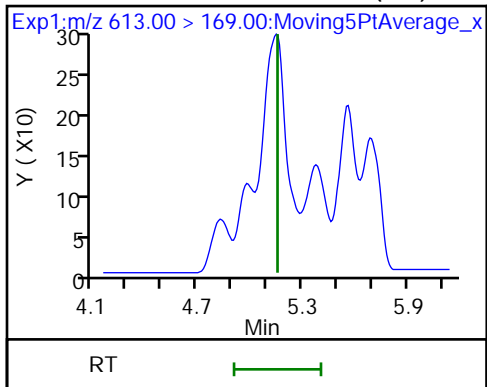
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

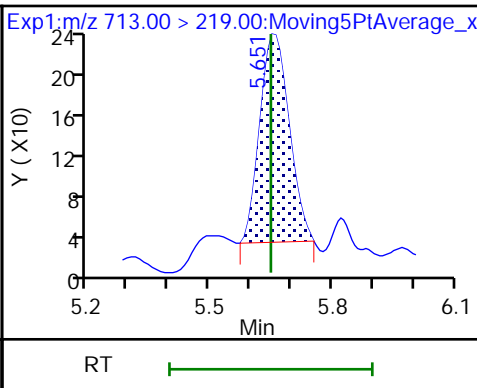
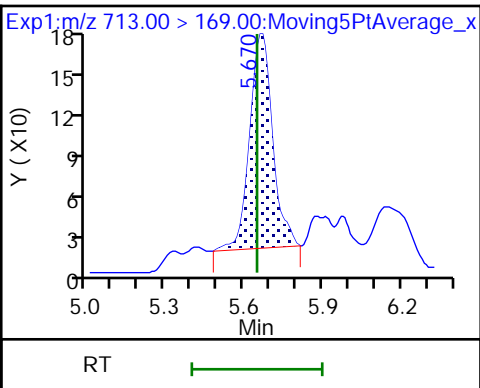
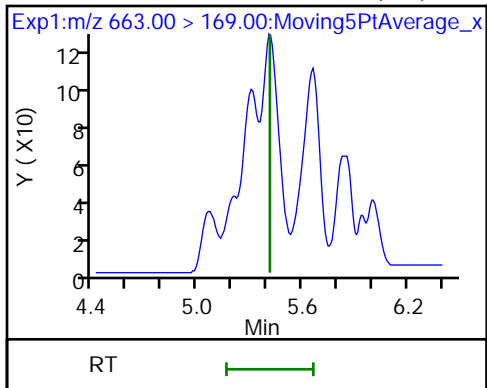
103 Perfluorotridecanoic acid (ND)



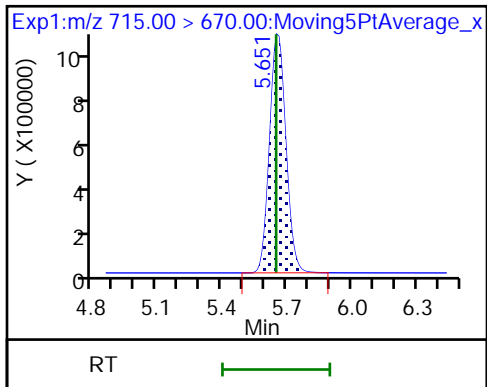
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA





FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3RAW Lab Sample ID: 320-74597-12  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_029.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:45  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.2 (mL) Date Analyzed: 06/10/2021 08:08  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.7		1.7	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.4		1.7	
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.9		1.7	
335-67-1	Perfluorooctanoic acid (PFOA)	3.1		1.7	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.7		1.7	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.0		1.7	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.3		1.7	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.7	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	
27619-97-2	6:2 FTS	ND		4.4	
39108-34-4	8:2 FTS	ND		1.7	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3RAW Lab Sample ID: 320-74597-12  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_029.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:45  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.2 (mL) Date Analyzed: 06/10/2021 08:08  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	91		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	100		25-150
STL01892	13C4 PFHpA	104		25-150
STL00990	13C4 PFOA	97		25-150
STL00995	13C5 PFNA	109		25-150
STL00996	13C2 PFDA	105		25-150
STL00997	13C2 PFUnA	88		25-150
STL00998	13C2 PFDoA	97		25-150
STL02116	13C2 PFTeDA	103		25-150
STL02337	13C3 PFBS	105		25-150
STL00994	18O2 PFHxS	111		25-150
STL00991	13C4 PFOS	100		25-150
STL01056	13C8 FOSA	106		25-150
STL02118	d3-NMeFOSAA	95		25-150
STL02117	d5-NEtFOSAA	103		25-150
STL02279	M2-6:2 FTS	89		25-150
STL02280	M2-8:2 FTS	97		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
 Lims ID: 320-74597-A-12-A  
 Client ID: BH20210604-3RAW  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:08:45 ALS Bottle#: 18 Worklist Smp#: 6  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-12-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:49:50 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:49:50  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.312	2.319	-0.007	0.603	5225398	1.13	90.6	38700	
10 Perfluorobutanoic acid	212.90 > 169.00	2.312	2.319	-0.007	1.000	318453	0.0805		140	
18 Perfluoropentanoic acid	262.90 > 219.00	2.651	2.650	0.001	1.000	500164	0.1072		100	M
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.650	0.001	0.691	5565938	1.28	102	27758	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.683	2.683	0.0	1.000	173427	0.0480	Target=2.31	131	M
	298.90 > 99.00	2.683	2.683	0.0	1.000	71883	2.41(1.15-3.46)		110	
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.683	0.0	0.700	3713699	1.22		105	10361
29 Perfluorohexanoic acid	313.00 > 269.00	3.019	3.018	0.001	1.000	472453	0.0980	Target=13.85	358	
	313.00 > 119.00	3.019	3.018	0.001	1.000	31540	14.98(6.93-20.78)		337	
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.018	0.001	0.787	5380410	1.25		99.9	42593
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.433	3.433	0.0	1.000	231056	0.0869	Target=3.47	771	M
	399.00 > 99.00	3.433	3.433	0.0	1.000	65592	3.52(1.73-5.20)		500	
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.895	2842450	1.32		111	43996
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.893	5498701	1.30		104	50430
36 Perfluoroheptanoic acid	363.00 > 319.00	3.433	3.433	0.0	1.003	253191	0.0545	Target=4.00	261	
	363.00 > 169.00	3.433	3.433	0.0	1.003	63934	3.96(2.00-6.00)		746	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.815	0.001	0.995	1033052	1.05		88.8	6898	
53 6:2 FTS										
427.00 > 407.00	3.816	3.815	0.001	1.000	18617	0.0104	Target=1.95		91.9	
427.00 > 79.96	3.806	3.815	-0.009	0.997	10067		1.85(0.98-2.93)		31.8	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	5869753	1.22		97.4	51686	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.834	0.001	1.000	435345	0.0887	Target=3.05		599	M
413.00 > 169.00	3.835	3.834	0.001	1.000	149472		2.91(1.53-4.58)		1143	M
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		5779951	1.25			46492	
D 61 13C4 PFOS										
503.00 > 80.00	4.202	4.201	0.001	1.096	2020257	1.20		100	17026	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.202	4.201	0.001	1.000	288845	0.1519	Target=5.72		1005	M
499.00 > 99.00	4.194	4.201	-0.007	0.998	48630		5.94(2.86-8.58)		577	M
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.209	0.001	1.098	6270193	1.36		109	63023	
64 Perfluorononanoic acid										
463.00 > 419.00	4.210	4.217	-0.007	1.000	64441	0.0130	Target=7.63		143	
463.00 > 169.00	4.210	4.217	-0.007	1.000	9743		6.61(3.81-11.44)		113	
D 71 13C8 FOSA										
506.00 > 78.00	4.533	4.532	0.001	1.182	3788521	1.33		106	52027	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.533	4.532	0.001	1.000	14310	0.004703			248	
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	6060370	1.32		105	73448	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.559	0.002	1.000	39296	0.007928	Target=8.80		172	
513.00 > 169.00	4.561	4.559	0.002	1.000	3357		11.71(4.40-13.19)		48.2	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.559	0.002	1.189	1780233	1.16		97.2	18669	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.231	2321799	1.19		95.5	18781	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	4865087	1.10		87.6	68719	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.882	0.002	1.274	2492896	1.29		103	19164	
D 97 13C2 PFDoA										
615.00 > 570.00	5.159	5.156	0.003	1.345	5837845	1.21		97.2	69897	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.651	5.649	0.002	1.000	1301	0.002319	Target=1.13		26.4	
713.00 > 219.00	5.661	5.649	0.012	1.002	827		1.57(0.57-1.70)		38.5	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.649	0.002	1.474	5704156	1.29		103	58851	

[QC Flag Legend](#)

Processing Flags

Review Flags

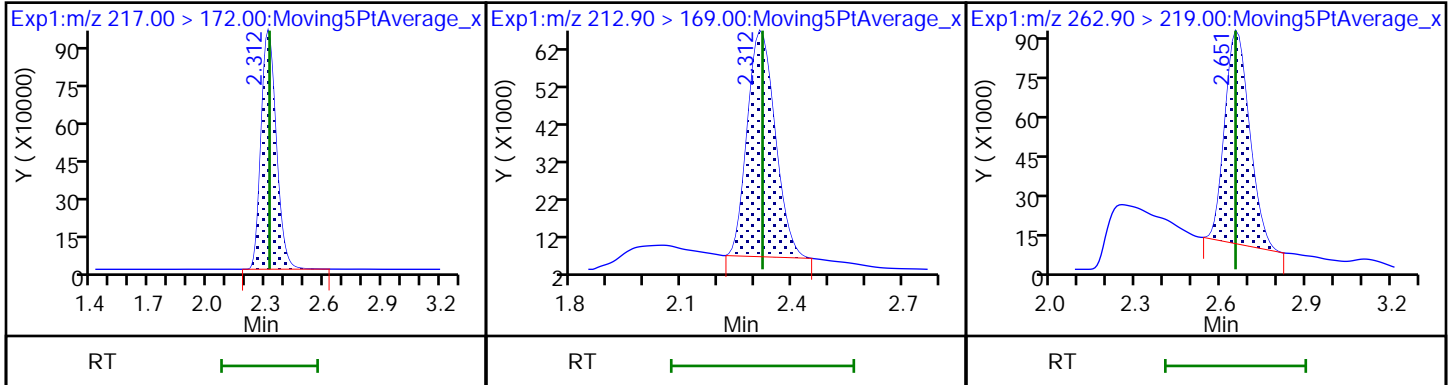
M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
Client ID: BH20210604-3RAW  
Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

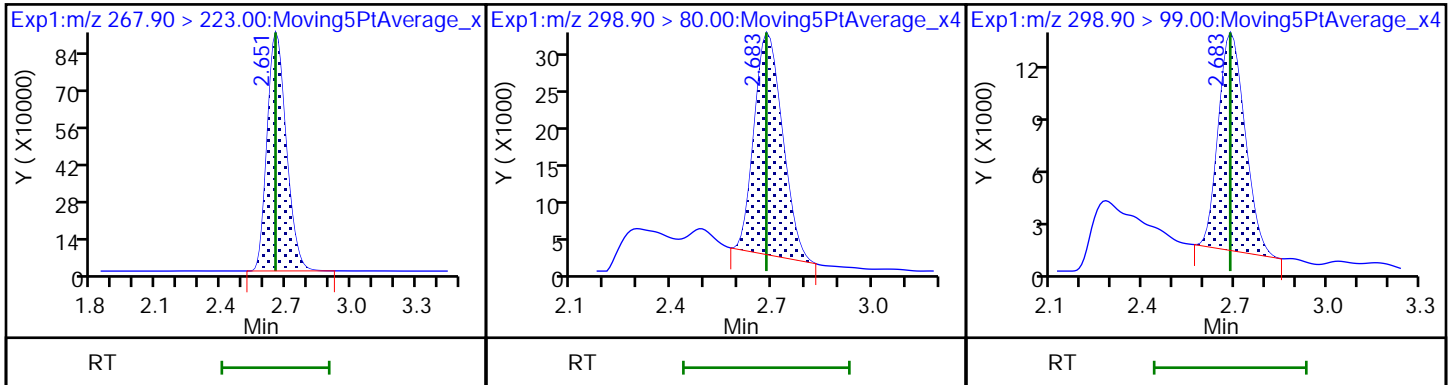
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (M)

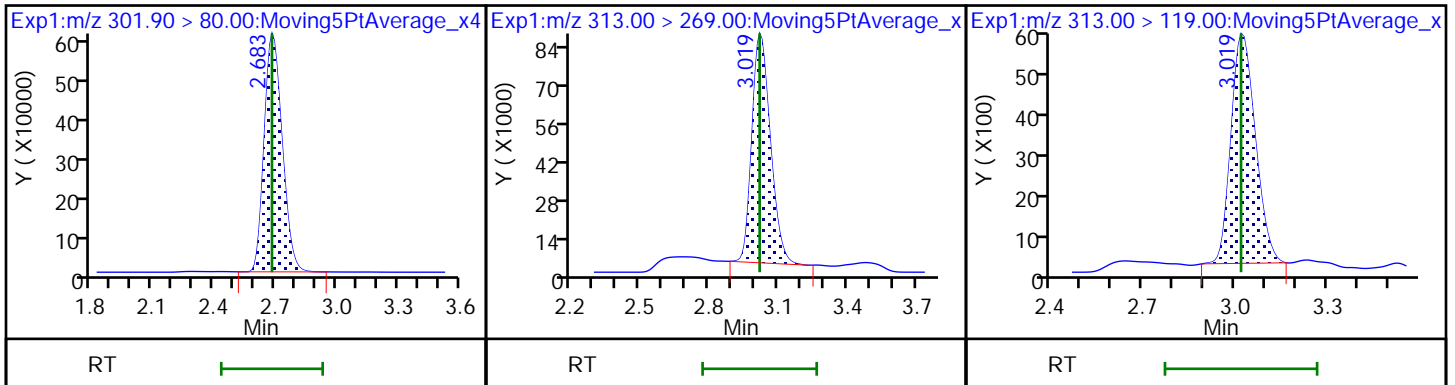
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

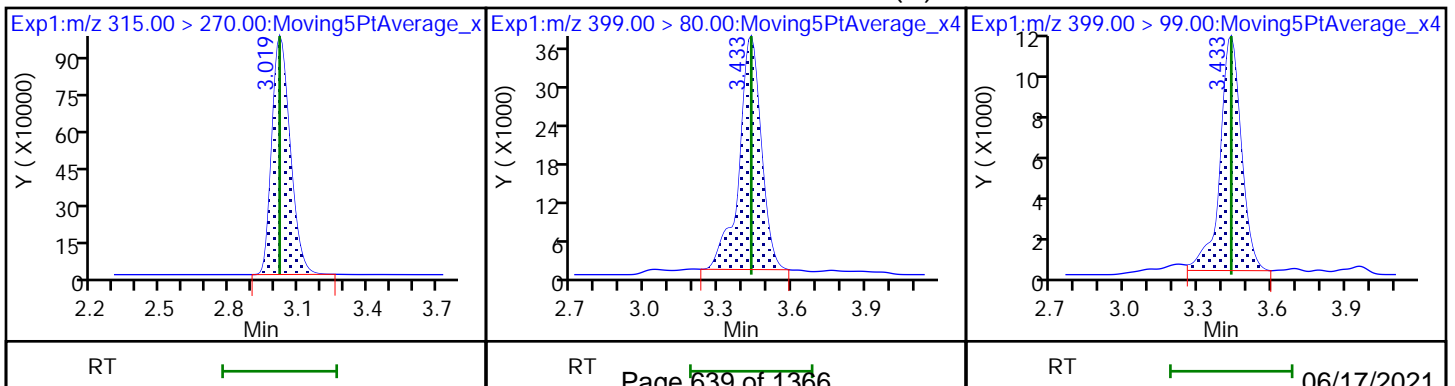
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

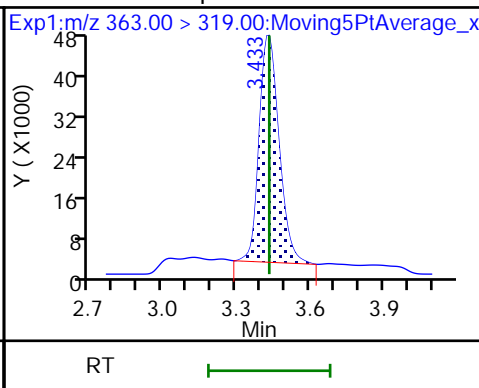
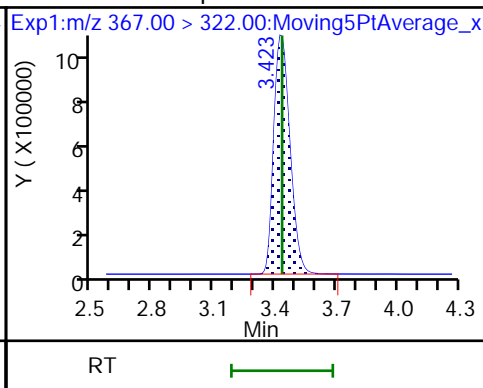
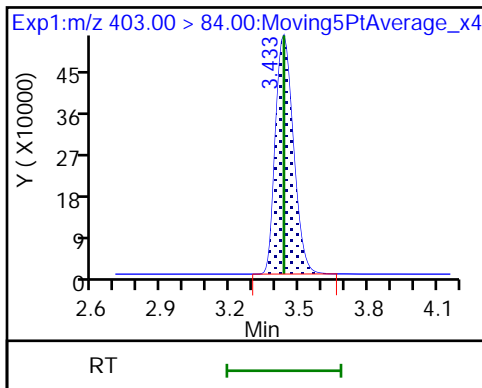
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

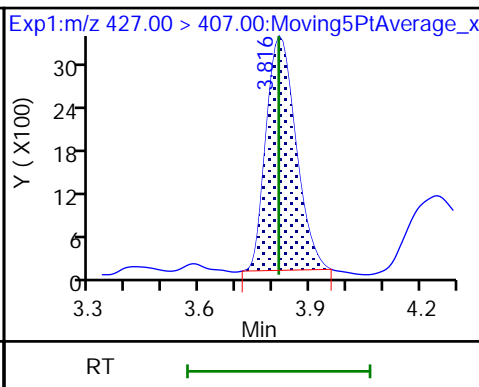
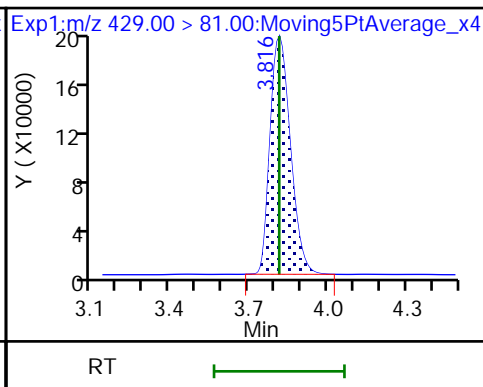
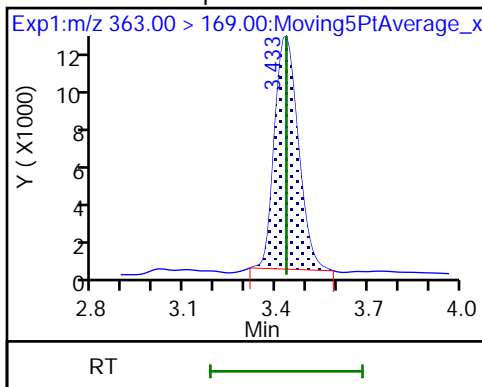
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

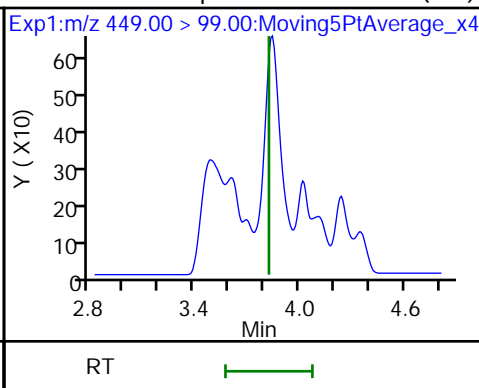
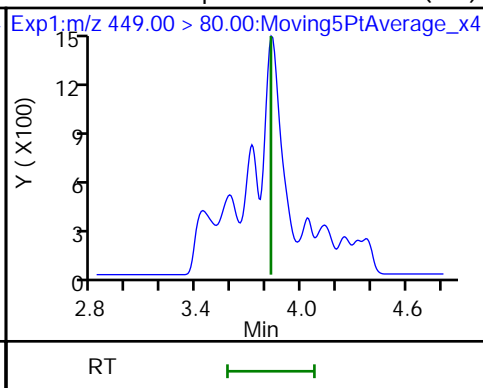
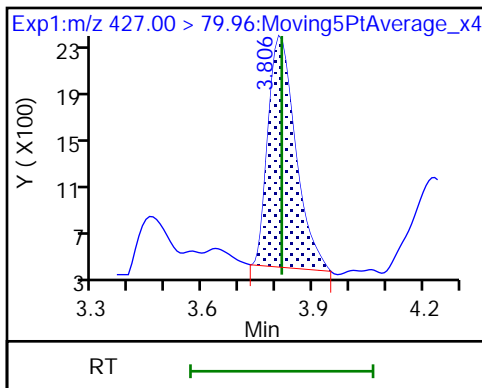
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

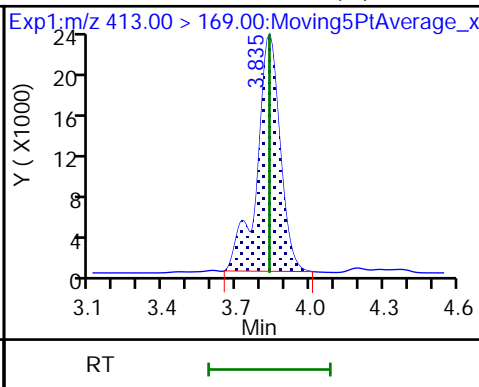
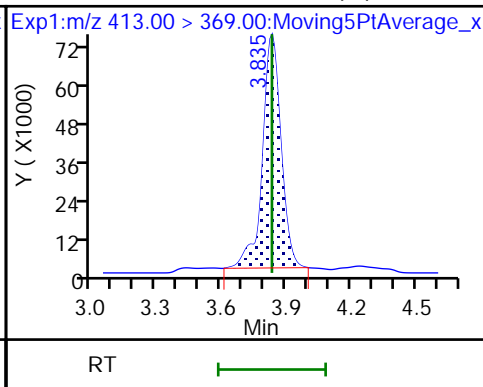
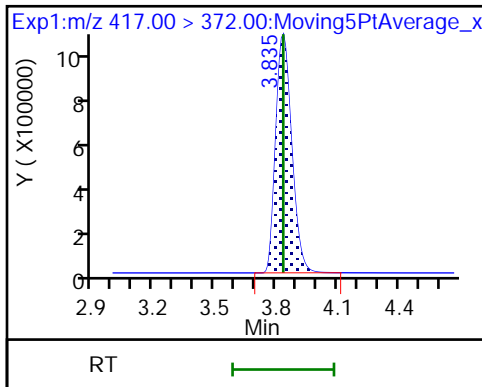
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

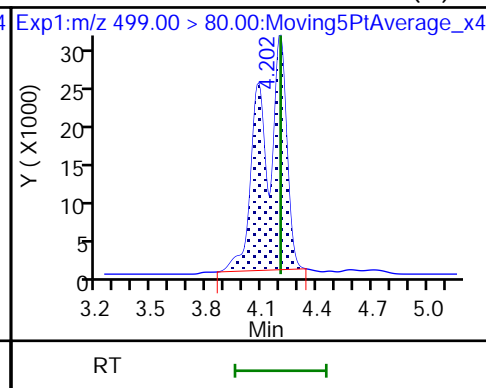
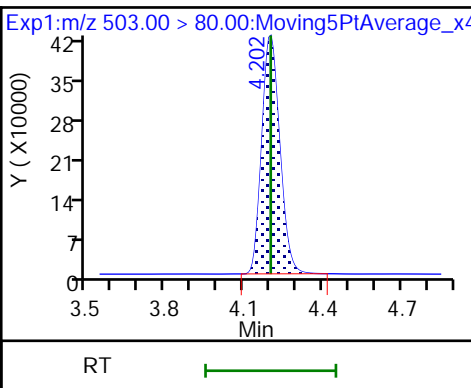
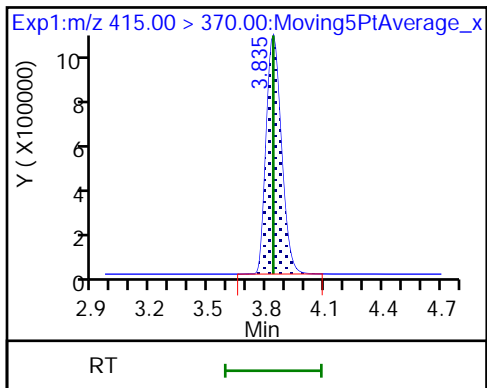
58 Perfluorooctanoic acid (M)



\* 57 13C2 PFOA

D 61 13C4 PFOS

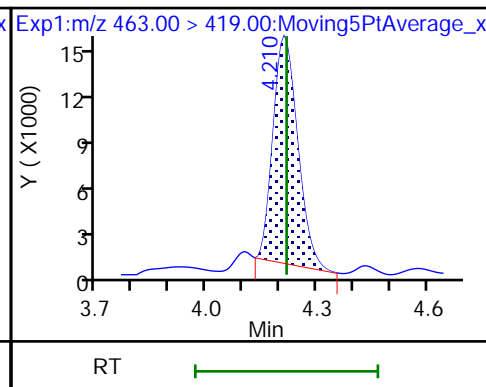
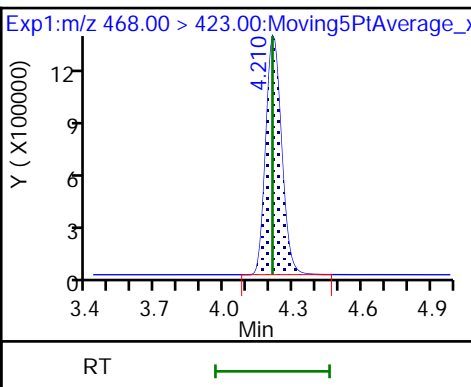
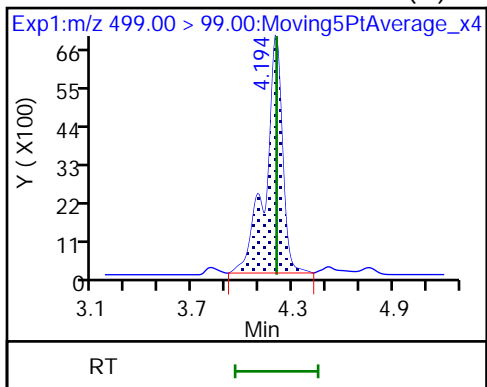
62 Perfluorooctanesulfonic acid (M)



62 Perfluorooctanesulfonic acid (M)

D 63 13C5 PFNA

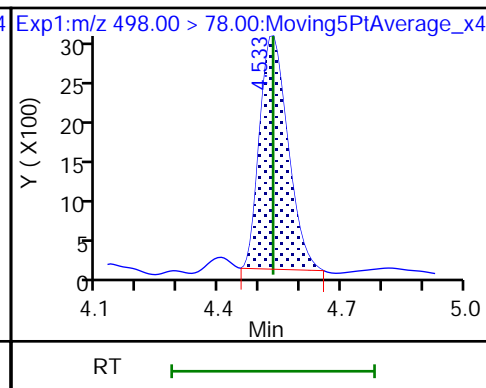
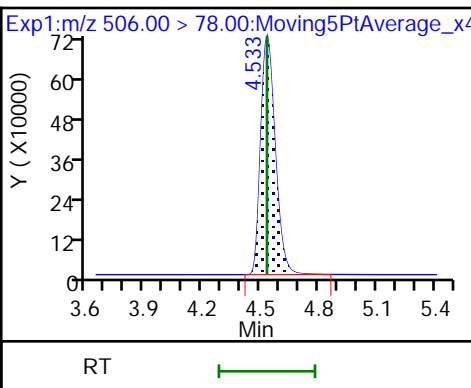
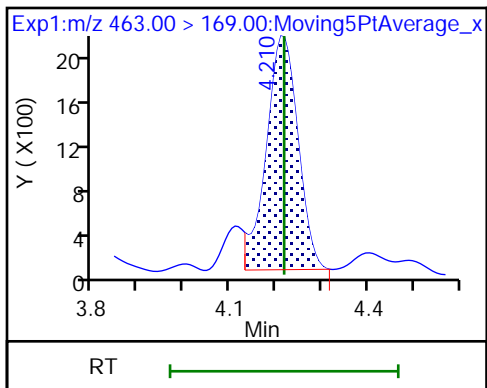
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

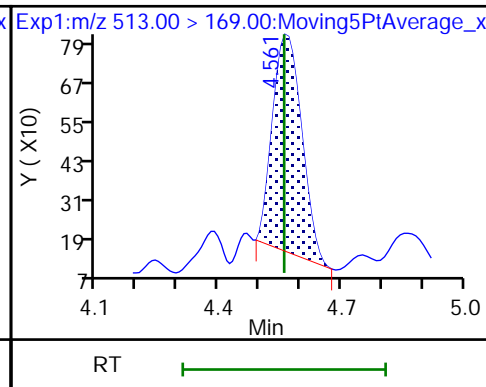
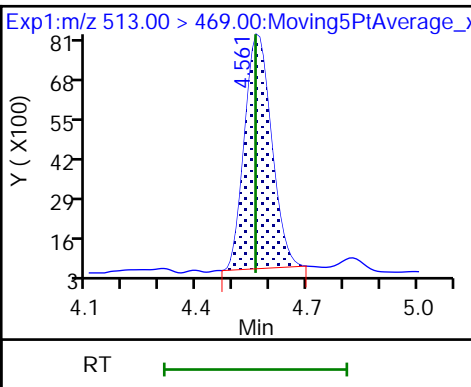
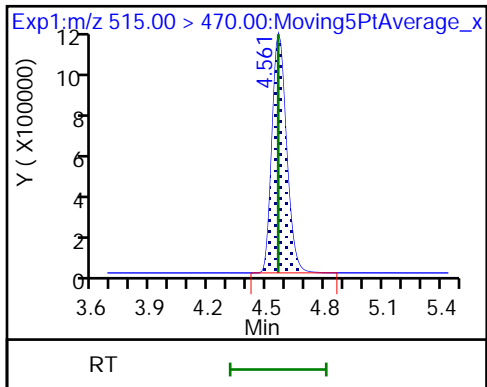
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

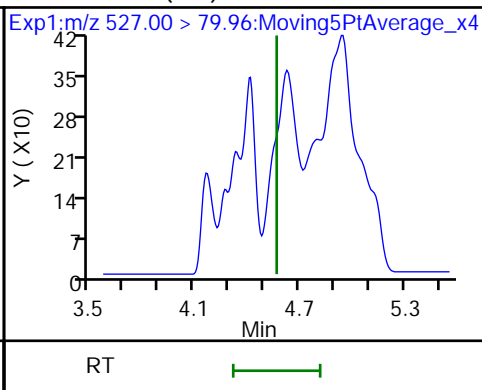
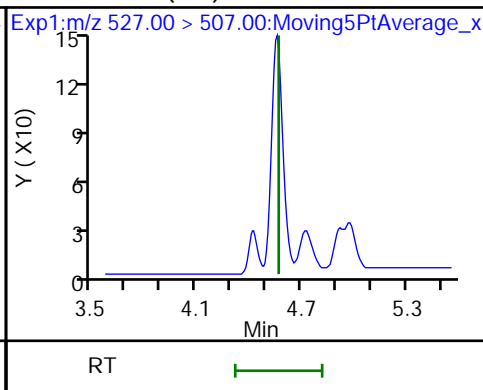
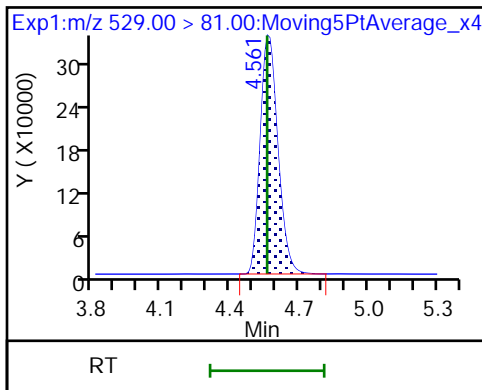




D 76 M2-8:2 FTS

77 8:2 FTS (ND)

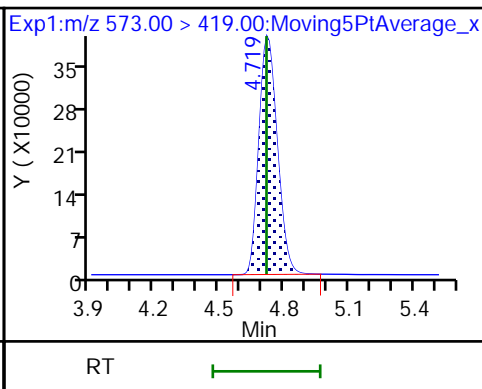
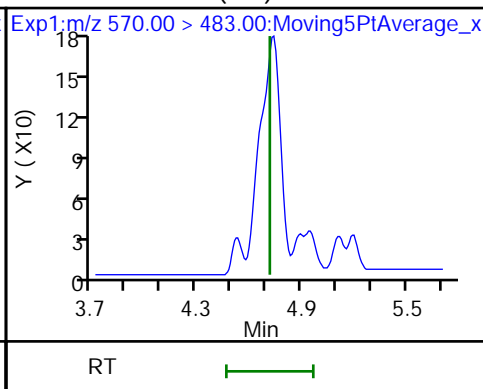
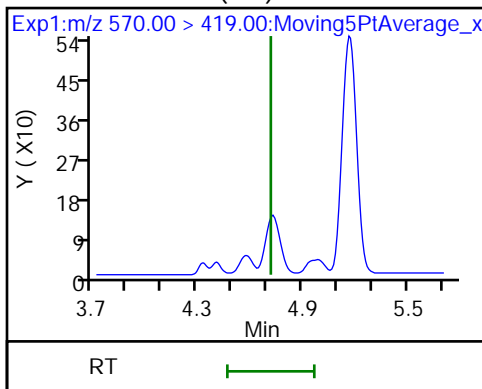
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

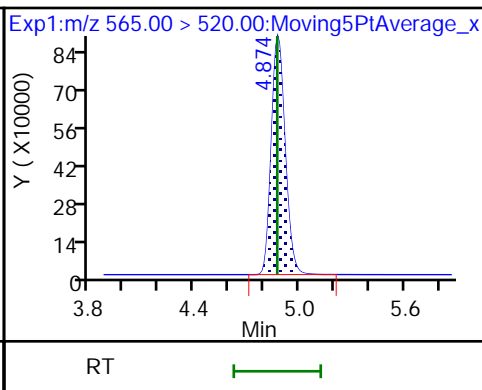
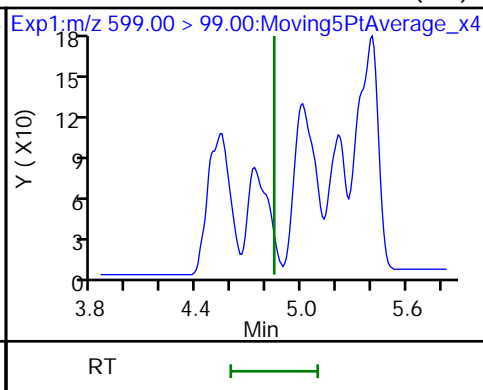
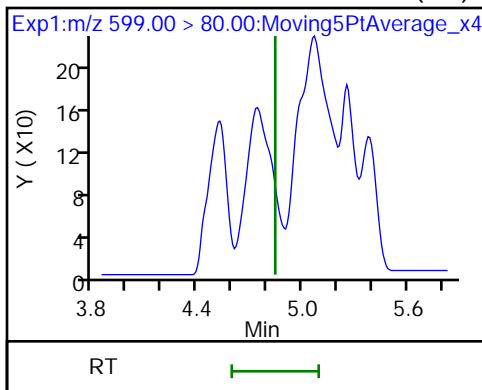
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

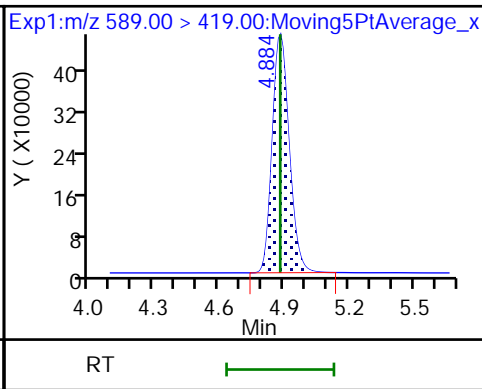
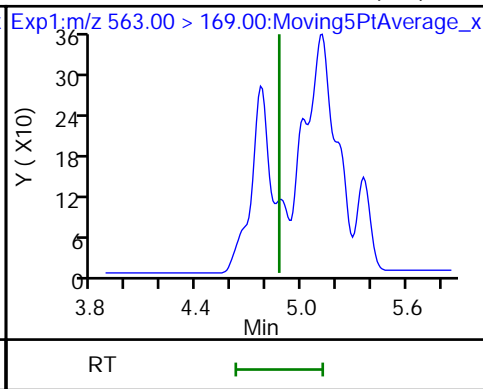
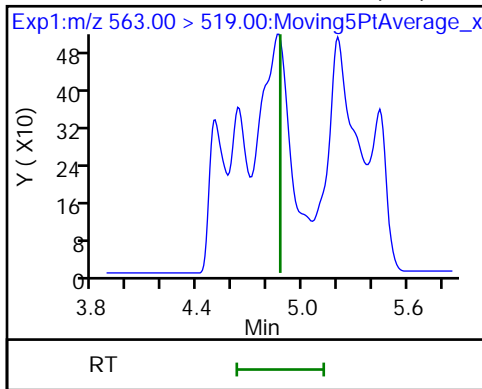
D 82 13C2 PFUnA

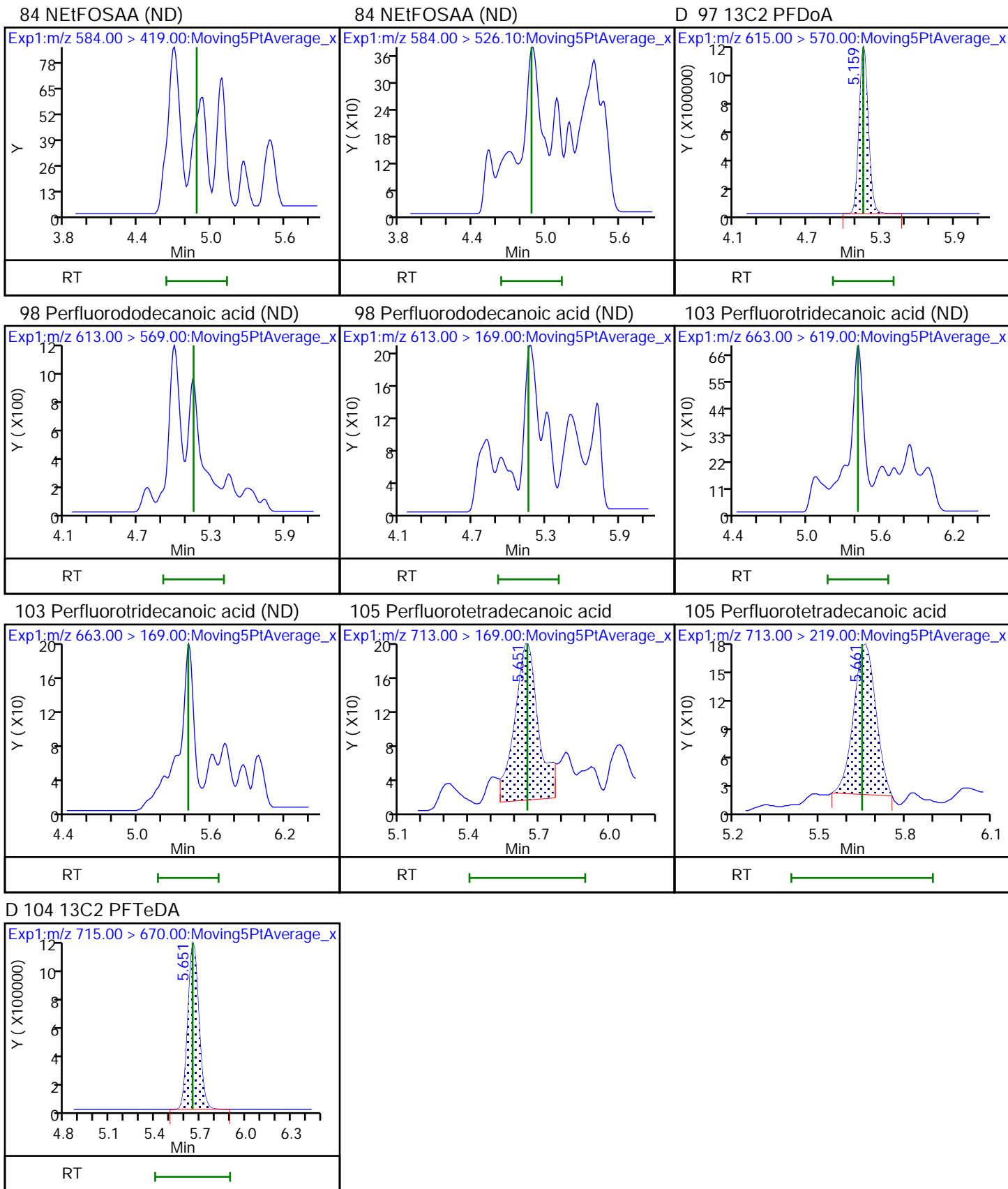


81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

D 83 d5-NEtFOSAA





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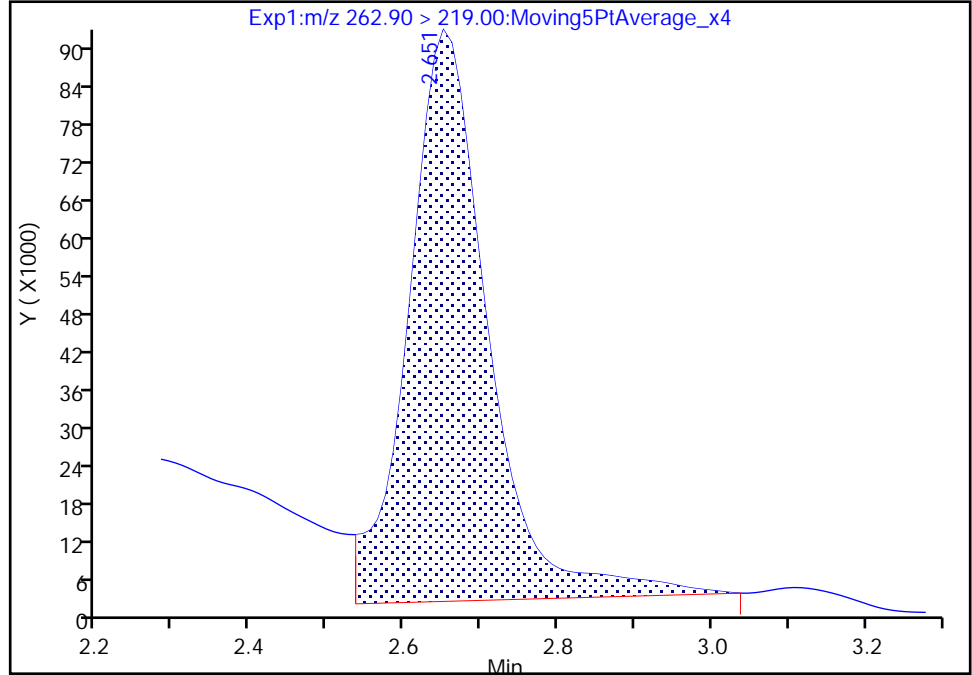
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
Client ID: BH20210604-3RAW  
Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

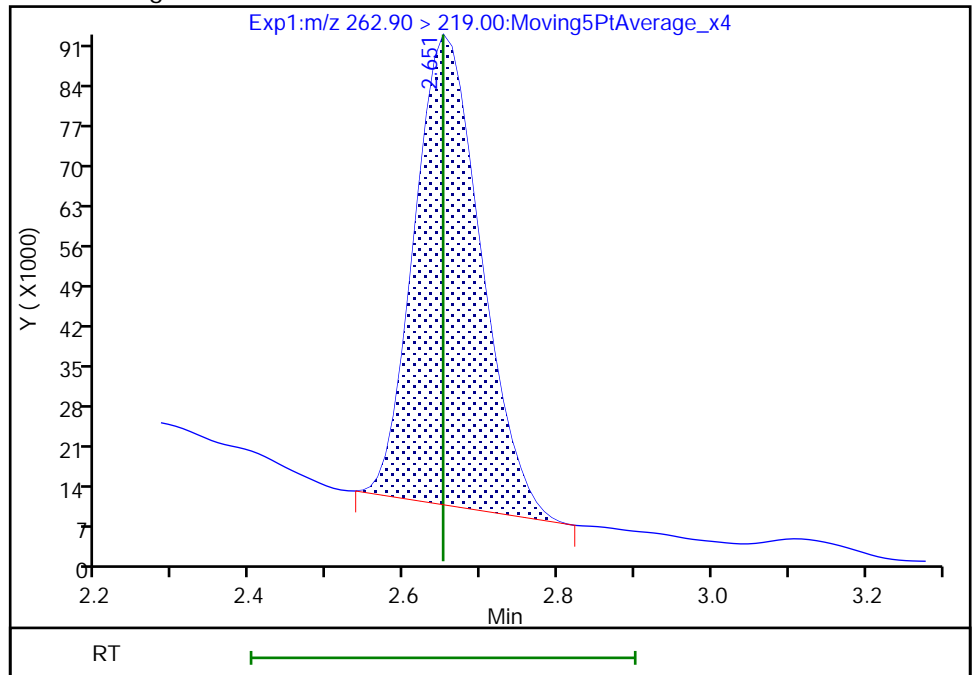
RT: 2.65  
Area: 655039  
Amount: 0.140387  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 500164  
Amount: 0.107194  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:49:05  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

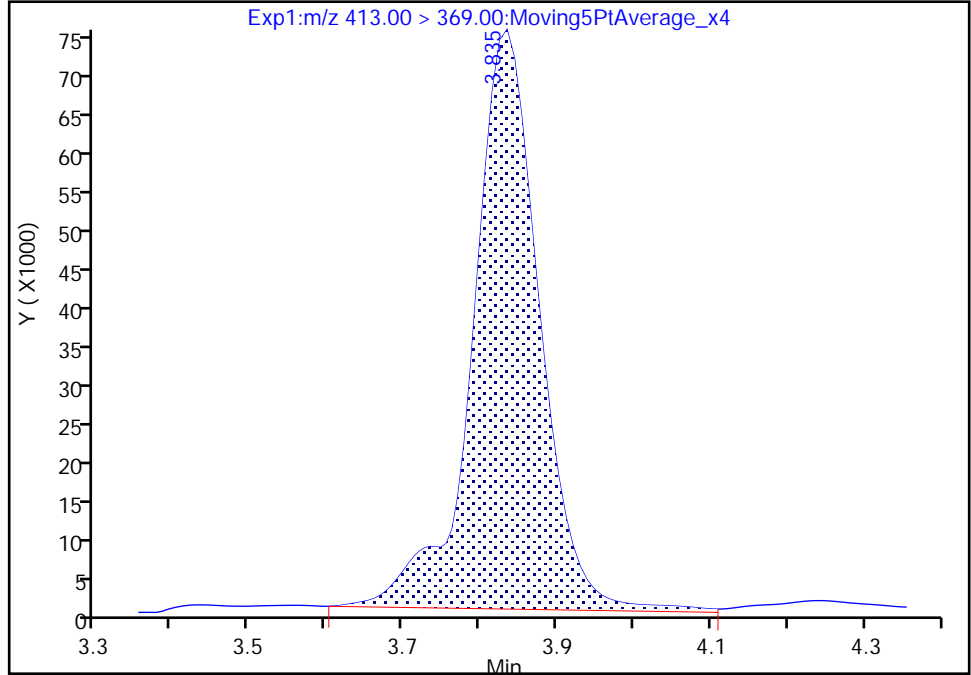
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
Client ID: BH20210604-3RAW  
Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

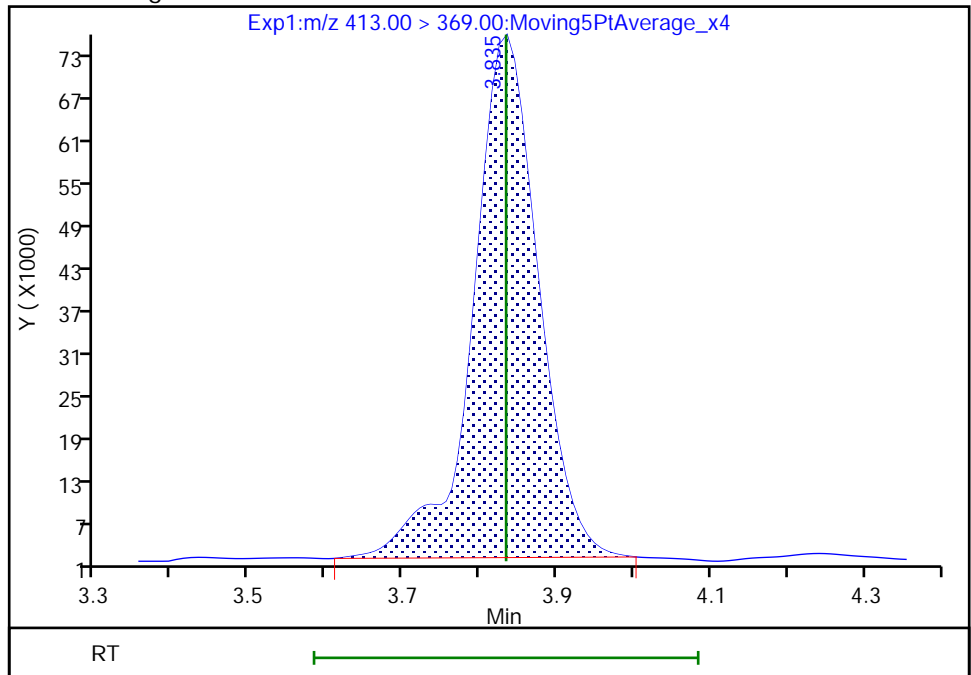
RT: 3.83  
Area: 450150  
Amount: 0.091732  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 435345  
Amount: 0.088715  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:49:26  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

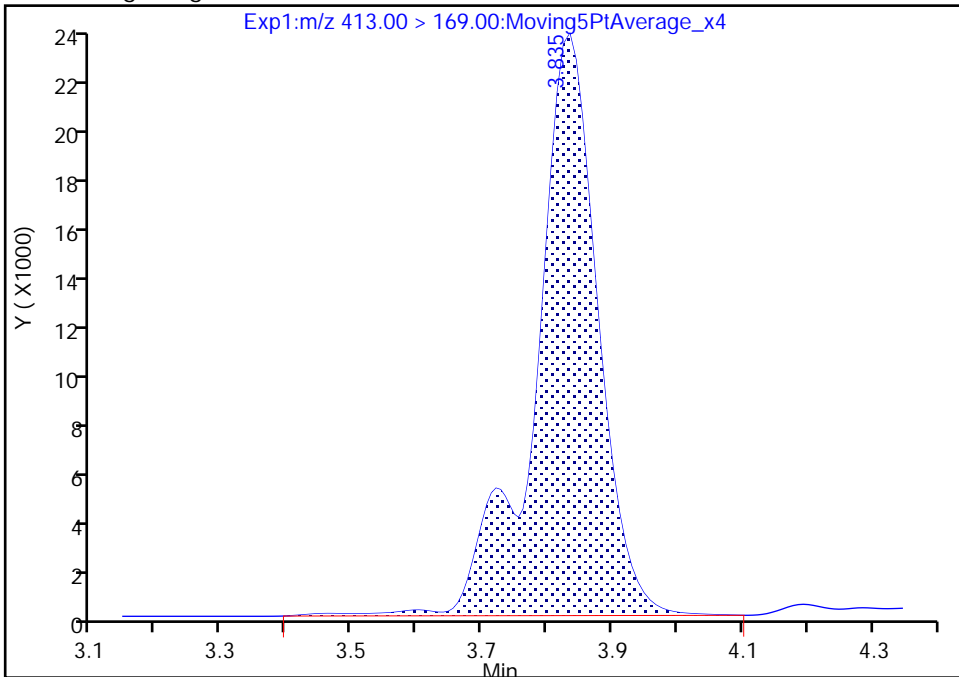
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
 Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
 Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
 Client ID: BH20210604-3RAW  
 Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

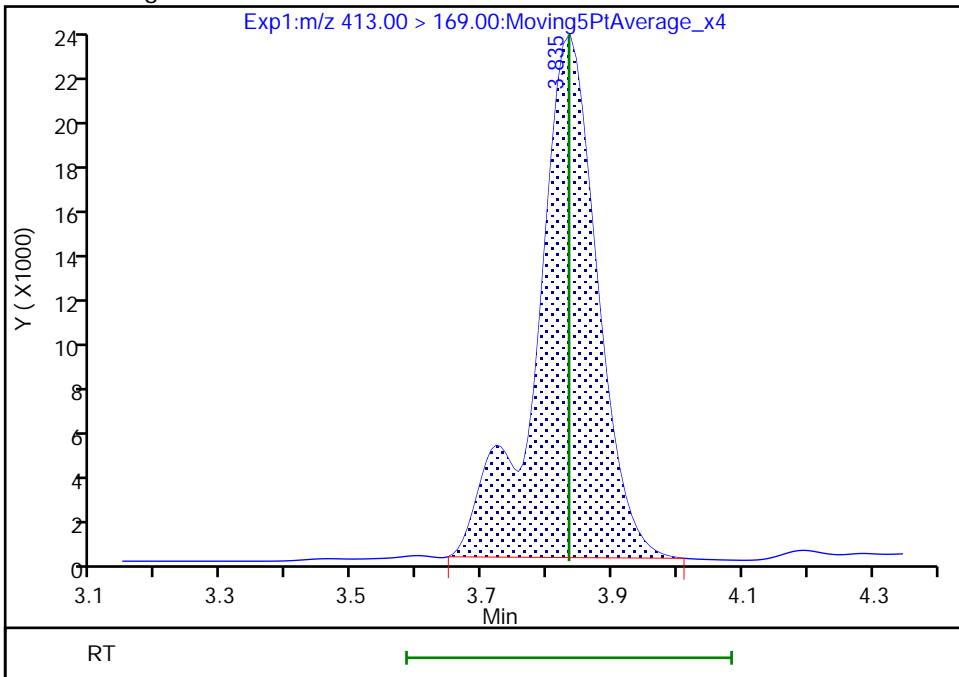
RT: 3.83  
 Area: 154184  
 Amount: 0.091732  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 149472  
 Amount: 0.088715  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:49:32

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

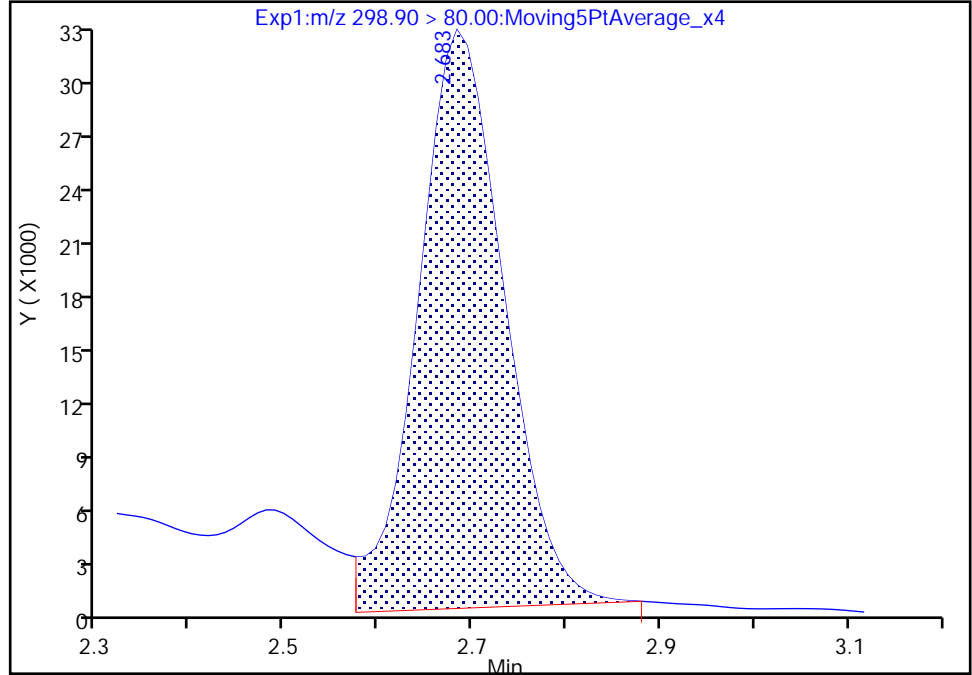
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
Client ID: BH20210604-3RAW  
Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

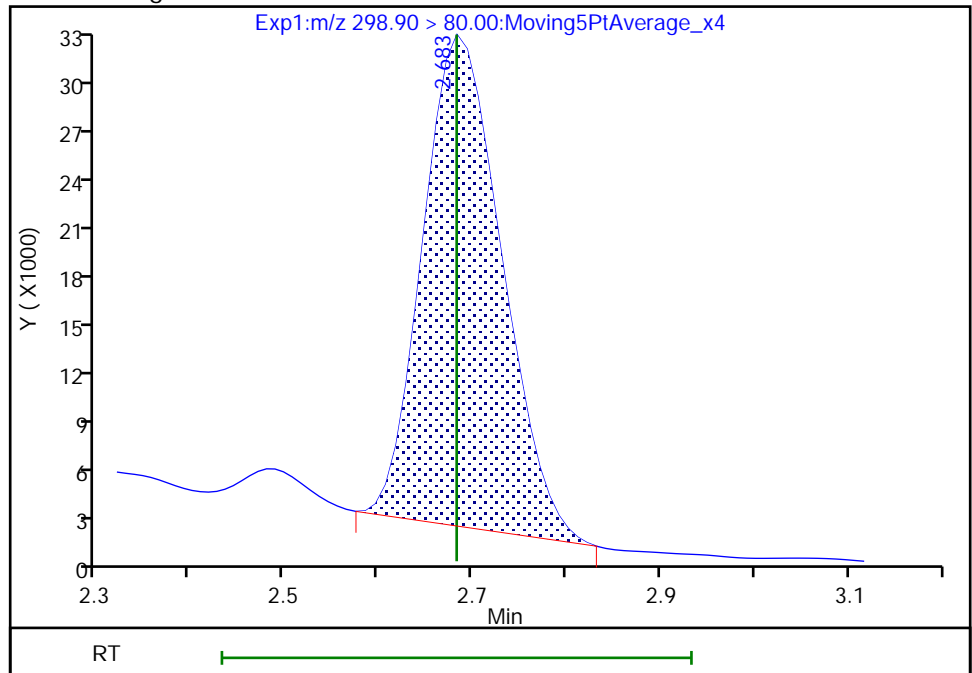
RT: 2.68  
Area: 200246  
Amount: 0.055435  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 173427  
Amount: 0.048011  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:49:10  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

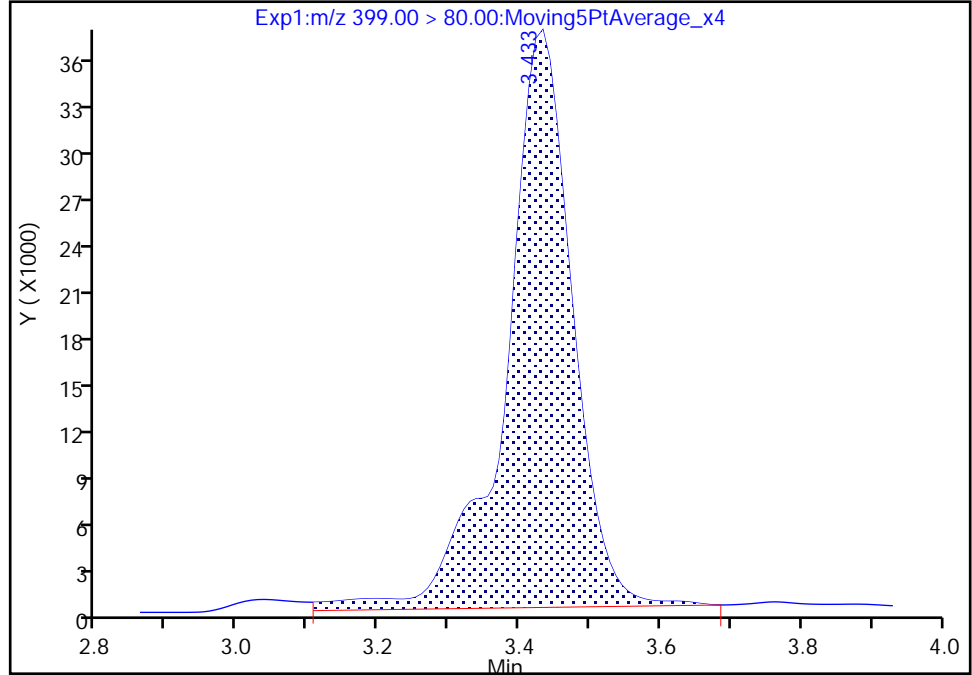
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_029.d		
Injection Date:	10-Jun-2021 08:08:45	Instrument ID:	A15
Lims ID:	320-74597-A-12-A	Lab Sample ID:	320-74597-12
Client ID:	BH20210604-3RAW		
Operator ID:	SACINSTA15	ALS Bottle#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	6

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

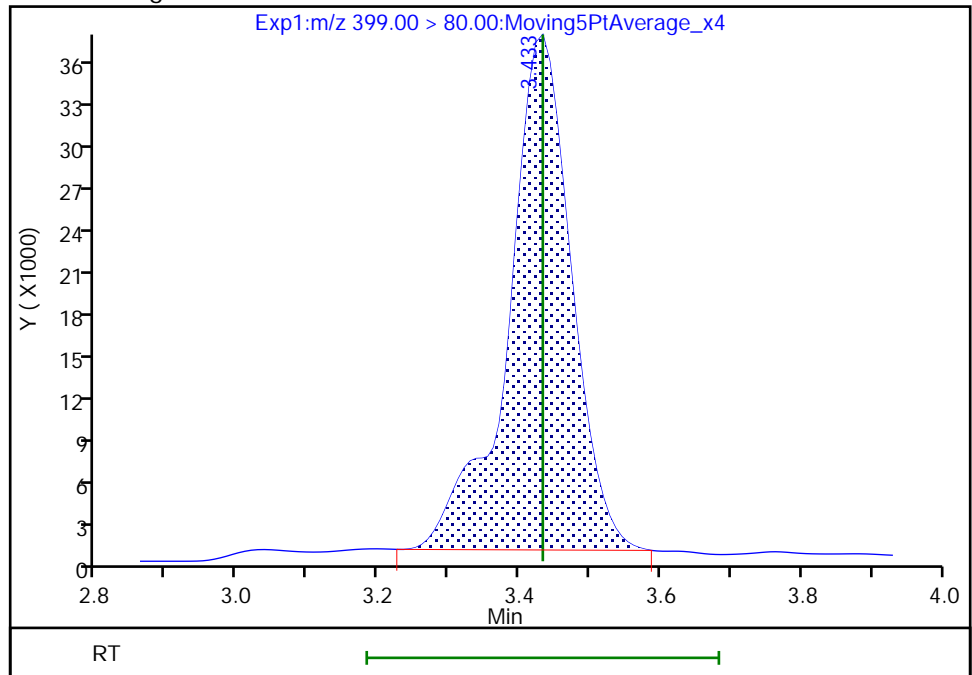
RT: 3.43  
 Area: 247945  
 Amount: 0.093280  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
 Area: 231056  
 Amount: 0.086926  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:49:16  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

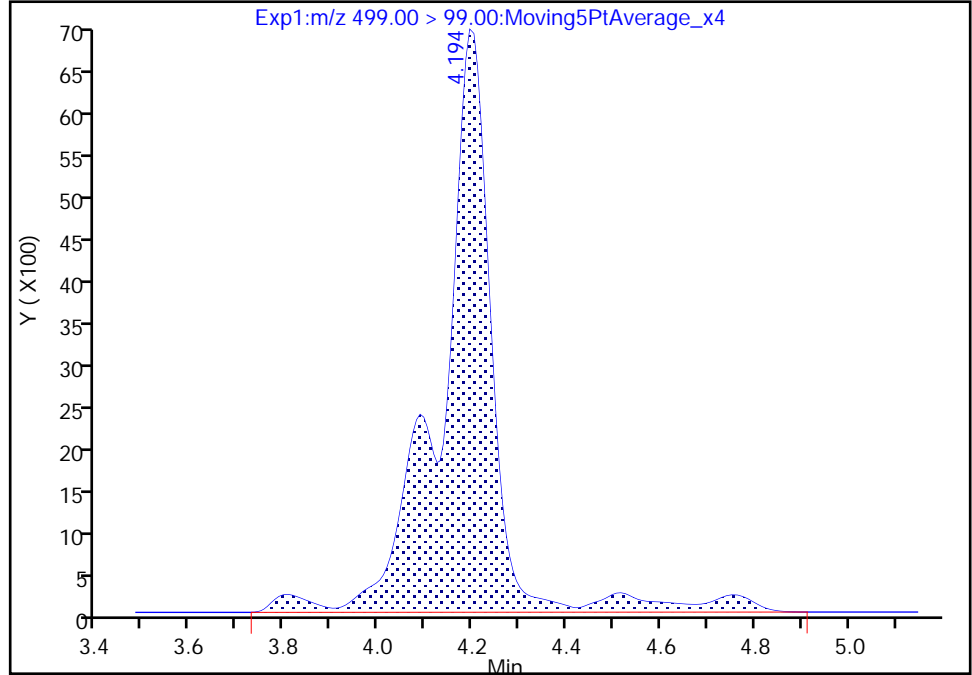
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
Client ID: BH20210604-3RAW  
Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

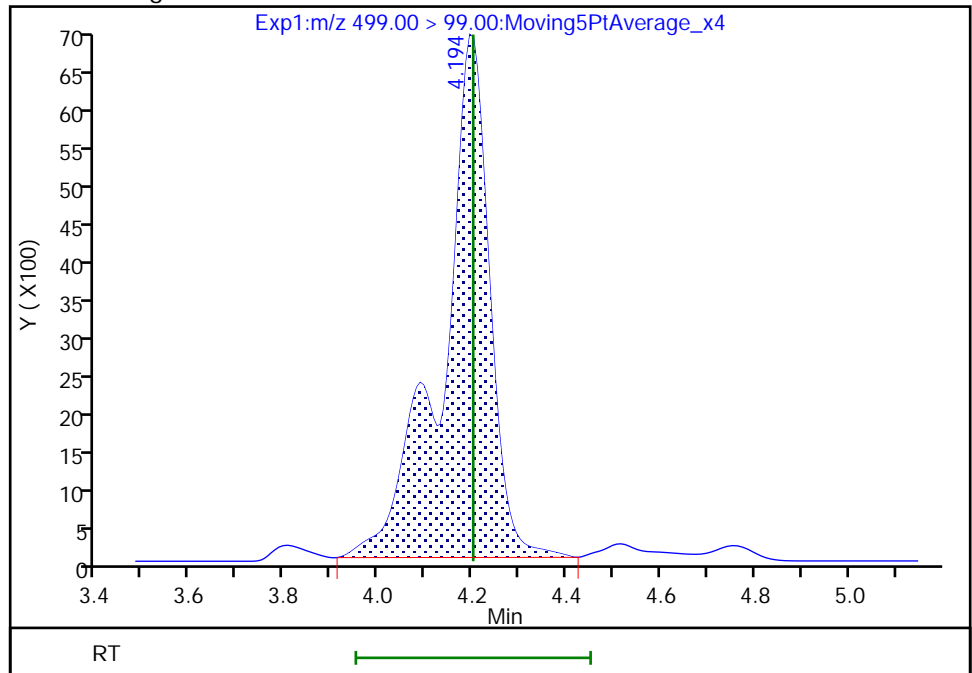
RT: 4.19  
Area: 54616  
Amount: 0.158836  
Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
Area: 48630  
Amount: 0.151859  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:49:39  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

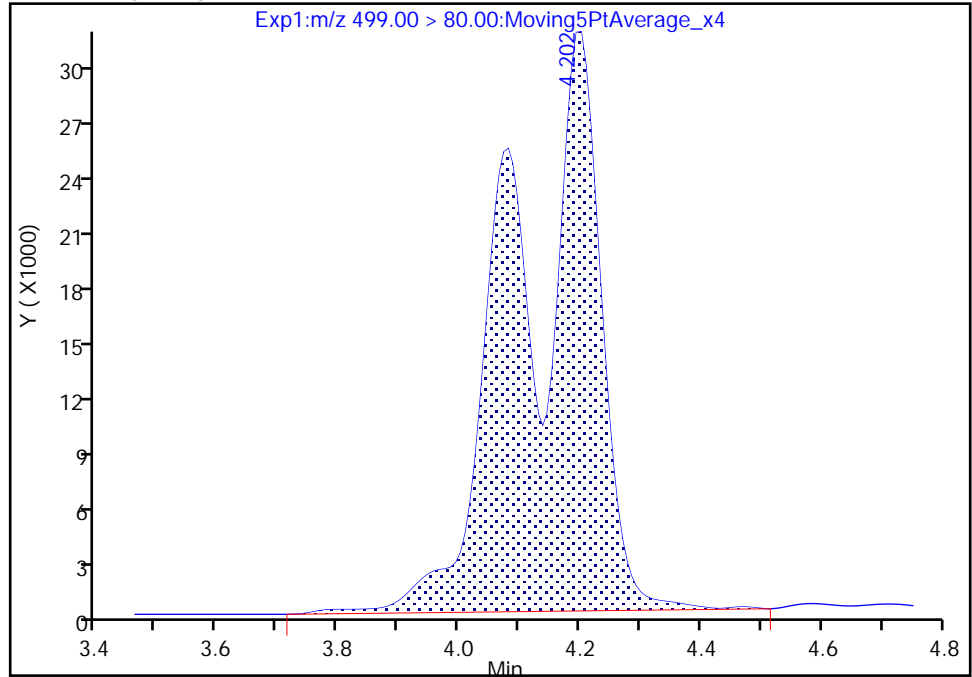
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_029.d  
 Injection Date: 10-Jun-2021 08:08:45 Instrument ID: A15  
 Lims ID: 320-74597-A-12-A Lab Sample ID: 320-74597-12  
 Client ID: BH20210604-3RAW  
 Operator ID: SACINSTA15 ALS Bottle#: 18 Worklist Smp#: 6  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

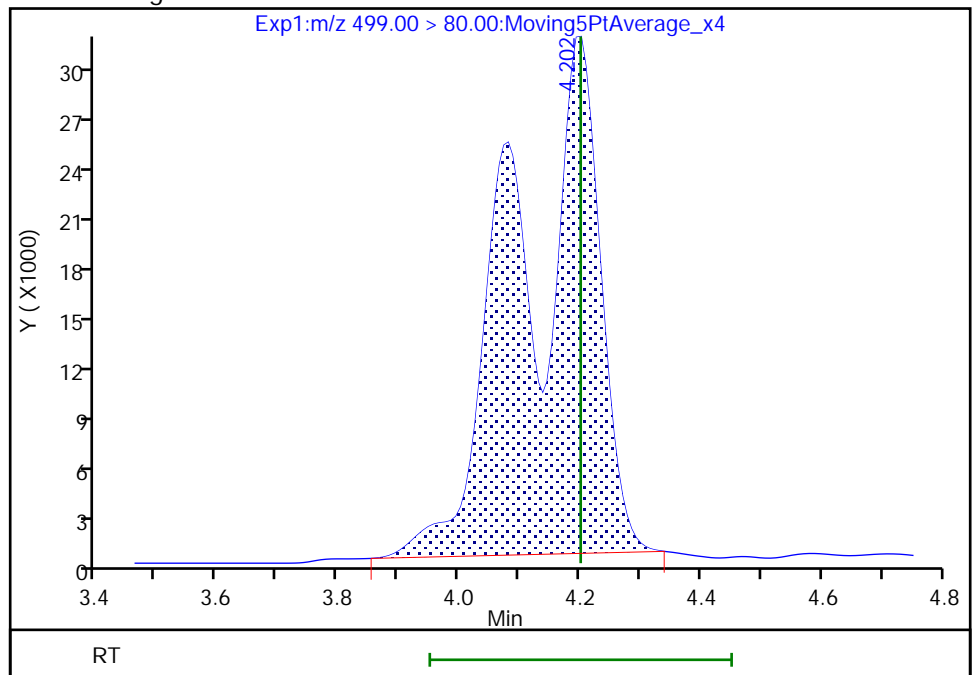
RT: 4.20  
 Area: 302116  
 Amount: 0.158836  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.20  
 Area: 288845  
 Amount: 0.151859  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-PREGAC Lab Sample ID: 320-74597-13  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_030.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:18  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.5 (mL) Date Analyzed: 06/10/2021 08:17  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.7		1.7	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.2		1.7	
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.7		1.7	
335-67-1	Perfluorooctanoic acid (PFOA)	2.9		1.7	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.1		1.7	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.3		1.7	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.7	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	
27619-97-2	6:2 FTS	ND		4.4	
39108-34-4	8:2 FTS	ND		1.7	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-PREGAC Lab Sample ID: 320-74597-13  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_030.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:18  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 286.5 (mL) Date Analyzed: 06/10/2021 08:17  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	90		25-150
STL01893	13C5 PFPeA	101		25-150
STL00993	13C2 PFHxA	101		25-150
STL01892	13C4 PFHpA	107		25-150
STL00990	13C4 PFOA	100		25-150
STL00995	13C5 PFNA	105		25-150
STL00996	13C2 PFDA	103		25-150
STL00997	13C2 PFUnA	100		25-150
STL00998	13C2 PFDoA	109		25-150
STL02116	13C2 PFTeDA	100		25-150
STL02337	13C3 PFBS	108		25-150
STL00994	18O2 PFHxS	102		25-150
STL00991	13C4 PFOS	107		25-150
STL01056	13C8 FOSA	111		25-150
STL02118	d3-NMeFOSAA	99		25-150
STL02117	d5-NEtFOSAA	112		25-150
STL02279	M2-6:2 FTS	94		25-150
STL02280	M2-8:2 FTS	98		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
 Lims ID: 320-74597-A-13-A  
 Client ID: BH20210604-PREGAC  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:17:54 ALS Bottle#: 19 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-13-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:50:45 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:50:45  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.311	2.319	-0.008	0.603	5470688	1.12	89.7	36165	
10 Perfluorobutanoic acid	212.90 > 169.00	2.311	2.319	-0.008	1.000	300756	0.0726		84.5	
18 Perfluoropentanoic acid	262.90 > 219.00	2.650	2.650	0.0	1.000	521193	0.1072		119	M
D 17 13C5 PFPeA	267.90 > 223.00	2.650	2.650	0.0	0.691	5801657	1.26	101	31903	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.683	2.683	0.0	1.000	165715	0.0425	Target=2.31	114	M
	298.90 > 99.00	2.683	2.683	0.0	1.000	73732		2.25(1.15-3.46)	119	
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.683	0.0	0.700	4011319	1.25	108	10784	
29 Perfluorohexanoic acid	313.00 > 269.00	3.018	3.018	0.0	1.000	473068	0.0919	Target=13.85	357	M
	313.00 > 119.00	3.018	3.018	0.0	1.000	35367		13.38(6.93-20.78)	410	
D 28 13C2 PFHxA	315.00 > 270.00	3.018	3.018	0.0	0.787	5740932	1.26	101	49852	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.423	3.433	-0.010	1.000	231157	0.0902	Target=3.47	909	M
	399.00 > 99.00	3.423	3.433	-0.010	1.000	63498		3.64(1.73-5.20)	475	M
D 38 18O2 PFHxS	403.00 > 84.00	3.423	3.433	-0.010	0.893	2739072	1.20	102	45396	
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.893	6022385	1.34	107	69349	
36 Perfluoroheptanoic acid	363.00 > 319.00	3.423	3.433	-0.010	1.000	250918	0.0493	Target=4.00	252	
	363.00 > 169.00	3.423	3.433	-0.010	1.000	70148		3.58(2.00-6.00)	793	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.814	3.815	-0.001	0.995	1155212	1.12		93.9	4718	
53 6:2 FTS										
427.00 > 407.00	3.814	3.815	-0.001	1.000	19351	0.009657	Target=1.95		111	
427.00 > 79.96	3.814	3.815	-0.001	1.000	12249		1.58(0.98-2.93)		43.1	
D 56 13C4 PFOA										
417.00 > 372.00	3.833	3.834	-0.001	1.000	6381586	1.25		100	56174	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.833	3.834	-0.001	1.000	436069	0.0817	Target=3.05		579	M
413.00 > 169.00	3.833	3.834	-0.001	1.000	171731		2.54(1.53-4.58)		1458	M
* 57 13C2 PFOA										
415.00 > 370.00	3.833	3.834	-0.001		6111466	1.25			51601	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.094	2276003	1.27		107	18441	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.193	4.201	-0.008	1.000	327220	0.1527	Target=5.72		1593	
499.00 > 99.00	4.193	4.201	-0.008	1.000	52687		6.21(2.86-8.58)		1084	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.098	6390980	1.31		105	58147	
64 Perfluorononanoic acid										
463.00 > 419.00	4.209	4.217	-0.008	1.000	65472	0.0129	Target=7.63		145	
463.00 > 169.00	4.209	4.217	-0.008	1.000	6773		9.67(3.81-11.44)		84.7	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	4171856	1.39		111	36750	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	3171	0.000946			66.1	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6302082	1.29		103	80325	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	38799	0.007527	Target=8.80		181	
513.00 > 169.00	4.559	4.559	0.0	1.000	3200		12.12(4.40-13.19)		54.2	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.189	1905885	1.18		98.4	14449	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2547886	1.24		99.1	23043	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5856378	1.25		99.7	55039	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2869759	1.40		112	26659	
D 97 13C2 PFDoA										
615.00 > 570.00	5.156	5.156	0.0	1.345	6895942	1.36		109	69122	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.639	5.649	-0.010	0.998	1197	0.002090	Target=1.13		34.5	
713.00 > 219.00	5.658	5.649	0.009	1.002	1090		1.10(0.57-1.70)		40.8	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.648	5.649	-0.001	1.473	5824144	1.24		99.5	59042	

[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

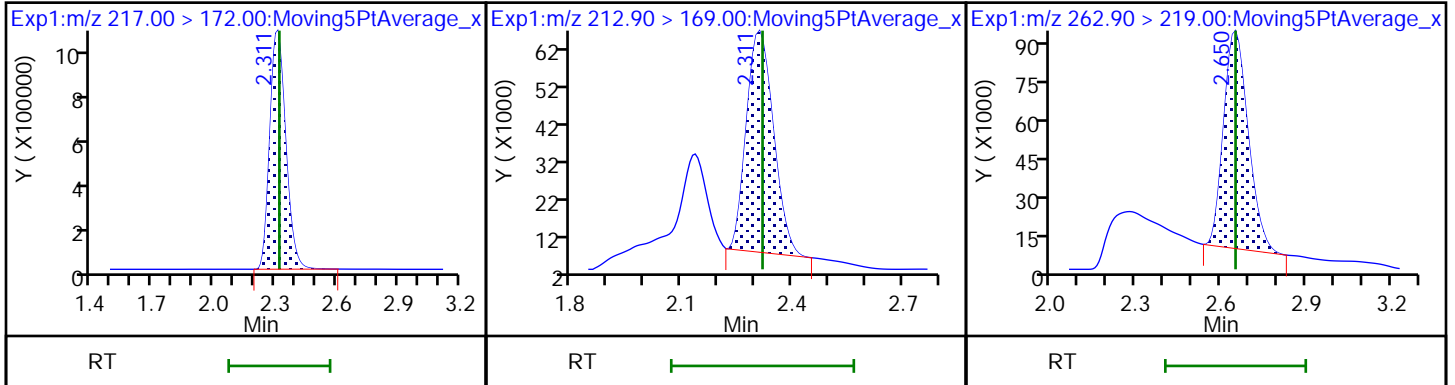
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

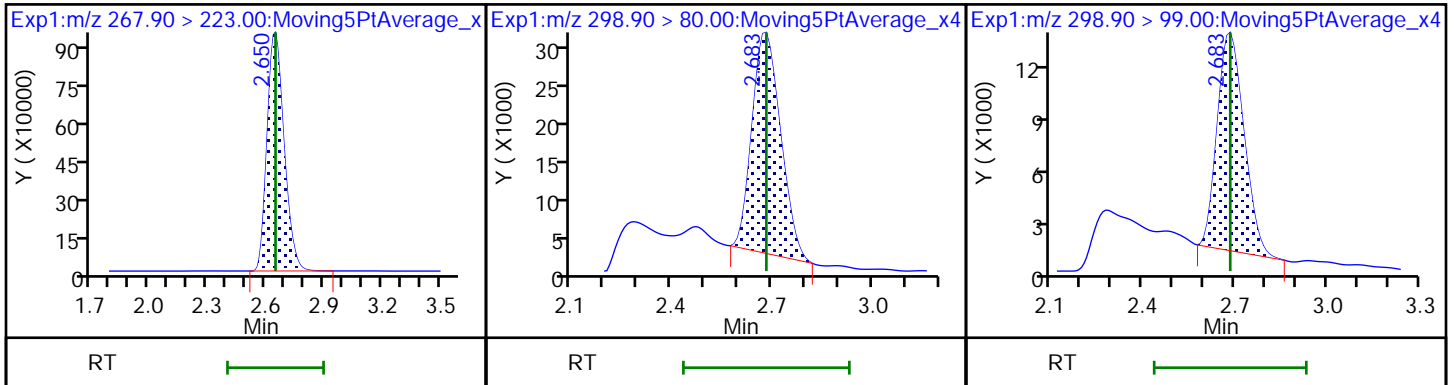
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (M)

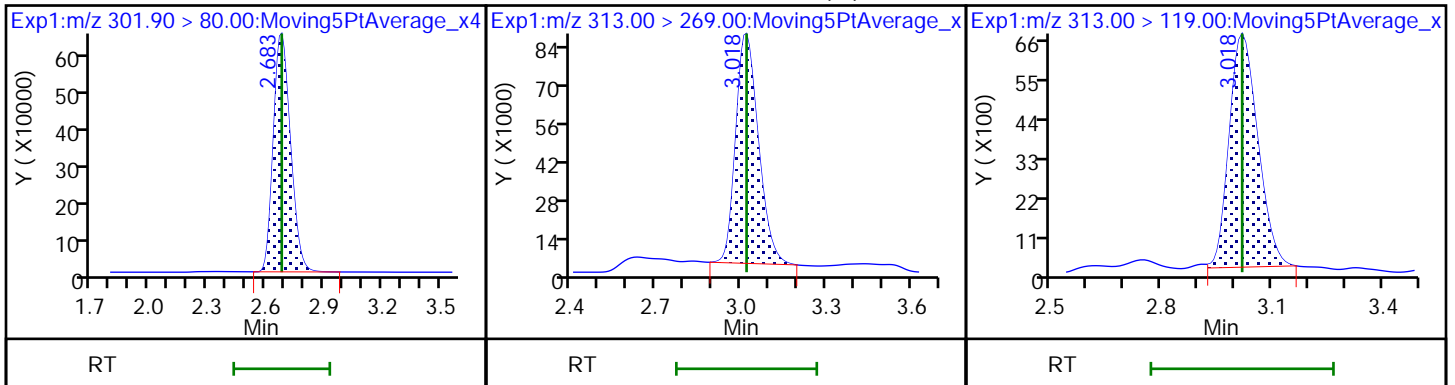
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid (M)

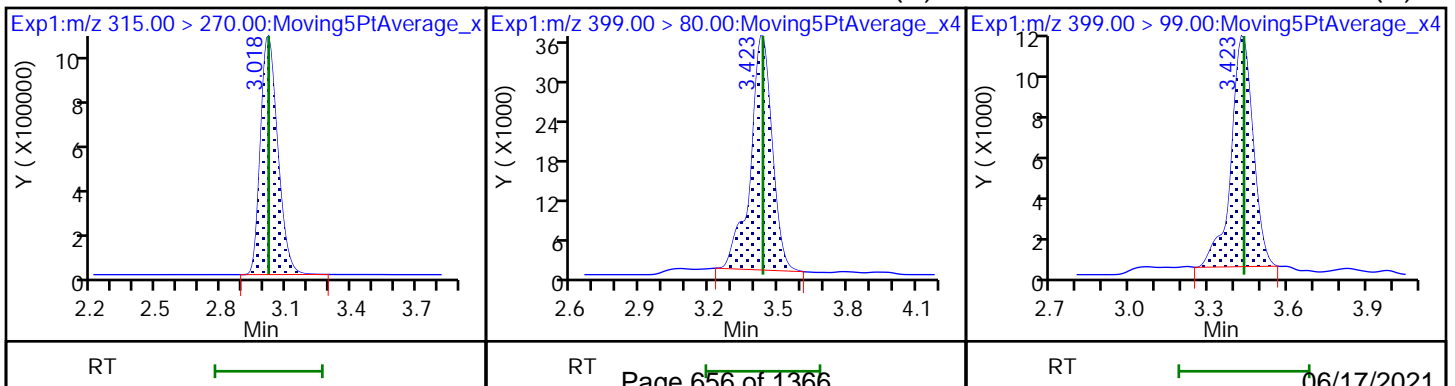
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

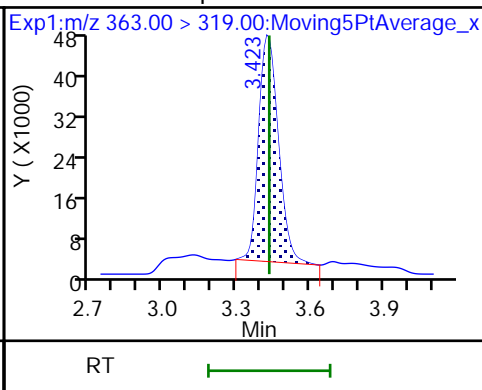
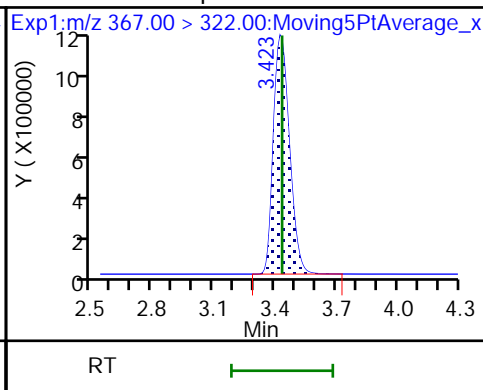
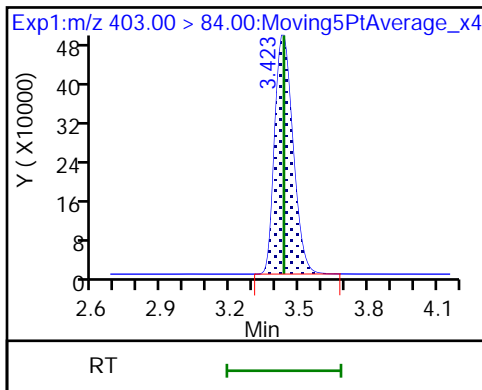
39 Perfluorohexanesulfonic acid (M)



D 38 18O2 PFHxS

D 37 13C4 PFHpA

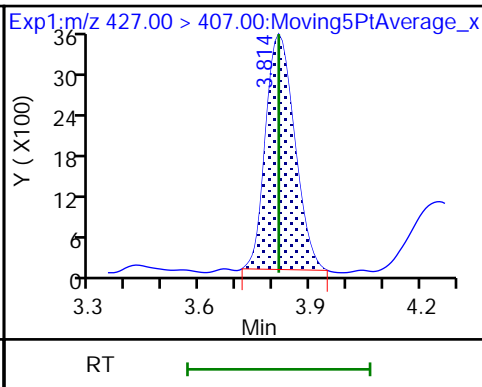
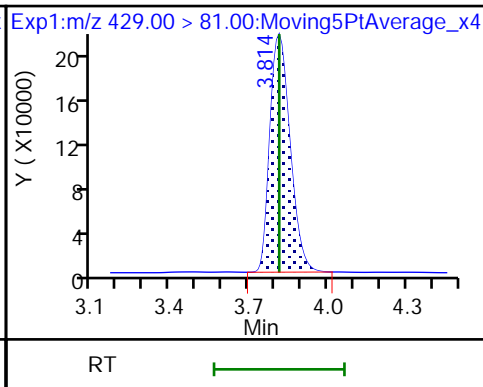
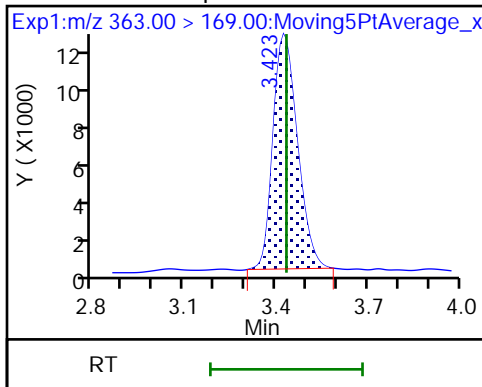
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

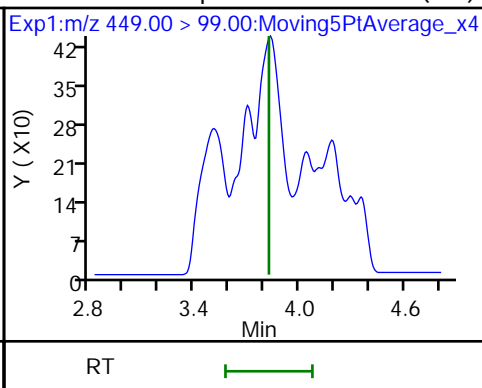
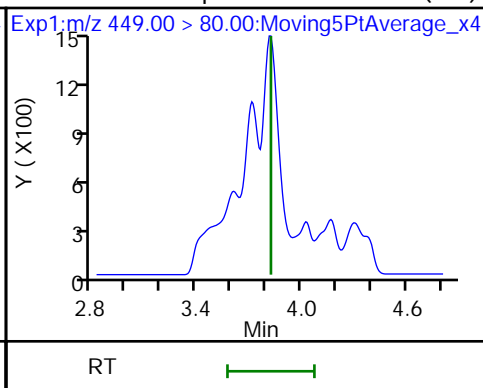
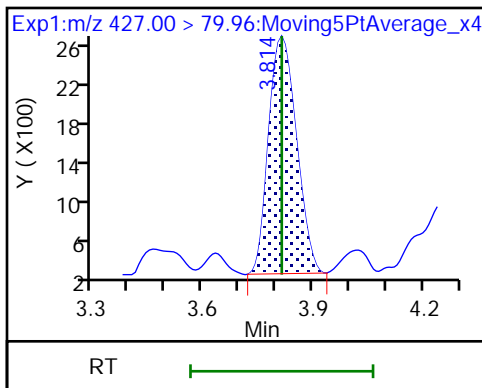
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

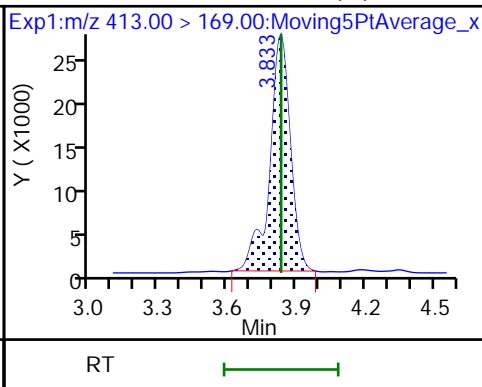
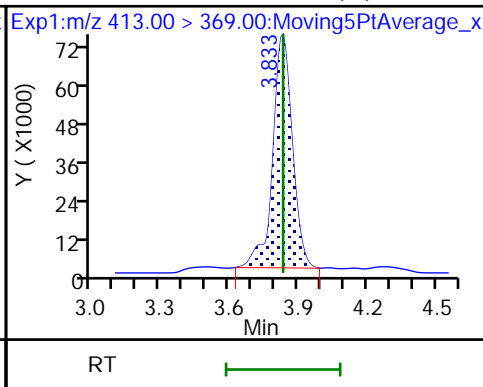
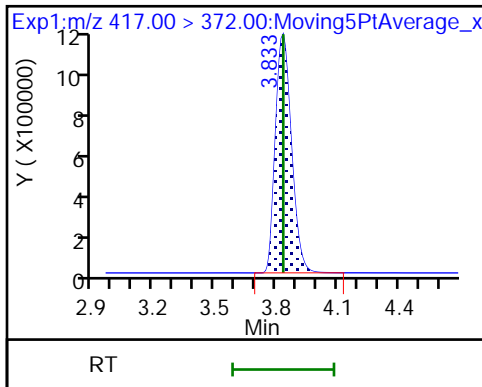
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

58 Perfluorooctanoic acid (M)

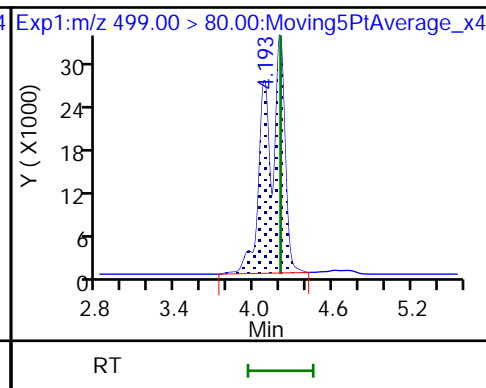
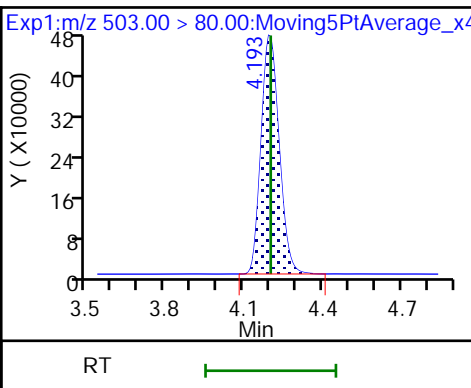
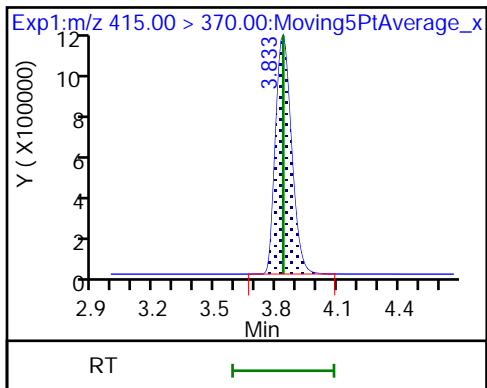




\* 57 13C2 PFOA

D 61 13C4 PFOS

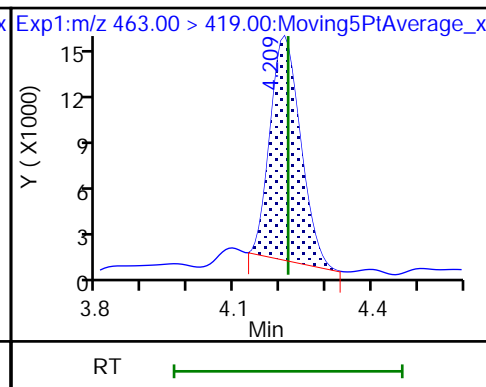
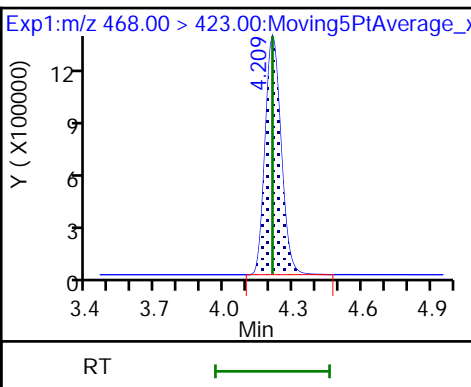
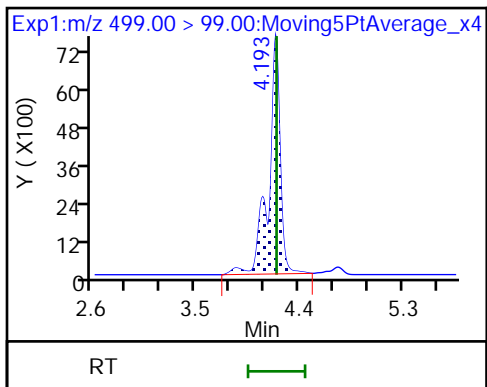
62 Perfluorooctanesulfonic acid



62 Perfluorooctanesulfonic acid

D 63 13C5 PFNA

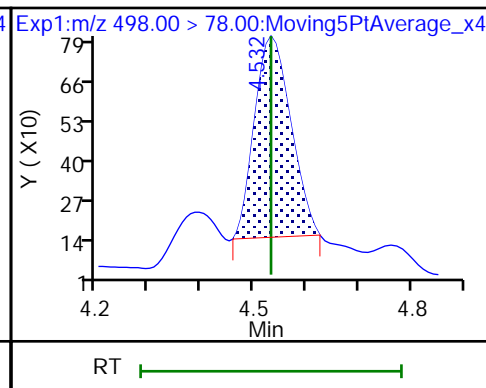
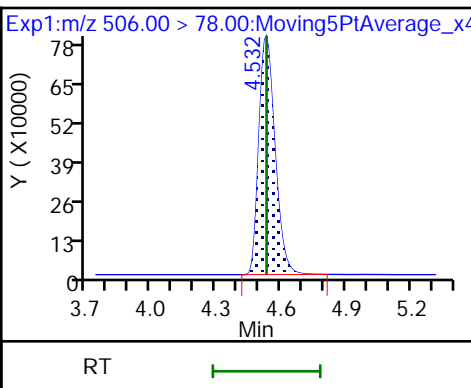
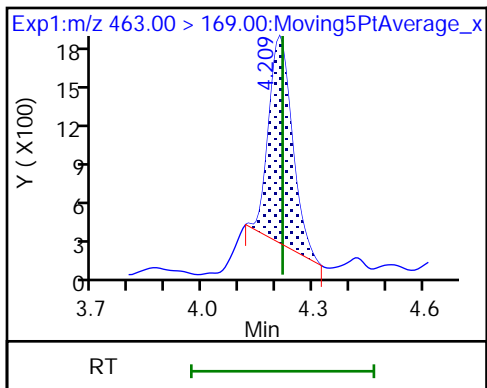
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

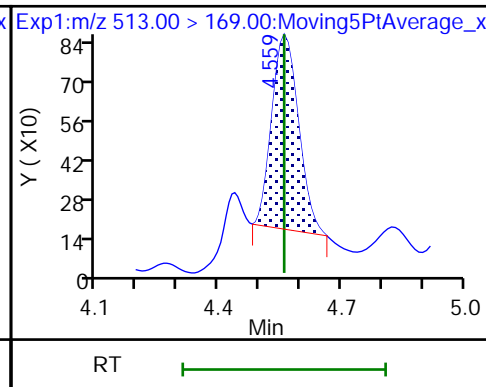
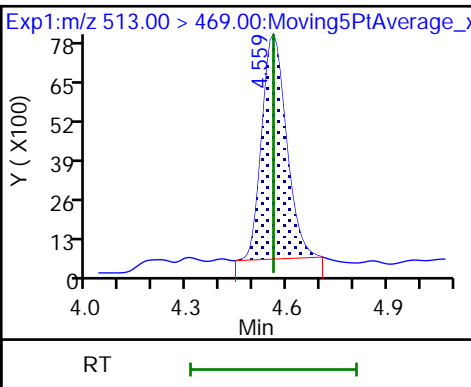
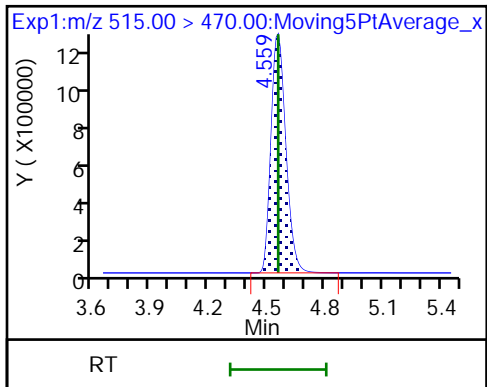
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

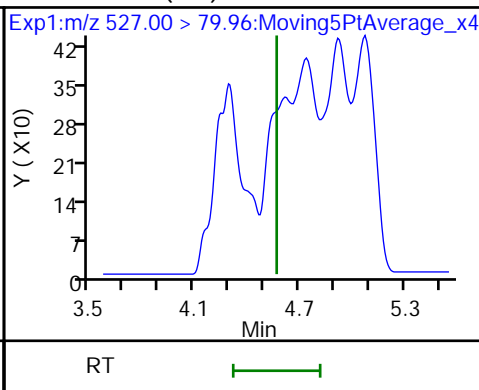
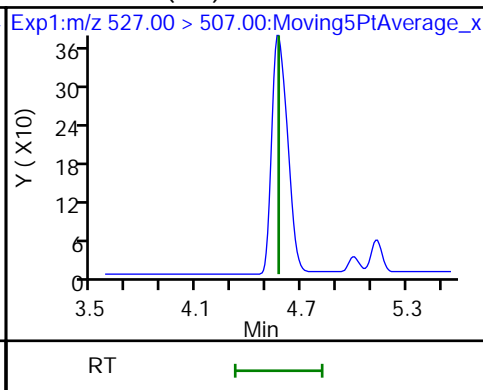
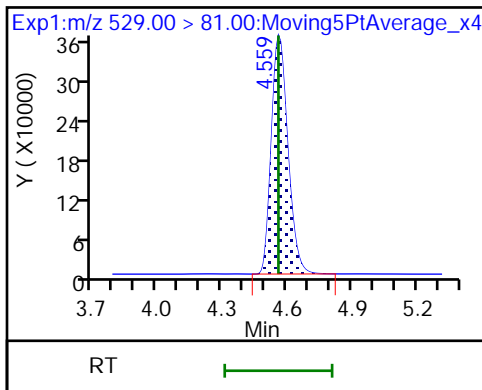
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

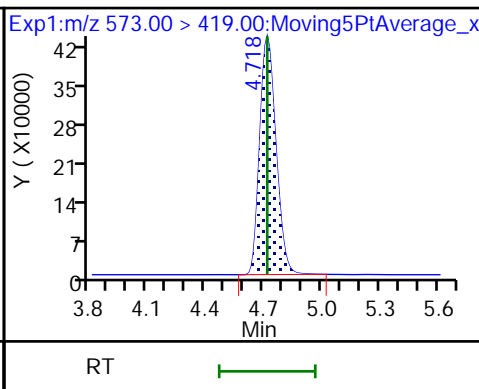
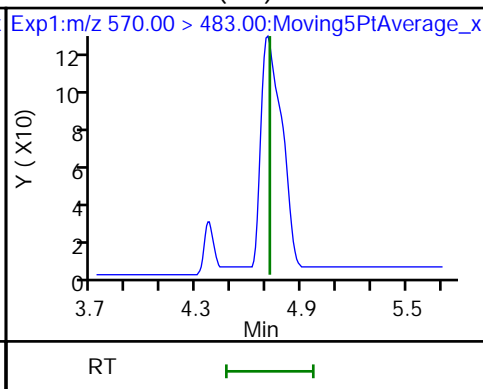
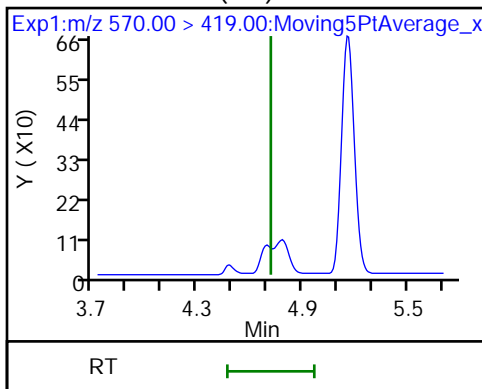
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

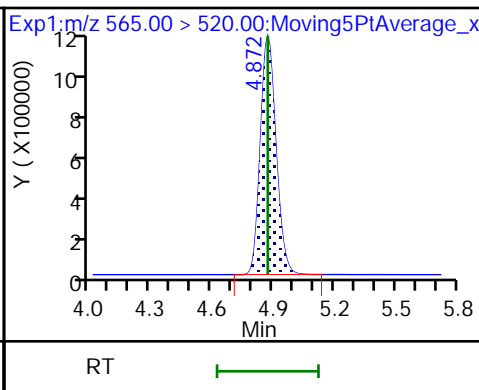
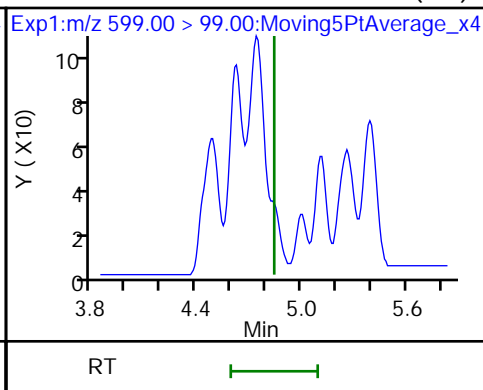
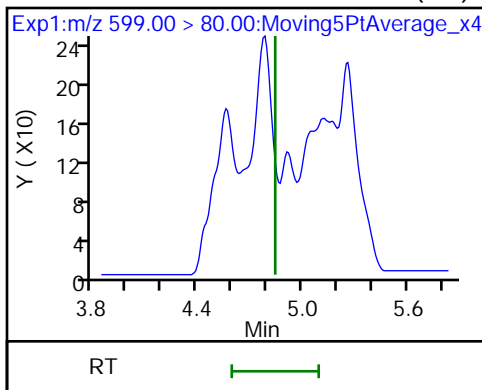
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

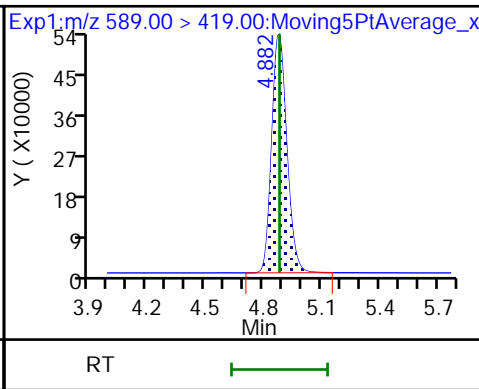
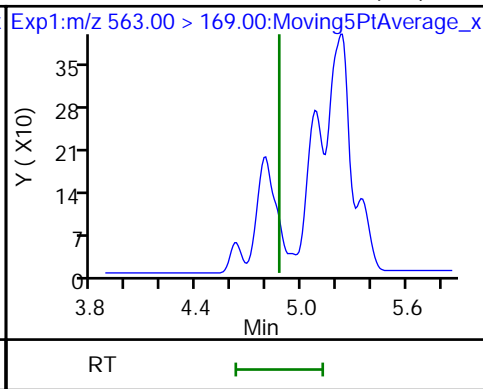
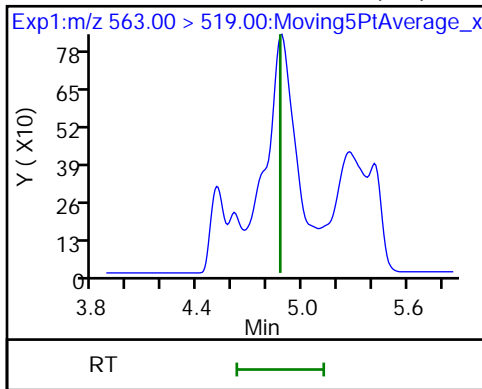
D 82 13C2 PFUnA



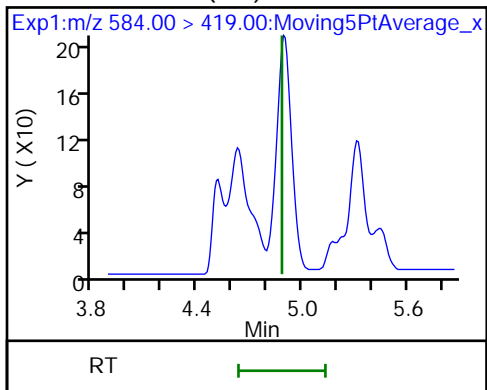
81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

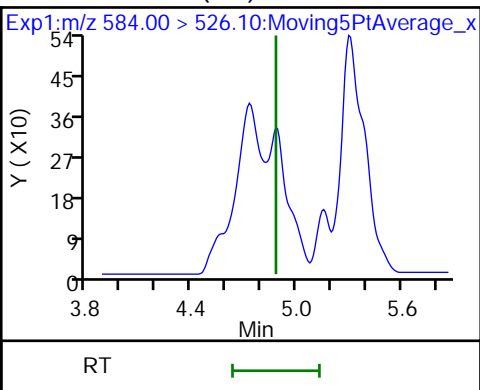
D 83 d5-NEtFOSAA



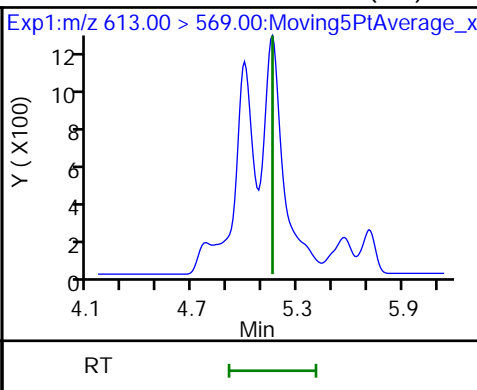
84 NEtFOSAA (ND)



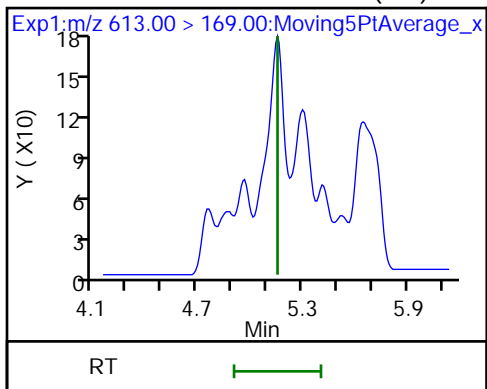
84 NEtFOSAA (ND)



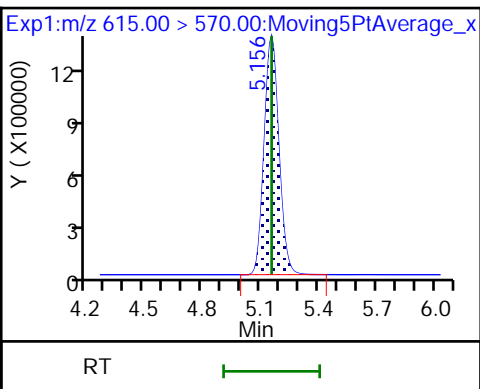
98 Perfluorododecanoic acid (ND)



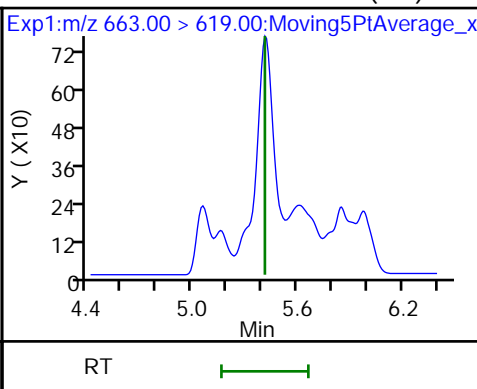
98 Perfluorododecanoic acid (ND)



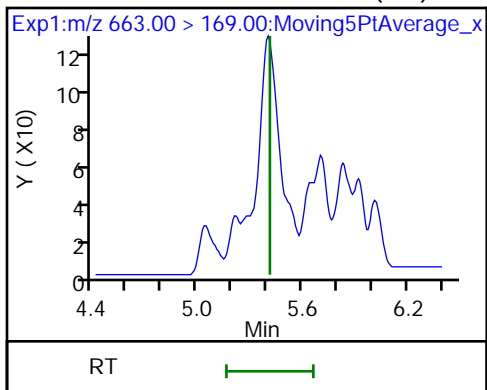
D 97 13C2 PFDaA



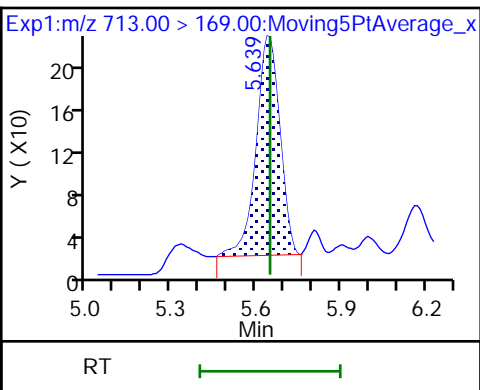
103 Perfluorotridecanoic acid (ND)



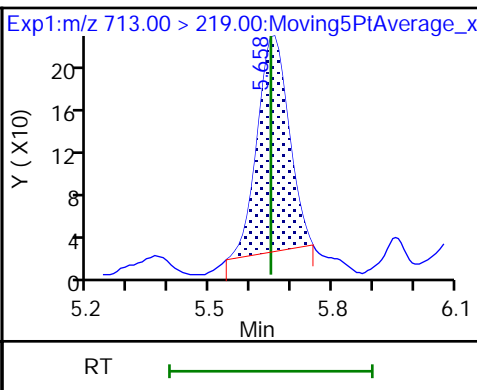
103 Perfluorotridecanoic acid (ND)



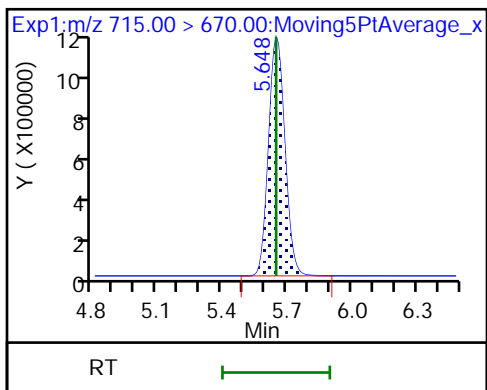
105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

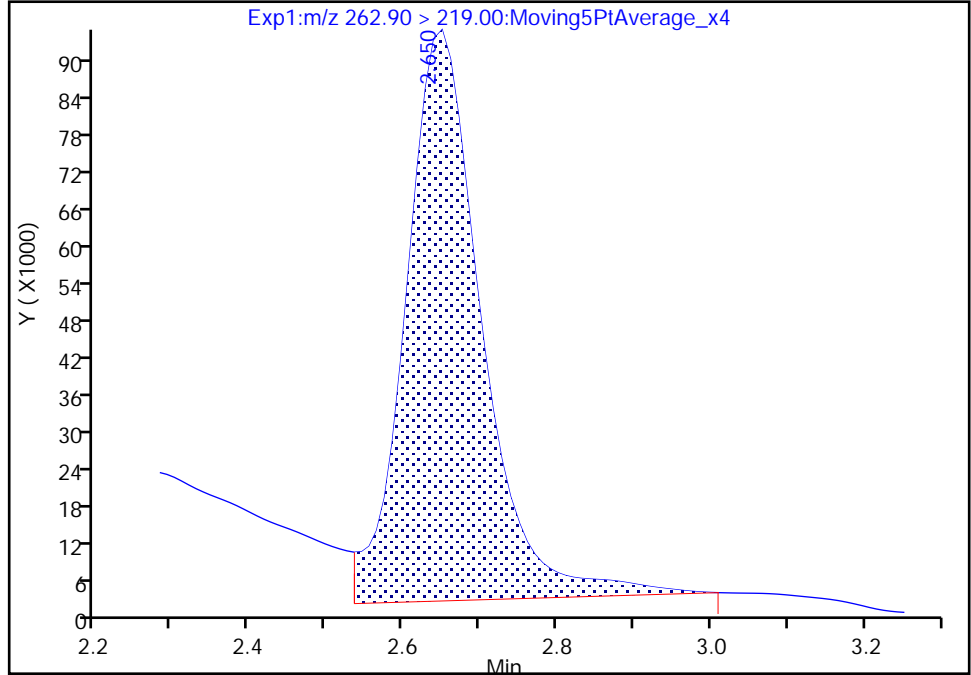
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

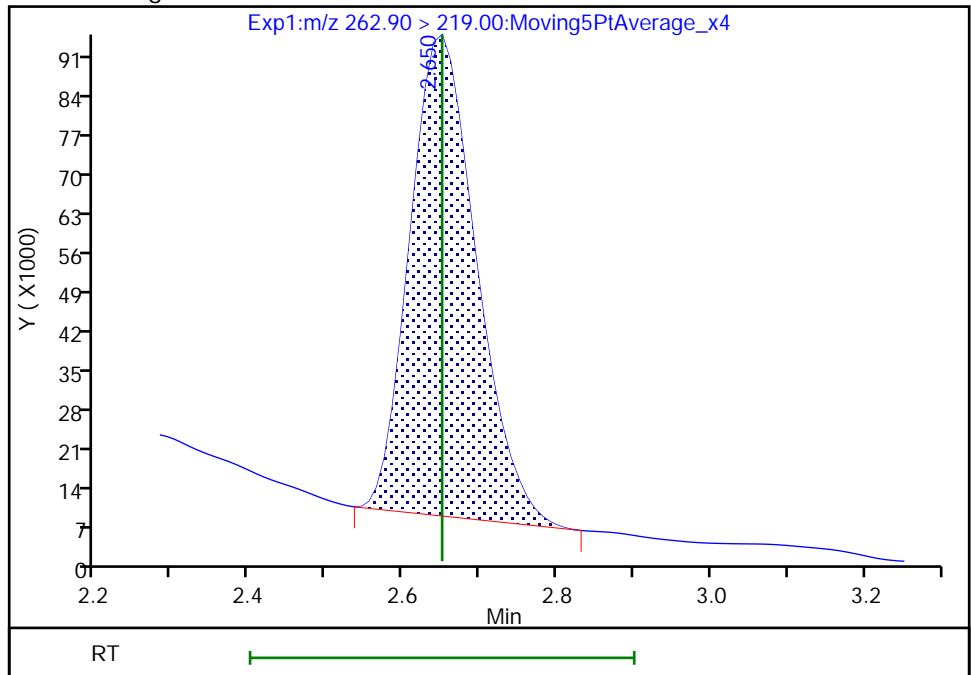
RT: 2.65  
Area: 636716  
Amount: 0.130916  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 521193  
Amount: 0.107163  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:50:10  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

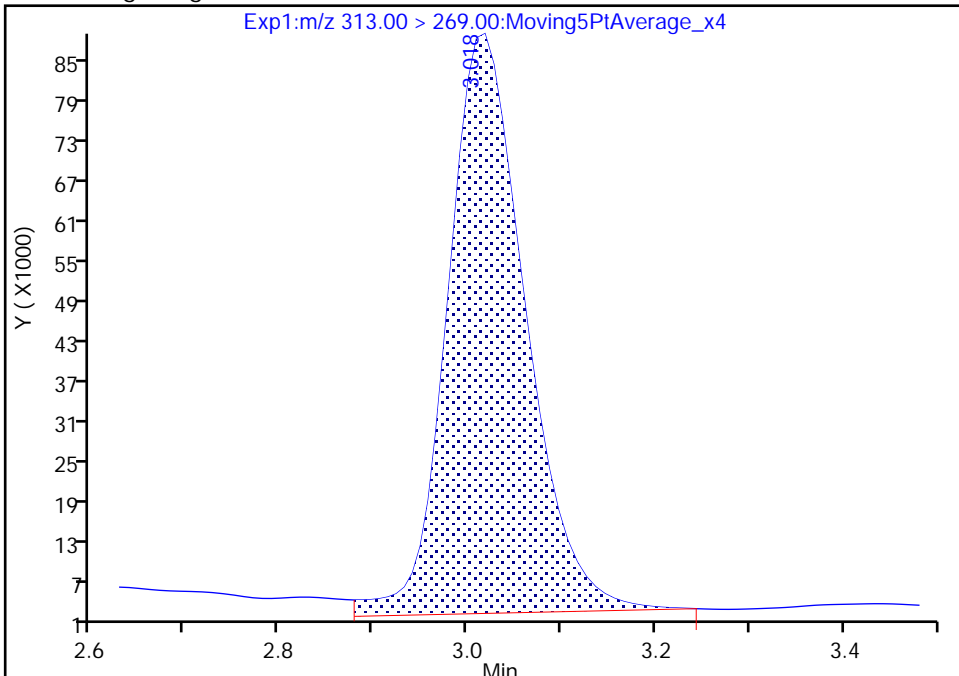
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_030.d		
Injection Date:	10-Jun-2021 08:17:54	Instrument ID:	A15
Lims ID:	320-74597-A-13-A	Lab Sample ID:	320-74597-13
Client ID:	BH20210604-PREGAC		
Operator ID:	SACINSTA15	ALS Bottle#:	19
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	7

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

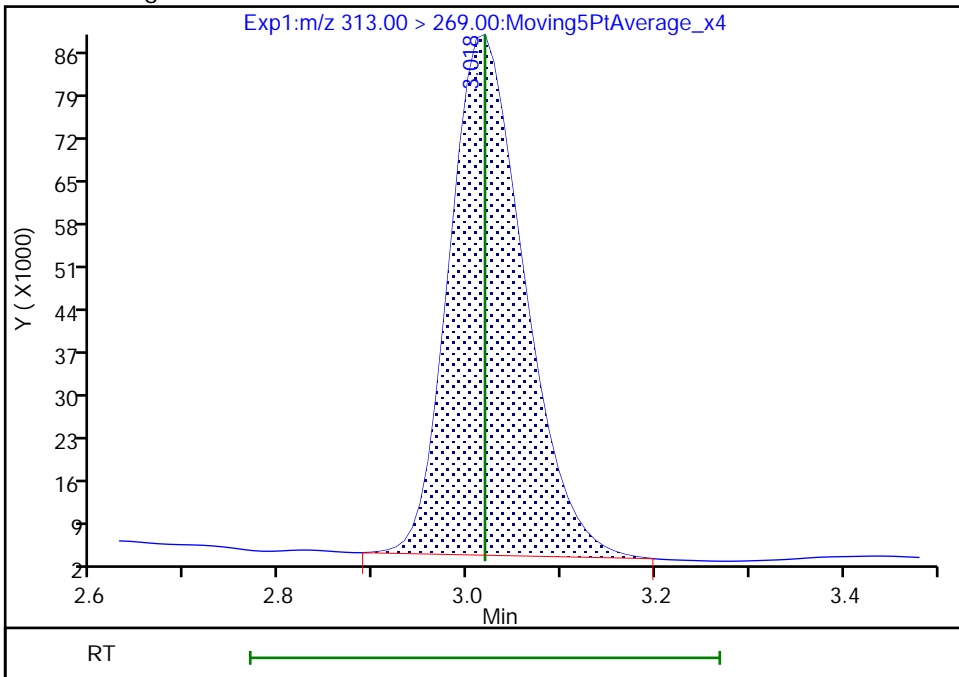
RT: 3.02  
 Area: 501695  
 Amount: 0.097513  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.02  
 Area: 473068  
 Amount: 0.091949  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:50:20  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

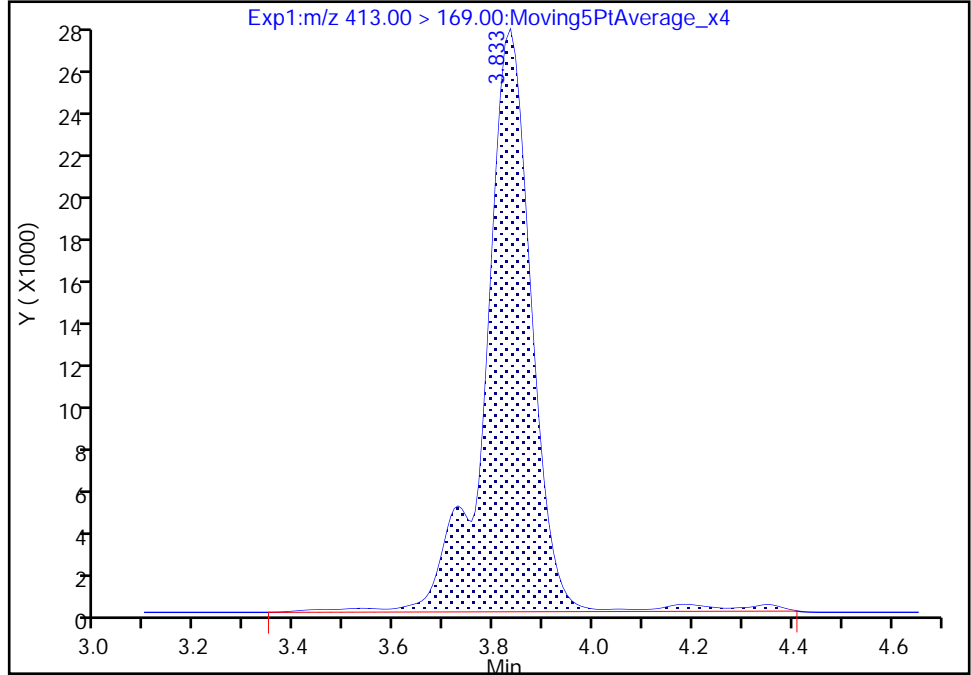
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

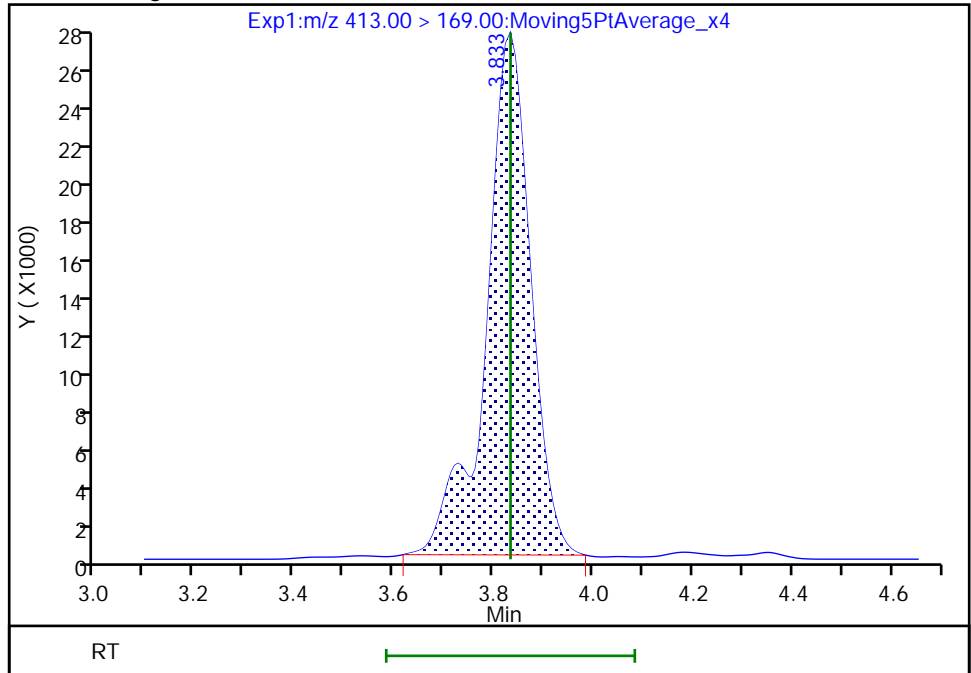
RT: 3.83  
Area: 182200  
Amount: 0.092329  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 171731  
Amount: 0.081735  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:50:34  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

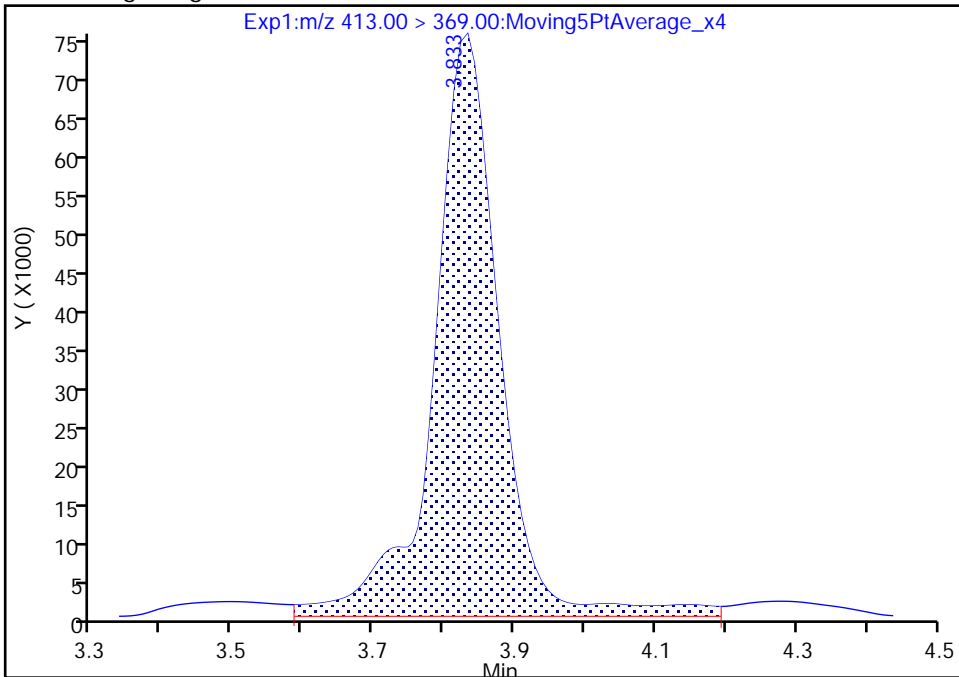
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

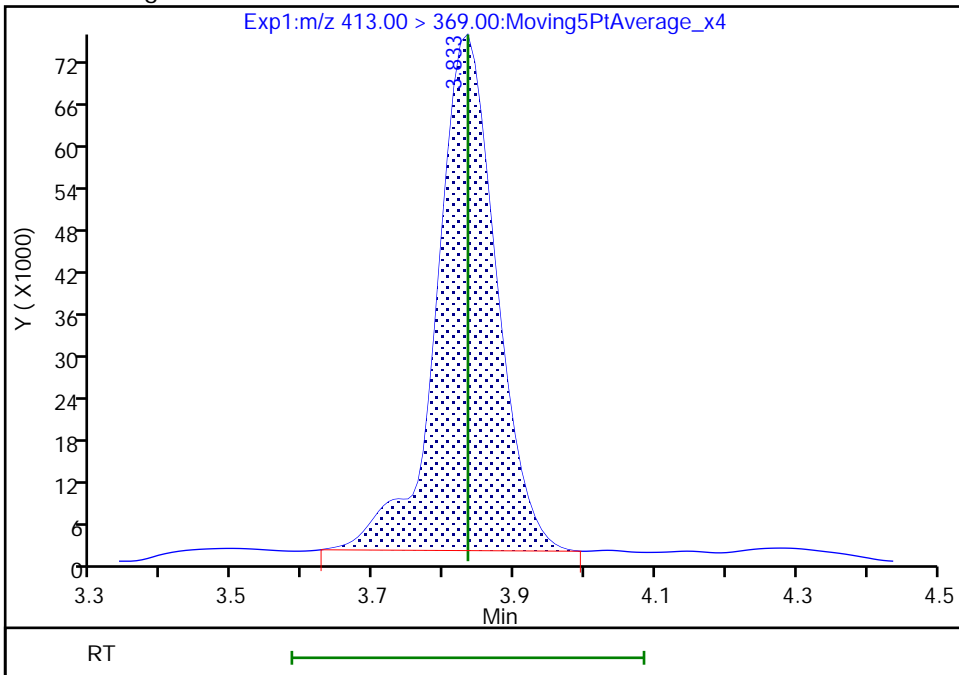
RT: 3.83  
Area: 492588  
Amount: 0.092329  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 436069  
Amount: 0.081735  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:50:36

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

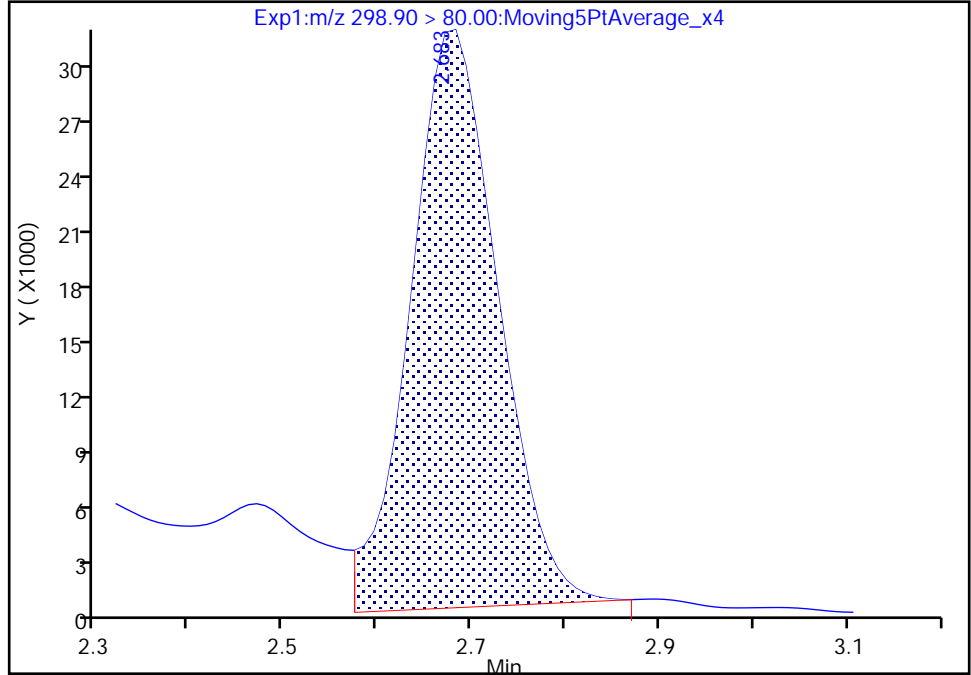
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

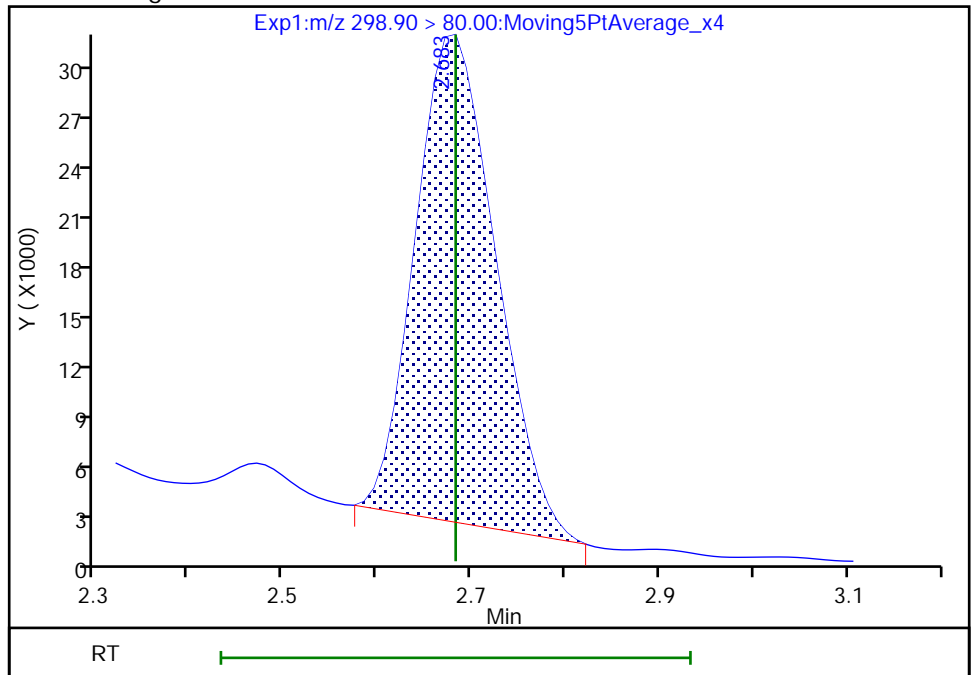
RT: 2.68  
Area: 192977  
Amount: 0.049459  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 165715  
Amount: 0.042472  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:50:14  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

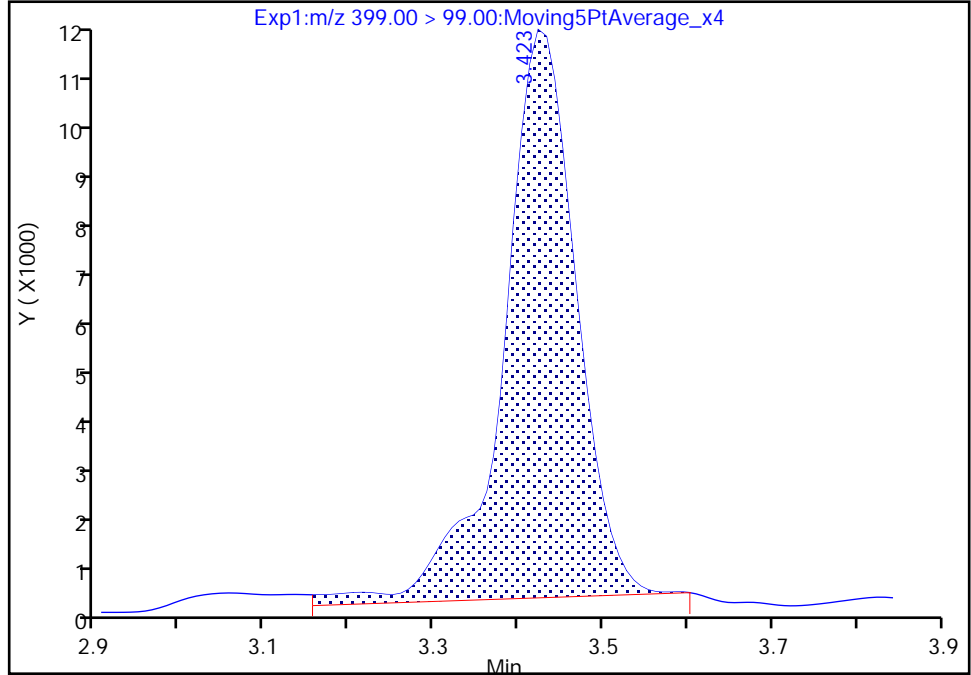
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

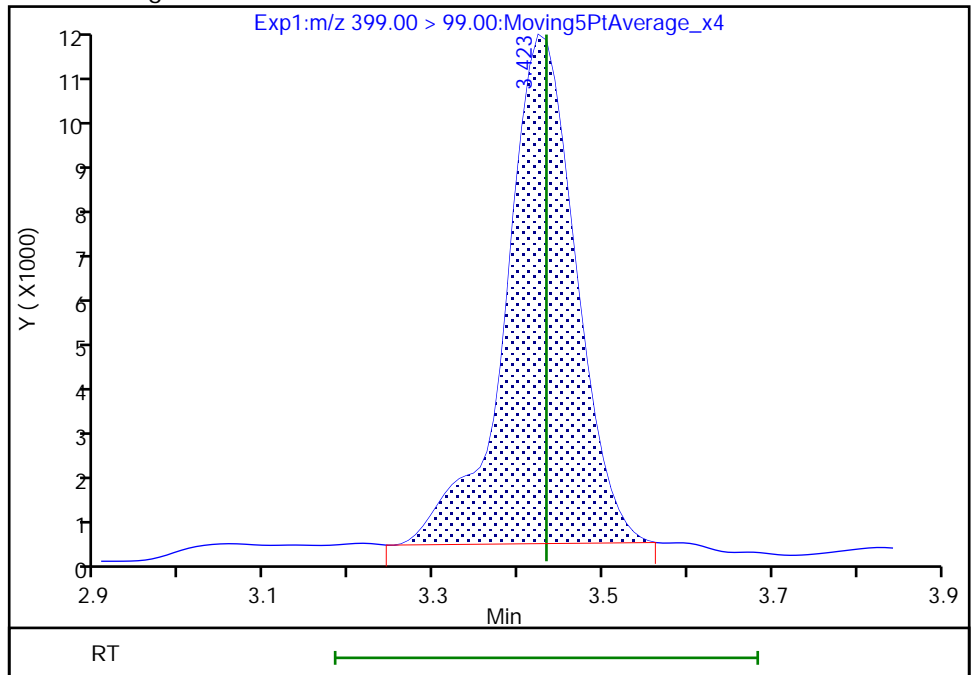
RT: 3.42  
Area: 66613  
Amount: 0.096377  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 63498  
Amount: 0.090246  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:50:24  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

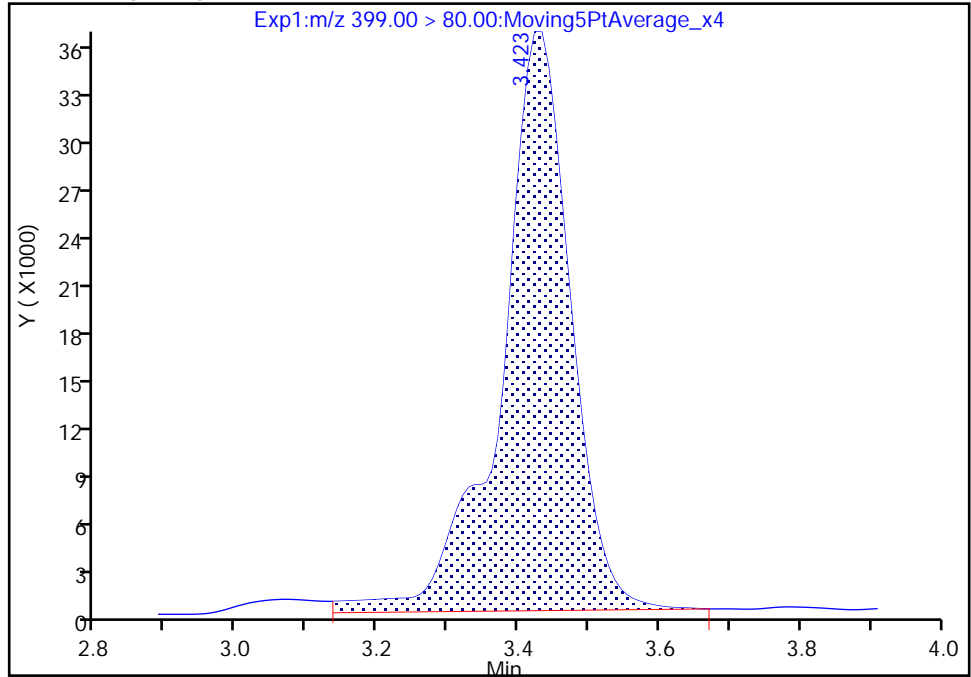
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_030.d  
Injection Date: 10-Jun-2021 08:17:54 Instrument ID: A15  
Lims ID: 320-74597-A-13-A Lab Sample ID: 320-74597-13  
Client ID: BH20210604-PREGAC  
Operator ID: SACINSTA15 ALS Bottle#: 19 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

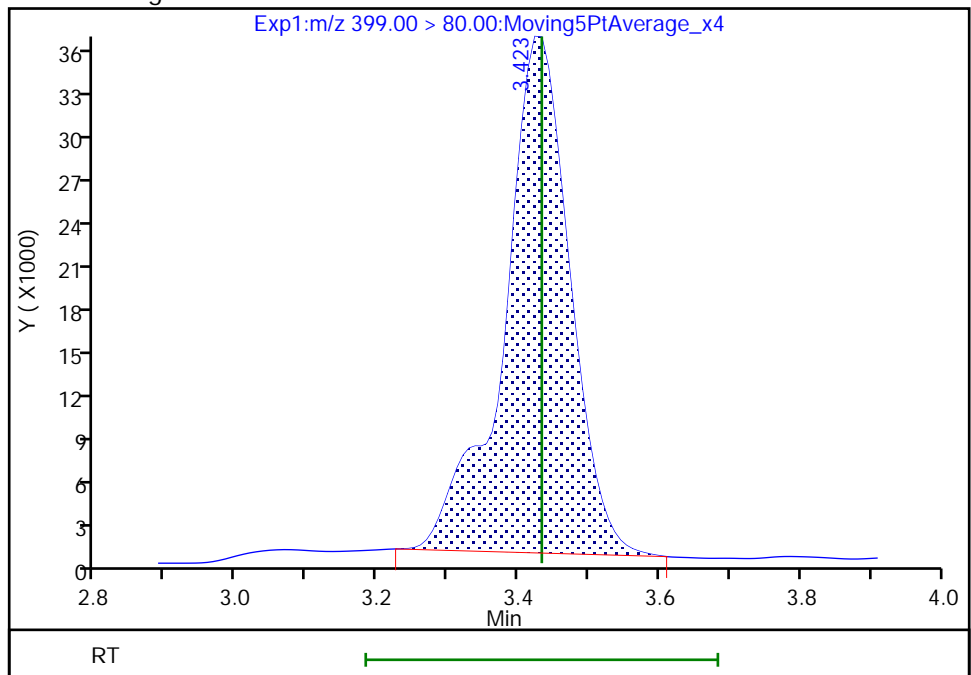
RT: 3.42  
Area: 246860  
Amount: 0.096377  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 231157  
Amount: 0.090246  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:50:27

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC Lab Sample ID: 320-74597-14  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_031.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:11  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 277.9(mL) Date Analyzed: 06/10/2021 08:27  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-POSTGAC Lab Sample ID: 320-74597-14  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_031.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:11  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 277.9(mL) Date Analyzed: 06/10/2021 08:27  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	101		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	99		25-150
STL01892	13C4 PFHpA	106		25-150
STL00990	13C4 PFOA	103		25-150
STL00995	13C5 PFNA	105		25-150
STL00996	13C2 PFDA	104		25-150
STL00997	13C2 PFUnA	97		25-150
STL00998	13C2 PFDoA	108		25-150
STL02116	13C2 PFTeDA	94		25-150
STL02337	13C3 PFBS	103		25-150
STL00994	18O2 PFHxS	107		25-150
STL00991	13C4 PFOS	105		25-150
STL01056	13C8 FOSA	108		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	109		25-150
STL02279	M2-6:2 FTS	86		25-150
STL02280	M2-8:2 FTS	100		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_031.d  
 Lims ID: 320-74597-A-14-A  
 Client ID: BH20210604-POSTGAC  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:27:03 ALS Bottle#: 20 Worklist Smp#: 8  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-14-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:51:05 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:51:05  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA										
217.00 > 172.00	2.310	2.319	-0.009	0.603	6033156	1.26		101	43042	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.310	2.319	-0.009	1.000	330401	0.0724			249	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	169258	0.0350			197	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.650	0.001	0.691	5769446	1.28		102	43226	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.683	0.0	1.000	11988	0.003262	Target=2.31		46.9	
298.90 > 99.00	2.683	2.683	0.0	1.000	5219		2.30(1.15-3.46)		22.3	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.683	0.0	0.700	3778428	1.20		103	26953	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.018	0.001	1.000	90633	0.0183	Target=13.85		157	
313.00 > 119.00	3.019	3.018	0.001	1.000	6818		13.29(6.93-20.78)		87.8	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.018	0.001	0.787	5522735	1.23		98.7	45687	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	14894	0.005639	Target=3.47		183	
399.00 > 99.00	3.423	3.433	-0.010	0.997	5319		2.80(1.73-5.20)		84.5	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.896	2824413	1.26		107	51803	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5815556	1.32		106	50872	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	12193	0.002480	Target=4.00		29.7	
363.00 > 169.00	3.423	3.433	-0.010	1.000	4025		3.03(2.00-6.00)		56.1	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.815	-0.001	0.995	1038288	1.02		85.9	9743	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6459154	1.29		103	66344	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	29272	0.005421	Target=3.05		59.4	
413.00 > 169.00	3.824	3.834	-0.010	0.998	15432		1.90(1.53-4.58)		135	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6003668	1.25			59090	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.094	2195375	1.25		105	27244	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.098	6288311	1.31		105	72988	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	3978869	1.34		108	42735	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	11202	0.003506			321	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6222926	1.30		104	59748	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	24759	0.004865	Target=8.80		191	
513.00 > 169.00	4.550	4.559	-0.009	0.998	3325		7.45(4.40-13.19)		54.1	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.189	1894016	1.19		99.5	16393	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2515194	1.24		99.6	21586	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5600438	1.21		97.1	62088	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2734685	1.36		109	26564	
D 97 13C2 PFDoA										
615.00 > 570.00	5.157	5.156	0.001	1.345	6769662	1.36		108	77488	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.649	0.009	1.002	895	0.001676	Target=1.13		23.0	
713.00 > 219.00	5.649	5.649	0.0	1.000	841		1.06(0.57-1.70)		30.8	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.649	0.0	1.473	5431051	1.18		94.5	61264	

QC Flag Legend

Processing Flags

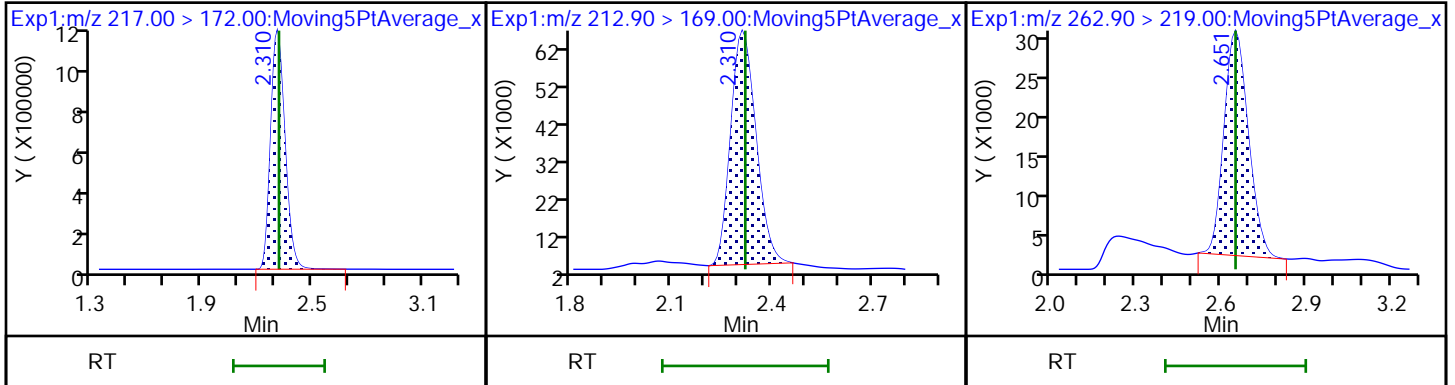
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_031.d  
Injection Date: 10-Jun-2021 08:27:03 Instrument ID: A15  
Lims ID: 320-74597-A-14-A Lab Sample ID: 320-74597-14  
Client ID: BH20210604-POSTGAC  
Operator ID: SACINSTA15 ALS Bottle#: 20 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

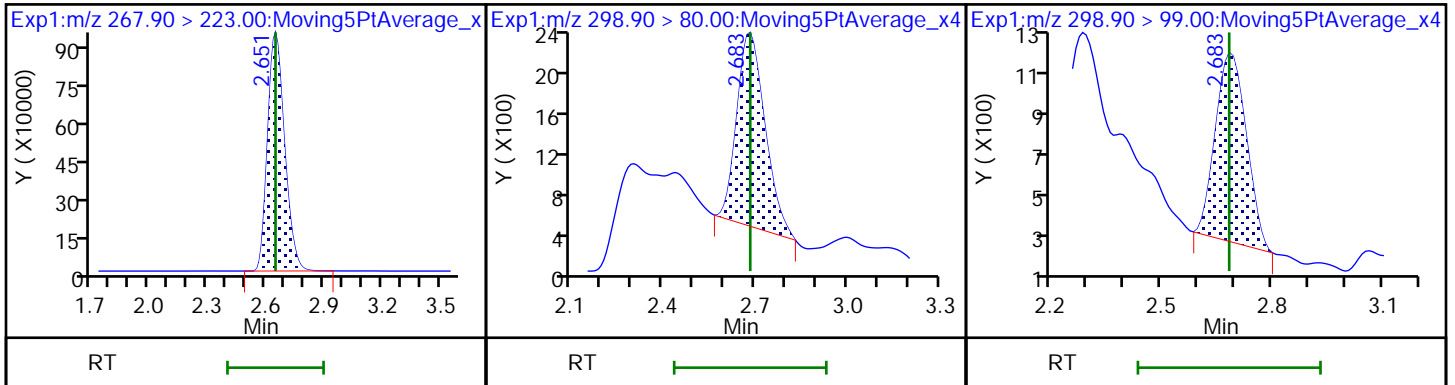
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

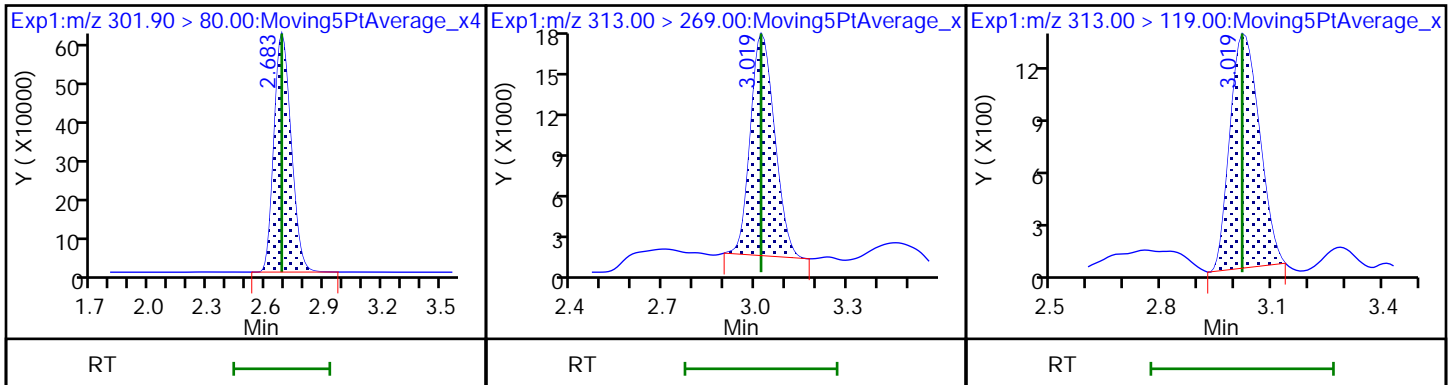
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

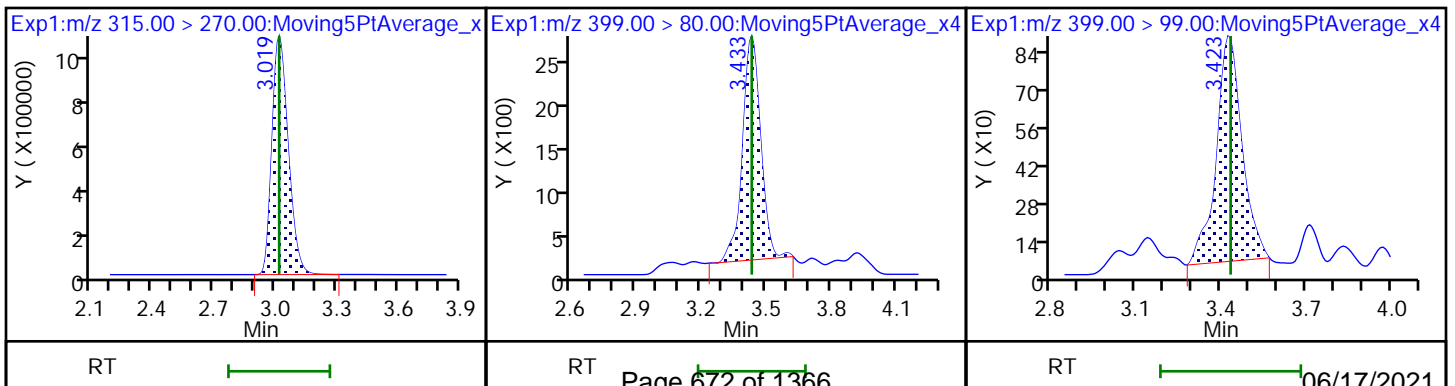
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

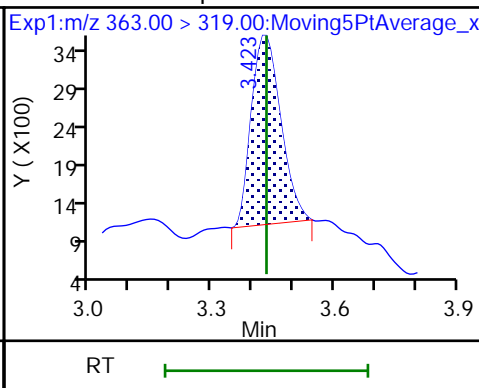
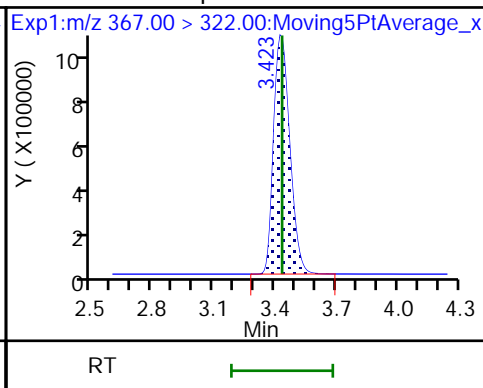
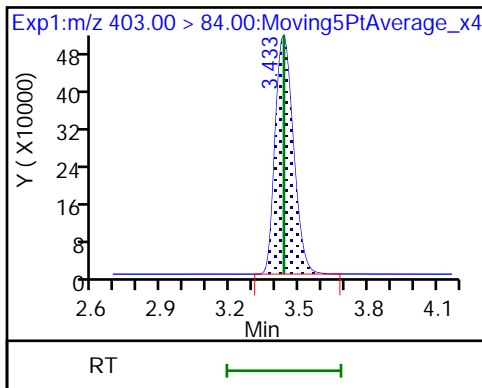
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

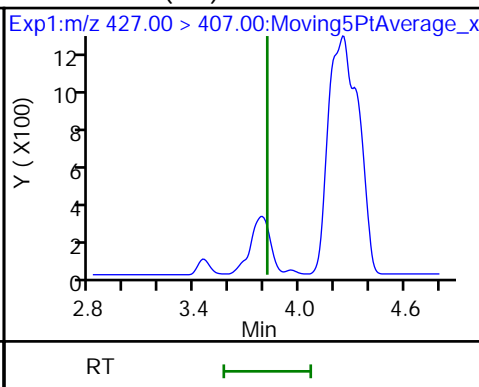
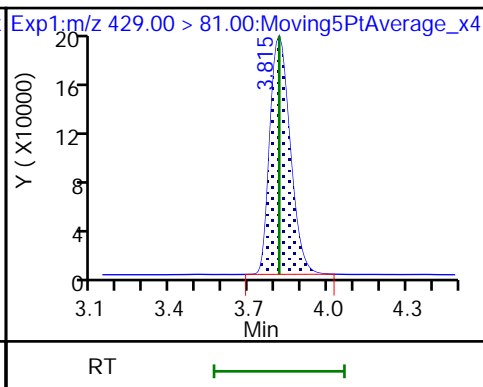
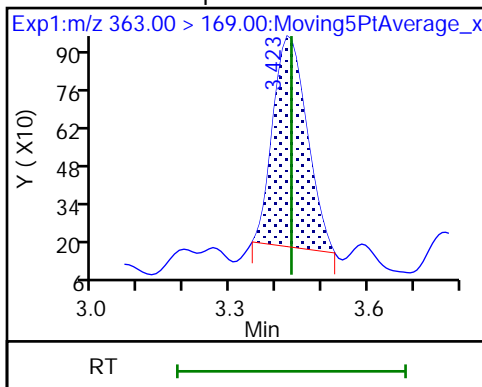
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

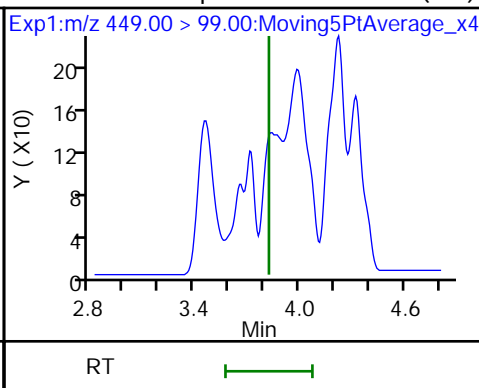
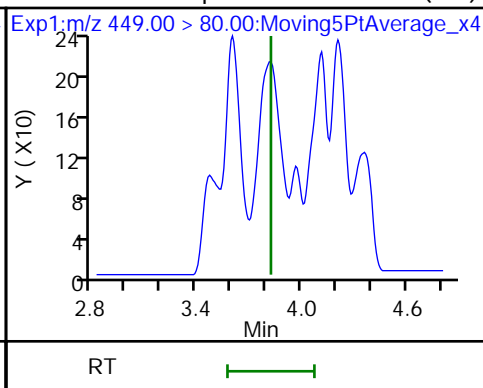
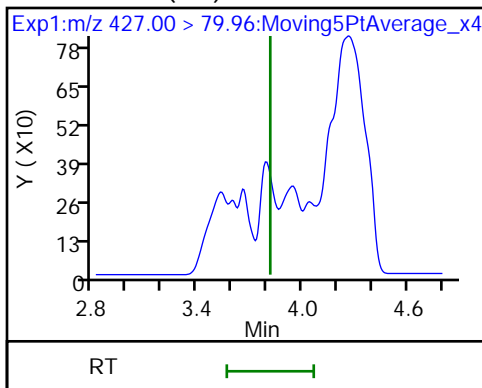
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

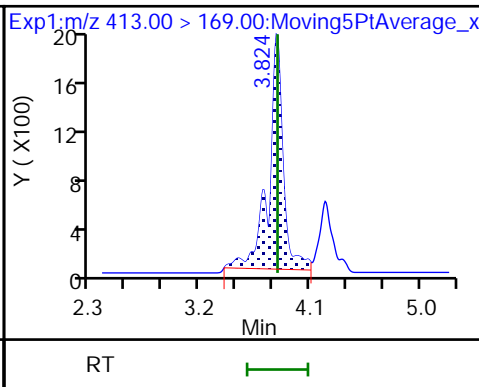
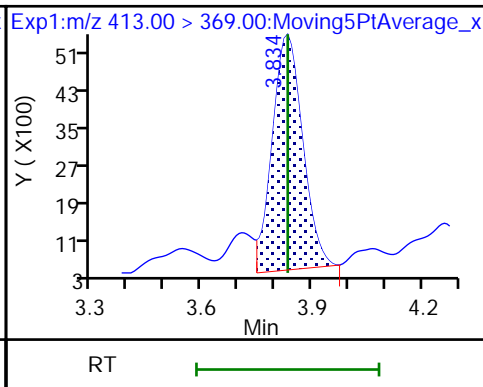
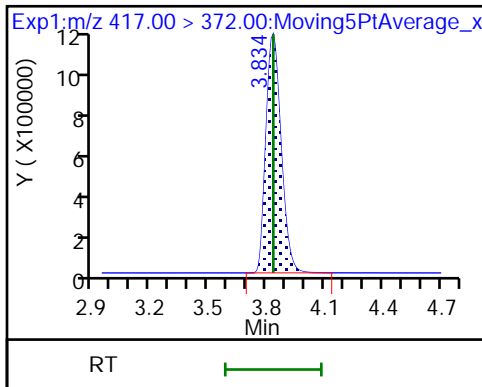
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid

58 Perfluorooctanoic acid

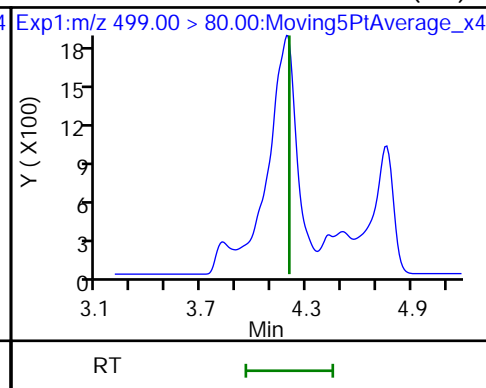
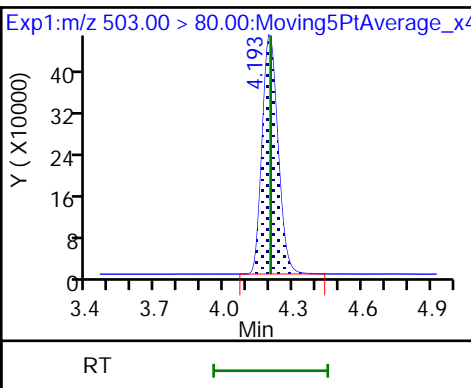
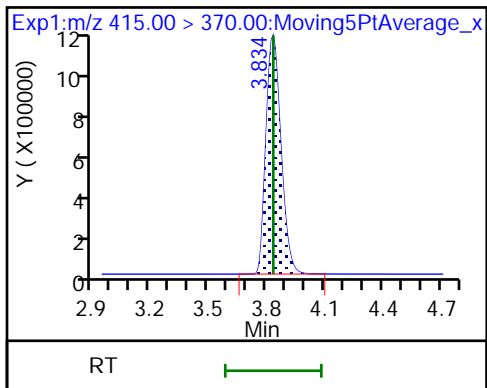




\* 57 13C2 PFOA

D 61 13C4 PFOS

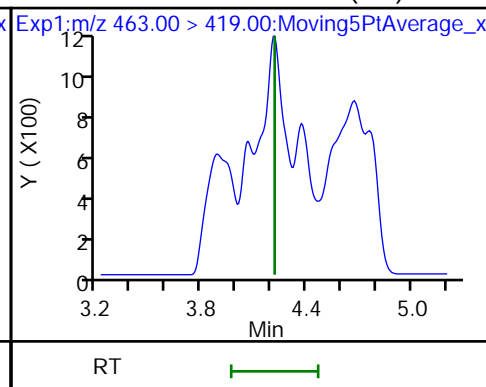
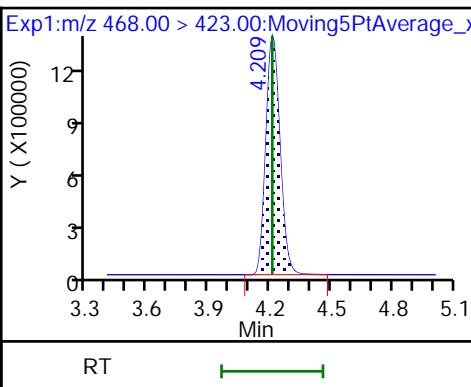
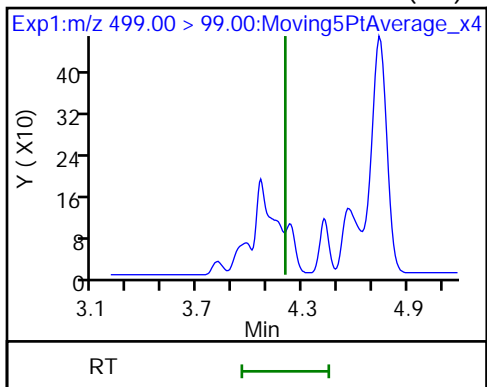
62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND)

D 63 13C5 PFNA

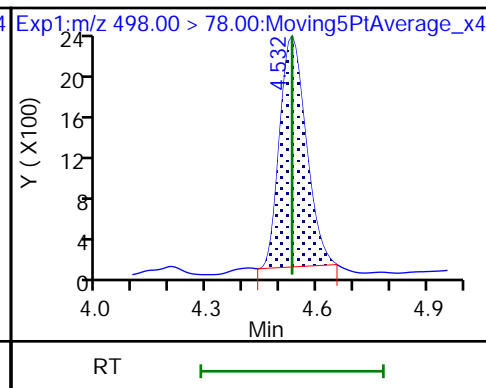
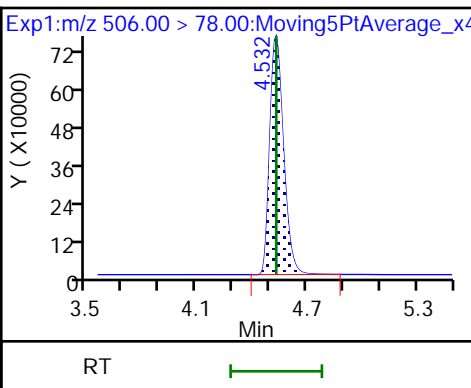
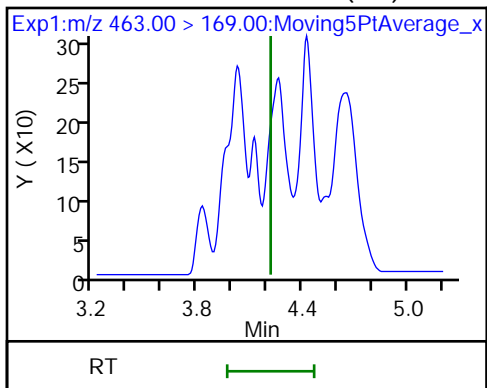
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

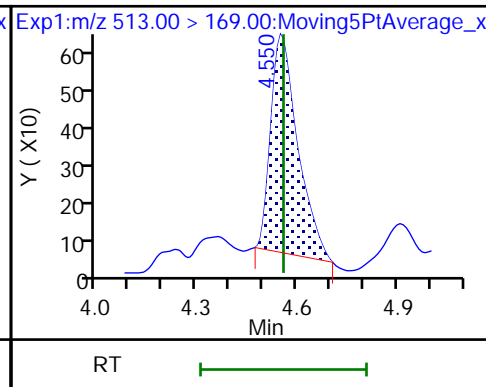
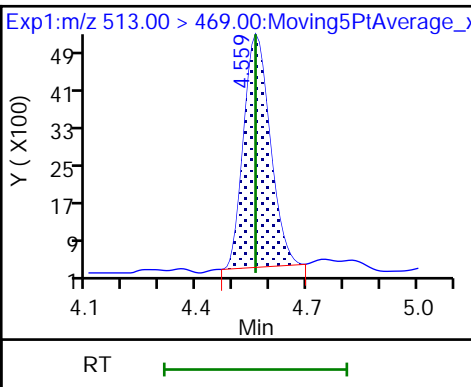
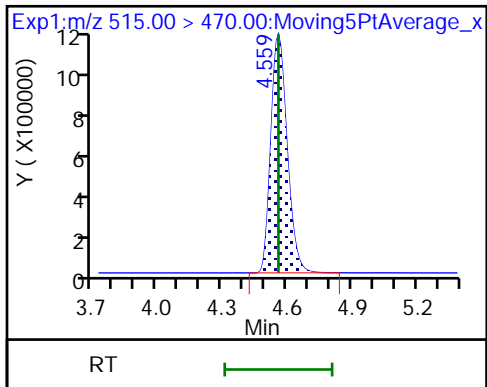
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

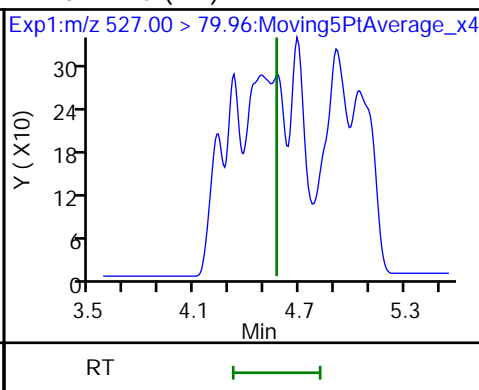
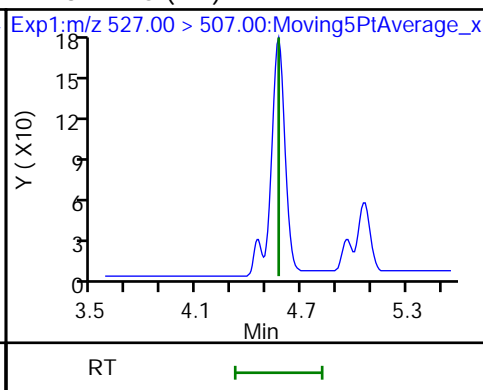
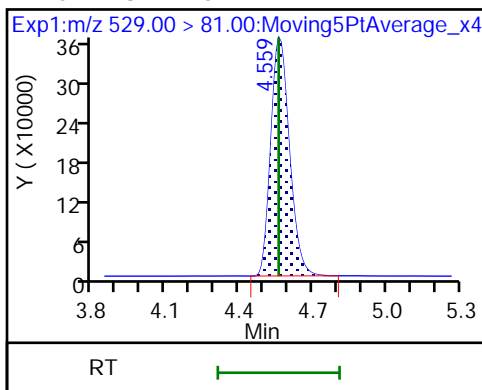
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

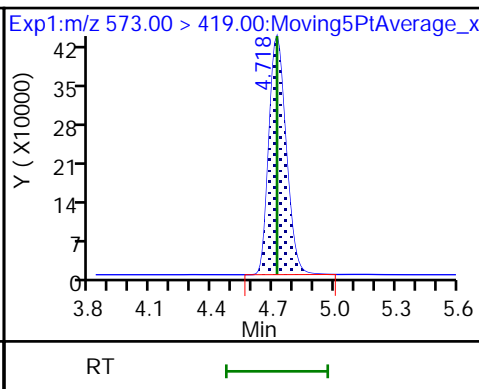
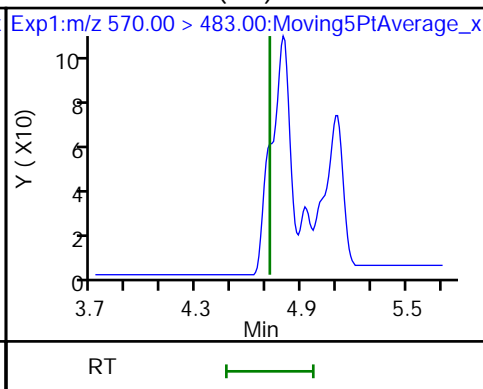
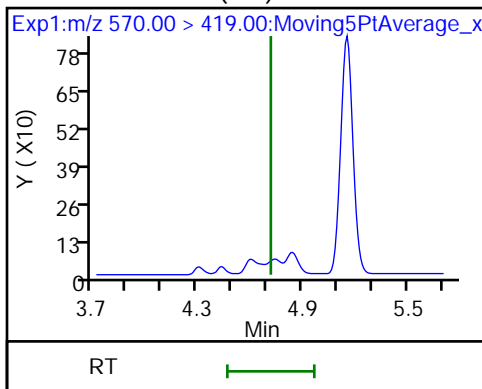
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

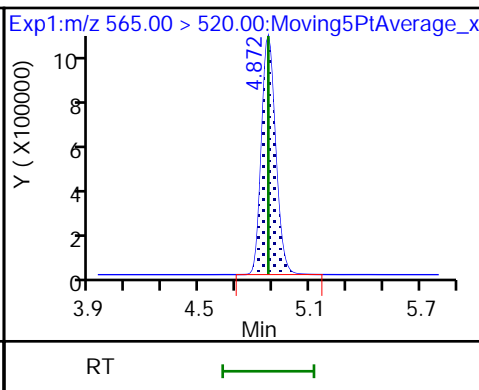
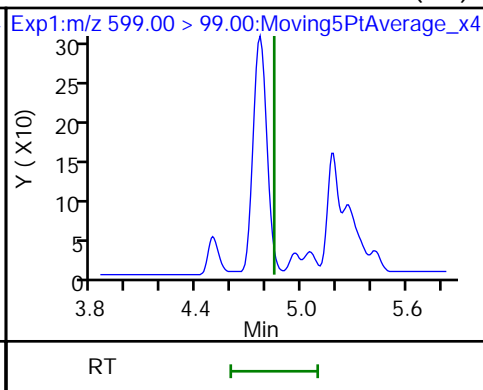
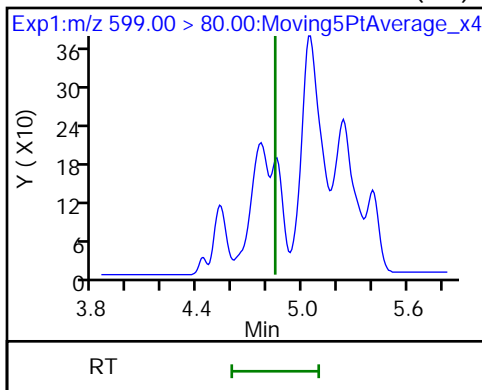
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

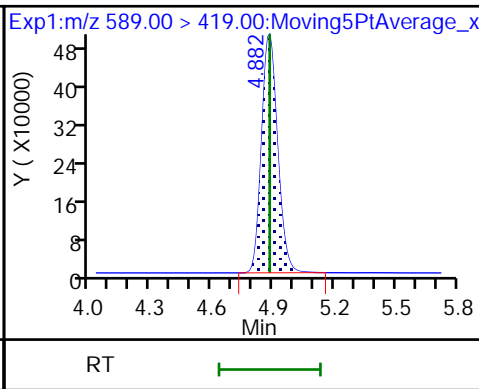
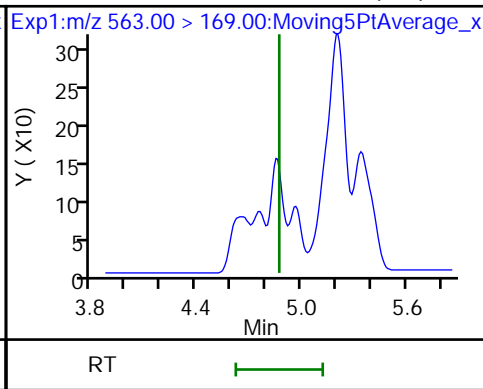
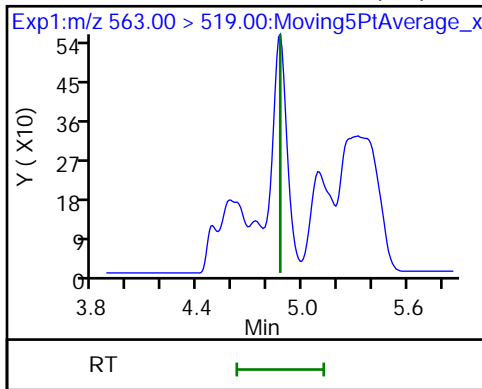
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

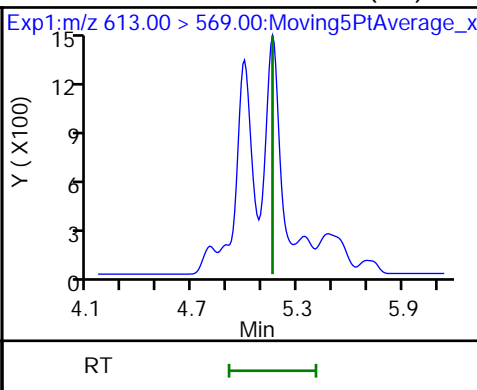
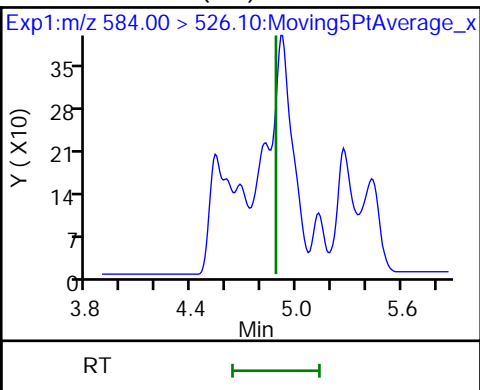
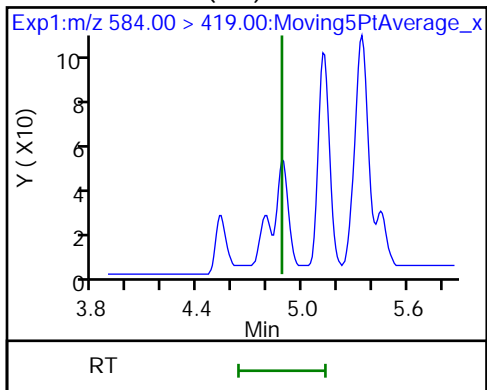
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

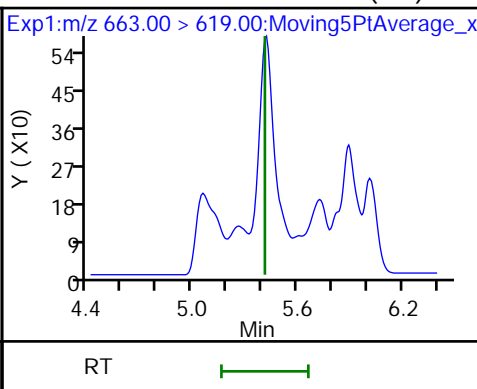
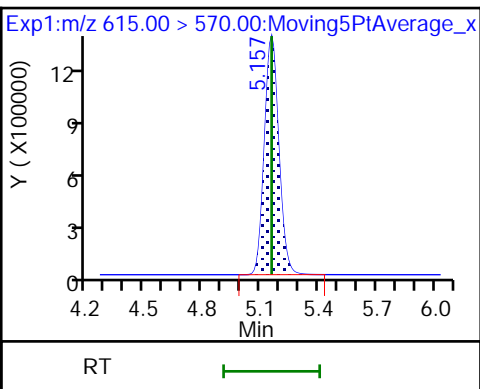
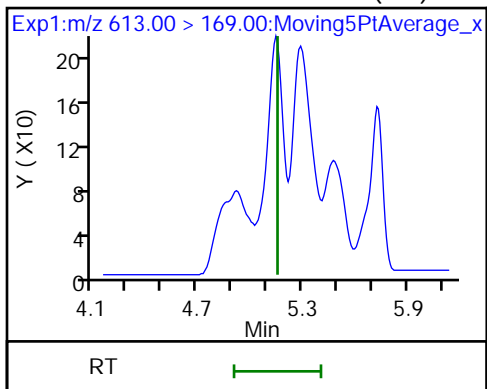
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

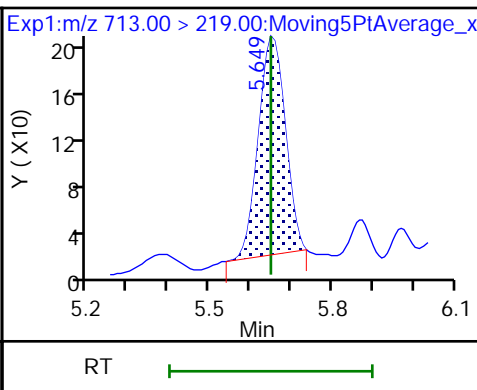
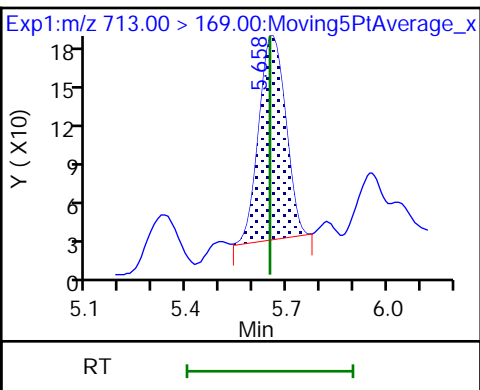
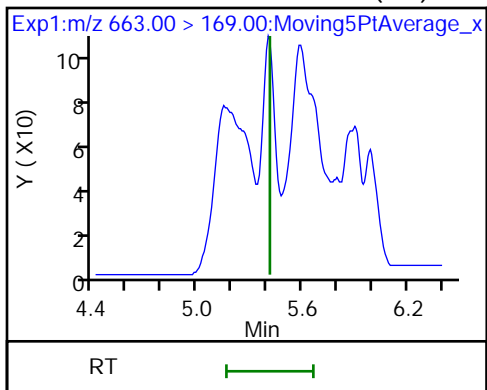
103 Perfluorotridecanoic acid (ND)



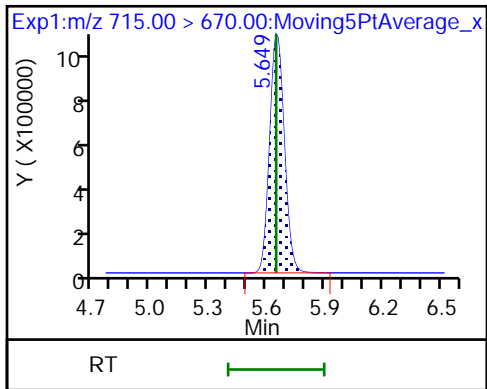
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-25 Lab Sample ID: 320-74597-15  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_032.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:30  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 265.1(mL) Date Analyzed: 06/10/2021 08:36  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.7	
2706-90-3	Perfluoropentanoic acid (PFPeA)	4.0		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	3.1		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	2.4		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.5		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.5		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	
27619-97-2	6:2 FTS	ND		4.7	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-25 Lab Sample ID: 320-74597-15  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_032.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:30  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 265.1 (mL) Date Analyzed: 06/10/2021 08:36  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	89		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	99		25-150
STL01892	13C4 PFHpA	104		25-150
STL00990	13C4 PFOA	102		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	99		25-150
STL00997	13C2 PFUnA	96		25-150
STL00998	13C2 PFDoA	102		25-150
STL02116	13C2 PFTeDA	102		25-150
STL02337	13C3 PFBS	104		25-150
STL00994	18O2 PFHxS	103		25-150
STL00991	13C4 PFOS	103		25-150
STL01056	13C8 FOSA	110		25-150
STL02118	d3-NMeFOSAA	99		25-150
STL02117	d5-NEtFOSAA	106		25-150
STL02279	M2-6:2 FTS	89		25-150
STL02280	M2-8:2 FTS	103		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_032.d  
 Lims ID: 320-74597-A-15-A  
 Client ID: BH20210604-1N-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:36:12 ALS Bottle#: 21 Worklist Smp#: 9  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-15-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:52:06 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:52:06  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA										
217.00 > 172.00	2.302	2.319	-0.017	0.602	5217569	1.11		89.1	38066	
10 Perfluorobutanoic acid										M
212.90 > 169.00	2.302	2.319	-0.017	1.000	307879	0.0780			104	M
18 Perfluoropentanoic acid										M
262.90 > 219.00	2.650	2.650	0.0	1.000	503498	0.1064			146	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.650	2.650	0.0	0.693	5646727	1.28		102	30795	
20 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.683	2.683	0.0	1.000	148002	0.0409	Target=2.31		138	M
298.90 > 99.00	2.672	2.683	-0.011	0.996	62838		2.36(1.15-3.46)		125	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.683	0.0	0.702	3720722	1.21		104	11553	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.010	3.018	-0.008	1.000	396283	0.0816	Target=13.85		384	
313.00 > 119.00	3.010	3.018	-0.008	1.000	27359		14.48(6.93-20.78)		308	
D 28 13C2 PFHxA										
315.00 > 270.00	3.010	3.018	-0.008	0.787	5421666	1.24		99.1	49613	
39 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.423	3.433	-0.010	1.000	167264	0.0667	Target=3.47		674	M
399.00 > 99.00	3.423	3.433	-0.010	1.000	44462		3.76(1.73-5.20)		361	M
D 38 18O2 PFHxS										
403.00 > 84.00	3.423	3.433	-0.010	0.895	2681246	1.22		103	38275	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.895	5591841	1.30		104	61038	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	207056	0.0438	Target=4.00		264	
363.00 > 169.00	3.423	3.433	-0.010	1.000	51234		4.04(2.00-6.00)		723	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.805	3.815	-0.010	0.995	1049126	1.05		88.8	5814	
53 6:2 FTS										
427.00 > 407.00	3.805	3.815	-0.010	1.000	12327	0.006774	Target=1.95		71.5	
427.00 > 79.96	3.814	3.815	-0.001	1.003	6652		1.85(0.98-2.93)		27.5	
D 56 13C4 PFOA										
417.00 > 372.00	3.824	3.834	-0.010	1.000	6218839	1.27		102	50415	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.824	3.834	-0.010	1.000	329715	0.0634	Target=3.05		528	M
413.00 > 169.00	3.824	3.834	-0.010	1.000	121329		2.72(1.53-4.58)		865	M
* 57 13C2 PFOA										
415.00 > 370.00	3.824	3.834	-0.010		5873129	1.25			36397	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.097	2123594	1.24		103	21306	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.193	4.201	-0.008	1.000	187063	0.0936	Target=5.72		684	
499.00 > 99.00	4.193	4.201	-0.008	1.000	38330		4.88(2.86-8.58)		629	
D 63 13C5 PFNA										
468.00 > 423.00	4.201	4.209	-0.008	1.099	5976246	1.28		102	48416	
64 Perfluorononanoic acid										
463.00 > 419.00	4.201	4.217	-0.016	1.000	42132	0.008900	Target=7.63		114	
463.00 > 169.00	4.201	4.217	-0.016	1.000	4705		8.95(3.81-11.44)		49.8	
D 71 13C8 FOSA										
506.00 > 78.00	4.523	4.532	-0.009	1.183	3985601	1.38		110	43252	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.523	4.532	-0.009	1.000	12216	0.003816			220	
D 74 13C2 PFDA										
515.00 > 470.00	4.550	4.559	-0.009	1.190	5795173	1.24		99.0	65466	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.550	4.559	-0.009	1.000	31201	0.006583	Target=8.80		169	
513.00 > 169.00	4.550	4.559	-0.009	1.000	4347		7.18(4.40-13.19)		79.1	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.192	1910209	1.23		103	19215	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.234	2446283	1.24		99.0	23305	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.274	5434194	1.20		96.3	59960	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.872	4.882	-0.010	1.274	2617094	1.33		106	25529	
D 97 13C2 PFDoA										
615.00 > 570.00	5.148	5.156	-0.008	1.346	6229029	1.28		102	79763	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.640	5.649	-0.009	0.998	1588	0.002823	Target=1.13		50.3	
713.00 > 219.00	5.640	5.649	-0.009	0.998	1272		1.25(0.57-1.70)		61.8	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.650	5.649	0.001	1.478	5719806	1.27		102	54087	

[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

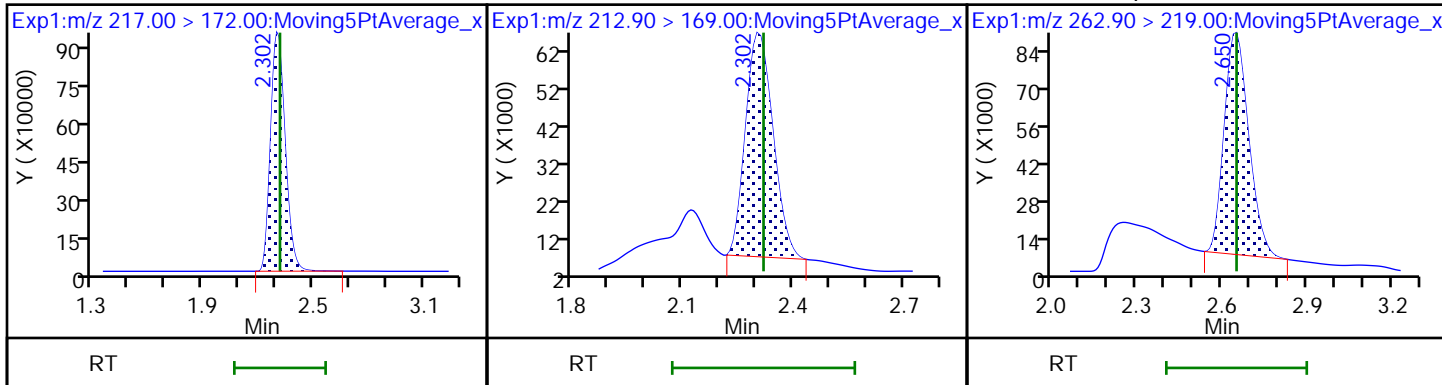


Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_032.d  
Injection Date: 10-Jun-2021 08:36:12 Instrument ID: A15  
Lims ID: 320-74597-A-15-A Lab Sample ID: 320-74597-15  
Client ID: BH20210604-1N-25  
Operator ID: SACINSTA15 ALS Bottle#: 21 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid (M)

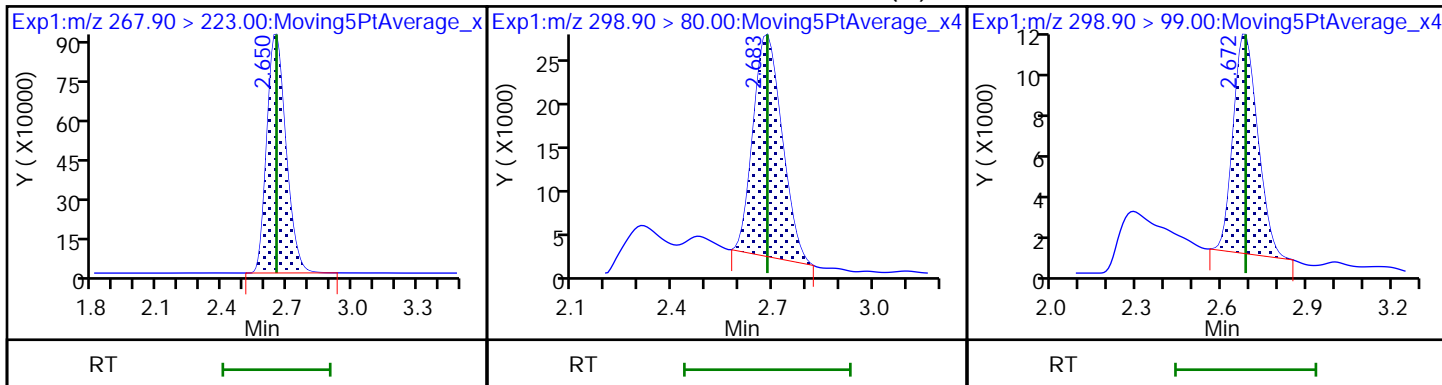
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (M)

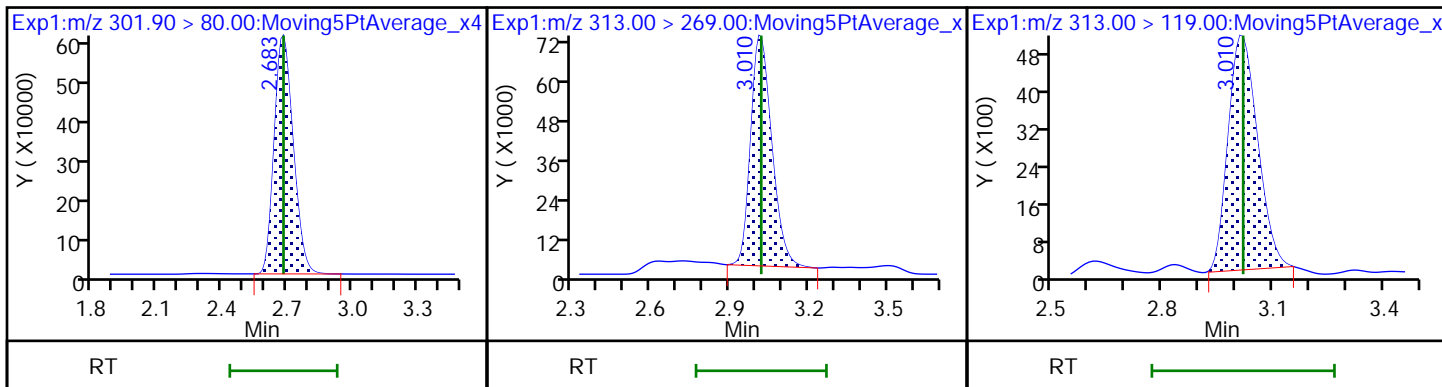
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

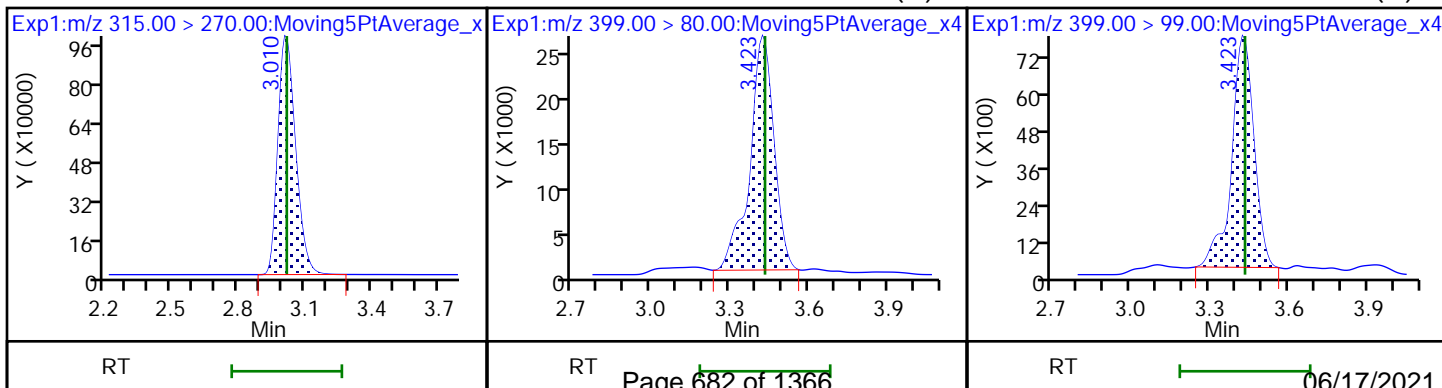
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

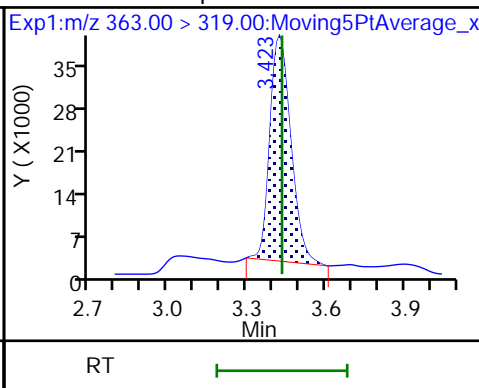
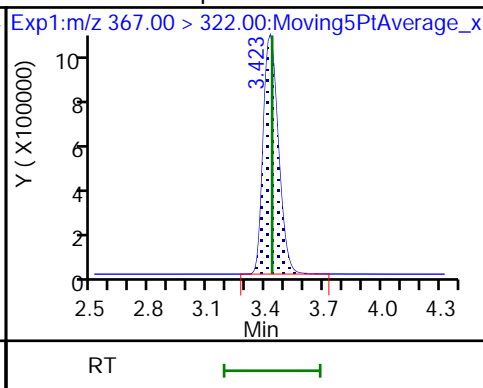
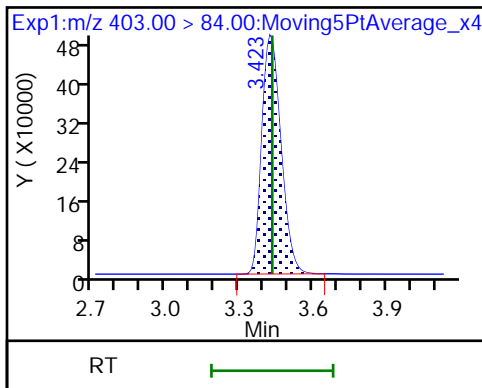
39 Perfluorohexanesulfonic acid (M)



D 38 18O2 PFHxS

D 37 13C4 PFHpA

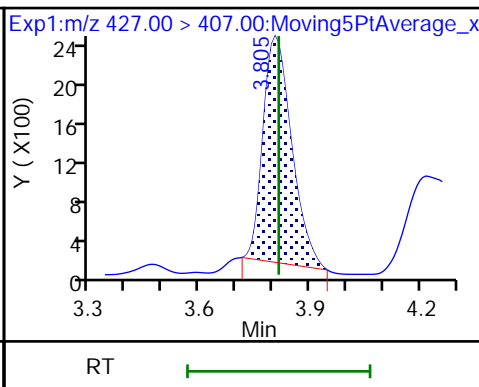
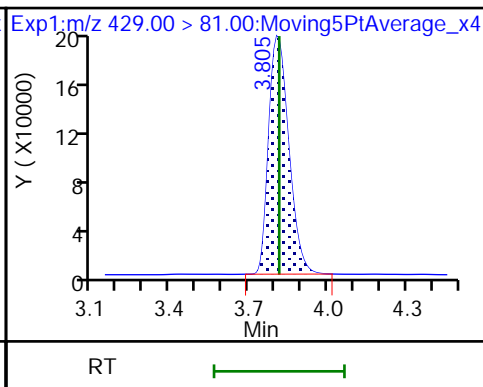
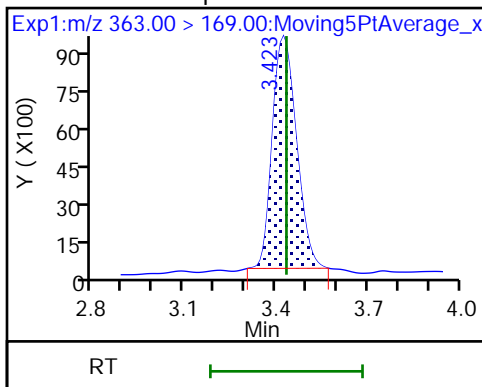
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

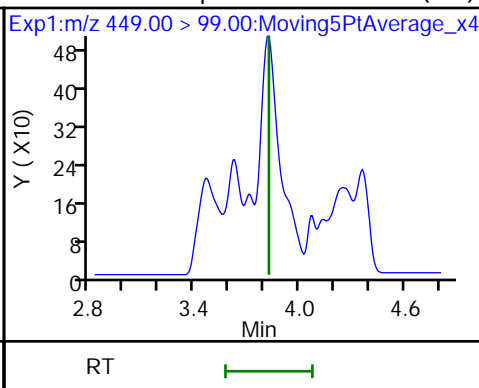
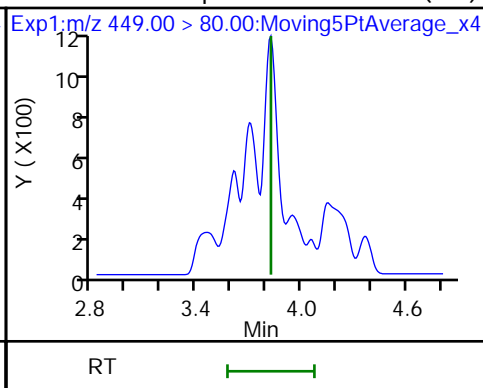
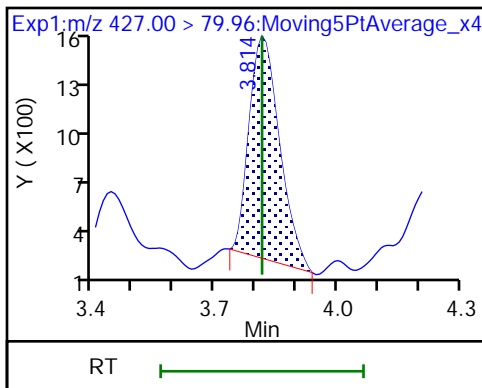
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

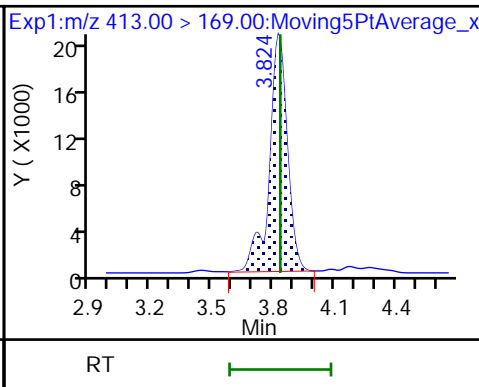
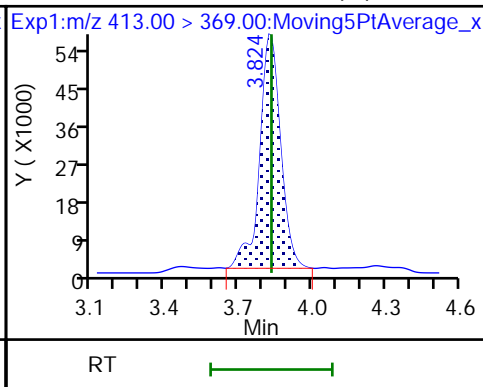
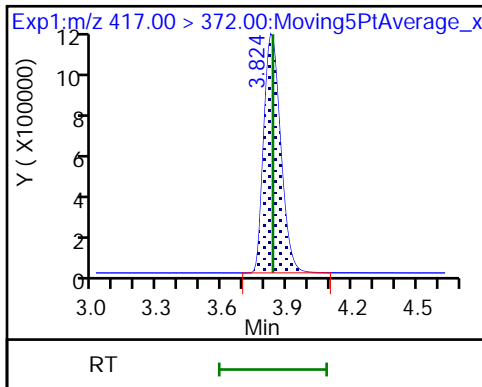
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

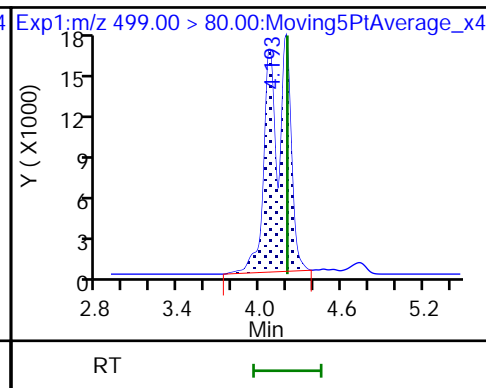
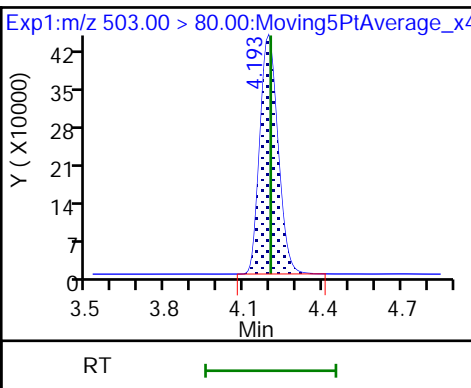
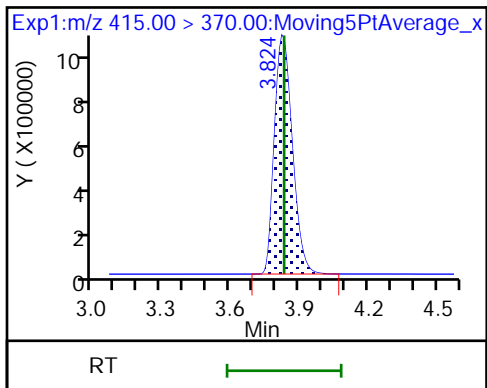
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

D 61 13C4 PFOS

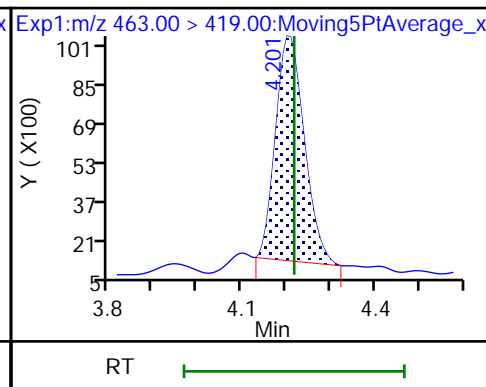
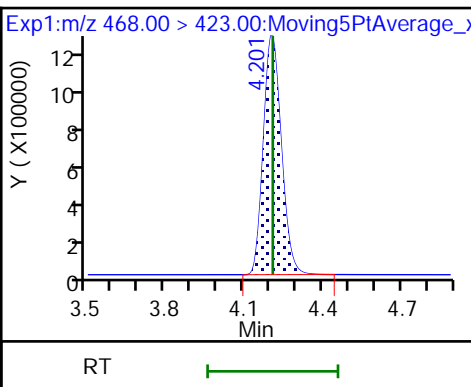
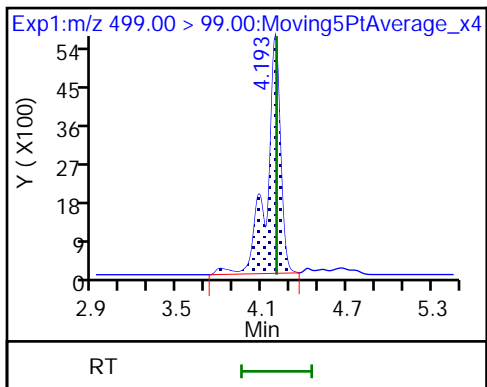
62 Perfluorooctanesulfonic acid



62 Perfluorooctanesulfonic acid

D 63 13C5 PFNA

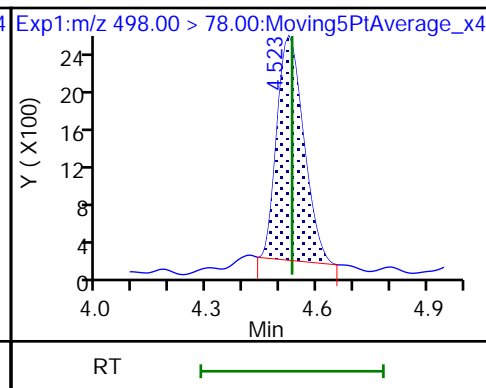
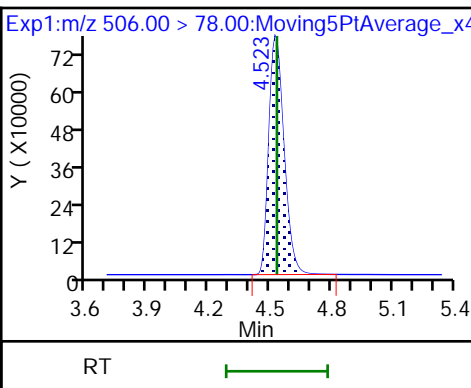
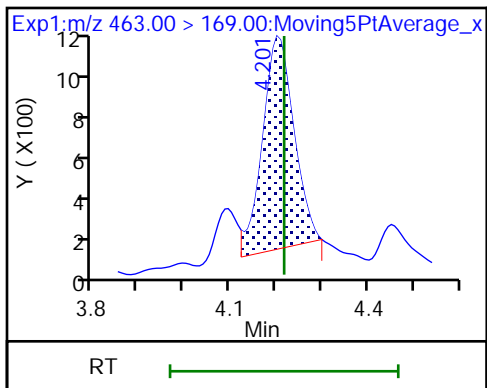
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

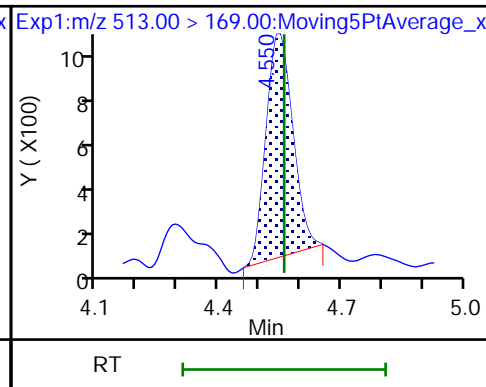
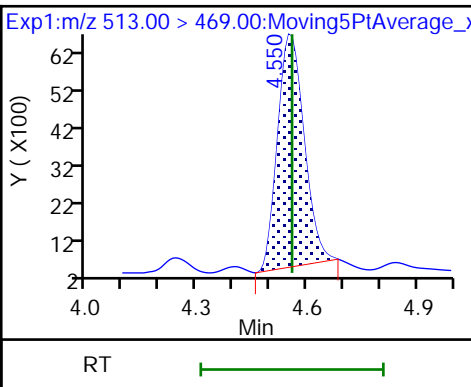
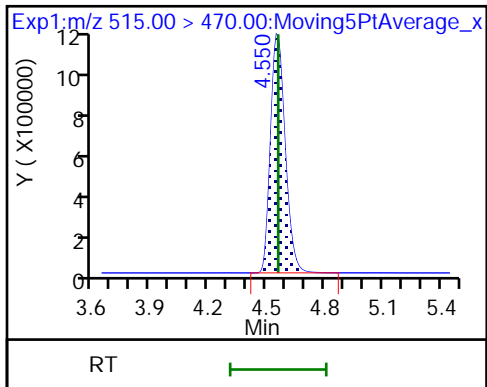
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

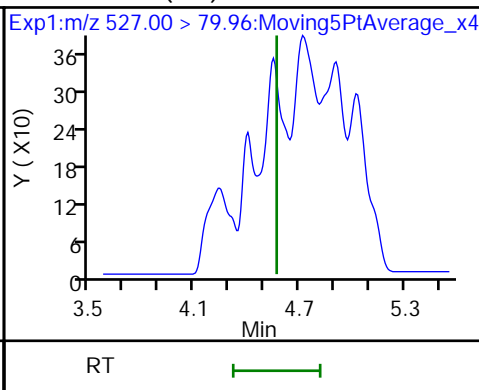
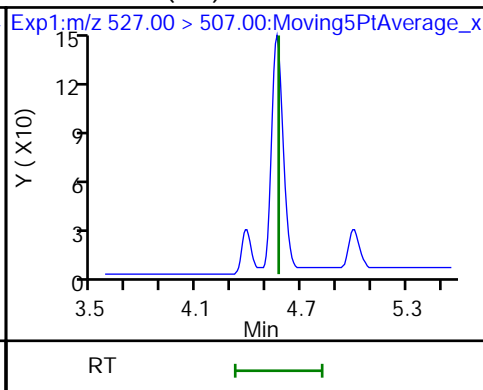
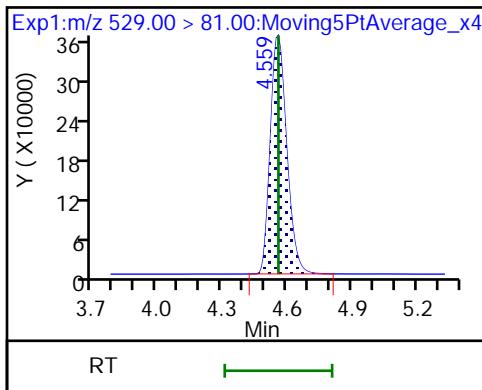
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

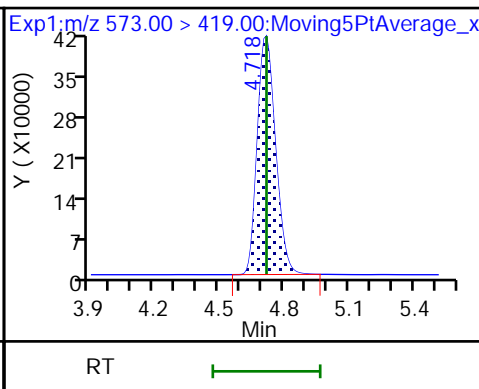
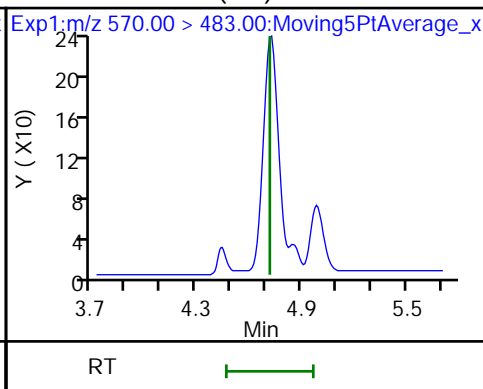
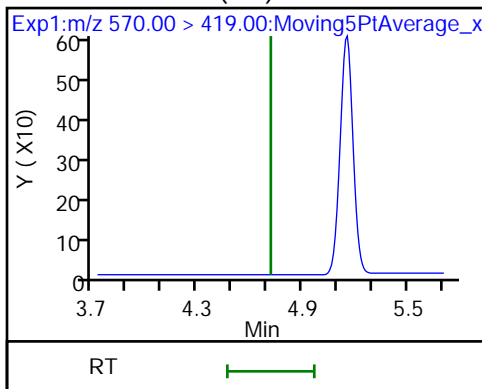
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

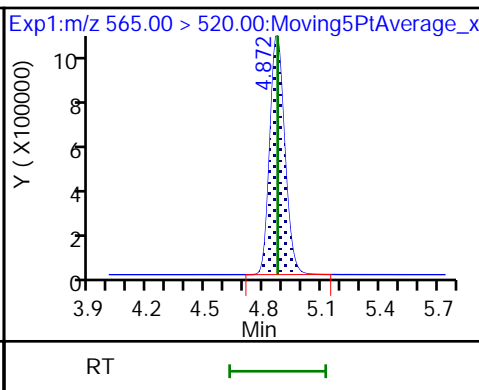
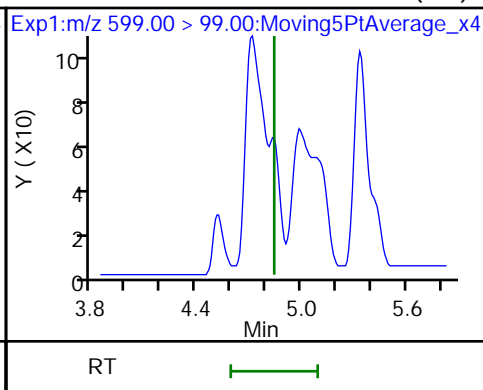
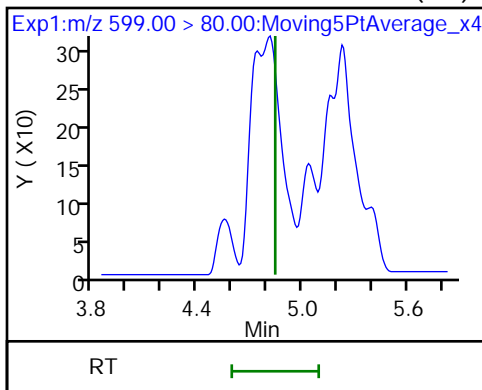
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

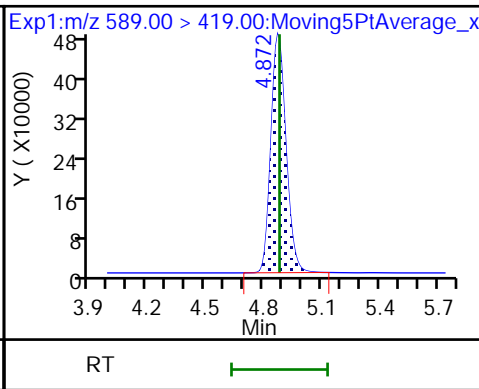
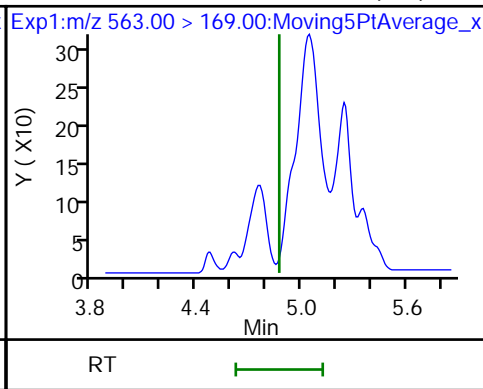
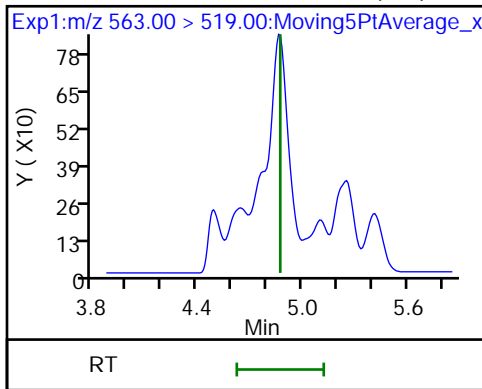
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

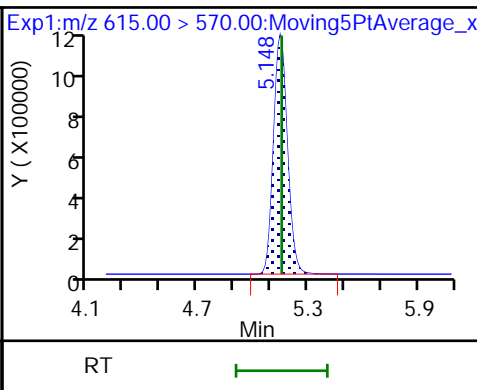
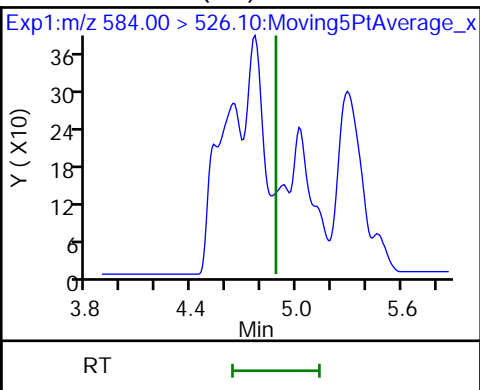
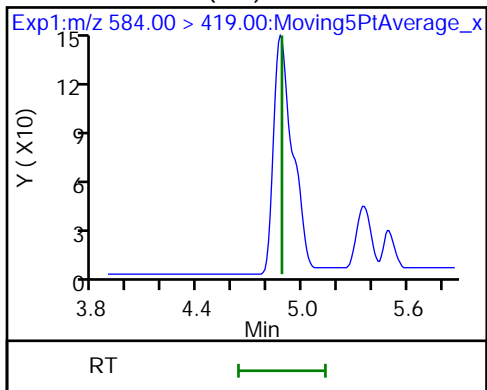
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

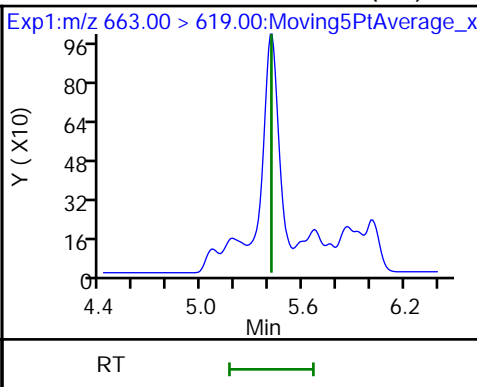
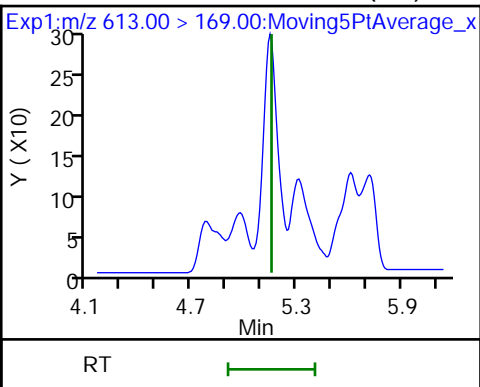
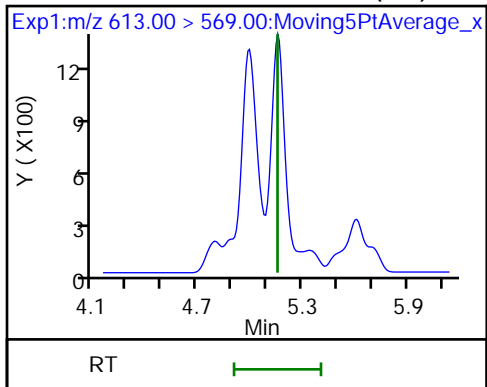
D 97 13C2 PFDaA



98 Perfluorododecanoic acid (ND)

98 Perfluorododecanoic acid (ND)

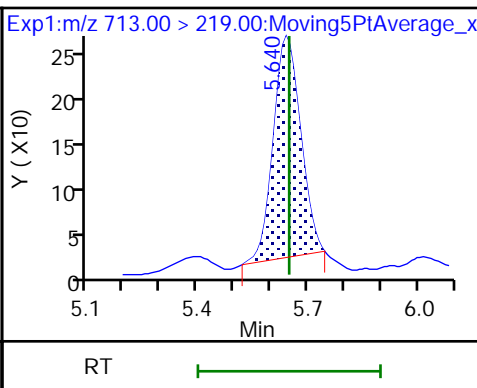
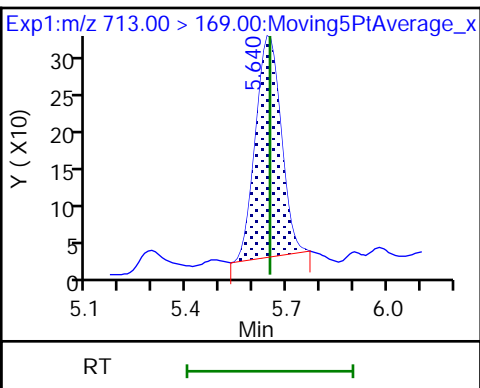
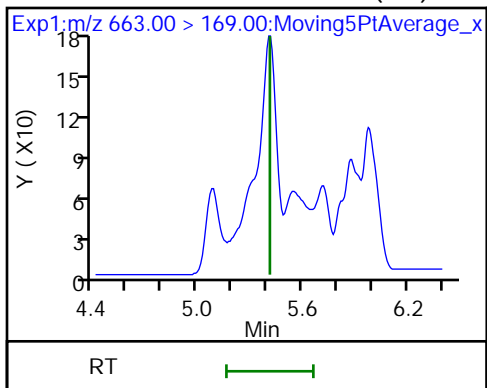
103 Perfluorotridecanoic acid (ND)



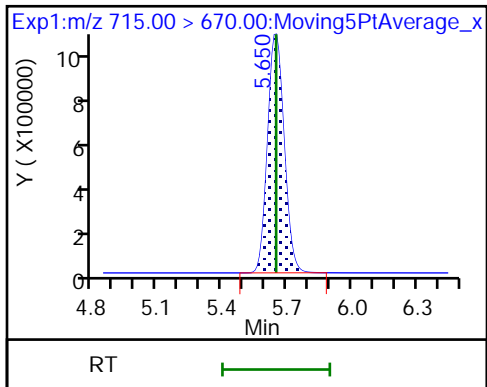
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

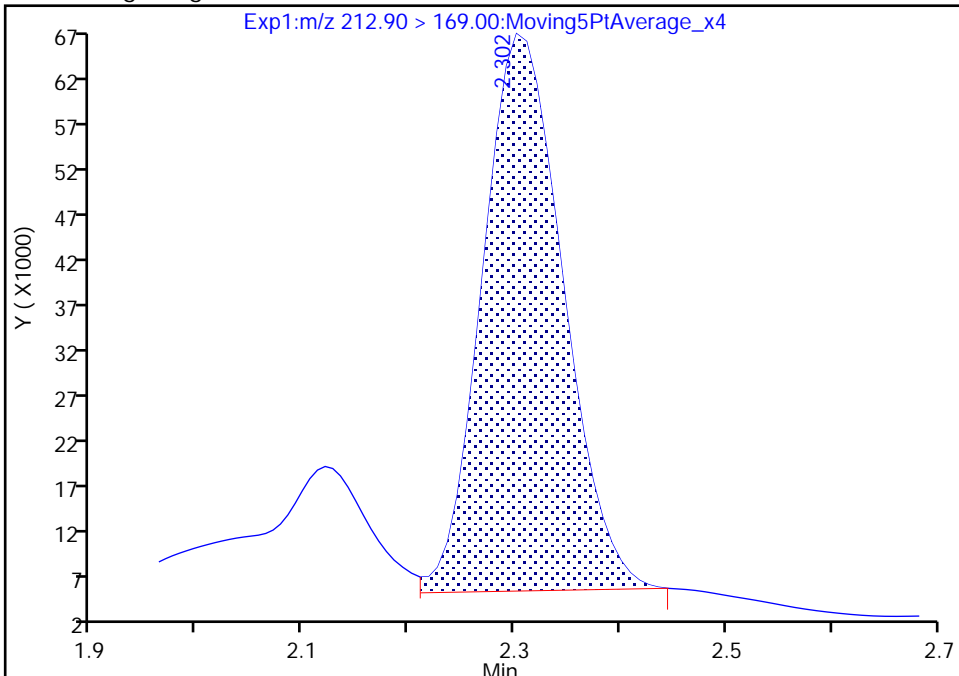
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Injection Date: 10-Jun-2021 08:36:12 Instrument ID: A15  
Lims ID: 320-74597-A-15-A Lab Sample ID: 320-74597-15  
Client ID: BH20210604-1N-25  
Operator ID: SACINSTA15 ALS Bottle#: 21 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

10 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

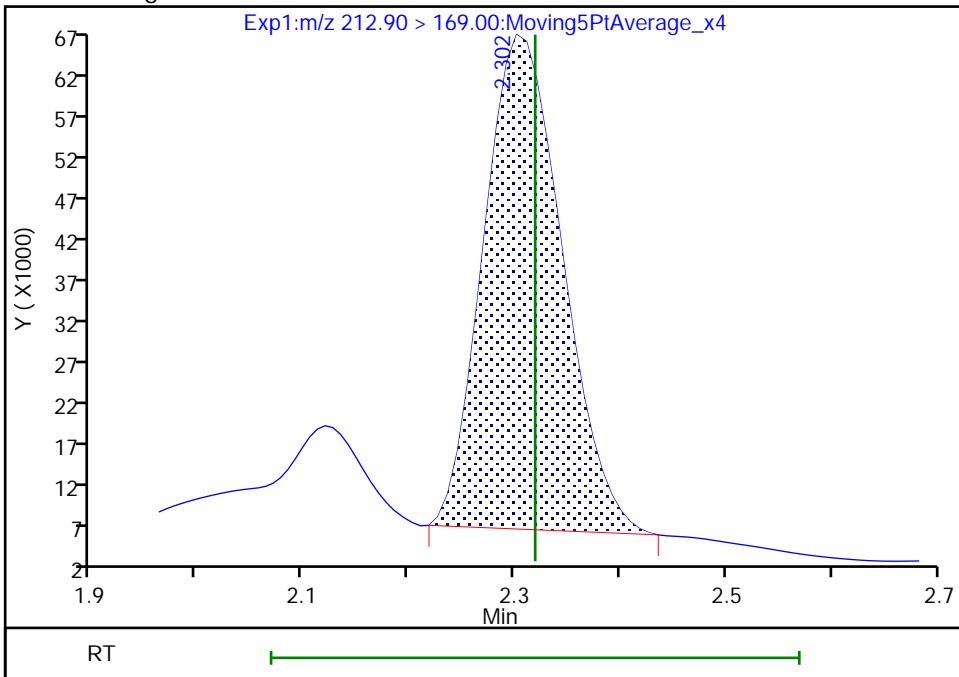
RT: 2.30  
Area: 320972  
Amount: 0.081293  
Amount Units: ng/ml

Processing Integration Results



RT: 2.30  
Area: 307879  
Amount: 0.077977  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:51:26  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

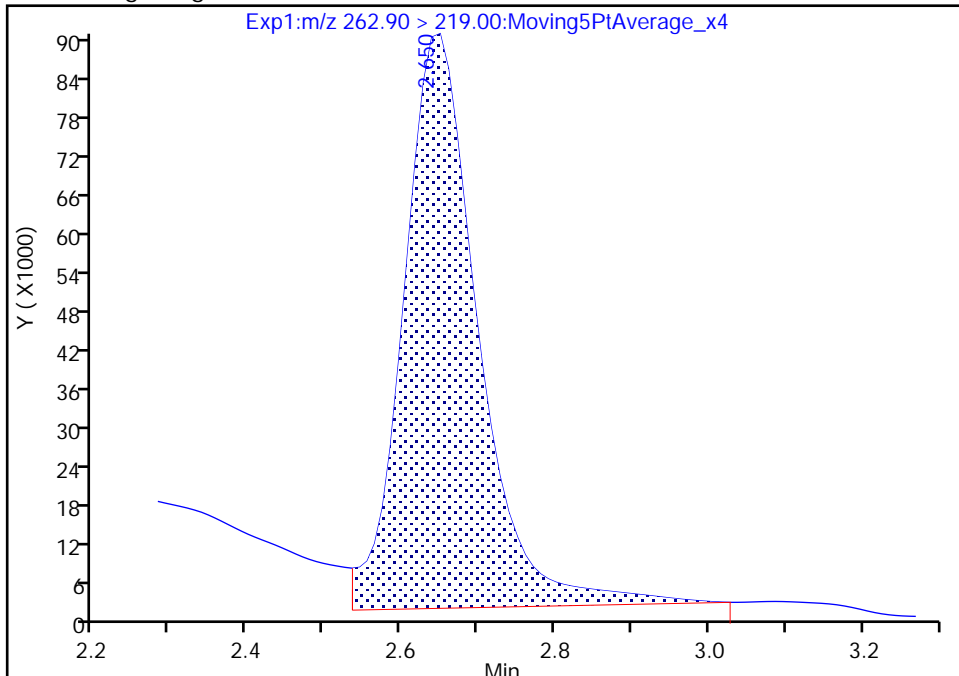
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Lims ID: 320-74597-A-15-A Lab Sample ID: 320-74597-15  
Client ID: BH20210604-1N-25  
Operator ID: SACINSTA15 ALS Bottle#: 21 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

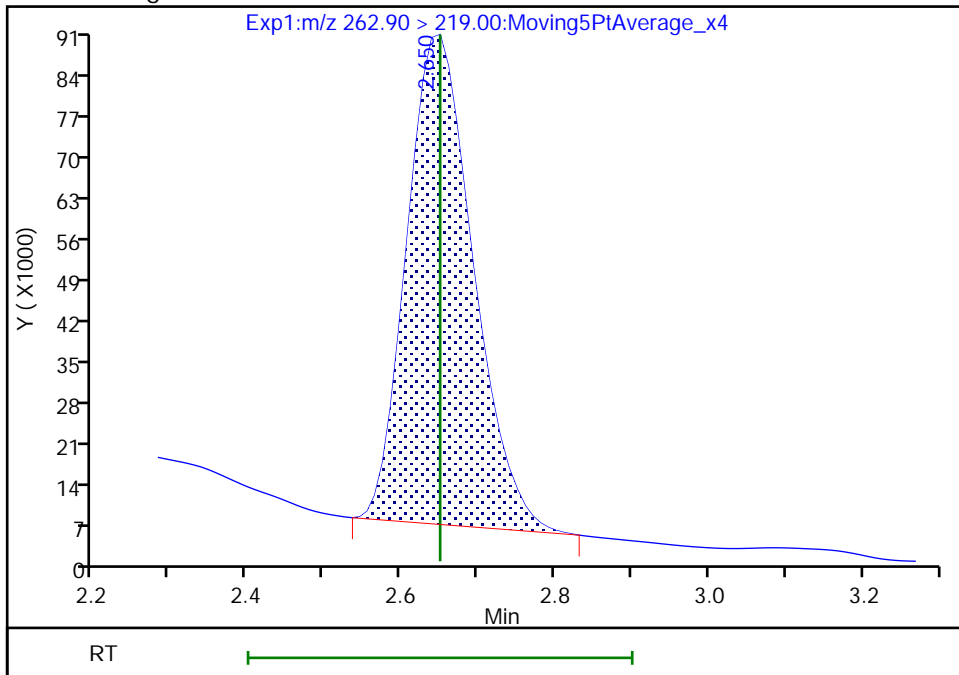
RT: 2.65  
Area: 599867  
Amount: 0.126723  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 503498  
Amount: 0.106365  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:51:30  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

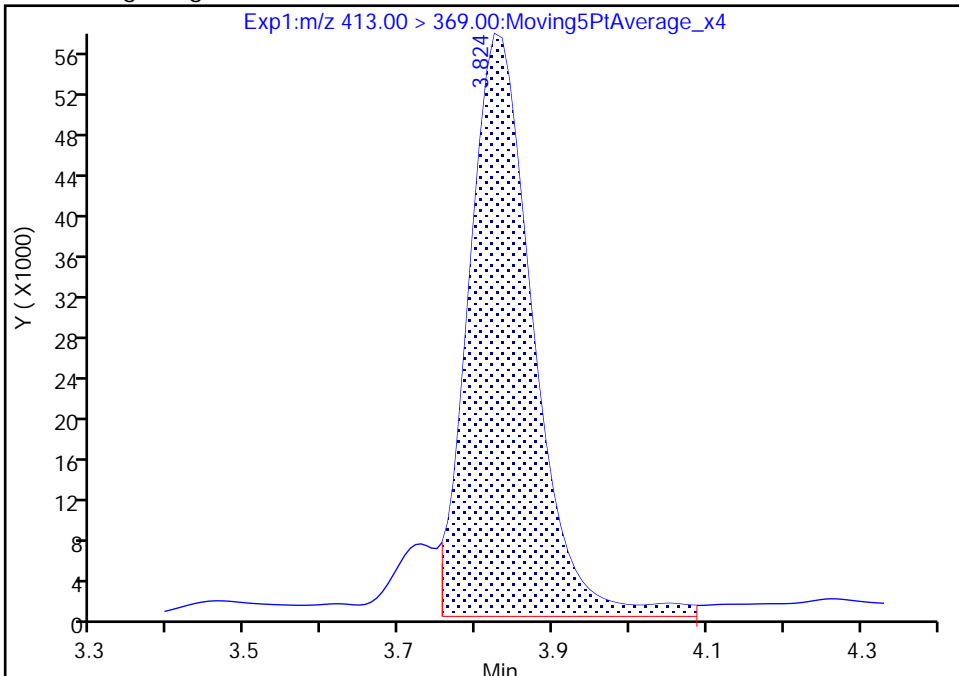
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_032.d		
Injection Date:	10-Jun-2021 08:36:12	Instrument ID:	A15
Lims ID:	320-74597-A-15-A	Lab Sample ID:	320-74597-15
Client ID:	BH20210604-1N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

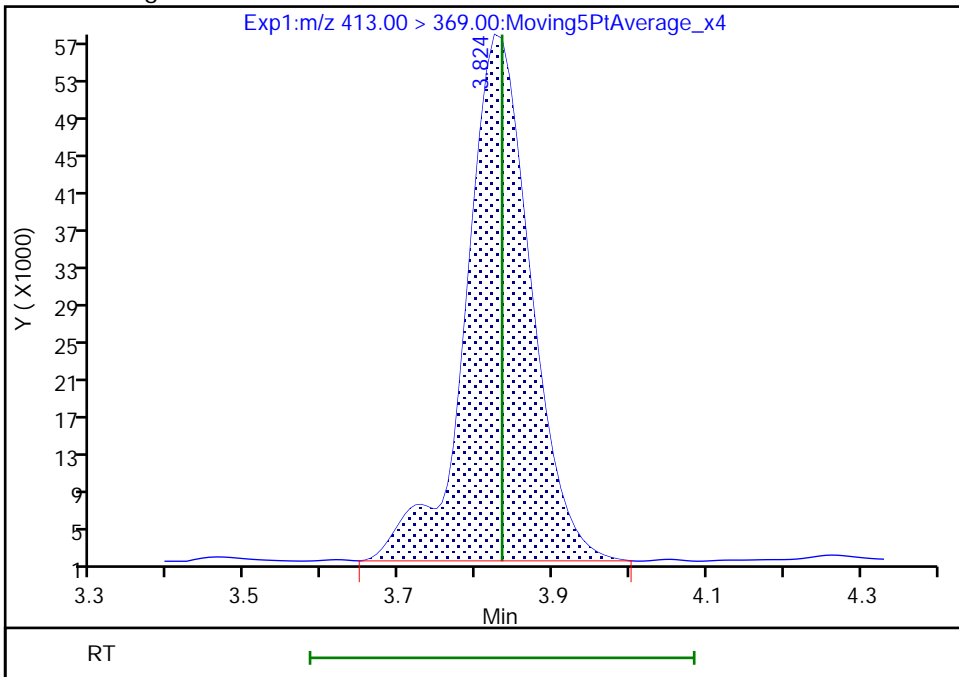
RT: 3.82  
 Area: 329249  
 Amount: 0.063328  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.82  
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 Amount: 0.063418  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:51:57  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Euofins TestAmerica, Sacramento

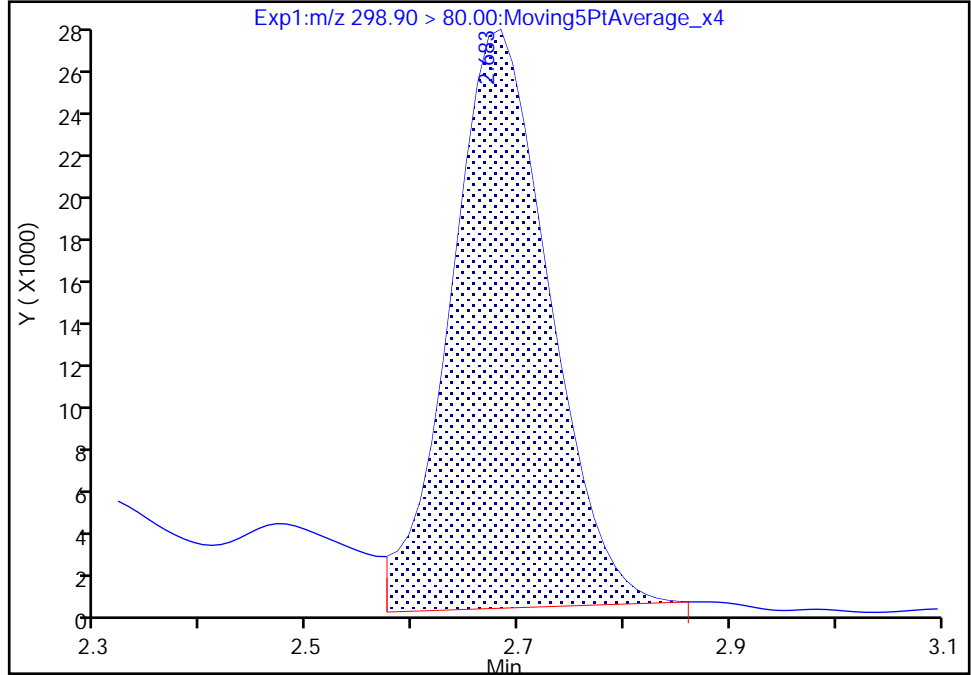
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_032.d		
Injection Date:	10-Jun-2021 08:36:12	Instrument ID:	A15
Lims ID:	320-74597-A-15-A	Lab Sample ID:	320-74597-15
Client ID:	BH20210604-1N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

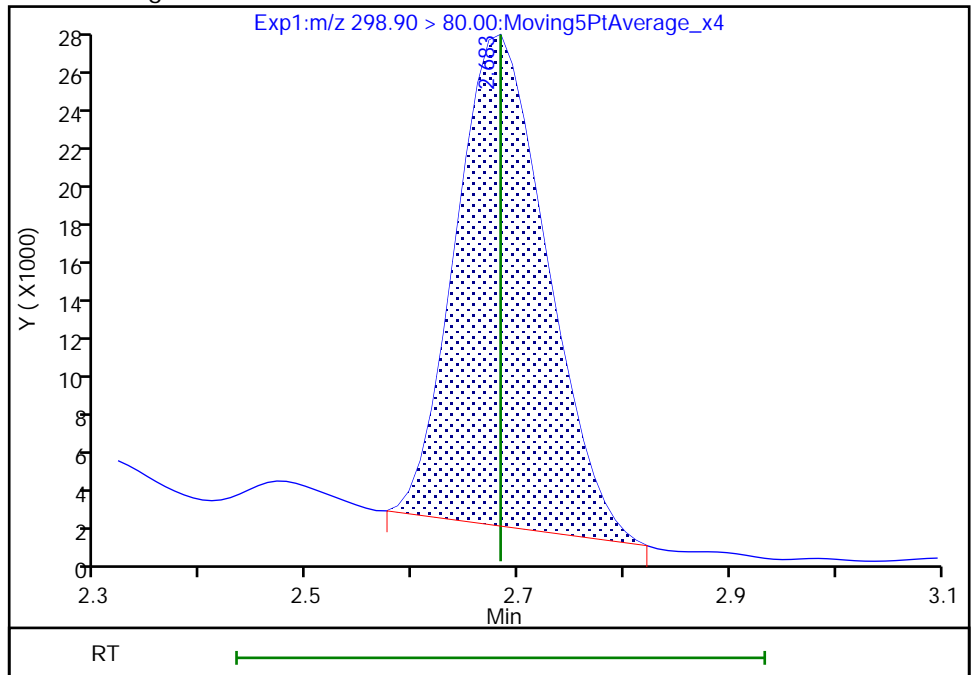
RT: 2.68  
Area: 169548  
Amount: 0.046848  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 148002  
Amount: 0.040895  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:51:35  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

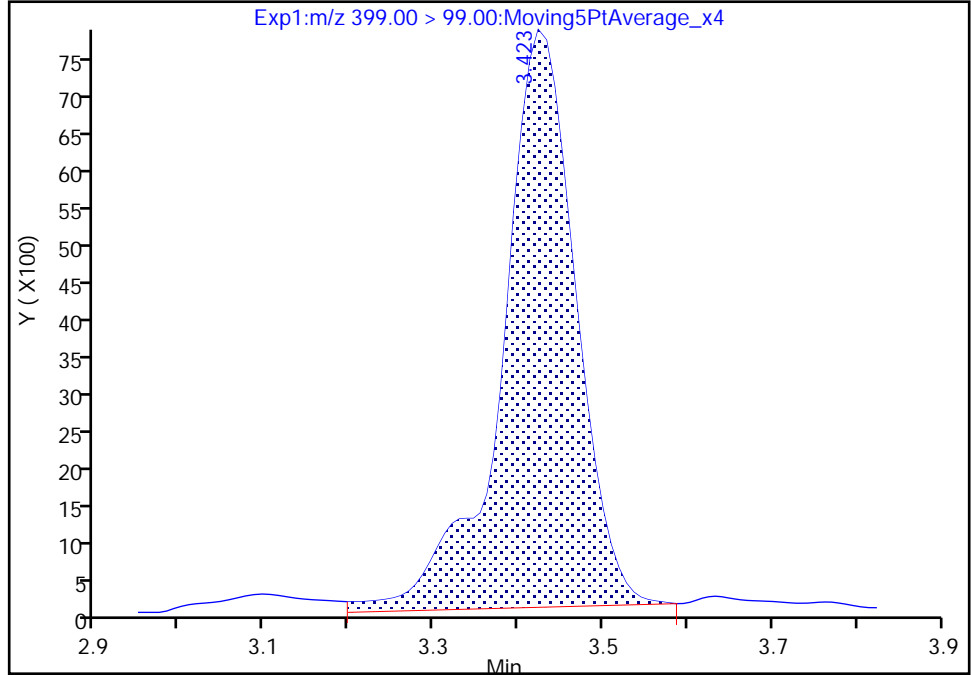
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_032.d  
Injection Date: 10-Jun-2021 08:36:12 Instrument ID: A15  
Lims ID: 320-74597-A-15-A Lab Sample ID: 320-74597-15  
Client ID: BH20210604-1N-25  
Operator ID: SACINSTA15 ALS Bottle#: 21 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

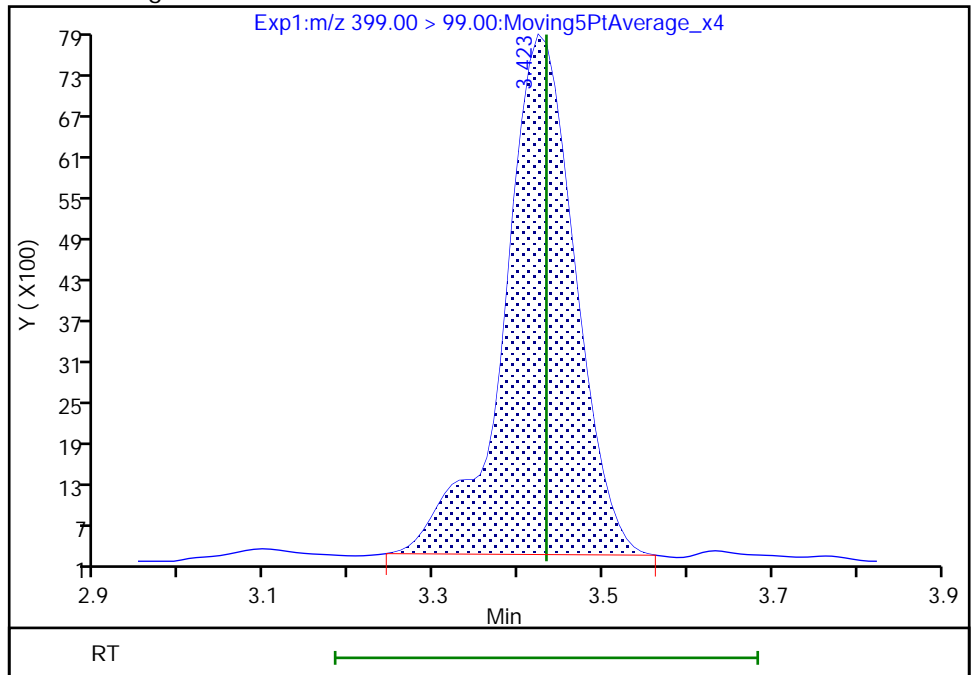
RT: 3.42  
Area: 46805  
Amount: 0.067905  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 44462  
Amount: 0.066710  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:51:43  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

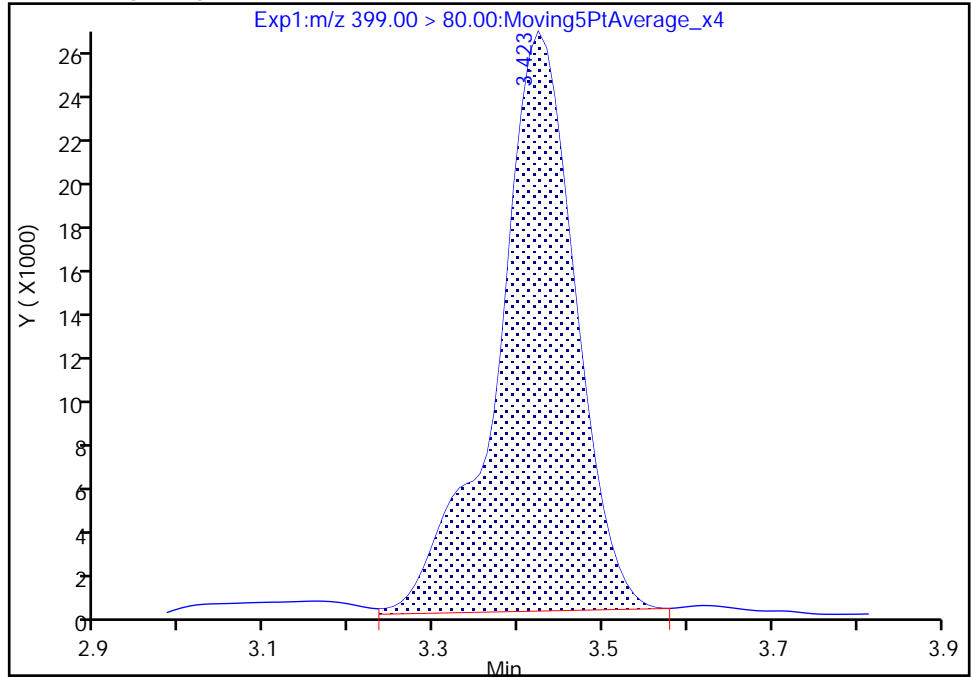
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_032.d		
Injection Date:	10-Jun-2021 08:36:12	Instrument ID:	A15
Lims ID:	320-74597-A-15-A	Lab Sample ID:	320-74597-15
Client ID:	BH20210604-1N-25		
Operator ID:	SACINSTA15	ALS Bottle#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	9

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

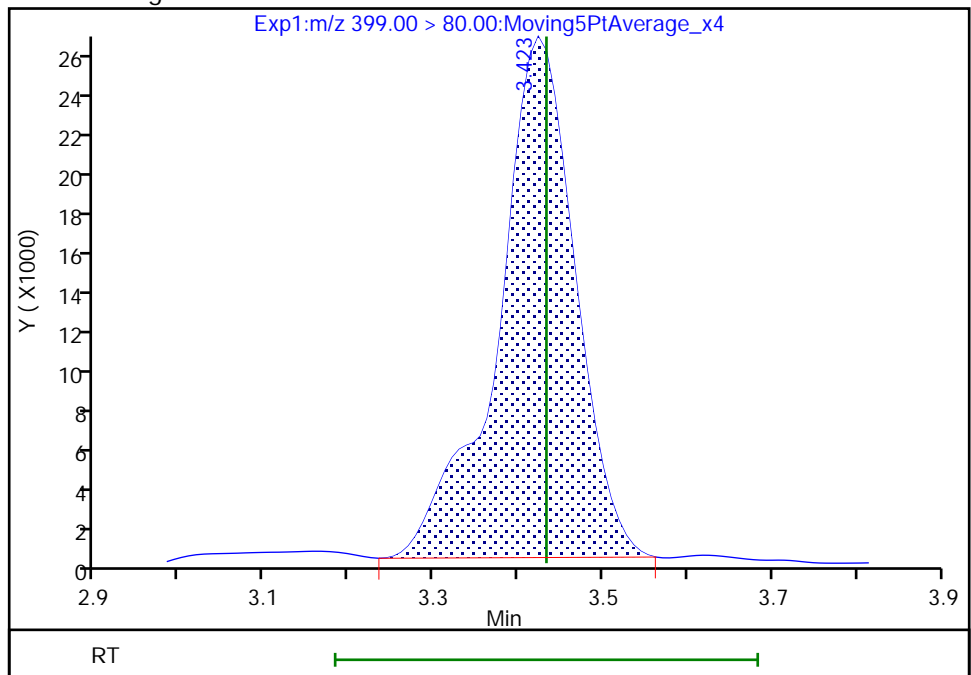
RT: 3.42  
 Area: 170260  
 Amount: 0.067905  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
 Area: 167264  
 Amount: 0.066710  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:51:47

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-50 Lab Sample ID: 320-74597-16  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_033.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:31  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 275.8 (mL) Date Analyzed: 06/10/2021 08:45  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.5	
2706-90-3	Perfluoropentanoic acid (PFPeA)	4.1		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.9		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	1.9		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.2		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	
27619-97-2	6:2 FTS	ND		4.5	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-50 Lab Sample ID: 320-74597-16  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_033.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:31  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 275.8 (mL) Date Analyzed: 06/10/2021 08:45  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	98		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	100		25-150
STL01892	13C4 PFHpA	108		25-150
STL00990	13C4 PFOA	103		25-150
STL00995	13C5 PFNA	103		25-150
STL00996	13C2 PFDA	98		25-150
STL00997	13C2 PFUnA	94		25-150
STL00998	13C2 PFDoA	104		25-150
STL02116	13C2 PFTeDA	97		25-150
STL02337	13C3 PFBS	107		25-150
STL00994	18O2 PFHxS	111		25-150
STL00991	13C4 PFOS	110		25-150
STL01056	13C8 FOSA	112		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	111		25-150
STL02279	M2-6:2 FTS	84		25-150
STL02280	M2-8:2 FTS	101		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
 Lims ID: 320-74597-A-16-A  
 Client ID: BH20210604-1N-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:45:19 ALS Bottle#: 22 Worklist Smp#: 10  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-16-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:53:13 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:53:13  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA										
217.00 > 172.00	2.302	2.319	-0.017	0.602	5708791	1.22		97.8	40149	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.302	2.319	-0.017	1.000	352202	0.0815			138	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.652	2.650	0.002	1.000	529496	0.1128			178	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.652	2.650	0.002	0.693	5598703	1.27		102	32507	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.683	0.001	1.000	126703	0.0340	Target=2.31		135	M
298.90 > 99.00	2.684	2.683	0.001	1.000	63251		2.00(1.15-3.46)		135	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.683	0.001	0.702	3825787	1.25		107	13318	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.018	0.0	1.003	388473	0.0795	Target=13.85		387	M
313.00 > 119.00	3.018	3.018	0.0	1.003	27339		14.21(6.93-20.78)		327	
D 28 13C2 PFHxA										
315.00 > 270.00	3.010	3.018	-0.008	0.787	5451927	1.25		100	66068	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.423	3.433	-0.010	1.000	127196	0.0473	Target=3.47		570	M
399.00 > 99.00	3.423	3.433	-0.010	1.000	35841		3.55(1.73-5.20)		306	
D 38 18O2 PFHxS										
403.00 > 84.00	3.423	3.433	-0.010	0.895	2874095	1.32		111	44274	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.895	5802807	1.35		108	46911	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	162244	0.0331	Target=4.00		217	
363.00 > 169.00	3.423	3.433	-0.010	1.000	48067		3.38(2.00-6.00)		572	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.805	3.815	-0.010	0.995	994748	1.00		84.5	5627	
53 6:2 FTS										
427.00 > 407.00	3.805	3.815	-0.010	1.000	7734	0.004482	Target=1.95		39.6	
427.00 > 79.96	3.805	3.815	-0.010	1.000	4281		1.81(0.98-2.93)		17.8	
D 56 13C4 PFOA										
417.00 > 372.00	3.824	3.834	-0.010	1.000	6265169	1.28		103	64360	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.824	3.834	-0.010	1.000	273008	0.0521	Target=3.05		447	M
413.00 > 169.00	3.824	3.834	-0.010	1.000	100456		2.72(1.53-4.58)		793	M
* 57 13C2 PFOA										
415.00 > 370.00	3.824	3.834	-0.010		5850608	1.25			49258	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.097	2239534	1.31		110	22467	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.073	4.201	-0.128	0.971	125136	0.0593	Target=5.72		505	M
499.00 > 99.00	4.186	4.201	-0.015	0.998	22160		5.65(2.86-8.58)		252	M
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.101	5979213	1.28		103	62632	
D 71 13C8 FOSA										
506.00 > 78.00	4.523	4.532	-0.009	1.183	4026914	1.40		112	45905	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.002	6742	0.002085			156	
D 74 13C2 PFDA										
515.00 > 470.00	4.550	4.559	-0.009	1.190	5728383	1.23		98.3	60551	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.002	31089	0.006636	Target=8.80		203	
513.00 > 169.00	4.550	4.559	-0.009	1.000	3328		9.34(4.40-13.19)		76.8	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.192	1874226	1.21		101	17053	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.234	2460012	1.25		99.9	19078	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.274	5287174	1.18		94.1	61857	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.872	4.882	-0.010	1.274	2715206	1.39		111	29480	
D 97 13C2 PFDaA										
615.00 > 570.00	5.156	5.156	0.0	1.348	6321369	1.30		104	79948	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.649	5.649	0.0	1.000	1498	0.002806	Target=1.13		34.7	
713.00 > 219.00	5.649	5.649	0.0	1.000	893		1.68(0.57-1.70)		32.0	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.649	0.0	1.477	5428073	1.21		96.9	58082	

[QC Flag Legend](#)

Processing Flags

Review Flags

M - Manually Integrated

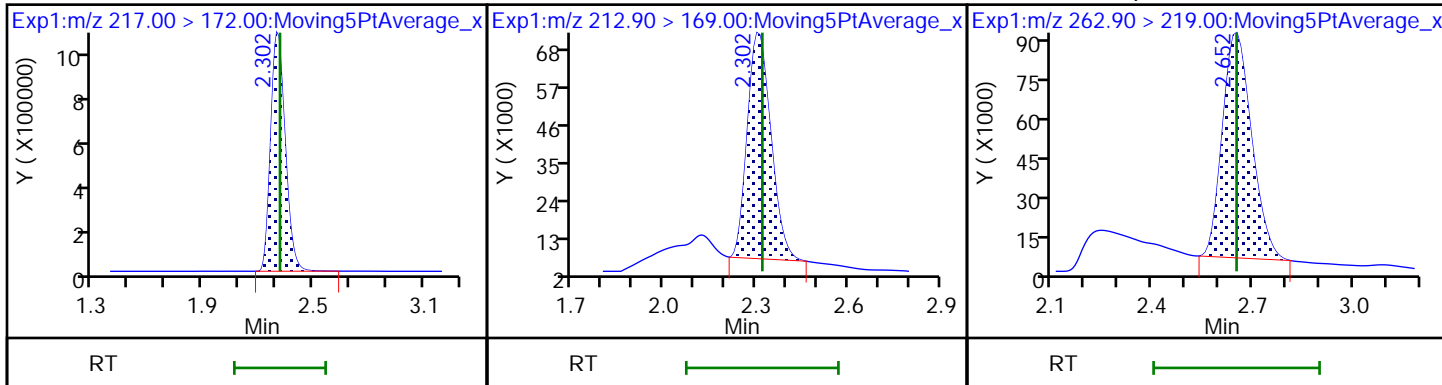


Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
 Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
 Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
 Client ID: BH20210604-1N-50  
 Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

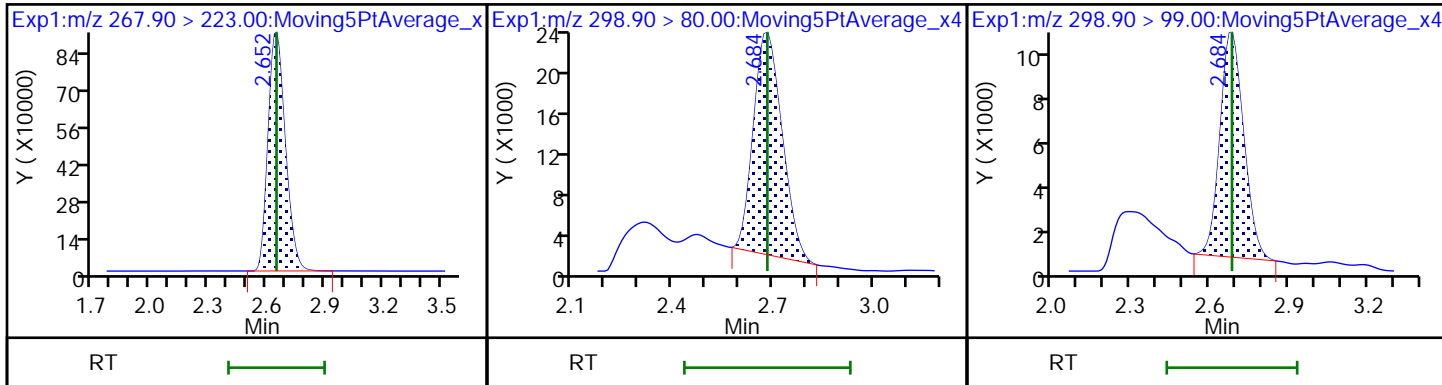
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (M)

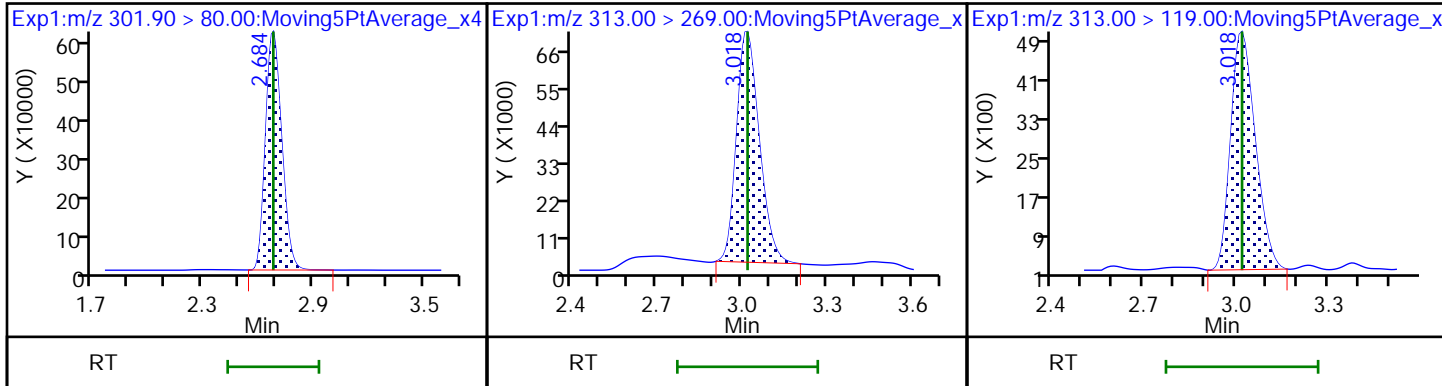
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid (M)

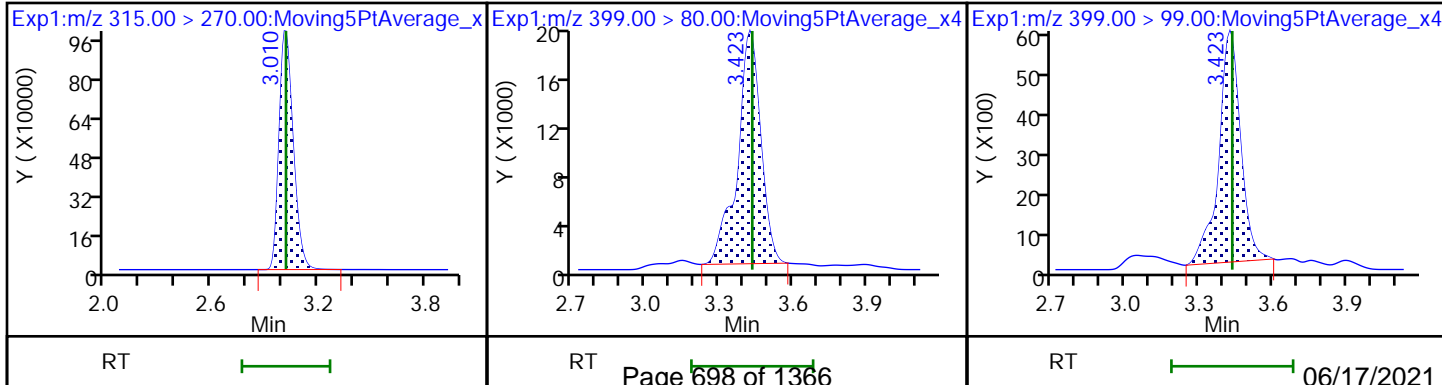
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

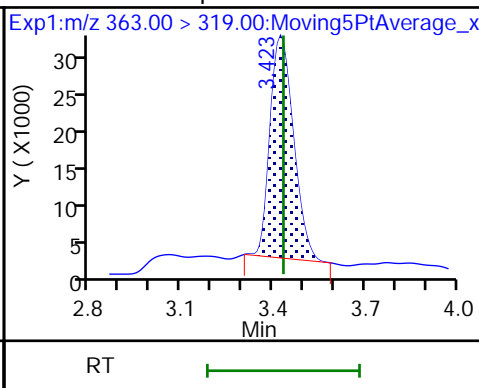
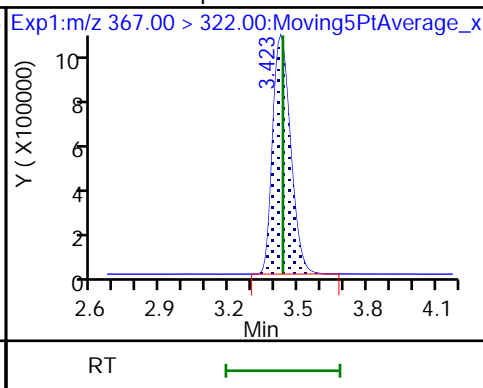
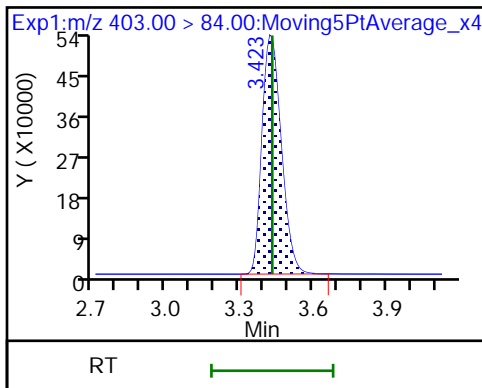
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

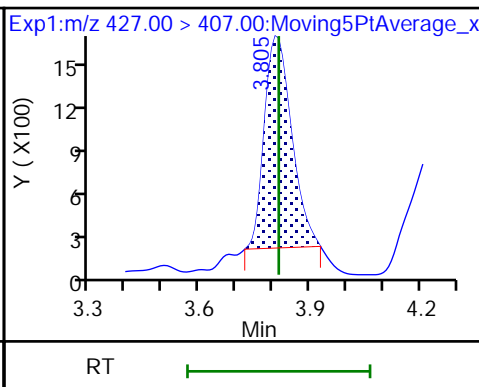
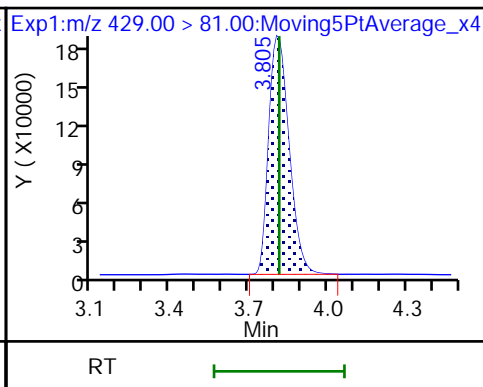
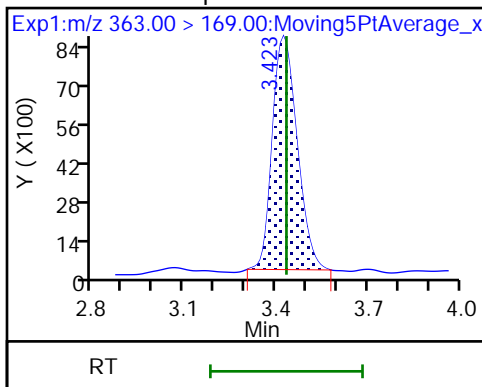
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

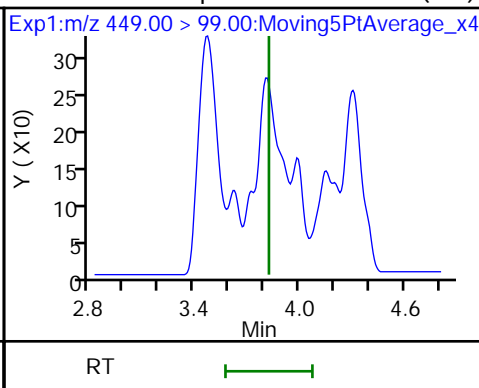
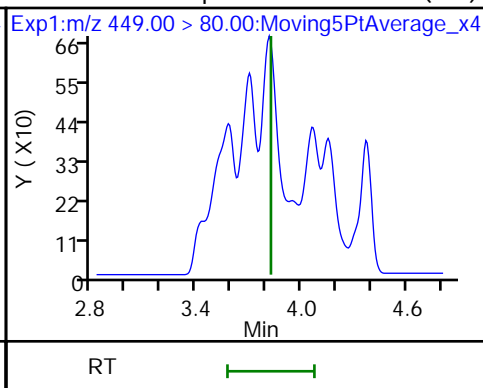
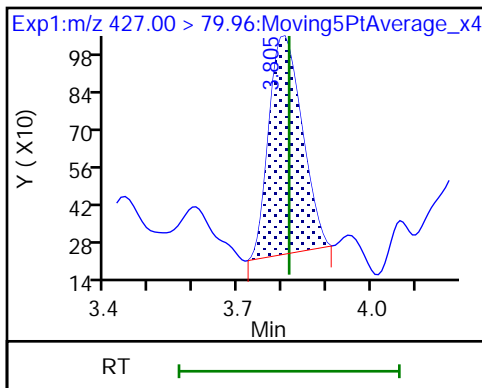
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

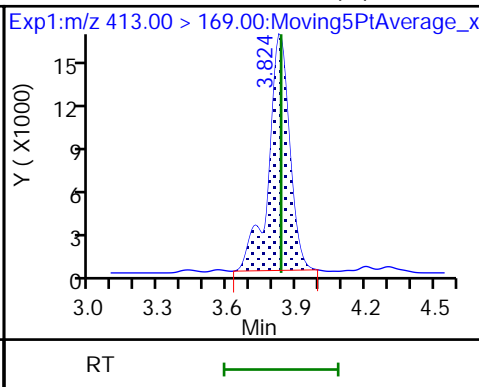
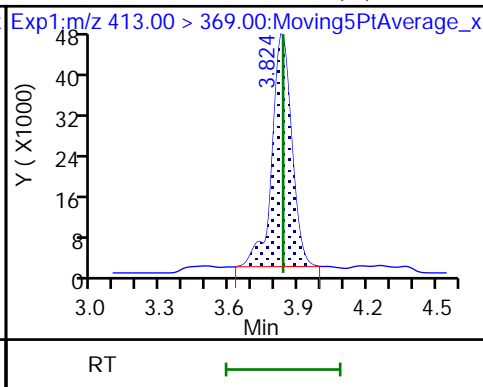
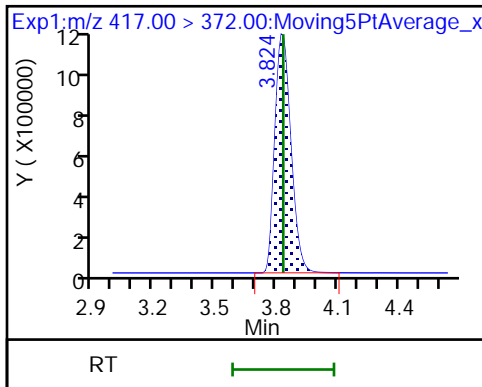
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

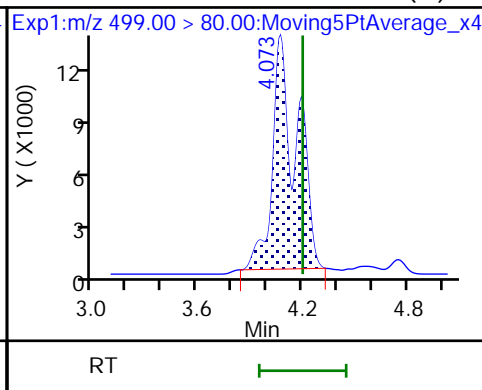
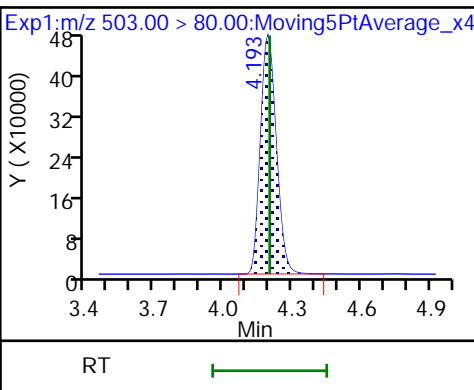
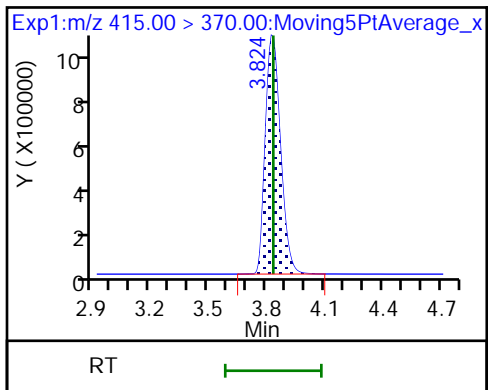
58 Perfluorooctanoic acid (M)



\* 57 13C2 PFOA

D 61 13C4 PFOS

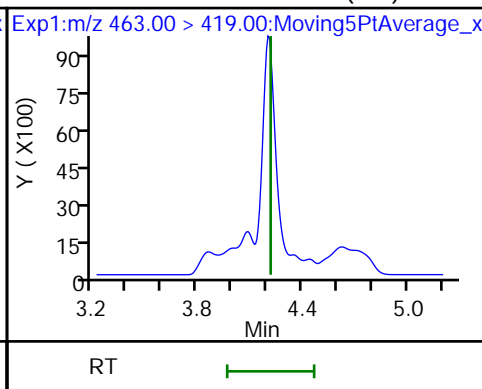
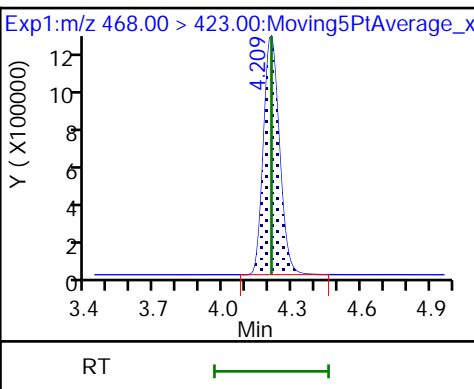
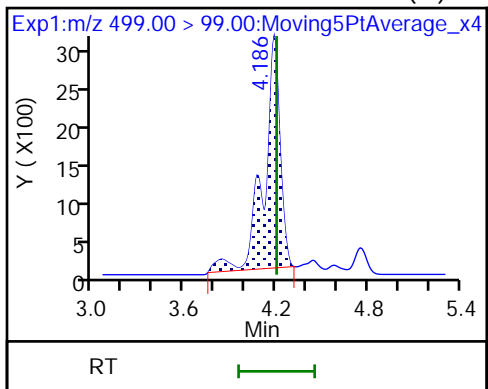
62 Perfluorooctanesulfonic acid (M)



62 Perfluorooctanesulfonic acid (M)

D 63 13C5 PFNA

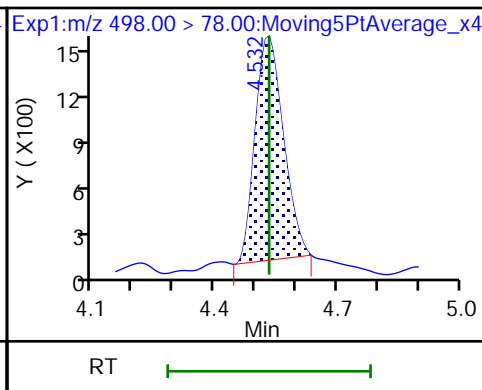
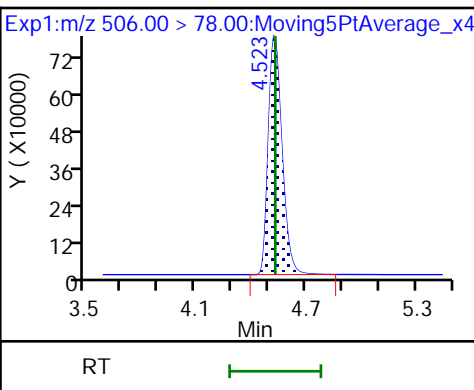
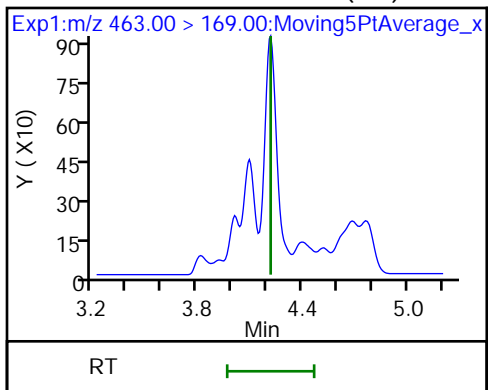
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

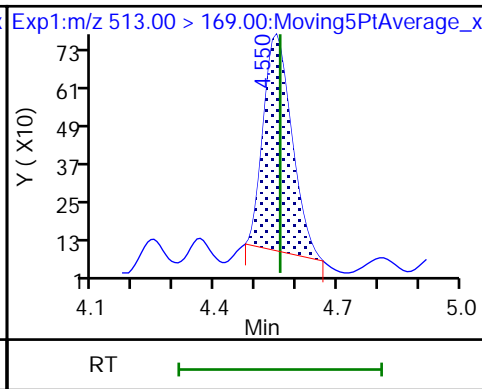
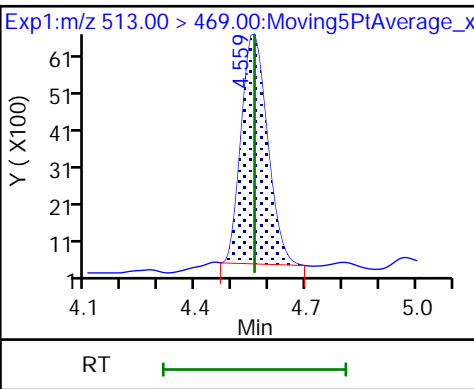
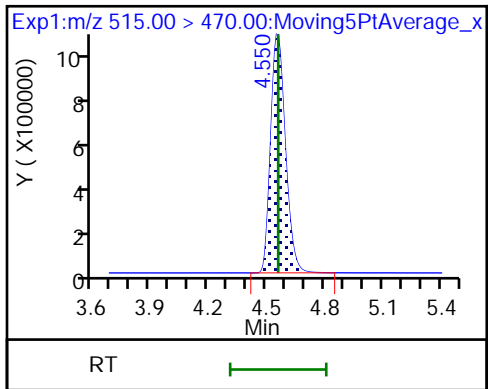
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

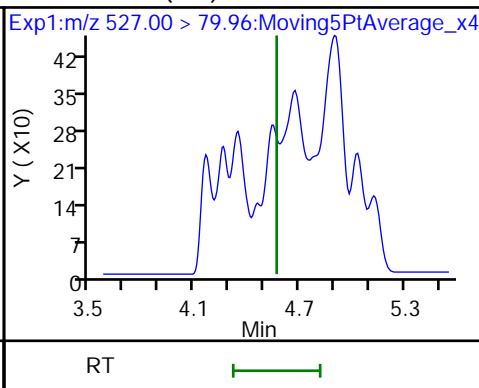
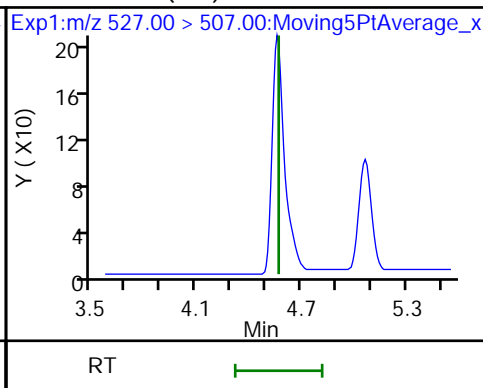
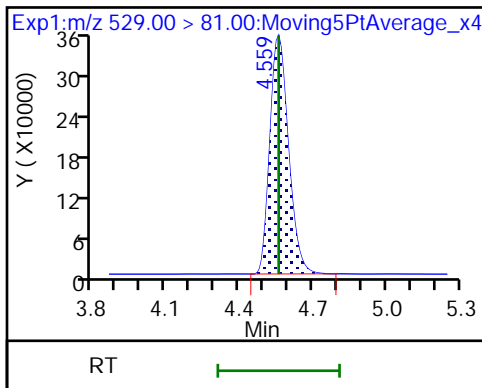
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

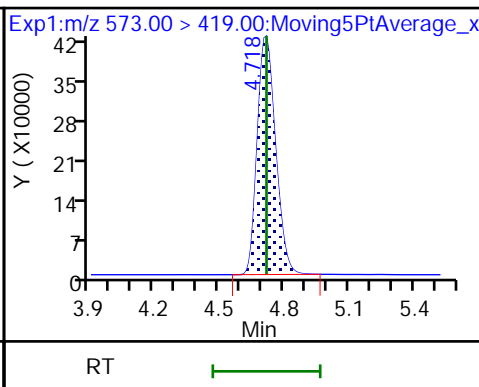
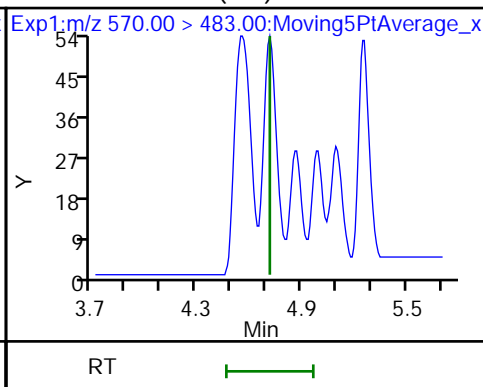
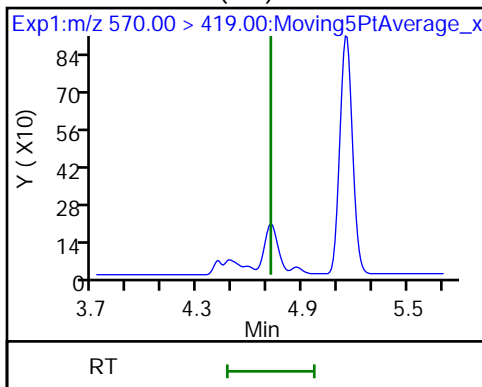
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

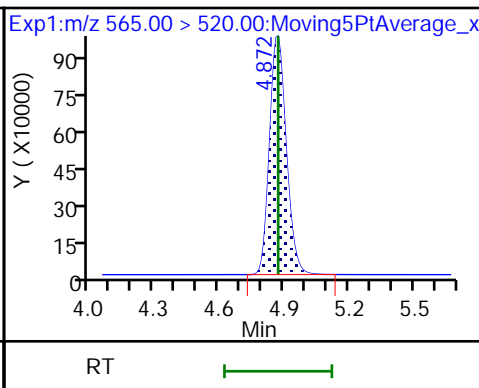
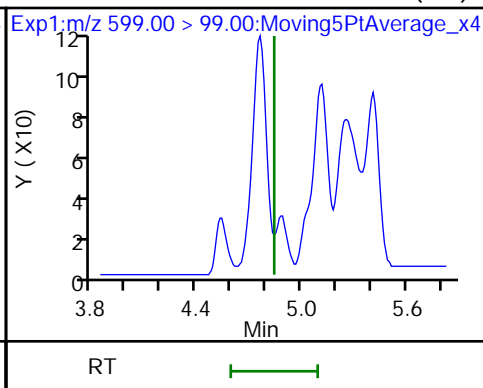
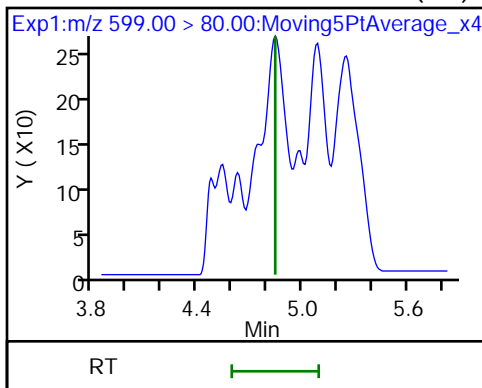
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

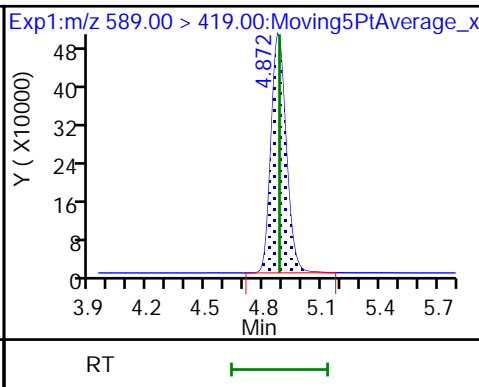
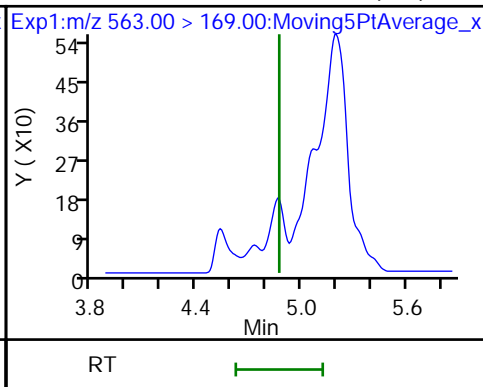
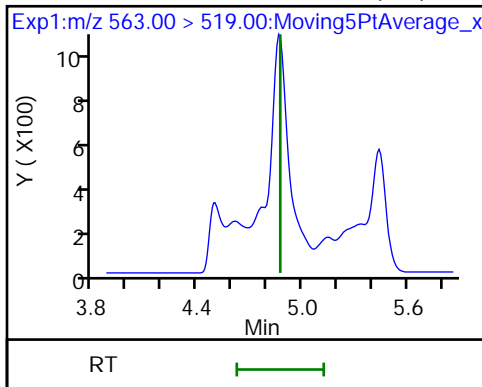
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

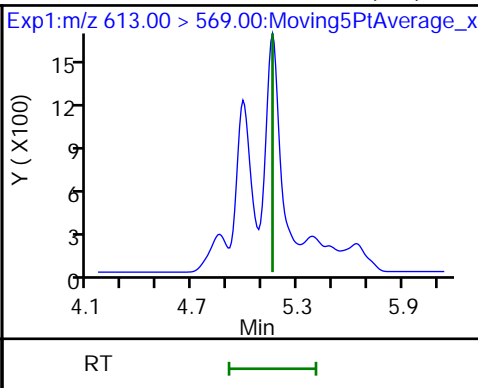
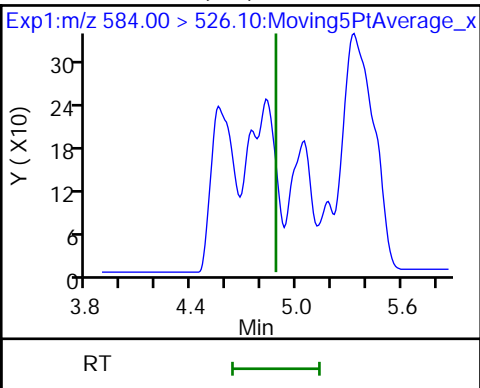
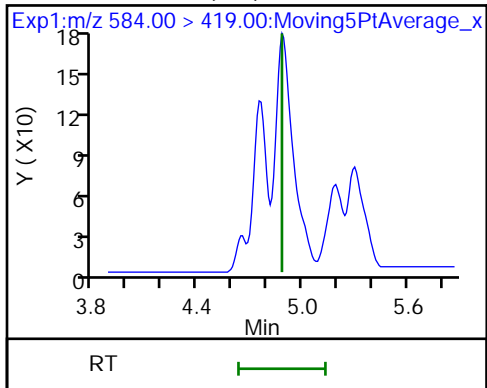
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

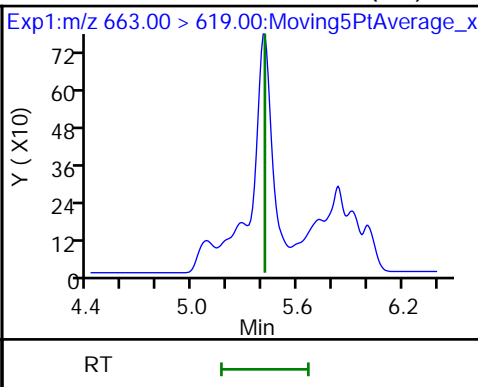
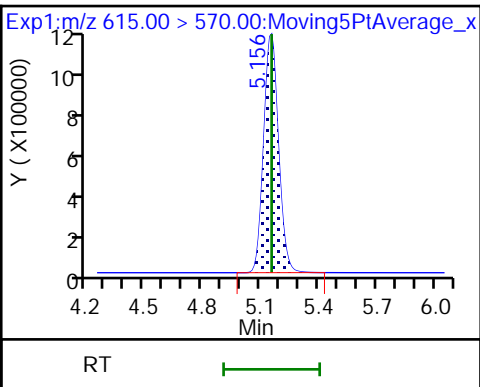
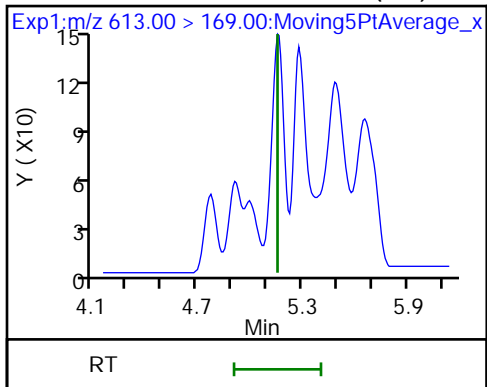
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

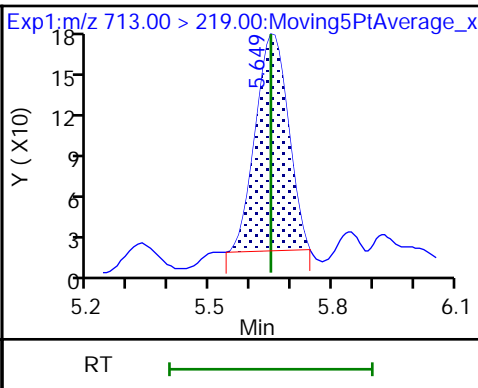
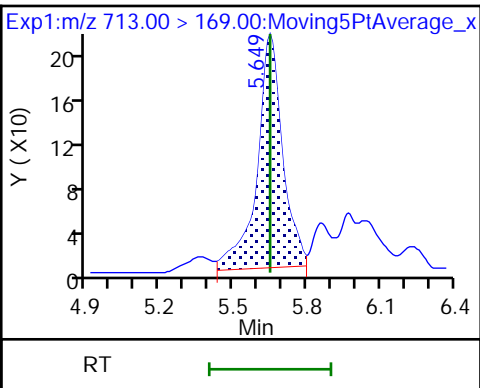
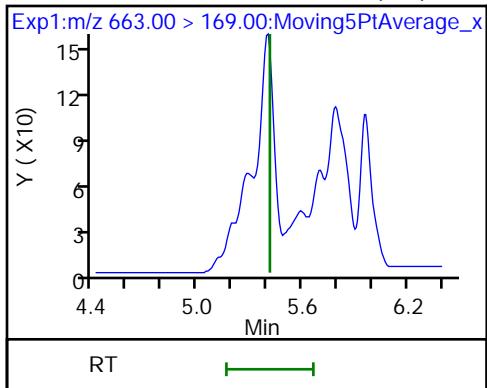
103 Perfluorotridecanoic acid (ND)



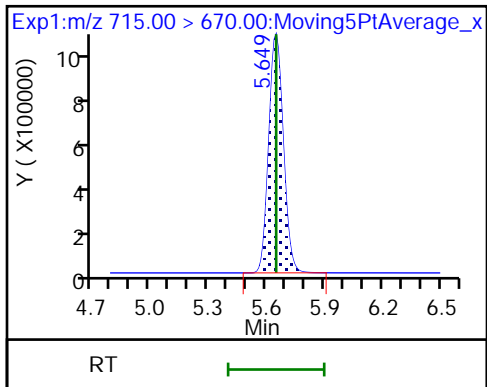
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

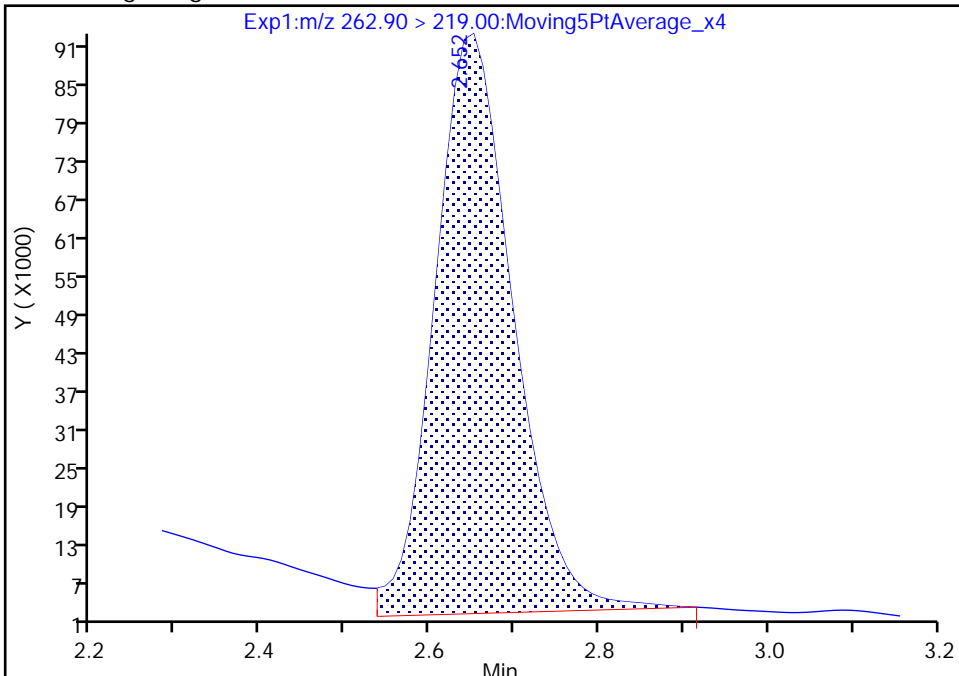
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

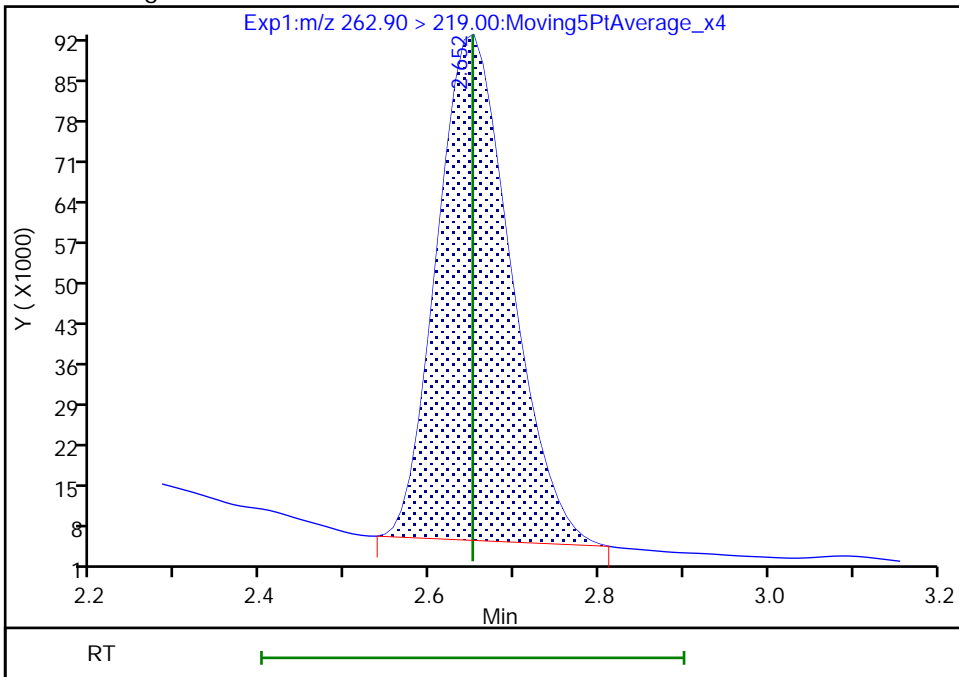
RT: 2.65  
Area: 582768  
Amount: 0.124167  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 529496  
Amount: 0.112817  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:52:25  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

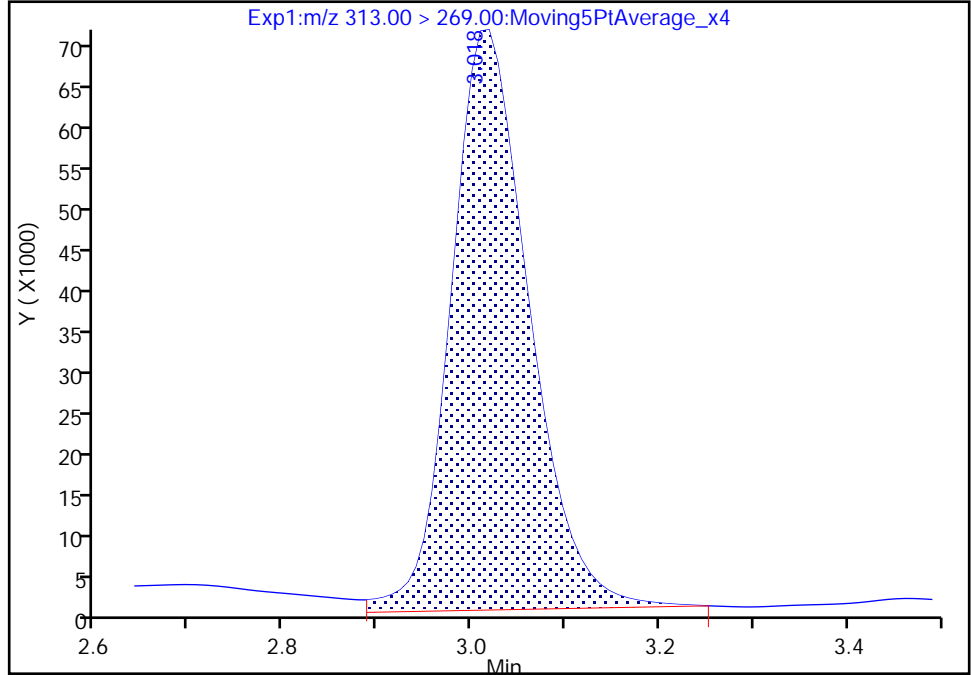
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

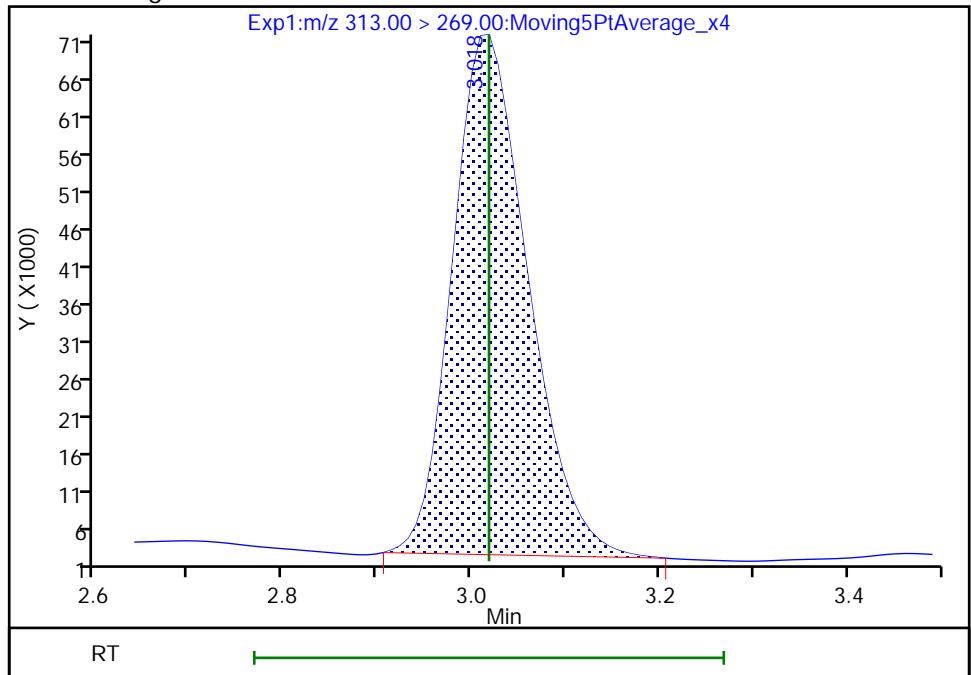
RT: 3.02  
Area: 410113  
Amount: 0.083938  
Amount Units: ng/ml

Processing Integration Results



RT: 3.02  
Area: 388473  
Amount: 0.079509  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:52:39  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

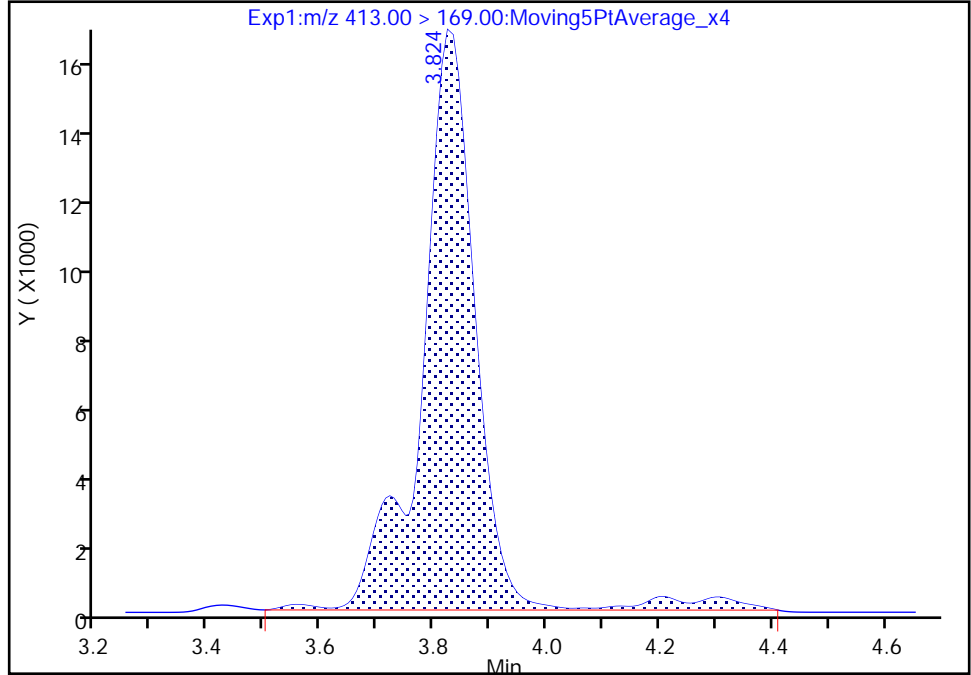
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

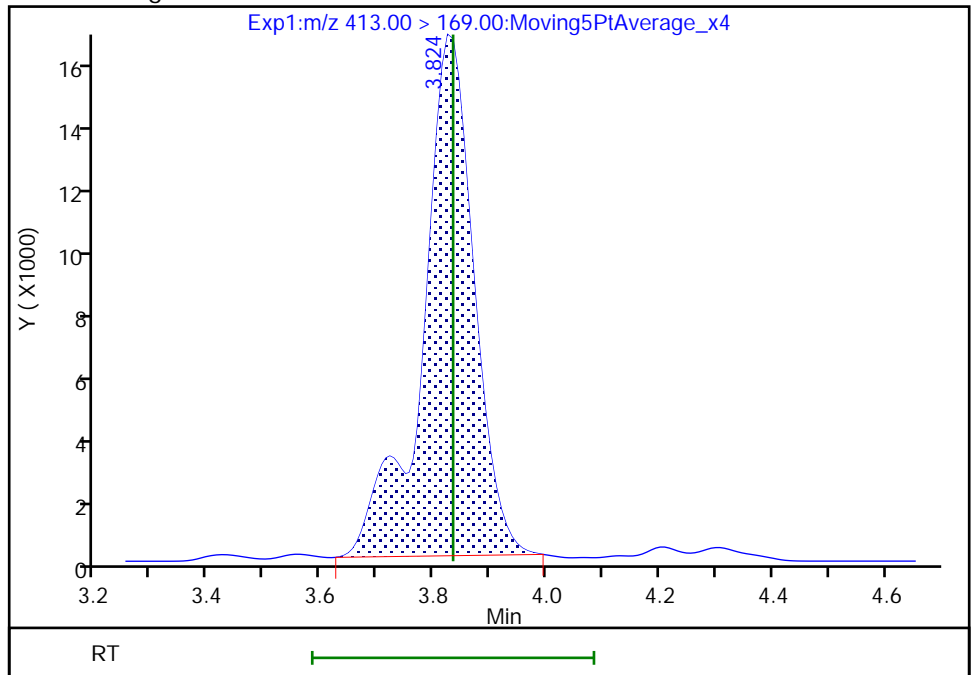
RT: 3.82  
Area: 107357  
Amount: 0.053189  
Amount Units: ng/ml

Processing Integration Results



RT: 3.82  
Area: 100456  
Amount: 0.052123  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:52:53  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

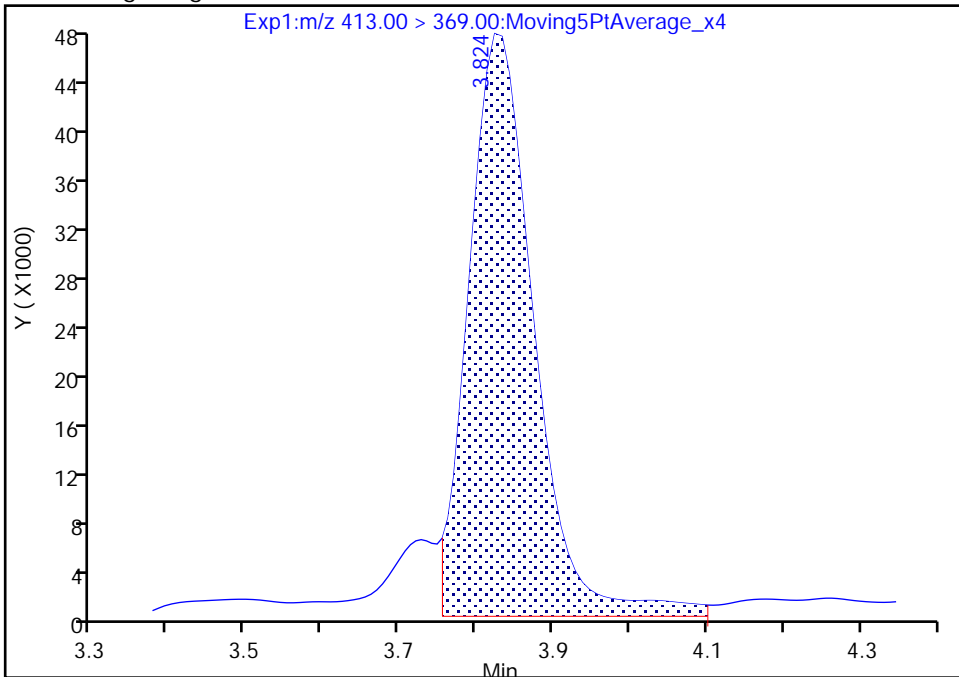
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_033.d		
Injection Date:	10-Jun-2021 08:45:19	Instrument ID:	A15
Lims ID:	320-74597-A-16-A	Lab Sample ID:	320-74597-16
Client ID:	BH20210604-1N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	10

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

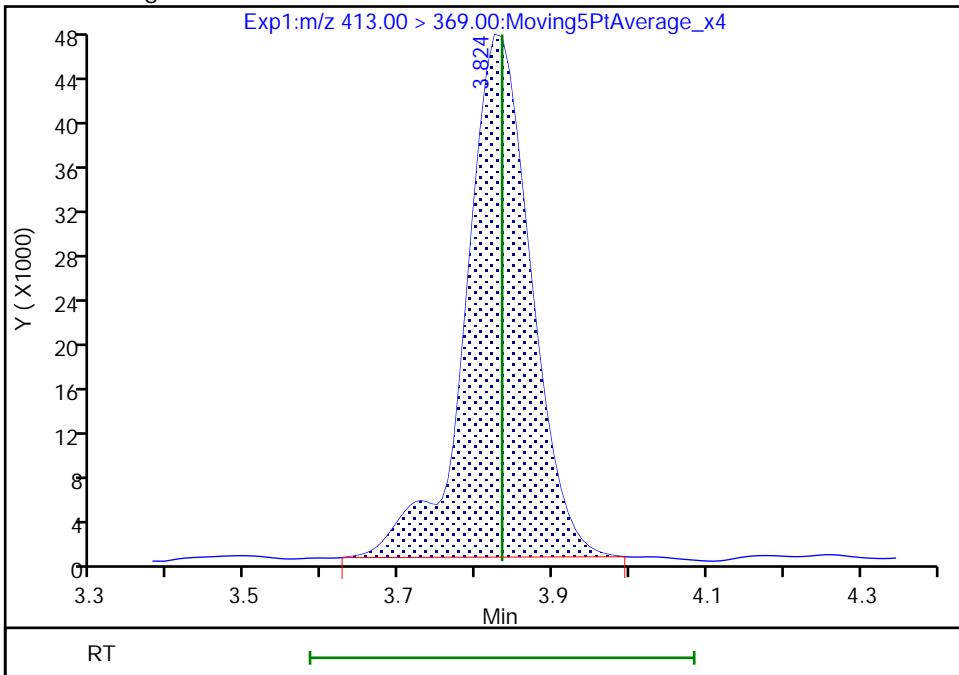
RT: 3.82  
 Area: 278595  
 Amount: 0.053189  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.82  
 Area: 273008  
 Amount: 0.052123  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:52:56

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

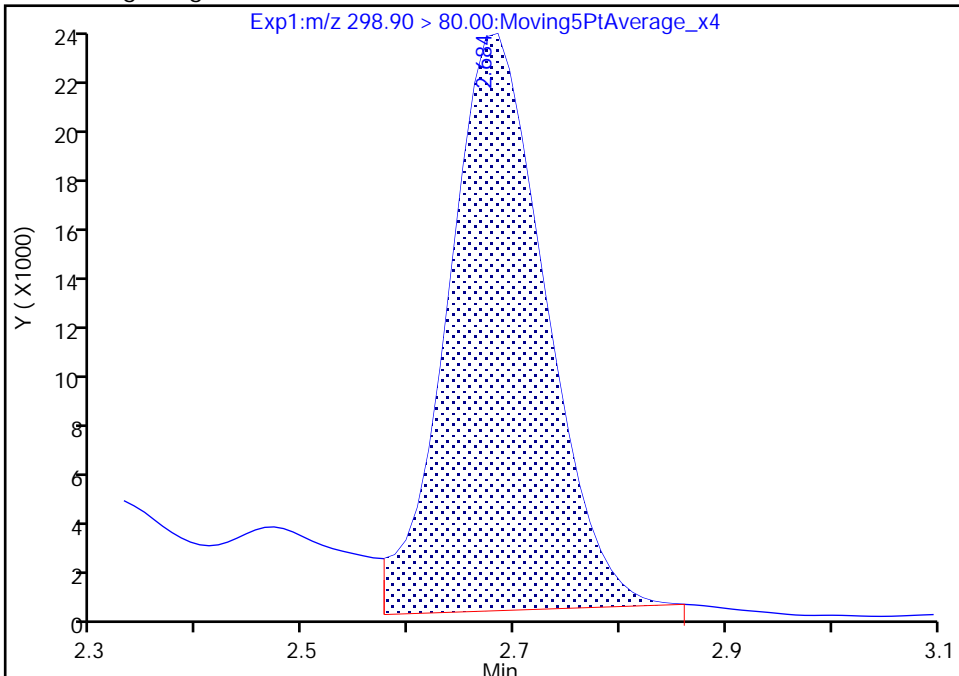
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

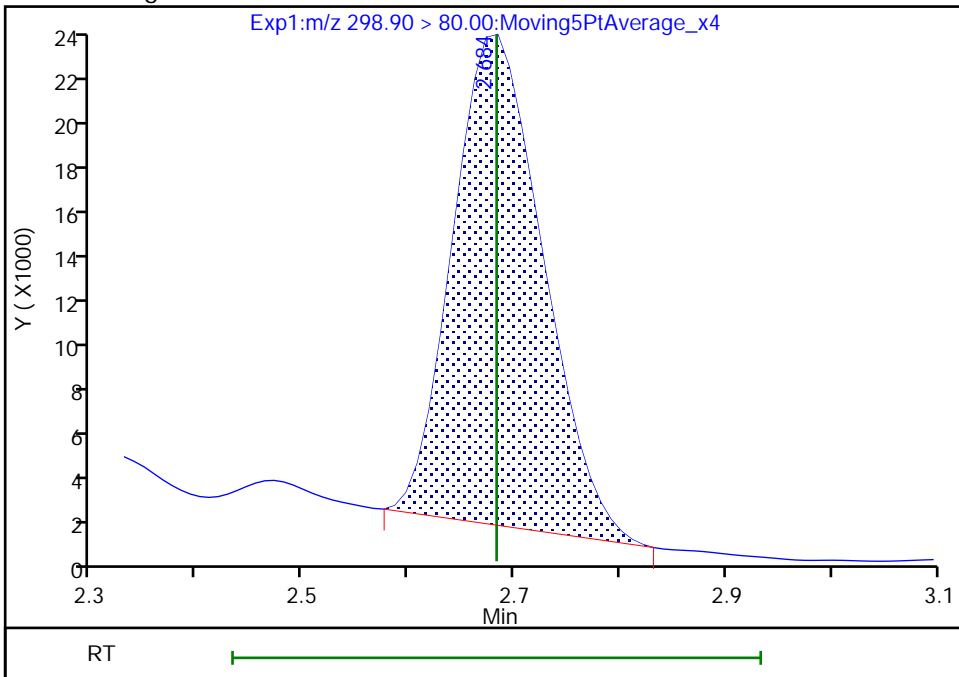
RT: 2.68  
Area: 144800  
Amount: 0.038911  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 126703  
Amount: 0.034048  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:52:34  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

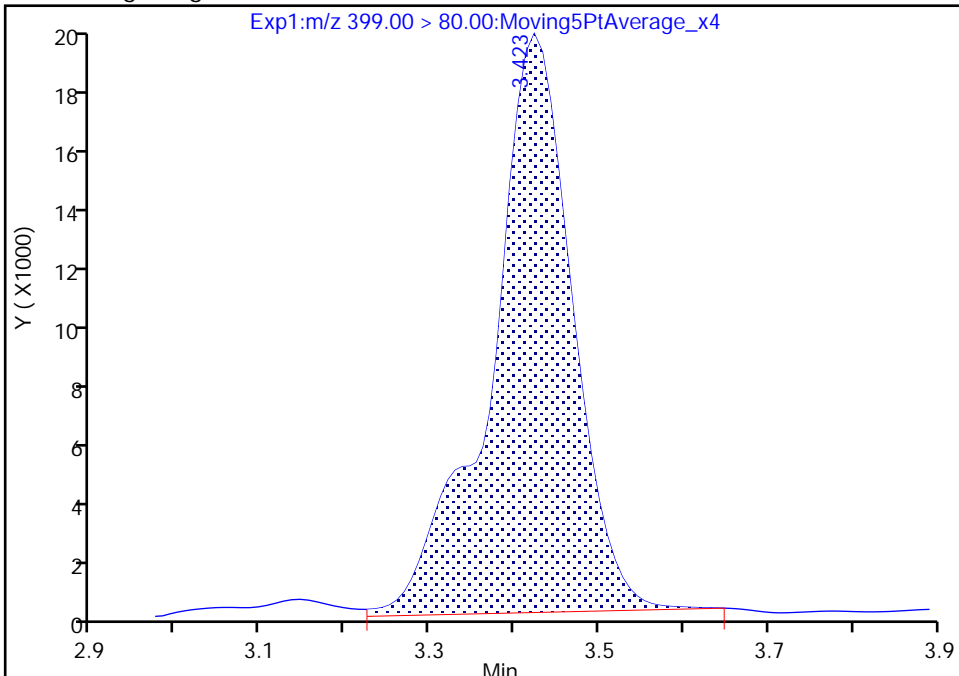
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

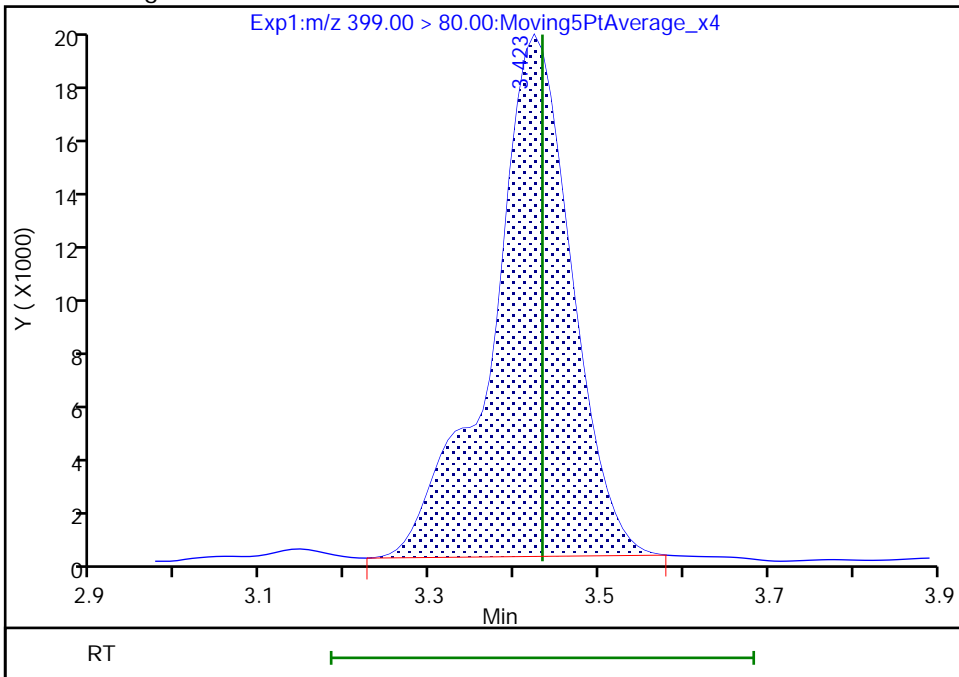
RT: 3.42  
Area: 131092  
Amount: 0.048775  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 127196  
Amount: 0.047326  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:52:44  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

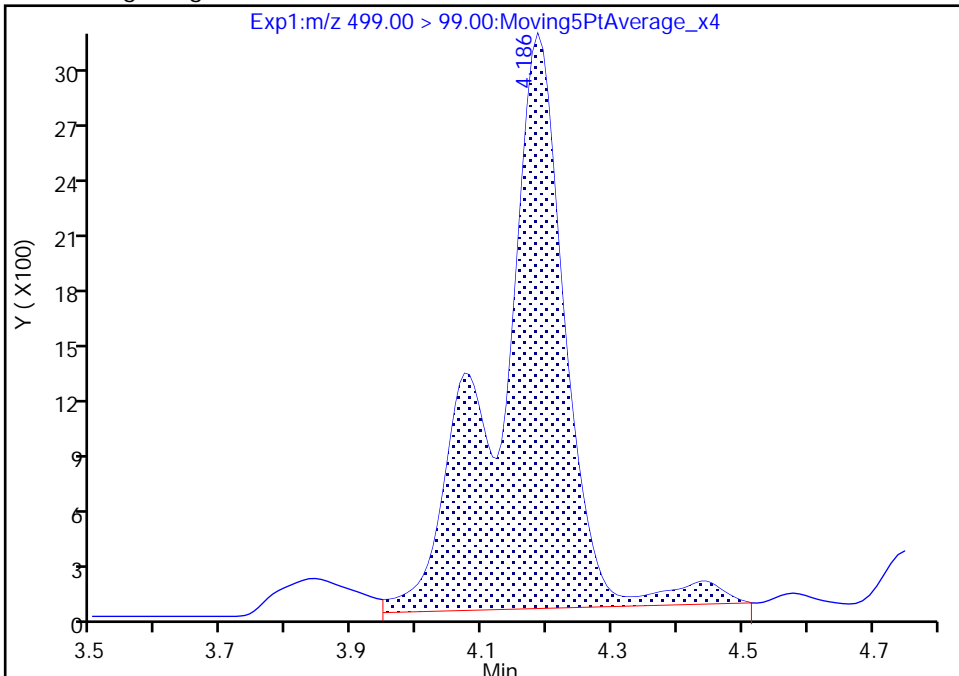
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_033.d  
Injection Date: 10-Jun-2021 08:45:19 Instrument ID: A15  
Lims ID: 320-74597-A-16-A Lab Sample ID: 320-74597-16  
Client ID: BH20210604-1N-50  
Operator ID: SACINSTA15 ALS Bottle#: 22 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

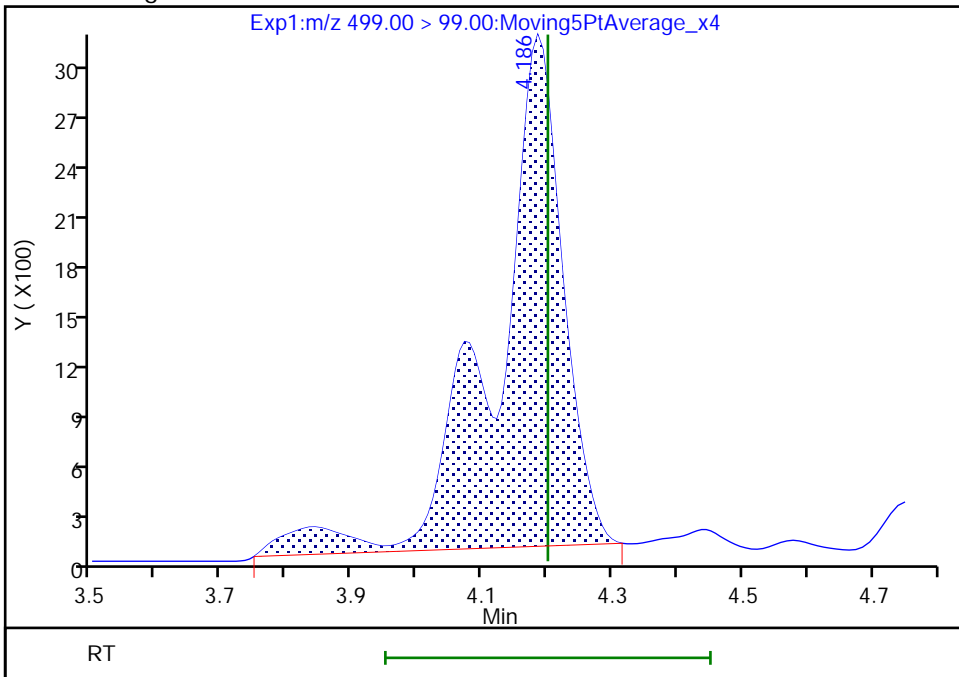
RT: 4.19  
Area: 22730  
Amount: 0.062235  
Amount Units: ng/ml

Processing Integration Results



RT: 4.19  
Area: 22160  
Amount: 0.059348  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:53:01  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

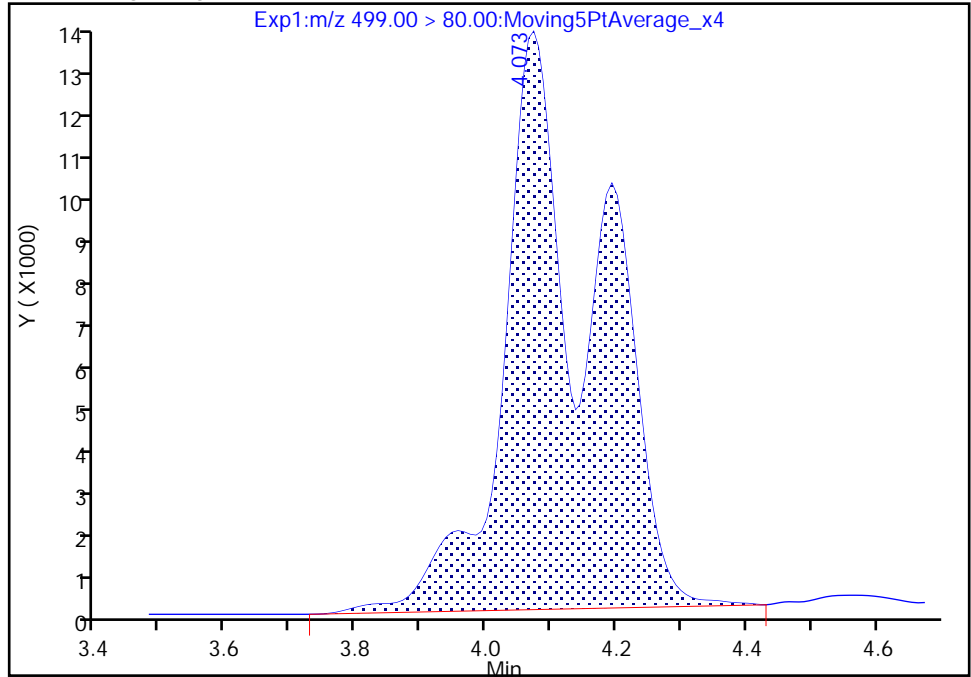
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_033.d		
Injection Date:	10-Jun-2021 08:45:19	Instrument ID:	A15
Lims ID:	320-74597-A-16-A	Lab Sample ID:	320-74597-16
Client ID:	BH20210604-1N-50		
Operator ID:	SACINSTA15	ALS Bottle#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	10

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

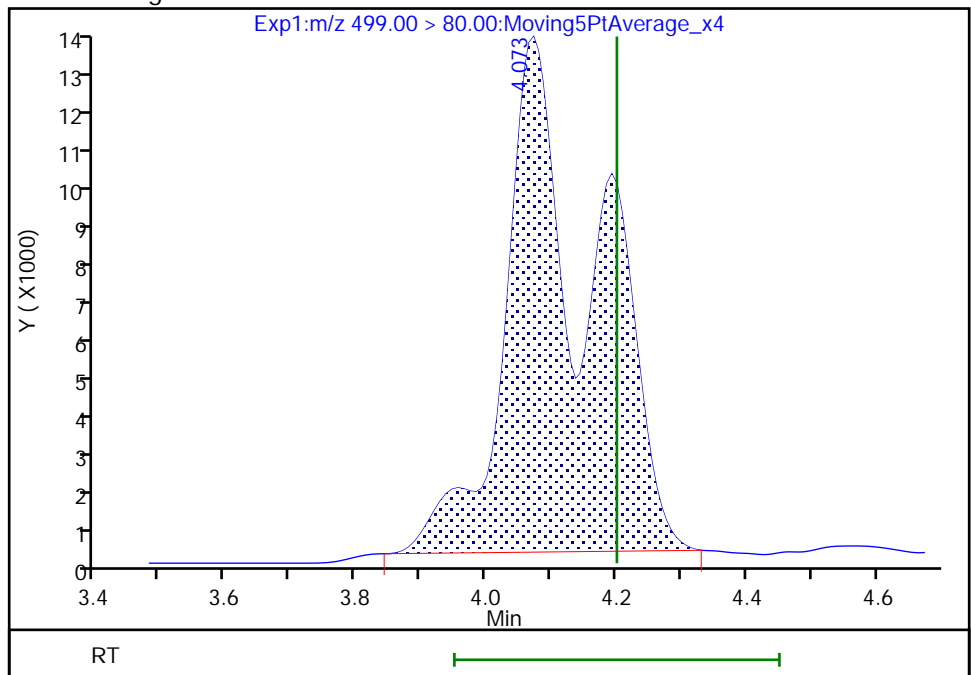
RT: 4.07  
 Area: 131222  
 Amount: 0.062235  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.07  
 Area: 125136  
 Amount: 0.059348  
 Amount Units: ng/ml

Manual Integration Results



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-75 Lab Sample ID: 320-74597-17  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_034.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:32  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 272.7 (mL) Date Analyzed: 06/10/2021 08:54  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.6	
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.3		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	2.2		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	
27619-97-2	6:2 FTS	ND		4.6	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1N-75 Lab Sample ID: 320-74597-17  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_034.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:32  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 272.7 (mL) Date Analyzed: 06/10/2021 08:54  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	98		25-150
STL01893	13C5 PFPeA	101		25-150
STL00993	13C2 PFHxA	98		25-150
STL01892	13C4 PFHpA	105		25-150
STL00990	13C4 PFOA	101		25-150
STL00995	13C5 PFNA	101		25-150
STL00996	13C2 PFDA	98		25-150
STL00997	13C2 PFUnA	93		25-150
STL00998	13C2 PFDoA	107		25-150
STL02116	13C2 PFTeDA	89		25-150
STL02337	13C3 PFBS	102		25-150
STL00994	18O2 PFHxS	109		25-150
STL00991	13C4 PFOS	104		25-150
STL01056	13C8 FOSA	110		25-150
STL02118	d3-NMeFOSAA	100		25-150
STL02117	d5-NEtFOSAA	110		25-150
STL02279	M2-6:2 FTS	88		25-150
STL02280	M2-8:2 FTS	94		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_034.d  
 Lims ID: 320-74597-A-17-A  
 Client ID: BH20210604-1N-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 08:54:28 ALS Bottle#: 23 Worklist Smp#: 11  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-17-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:54:22 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:54:21  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.311	2.319	-0.008	0.604	5911920	1.22	97.6	45716	
10 Perfluorobutanoic acid	212.90 > 169.00	2.311	2.319	-0.008	1.000	367505	0.0821		167	
18 Perfluoropentanoic acid	262.90 > 219.00	2.651	2.650	0.001	1.000	435669	0.0898		204	M
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.650	0.001	0.693	5784817	1.26	101	32673	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.684	2.683	0.001	1.000	73697	0.0201	Target=2.31	117	M
	298.90 > 99.00	2.684	2.683	0.001	1.000	34109		2.16(1.15-3.46)	86.0	
D 21 13C3 PFBS	301.90 > 80.00	2.684	2.683	0.001	0.702	3763127	1.18	102	17173	
29 Perfluorohexanoic acid	313.00 > 269.00	3.018	3.018	0.0	1.000	293218	0.0592	Target=13.85	362	
	313.00 > 119.00	3.018	3.018	0.0	1.000	20035		14.64(6.93-20.78)	265	
D 28 13C2 PFHxA	315.00 > 270.00	3.018	3.018	0.0	0.789	5526570	1.22	97.6	41950	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.423	3.433	-0.010	1.000	56088	0.0206	Target=3.47	346	M
	399.00 > 99.00	3.423	3.433	-0.010	1.000	15577		3.60(1.73-5.20)	149	
D 38 18O2 PFHxS	403.00 > 84.00	3.423	3.433	-0.010	0.895	2910192	1.28	109	53398	
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.895	5829025	1.31	105	67715	
36 Perfluoroheptanoic acid	363.00 > 319.00	3.423	3.433	-0.010	1.000	101448	0.0206	Target=4.00	173	
	363.00 > 169.00	3.423	3.433	-0.010	1.000	21934		4.63(2.00-6.00)	251	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS	429.00 > 81.00	3.815	3.815	0.0	0.997	1073803	1.04	87.8	8407	
D 56 13C4 PFOA	417.00 > 372.00	3.834	3.834	0.0	1.002	6411653	1.27	101	56315	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.834	3.834	0.0	1.000	119251	0.0222	Target=3.05	217		M
413.00 > 169.00	3.824	3.834	-0.010	0.998	47630		2.50(1.53-4.58)	342		M
* 57 13C2 PFOA	415.00 > 370.00	3.824	3.834	-0.010		6074021	1.25		66221	
D 61 13C4 PFOS	503.00 > 80.00	4.193	4.201	-0.008	1.097	2199215	1.24	104	25928	
62 Perfluorooctanesulfonic acid										M
499.00 > 80.00	4.073	4.201	-0.128	0.971	41822	0.0202	Target=5.72	166		M
499.00 > 99.00	4.177	4.201	-0.024	0.996	7518		5.56(2.86-8.58)	103		
D 63 13C5 PFNA	468.00 > 423.00	4.209	4.209	0.0	1.101	6140499	1.27	101	64132	
64 Perfluorononanoic acid										M
463.00 > 419.00	4.209	4.217	-0.008	1.000	13872	0.002852	Target=7.63	45.2		
463.00 > 169.00	4.209	4.217	-0.008	1.000	1439		9.64(3.81-11.44)	19.2		M
D 71 13C8 FOSA	506.00 > 78.00	4.532	4.532	0.0	1.185	4098305	1.37	110	65669	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	10238	0.003111		235		
D 74 13C2 PFDA	515.00 > 470.00	4.559	4.559	0.0	1.192	5920783	1.22	97.8	63045	
D 76 M2-8:2 FTS	529.00 > 81.00	4.559	4.559	0.0	1.192	1804782	1.12	93.8	18028	
D 78 d3-NMeFOSAA	573.00 > 419.00	4.718	4.718	0.0	1.234	2543496	1.24	99.5	21692	
D 82 13C2 PFUnA	565.00 > 520.00	4.872	4.872	0.0	1.274	5444613	1.17	93.3	65052	
D 83 d5-NEtFOSAA	589.00 > 419.00	4.882	4.882	0.0	1.277	2793641	1.37	110	22323	
D 97 13C2 PFDoA	615.00 > 570.00	5.156	5.156	0.0	1.348	6741103	1.33	107	81311	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.649	0.009	1.002	1460	0.002869	Target=1.13	31.7		
713.00 > 219.00	5.648	5.649	-0.001	1.000	981		1.49(0.57-1.70)	39.8		
D 104 13C2 PFTeDA	715.00 > 670.00	5.648	5.649	-0.001	1.477	5175268	1.11	89.0	46777	

**QC Flag Legend**

Processing Flags

Review Flags

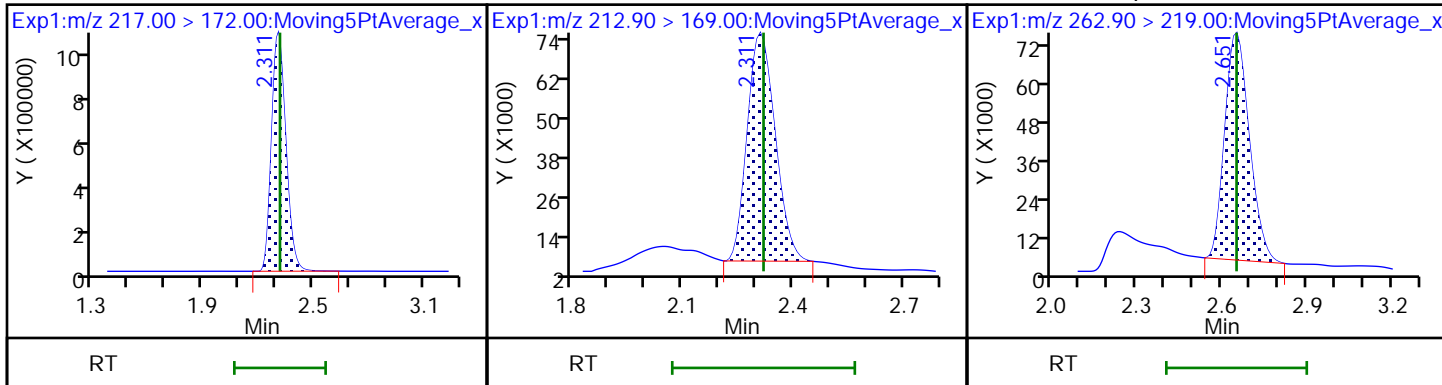
M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_034.d  
 Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
 Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
 Client ID: BH20210604-1N-75  
 Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

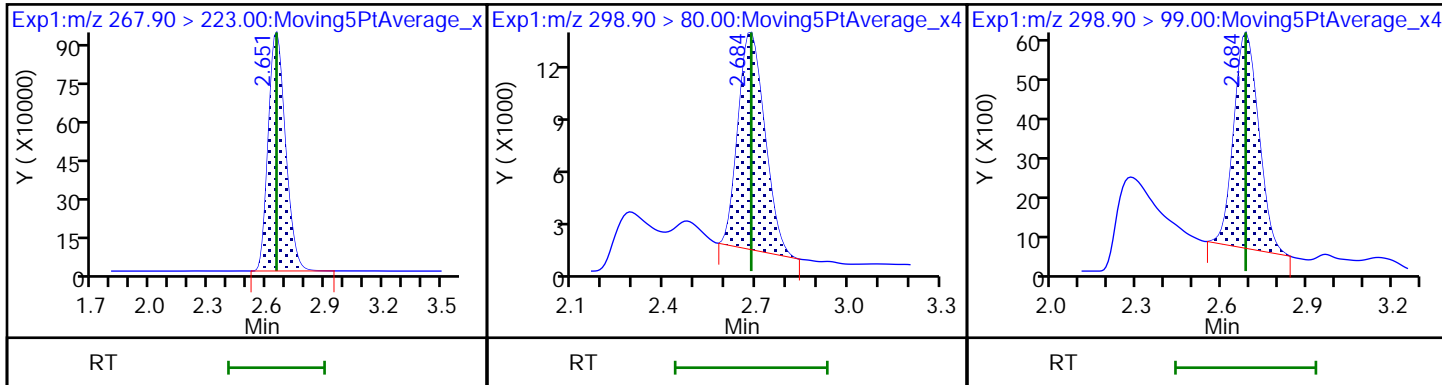
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (M)

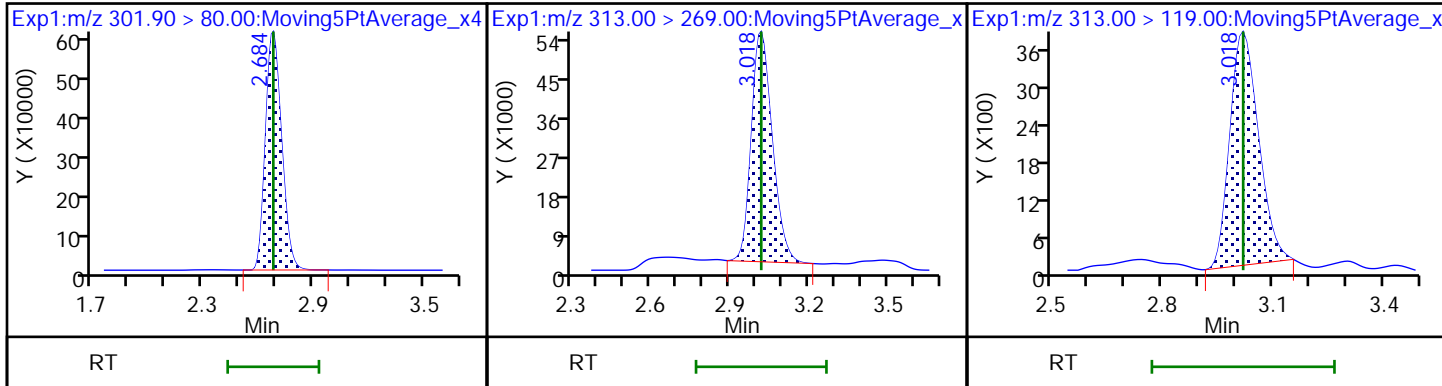
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

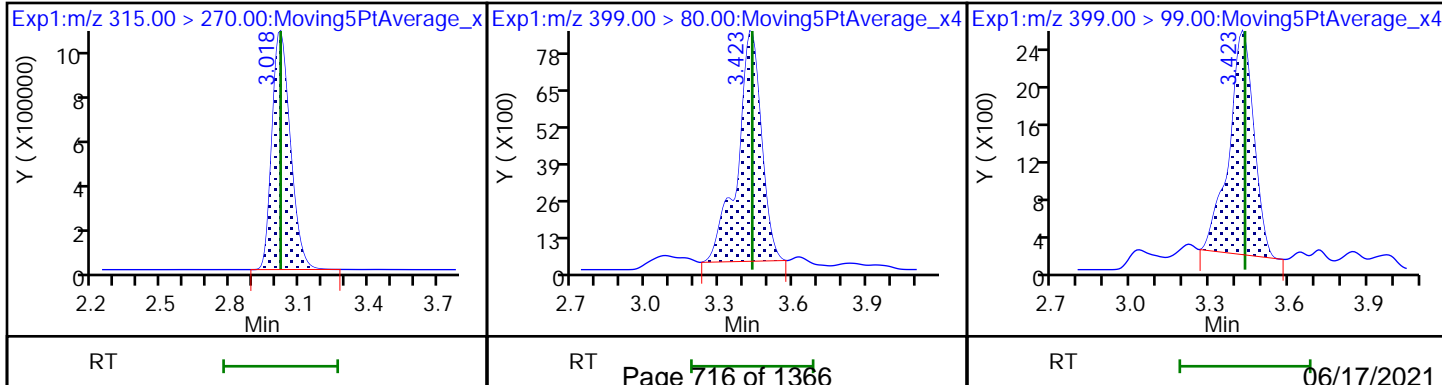
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

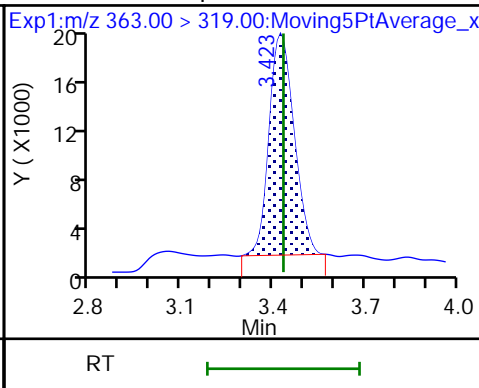
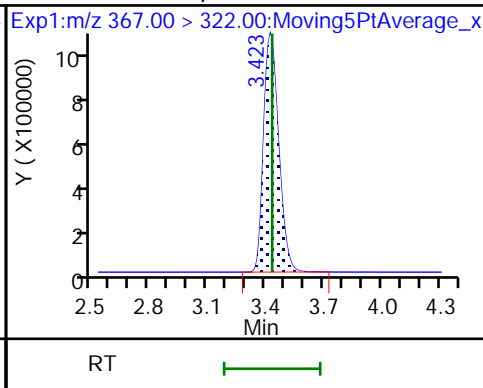
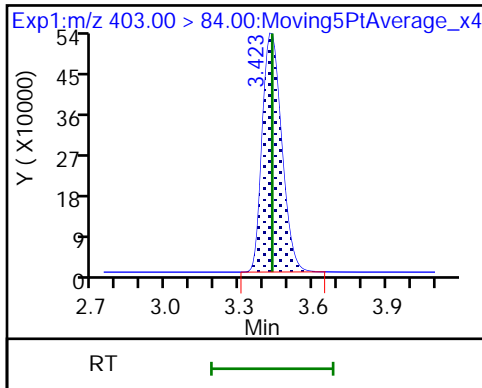
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

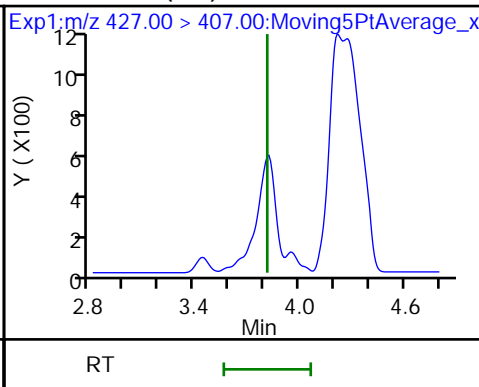
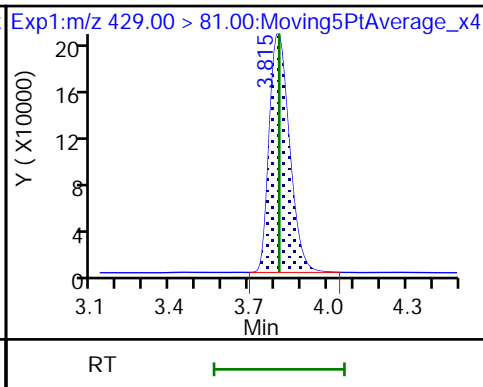
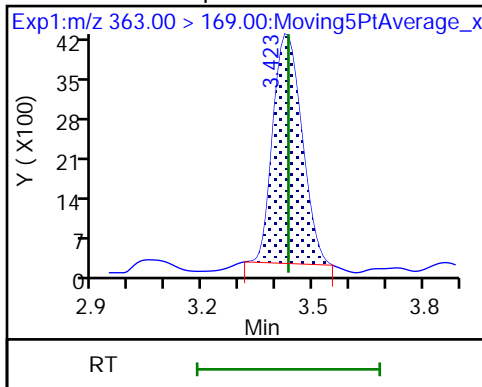
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

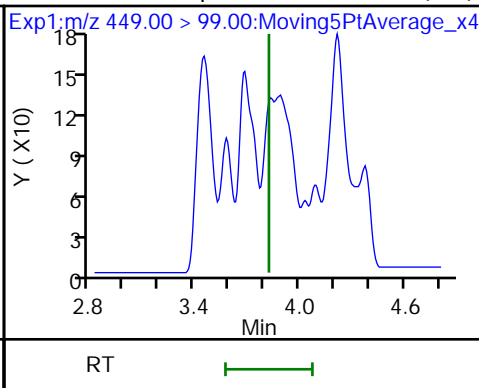
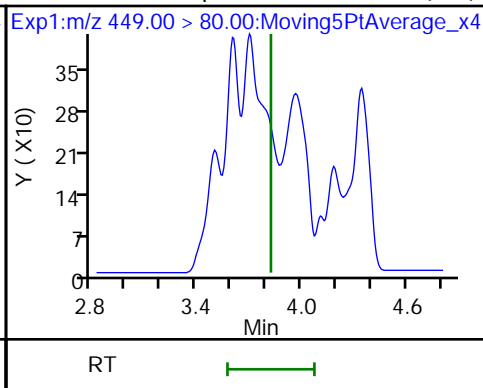
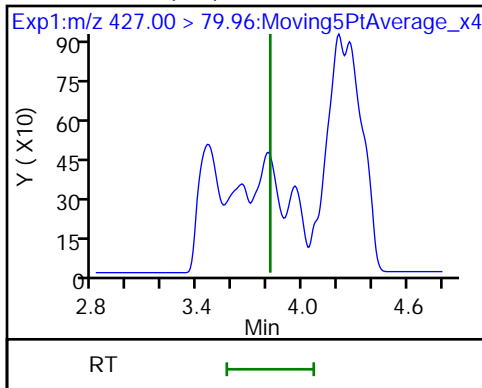
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

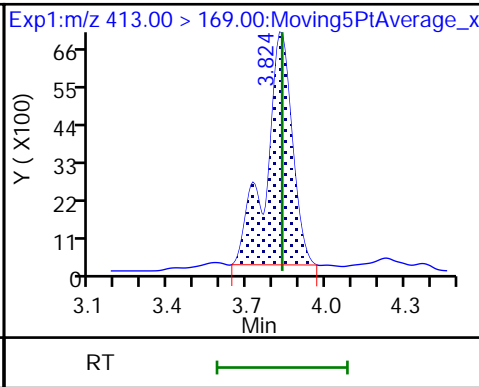
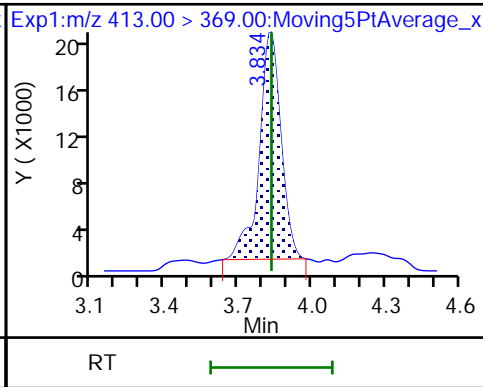
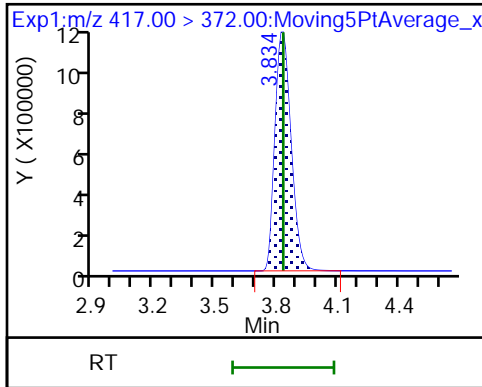
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluoroctanoic acid (M)

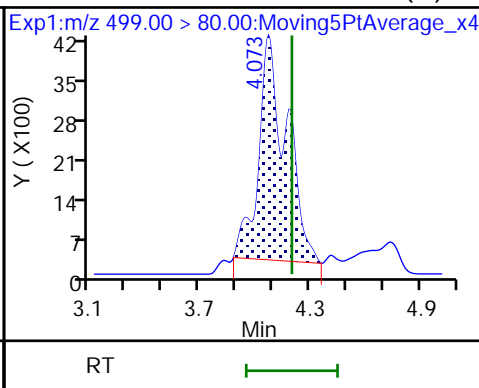
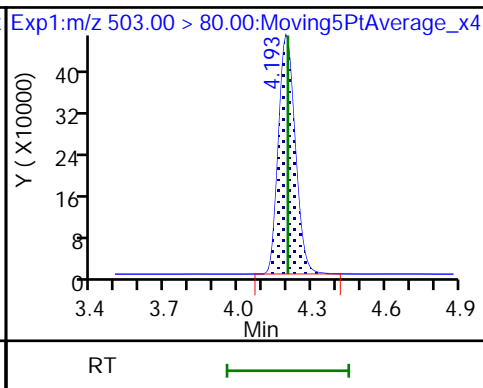
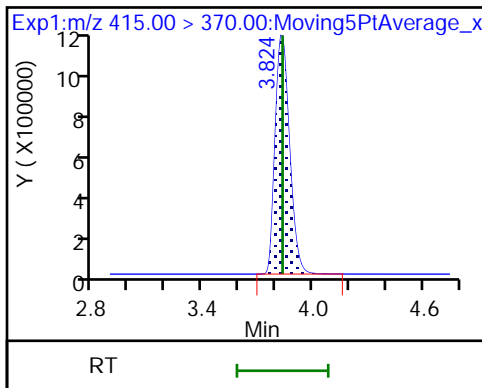
58 Perfluoroctanoic acid (M)



\* 57 13C2 PFOA

D 61 13C4 PFOS

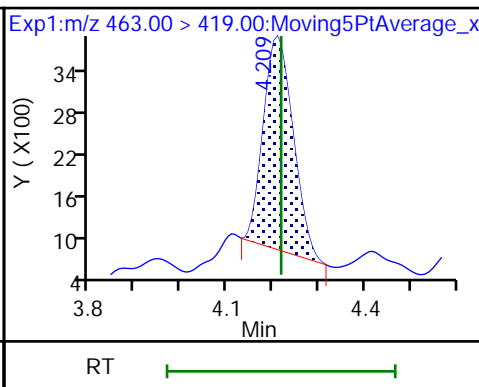
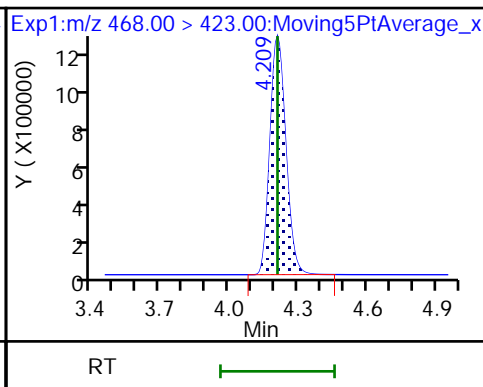
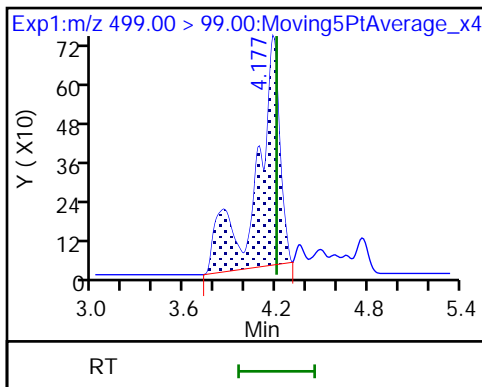
62 Perfluorooctanesulfonic acid (M)



62 Perfluorooctanesulfonic acid

D 63 13C5 PFNA

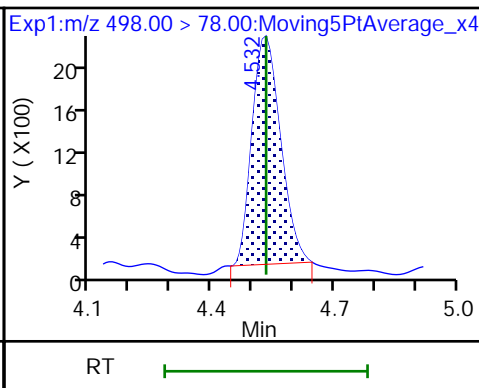
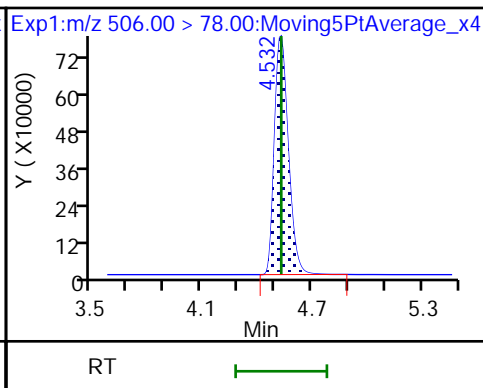
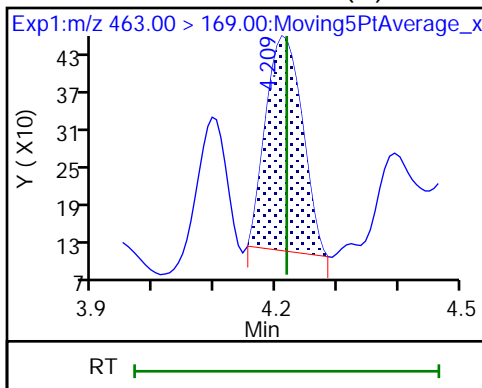
64 Perfluorononanoic acid



64 Perfluorononanoic acid (M)

D 71 13C8 FOSA

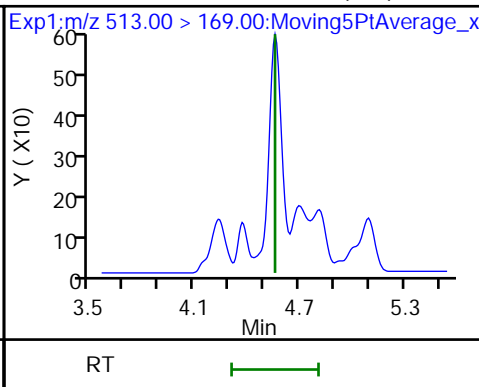
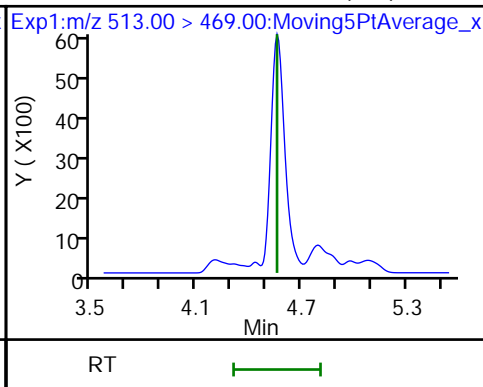
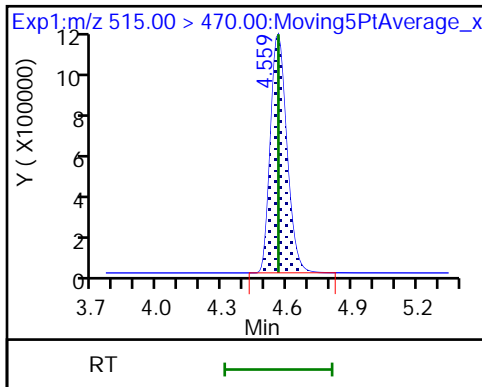
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid (ND)

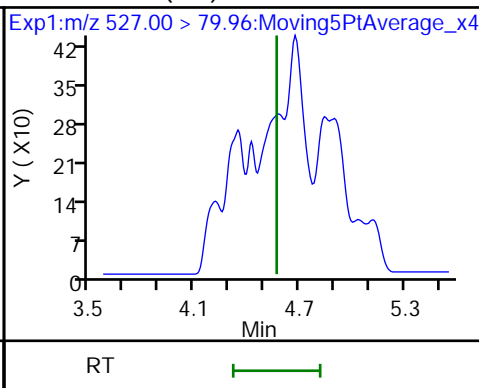
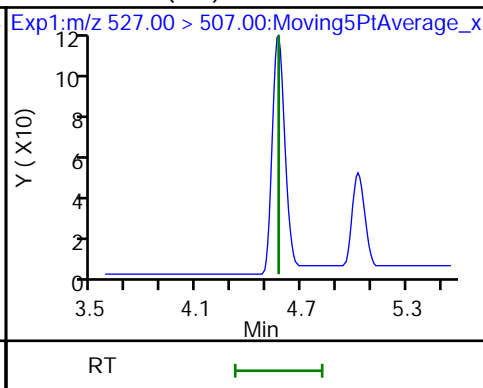
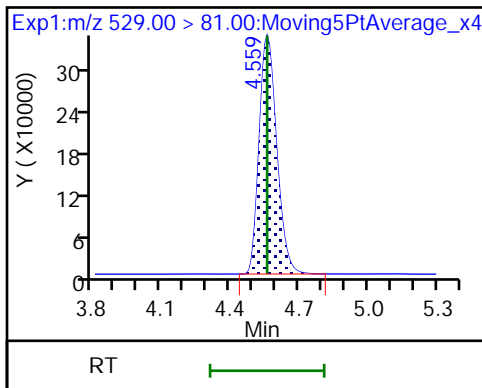
75 Perfluorodecanoic acid (ND)



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

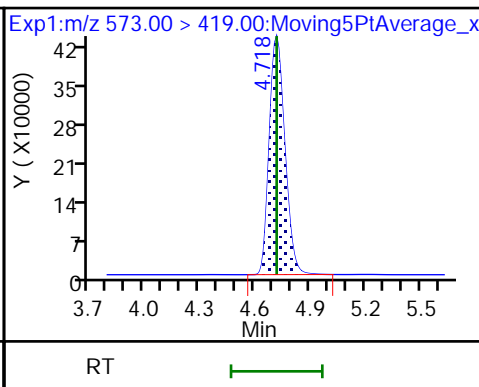
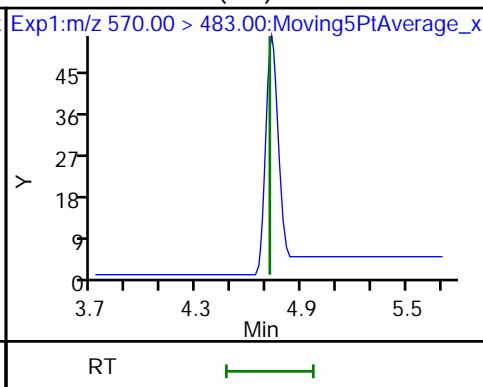
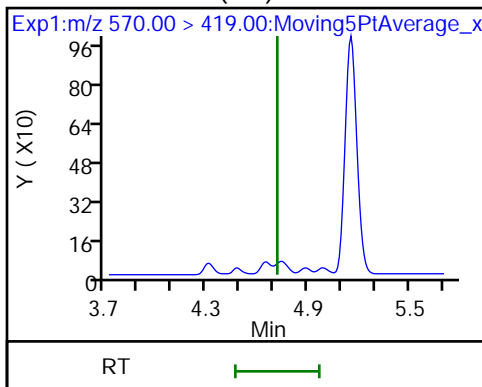
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

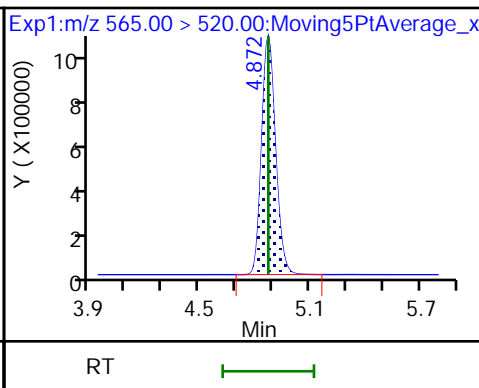
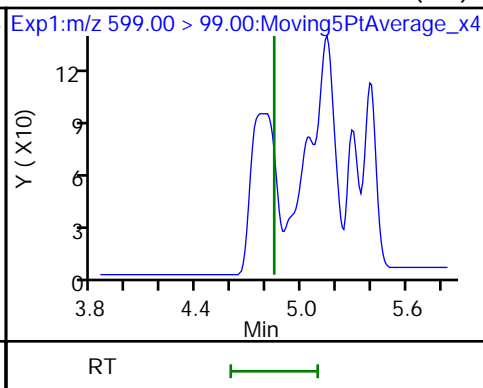
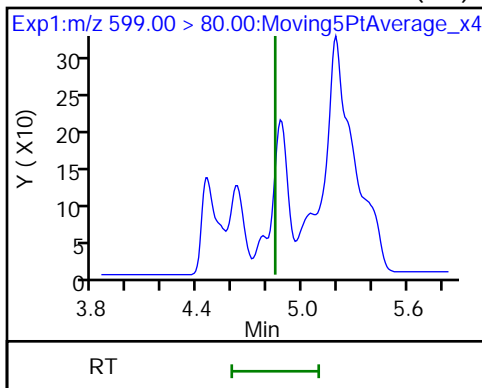
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

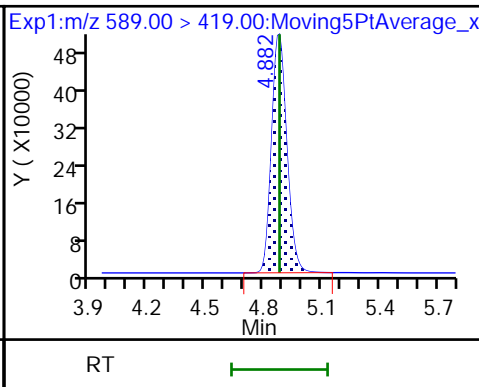
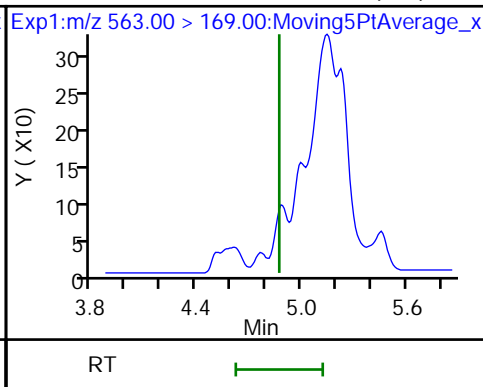
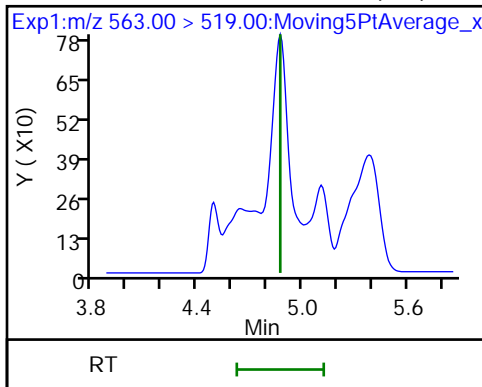
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

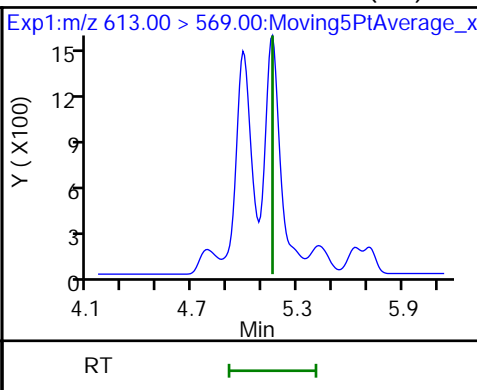
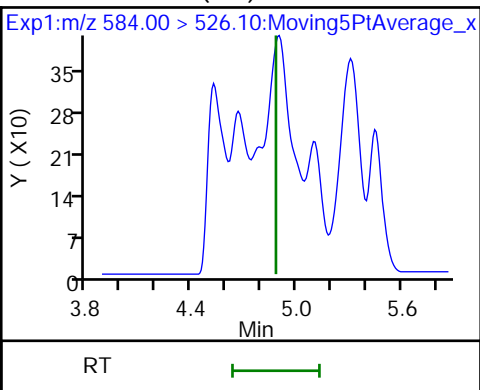
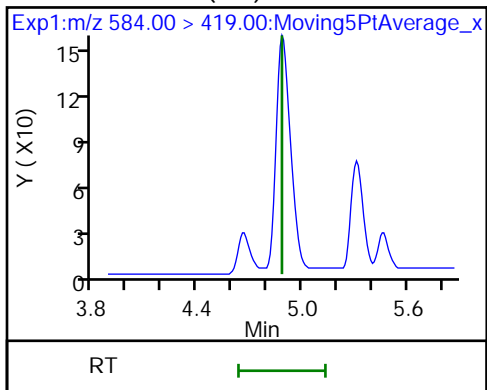
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

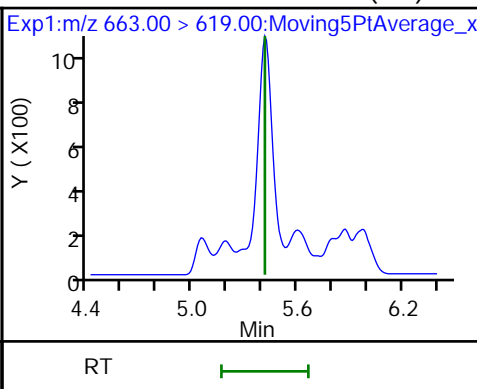
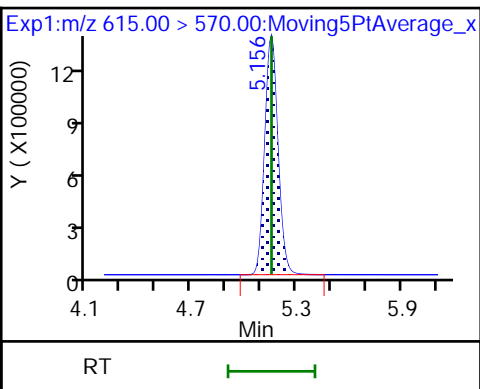
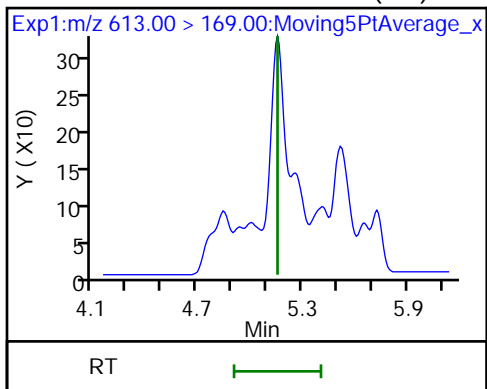
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

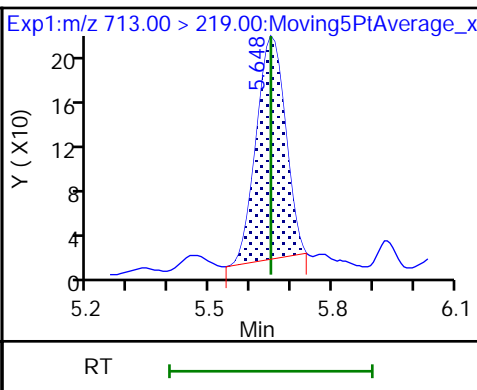
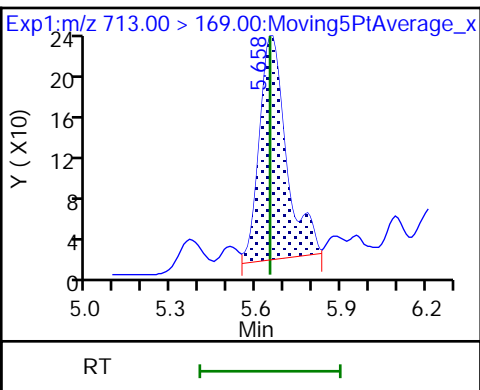
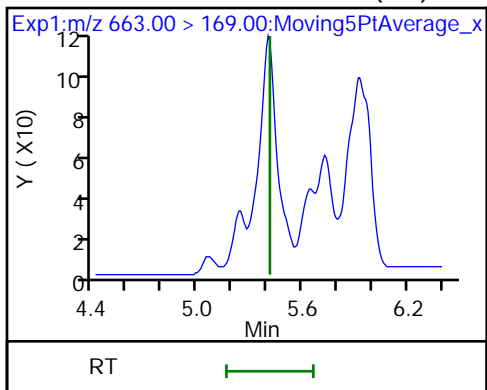
103 Perfluorotridecanoic acid (ND)



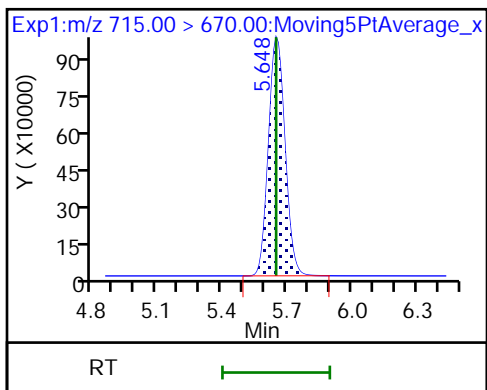
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

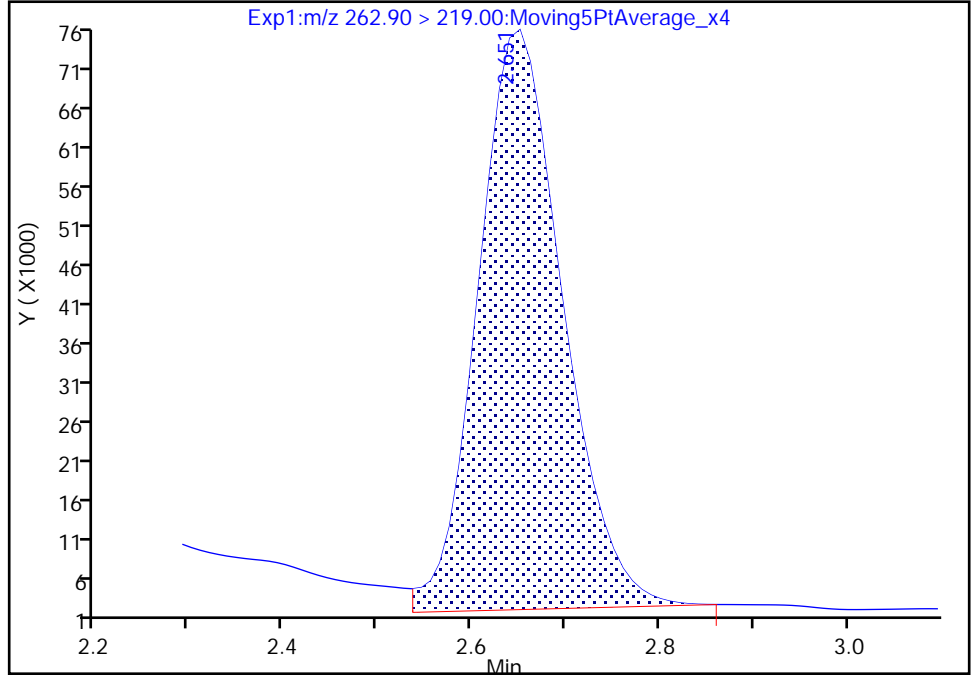
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

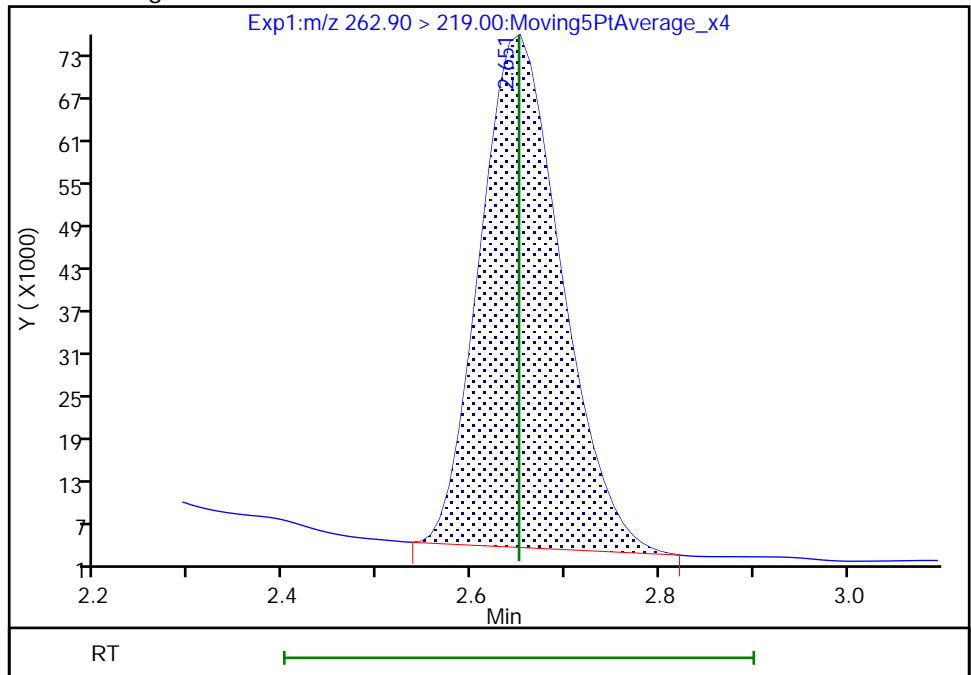
RT: 2.65  
Area: 464533  
Amount: 0.095791  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 435669  
Amount: 0.089839  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:53:33  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

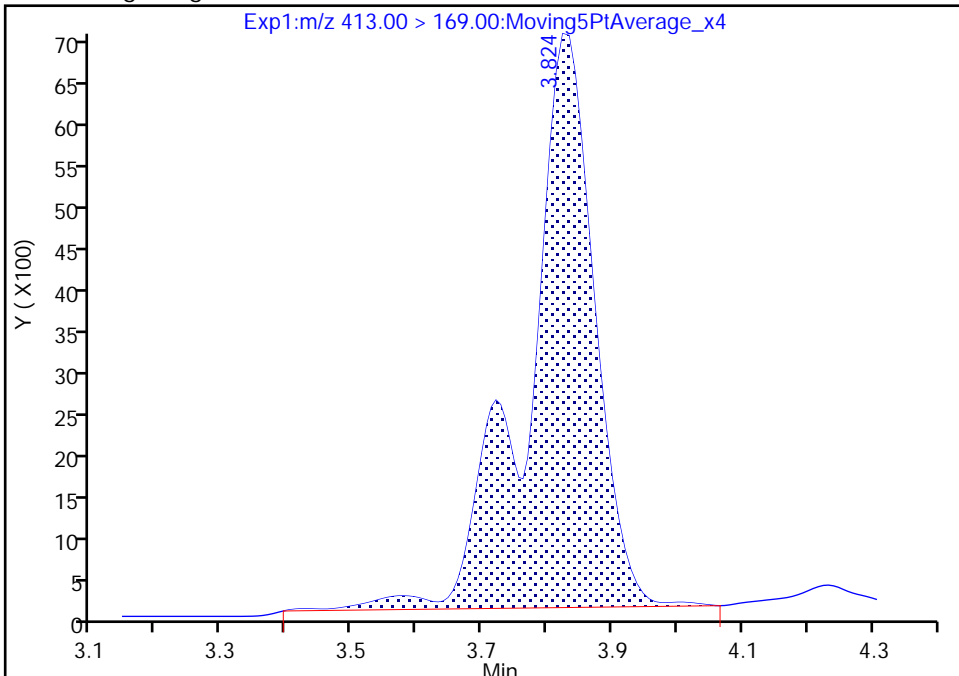
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_034.d  
Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

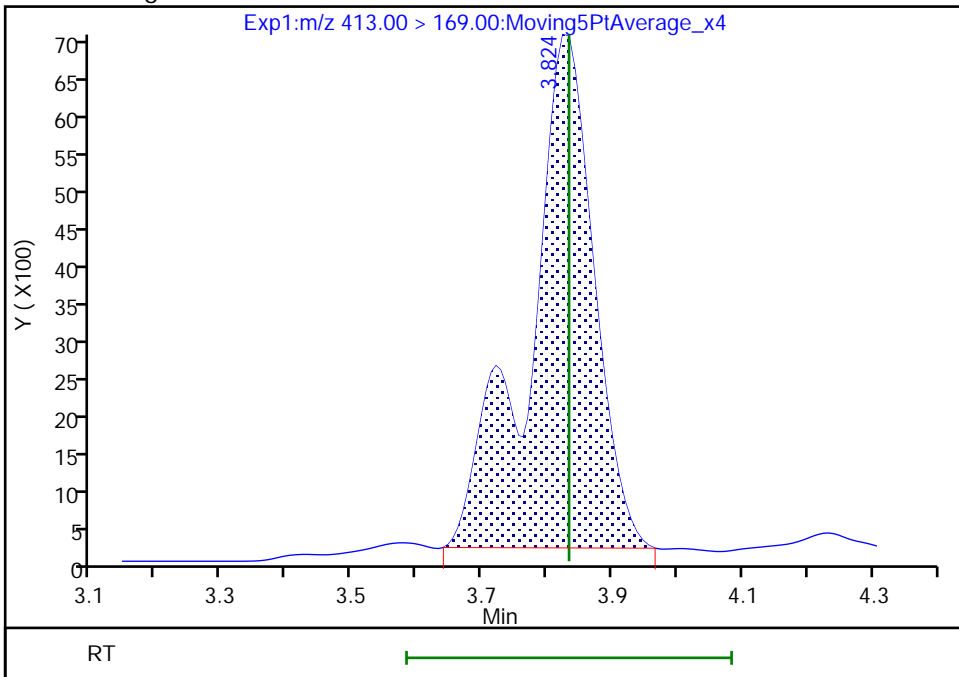
RT: 3.82  
Area: 50408  
Amount: 0.027379  
Amount Units: ng/ml

Processing Integration Results



RT: 3.82  
Area: 47630  
Amount: 0.022247  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:53:53  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

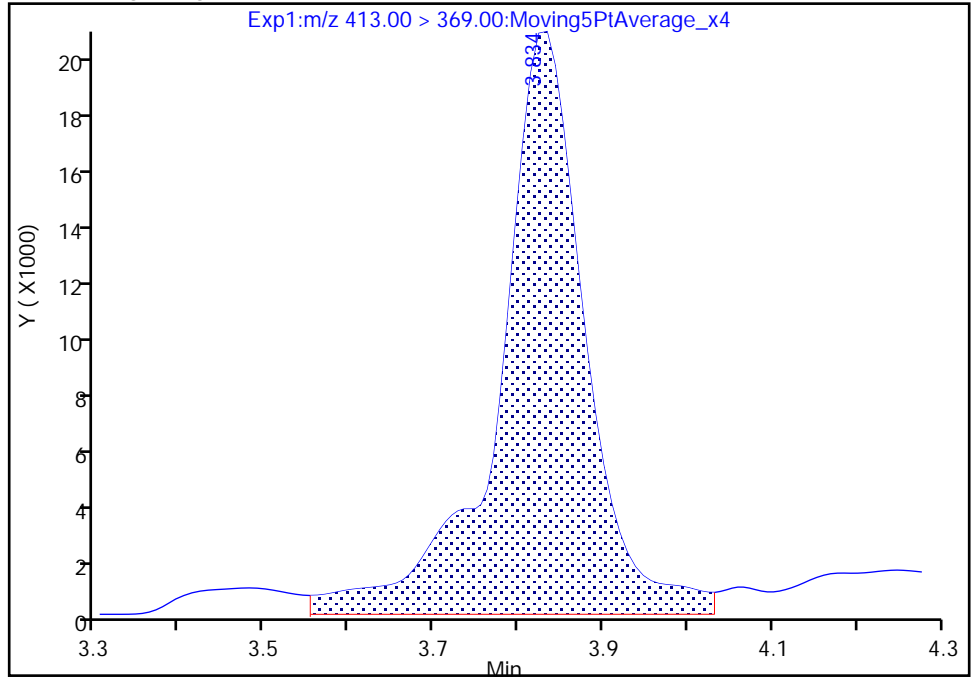
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

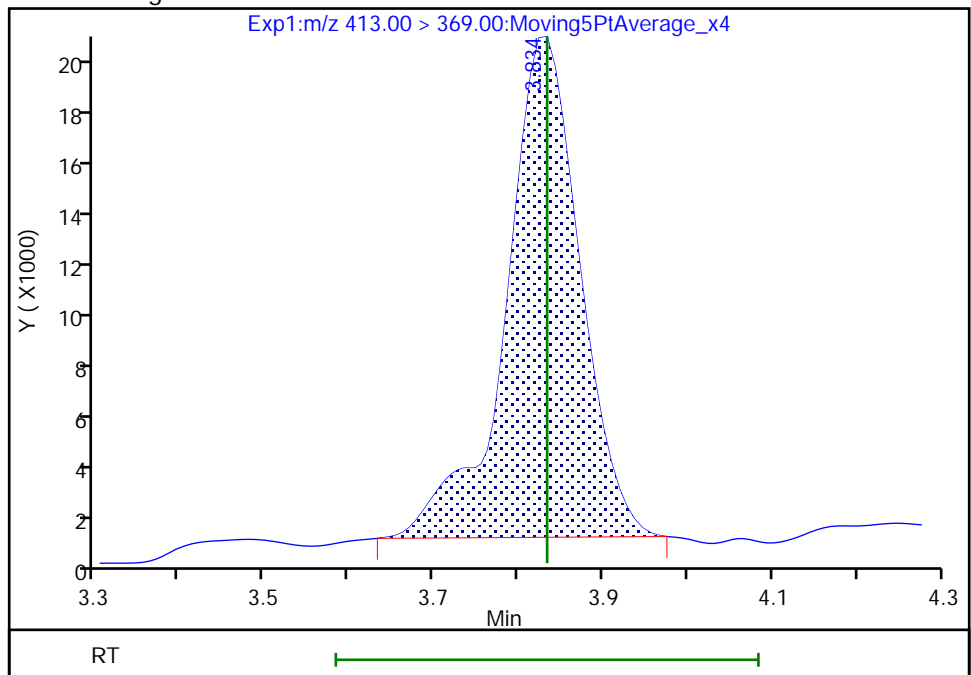
RT: 3.83  
Area: 146758  
Amount: 0.027379  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 119251  
Amount: 0.022247  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:53:56

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

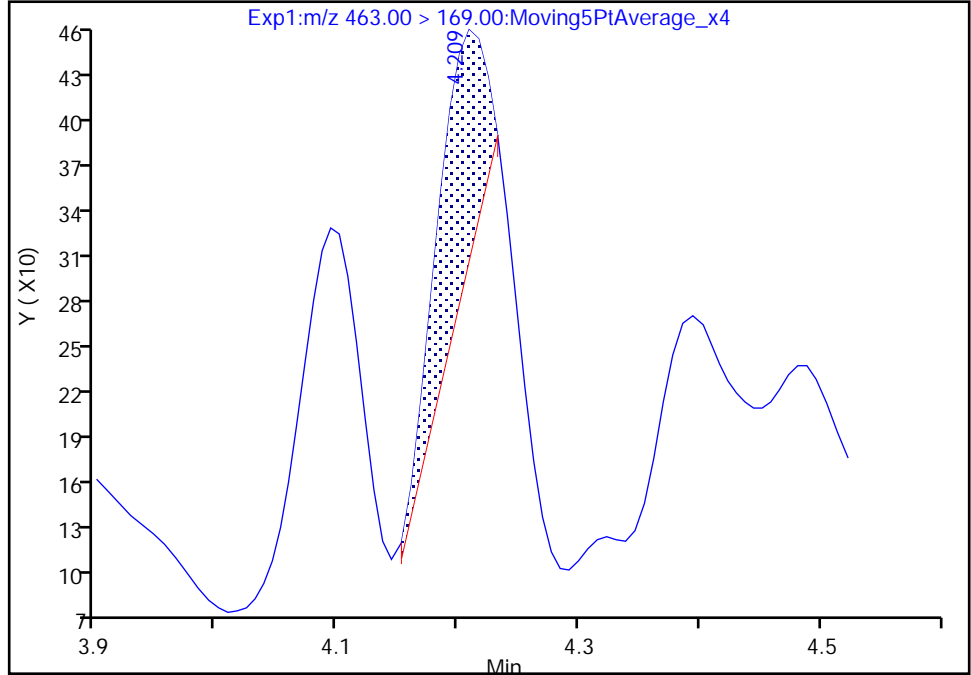
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

64 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

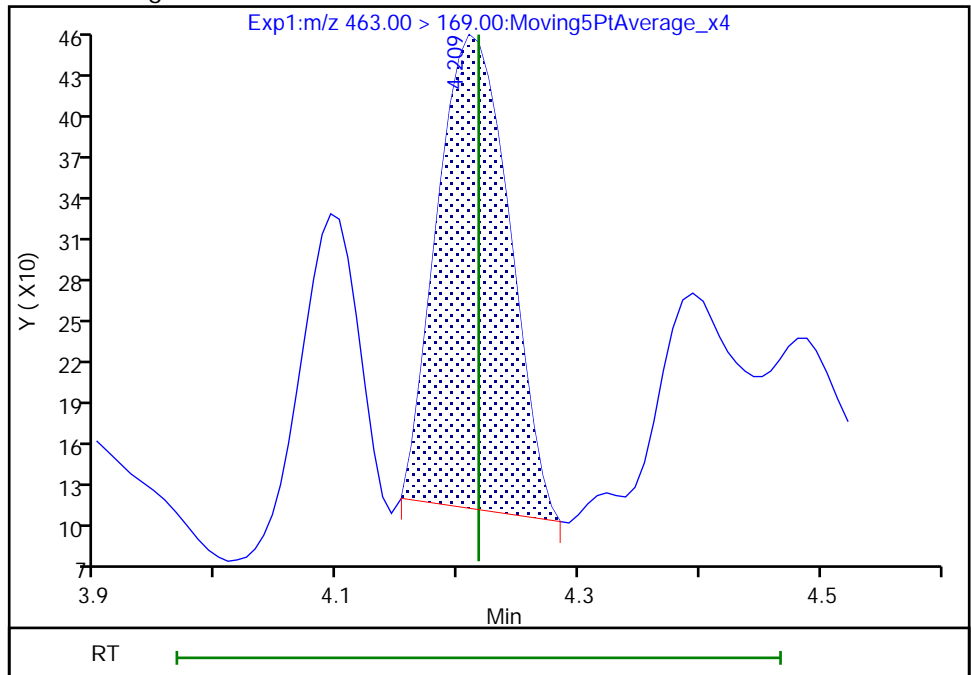
RT: 4.21  
Area: 452  
Amount: 0.002852  
Amount Units: ng/ml

Processing Integration Results



RT: 4.21  
Area: 1439  
Amount: 0.002852  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:54:14  
Audit Action: Manually Integrated

Audit Reason: Baseline

Euofins TestAmerica, Sacramento

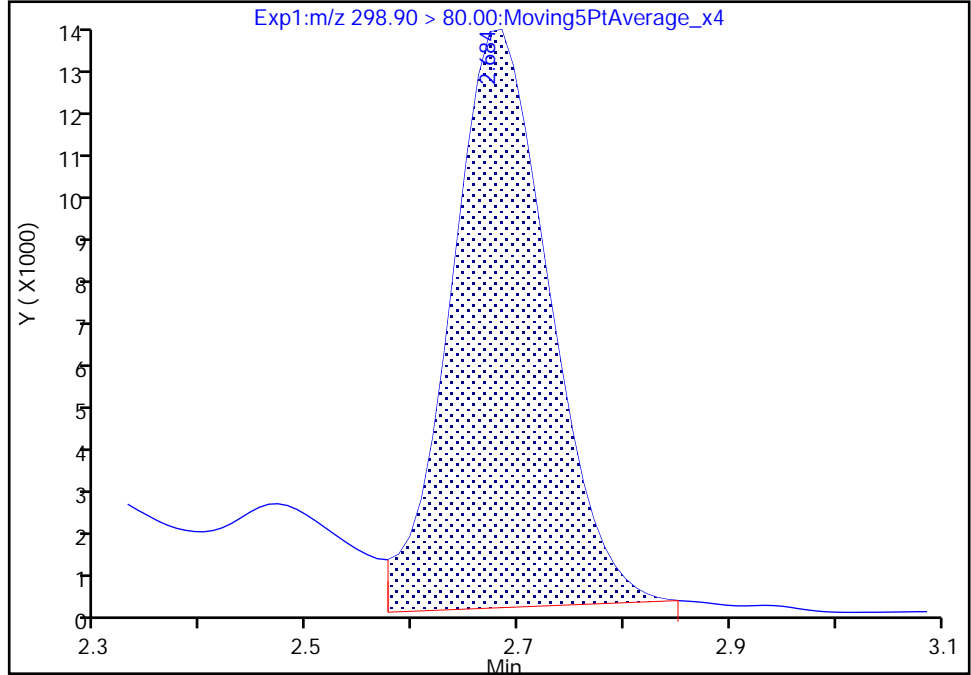
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

20 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

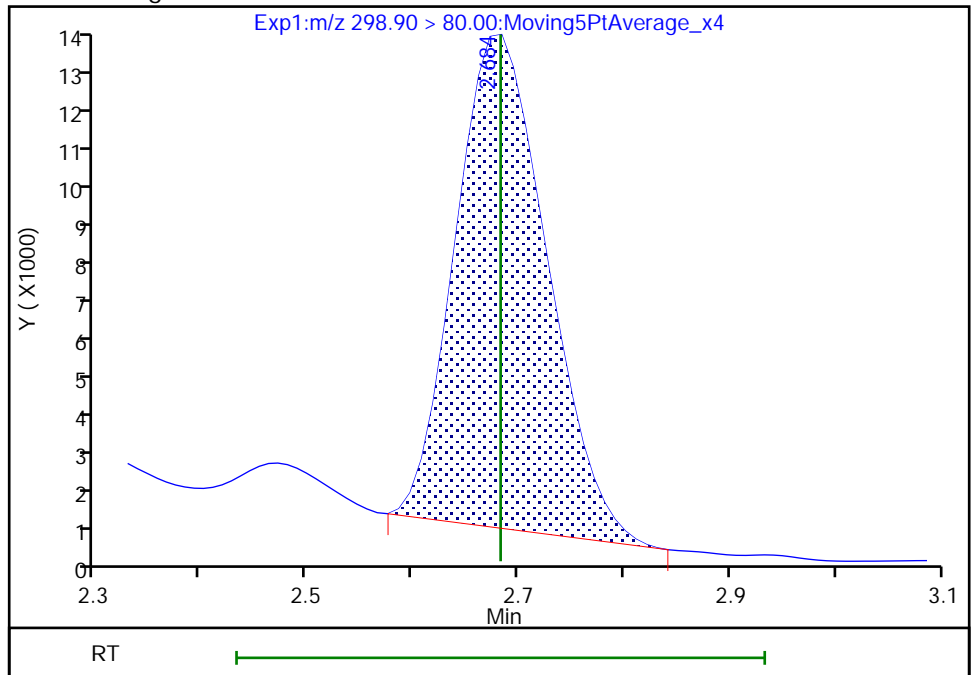
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Amount: 0.022740  
Amount Units: ng/ml

Processing Integration Results



RT: 2.68  
Area: 73697  
Amount: 0.020134  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:53:38  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

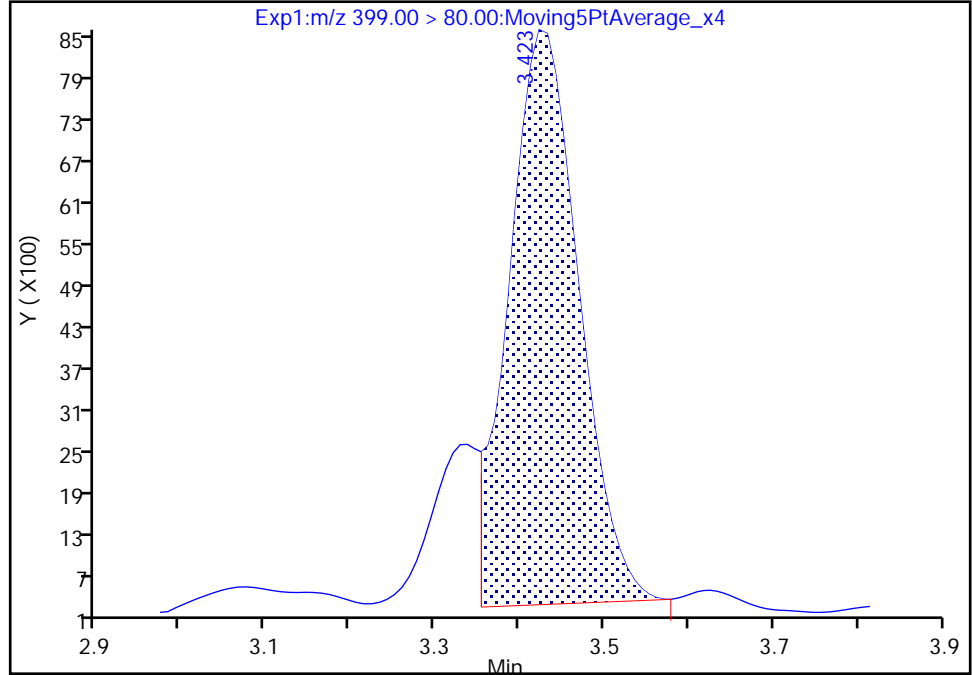
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

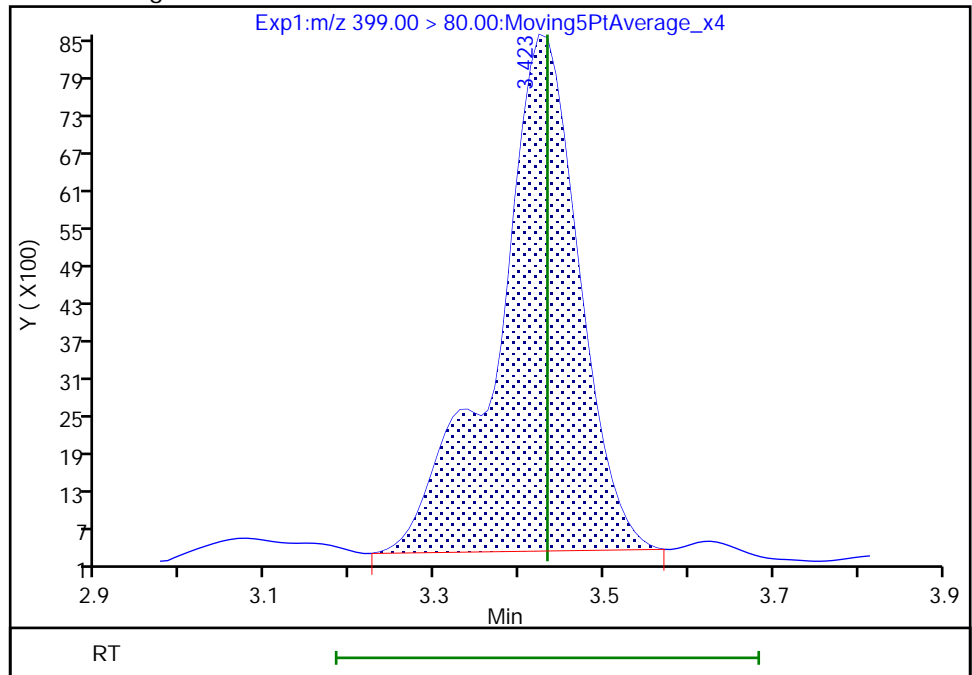
RT: 3.42  
Area: 47825  
Amount: 0.017574  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 56088  
Amount: 0.020610  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:53:45  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

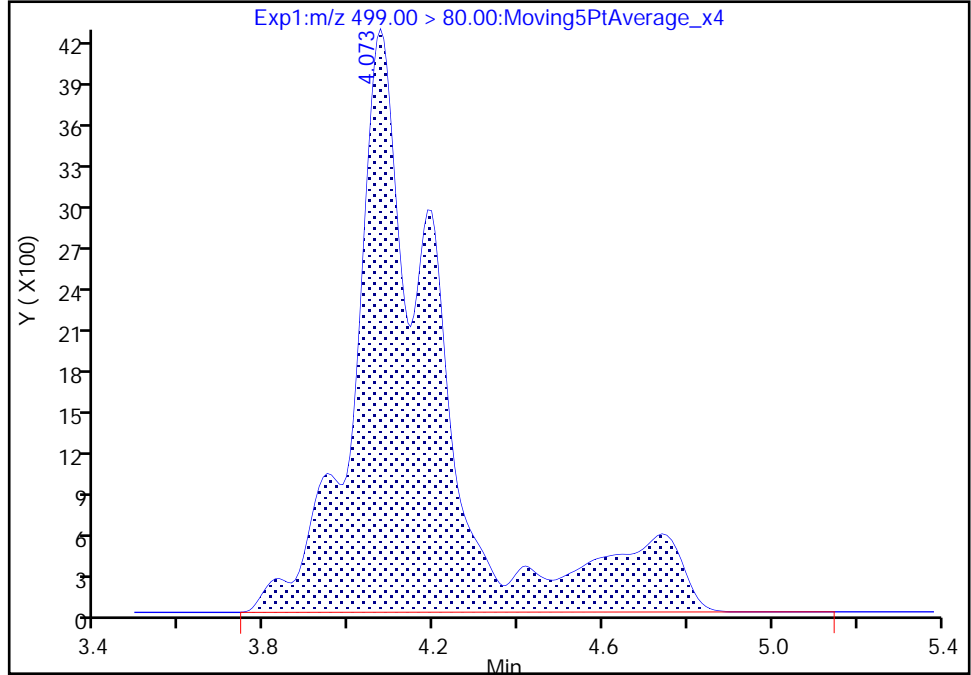
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Injection Date: 10-Jun-2021 08:54:28 Instrument ID: A15  
Lims ID: 320-74597-A-17-A Lab Sample ID: 320-74597-17  
Client ID: BH20210604-1N-75  
Operator ID: SACINSTA15 ALS Bottle#: 23 Worklist Smp#: 11  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

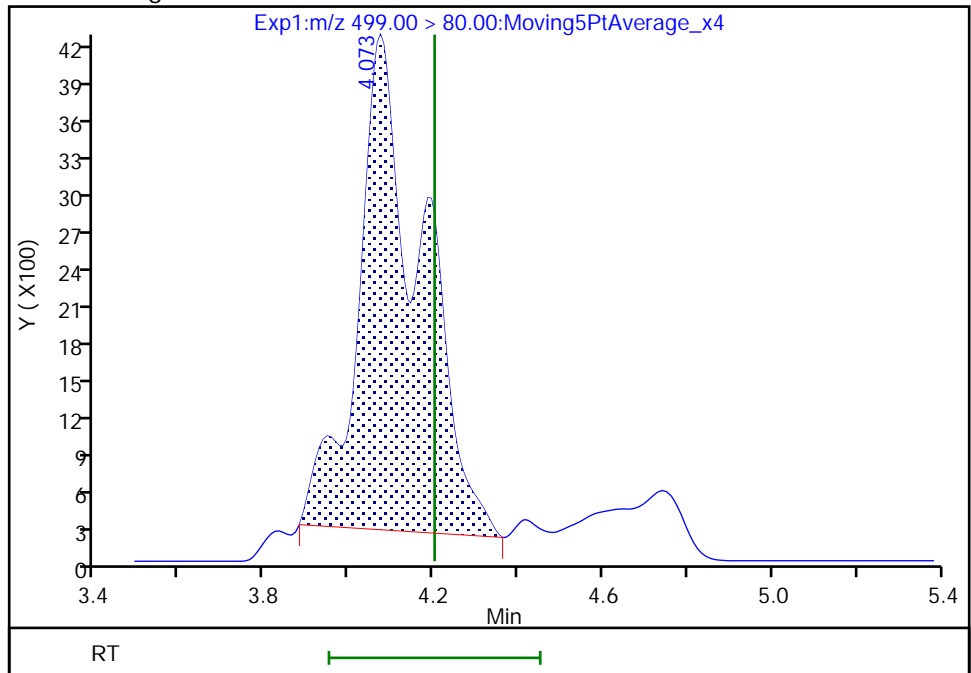
RT: 4.07  
Area: 59923  
Amount: 0.028941  
Amount Units: ng/ml

Processing Integration Results



RT: 4.07  
Area: 41822  
Amount: 0.020199  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:54:05  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-25 Lab Sample ID: 320-74597-18  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_037.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:39  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 264.1 (mL) Date Analyzed: 06/10/2021 09:21  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.7	
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.5		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	
27619-97-2	6:2 FTS	ND		4.7	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-25 Lab Sample ID: 320-74597-18  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_037.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:39  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 264.1(mL) Date Analyzed: 06/10/2021 09:21  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	106		25-150
STL01893	13C5 PFPeA	97		25-150
STL00993	13C2 PFHxA	99		25-150
STL01892	13C4 PFHpA	104		25-150
STL00990	13C4 PFOA	102		25-150
STL00995	13C5 PFNA	110		25-150
STL00996	13C2 PFDA	95		25-150
STL00997	13C2 PFUnA	95		25-150
STL00998	13C2 PFDoA	106		25-150
STL02116	13C2 PFTeDA	100		25-150
STL02337	13C3 PFBS	108		25-150
STL00994	18O2 PFHxS	110		25-150
STL00991	13C4 PFOS	105		25-150
STL01056	13C8 FOSA	111		25-150
STL02118	d3-NMeFOSAA	83		25-150
STL02117	d5-NEtFOSAA	99		25-150
STL02279	M2-6:2 FTS	89		25-150
STL02280	M2-8:2 FTS	96		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_037.d  
 Lims ID: 320-74597-A-18-A  
 Client ID: BH20210604-1S-25  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 09:21:56 ALS Bottle#: 24 Worklist Smp#: 14  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-18-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:55:45 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:55:45  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	6156187	1.33		106	54650	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	367163	0.0788			221	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	295169	0.0664			249	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.650	0.001	0.692	5306627	1.21		96.9	41395	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.683	0.001	1.000	32497	0.008736	Target=2.38		84.9	
298.90 > 99.00	2.673	2.683	-0.010	0.996	13597		2.39(1.19-3.57)		47.4	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.683	0.001	0.700	3824558	1.25		108	23416	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.018	0.0	1.000	161696	0.0335	Target=13.22		291	
313.00 > 119.00	3.018	3.018	0.0	1.000	10363		15.60(6.61-19.83)		148	
D 28 13C2 PFHxA										
315.00 > 270.00	3.018	3.018	0.0	0.787	5387369	1.24		99.4	54763	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.423	3.433	-0.010	0.997	26529	0.0101	Target=3.49		187	M
399.00 > 99.00	3.433	3.433	0.0	1.000	8054		3.29(1.75-5.24)		93.0	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2821715	1.30		110	36857	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5570963	1.31		104	59246	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.423	3.433	-0.010	1.000	40918	0.008689	Target=3.91		93.9	
363.00 > 169.00	3.423	3.433	-0.010	1.000	10100		4.05(1.96-5.87)		138	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS	429.00 > 81.00	3.814	3.815	-0.001	0.995	1043698	1.06	89.2	8928	
D 56 13C4 PFOA	417.00 > 372.00	3.833	3.834	-0.001	1.000	6167581	1.27	102	39348	
58 Perfluorooctanoic acid										M
413.00 > 369.00	3.833	3.834	-0.001	1.000	54227	0.0105	Target=2.83	114	M	
413.00 > 169.00	3.833	3.834	-0.001	1.000	25062		2.16(1.41-4.24)	191	M	
* 57 13C2 PFOA	415.00 > 370.00	3.833	3.834	-0.001		5813697	1.25		60167	
D 61 13C4 PFOS	503.00 > 80.00	4.201	4.201	0.0	1.096	2138097	1.26	105	14966	
D 63 13C5 PFNA	468.00 > 423.00	4.209	4.209	0.0	1.098	6356279	1.37	110	102477	
D 71 13C8 FOSA	506.00 > 78.00	4.532	4.532	0.0	1.182	3971710	1.39	111	36695	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	7636	0.002394		165		
D 74 13C2 PFDA	515.00 > 470.00	4.559	4.559	0.0	1.189	5520910	1.19	95.3	80991	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	25081	0.005555	Target=8.38	252		
513.00 > 169.00	4.559	4.559	0.0	1.000	3051		8.22(4.19-12.57)	23.7		
D 76 M2-8:2 FTS	529.00 > 81.00	4.559	4.559	0.0	1.189	1773405	1.15	96.2	18834	
D 78 d3-NMeFOSAA	573.00 > 419.00	4.717	4.718	-0.001	1.231	2027764	1.04	82.9	20642	
D 82 13C2 PFUnA	565.00 > 520.00	4.872	4.872	0.0	1.271	5283816	1.18	94.6	52122	
D 83 d5-NEtFOSAA	589.00 > 419.00	4.881	4.882	-0.001	1.273	2413563	1.24	99.2	19349	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.882	0.009	1.002	4335	0.003133	Target=0.79	142		
584.00 > 526.10	4.891	4.882	0.009	1.002	7164		0.61(0.40-1.19)	46.0		
D 97 13C2 PFDoA	615.00 > 570.00	5.156	5.156	0.0	1.345	6413066	1.33	106	73128	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.648	5.649	-0.001	1.000	1349	0.002469	Target=1.11	36.7		
713.00 > 219.00	5.658	5.649	0.009	1.002	1077		1.25(0.56-1.67)	32.3		
D 104 13C2 PFTeDA	715.00 > 670.00	5.648	5.649	-0.001	1.473	5556604	1.25	99.8	58736	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

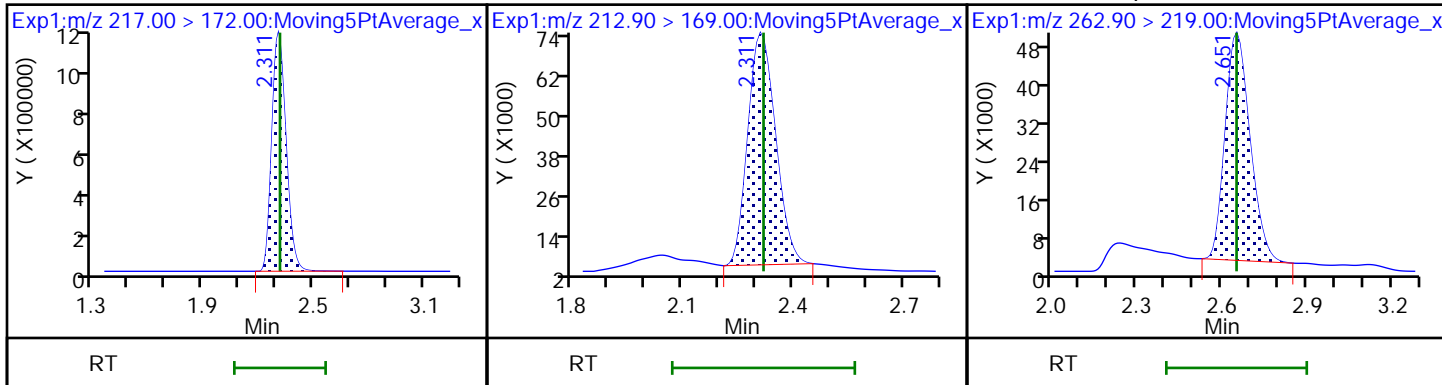
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_037.d  
Injection Date: 10-Jun-2021 09:21:56 Instrument ID: A15  
Lims ID: 320-74597-A-18-A Lab Sample ID: 320-74597-18  
Client ID: BH20210604-1S-25  
Operator ID: SACINSTA15 ALS Bottle#: 24 Worklist Smp#: 14  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

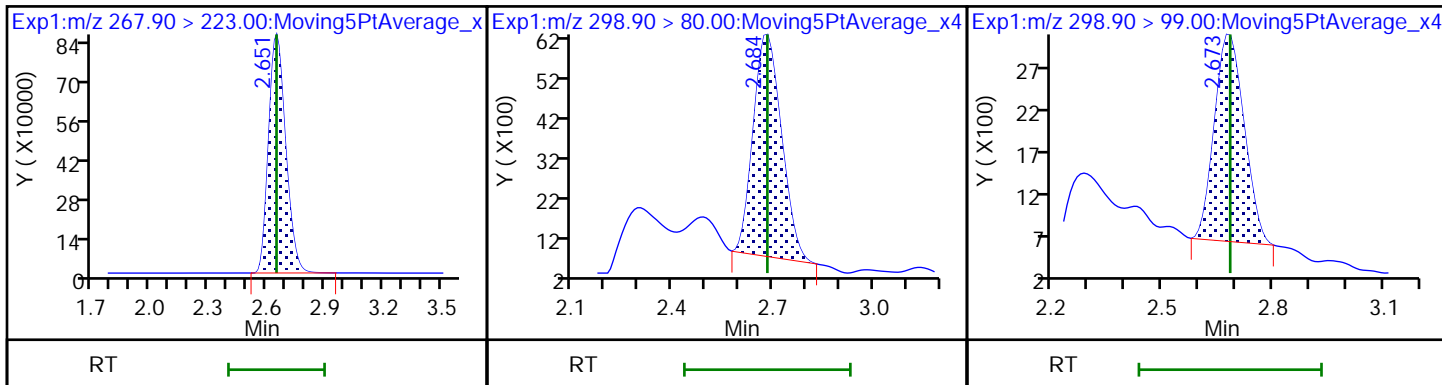
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

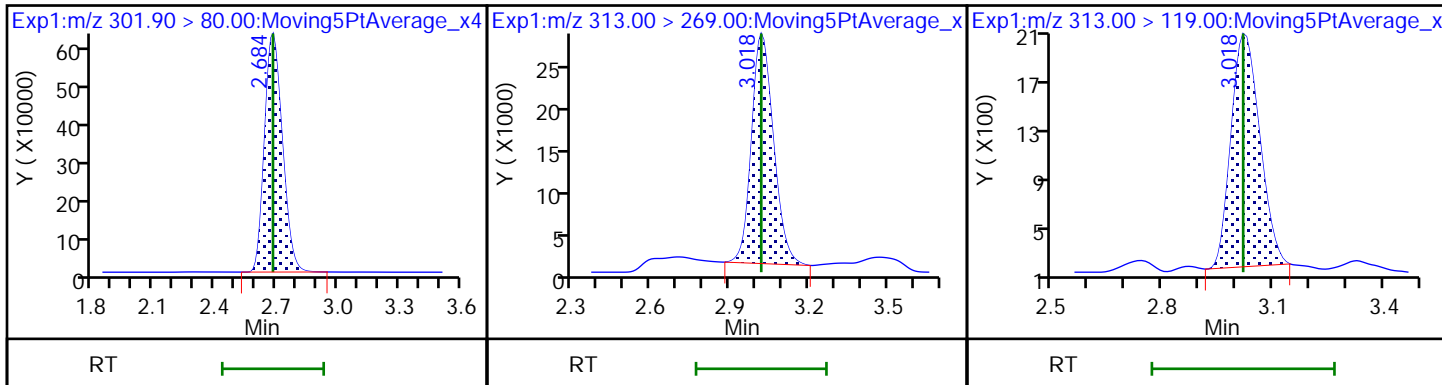
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

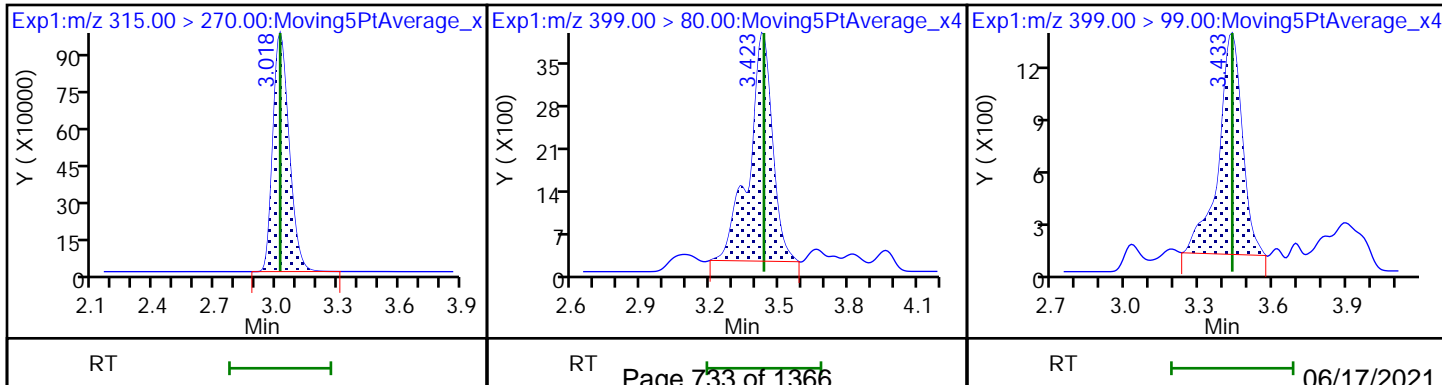
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid (M)

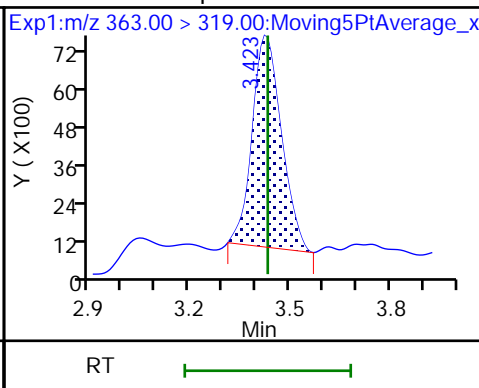
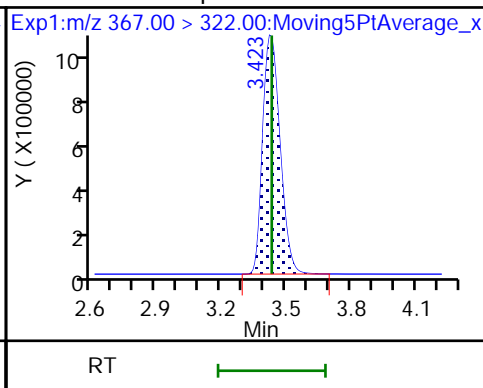
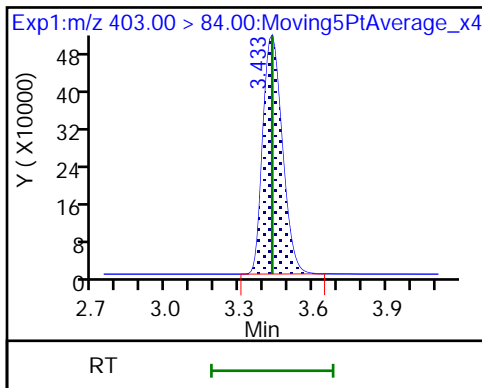
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

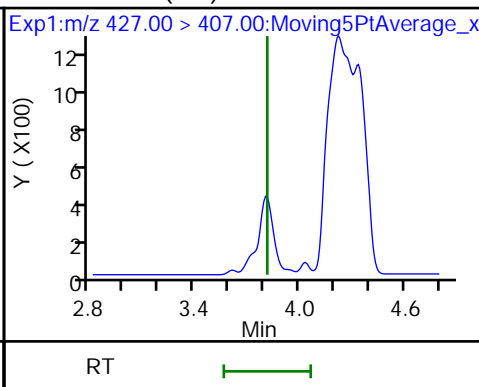
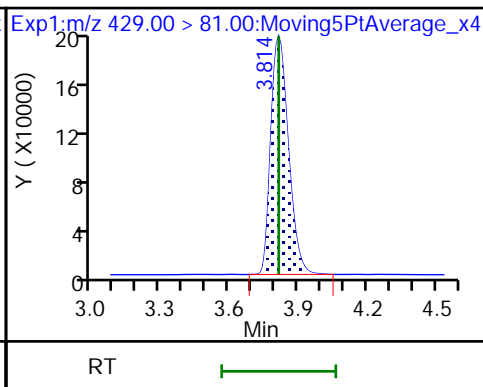
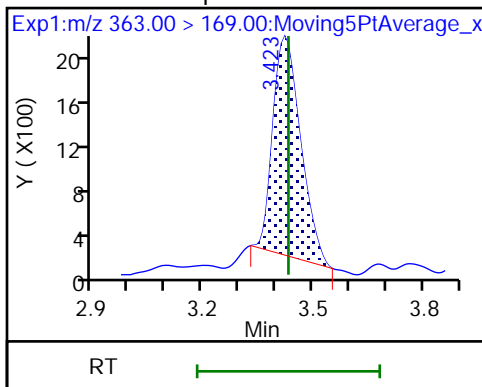
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

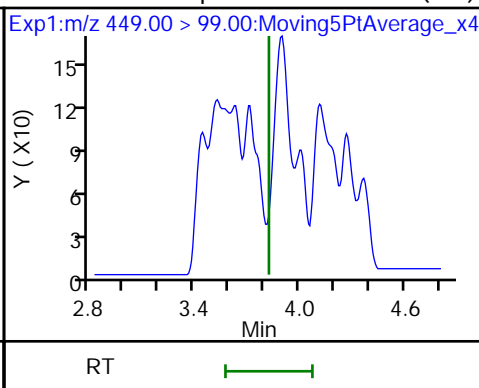
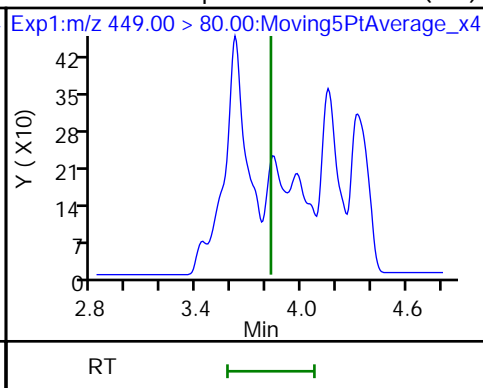
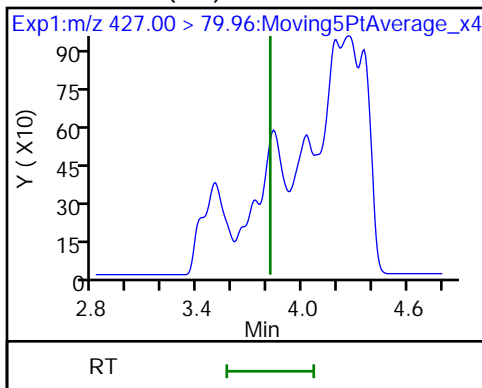
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

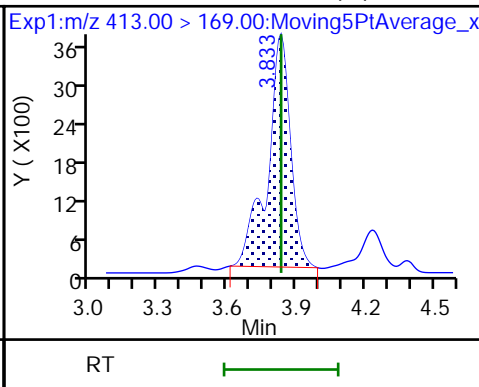
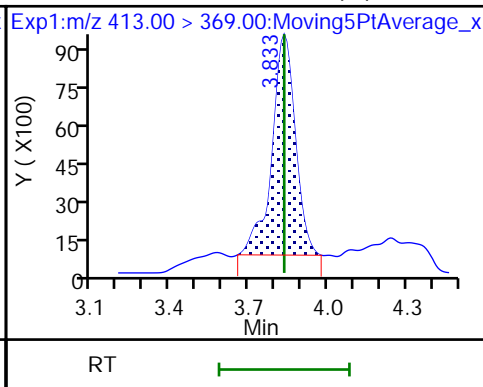
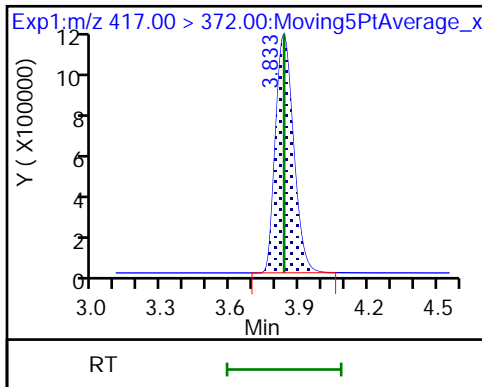
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

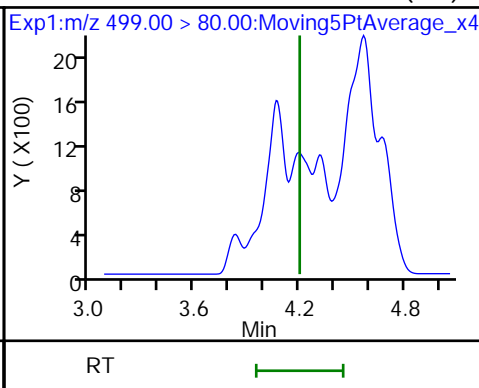
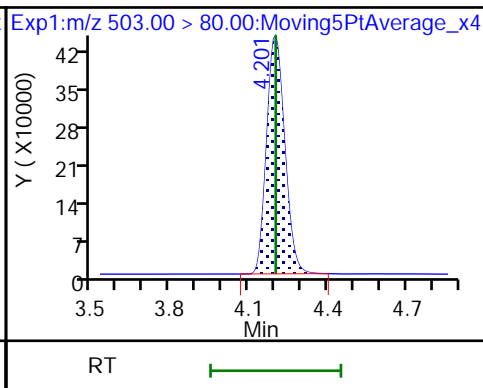
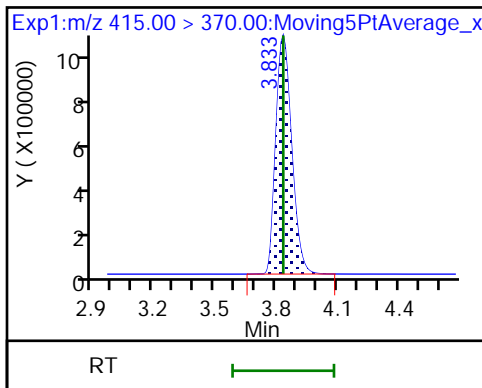
58 Perfluorooctanoic acid (M)



\* 57 13C2 PFOA

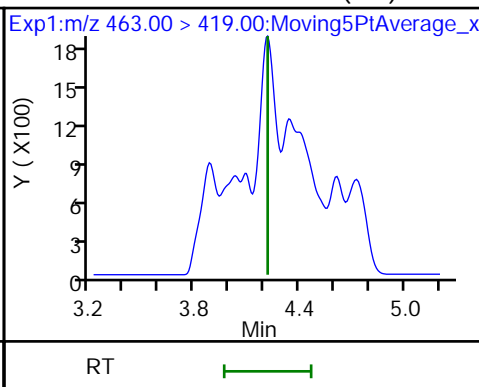
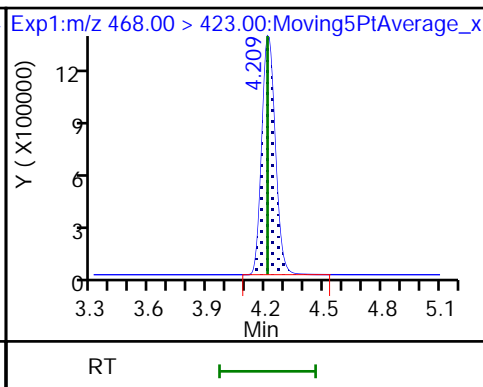
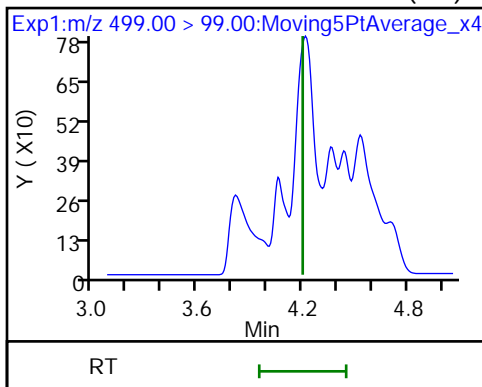
D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND) D 63 13C5 PFNA

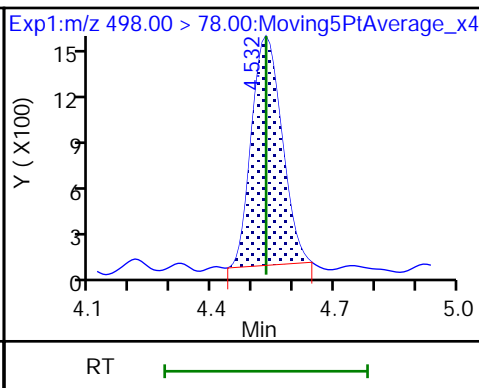
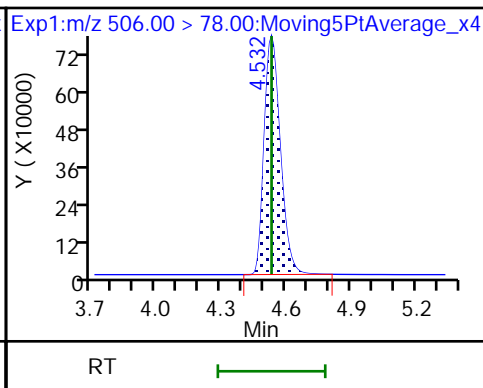
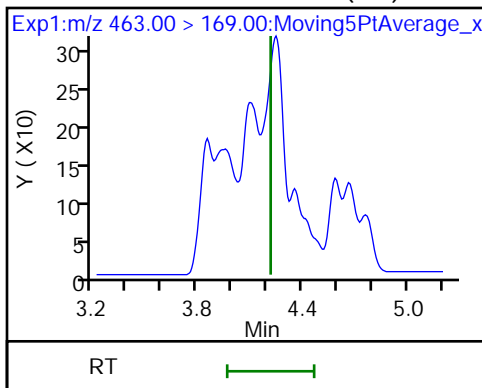
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

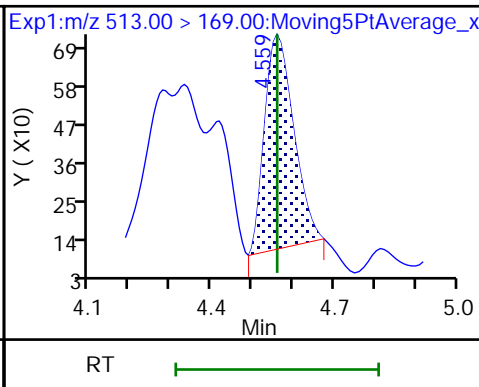
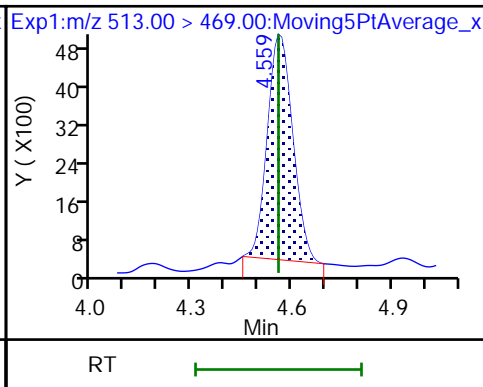
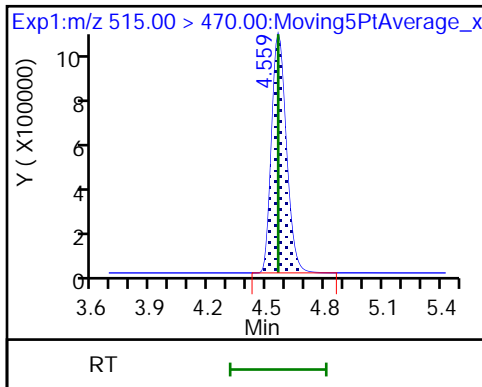
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

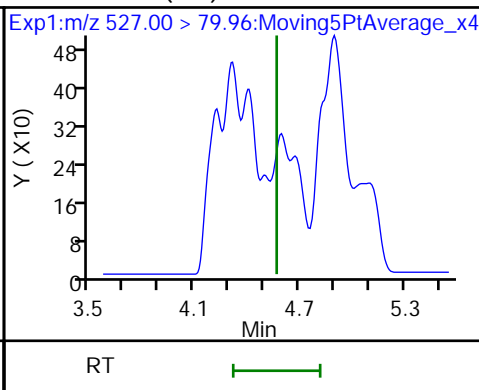
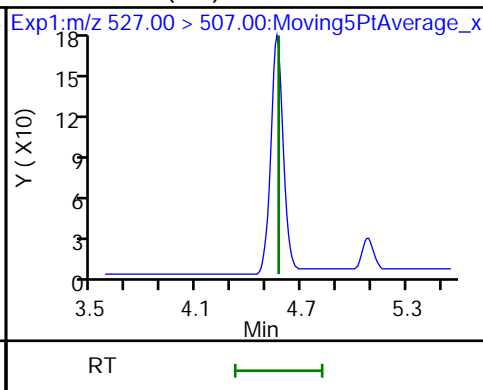
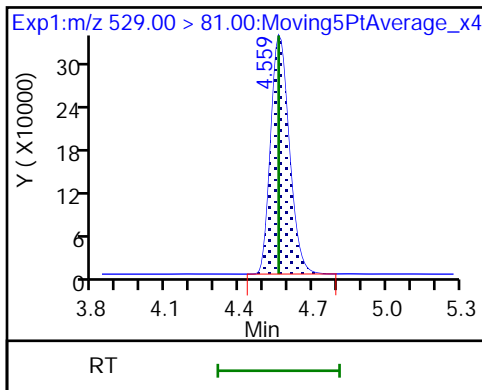
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

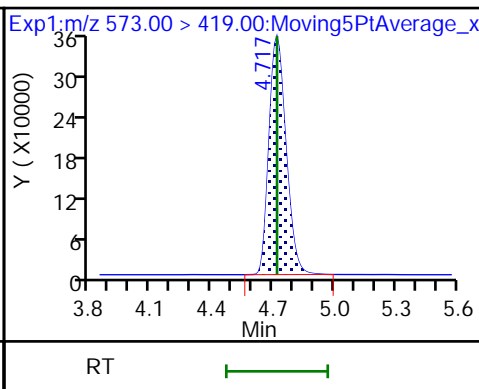
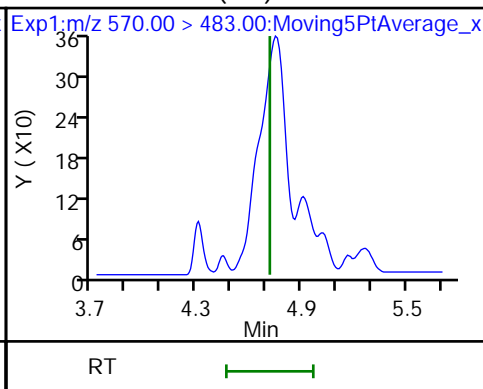
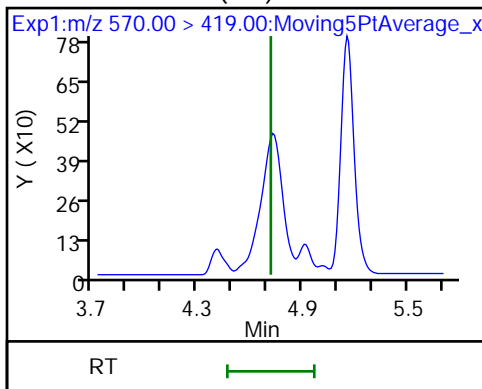
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

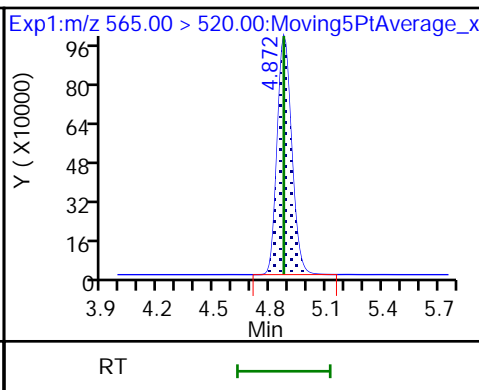
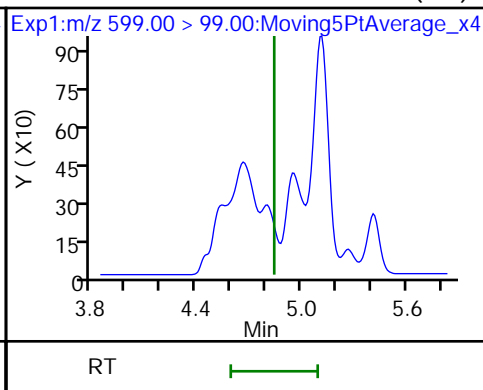
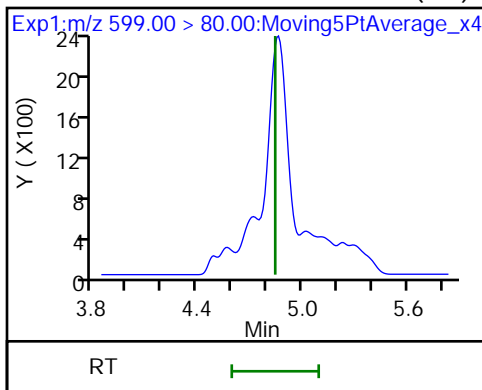
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

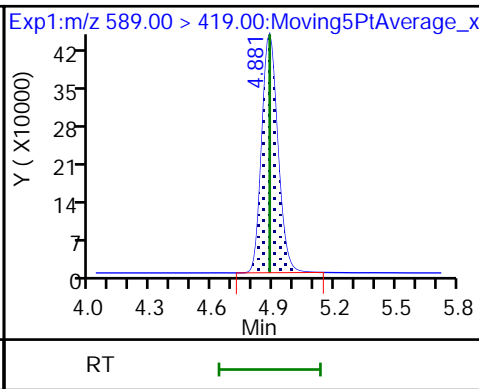
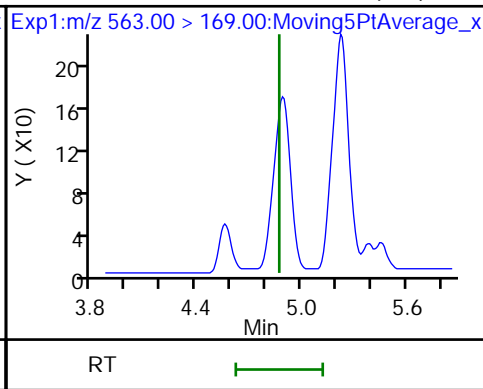
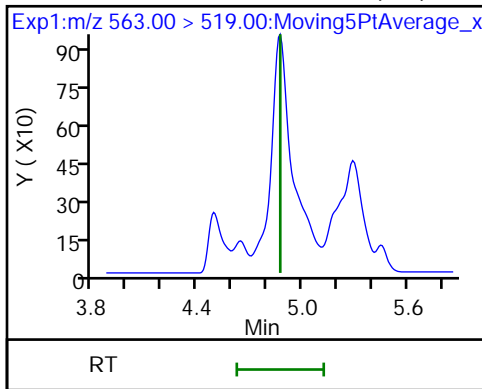
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

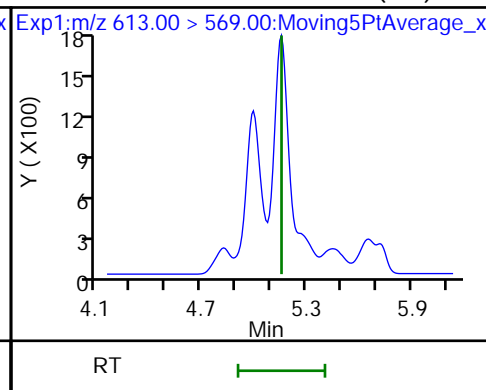
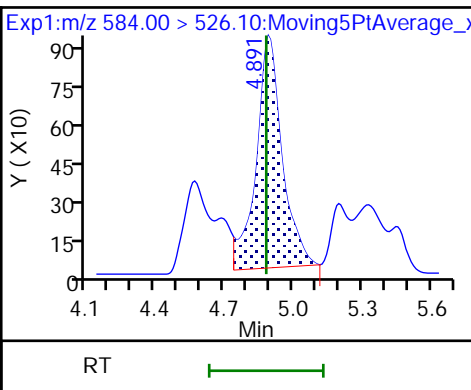
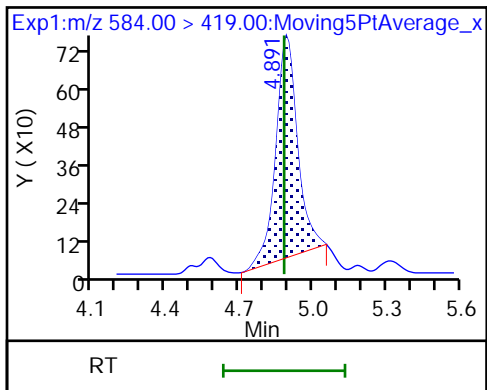
D 83 d5-NEtFOSAA



84 NEtFOSAA

84 NEtFOSAA

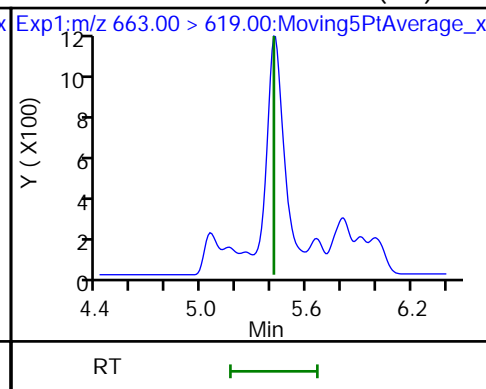
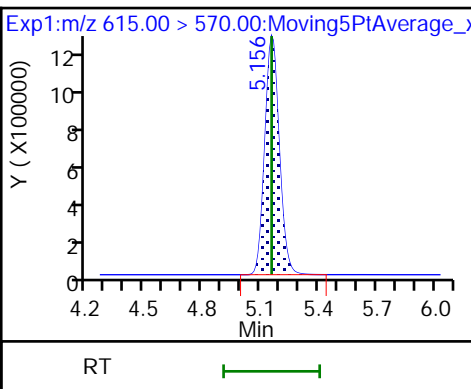
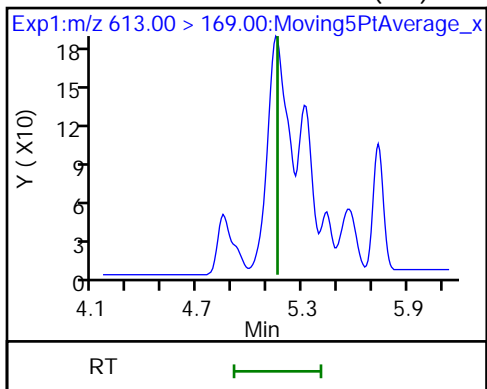
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

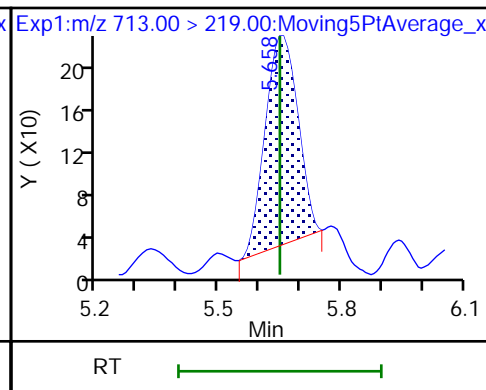
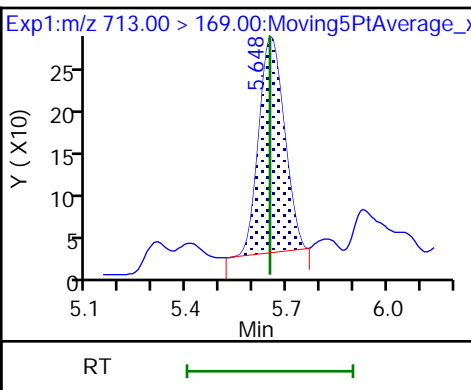
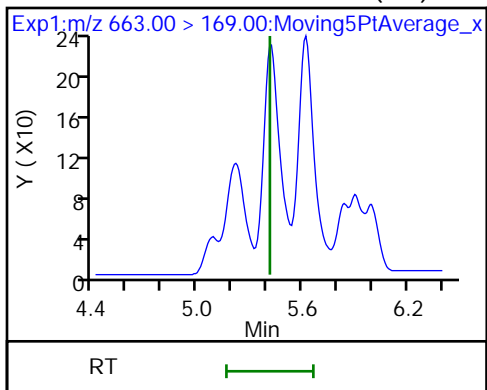
103 Perfluorotridecanoic acid (ND)



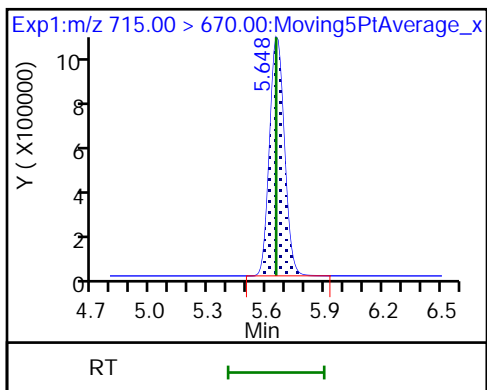
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA





Eurofins TestAmerica, Sacramento

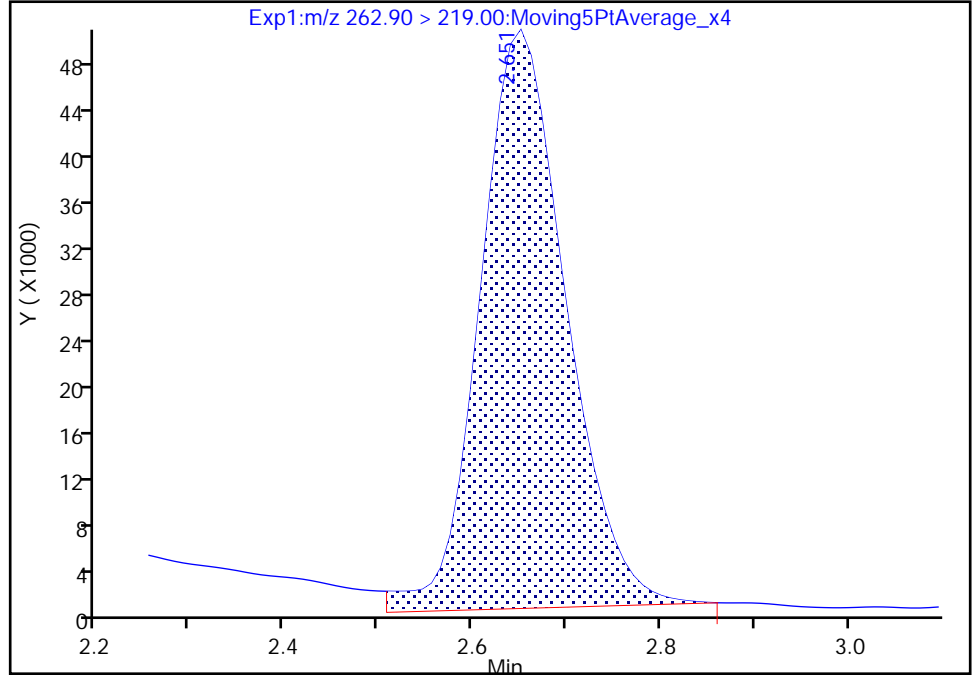
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_037.d  
Injection Date: 10-Jun-2021 09:21:56 Instrument ID: A15  
Lims ID: 320-74597-A-18-A Lab Sample ID: 320-74597-18  
Client ID: BH20210604-1S-25  
Operator ID: SACINSTA15 ALS Bottle#: 24 Worklist Smp#: 14  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

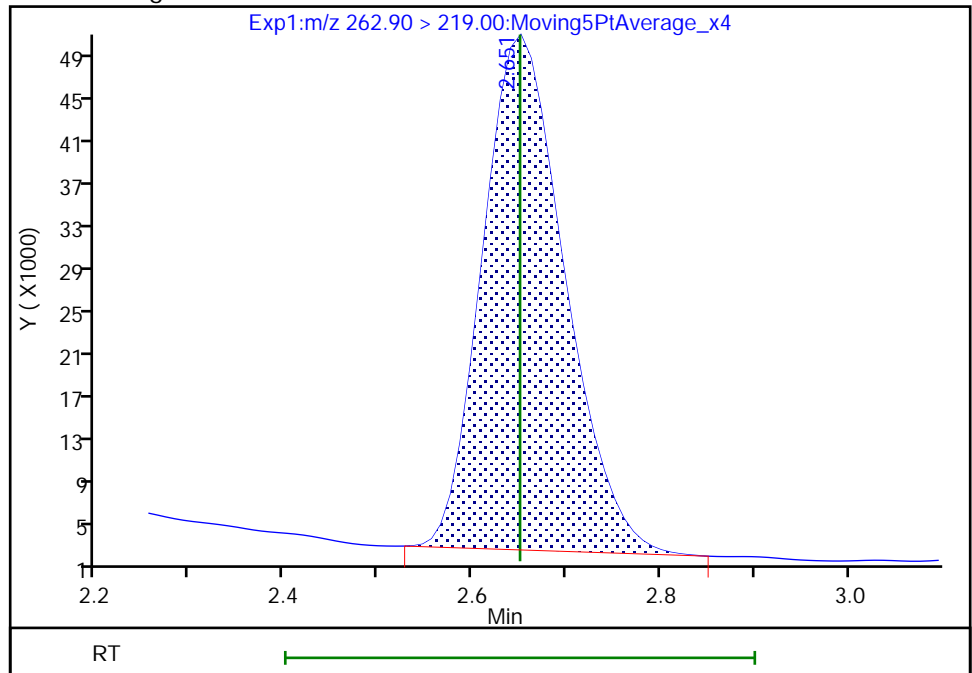
RT: 2.65  
Area: 314709  
Amount: 0.070744  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 295169  
Amount: 0.066351  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeeck, 11-Jun-2021 07:55:13  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

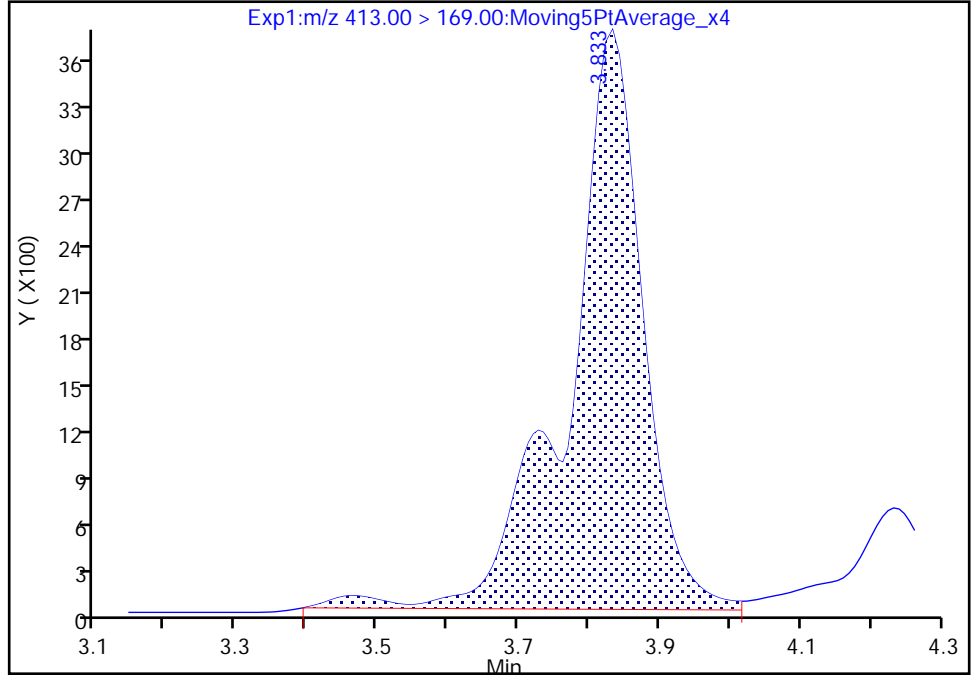
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_037.d  
Injection Date: 10-Jun-2021 09:21:56 Instrument ID: A15  
Lims ID: 320-74597-A-18-A Lab Sample ID: 320-74597-18  
Client ID: BH20210604-1S-25  
Operator ID: SACINSTA15 ALS Bottle#: 24 Worklist Smp#: 14  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

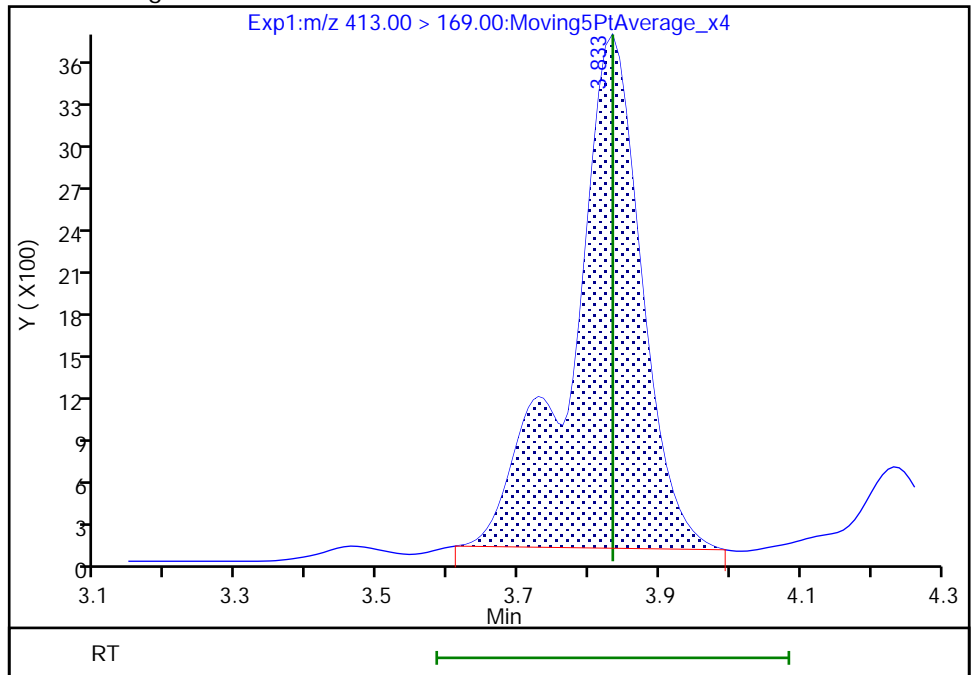
RT: 3.83  
Area: 27472  
Amount: 0.011480  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 25062  
Amount: 0.010517  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:55:30  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

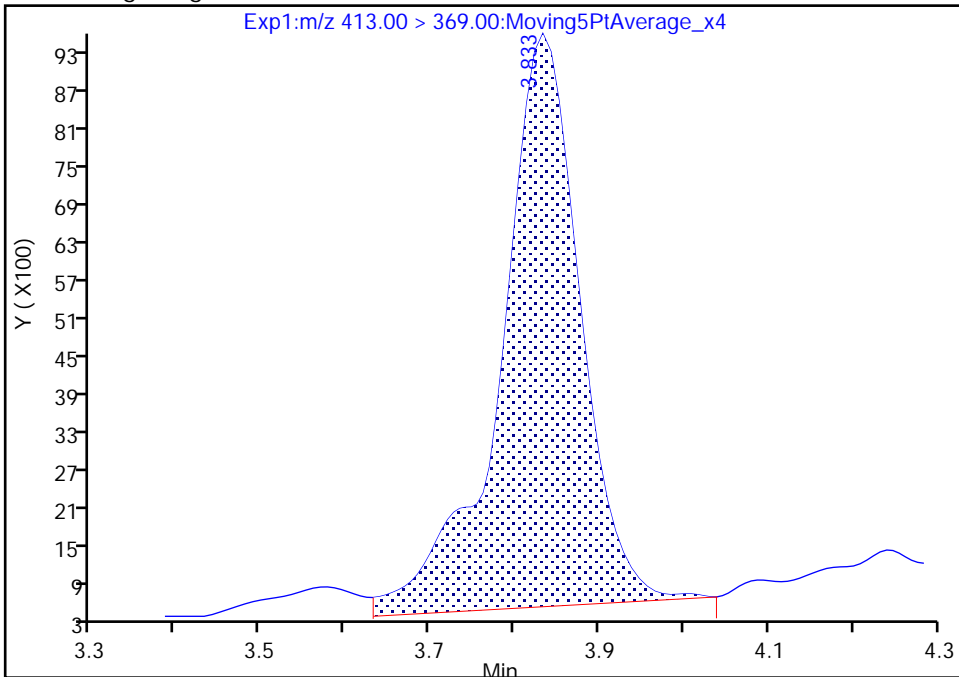
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_037.d		
Injection Date:	10-Jun-2021 09:21:56	Instrument ID:	A15
Lims ID:	320-74597-A-18-A	Lab Sample ID:	320-74597-18
Client ID:	BH20210604-1S-25		
Operator ID:	SACINSTA15	ALS Bottle#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	14

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

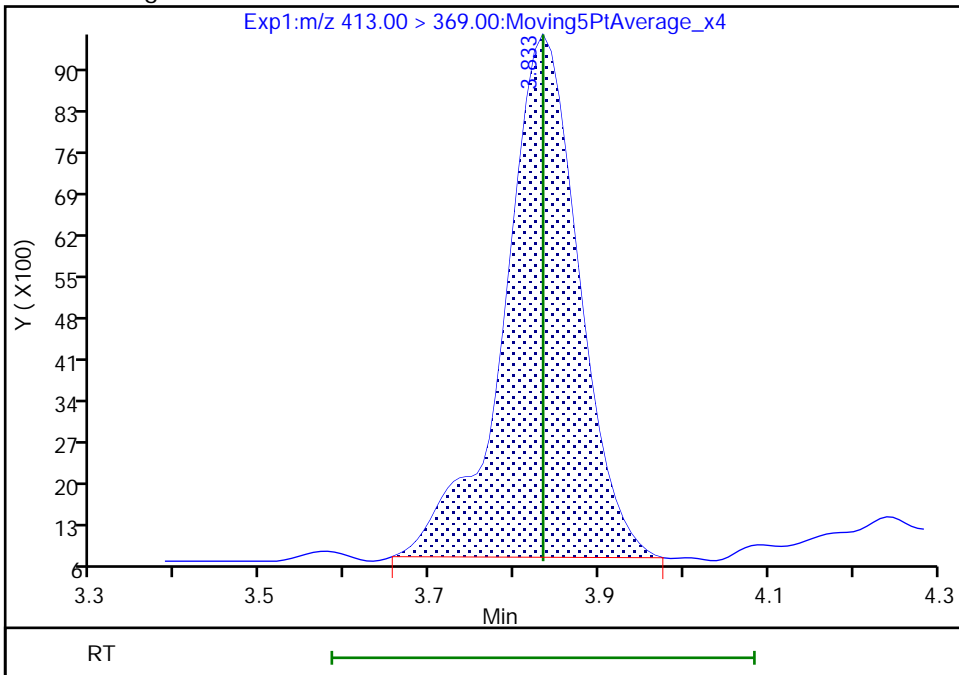
RT: 3.83  
 Area: 59196  
 Amount: 0.011480  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
 Area: 54227  
 Amount: 0.010517  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:55:33

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

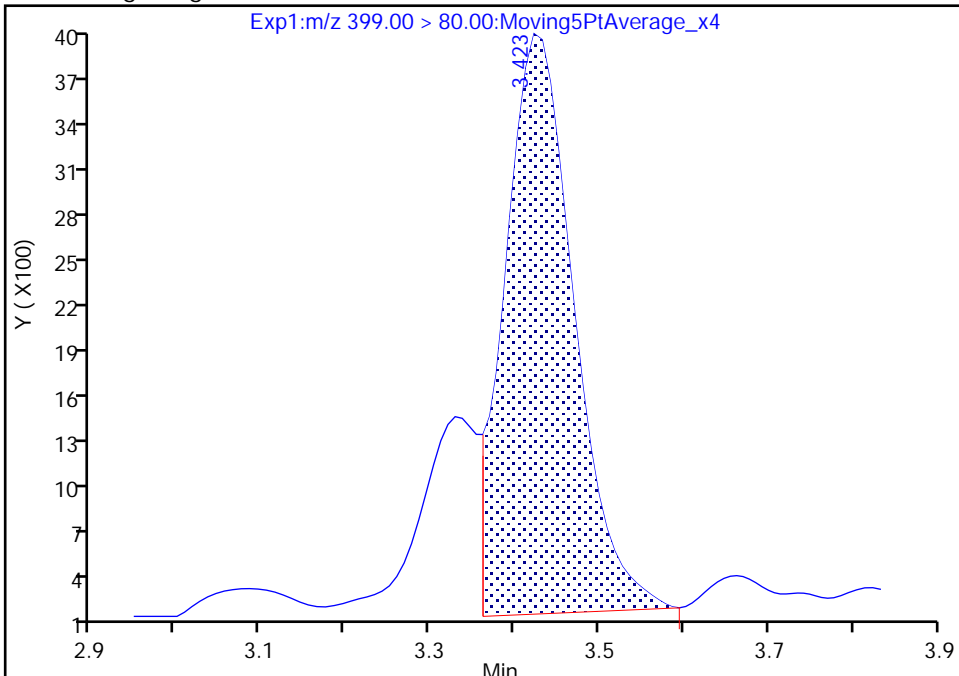
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_037.d  
Injection Date: 10-Jun-2021 09:21:56 Instrument ID: A15  
Lims ID: 320-74597-A-18-A Lab Sample ID: 320-74597-18  
Client ID: BH20210604-1S-25  
Operator ID: SACINSTA15 ALS Bottle#: 24 Worklist Smp#: 14  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

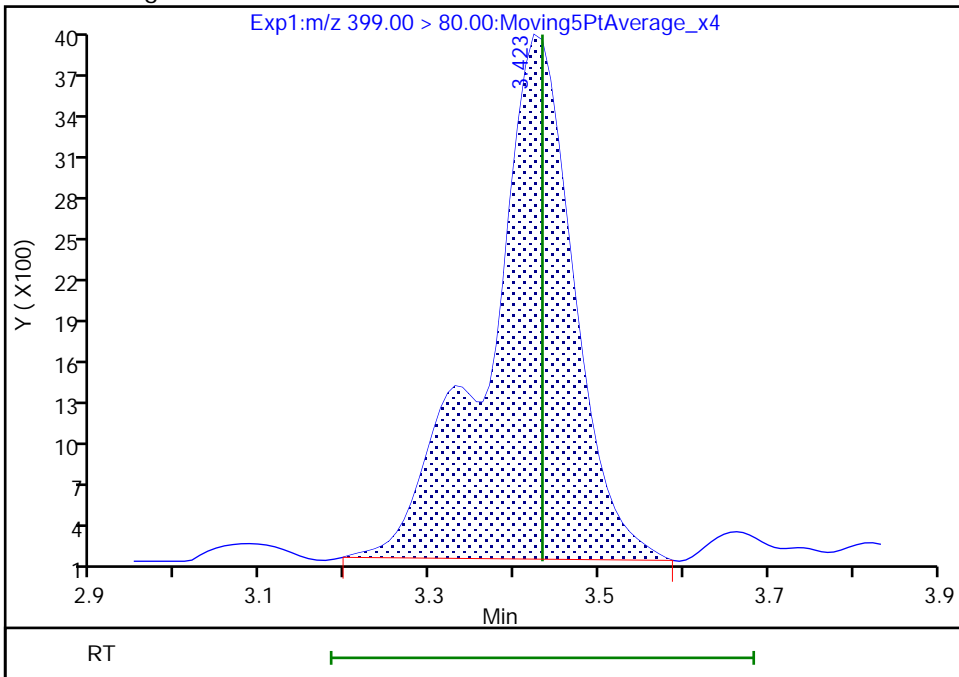
RT: 3.42  
Area: 21520  
Amount: 0.008156  
Amount Units: ng/ml

Processing Integration Results



RT: 3.42  
Area: 26529  
Amount: 0.010054  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:55:24  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-50 Lab Sample ID: 320-74597-19  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_038.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:40  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 263.1(mL) Date Analyzed: 06/10/2021 09:31  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.8	
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.9		1.9	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	
27619-97-2	6:2 FTS	ND		4.8	
39108-34-4	8:2 FTS	ND		1.9	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-50 Lab Sample ID: 320-74597-19  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_038.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:40  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 263.1(mL) Date Analyzed: 06/10/2021 09:31  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	103		25-150
STL01893	13C5 PFPeA	100		25-150
STL00993	13C2 PFHxA	98		25-150
STL01892	13C4 PFHpA	105		25-150
STL00990	13C4 PFOA	103		25-150
STL00995	13C5 PFNA	104		25-150
STL00996	13C2 PFDA	98		25-150
STL00997	13C2 PFUnA	95		25-150
STL00998	13C2 PFDoA	105		25-150
STL02116	13C2 PFTeDA	100		25-150
STL02337	13C3 PFBS	110		25-150
STL00994	18O2 PFHxS	112		25-150
STL00991	13C4 PFOS	105		25-150
STL01056	13C8 FOSA	117		25-150
STL02118	d3-NMeFOSAA	107		25-150
STL02117	d5-NEtFOSAA	111		25-150
STL02279	M2-6:2 FTS	91		25-150
STL02280	M2-8:2 FTS	93		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_038.d  
 Lims ID: 320-74597-A-19-A  
 Client ID: BH20210604-1S-50  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 09:31:04 ALS Bottle#: 25 Worklist Smp#: 15  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-19-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:56:15 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:56:15  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.302	2.319	-0.017	0.602	5910421	1.28	103	41239	
10 Perfluorobutanoic acid	212.90 > 169.00	2.302	2.319	-0.017	1.000	348047	0.0778		249	
18 Perfluoropentanoic acid	262.90 > 219.00	2.652	2.650	0.002	1.000	228943	0.0502		271	M
D 17 13C5 PFPeA	267.90 > 223.00	2.652	2.650	0.002	0.693	5438372	1.25	100	37058	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.684	2.683	0.001	1.000	16572	0.004409 Target=2.38		61.5	
	298.90 > 99.00	2.673	2.683	-0.010	0.996	6751	2.45(1.19-3.57)		28.9	
D 21 13C3 PFBS	301.90 > 80.00	2.684	2.683	0.001	0.702	3864613	1.28	110	30468	
29 Perfluorohexanoic acid	313.00 > 269.00	3.019	3.018	0.001	1.000	113926	0.0241 Target=13.22		230	
	313.00 > 119.00	3.010	3.018	-0.008	0.997	8039	14.17(6.61-19.83)		147	
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.018	0.001	0.789	5265236	1.22	98.0	50475	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.424	3.433	-0.009	1.000	15146	0.005703 Target=3.49		167	
	399.00 > 99.00	3.424	3.433	-0.009	1.000	3353	4.52(1.75-5.24)		47.2	
D 38 18O2 PFHxS	403.00 > 84.00	3.424	3.433	-0.009	0.895	2839940	1.32	112	47629	
D 37 13C4 PFHpA	367.00 > 322.00	3.424	3.433	-0.009	0.895	5576451	1.32	105	54209	
36 Perfluoroheptanoic acid	363.00 > 319.00	3.424	3.433	-0.009	1.000	24848	0.005271 Target=3.91		66.1	
	363.00 > 169.00	3.433	3.433	0.0	1.003	4800	5.18(1.96-5.87)		66.7	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.806	3.815	-0.009	0.995	1061746	1.09		91.5	9595	
D 56 13C4 PFOA										
417.00 > 372.00	3.825	3.834	-0.009	1.000	6196098	1.29		103	95732	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.825	3.834	-0.009	1.000	37601	0.007259	Target=2.83		83.3	
413.00 > 169.00	3.825	3.834	-0.009	1.000	19653		1.91(1.41-4.24)		590	
* 57 13C2 PFOA										
415.00 > 370.00	3.825	3.834	-0.009		5766409	1.25			62952	
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.096	2118105	1.26		105	21258	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.209	0.001	1.101	5959684	1.30		104	59747	
64 Perfluorononanoic acid										
463.00 > 419.00	4.202	4.217	-0.015	0.998	6684	0.001416	Target=7.44		24.9	
463.00 > 169.00	4.202	4.217	-0.015	0.998	1468		4.55(3.72-11.16)		24.1	
D 71 13C8 FOSA										
506.00 > 78.00	4.524	4.532	-0.008	1.183	4152185	1.46		117	40597	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.524	4.532	-0.008	1.000	10892	0.003266			221	
D 74 13C2 PFDA										
515.00 > 470.00	4.552	4.559	-0.007	1.190	5616417	1.22		97.7	67102	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.559	0.002	1.192	1691014	1.11		92.5	17740	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.708	4.718	-0.010	1.231	2593718	1.34		107	24604	
D 82 13C2 PFUnA										
565.00 > 520.00	4.865	4.872	-0.007	1.272	5272289	1.19		95.2	61646	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.874	4.882	-0.008	1.274	2681058	1.39		111	35510	
D 97 13C2 PFDoA										
615.00 > 570.00	5.149	5.156	-0.007	1.346	6304955	1.31		105	86030	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.649	0.002	1.477	5547945	1.26		100	55370	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated



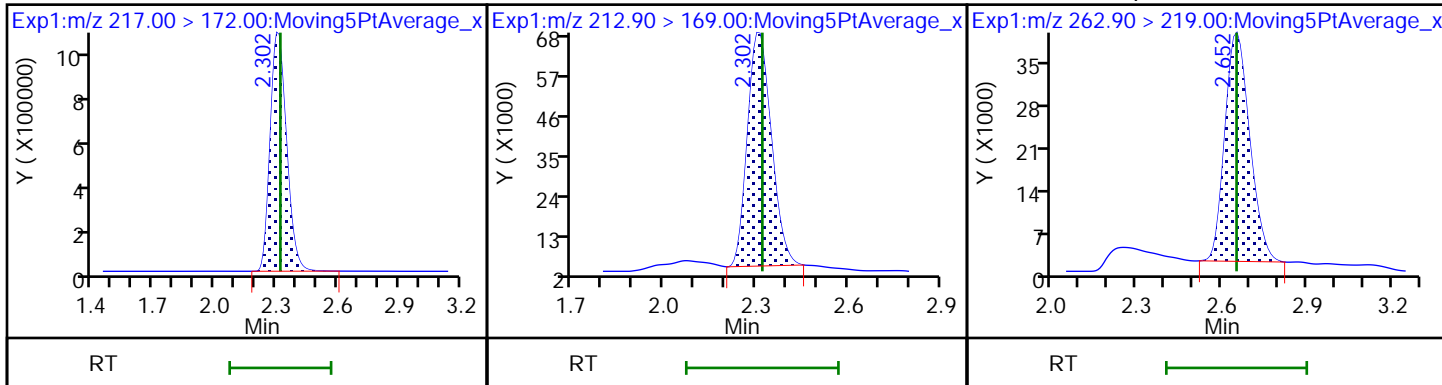
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_038.d  
Injection Date: 10-Jun-2021 09:31:04 Instrument ID: A15  
Lims ID: 320-74597-A-19-A Lab Sample ID: 320-74597-19  
Client ID: BH20210604-1S-50  
Operator ID: SACINSTA15 ALS Bottle#: 25 Worklist Smp#: 15  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

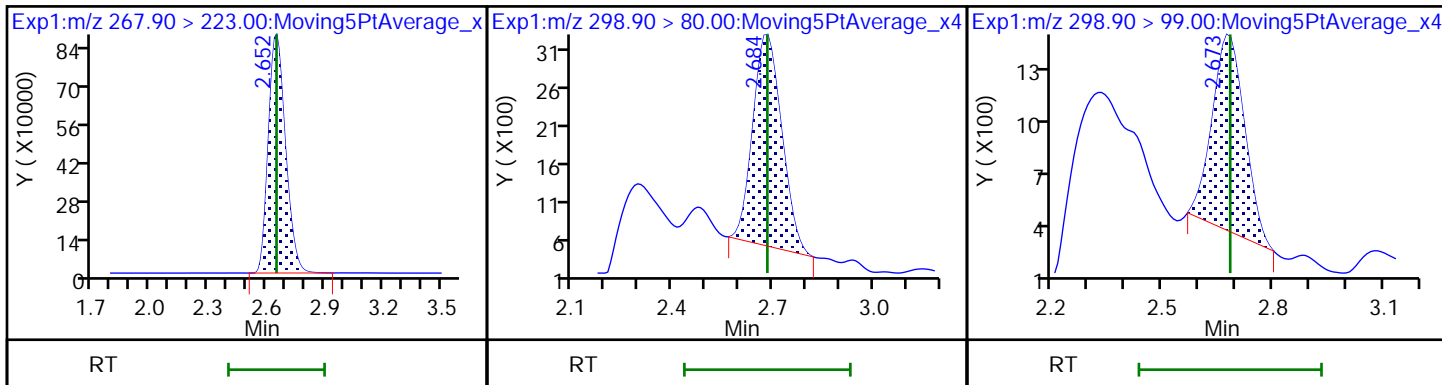
18 Perfluoropentanoic acid (M)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

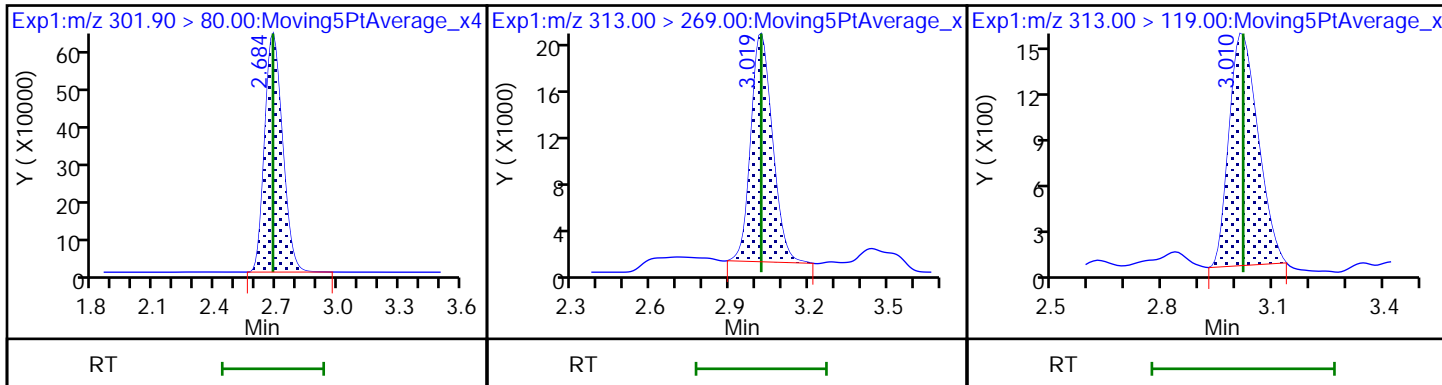
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

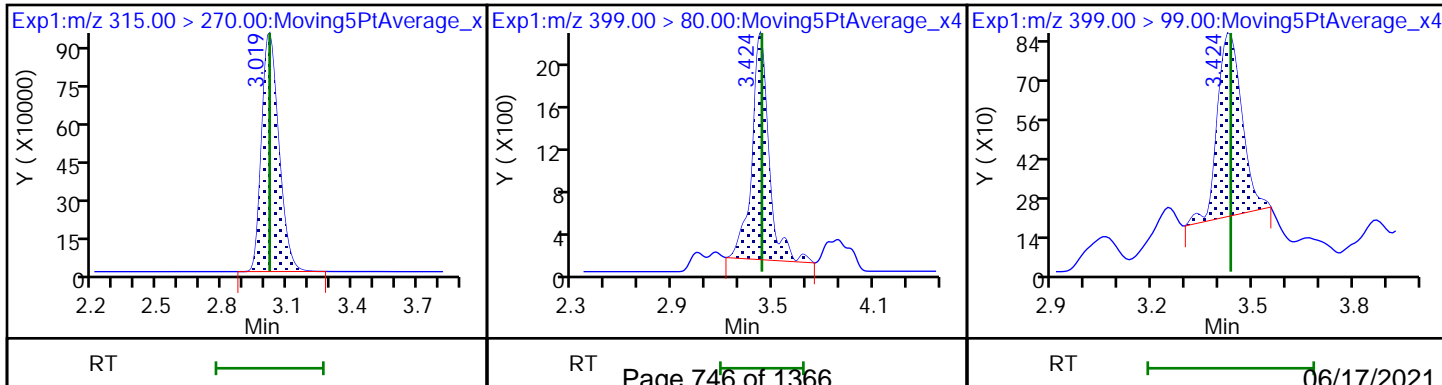
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

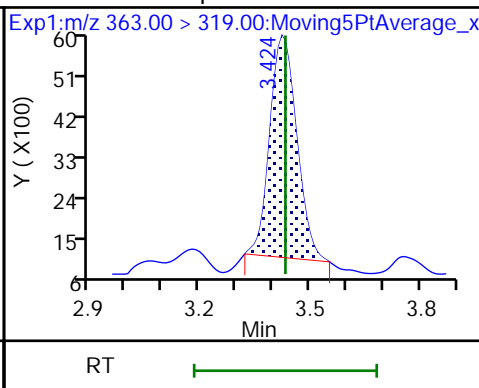
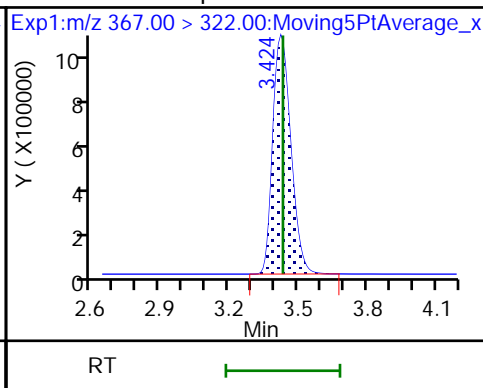
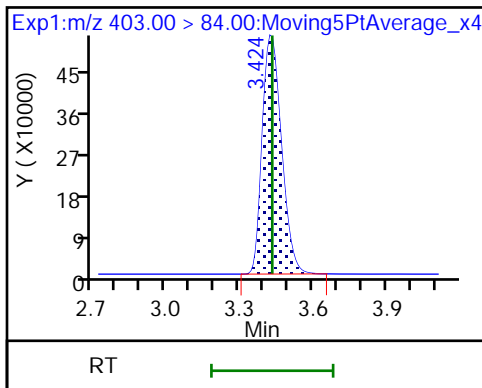
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

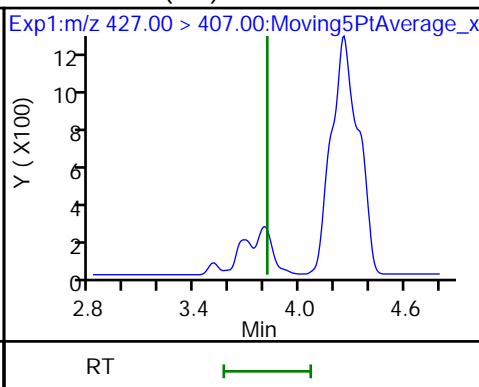
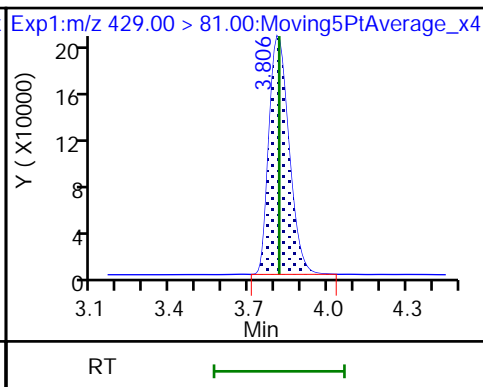
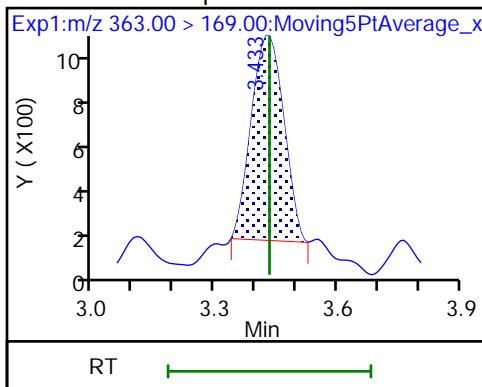
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

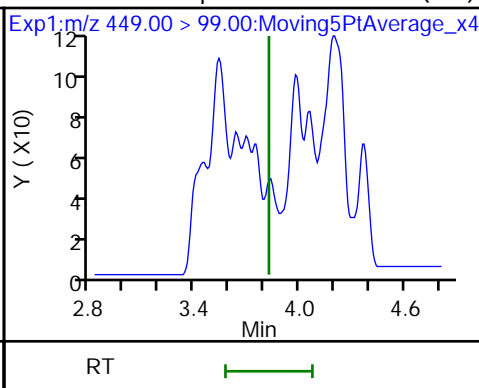
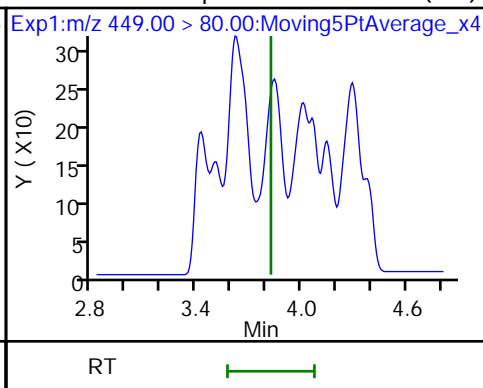
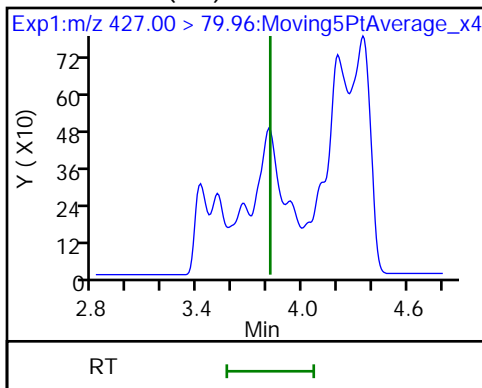
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

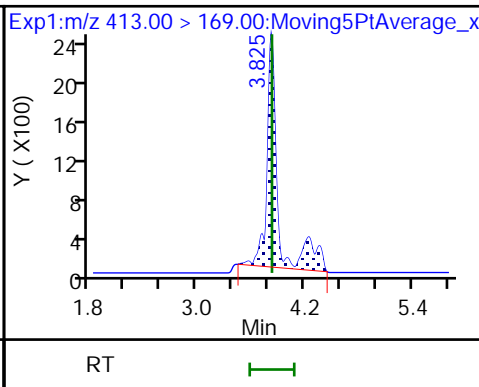
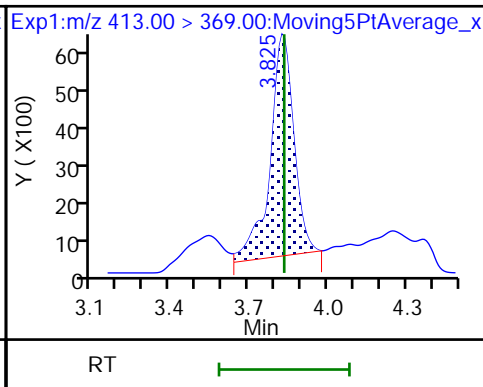
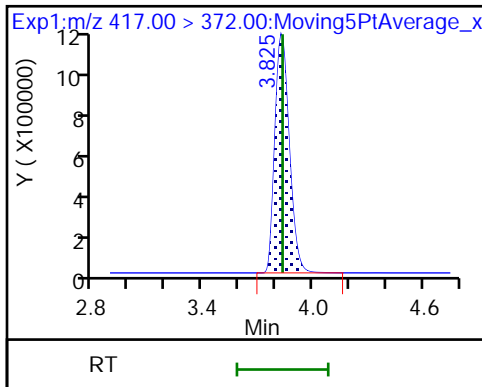
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid

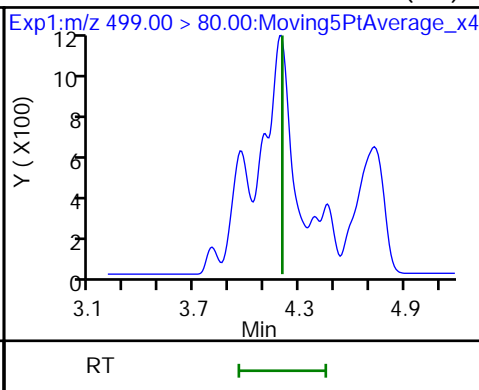
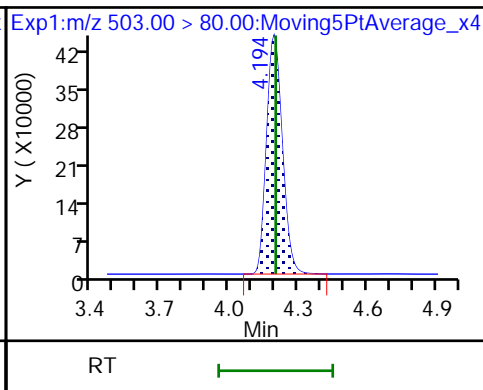
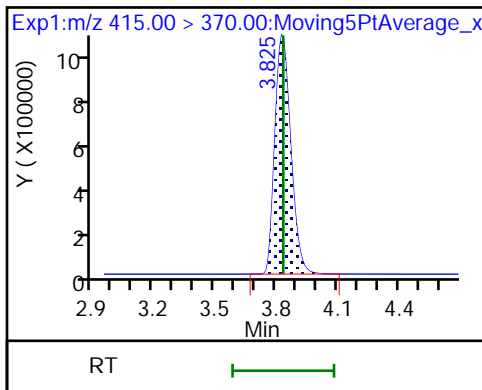
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

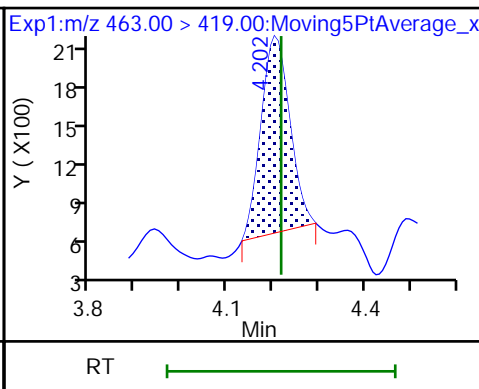
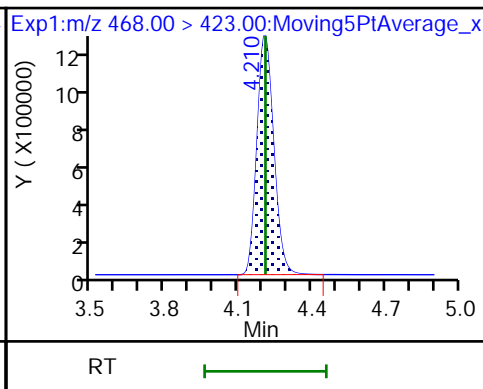
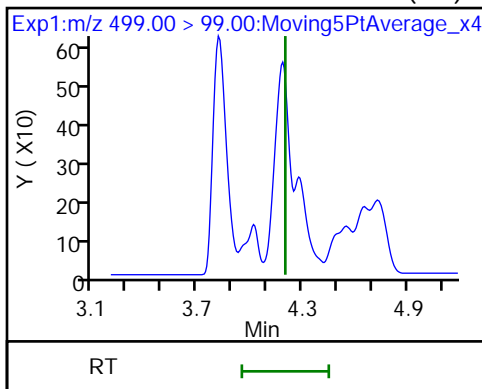
D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND) D 63 13C5 PFNA

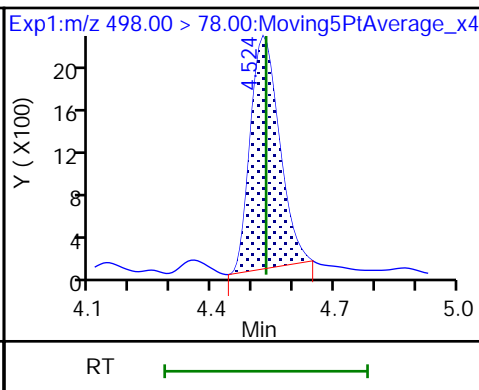
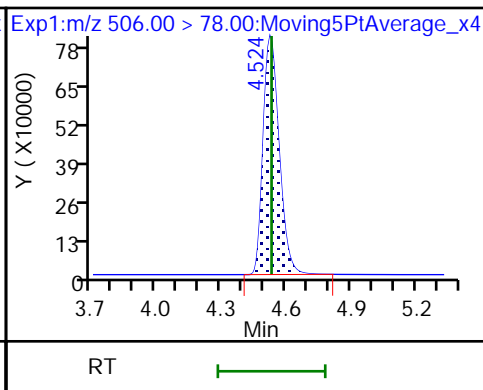
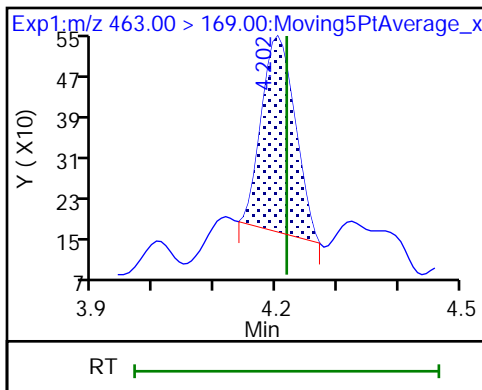
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

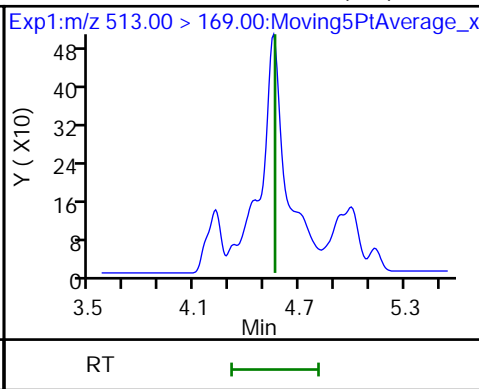
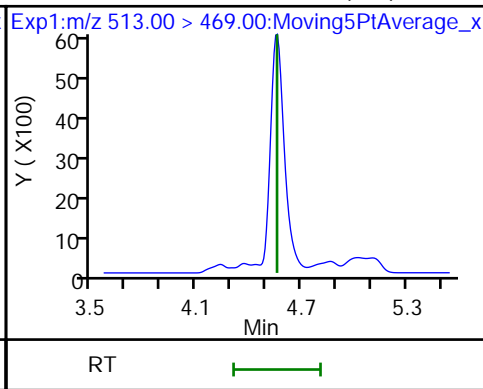
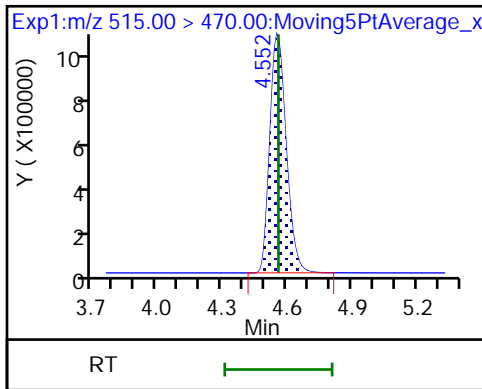
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid (ND)

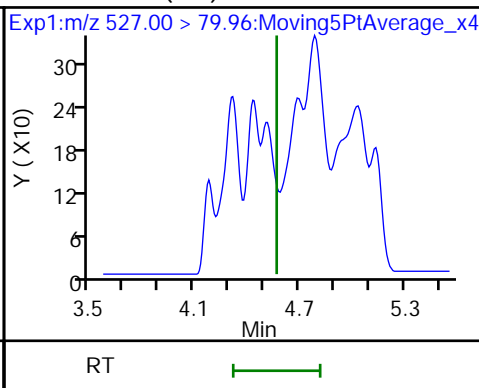
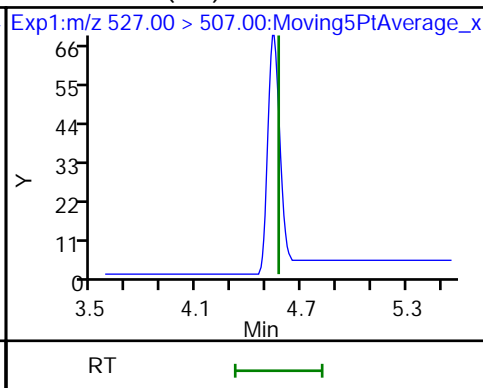
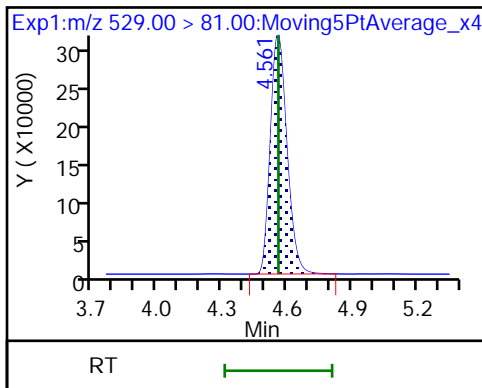
75 Perfluorodecanoic acid (ND)



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

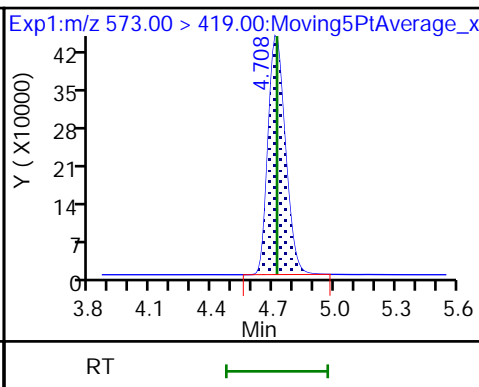
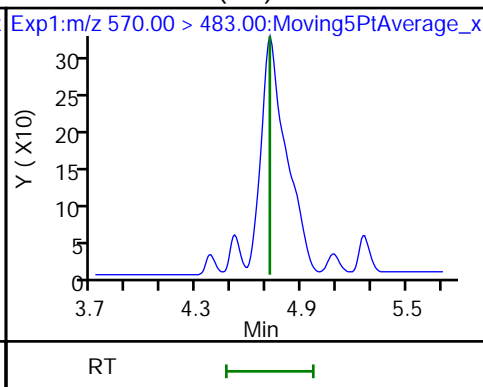
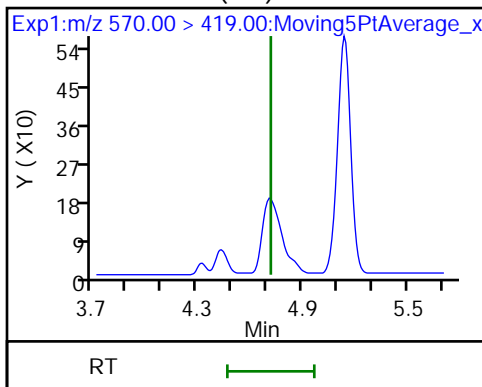
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

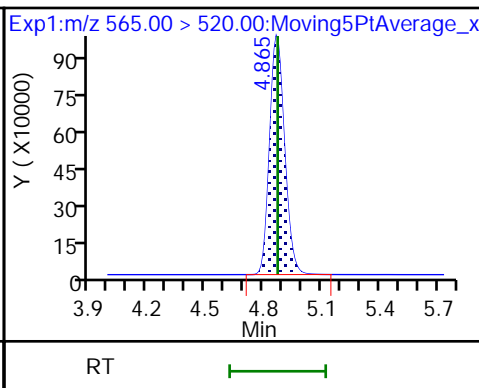
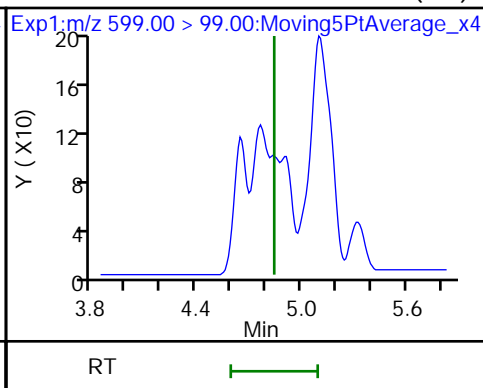
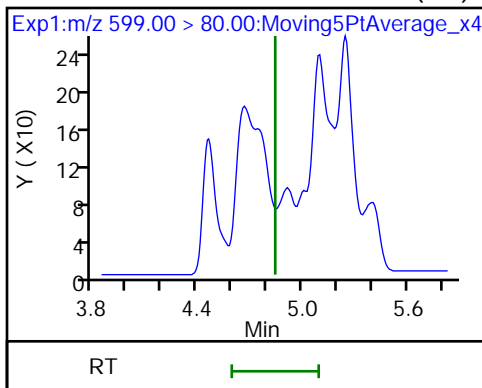
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

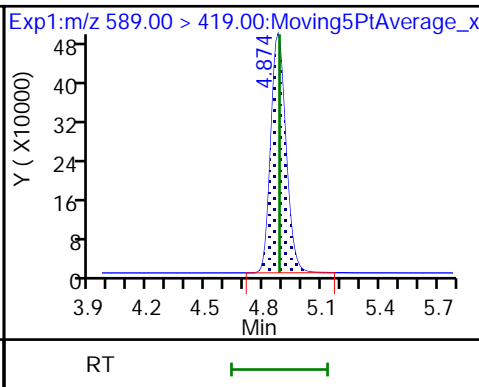
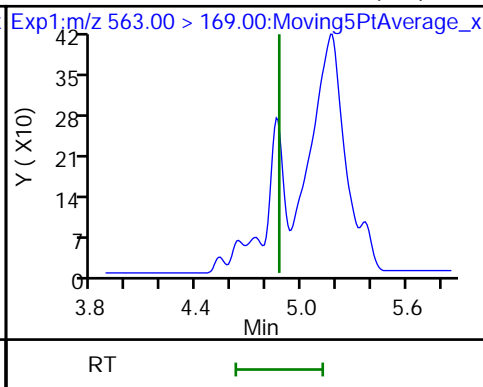
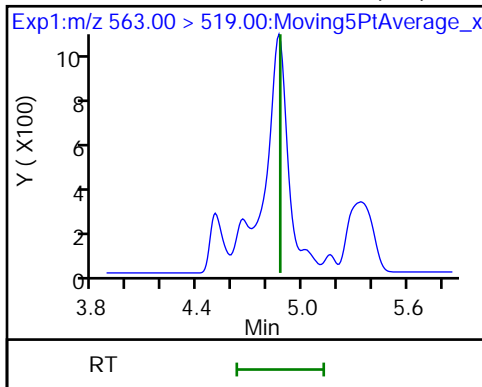
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

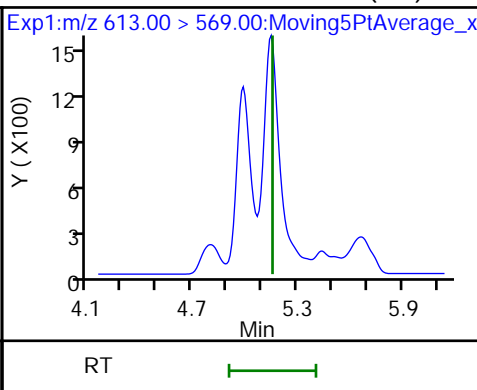
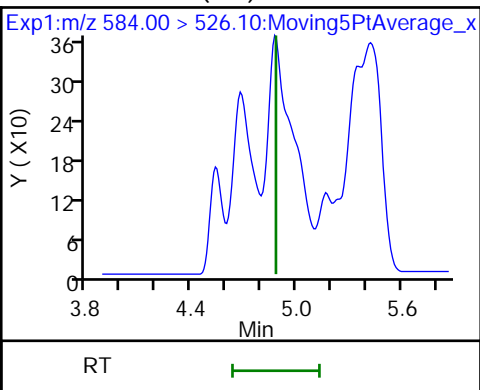
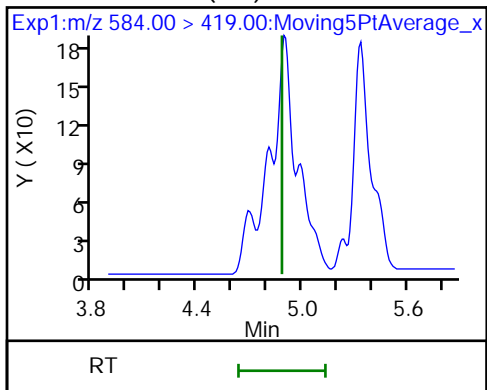
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

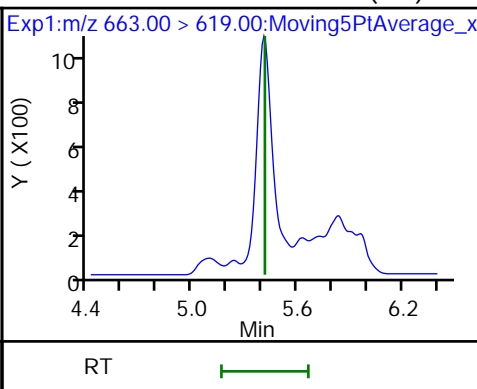
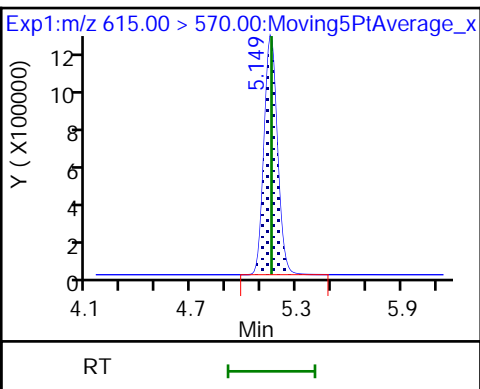
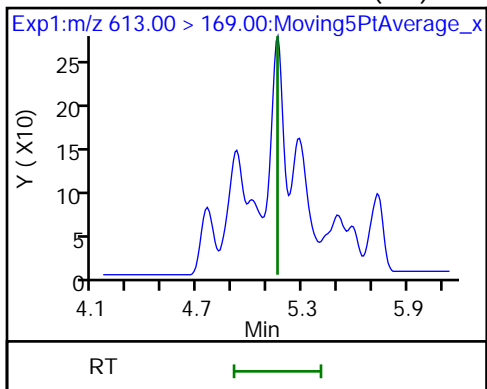
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

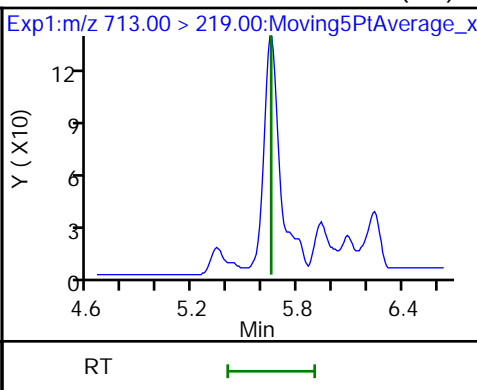
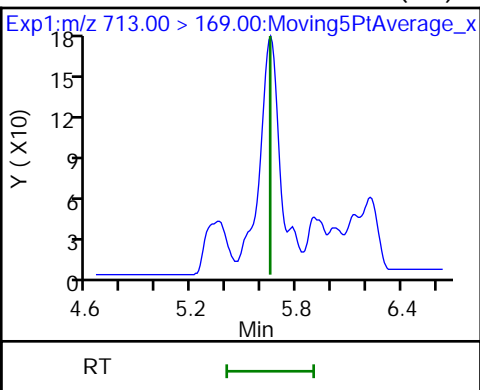
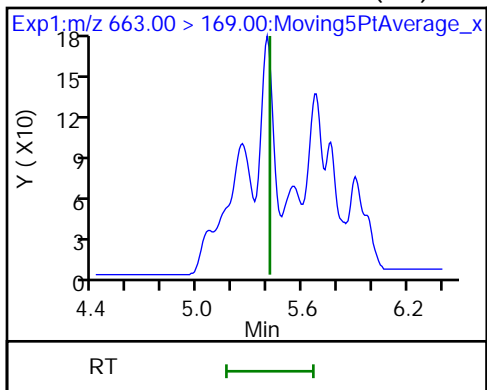
103 Perfluorotridecanoic acid (ND)



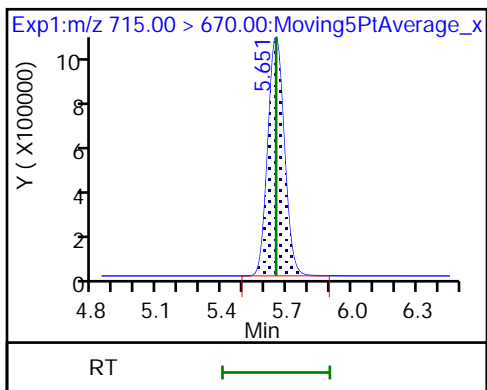
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid (ND)

105 Perfluorotetradecanoic acid (ND)



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

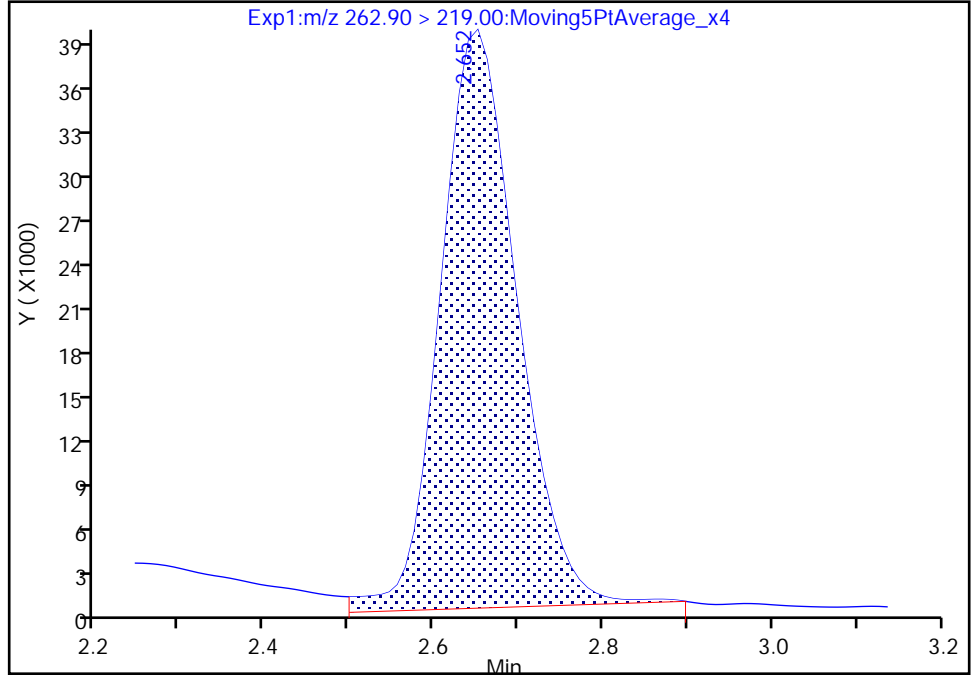
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_038.d  
Injection Date: 10-Jun-2021 09:31:04 Instrument ID: A15  
Lims ID: 320-74597-A-19-A Lab Sample ID: 320-74597-19  
Client ID: BH20210604-1S-50  
Operator ID: SACINSTA15 ALS Bottle#: 25 Worklist Smp#: 15  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

18 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

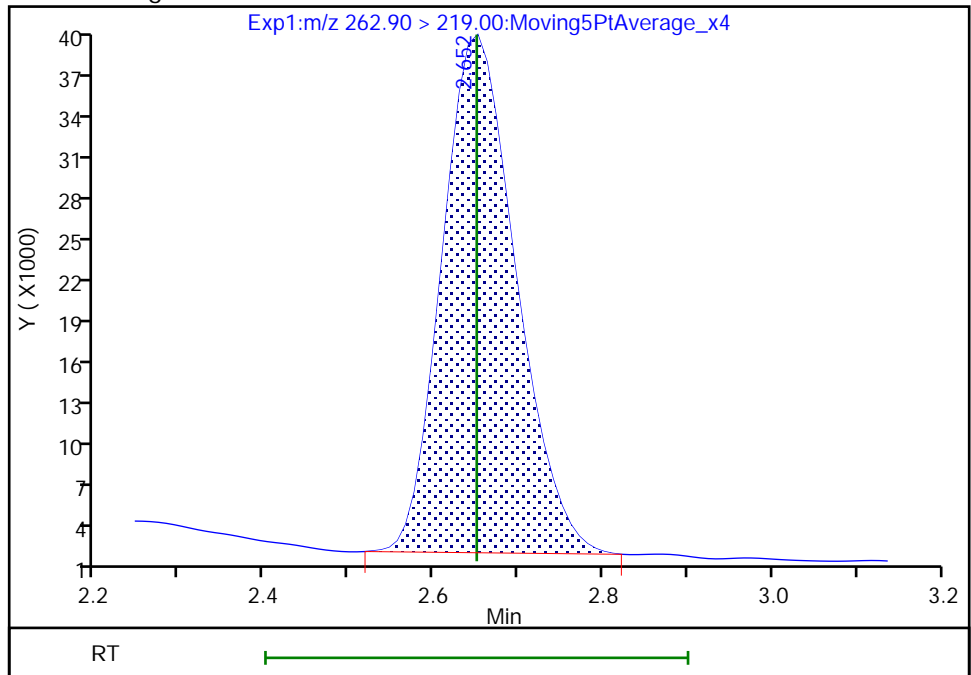
RT: 2.65  
Area: 242497  
Amount: 0.053191  
Amount Units: ng/ml

Processing Integration Results



RT: 2.65  
Area: 228943  
Amount: 0.050218  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:56:04  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-75 Lab Sample ID: 320-74597-20  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_039.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:41  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 272.2 (mL) Date Analyzed: 06/10/2021 09:40  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.6	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.8	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	
27619-97-2	6:2 FTS	ND		4.6	
39108-34-4	8:2 FTS	ND		1.8	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-1S-75 Lab Sample ID: 320-74597-20  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_039.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 09:41  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 272.2 (mL) Date Analyzed: 06/10/2021 09:40  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	102		25-150
STL01893	13C5 PFPeA	104		25-150
STL00993	13C2 PFHxA	100		25-150
STL01892	13C4 PFHpA	110		25-150
STL00990	13C4 PFOA	105		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	104		25-150
STL00997	13C2 PFUnA	96		25-150
STL00998	13C2 PFDoA	108		25-150
STL02116	13C2 PFTeDA	89		25-150
STL02337	13C3 PFBS	106		25-150
STL00994	18O2 PFHxS	113		25-150
STL00991	13C4 PFOS	109		25-150
STL01056	13C8 FOSA	115		25-150
STL02118	d3-NMeFOSAA	99		25-150
STL02117	d5-NEtFOSAA	112		25-150
STL02279	M2-6:2 FTS	90		25-150
STL02280	M2-8:2 FTS	99		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_039.d  
 Lims ID: 320-74597-A-20-A  
 Client ID: BH20210604-1S-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 09:40:11 ALS Bottle#: 26 Worklist Smp#: 16  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-20-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:56:44 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:56:44  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.311	2.319	-0.008	0.603	5677499	1.27	102	45399	
10 Perfluorobutanoic acid	212.90 > 169.00	2.311	2.319	-0.008	1.000	361292	0.0841		296	
18 Perfluoropentanoic acid	262.90 > 219.00	2.651	2.650	0.001	1.000	119335	0.0260		245	
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.650	0.001	0.692	5477665	1.30	104	60056	
D 21 13C3 PFBS	301.90 > 80.00	2.684	2.683	0.001	0.700	3604092	1.23	106	34879	
29 Perfluorohexanoic acid	313.00 > 269.00	3.028	3.018	0.010	1.003	45952	0.009865 Target=13.22		94.2	M
	313.00 > 119.00	3.018	3.018	0.0	1.000	3476	13.22(6.61-19.83)		51.5	M
D 28 13C2 PFHxA	315.00 > 270.00	3.018	3.018	0.0	0.787	5197846	1.25	100.0	50260	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.423	3.433	-0.010	0.997	11940	0.004569 Target=3.49		159	
	399.00 > 99.00	3.433	3.433	-0.001	1.000	3985	3.00(1.75-5.24)		73.7	
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	-0.001	0.895	2794388	1.34	113	57183	
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.893	5623139	1.37	110	69688	
D 52 M2-6:2 FTS	429.00 > 81.00	3.814	3.815	-0.001	0.995	1015263	1.07	90.4	8648	
D 56 13C4 PFOA	417.00 > 372.00	3.833	3.834	-0.001	1.000	6111977	1.31	105	66967	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanoic acid										
413.00 > 369.00	3.833	3.834	-0.001	1.000	14853	0.002907	Target=2.83		37.6	
413.00 > 169.00	3.833	3.834	-0.001	1.000	8562		1.73(1.41-4.24)		94.1	
* 57 13C2 PFOA										
415.00 > 370.00	3.833	3.834	-0.001		5579828	1.25			54242	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.094	2126207	1.30		109	32213	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.098	5683210	1.28		102	63411	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	3946837	1.44		115	54387	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	10392	0.003279			196	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	5788095	1.30		104	78867	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	31044	0.006558	Target=8.38		313	
513.00 > 169.00	4.559	4.559	0.0	1.000	3580		8.67(4.19-12.57)		54.2	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.189	1758679	1.19		99.4	17373	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2331812	1.24		99.3	18078	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5128495	1.20		95.7	60336	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.881	4.882	-0.001	1.273	2604993	1.39		112	34312	
D 97 13C2 PFDoA										
615.00 > 570.00	5.156	5.156	0.0	1.345	6265887	1.35		108	91742	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.648	5.649	-0.001	0.998	1464	0.003116	Target=1.11		35.4	
713.00 > 219.00	5.658	5.649	0.009	1.000	913		1.60(0.56-1.67)		31.8	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.649	0.009	1.476	4778305	1.12		89.4	52744	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

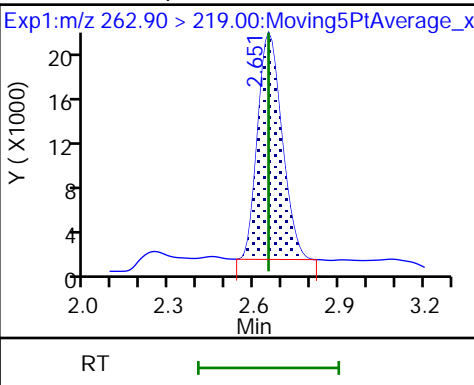
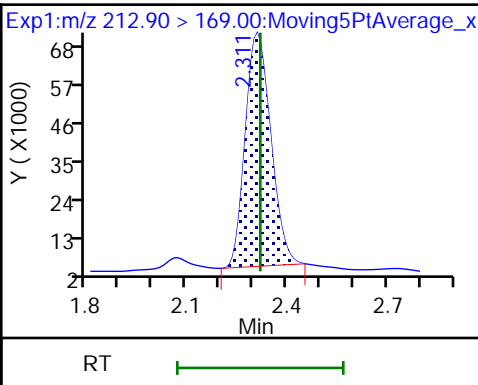
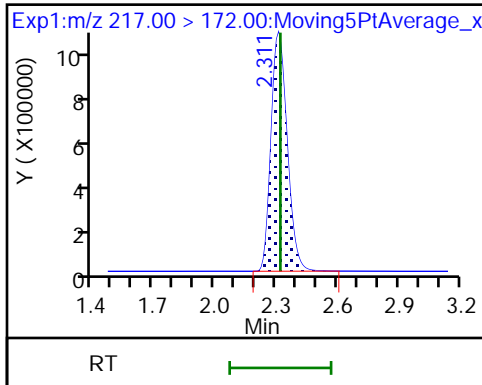
Eurofins TestAmerica, Sacramento

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_039.d  
 Injection Date: 10-Jun-2021 09:40:11 Instrument ID: A15  
 Lims ID: 320-74597-A-20-A Lab Sample ID: 320-74597-20  
 Client ID: BH20210604-1S-75  
 Operator ID: SACINSTA15 ALS Bottle#: 26 Worklist Smp#: 16  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

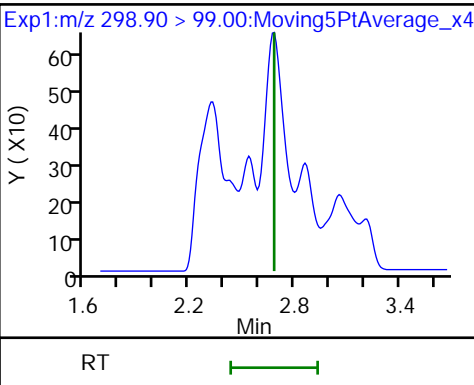
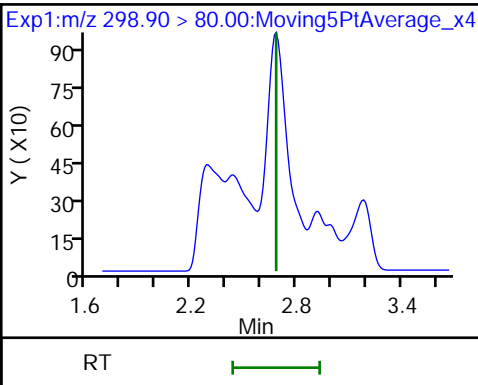
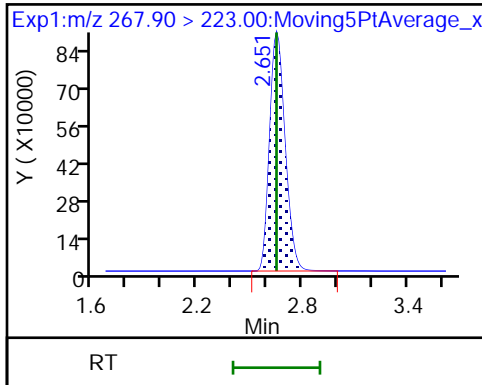
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (ND)

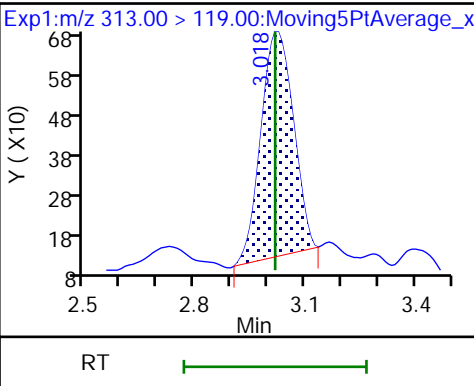
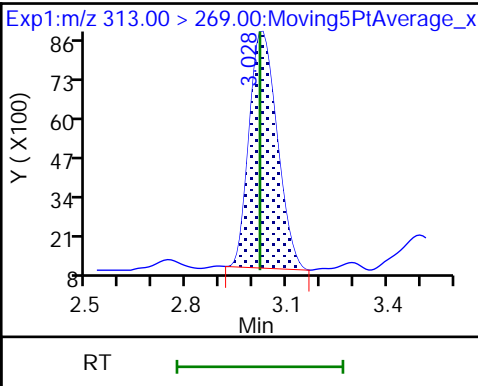
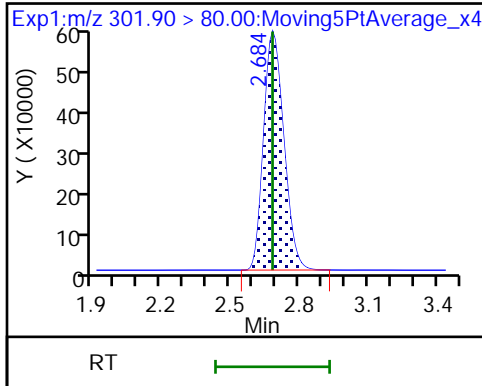
20 Perfluorobutanesulfonic acid (ND)



D 21 13C3 PFBS

29 Perfluorohexanoic acid

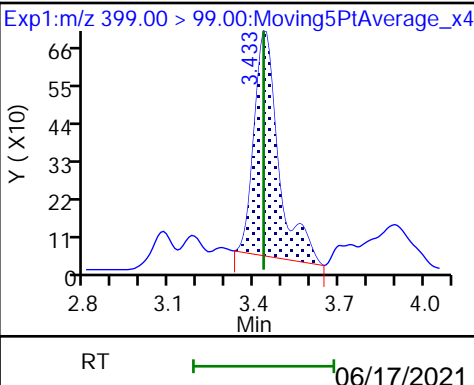
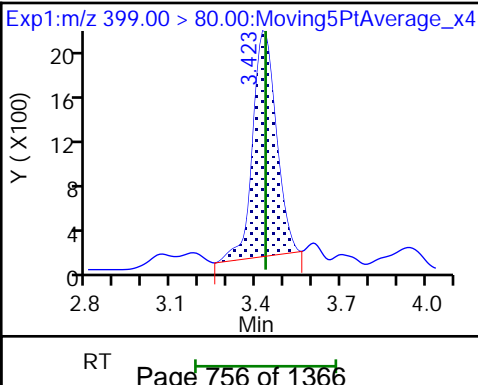
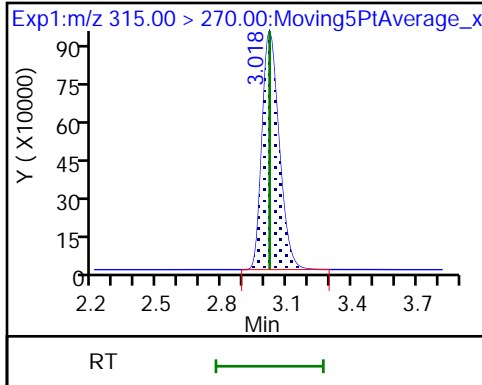
29 Perfluorohexanoic acid (M)



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

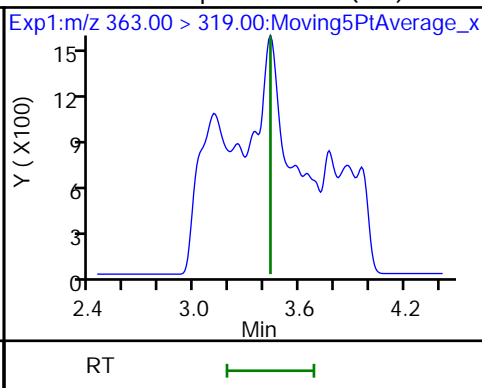
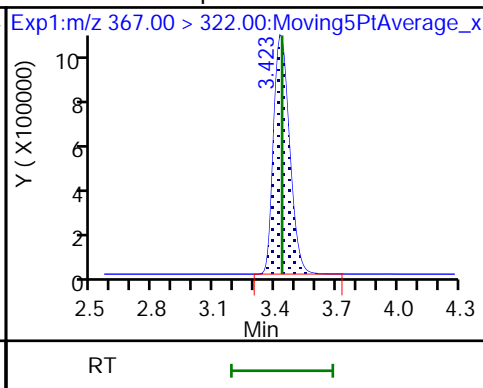
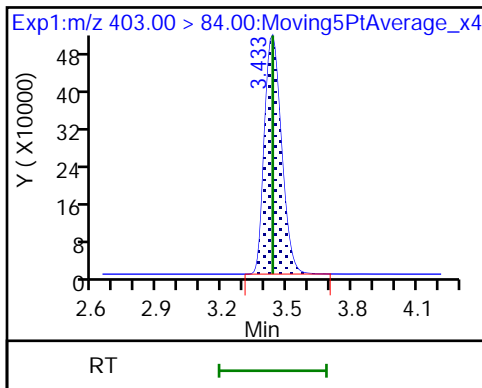
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

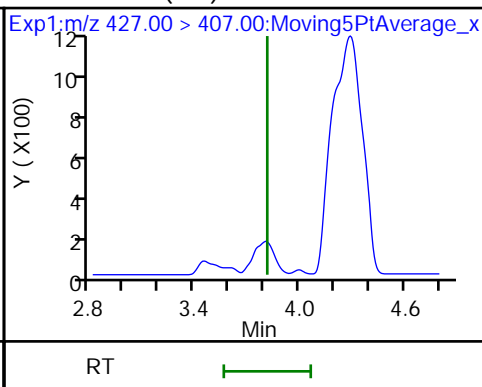
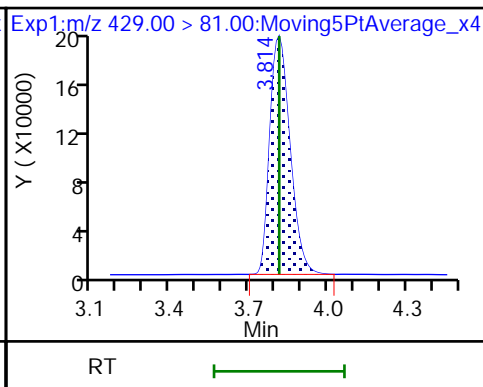
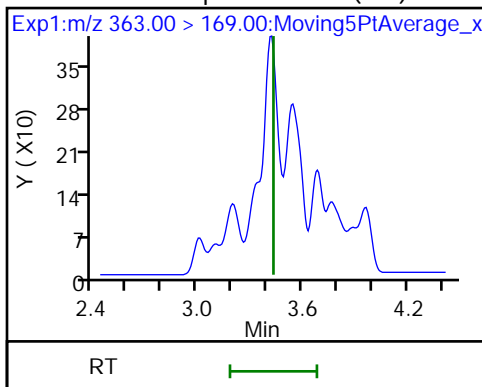
36 Perfluoroheptanoic acid (ND)



36 Perfluoroheptanoic acid (ND)

D 52 M2-6:2 FTS

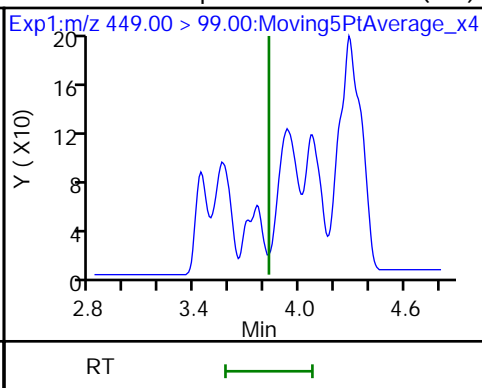
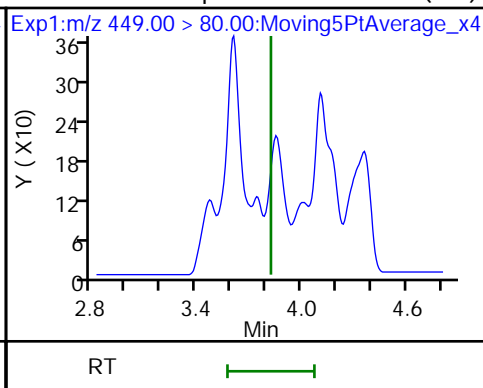
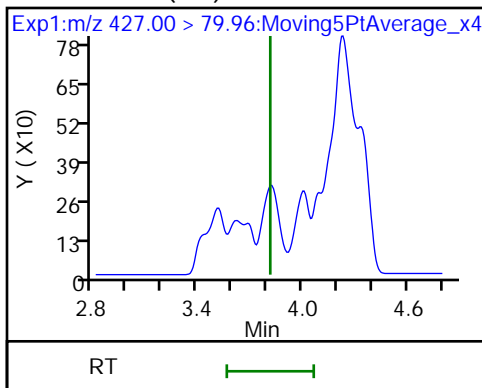
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

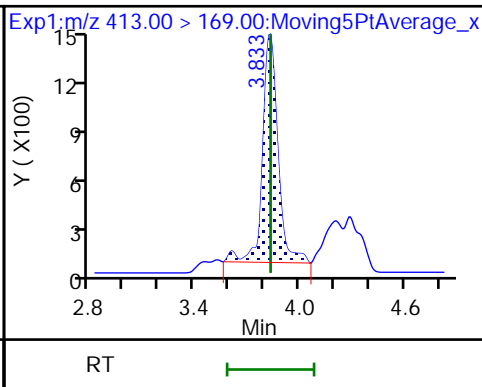
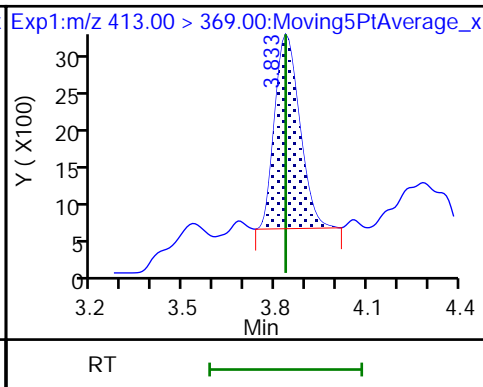
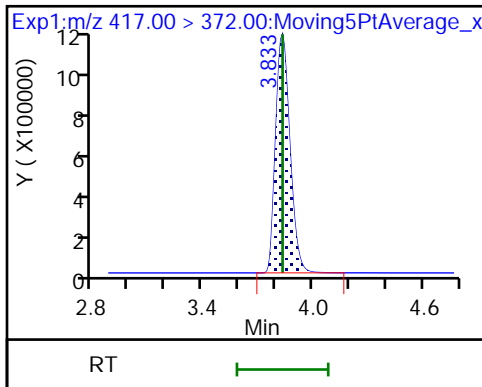
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid

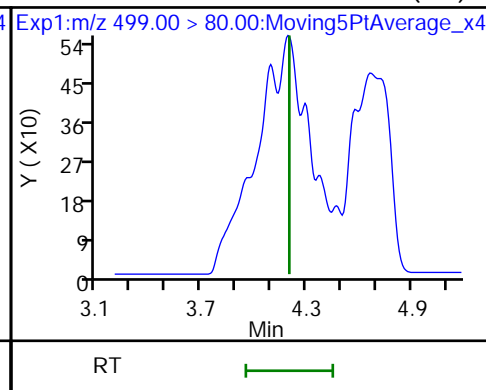
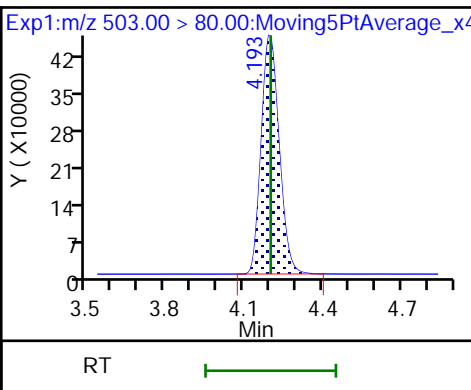
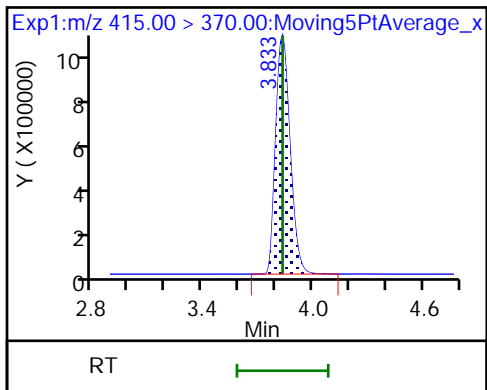
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

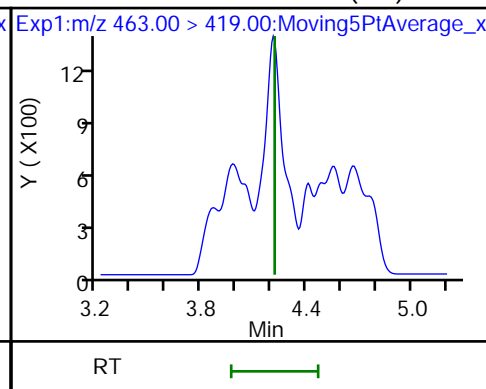
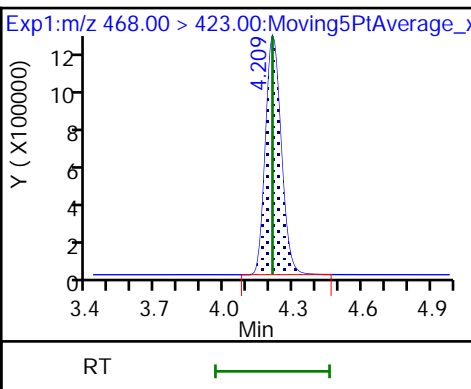
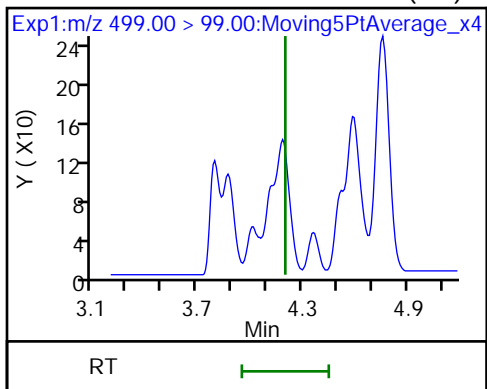
D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND) D 63 13C5 PFNA

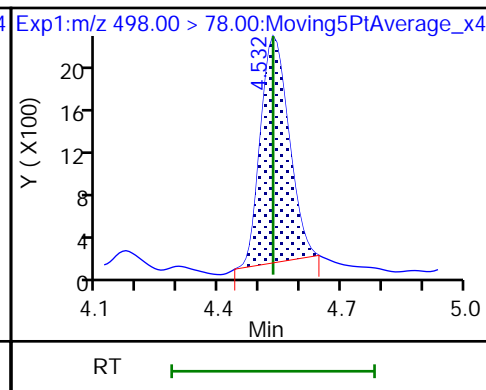
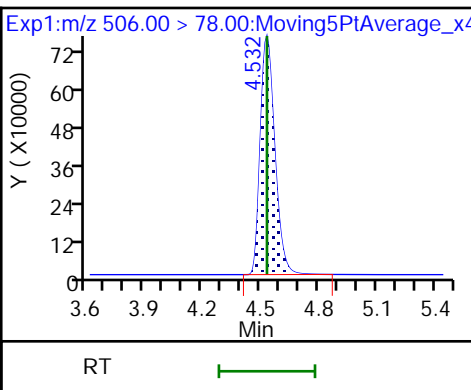
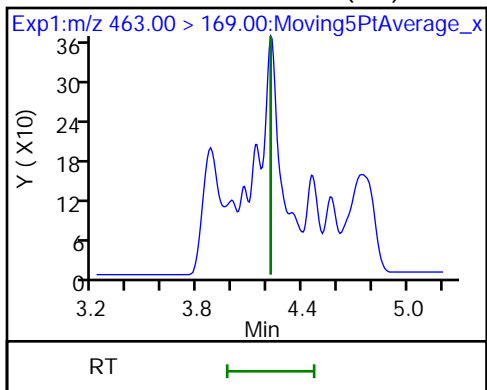
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

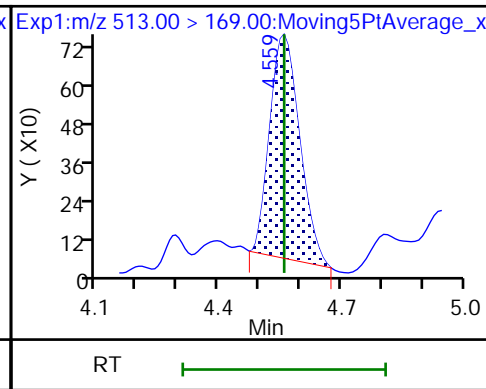
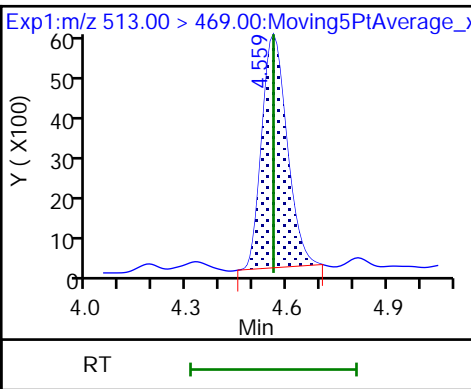
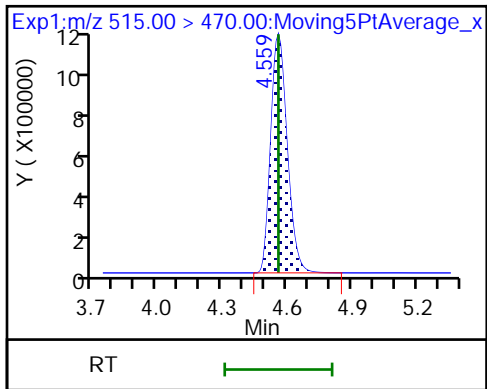
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

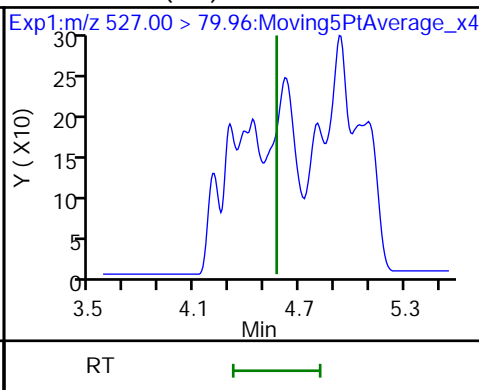
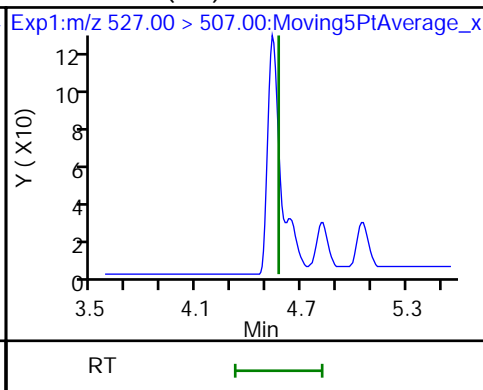
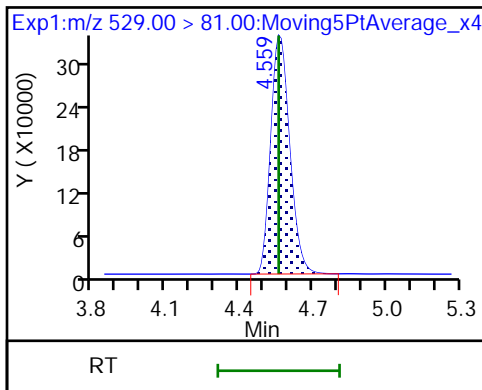
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

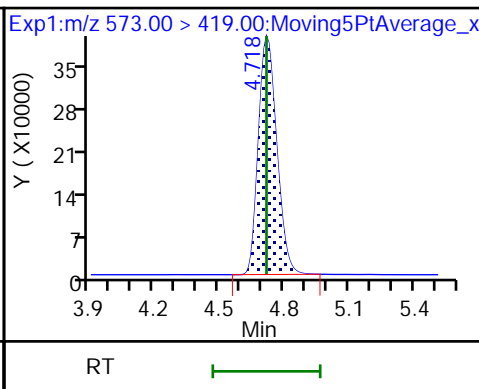
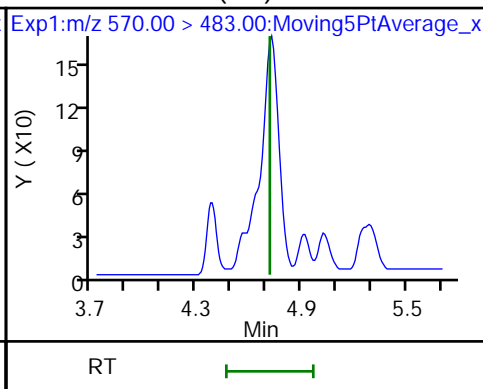
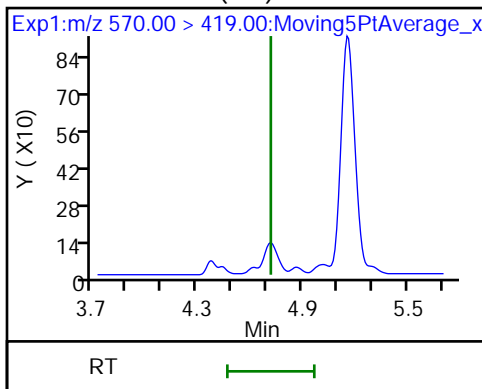
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

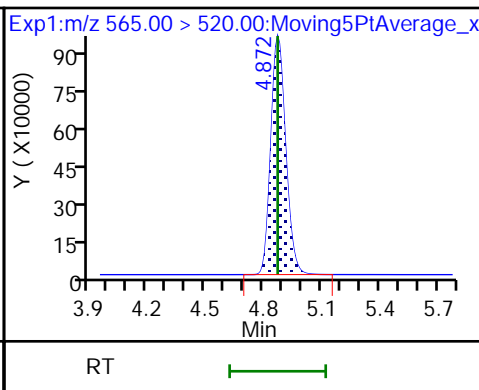
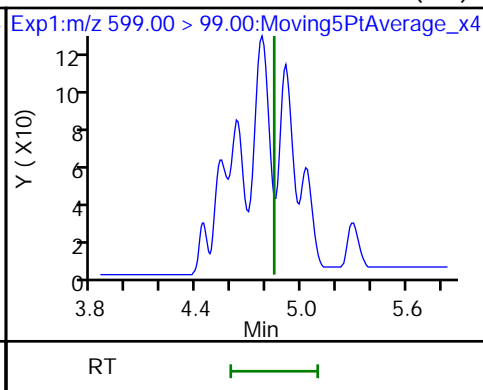
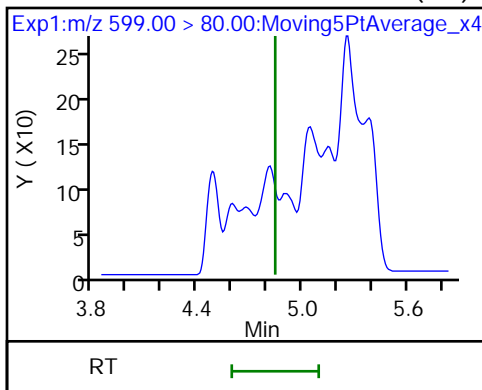
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

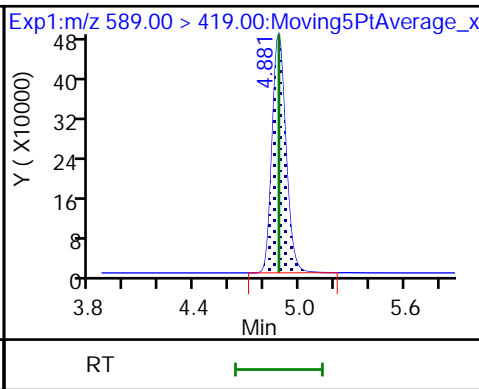
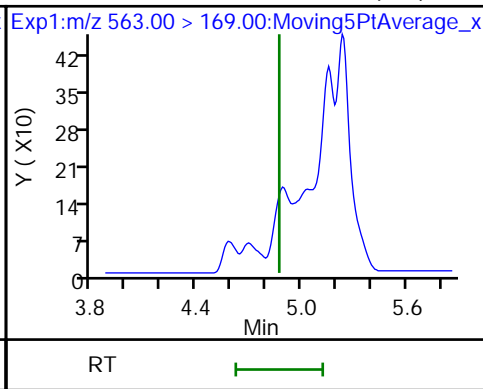
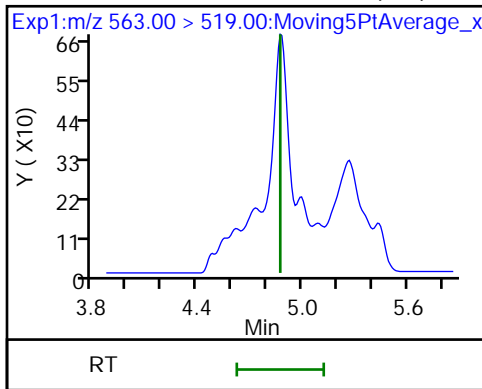
D 82 13C2 PFUnA

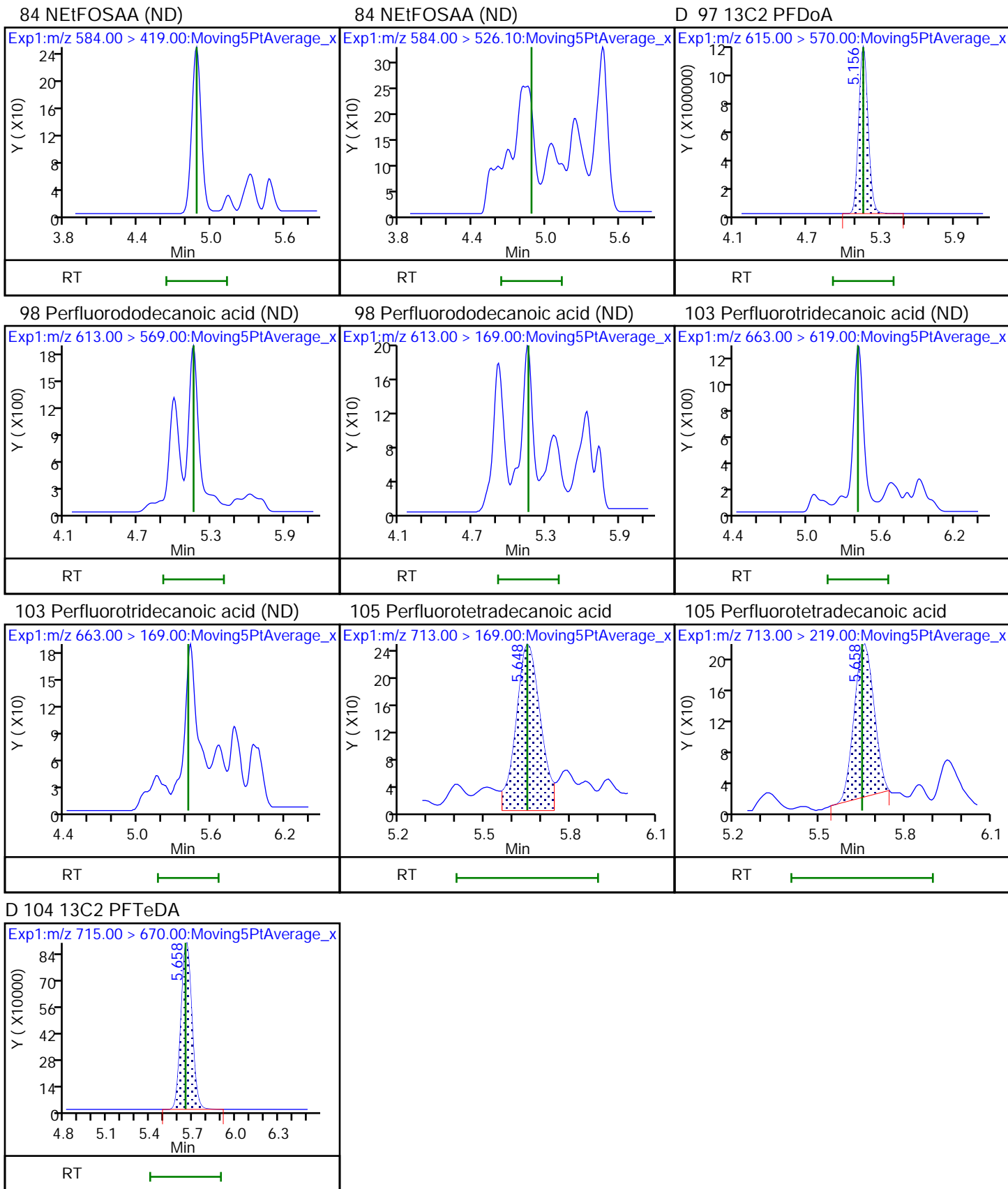


81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

D 83 d5-NEtFOSAA





Eurofins TestAmerica, Sacramento

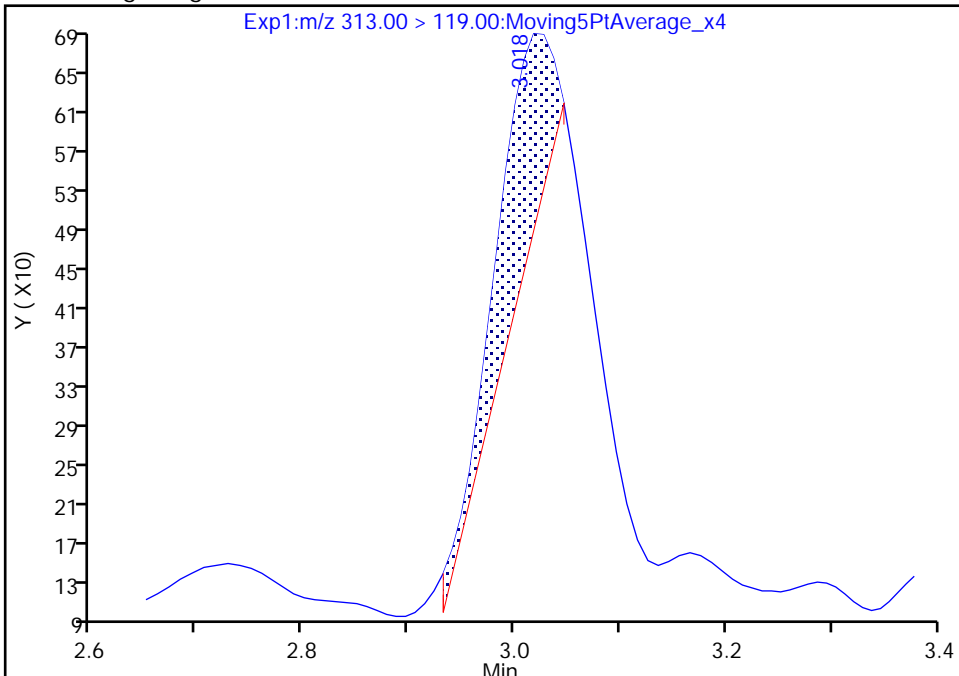
Data File:	\\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09_A15_PFC+_E_039.d		
Injection Date:	10-Jun-2021 09:40:11	Instrument ID:	A15
Lims ID:	320-74597-A-20-A	Lab Sample ID:	320-74597-20
Client ID:	BH20210604-1S-75		
Operator ID:	SACINSTA15	ALS Bottle#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1
		Worklist Smp#:	16

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

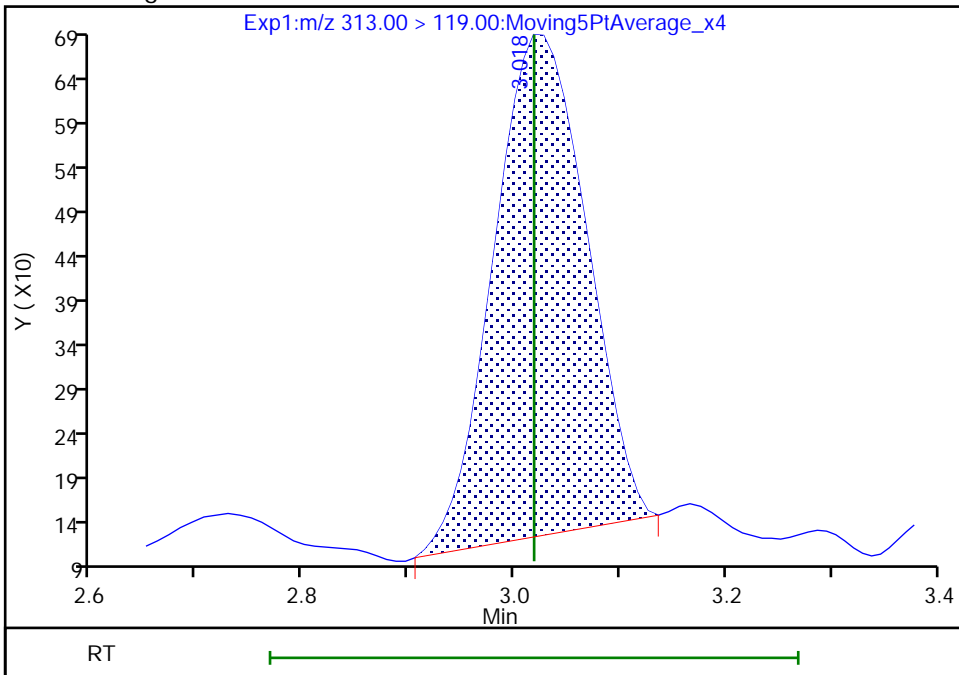
RT: 3.02  
 Area: 771  
 Amount: 0.009865  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.02  
 Area: 3476  
 Amount: 0.009865  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:56:38  
 Audit Action: Manually Integrated

Audit Reason: Baseline



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-75 Lab Sample ID: 320-74597-30  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_040.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:34  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 255.2 (mL) Date Analyzed: 06/10/2021 09:49  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.9	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9	
27619-97-2	6:2 FTS	ND		4.9	
39108-34-4	8:2 FTS	ND		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: BH20210604-3S-75 Lab Sample ID: 320-74597-30  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_040.d  
 Analysis Method: 537 (modified) Date Collected: 06/04/2021 10:34  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 255.2 (mL) Date Analyzed: 06/10/2021 09:49  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	99		25-150
STL01893	13C5 PFPeA	103		25-150
STL00993	13C2 PFHxA	95		25-150
STL01892	13C4 PFHpA	99		25-150
STL00990	13C4 PFOA	104		25-150
STL00995	13C5 PFNA	99		25-150
STL00996	13C2 PFDA	101		25-150
STL00997	13C2 PFUnA	95		25-150
STL00998	13C2 PFDoA	104		25-150
STL02116	13C2 PFTeDA	89		25-150
STL02337	13C3 PFBS	107		25-150
STL00994	18O2 PFHxS	108		25-150
STL00991	13C4 PFOS	104		25-150
STL01056	13C8 FOSA	113		25-150
STL02118	d3-NMeFOSAA	93		25-150
STL02117	d5-NEtFOSAA	114		25-150
STL02279	M2-6:2 FTS	78		25-150
STL02280	M2-8:2 FTS	94		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_040.d  
 Lims ID: 320-74597-A-30-A  
 Client ID: BH20210604-3S-75  
 Sample Type: Client  
 Inject. Date: 10-Jun-2021 09:49:17 ALS Bottle#: 27 Worklist Smp#: 17  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: 320-74597-a-30-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:57:10 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:57:10  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.310	2.319	-0.009	0.603	5934309	1.24	99.1	46783	
10 Perfluorobutanoic acid	212.90 > 169.00	2.310	2.319	-0.009	1.000	372299	0.0829		362	
18 Perfluoropentanoic acid	262.90 > 219.00	2.650	2.650	0.0	1.000	125950	0.0257		280	
D 17 13C5 PFPeA	267.90 > 223.00	2.650	2.650	0.0	0.691	5848338	1.29	103	40252	
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.683	0.0	0.700	3924857	1.25	107	37915	
29 Perfluorohexanoic acid	313.00 > 269.00	3.018	3.018	0.0	1.000	51129	0.0108	Target=13.22	123	M
	313.00 > 119.00	3.018	3.018	0.0	1.000	3547		14.41(6.61-19.83)	53.1	M
D 28 13C2 PFHxA	315.00 > 270.00	3.018	3.018	0.0	0.787	5302057	1.18	94.8	43809	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.433	3.433	0.0	1.000	12417	0.004633	Target=3.49	163	
	399.00 > 99.00	3.423	3.433	-0.010	0.997	3052		4.07(1.75-5.24)	59.5	
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.895	2865913	1.28	108	58443	
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.893	5472207	1.24	99.4	45231	
D 52 M2-6:2 FTS	429.00 > 81.00	3.814	3.815	-0.001	0.995	938300	0.9222	77.7	11022	
D 56 13C4 PFOA	417.00 > 372.00	3.834	3.834	0.0	1.000	6486632	1.29	104	60414	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	19351	0.003568	Target=2.83		48.3	
413.00 > 169.00	3.834	3.834	0.0	1.000	11514		1.68(1.41-4.24)		188	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6003434	1.25			55777	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2186675	1.25		104	27142	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.098	5919165	1.24		98.9	68646	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	4189557	1.42		113	50518	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	11073	0.003291			245	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6025650	1.26		101	82184	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	25146	0.005102	Target=8.38		226	
513.00 > 169.00	4.550	4.559	-0.009	0.998	2538		9.91(4.19-12.57)		48.4	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.559	0.010	1.192	1783968	1.12		93.8	18585	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2346073	1.16		92.9	16718	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5504747	1.19		95.4	65313	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2867425	1.43		114	31169	
D 97 13C2 PFDoA										
615.00 > 570.00	5.157	5.156	0.001	1.345	6461655	1.29		104	104258	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.649	5.649	0.0	0.998	1120	0.002235	Target=1.11		35.7	
713.00 > 219.00	5.649	5.649	0.0	0.998	875		1.28(0.56-1.67)		29.8	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.649	0.009	1.476	5096932	1.11		88.7	47999	

**QC Flag Legend**

Processing Flags

Review Flags

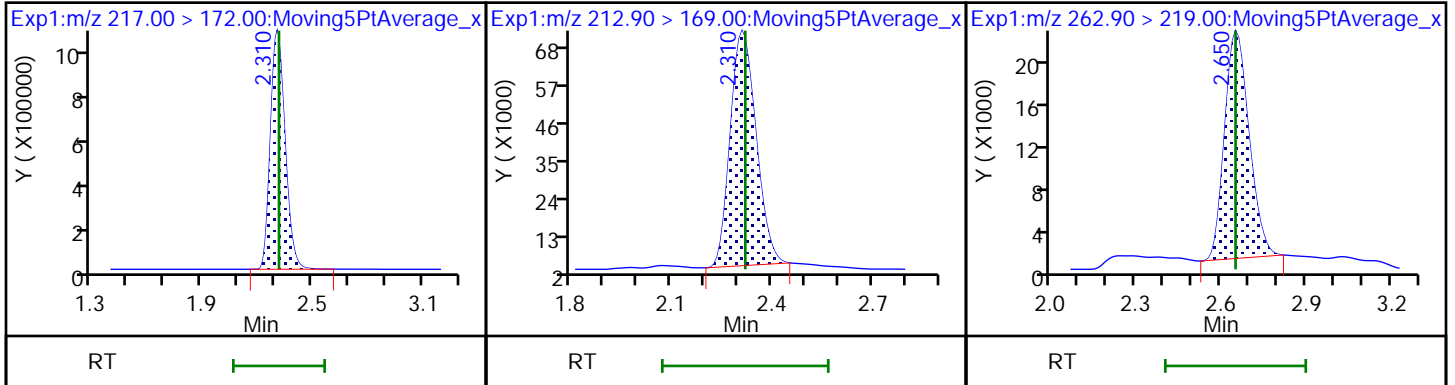
M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_040.d  
Injection Date: 10-Jun-2021 09:49:17 Instrument ID: A15  
Lims ID: 320-74597-A-30-A Lab Sample ID: 320-74597-30  
Client ID: BH20210604-3S-75  
Operator ID: SACINSTA15 ALS Bottle#: 27 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

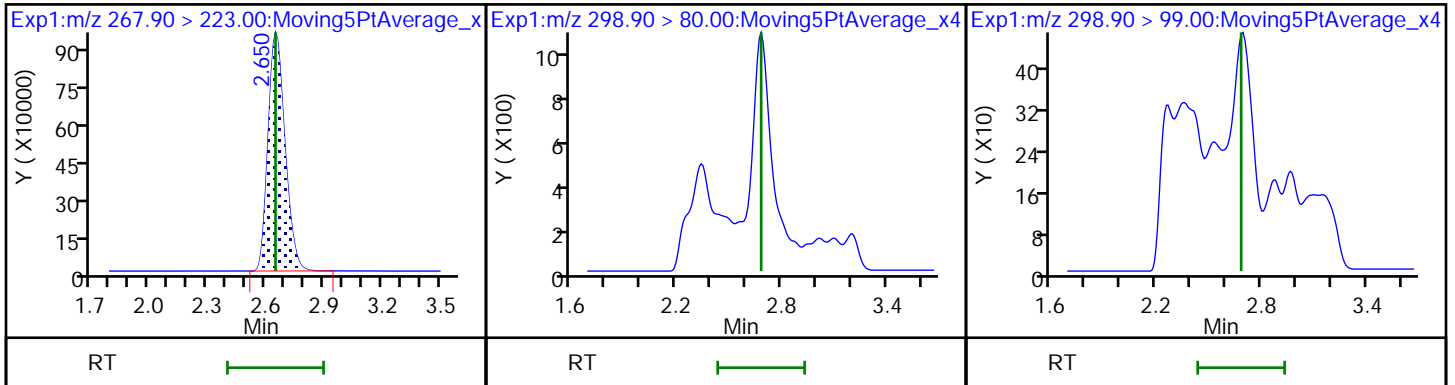
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (ND)

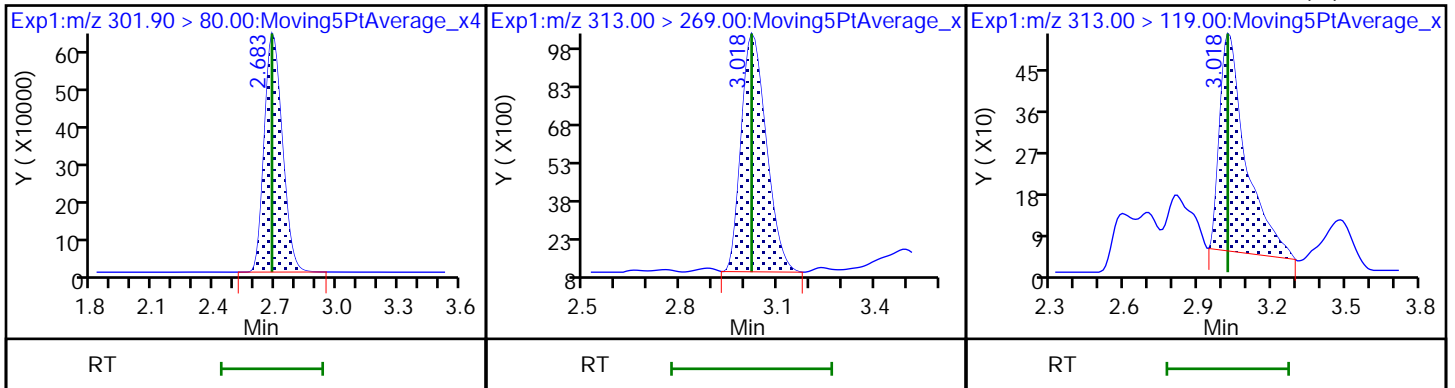
20 Perfluorobutanesulfonic acid (ND)



D 21 13C3 PFBS

29 Perfluorohexanoic acid

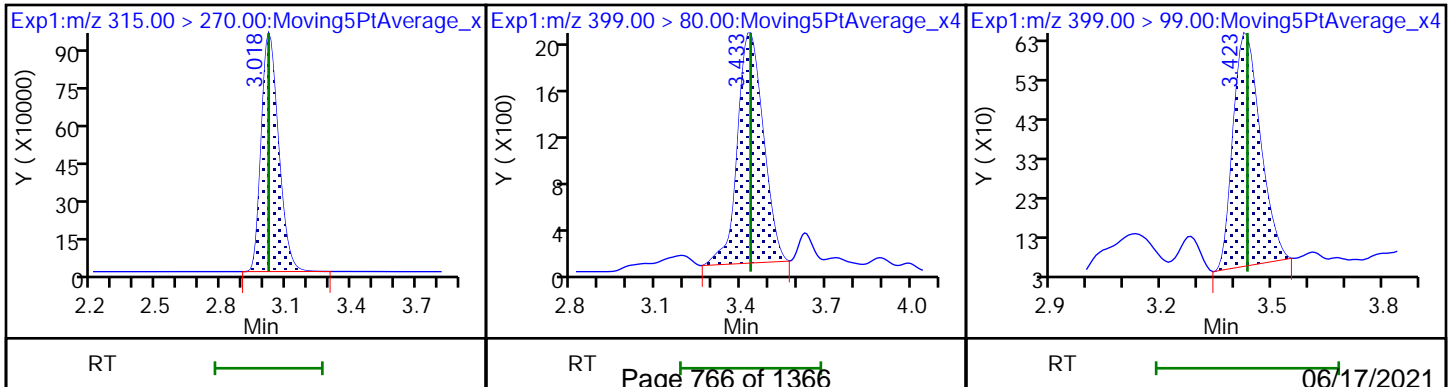
29 Perfluorohexanoic acid (M)



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

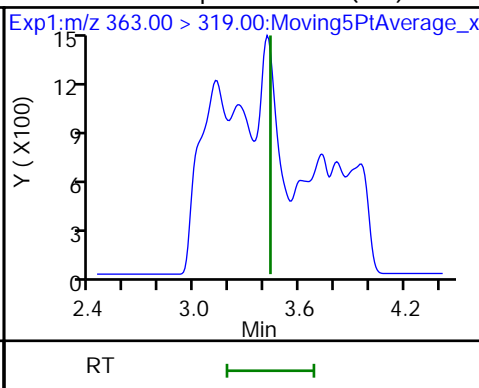
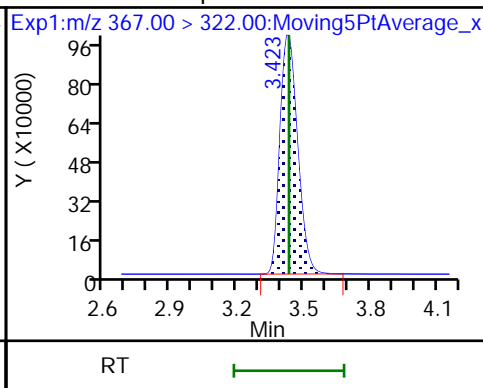
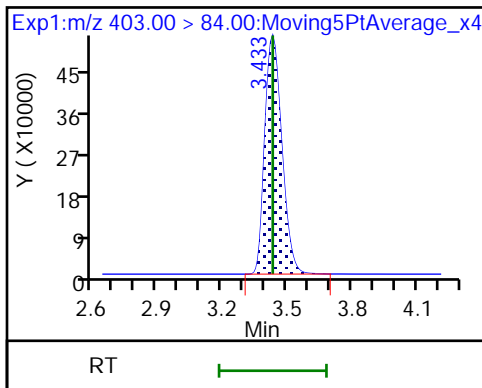
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

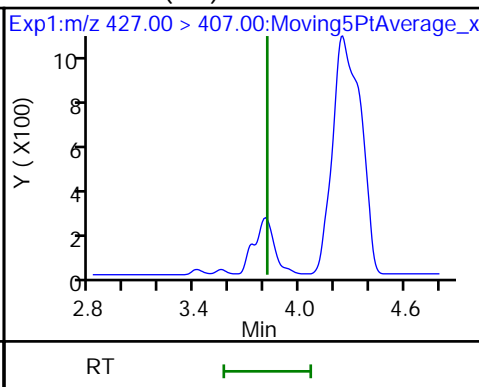
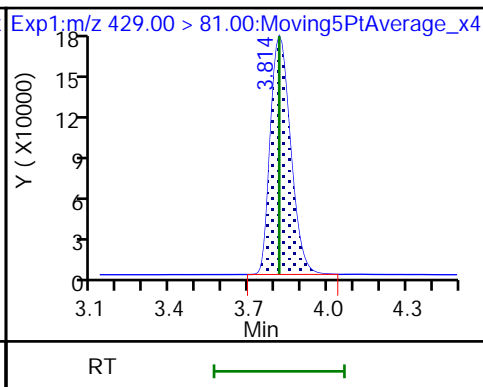
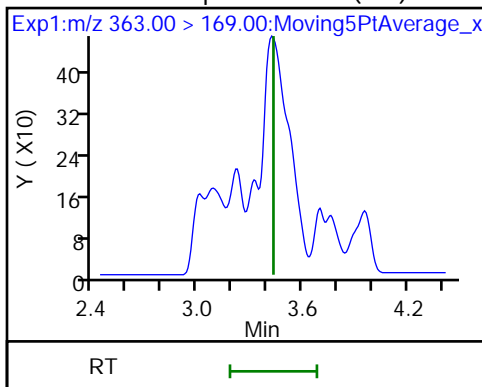
36 Perfluoroheptanoic acid (ND)



36 Perfluoroheptanoic acid (ND)

D 52 M2-6:2 FTS

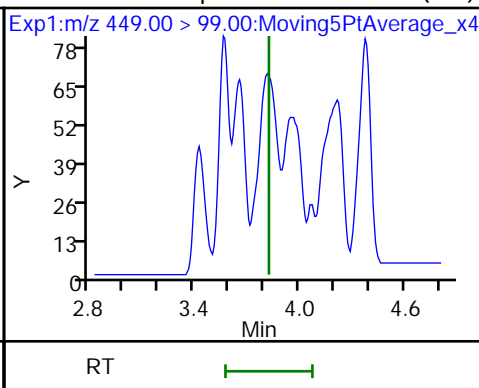
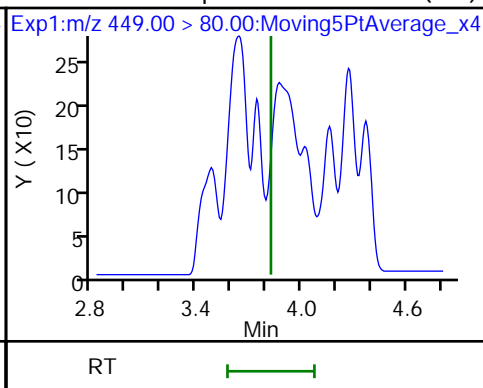
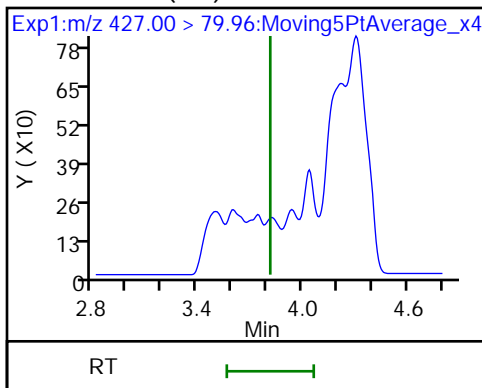
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

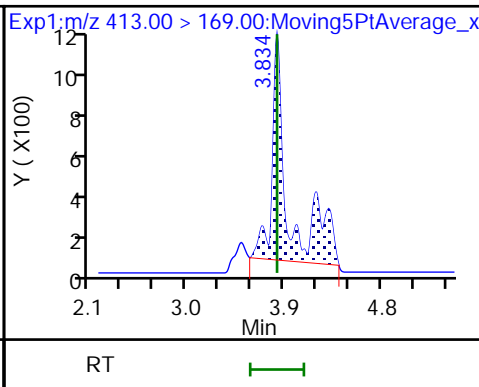
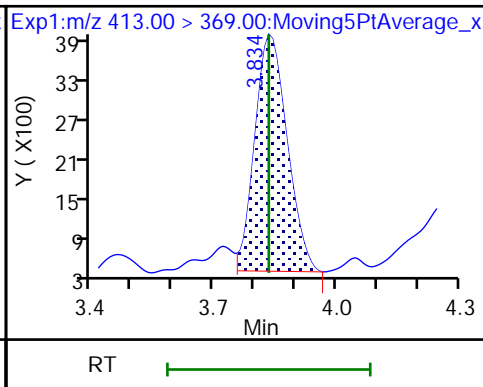
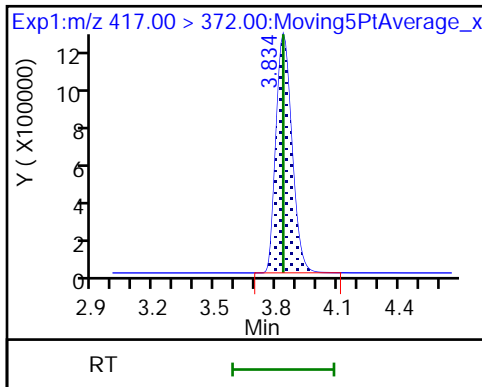
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid

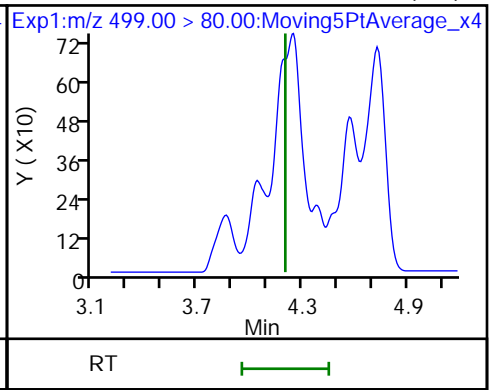
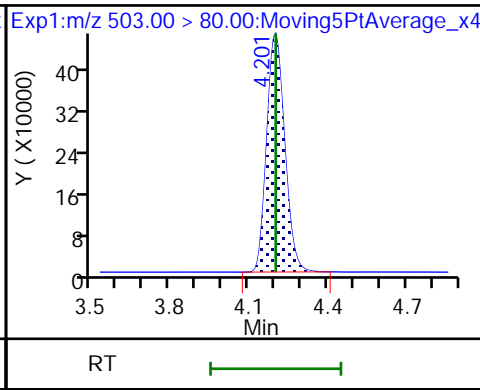
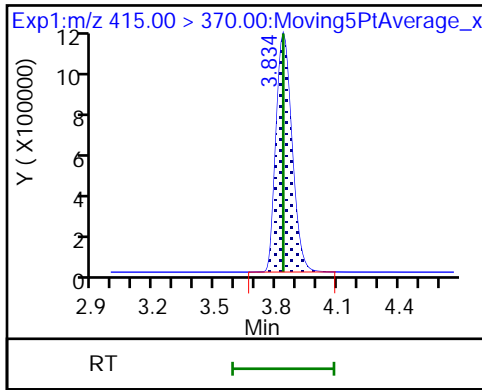
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

D 61 13C4 PFOS

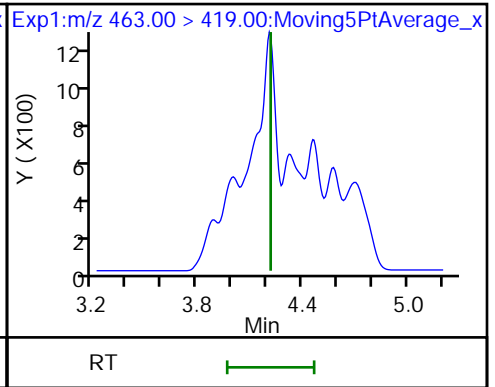
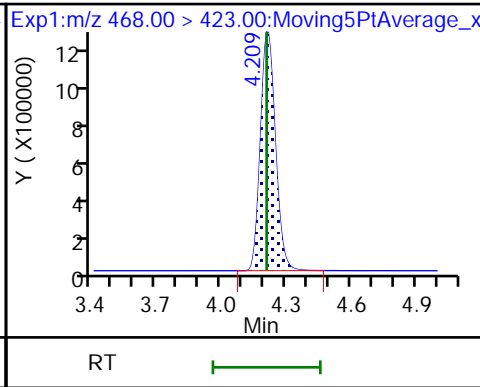
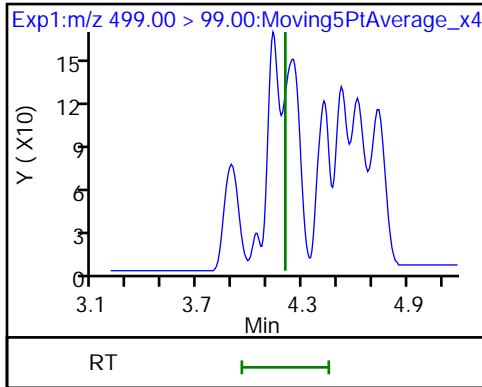
62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND)

D 63 13C5 PFNA

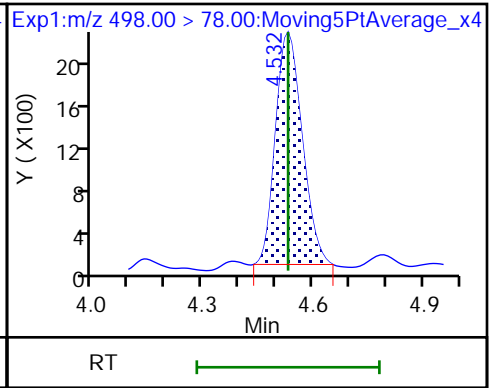
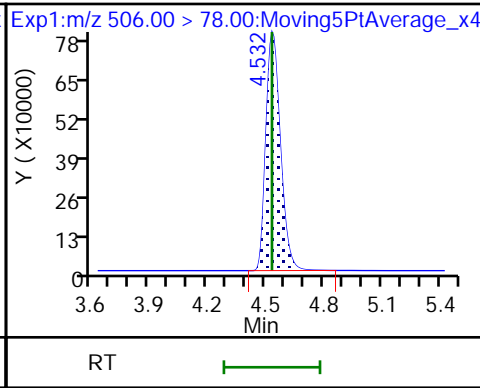
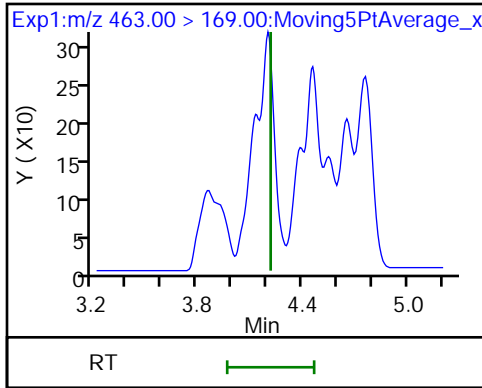
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

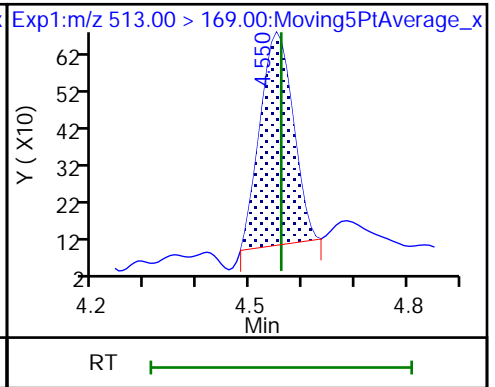
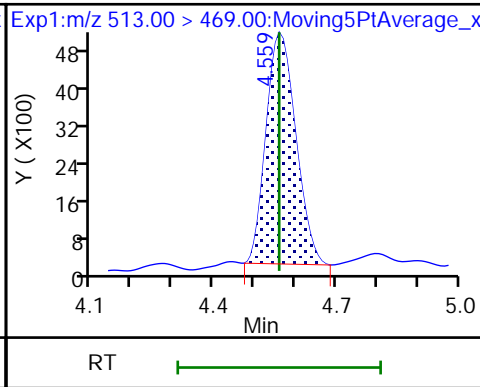
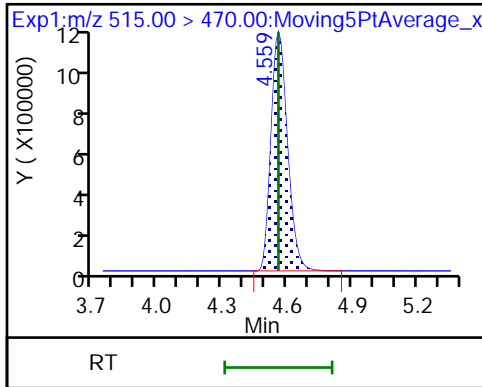
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

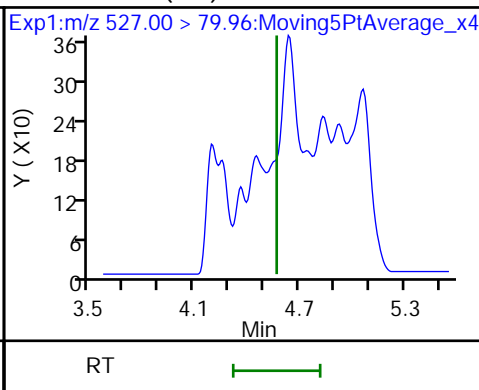
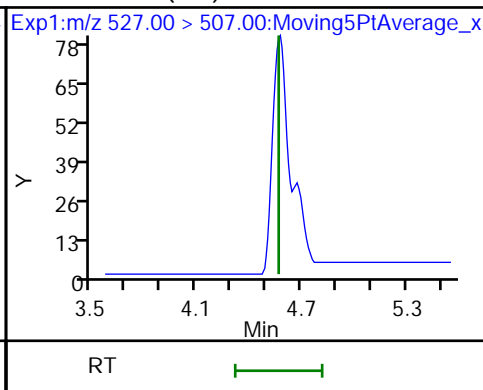
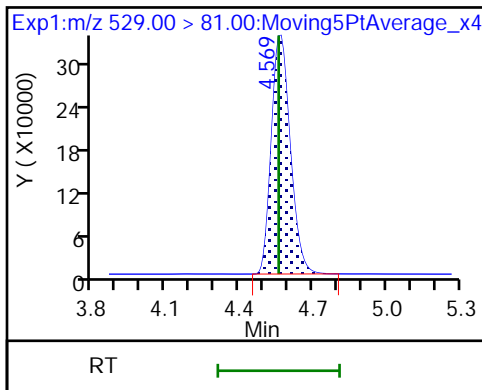
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

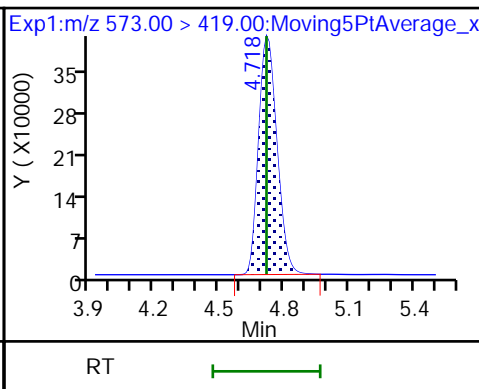
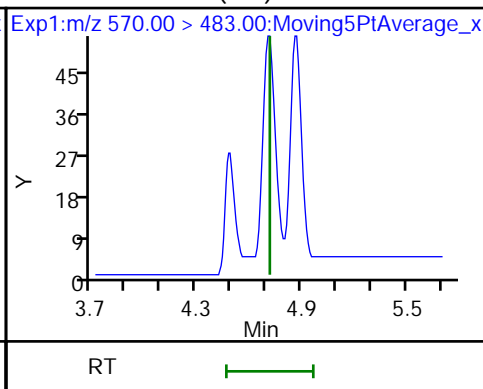
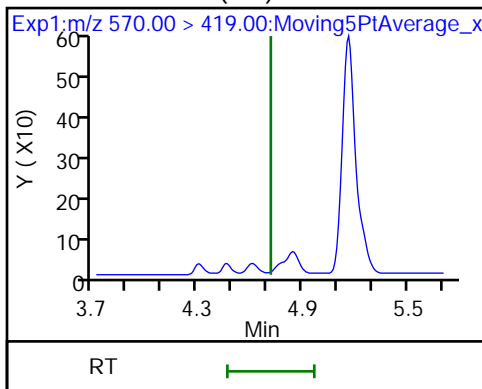
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

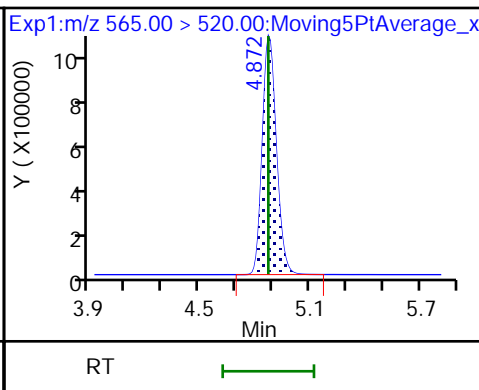
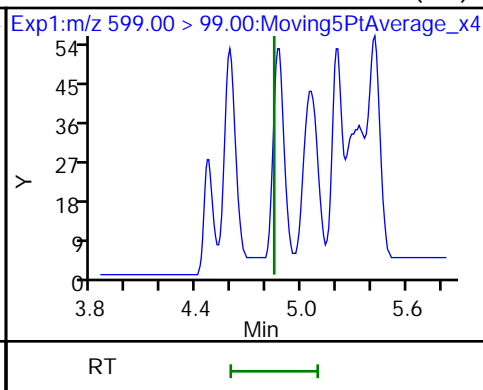
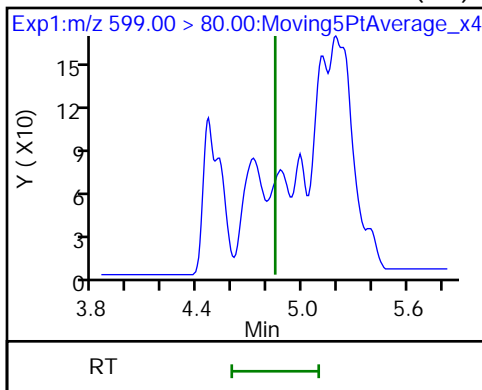
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

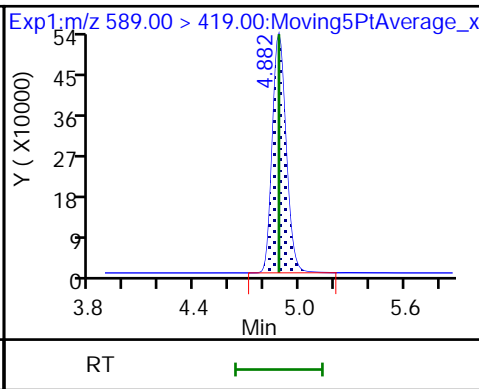
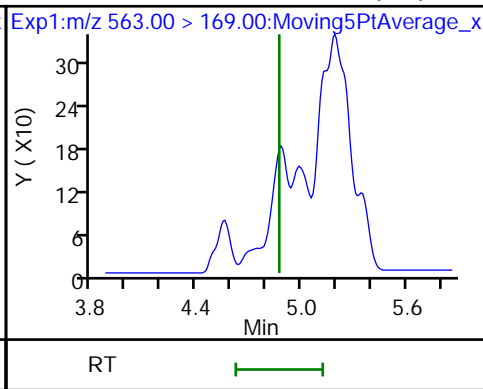
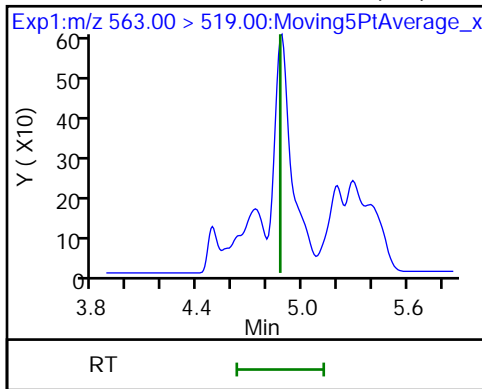
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

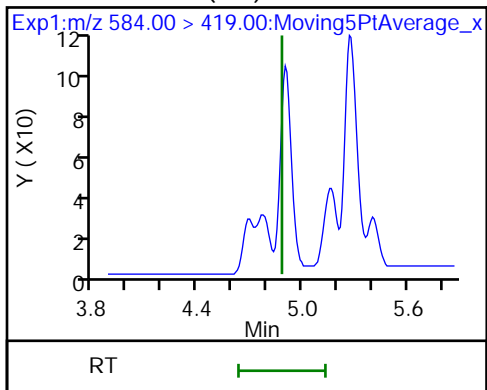
81 Perfluoroundecanoic acid (ND)

D 83 d5-NEtFOSAA

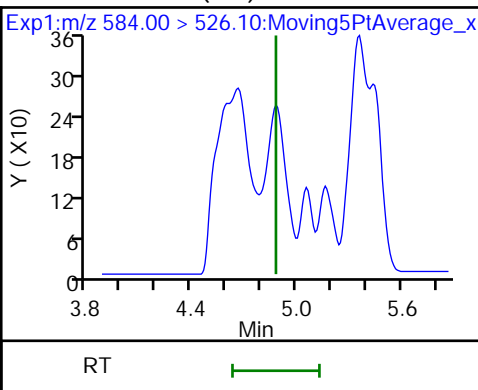




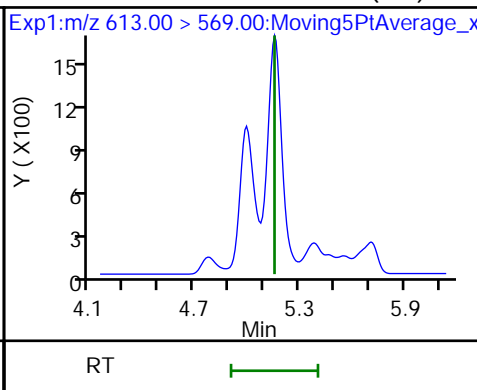
84 NEtFOSAA (ND)



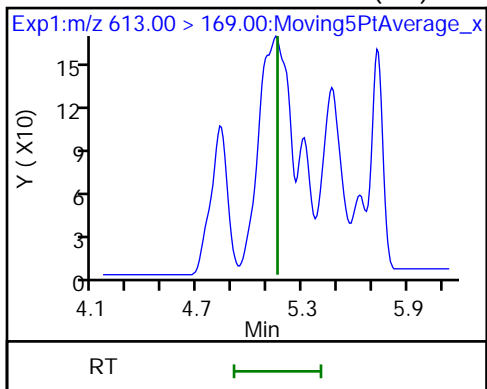
84 NEtFOSAA (ND)



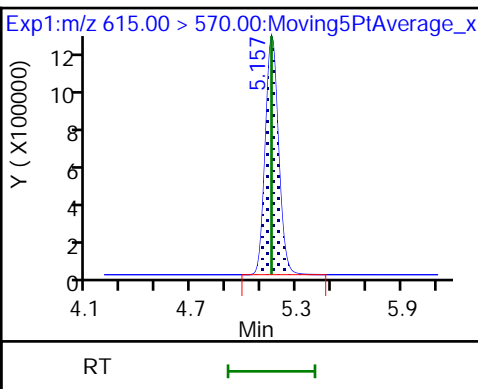
98 Perfluorododecanoic acid (ND)



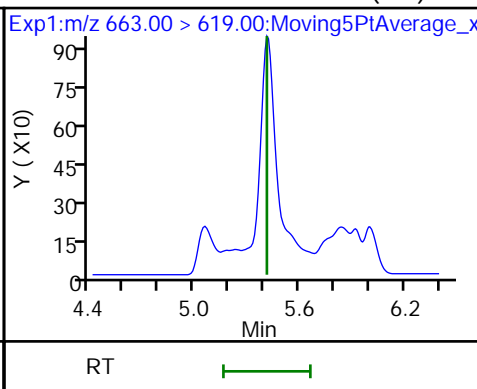
98 Perfluorododecanoic acid (ND)



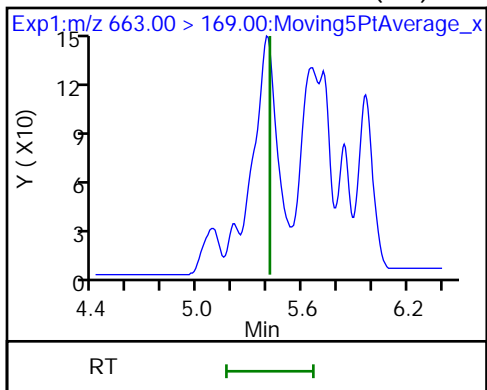
D 97 13C2 PFDaA



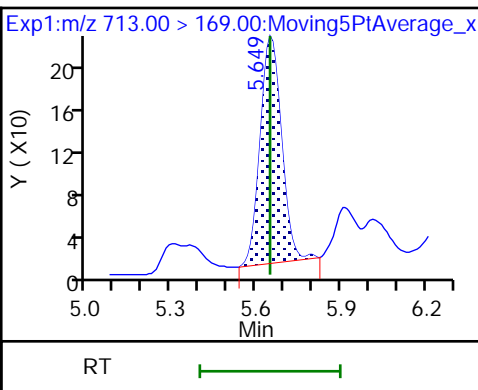
103 Perfluorotridecanoic acid (ND)



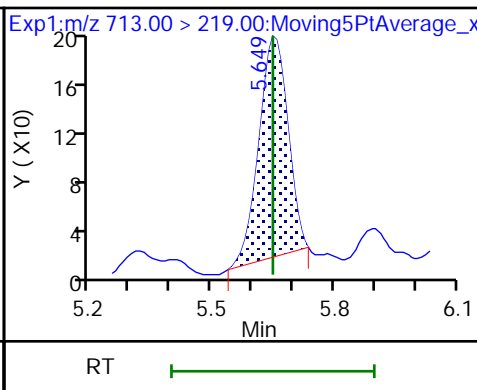
103 Perfluorotridecanoic acid (ND)



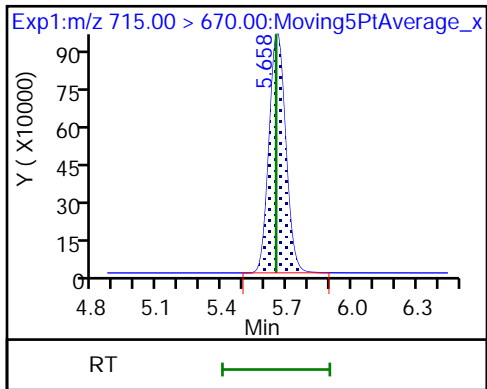
105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

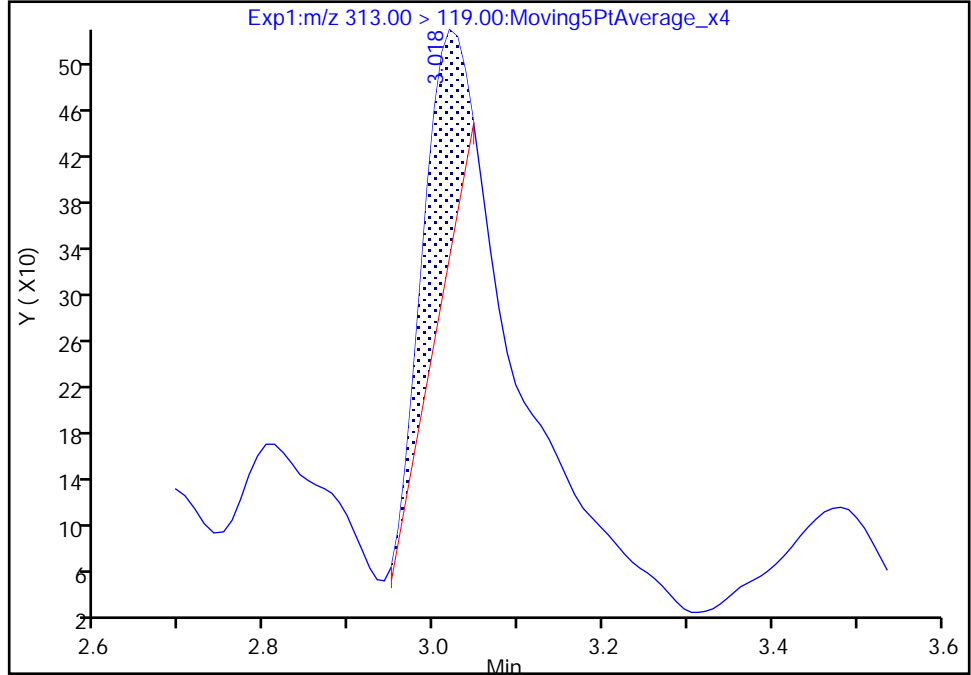
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_040.d  
Injection Date: 10-Jun-2021 09:49:17 Instrument ID: A15  
Lims ID: 320-74597-A-30-A Lab Sample ID: 320-74597-30  
Client ID: BH20210604-3S-75  
Operator ID: SACINSTA15 ALS Bottle#: 27 Worklist Smp#: 17  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

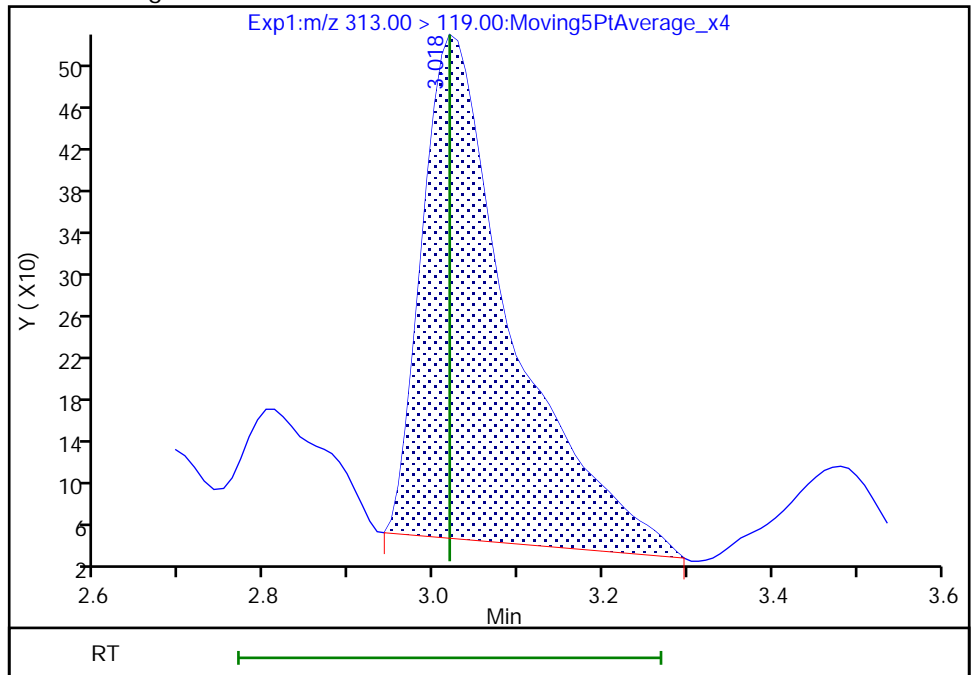
RT: 3.02  
Area: 664  
Amount: 0.010760  
Amount Units: ng/ml

Processing Integration Results



RT: 3.02  
Area: 3547  
Amount: 0.010760  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:57:04  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-494451/2	2021.06.01_A15_PFC+_ICAL_004.d
Level 2	IC 320-494451/3	2021.06.01_A15_PFC+_ICAL_005.d
Level 3	IC 320-494451/4	2021.06.01_A15_PFC+_ICAL_006.d
Level 4	IC 320-494451/5	2021.06.01_A15_PFC+_ICAL_007.d
Level 5	IC 320-494451/6	2021.06.01_A15_PFC+_ICAL_008.d
Level 6	IC 320-494451/7	2021.06.01_A15_PFC+_ICAL_009.d
Level 7	IC 320-494451/8	2021.06.01_A15_PFC+_ICAL_010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
DFSA	0.0491 0.0381	0.0350 0.0381	0.0374	0.0320	0.0314	LlID	0	0.036 9						0.9950		0.9900	
MMF	0.0783 0.0739	0.0670 0.0684	0.0797	0.0717	0.0676	AveI D		0.072 4		7.1		30.0					
MTP	0.0847 0.0949	0.0810 0.0970	0.0882	0.0894	0.0918	AveI D		0.089 6		6.2		30.0					
PFPrA	0.5799 0.7229	0.5568 0.7026	0.5871	0.6026	0.6656	AveI D		0.631 1		10.4		30.0					
PFMOAA	0.3092 0.3249	0.2952 0.3132	0.2952	0.3008	0.3175	AveI D		0.308 0		3.7		30.0					
R-PSDA	0.1104 0.1198	0.1049 0.1187	0.1073	0.1053	0.1119	AveI D		0.111 2		5.5		30.0					
R-EVE	0.3508 0.3425	0.3160 0.3090	0.3268	0.3412	0.3421	AveI D		0.332 6		4.7		30.0					
Hydrolyzed PSDA	0.4694 0.4707	0.4155 0.4246	0.4209	0.4208	0.4500	AveI D		0.438 8		5.5		30.0					
Perfluorobutanoic acid (PFBA)	0.8493 0.9743	0.8999 0.9385	0.9681	0.9928	0.9986	AveI D		0.945 9		5.8		30.0					
PMPA	0.1937 0.2255	0.2137 0.2168	0.2264	0.2235	0.2279	AveI D		0.218 2		5.5		30.0					
PFPrS	1.1287 1.1826	1.1486 1.0921	1.1606	1.1595	1.2531	AveI D		1.160 7		4.3		30.0					
NVHOS	0.0208 0.0192	0.0199 0.0177	0.0166	0.0174	0.0184	AveI D		0.018 6		7.8		30.0					
PFMPA	0.6318 0.6544	0.6242 0.6493	0.6513	0.6508	0.7027	AveI D		0.652 1		3.8		30.0					

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
PFO2HxA	0.0865 0.0840	0.0523 0.0760	0.0670	0.0702	0.0730	AveI D		0.072 7			15.7		30.0				
Perfluoropentanoic acid (PFPeA)	1.1595 1.0013	1.0432 1.0059	1.0474	1.0214	1.0565	AveI D		1.047 9			5.1		30.0				
3:3 FTCA	0.0865 0.1044	0.0857 0.1048	0.1039	0.0997	0.1027	AveI D		0.098 2			8.6		30.0				
Perfluorobutanesulfonic acid (PFBS)	1.1147 1.1325	1.1358 1.1431	1.1346	1.1083	1.1461	AveI D		1.130 7			1.2		30.0				
PEPA	0.1461 0.1697	0.1552 0.1792	0.1660	0.1662	0.1716	AveI D		0.164 9			6.6		30.0				
PFMBA	1.1245 1.2134	1.1319 1.2103	1.1832	1.2264	1.2734	AveI D		1.194 7			4.4		30.0				
PFEESA	3.7602 3.7886	3.7468 4.0263	3.8504	3.8193	3.9259	AveI D		3.845 4			2.6		30.0				
NFDHA	0.0969 0.1367	0.1234 0.1458	0.1413	0.1460	0.1425	AveI D		0.133 2			13.4		30.0				
4:2 FTS	2.4306 2.3273	2.3858 2.2681	2.4382	2.4485	2.4556	AveI D		2.393 4			3.0		30.0				
Perfluorohexanoic acid (PFHxA)	1.4007 0.9994	1.2301 0.9755	1.1294	1.0489	1.0575	AveI D		1.120 2			13.4		30.0				
Perfluoropentanesulfonic acid (PFPeS)	1.0096 1.0235	1.0184 0.9905	0.9722	0.9501	1.0054	AveI D		0.995 7			2.7		30.0				
PFO3OA	0.0420 0.0368	0.0341 0.0260	0.0365	0.0307	0.0353	AveI D		0.034 5			14.6		30.0				
HFPO-DA (GenX)	0.9394 0.9766	1.0140 1.0046	1.0391	1.0994	1.0551	AveI D		1.018 3			5.2		30.0				
R-PSDCA	0.0611 0.0742	0.0699 0.0729	0.0595	0.0659	0.0636	AveI D		0.066 7			8.6		30.0				
Hydro-EVE Acid	1.4919 1.6473	1.5151 1.6501	1.4746	1.5029	1.4902	AveI D		1.538 9			4.9		30.0				
Perfluorohexanesulfonic acid (PFHxS)	1.2445 1.0747	1.1131 1.0731	1.1324	1.0348	1.0679	AveI D		1.105 8			6.2		30.0				
Perfluoroheptanoic acid (PFHpA)	1.0762 1.0395	1.0934 1.0261	1.0774	1.0460	1.0381	AveI D		1.056 7			2.4		30.0				
Hydro-PS Acid	1.4732 1.7205	1.5392 1.7630	1.5025	1.5303	1.5321	AveI D		1.580 1			7.2		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	5.8646 5.4806	5.7456 5.0621	5.8799	5.6669	5.6614	AveI D		5.623 0			5.0		30.0				
PFPE-1	0.1693 0.1642	0.1581 0.1540	0.1602	0.1636	0.1643	AveI D		0.162 0			3.1		30.0				
5:3 FTCA	0.2629 0.3105	0.2851 0.2922	0.3136	0.3092	0.3051	AveI D		0.296 9			6.2		30.0				
6:2 FTUCA	16.223 17.796	18.417 17.686	16.461	17.146	19.989	AveI D		17.67 4			7.2		30.0				
6:2 FTCA	++++ 0.0160	0.0153 0.0164	0.0199	0.0146	0.0140	AveI D		0.016 0			13.1		30.0				
PFO4DA	++++ 0.0462	0.0375 0.0439	0.0395	0.0405	0.0290	AveI D		0.039 4			15.2		30.0				
PS Acid	0.6621 0.7078	0.6332 0.6755	0.6124	0.6552	0.6619	AveI D		0.658 3			4.6		30.0				
EVE Acid	1.0704 1.1078	0.9828 1.0774	1.0023	1.0484	1.0395	AveI D		1.046 9			4.2		30.0				
PFECHS	1.1410 1.2591	1.0352 1.2503	1.1720	1.2514	1.2598	AveI D		1.195 5			7.1		30.0				
6:2 FTS	2.1823 1.9441	2.0846 1.9421	2.1316	2.1507	1.9840	AveI D		2.059 9			4.9		50.0				
Perfluoroheptanesulfonic Acid (PFHpS)	1.1340 1.1313	1.1568 1.0633	1.1862	1.1846	1.1314	AveI D		1.141 1			3.7		30.0				
Perfluorooctanoic acid (PFOA)	1.1720 0.9882	1.0481 0.9966	1.0596	1.0536	0.9971	AveI D		1.045 0			6.1		30.0				
PFO5DA	++++ 0.0120	0.0201 ++++	0.0116	0.0177	0.0160	AveI D		0.015 5			23.7		30.0				
Perfluorooctanesulfonic acid (PFOS)	1.1710 1.1423	1.0915 1.1148	1.1248	1.1015	1.1297	AveI D		1.125 1			2.4		30.0				
Perfluorononanoic acid (PFNA)	1.0270 0.9642	0.9967 0.9141	1.0260	0.9766	1.0265	AveI D		0.990 2			4.3		30.0				
7:3 FTCA	6.8864 8.5244	8.2246 8.5516	6.7579	6.8943	8.0809	AveI D		7.702 9			10.6		30.0				
8:2 FTUCA	1.0096 0.9618	0.9264 0.9602	0.9870	0.9985	0.9811	AveI D		0.974 9			2.9		30.0				
8:2 FTCA	1.0181 1.0738	1.3374 1.0946	1.2102	1.1843	1.1812	AveI D		1.157 1			9.1		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
9Cl-PF3ONS	2.1367 2.3248	2.1490 2.2626	2.3706	2.3349	2.2123	AveI D		2.255 8			4.1		30.0				
Perfluorooctanesulfonamide (FOSA)	1.0483 0.9634	1.0079 0.9911	0.9968	1.0006	1.0190	AveI D		1.003 9			2.6		30.0				
Perfluorononanesulfonic acid (PFNS)	0.9198 0.9528	0.9196 0.9091	0.9519	0.9771	0.9224	AveI D		0.936 1			2.6		30.0				
Perfluorodecanoic acid (PFDA)	1.1461 0.9492	1.1505 0.9632	0.9818	0.9907	0.9749	AveI D		1.022 3			8.5		30.0				
8:2 FTS	1.5874 1.5401	1.5368 1.5050	1.5956	1.5754	1.6017	AveI D		1.563 1			2.3		30.0				
N-methylperfluorooctanesulfonamido acetic acid (NMeFOSAA)	0.8250 0.7359	0.7075 0.6901	0.7259	0.7394	0.7542	AveI D		0.739 7			5.8		30.0				
Perfluorodecanesulfonic acid (PFDS)	0.7576 0.8435	0.8846 0.7850	0.8574	0.8111	0.7971	AveI D		0.819 5			5.4		30.0				
Perfluoroundecanoic acid (PFUnA)	0.9036 0.8421	0.9623 0.8934	0.9535	0.9638	0.9285	AveI D		0.921 0			4.8		30.0				
N-ethylperfluorooctanesulfonamido acetic acid (NEtFOSAA)	0.6630 0.6971	0.6901 0.7836	0.7293	0.7222	0.7301	AveI D		0.716 5			5.4		30.0				
NMeFOSE	1.0402 1.0547	1.0007 1.0521	1.1384	1.0159	1.1015	AveI D		1.057 6			4.5		30.0				
NMeFOSA	0.9720 1.0254	0.9856 1.0008	1.0559	1.0088	1.0478	AveI D		1.013 8			3.1		30.0				
10:2 FTUCA	26.462 29.315	30.162 33.566	26.311	26.436	24.802	AveI D		28.15 1			10.8		30.0				
10:2 FTCA	0.0280 0.0245	0.0247 0.0219	0.0305	0.0347	0.0343	AveI D		0.028 4			17.6		30.0				
11Cl-PF3OUds	2.6858 2.7903	2.6514 2.5540	2.7579	2.7057	2.6772	AveI D		2.688 9			2.8		30.0				
NEtFOSE	1.2709 1.1903	1.1393 1.0850	1.1898	1.2203	1.1199	AveI D		1.173 7			5.4		30.0				
NEtFOSA	1.0608 0.9970	0.9826 1.0596	1.0593	1.0576	1.0369	AveI D		1.036 3			3.2		30.0				
Perfluorododecanoic acid (PFDoA)	1.0528 0.9516	1.1684 1.0488	1.1355	1.2338	1.1862	AveI D		1.111 0			8.8		30.0				
10:2 FTS	1.6360 1.4369	1.5124 1.5064	1.5159	1.4974	1.5295	AveI D		1.519 2			3.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorododecanesulfonic acid (PFDoS)	0.2269 0.2393	0.2310 0.2361	0.2296	0.2360	0.2289	AveI D		0.232 5			2.0		30.0				
Perfluorotridecanoic acid (PFTriA)	0.9007 0.8429	0.9930 0.9041	0.8655	1.0220	0.9670	AveI D		0.927 9			7.2		30.0				
Perfluorotetradecanoic acid (PFTeA)	0.1269 0.1225	0.1261 0.1250	0.1245	0.1234	0.1121	AveI D		0.122 9			4.0		30.0				
Perfluoro-n-hexadecanoic acid (PFHxDA)	1.3625 0.8639	1.2388 0.8419	1.0102	0.9337	0.9430	L2ID	0.012 4	0.911 4						0.9950		0.9900	
Perfluoro-n-octadecanoic acid (PFOA)	0.6008 0.6187	0.5745 0.5983	0.6307	0.5965	0.6304	AveI D		0.607 1			3.4		50.0				
13C4 PFBA	0.9764 0.9923	0.9766 1.0296	0.9654	1.0670	0.9758	Ave		0.997 6			3.7		30.0				
13C5 PFPeA	0.9265 0.9603	0.9025 0.9625	0.9198	1.0072	0.9125	Ave		0.941 6			3.9		30.0				
13C3 PFBS	0.6477 0.6638	0.6237 0.6581	0.6361	0.7098	0.6550	Ave		0.656 3			4.2		30.0				
M2-4:2 FTS	0.1903 0.1645	0.1919 0.1403	0.1791	0.1899	0.1711	Ave		0.175 3			10.6		30.0				
13C2 PFHxA	0.9370 0.9611	0.9133 0.9613	0.8643	0.9972	0.8887	Ave		0.931 9			5.0		30.0				
13C3 HFPO-DA	0.1660 0.1701	0.1623 0.1775	0.1617	0.1645	0.1565	Ave		0.165 5			4.1		30.0				
13C4 PFHpA	0.9422 0.8907	0.8932 0.8591	0.8970	0.9965	0.9435	Ave		0.917 5			5.0		30.0				
18O2 PFHxS	0.4663 0.4722	0.4626 0.4573	0.4320	0.5036	0.4709	Ave		0.466 4			4.6		30.0				
13C-6:2 FTCA	0.8447 0.7708	0.8051 0.7541	0.7736	0.8403	0.7933	Ave		0.797 4			4.4		30.0				
13C-6:2 FTUCA	0.0545 0.0479	0.0460 0.0455	0.0503	0.0535	0.0447	Ave		0.048 9			8.0		30.0				
M2-6:2 FTS	0.2501 0.1893	0.2338 0.1561	0.2097	0.2336	0.2105	Ave		0.211 9			15.0		30.0				
13C4 PFOA	1.0463 0.9999	1.0586 1.0244	1.0361	1.0863	1.0498	Ave		1.043 1			2.6		30.0				
13C4 PFOS	0.3651 0.3587	0.3573 0.3720	0.3444	0.3891	0.3725	Ave		0.365 6			3.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
13C5 PFNA	0.9554 0.9725	1.0611 1.0183	0.9655	1.0505	0.9526	Ave		0.996 6			4.6		30.0				
13C-8:2 FTUCA	0.9995 0.9647	0.9914 0.9398	0.9725	1.0375	1.0050	Ave		0.987 2			3.2		30.0				
13C-8:2 FTCA	0.0476 0.0414	0.0400 0.0410	0.0489	0.0531	0.0435	Ave		0.045 1			10.9		30.0				
13C8 FOSA	0.6169 0.6341	0.5999 0.6234	0.5861	0.6493	0.6022	Ave		0.616 0			3.5		30.0				
13C2 PFDA	1.0325 0.9850	0.9745 0.9266	1.0348	1.0461	0.9762	Ave		0.996 5			4.3		30.0				
M2-8:2 FTS	0.3865 0.2824	0.3565 0.2493	0.3469	0.3791	0.3150	Ave		0.330 8			15.4		30.0				
d3-NMeFOSAA	0.4516 0.4197	0.4007 0.4215	0.4028	0.4385	0.4105	Ave		0.420 7			4.4		30.0				
13C2 PFUnA	0.9884 0.9923	0.9442 0.9188	0.9595	1.0062	0.9152	Ave		0.960 7			3.8		30.0				
d5-NEtFOSAA	0.4735 0.4068	0.4445 0.3404	0.4166	0.4461	0.4019	Ave		0.418 6			10.2		30.0				
d7-N-MeFOSE-M	0.2430 0.2544	0.2507 0.2703	0.2355	0.2648	0.2414	Ave		0.251 4			5.1		30.0				
d-N-MeFOSA-M	0.1856 0.1896	0.1700 0.1983	0.1757	0.1919	0.1817	Ave		0.184 7			5.3		30.0				
13C-10:2 FTCA	1.2678 1.1380	1.1772 1.0107	1.1780	1.2396	1.1071	Ave		1.159 8			7.4		30.0				
13C-10:2 FTUCA	0.0365 0.0289	0.0319 0.0258	0.0375	0.0395	0.0374	Ave		0.033 9			15.2		30.0				
d9-N-EtFOSE-M	0.2661 0.2904	0.2667 0.3084	0.2720	0.2791	0.2776	Ave		0.280 0			5.4		30.0				
d-N-EtFOSA-M	0.1740 0.1948	0.1739 0.1913	0.1699	0.1884	0.1774	Ave		0.181 4			5.4		30.0				
13C2 PFDoA	1.1678 1.0457	1.0266 0.9771	1.0992	0.9430	1.0169	Ave		1.039 5			7.2		30.0				
13C2 10:2 FTS	0.3122 0.2312	0.2860 0.2047	0.2818	0.2930	0.2486	Ave		0.265 4			14.4		30.0				
13C2 PFTeDA	1.0076 0.9774	0.9192 0.9331	0.8950	0.9756	0.9944	Ave		0.957 5			4.4		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
 CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
13C2 PFHxDA	0.7847 0.7423	0.6405 0.7782	0.7338	0.7897	0.6569	Ave		0.732 3			8.3		30.0				
13C8 PFOA	1.1811 1.1588	1.1820 1.1188	1.1475	1.2396	1.1406	Ave		1.166 9			3.3		20.0				
13C8 PFOS	0.1134 0.1083	0.1059 0.1069	0.1024	0.1166	0.1116	Ave		0.109 3			4.4		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-494451/2	2021.06.01_A15_PFC+_ICAL_004.d
Level 2	IC 320-494451/3	2021.06.01_A15_PFC+_ICAL_005.d
Level 3	IC 320-494451/4	2021.06.01_A15_PFC+_ICAL_006.d
Level 4	IC 320-494451/5	2021.06.01_A15_PFC+_ICAL_007.d
Level 5	IC 320-494451/6	2021.06.01_A15_PFC+_ICAL_008.d
Level 6	IC 320-494451/7	2021.06.01_A15_PFC+_ICAL_009.d
Level 7	IC 320-494451/8	2021.06.01_A15_PFC+_ICAL_010.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
DFSA		L1ID	6781 1063573	10461 2030238	53964	183289	431273	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
MMF		AveI D	10808 2063129	20043 3643964	115190	410793	927962	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
MTP		AveI D	11691 2649940	24244 5162908	127466	511978	1259552	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
PFPrA		AveI D	77659 19577970	161562 36283920	822770	3347282	8862636	0.0243 4.85	0.0485 9.70	0.243	0.970	2.43
PFMOAA		AveI D	42685 9071215	88298 16672540	426511	1722644	4358599	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
R-PSDA		AveI D	15247 3344951	31379 6319517	155024	603290	1536439	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
R-EVE		AveI D	48434 9561398	94540 16448710	472207	1954083	4696335	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Hydrolyzed PSDA		AveI D	64799 13140523	124289 22603255	608077	2409773	6177141	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorobutanoic acid (PFBA)		AveI D	117253 27201752	269178 49964863	1398772	5685204	13706739	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PMPA		AveI D	26745	63920	327107	1279874	3128276	0.0250	0.0500	0.250	1.00	2.50
			6295608	11541499				5.00	10.0			
PFPrS		AveI D	94678	200995	1012130	4045844	10575154	0.0229	0.0458	0.229	0.916	2.29
			20231852	34038899				4.58	9.16			
NVHOS		AveI D	2866	5942	24001	99723	252464	0.0250	0.0500	0.250	1.00	2.50
			535518	944422				5.00	10.0			
PFMPA		AveI D	82760	172554	896648	3517910	9018455	0.0250	0.0500	0.250	1.00	2.50
			17681431	32310324				5.00	10.0			
PFO2HxA		AveI D	11326	14471	92181	379228	937301	0.0250	0.0500	0.250	1.00	2.50
			2269369	3780335				5.00	10.0			
Perfluoropentanoic acid (PFPeA)		AveI D	151884	288391	1441844	5521480	13560531	0.0250	0.0500	0.250	1.00	2.50
			27053783	50057820				5.00	10.0			
3:3 FTCA		AveI D	7919	16377	98868	379886	945876	0.0250	0.0500	0.250	1.00	2.50
			1950160	3564825				5.00	10.0			
Perfluorobutanesulfonic acid (PFBS)		AveI D	90241	191823	954874	3732410	9334014	0.0221	0.0442	0.221	0.884	2.21
			18696870	34384037				4.42	8.84			
PEPA		AveI D	19143	42895	228553	898521	2202024	0.0250	0.0500	0.250	1.00	2.50
			4584835	8916246				5.00	10.0			
PFMBA		AveI D	147308	312910	1628795	6629564	16343263	0.0250	0.0500	0.250	1.00	2.50
			32783953	60228882				5.00	10.0			
PFEESA		AveI D	306473	637065	3262411	12949075	32191570	0.0223	0.0445	0.223	0.890	2.23
			62974926	121926494				4.45	8.90			
NFDHA		AveI D	12842	34510	182737	781328	1781780	0.0250	0.0500	0.250	1.00	2.50
			3696127	7247213				5.00	10.0			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
4:2 FTS		AveI D	61088	130986	610494	2330244	5520613	0.0234	0.0467	0.234	0.934	2.34
			10058262	15364320				4.67	9.34			
Perfluorohexanoic acid (PFHxA)		AveI D	185583	344110	1460877	5613933	13219258	0.0250	0.0500	0.250	1.00	2.50
			27027195	48490256				5.00	10.0			
Perfluoropentanesulfonic acid (PFPeS)		AveI D	86727	182502	868180	3394965	8688571	0.0235	0.0469	0.235	0.938	2.35
			17930588	31612266				4.69	9.38			
PFO30A		AveI D	5562	9527	47230	164078	441849	0.0250	0.0500	0.250	1.00	2.50
			996129	1294847				5.00	10.0			
HFPO-DA (GenX)		AveI D	22049	50423	251402	970453	2323170	0.0250	0.0500	0.250	1.00	2.50
			4674183	9221213				5.00	10.0			
R-PSDCA		AveI D	8144	19114	79837	352381	844599	0.0250	0.0500	0.250	1.00	2.50
			1858731	3238323				5.00	10.0			
Hydro-EVE Acid		AveI D	198747	414534	1979709	8037791	19776420	0.0250	0.0500	0.250	1.00	2.50
			41282597	73295829				5.00	10.0			
Perfluorohexanesulfonic acid (PFHxS)		AveI D	74666	143537	666227	2545301	6437588	0.0228	0.0455	0.228	0.910	2.28
			12992564	23092506				4.55	9.10			
Perfluoroheptanoic acid (PFHpA)		AveI D	143375	299153	1446396	5594000	13776939	0.0250	0.0500	0.250	1.00	2.50
			26050172	45578953				5.00	10.0			
Hydro-PS Acid		AveI D	196254	421134	2017221	8184281	20332556	0.0250	0.0500	0.250	1.00	2.50
			43117365	78311320				5.00	10.0			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)		AveI D	285195	592418	2854561	11147522	27940341	0.0236	0.0471	0.236	0.942	2.36
			52095835	91722414				4.71	9.42			
PFPE-1		AveI D	20217	38999	185439	737991	1833689	0.0250	0.0500	0.250	1.00	2.50
			3560056	6003759				5.00	10.0			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
5:3 FTCA		AveI D	31400	70305	363093	1394544	3404324	0.0250	0.0500	0.250	1.00	2.50
			6734658	11392692				5.00	10.0			
6:2 FTUCA		AveI D	124925	259325	1240310	4926160	12579797	0.0250	0.0500	0.250	1.00	2.50
			23966284	41629970				5.00	10.0			
6:2 FTCA		AveI D	++++	3766	23075	66065	155714	++++	0.0500	0.250	1.00	2.50
			346985	641384				5.00	10.0			
PFO4DA		AveI D	++++	10264	53028	216821	385012	++++	0.0500	0.250	1.00	2.50
			1159010	1948326				5.00	10.0			
PS Acid		AveI D	97948	205331	949673	3819790	9774773	0.0250	0.0500	0.250	1.00	2.50
			19912969	35779183				5.00	10.0			
EVE Acid		AveI D	158343	318679	1554230	6112173	15351017	0.0250	0.0500	0.250	1.00	2.50
			31164545	57066493				5.00	10.0			
PFECHS		AveI D	155632	309488	1675588	6726839	17152406	0.0231	0.0461	0.231	0.922	2.31
			32658403	61060344				4.61	9.22			
6:2 FTS		AveI D	73163	141511	634062	2555727	5567609	0.0237	0.0474	0.237	0.948	2.37
			9816217	14860175				4.74	9.48			
Perfluoroheptanesulfonic Acid (PFHpS)		AveI D	55734	120540	582004	2354926	5642852	0.0238	0.0476	0.238	0.952	2.38
			10867482	19471630				4.76	9.52			
Perfluorooctanoic acid (PFOA)		AveI D	173386	339852	1643124	6142294	14724039	0.0250	0.0500	0.250	1.00	2.50
			27801698	52785001				5.00	10.0			
PFO5DA		AveI D	++++	6506	17985	103402	236516	++++	0.0500	0.250	1.00	2.50
			336234	++++				5.00	++++			
Perfluorooctanesulfonic acid (PFOS)		AveI D	56098	110868	537977	2134522	5492665	0.0232	0.0464	0.232	0.928	2.32
			10696679	19899411				4.64	9.28			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorononanoic acid (PFNA)		AveI D	138738	323987	1482464	5506445	13755308	0.0250	0.0500	0.250	1.00	2.50
			26382201	48131661				5.00	10.0			
7:3 FTCA		AveI D	46395	100673	494504	1965478	4945358	0.0250	0.0500	0.250	1.00	2.50
			9932745	18137161				5.00	10.0			
8:2 FTUCA		AveI D	142669	281320	1436470	5560304	13868973	0.0250	0.0500	0.250	1.00	2.50
			26105589	46657021				5.00	10.0			
8:2 FTCA		AveI D	6859	16371	88554	337635	722900	0.0250	0.0500	0.250	1.00	2.50
			1251198	2321583				5.00	10.0			
9Cl-PF3ONS		AveI D	102803	219225	1138668	4544357	10802136	0.0233	0.0466	0.233	0.932	2.33
			21864243	40561901				4.66	9.32			
Perfluorooctanesulfonamide (FOSA)		AveI D	91437	185222	874353	3487155	8631515	0.0250	0.0500	0.250	1.00	2.50
			17188836	31949636				5.00	10.0			
Perfluorononanesulfonic acid (PFNS)		AveI D	45587	96634	470960	1958749	4639403	0.0240	0.0480	0.240	0.960	2.40
			9229525	16786975				4.80	9.60			
Perfluorodecanoic acid (PFDA)		AveI D	167321	343442	1520447	5562564	13386012	0.0250	0.0500	0.250	1.00	2.50
			26305625	46145466				5.00	10.0			
8:2 FTS		AveI D	83112	160765	793602	3070717	6799781	0.0240	0.0479	0.240	0.958	2.40
			11723830	18585877				4.79	9.58			
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveI D	52677	86827	437621	1740031	4354181	0.0250	0.0500	0.250	1.00	2.50
			8689053	15041975				5.00	10.0			
Perfluorodecanesulfonic acid (PFDS)		AveI D	37702	93344	425988	1632731	4025709	0.0241	0.0482	0.241	0.964	2.41
			8205245	14555788				4.82	9.64			
Perfluoroundecanoic acid (PFUnA)		AveI D	126281	278333	1369211	5204774	11952030	0.0250	0.0500	0.250	1.00	2.50
			23510529	42442720				5.00	10.0			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-ethylperfluorooctanesulfonamid oacetic acid (NEtFOSAA)		AveI D	44392	93970	454717	1729108	4127942	0.0250	0.0500	0.250	1.00	2.50
			7979386	13793800				5.00	10.0			
NMeFOSE		AveI D	35734	76850	401280	1444058	3739480	0.0250	0.0500	0.250	1.00	2.50
			7550358	14703680				5.00	10.0			
NMeFOSA		AveI D	25501	51318	277621	1039073	2678342	0.0250	0.0500	0.250	1.00	2.50
			5470792	10262228				5.00	10.0			
10:2 FTUCA		AveI D	136569	294532	1477553	5598514	13056540	0.0250	0.0500	0.250	1.00	2.50
			23806952	44739567				5.00	10.0			
10:2 FTCA		AveI D	5027	8916	53835	231012	534457	0.0250	0.0500	0.250	1.00	2.50
			784516	1146761				5.00	10.0			
11Cl-PF3OUds		AveI D	130611	273379	1338926	5322406	13212660	0.0236	0.0471	0.236	0.942	2.36
			26523728	46276336				4.71	9.42			
NEtFOSE		AveI D	47813	93087	484370	1828076	4372518	0.0250	0.0500	0.250	1.00	2.50
			9724225	17299819				5.00	10.0			
NEtFOSA		AveI D	26095	52340	269330	1069326	2587082	0.0250	0.0500	0.250	1.00	2.50
			5463865	10480347				5.00	10.0			
Perfluorododecanoic acid (PFDoA)		AveI D	173837	367422	1868060	6244484	16967737	0.0250	0.0500	0.250	1.00	2.50
			27995197	52982209				5.00	10.0			
10:2 FTS		AveI D	69625	127735	616251	2269830	5156522	0.0241	0.0482	0.241	0.964	2.41
			9010825	15368150				4.82	9.64			
Perfluorododecanesulfonic acid (PFDoS)		AveI D	11337	24472	114540	477008	1160923	0.0242	0.0484	0.242	0.968	2.42
			2337182	4396734				4.84	9.68			
Perfluorotridecanoic acid (PFTriA)		AveI D	148732	312253	1423926	5172519	13831397	0.0250	0.0500	0.250	1.00	2.50
			24798939	45675875				5.00	10.0			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorotetradecanoic acid (PFTeA)		AveID	18072	35505	166723	646360	1568599	0.0250	0.0500	0.250	1.00	2.50
			3368546	6028165				5.00	10.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)		L2ID	151172	243025	1109391	3957744	8712635	0.0250	0.0500	0.250	1.00	2.50
			18042532	33874655				5.00	10.0			
Perfluoro-n-octadecanoic acid (PFODA)		AveID	66666	112705	692594	2528527	5824872	0.0250	0.0500	0.250	1.00	2.50
			12921972	24075014				5.00	10.0			
13C4 PFBA	13PF OA	Ave	6902649	7478381	7224001	7158252	6863062	1.25	1.25	1.25	1.25	1.25
			6979889	6654827				1.25	1.25			
13C5 PFPeA	13PF OA	Ave	6549815	6911317	6883289	6757107	6417385	1.25	1.25	1.25	1.25	1.25
			6754556	6220538				1.25	1.25			
13C3 PFBS	13PF OA	Ave	4258334	4441748	4426842	4428472	4284122	1.16	1.16	1.16	1.16	1.16
			4342278	3955482				1.16	1.16			
M2-4:2 FTS	13PF OA	Ave	1256631	1372584	1251915	1189610	1124092	1.17	1.17	1.17	1.17	1.17
			1080486	846773				1.17	1.17			
13C2 PFHxA	13PF OA	Ave	6624478	6993739	6467493	6690165	6250426	1.25	1.25	1.25	1.25	1.25
			6760589	6213293				1.25	1.25			
13C3 HFPO-DA	13PF OA	Ave	1173542	1243193	1209708	1103421	1100904	1.25	1.25	1.25	1.25	1.25
			1196589	1147328				1.25	1.25			
13C4 PFHpA	13PF OA	Ave	6660929	6840178	6712678	6685179	6635341	1.25	1.25	1.25	1.25	1.25
			6265091	5552296				1.25	1.25			
18O2 PFHxS	13PF OA	Ave	3118582	3351435	3058001	3196150	3133297	1.18	1.18	1.18	1.18	1.18
			3141813	2796283				1.18	1.18			
13C-6:2 FTCA	13PF OA	Ave	5971568	6165408	5788825	5637211	5579562	1.25	1.25	1.25	1.25	1.25
			5421593	4874188				1.25	1.25			



FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C-6:2 FTUCA	13PF OA	Ave	385030	352012	376753	359138	314666	1.25	1.25	1.25	1.25	1.25
			336685	294231				1.25	1.25			
M2-6:2 FTS	13PF OA	Ave	1679850	1700674	1490395	1488535	1406104	1.19	1.19	1.19	1.19	1.19
			1264947	958472				1.19	1.19			
13C4 PFOA	13PF OA	Ave	7396728	8106729	7753318	7287539	7383540	1.25	1.25	1.25	1.25	1.25
			7033219	6620796				1.25	1.25			
13C4 PFOS	13PF OA	Ave	2467646	2616029	2463485	2495449	2504282	1.20	1.20	1.20	1.20	1.20
			2411706	2298584				1.20	1.20			
13C5 PFNA	13PF OA	Ave	6754201	8126123	7224686	7047778	6699779	1.25	1.25	1.25	1.25	1.25
			6840328	6581692				1.25	1.25			
13C-8:2 FTUCA	13PF OA	Ave	7065751	7592059	7277073	6960694	7068168	1.25	1.25	1.25	1.25	1.25
			6785334	6074113				1.25	1.25			
13C-8:2 FTCA	13PF OA	Ave	336859	306013	365870	356358	305990	1.25	1.25	1.25	1.25	1.25
			291303	265113				1.25	1.25			
13C8 FOSA	13PF OA	Ave	4361031	4594347	4385738	4356194	4235443	1.25	1.25	1.25	1.25	1.25
			4460298	4029476				1.25	1.25			
13C2 PFDA	13PF OA	Ave	7299378	7462899	7743280	7018140	6865528	1.25	1.25	1.25	1.25	1.25
			6928661	5988554				1.25	1.25			
M2-8:2 FTS	13PF OA	Ave	2617868	2615181	2486771	2436481	2122669	1.20	1.20	1.20	1.20	1.20
			1903089	1543724				1.20	1.20			
d3-NMeFOSAA	13PF OA	Ave	3192372	3068297	3014224	2941738	2886800	1.25	1.25	1.25	1.25	1.25
			2951899	2724566				1.25	1.25			
13C2 PFUnA	13PF OA	Ave	6987862	7230977	7180240	6750524	6436464	1.25	1.25	1.25	1.25	1.25
			6979534	5938460				1.25	1.25			

FORM VI  
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
d5-NETFOSSAA	13PF OA	Ave	3347575	3404057	3117654	2992785	2826822	1.25	1.25	1.25	1.25	1.25
			2861614	2200301				1.25	1.25			
d7-N-MeFOSE-M	13PF OA	Ave	1717598	1919903	1762540	1776739	1697476	1.25	1.25	1.25	1.25	1.25
			1789694	1746929				1.25	1.25			
d-N-MeFOSSA-M	13PF OA	Ave	1311777	1301735	1314618	1287448	1278029	1.25	1.25	1.25	1.25	1.25
			1333882	1281760				1.25	1.25			
13C-10:2 FTCA	13PF OA	Ave	8962809	9014871	8815348	8316033	7785957	1.25	1.25	1.25	1.25	1.25
			8004420	6532684				1.25	1.25			
13C-10:2 FTUCA	13PF OA	Ave	258051	244123	280783	264722	263217	1.25	1.25	1.25	1.25	1.25
			203030	166608				1.25	1.25			
d9-N-EtFOSE-M	13PF OA	Ave	1881007	2042625	2035494	1872612	1952148	1.25	1.25	1.25	1.25	1.25
			2042373	1993060				1.25	1.25			
d-N-EtFOSSA-M	13PF OA	Ave	1229937	1331675	1271228	1263849	1247523	1.25	1.25	1.25	1.25	1.25
			1370026	1236372				1.25	1.25			
13C2 PFDoA	13PF OA	Ave	8256018	7861576	8225765	6326589	7152063	1.25	1.25	1.25	1.25	1.25
			7354983	6314922				1.25	1.25			
13C2 10:2 FTS	13PF OA	Ave	2130083	2113619	2034729	1896761	1687459	1.21	1.21	1.21	1.21	1.21
			1569420	1276564				1.21	1.21			
13C2 PFTeDA	13PF OA	Ave	7123151	7039524	6697651	6544791	6993758	1.25	1.25	1.25	1.25	1.25
			6874886	6030561				1.25	1.25			
13C2 PFHxDA	13PF OA	Ave	5547657	4904544	5490919	5298257	4619724	1.25	1.25	1.25	1.25	1.25
			5221297	5029597				1.25	1.25			
13C8 PFOA	13PF OA	Ave	8349862	9051470	8586998	8316024	8021799	1.25	1.25	1.25	1.25	1.25
			8151178	7231109				1.25	1.25			

FORM VI  
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
 RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1 Analy Batch No.: 494451

SDG No.: \_\_\_\_\_

Instrument ID: A15 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/01/2021 14:07 Calibration End Date: 06/01/2021 15:02 Calibration ID: 55515

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C8 PFOS	13PF OA	Ave	766696	775068	732673	747643	750097	1.20	1.20	1.20	1.20	1.20
			728407	660640				1.20	1.20			

Curve Type Legend

Ave = Average ISTD AveID = Average isotope dilution L1ID = Linear 1/conc IsoDil L2ID = Linear 1/conc^2 IsoDil
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Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
 Lims ID: IC L1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 01-Jun-2021 14:07:28 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 1 (3)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:53:10 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: onishim Date: 02-Jun-2021 14:38:21

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.771	0.773	-0.002	0.330	6781	0.0321	128	13.5	
2 MMF	139.00 > 51.00	0.778	0.779	-0.001	0.333	10808	0.0270	108	7.9	
3 MTP	175.00 > 97.00	1.205	1.196	0.009	0.516	11691	0.0236	94.5	6.2	
4 PPF Acid	162.95 > 119.00	1.618	1.613	0.005	0.692	77659	0.0223	91.9	11.2	M
5 PFMOAA	179.00 > 84.90	2.077	2.075	0.002	0.888	42685	0.0251	100	22.3	M
6 R-PSDA	441.00 > 241.00	2.217	2.213	0.004	0.948	15247	0.0248	99.3	386	
7 R-EVE	405.00 > 217.00	2.217	2.220	-0.003	0.948	48434	0.0264	105	968	
8 Hydrolyzed PSDA	439.10 > 342.90	2.225	2.221	0.004	0.952	64799	0.0267	107	2582	
D 9 13C4 PFBA	217.00 > 172.00	2.338	2.334	0.004	0.599	6902649	1.22	97.9	87653	
10 Perfluorobutanoic acid	212.90 > 169.00	2.338	2.334	0.004	1.000	117253	0.0224	89.8	70.1	
11 PMPA	229.00 > 185.00	2.400	2.400	0.0	1.027	26745	0.0222	88.8	29.9	M
12 PFPrS	249.10 > 80.00	2.409	2.405	0.004	0.887	94678	0.0223	97.2	337	
13 NVHOS	297.00 > 135.00	2.418	2.421	-0.003	1.034	2866	0.0280	112	112	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.461	2.462	-0.001	0.918	82760	0.0242		96.9	1628	
16 PFO2HxA										M
245.00 > 85.00	2.606	2.602	0.004	0.972	11326	0.0297		119	55.3	M
D 17 13C5 PFPeA										
267.90 > 223.00	2.682	2.681	0.001	0.688	6549815	1.23		98.4	60568	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.682	2.682	0.0	1.000	151884	0.0277		111	175	
19 3:3 FTCA										
241.00 > 177.10	2.693	2.690	0.003	0.992	7919	0.0220	Target=1.28	88.0	117	
241.00 > 116.90	2.704	2.690	0.014	0.996	8883		0.89(0.64-1.92)	88.0	41.2	
D 21 13C3 PFBS										
301.90 > 80.00	2.715	2.714	0.001	0.696	4258334	1.15		98.7	27450	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.715	2.716	-0.001	1.000	90241	0.0218	Target=2.36	98.6	797	
298.90 > 99.00	2.715	2.716	-0.001	1.000	37115		2.43(1.18-3.53)	98.6	244	
22 PEPA										
278.90 > 234.90	2.781	2.778	0.002	1.037	19143	0.0222		88.6	29.8	
23 PFECA A										
278.95 > 84.90	2.801	2.795	0.006	1.044	147308	0.0235		94.1	3235	
24 PES										
314.80 > 135.00	2.869	2.868	0.001	1.057	306473	0.0218		97.8	5209	
25 PFECA B										
295.20 > 201.00	3.001	2.996	0.005	0.978	12842	0.0182		72.8	344	
26 4:2 FTS										
327.00 > 307.00	3.028	3.022	0.006	1.000	61088	0.0237	Target=2.17	102	2215	
327.00 > 79.96	3.028	3.022	0.006	1.000	30627		1.99(1.09-3.26)	102	371	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.028	3.022	0.006	0.776	1256631	1.27		109	10440	
D 28 13C2 PFHxA										
315.00 > 270.00	3.067	3.061	0.006	0.786	6624478	1.26		101	79335	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.067	3.062	0.005	1.000	185583	0.0313	Target=13.89	125	395	
313.00 > 119.00	3.067	3.062	0.005	1.000	13015		14.26(6.95-20.84)	125	164	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.087	3.081	0.005	1.137	86727	0.0238	Target=3.10	101	772	
349.00 > 99.00	3.087	3.081	0.005	1.137	25214		3.44(1.55-4.65)	101	419	
31 PFO3OA										
311.10 > 85.20	3.136	3.129	0.007	1.023	5562	0.0304		122	89.8	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.206	3.201	0.005	0.822	1173542	1.25		100	42433	
33 HFPO-DA										
285.00 > 169.00	3.206	3.201	0.005	1.000	22049	0.0231	Target=1.03	92.3	674	
285.00 > 185.00	3.197	3.201	-0.004	0.997	24347		0.91(0.52-1.55)	92.3	215	
34 R-PSDCA										
397.00 > 217.00	3.442	3.437	0.005	0.986	8144	0.0229		91.6	358	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.471	3.468	0.003	0.995	198747	0.0242		96.9	1216	
D 37 13C4 PFHpA										
367.00 > 322.00	3.490	3.482	0.008	0.895	6660929	1.28		103	122245	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.490	3.483	0.007	1.000	74666	0.0256	Target=3.50	113	648	
399.00 > 99.00	3.490	3.483	0.007	1.000	19939		3.74(1.75-5.25)	113	198	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.490	3.485	0.005	1.000	143375	0.0255	Target=3.81	102	488	
363.00 > 169.00	3.490	3.485	0.005	1.000	37359		3.84(1.91-5.72)	102	549	
D 38 18O2 PFHxS										
403.00 > 84.00	3.490	3.485	0.005	0.895	3118582	1.18		100.0	48067	
40 Hydro-PS Acid										
463.00 > 263.00	3.500	3.494	0.006	1.003	196254	0.0233		93.2	899	
41 DONA										
377.00 > 251.00	3.544	3.538	0.006	0.830	285195	0.0246	Target=2.07	104	3708	
377.00 > 85.00	3.544	3.538	0.006	0.830	136257		2.09(1.03-3.10)	104	1940	
44 PFECA G										
378.90 > 184.90	3.561	3.558	0.003	0.991	20217	0.0261		105	401	
43 5:3 FTCA										
340.88 > 236.90	3.570	3.561	0.009	0.993	31400	0.0221	Target=1.08	88.5	296	
340.88 > 216.90	3.561	3.561	0.0	0.991	29595		1.06(0.54-1.62)	88.5	441	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.595	3.592	0.003	0.922	5971568	1.32		106	202859	
46 6:2 FTUCA										
356.86 > 292.90	3.595	3.592	0.003	0.994	124925	0.0229	Target=14.03	91.8	1937	
356.86 > 243.00	3.602	3.592	0.010	0.996	8413		14.85(7.02-21.05)	91.8	293	
48 6:2 FTCA										
377.10 > 313.10	3.632	3.614	0.018	1.011	922	0.0120	Target=0.54	48.1	24.6	RM
377.10 > 63.00	3.625	3.614	0.011	1.008	4020		0.23(0.27-0.81)	48.1	202	RM
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.617	3.614	0.003	0.927	385030	1.39		111	5071	
42 PFO4DA										
376.90 > 85.00	3.692	3.677	0.015	1.058	7548	0.0359		144	7.4	a
49 PS Acid										
442.80 > 146.80	3.742	3.738	0.004	0.959	97948	0.0251		101	2090	
50 EVE Acid										
407.00 > 262.90	3.756	3.754	0.002	0.963	158343	0.0256		102	6620	
51 PFECHS										
460.80 > 380.90	3.843	3.833	0.010	0.985	155632	0.0220	Target=1.90	95.4	4056	
460.80 > 98.90	3.833	3.833	0.0	0.983	78216		1.99(0.95-2.85)	95.4	1472	
53 6:2 FTS										
427.00 > 407.00	3.881	3.876	0.005	1.000	73163	0.0251	Target=2.11	106	329	
427.00 > 79.96	3.881	3.876	0.005	1.000	32731		2.24(1.06-3.17)	106	147	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.881	3.876	0.005	0.995	1679850	1.40		118	23631	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.891	3.885	0.006	0.911	55734	0.0237	Target=4.82	99.4	473	
449.00 > 99.00	3.891	3.885	0.006	0.911	12440		4.48(2.41-7.24)	99.4	206	
* 57 13C2 PFOA										
415.00 > 370.00	3.900	3.895	0.005		7069526	1.25			77430	
D 56 13C4 PFOA										
417.00 > 372.00	3.900	3.895	0.005	1.000	7396728	1.25		100	68115	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.900	3.895	0.005	1.000	8349862	1.27		101	96492	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.900	3.895	0.005	1.000	173386	0.0280	Target=2.87	112	252	M
413.00 > 169.00	3.900	3.895	0.005	1.000	55395		3.13(1.43-4.30)	112	612	M
59 TAF										
442.90 > 85.00	4.185	4.180	0.005	1.073	4189	0.0458		183	65.5	
D 61 13C4 PFOS										
503.00 > 80.00	4.269	4.264	0.005	1.095	2467646	1.19		99.9	28416	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.269	4.264	0.005	1.095	766696	1.24		104	12795	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.269	4.264	0.005	1.000	56098	0.0241	Target=5.95	104	508	M
499.00 > 99.00	4.269	4.264	0.005	1.000	8649		6.49(2.97-8.92)	104	177	M
D 63 13C5 PFNA										
468.00 > 423.00	4.284	4.279	0.005	1.098	6754201	1.20		95.9	90453	
64 Perfluorononanoic acid										
463.00 > 419.00	4.284	4.280	0.004	1.000	138738	0.0259	Target=7.58	104	308	
463.00 > 169.00	4.284	4.280	0.004	1.000	17388		7.98(3.79-11.37)	104	245	
65 7:3 FTCA										
441.00 > 337.00	4.386	4.381	0.005	0.992	46395	0.0224	Target=1.21	89.4	391	
441.00 > 317.00	4.386	4.381	0.005	0.992	36039		1.29(0.60-1.81)	89.4	501	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.409	4.404	0.005	1.131	7065751	1.27		101	107469	
67 8:2 FTUCA										
456.86 > 392.90	4.409	4.404	0.005	1.000	142669	0.0259	Target=35.28	104	4337	
456.86 > 343.00	4.416	4.404	0.012	1.002	3839		37.16(17.64-52.92)	104	179	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.423	4.419	0.004	1.134	336859	1.32		106	7054	
69 8:2 FTCA										
477.00 > 393.10	4.423	4.420	0.003	1.000	6859	0.0220	Target=3.24	88.0	318	M
477.00 > 63.20	4.423	4.420	0.003	1.000	1521		4.51(1.62-4.86)	88.0	89.0	M
70 9CIFOS										
531.00 > 351.00	4.473	4.469	0.004	1.048	102803	0.0221		94.7	2029	
D 71 13C8 FOSA										
506.00 > 78.00	4.559	4.561	-0.002	1.169	4361031	1.25		100	75253	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.559	4.561	-0.002	1.000	91437	0.0261		104	1940	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.615	4.610	0.005	1.081	45587	0.0236	Target=3.28	98.3	477	
549.00 > 99.00	4.615	4.610	0.005	1.081	15376		2.96(1.64-4.92)	98.3	216	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.644	4.636	0.008	1.000	167321	0.0280	Target=9.70	112	1217	
513.00 > 169.00	4.644	4.636	0.008	1.000	17933		9.33(4.85-14.54)	112	268	
D 74 13C2 PFDA										
515.00 > 470.00	4.644	4.637	0.007	1.191	7299378	1.30		104	87909	
77 8:2 FTS										
527.00 > 507.00	4.644	4.639	0.005	1.000	83112	0.0243	Target=2.33	102	3713	
527.00 > 79.96	4.654	4.639	0.015	1.002	33509		2.48(1.17-3.50)	102	267	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.644	4.640	0.004	1.191	2617868	1.40		117	39475	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.804	4.798	0.006	1.232	3192372	1.34		107	31512	
79 NMeFOSAA										
570.00 > 419.00	4.813	4.806	0.007	1.002	52677	0.0279	Target=0.83	112	646	
570.00 > 483.00	4.813	4.806	0.007	1.002	53628		0.98(0.42-1.25)	112	1567	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.938	4.928	0.010	1.156	37702	0.0223	Target=3.22	92.4	904	
599.00 > 99.00	4.938	4.928	0.010	1.156	10711		3.52(1.61-4.83)	92.4	311	
D 82 13C2 PFUnA										
565.00 > 520.00	4.966	4.958	0.008	1.273	6987862	1.29		103	92419	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.966	4.959	0.007	1.000	126281	0.0245	Target=9.27	98.1	831	
563.00 > 169.00	4.966	4.959	0.007	1.000	12040		10.49(4.63-13.90)	98.1	282	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.966	4.963	0.003	1.273	3347575	1.41		113	25780	
84 NEtFOSAA										
584.00 > 419.00	4.975	4.970	0.005	1.002	44392	0.0231	Target=0.77	92.5	1806	
584.00 > 526.10	4.975	4.970	0.005	1.002	61765		0.72(0.39-1.16)	92.5	734	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.985	4.991	-0.006	1.278	1717598	1.21		96.6	7478	
86 N-MeFOSE-M										
616.00 > 59.00	5.004	5.002	0.002	1.004	35734	0.0246		98.4	316	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.014	5.012	0.002	1.285	1311777	1.26		100	356	
90 NMeFOSA										
512.00 > 169.00	5.023	5.018	0.005	1.002	25501	0.0240	Target=1.61	95.9	445	
512.00 > 218.99	5.023	5.018	0.005	1.002	17904		1.42(0.80-2.41)	95.9	394	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.086	5.080	0.006	1.304	8962809	1.37		109	323366	
89 10:2 FTUCA										
556.86 > 492.90	5.086	5.080	0.006	0.998	136569	0.0235		94.0	3085	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.096	5.091	0.005	1.307	258051	1.35		108	3434	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.096	5.093	0.003	1.002	5027	0.0247	Target=2.56	98.7	225	
576.80 > 63.10	5.086	5.093	-0.007	1.000	2435		2.06(1.28-3.83)	98.7	116	
93 11CIFOS										
631.00 > 451.00	5.106	5.094	0.012	1.196	130611	0.0235		99.9	4808	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.158	-0.003	1.322	1881007	1.19		95.0	8554	
95 N-EtFOSE-M										
630.00 > 59.00	5.173	5.171	0.002	1.003	47813	0.0271		108	429	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.184	-0.003	1.328	1229937	1.20		95.9	3116	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	26095	0.0256	Target=1.61	102	383	
526.00 > 218.99	5.190	5.190	0.0	1.002	14720		1.77(0.80-2.41)	102	275	
D 97 13C2 PFDaA										
615.00 > 570.00	5.251	5.246	0.005	1.346	8256018	1.40		112	133354	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.251	5.246	0.005	1.000	173837	0.0237	Target=7.93	94.8	1008	
613.00 > 169.00	5.251	5.246	0.005	1.000	23814		7.30(3.97-11.90)	94.8	653	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.268	5.263	0.005	1.351	2130083	1.42		118	79356	
101 10:2 FTS										
627.00 > 607.00	5.277	5.271	0.006	1.002	69625	0.0260	Target=1.46	108	3282	
627.00 > 79.96	5.277	5.271	0.006	1.002	48467		1.44(0.73-2.19)	108	601	
102 PFDoS										
699.00 > 80.00	5.485	5.477	0.008	1.285	11337	0.0236	Target=0.54	97.6	237	
699.00 > 99.00	5.485	5.477	0.008	1.285	22315		0.51(0.27-0.81)	97.6	582	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.527	5.513	0.014	1.053	148732	0.0243	Target=5.84	97.1	486	
663.00 > 169.00	5.527	5.513	0.014	1.053	24424		6.09(2.92-8.75)	97.1	629	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.767	5.760	0.007	1.479	7123151	1.32		105	119868	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.774	5.761	0.013	1.001	18072	0.0258	Target=1.07	103	641	
713.00 > 219.00	5.767	5.761	0.006	1.000	15332		1.18(0.53-1.60)	103	658	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.240	6.223	0.017	1.600	5547657	1.34		107	35156	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.240	6.224	0.016	1.000	151172	0.0238	Target=7.49	95.1	367	
813.00 > 169.00	6.240	6.224	0.016	1.000	19021		7.95(3.75-11.24)	95.1	582	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.739	6.715	0.024	1.080	66666	0.0247	Target=9.70	99.0	242	
913.00 > 169.00	6.739	6.715	0.024	1.080	6978		9.55(4.85-14.55)	99.0	259	

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

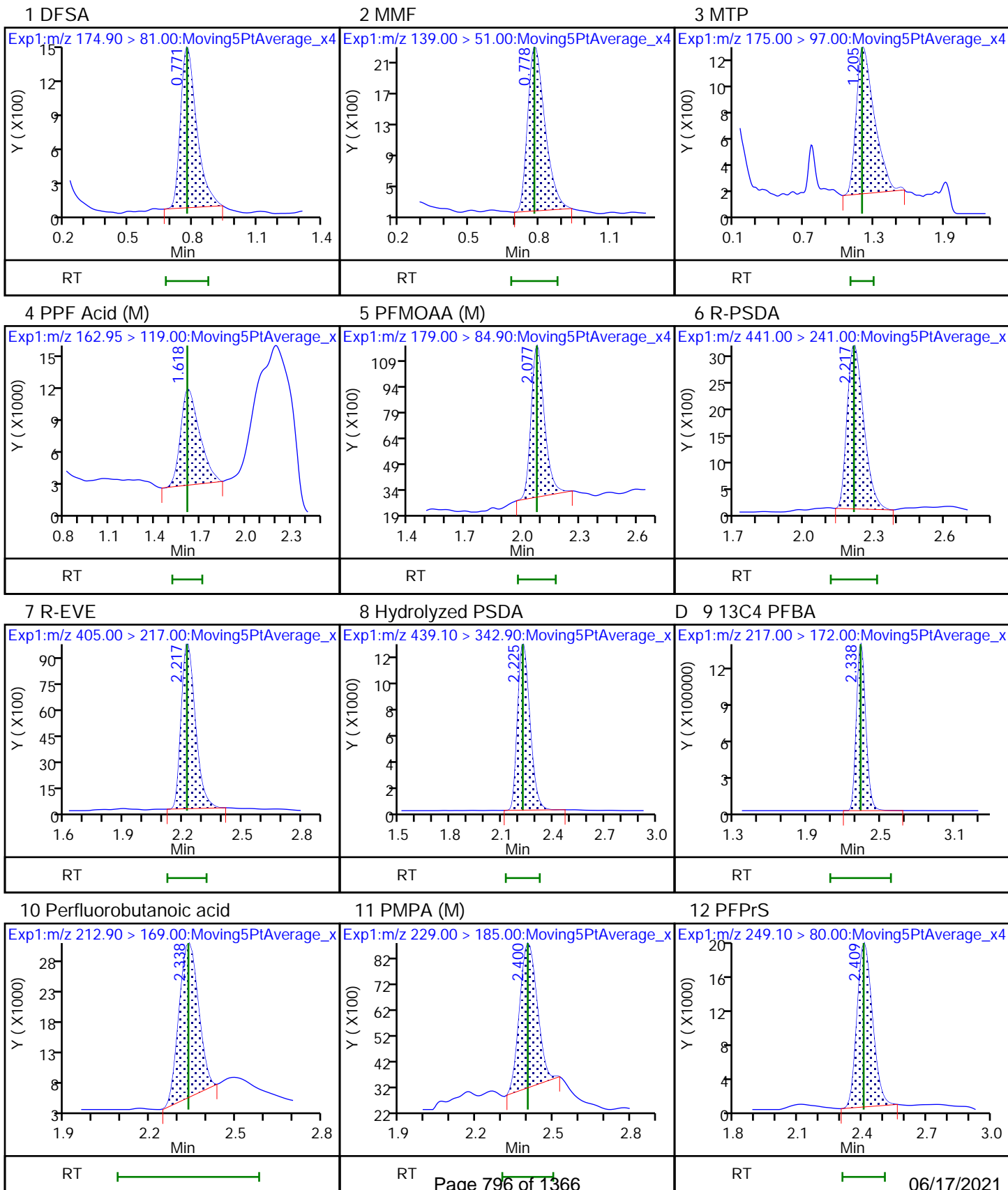
a - User Assigned ID

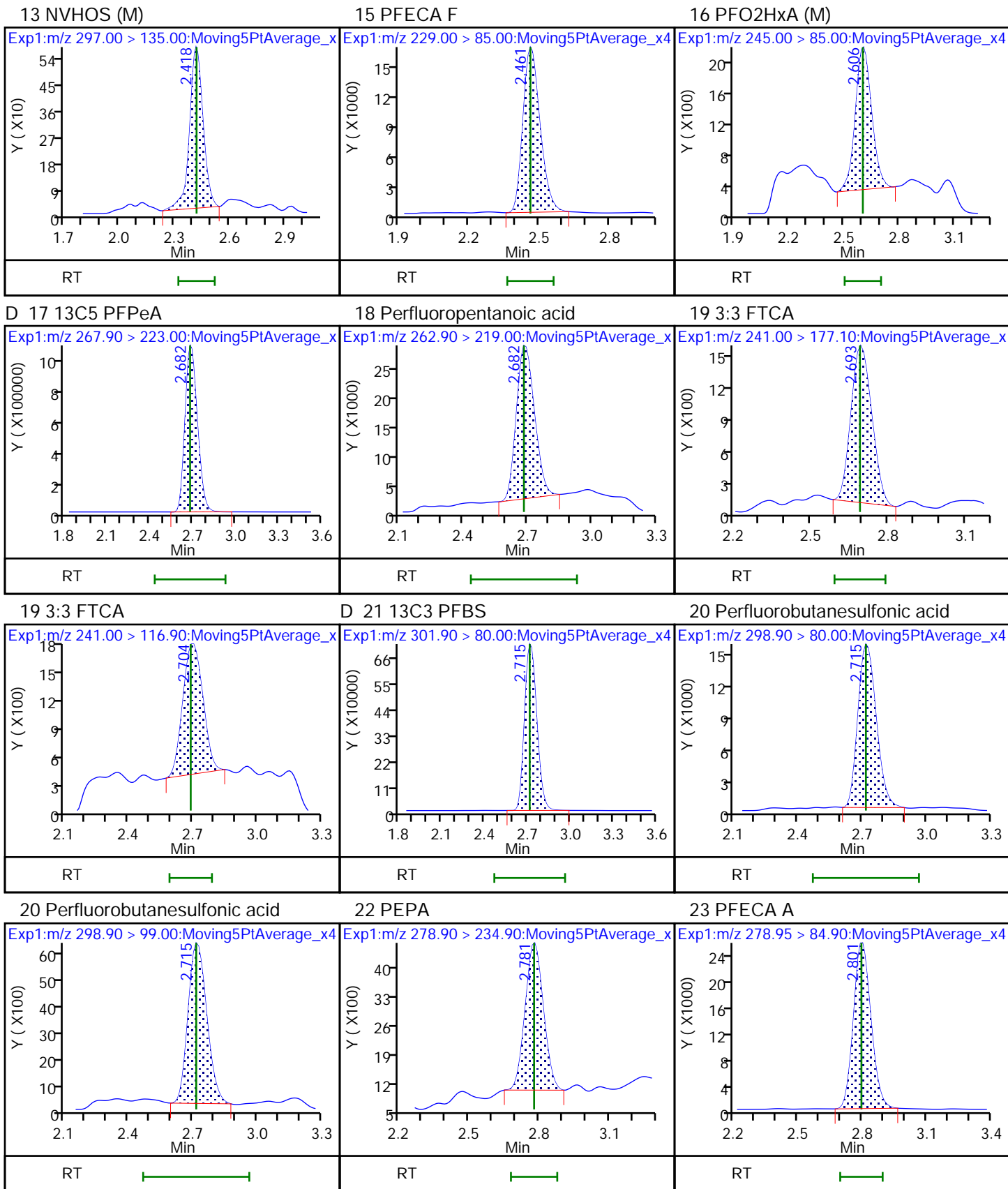
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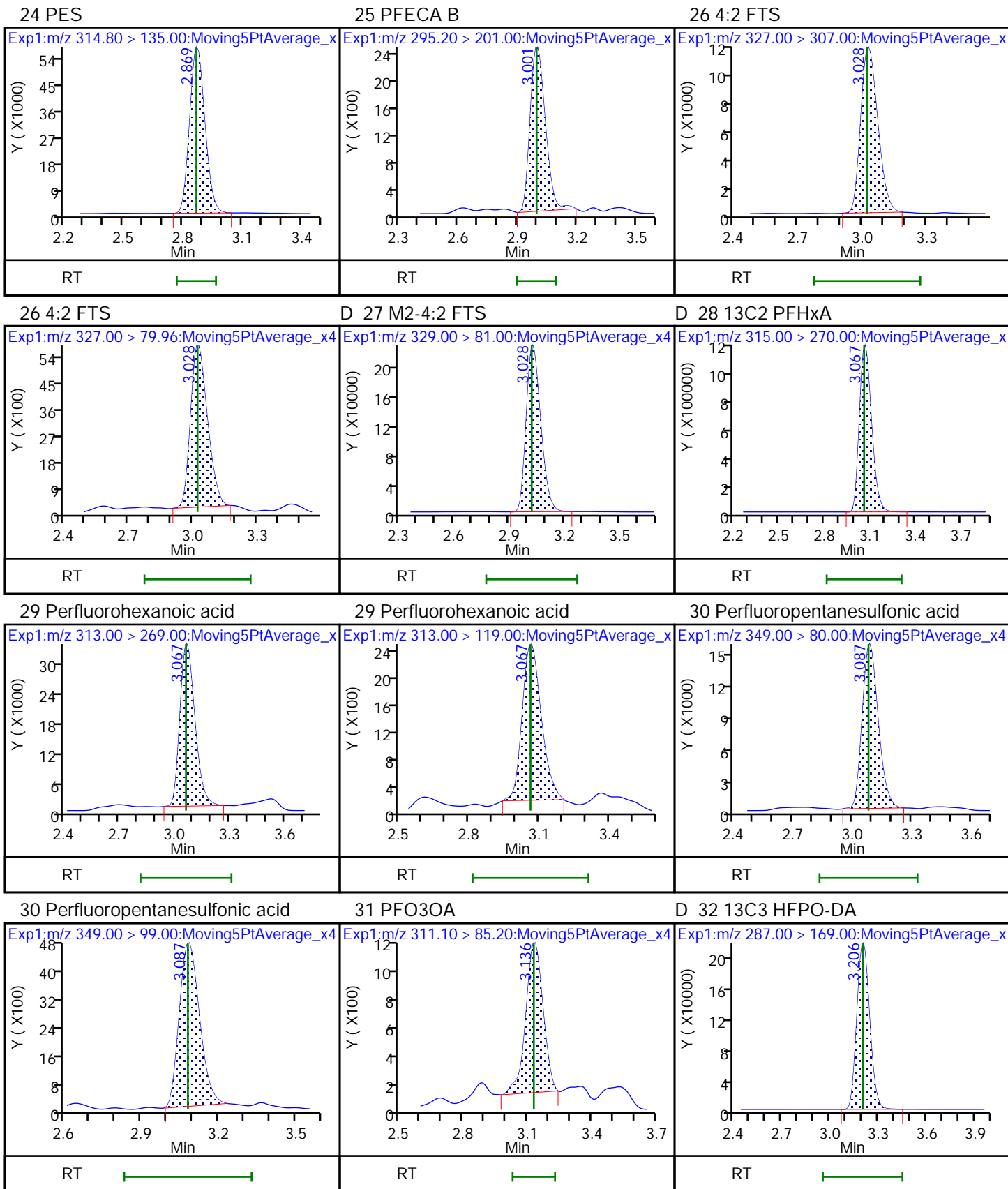
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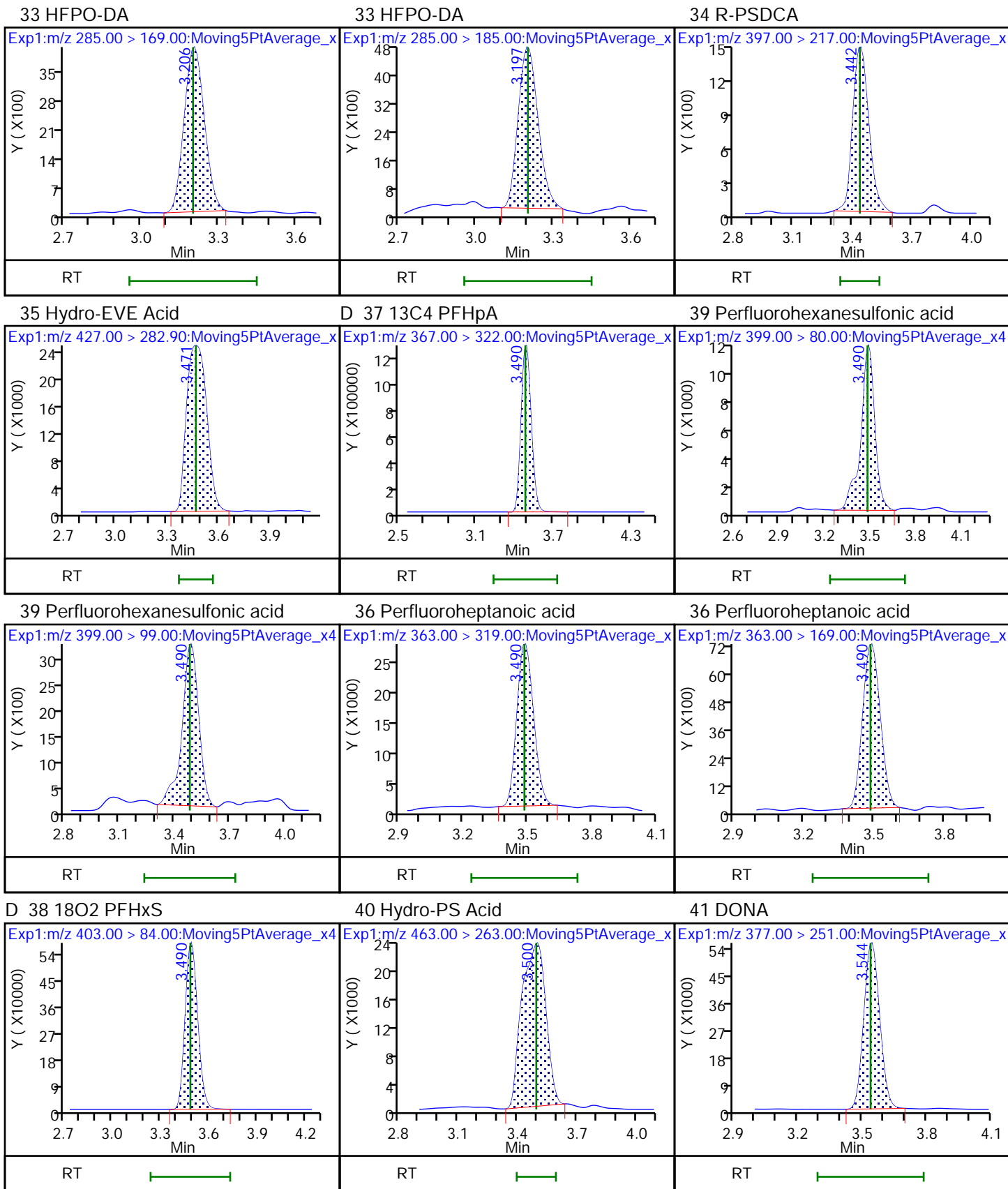
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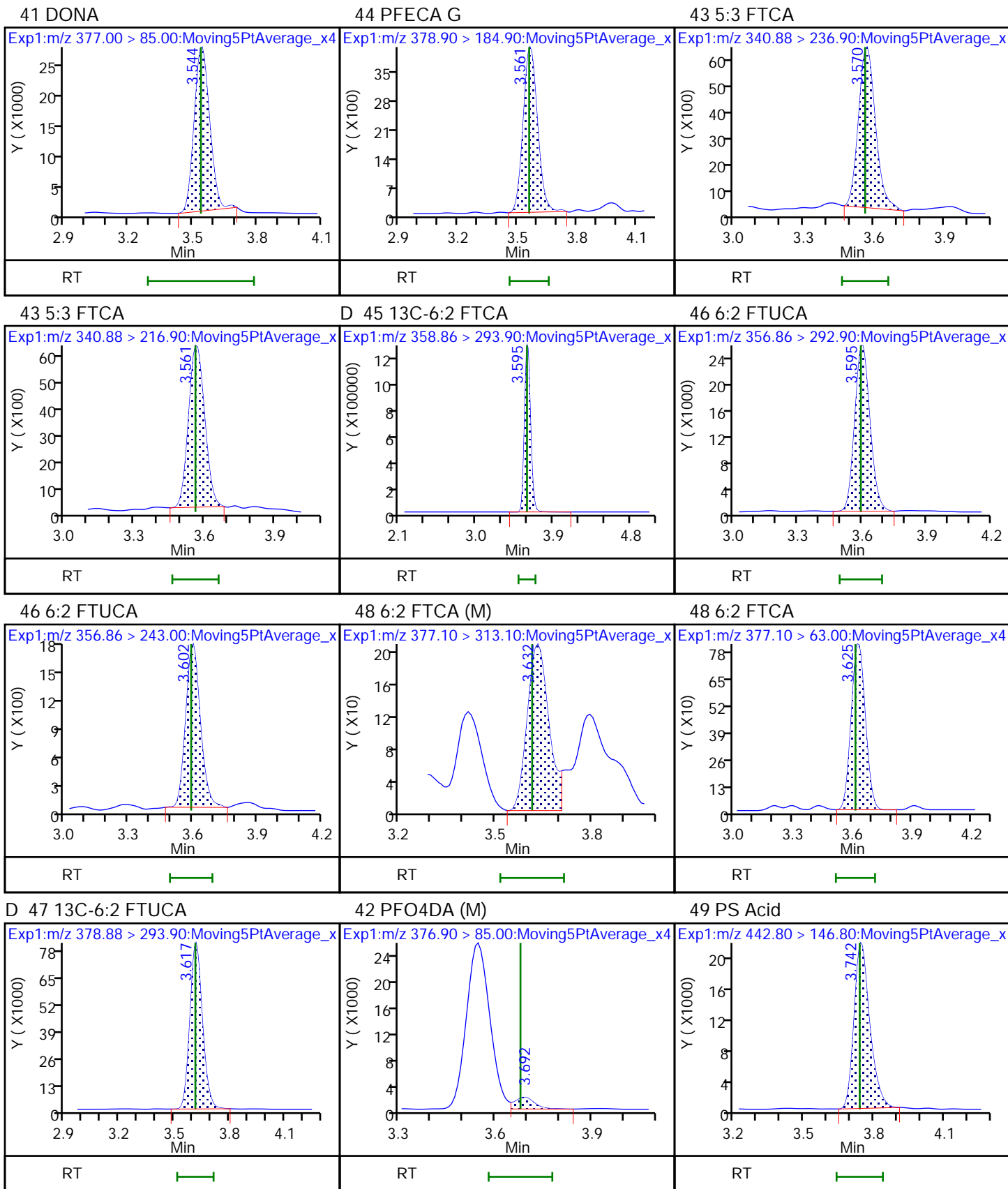
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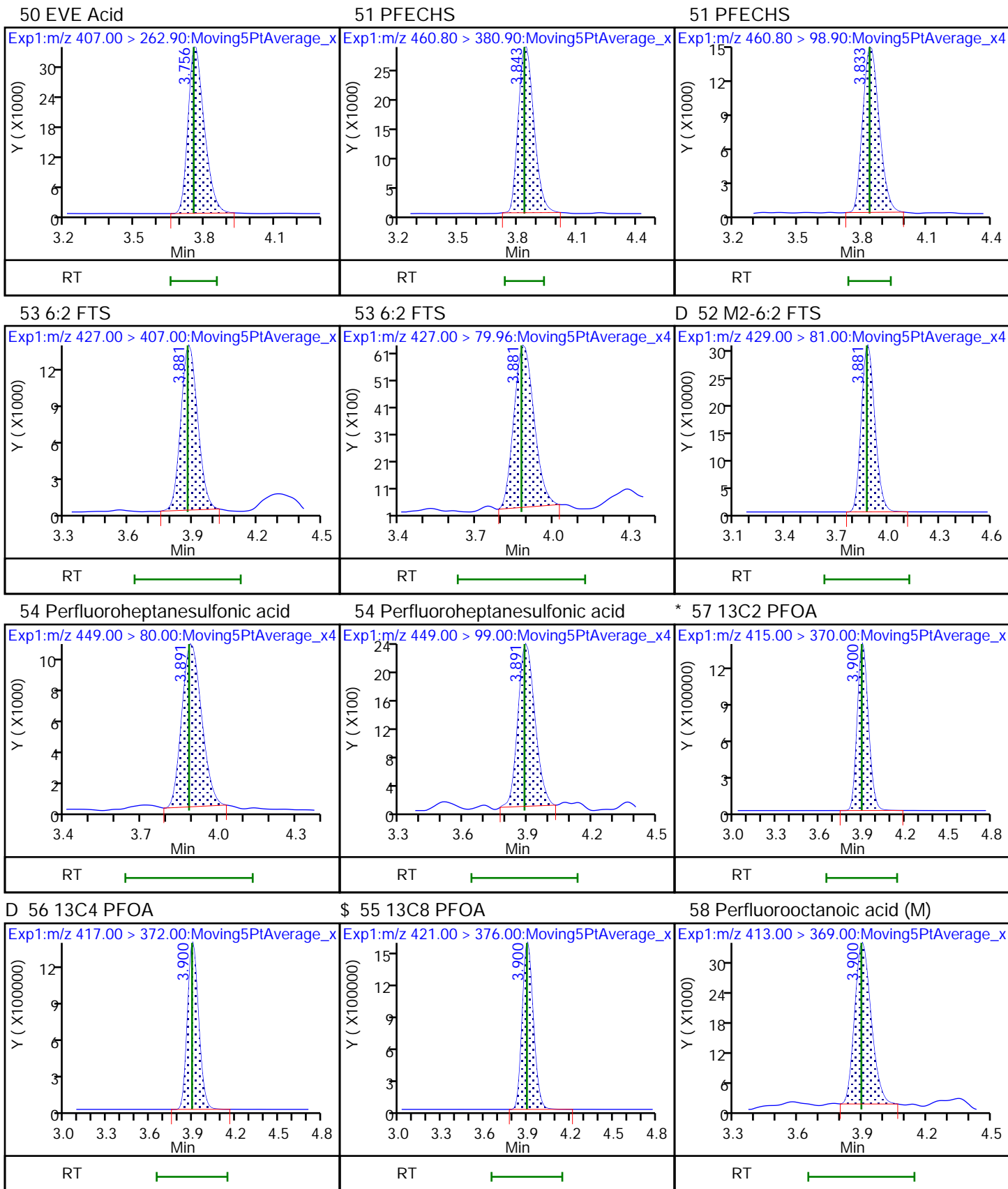




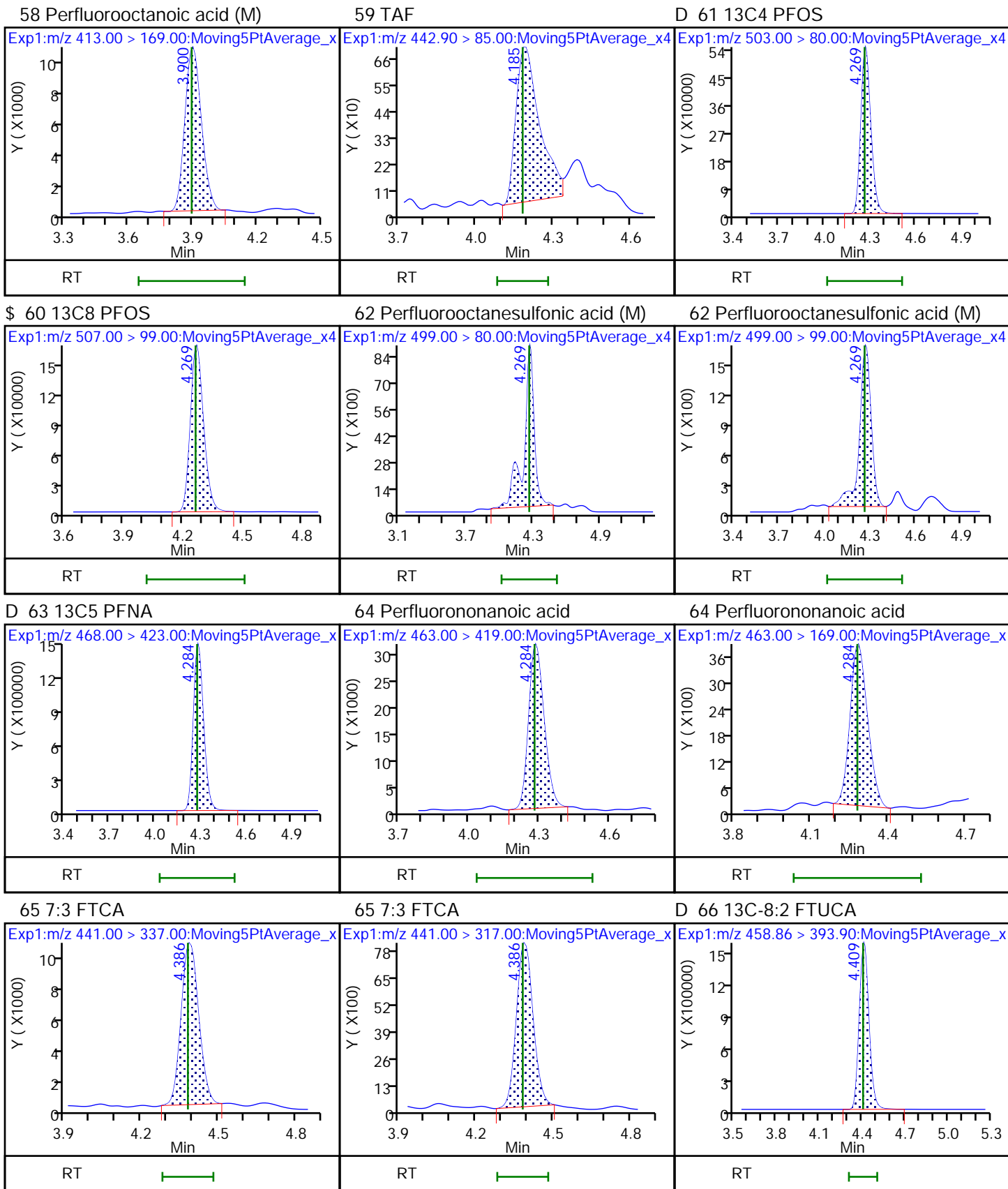


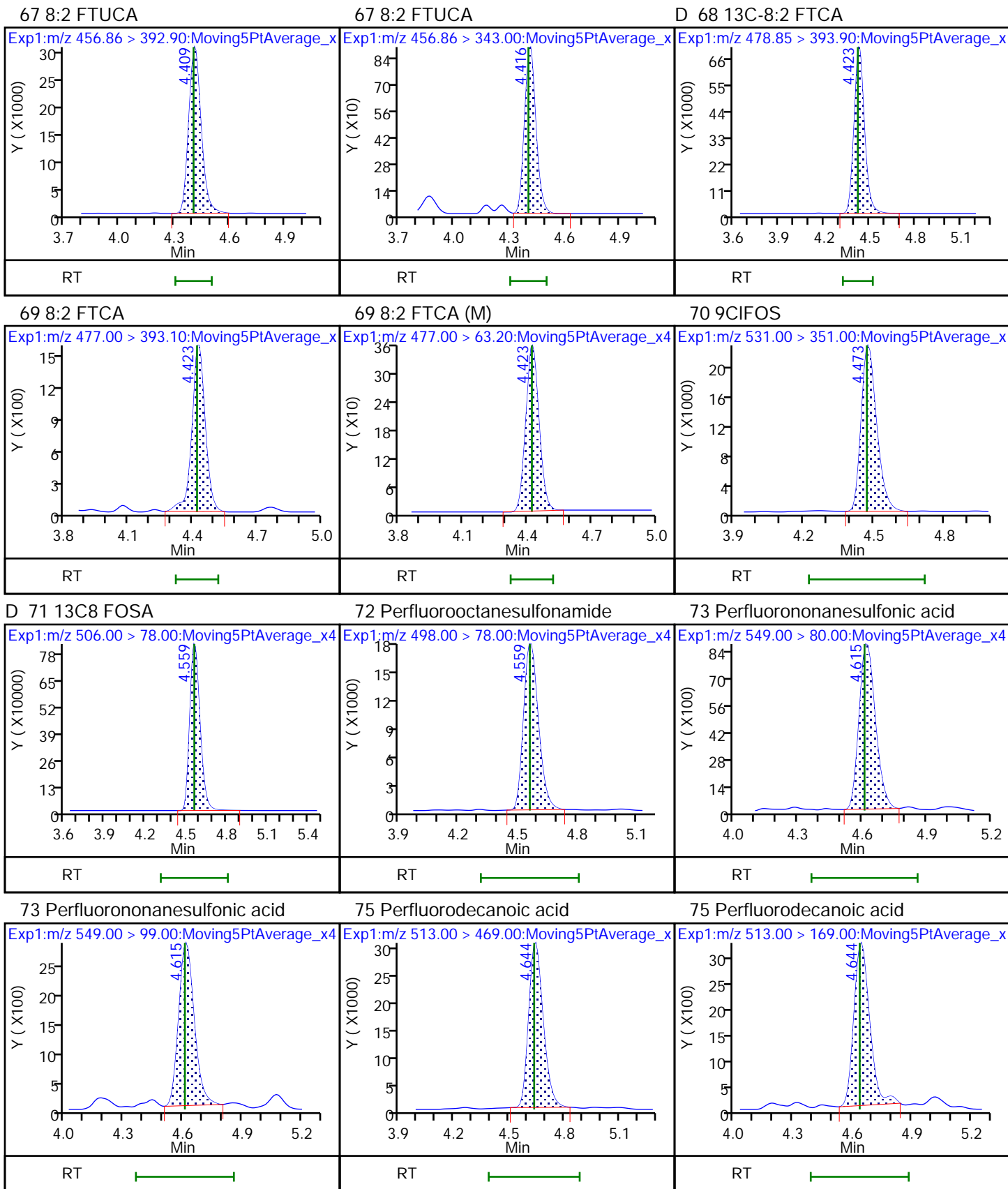








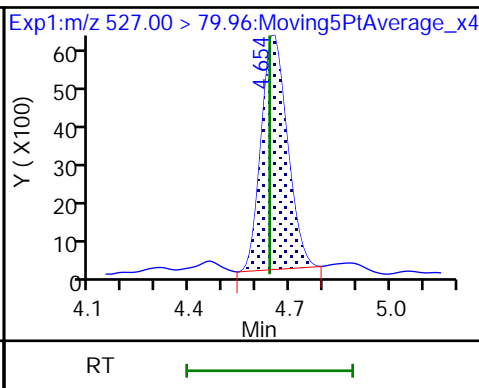
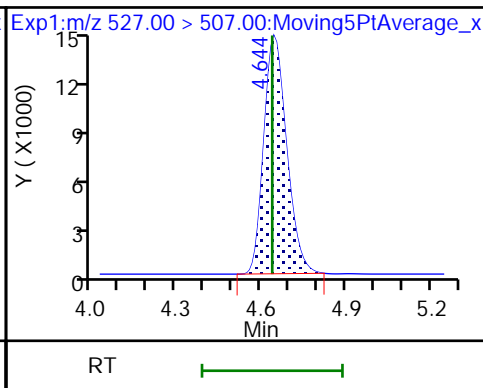
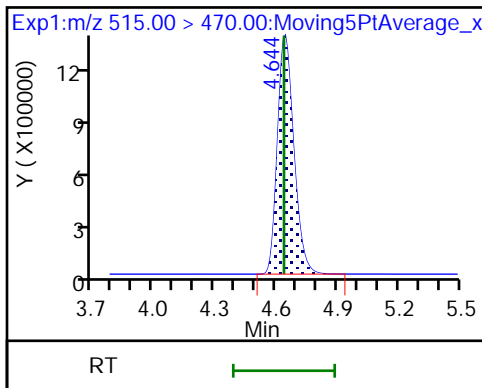




D 74 13C2 PFDA

77 8:2 FTS

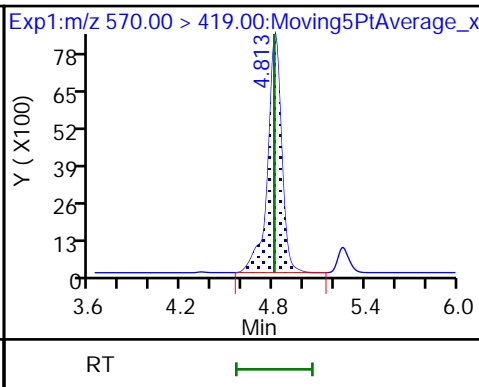
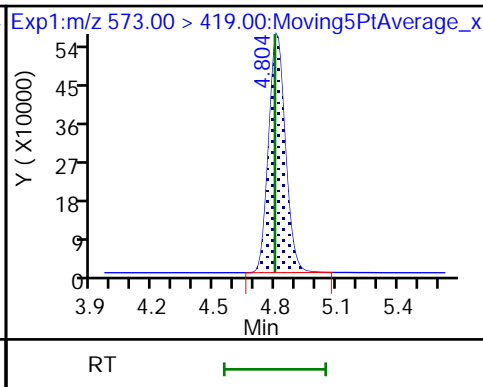
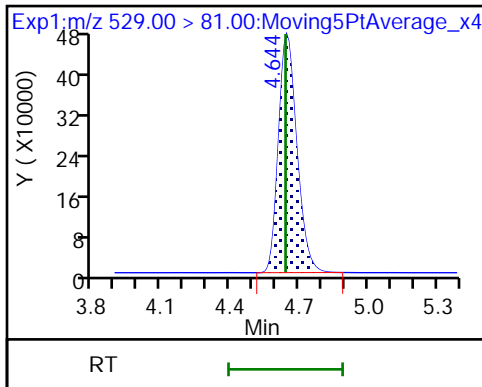
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

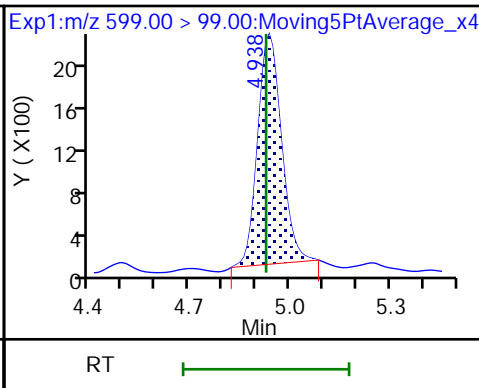
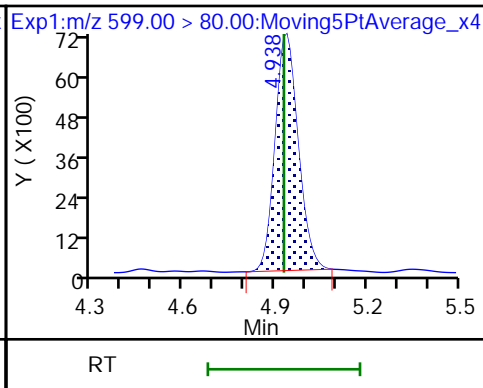
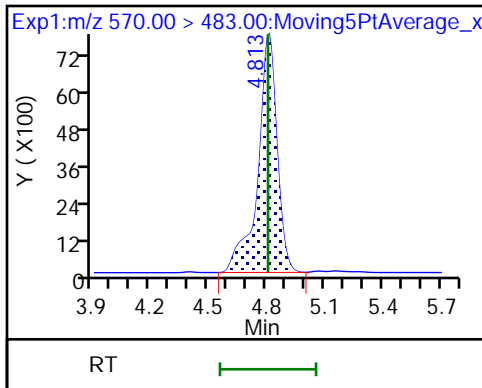
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

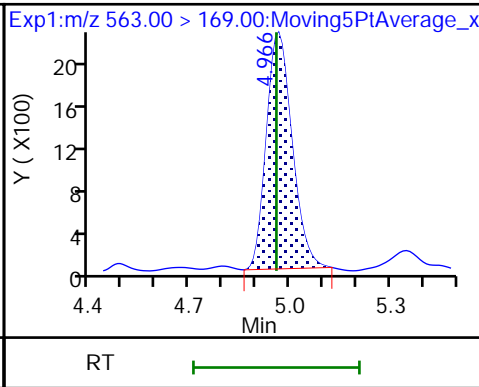
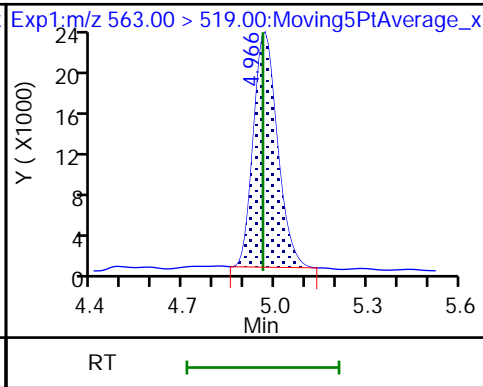
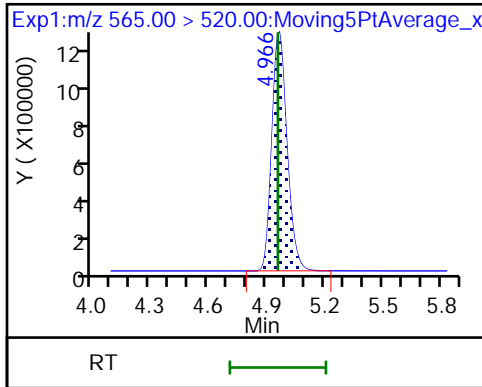
80 Perfluorodecanesulfonic acid



D 82 13C2 PUnA

81 Perfluoroundecanoic acid

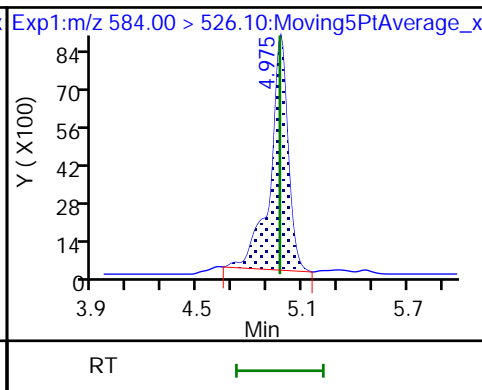
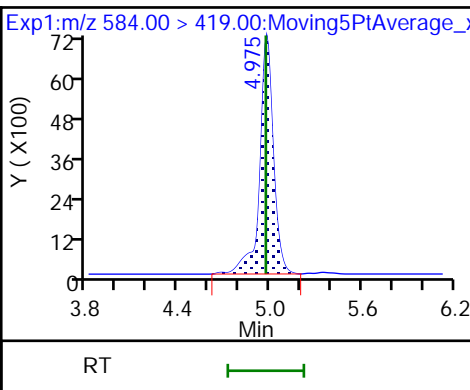
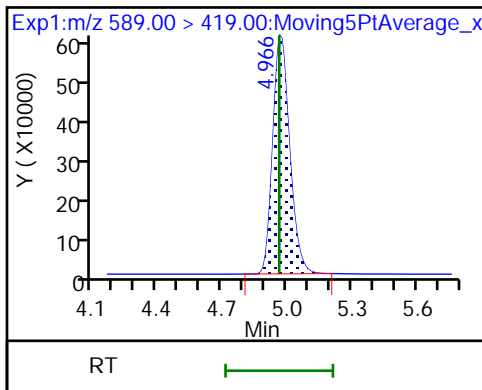
81 Perfluoroundecanoic acid



D 83 d5-NEtFOSAA

84 NEtFOSAA

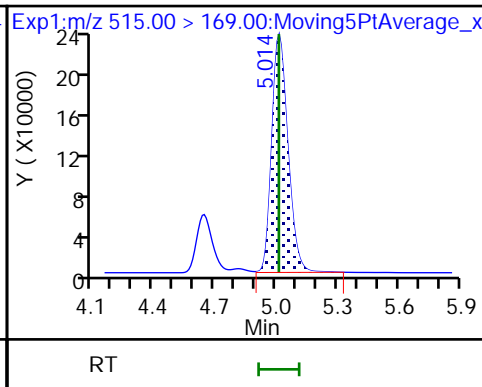
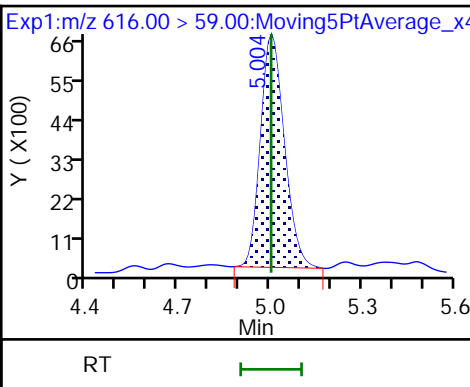
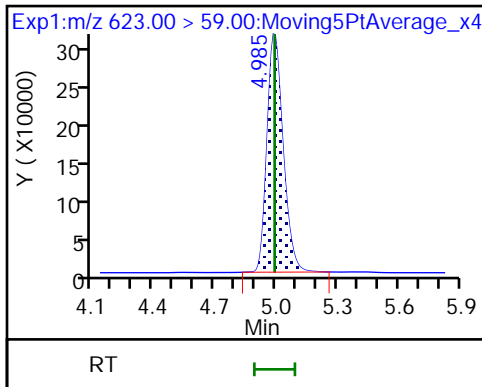
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

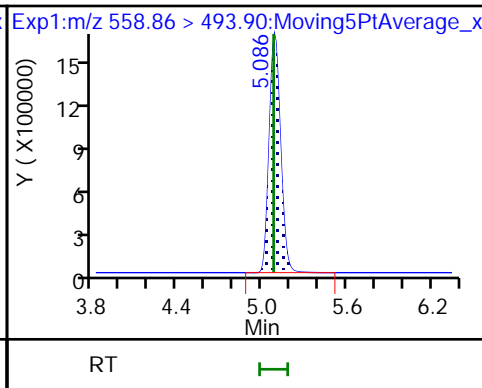
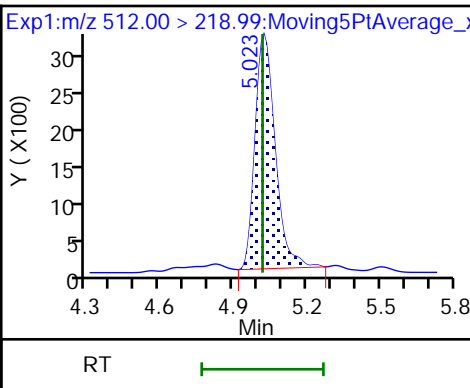
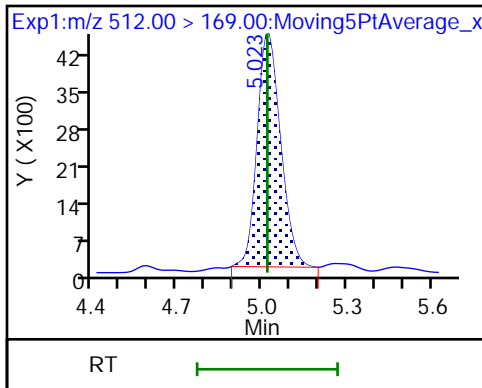
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

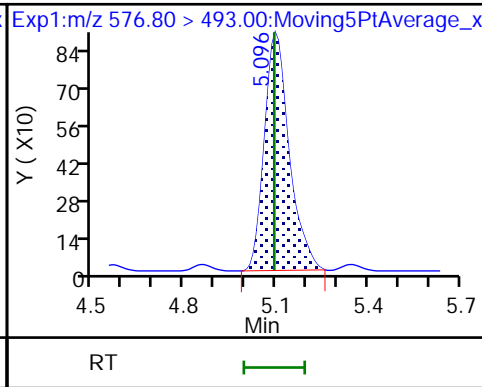
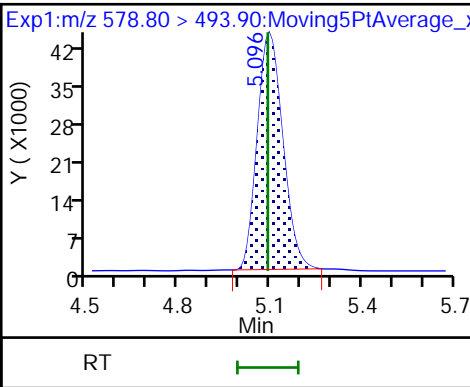
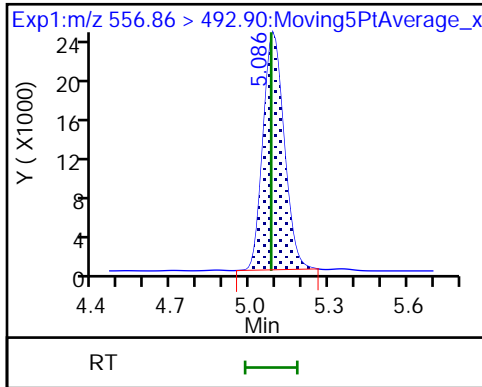
D 88 13C-10:2 FTCA

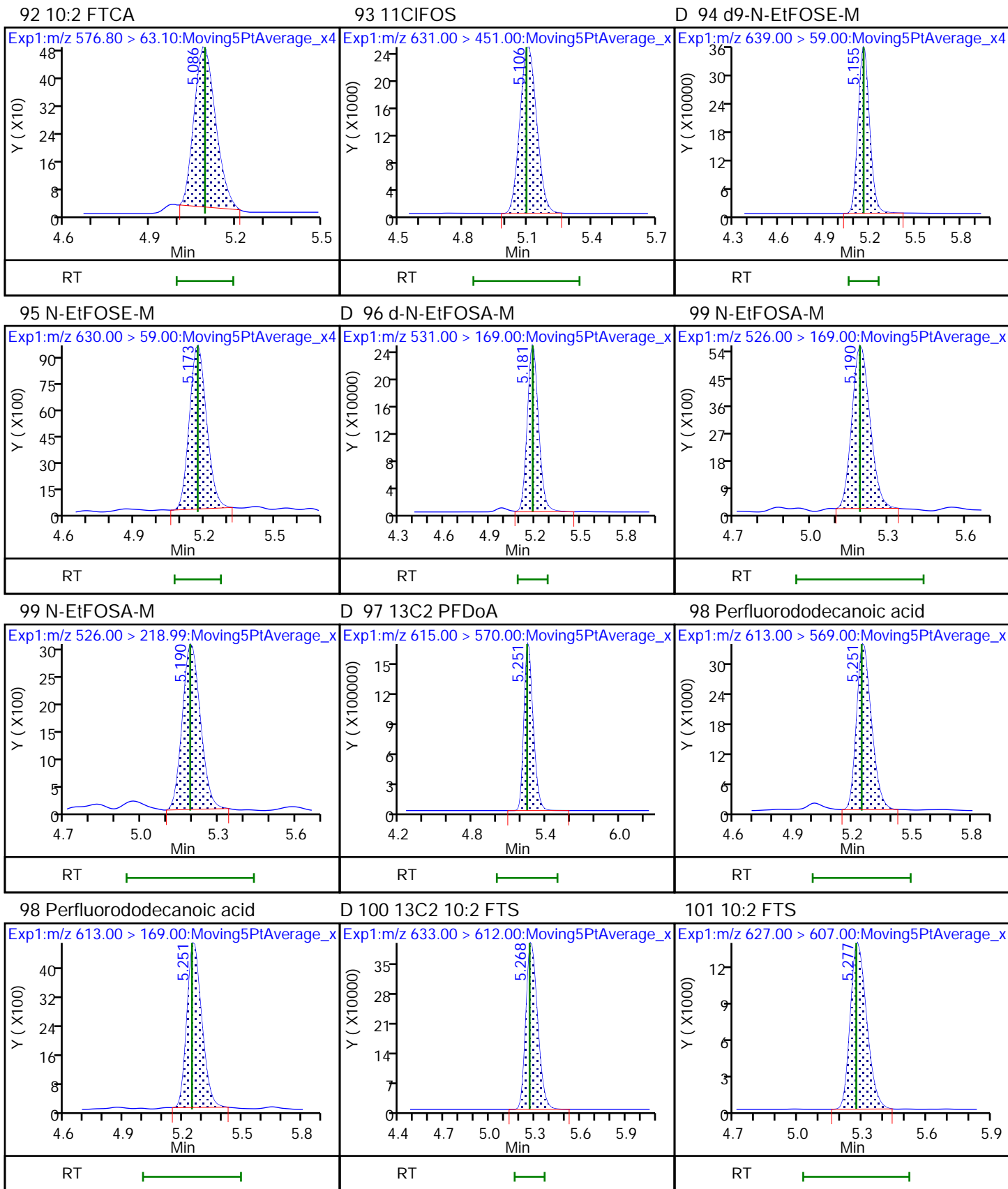


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

92 10:2 FTCA

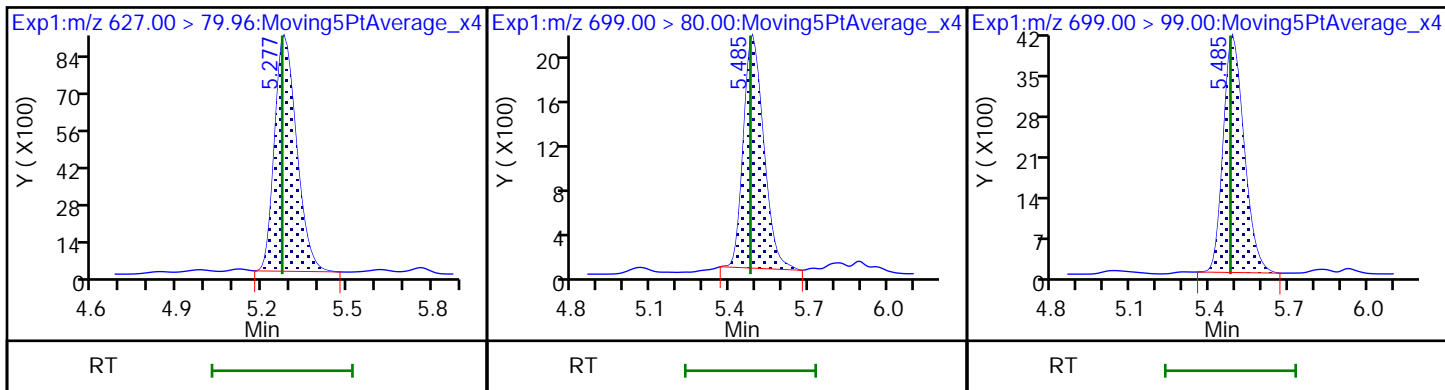




101 10:2 FTS

102 PFDoS

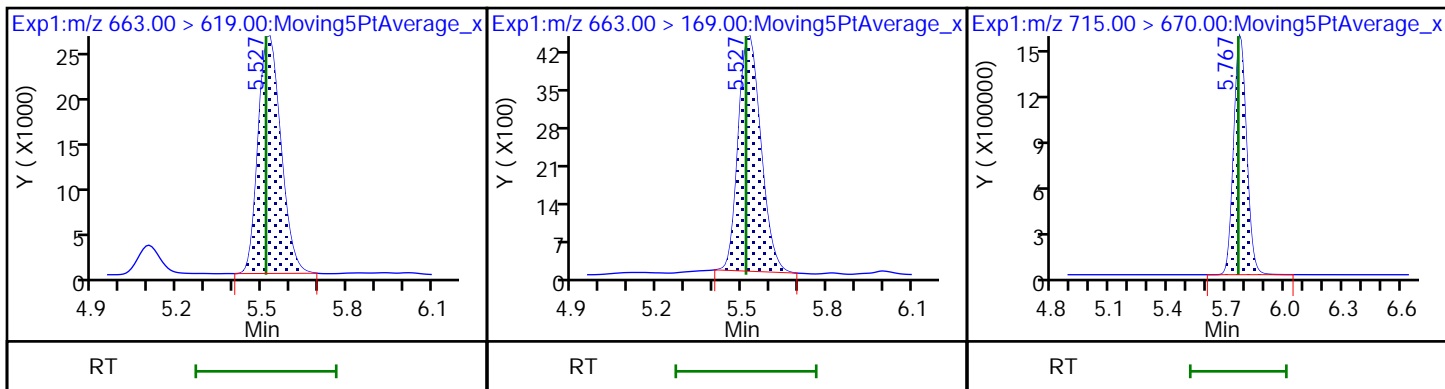
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

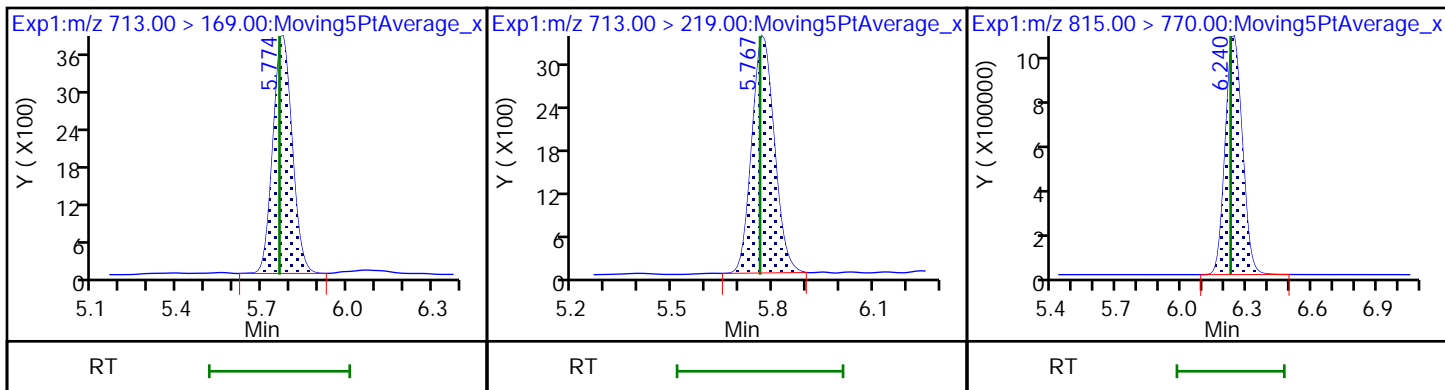
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

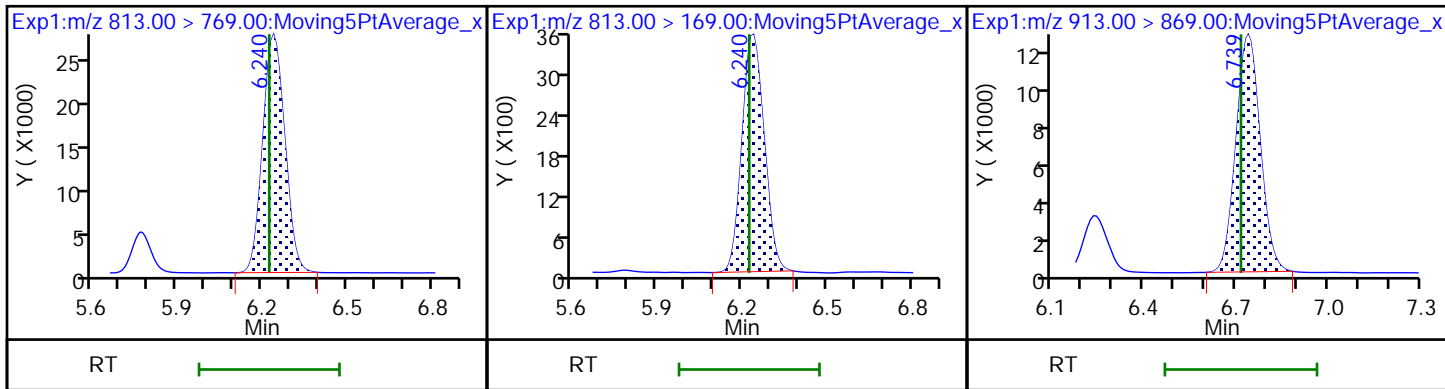
D 106 13C2 PFHxDA



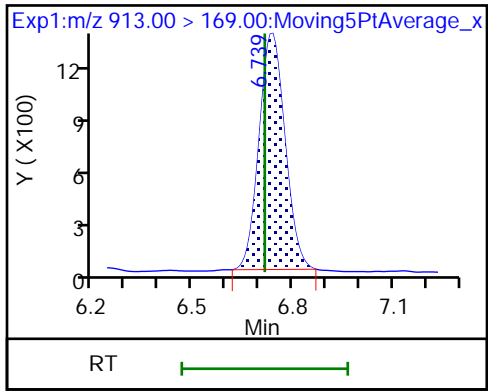
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

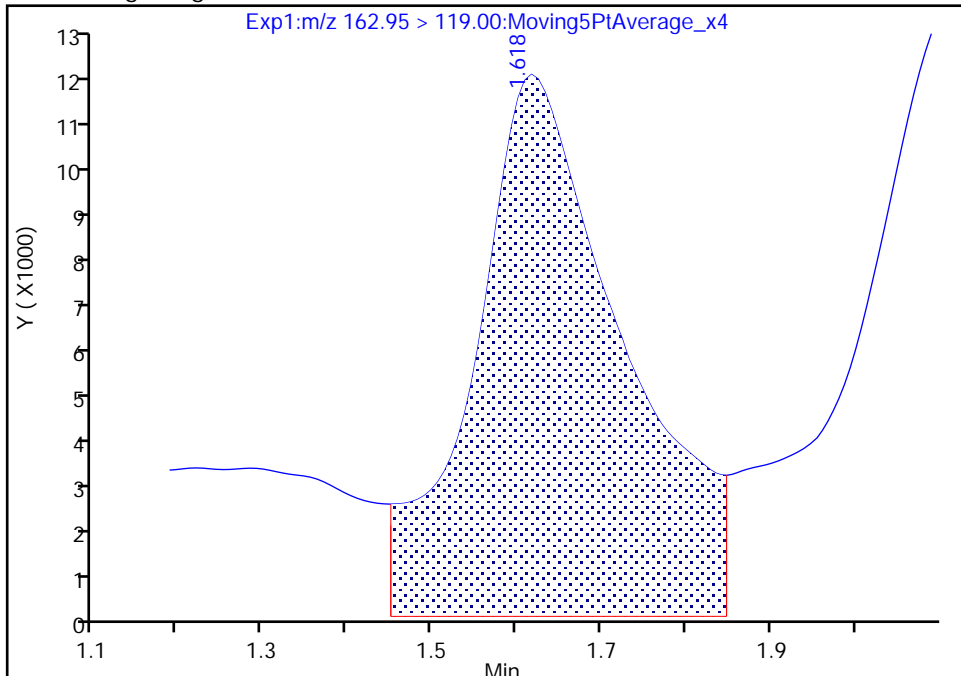
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
 Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
 Lims ID: IC L1  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

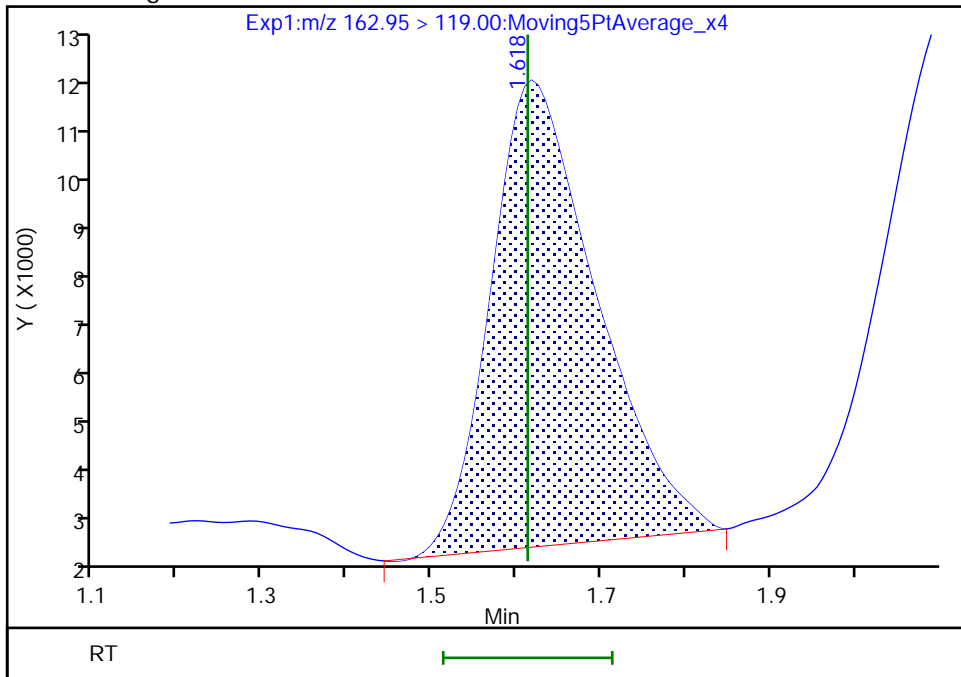
RT: 1.62  
 Area: 142577  
 Amount: 0.035765  
 Amount Units: ng/ml

Processing Integration Results



RT: 1.62  
 Area: 77659  
 Amount: 0.022284  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:17:54  
 Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

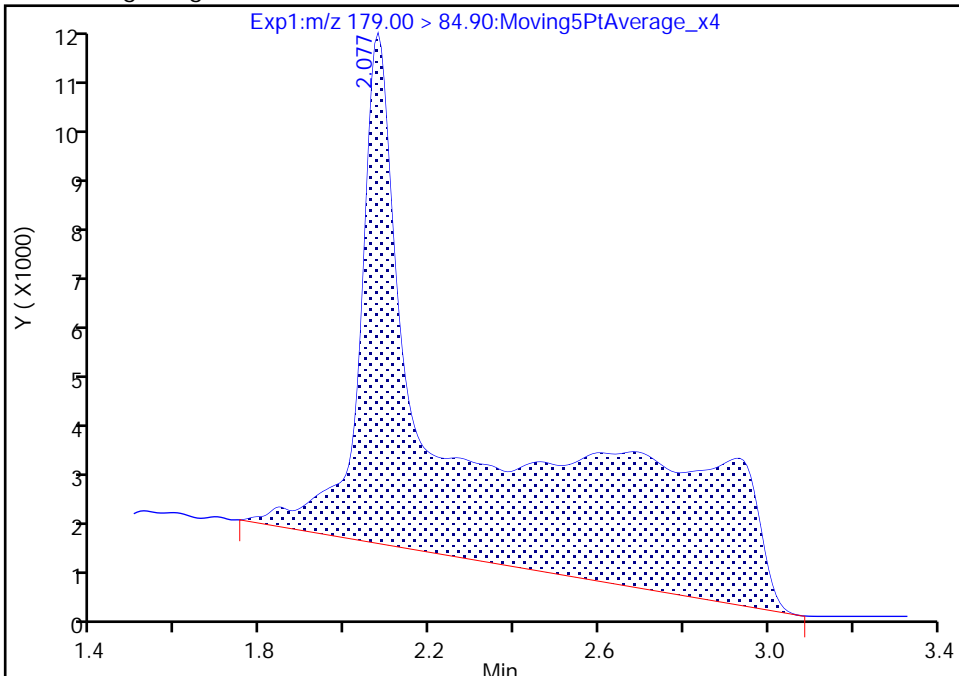
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

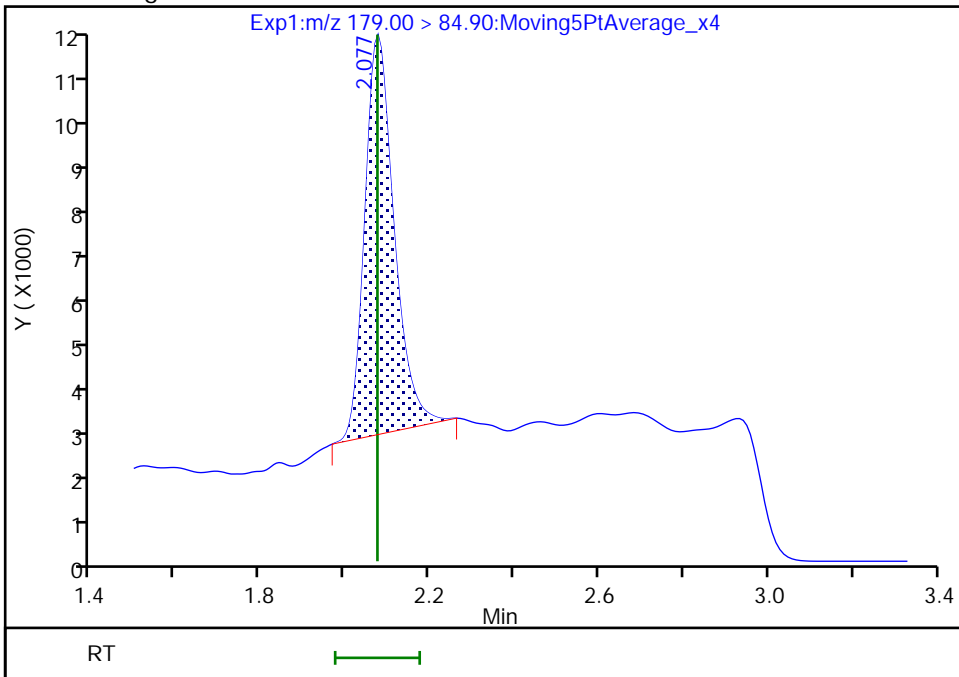
RT: 2.08  
Area: 179729  
Amount: 0.016584  
Amount Units: ng/ml

Processing Integration Results



RT: 2.08  
Area: 42685  
Amount: 0.025097  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:23:31  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

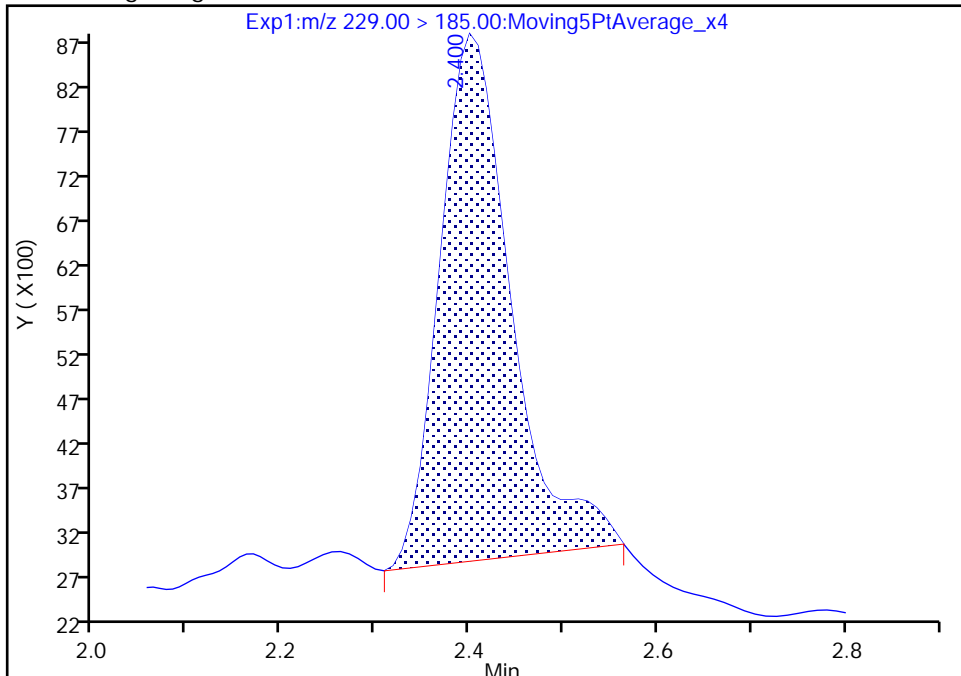
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

11 PMPA, CAS: 13140-29-9

Signal: 1

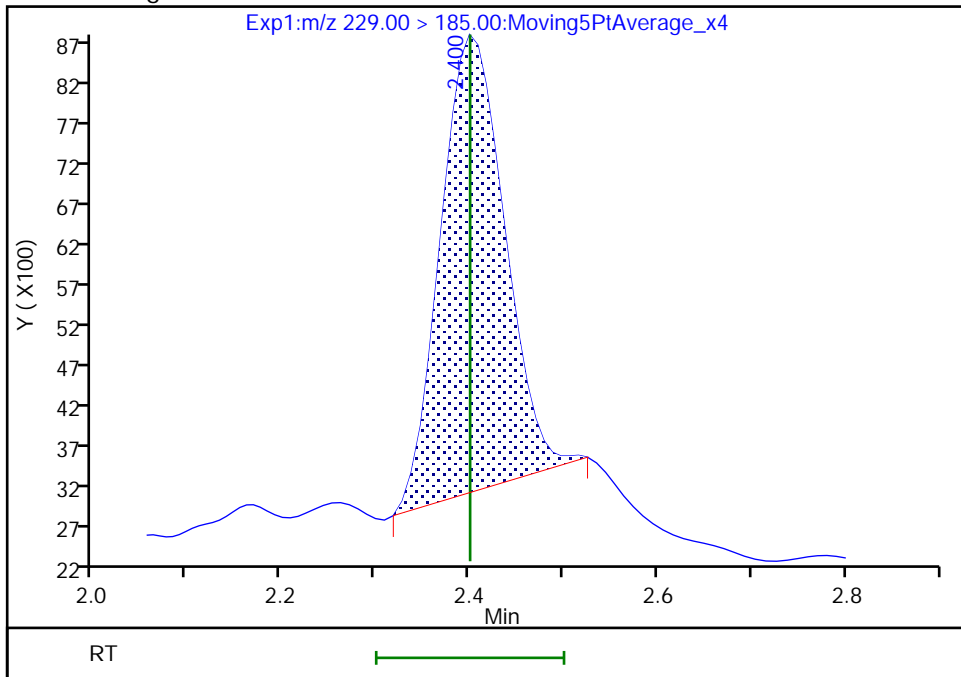
RT: 2.40  
Area: 30946  
Amount: 0.025180  
Amount Units: ng/ml

Processing Integration Results



RT: 2.40  
Area: 26745  
Amount: 0.022195  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:24:11  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

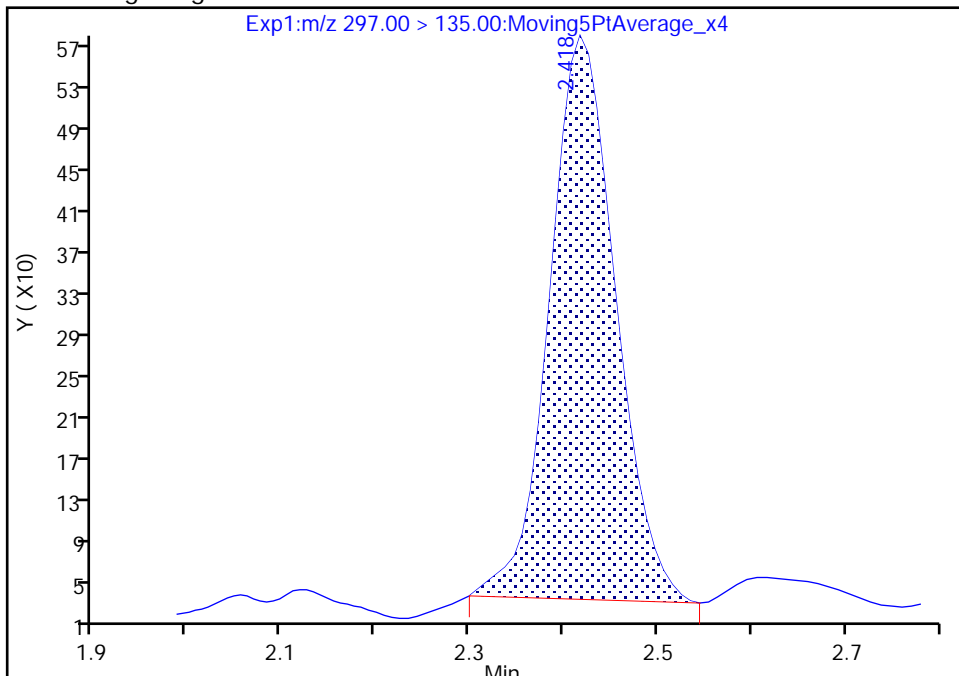
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
 Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
 Lims ID: IC L1  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

13 NVHOS, CAS: 1132933-86-8

Signal: 1

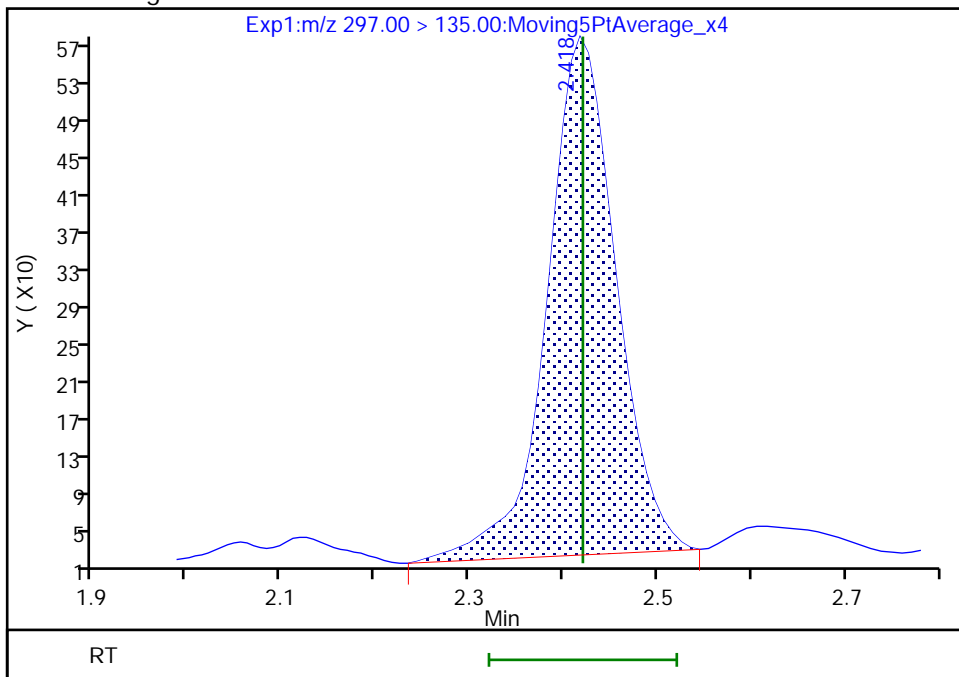
RT: 2.42  
 Area: 2695  
 Amount: 0.026410  
 Amount Units: ng/ml

Processing Integration Results



RT: 2.42  
 Area: 2866  
 Amount: 0.027954  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:24:20  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

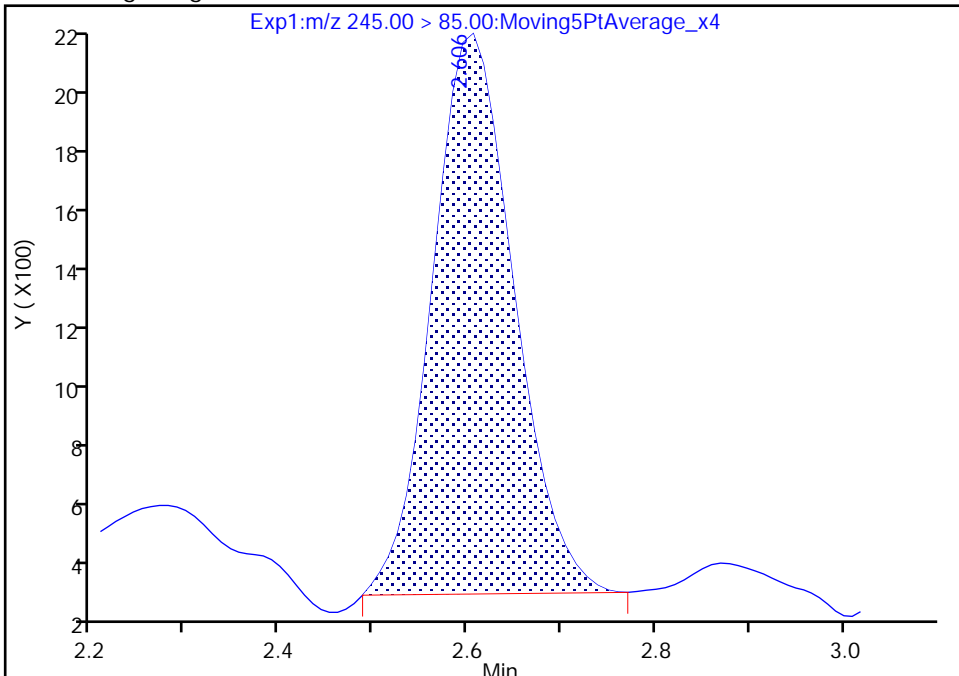
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

16 PFO2HxA, CAS: 39492-88-1

Signal: 1

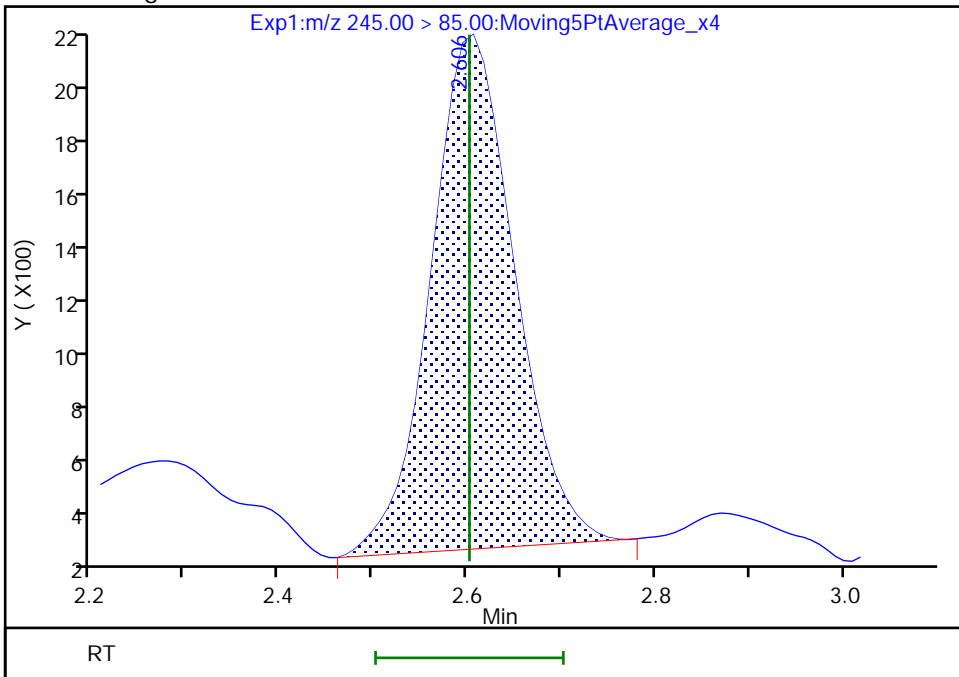
RT: 2.61  
Area: 10884  
Amount: 0.028762  
Amount Units: ng/ml

Processing Integration Results



RT: 2.61  
Area: 11326  
Amount: 0.029732  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:24:01  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

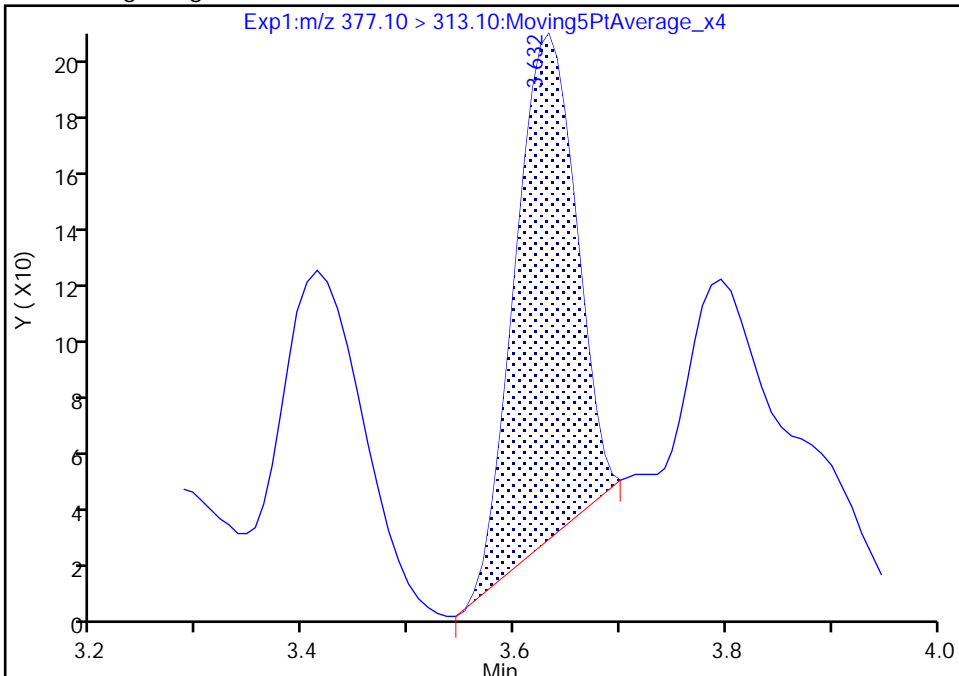
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
 Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
 Lims ID: IC L1  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

48 6:2 FTCA, CAS: 53826-12-3

Signal: 1

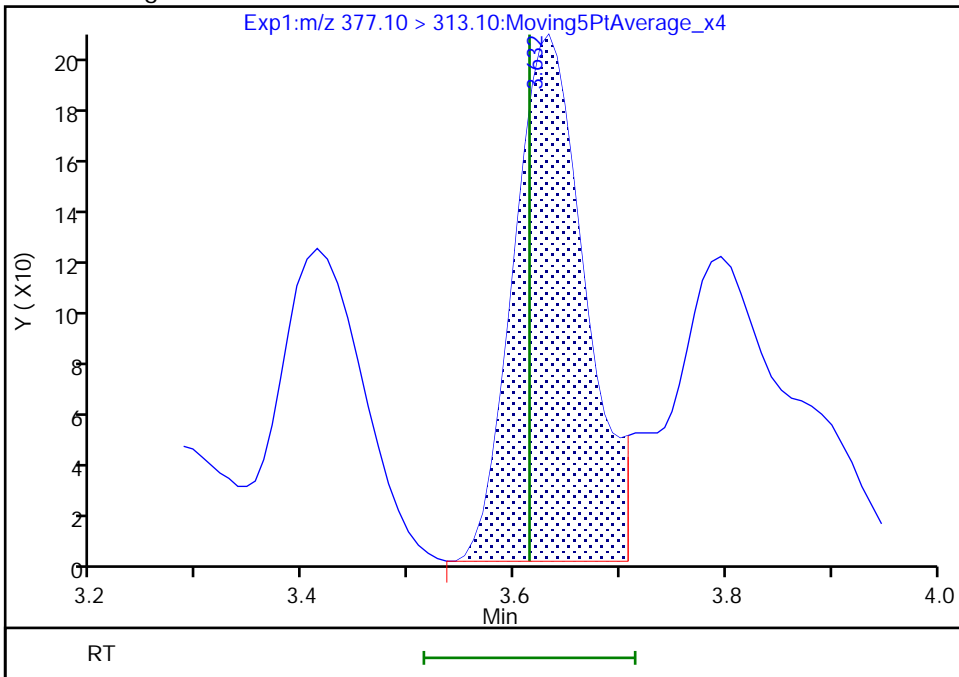
RT: 3.63  
 Area: 687  
 Amount: 0.009763  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.63  
 Area: 922  
 Amount: 0.012031  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:25:17  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

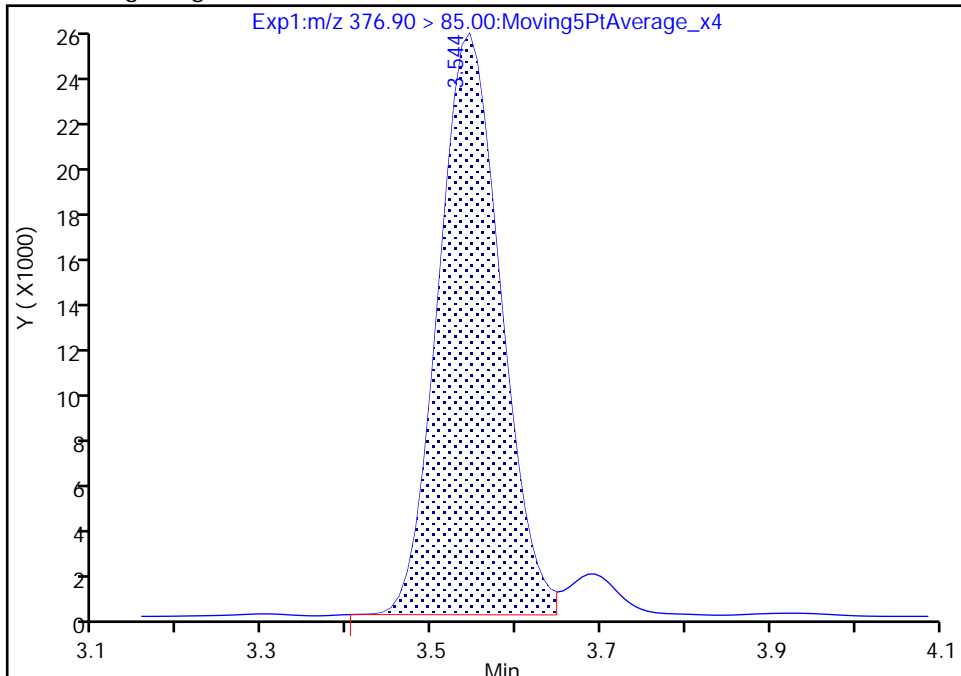
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

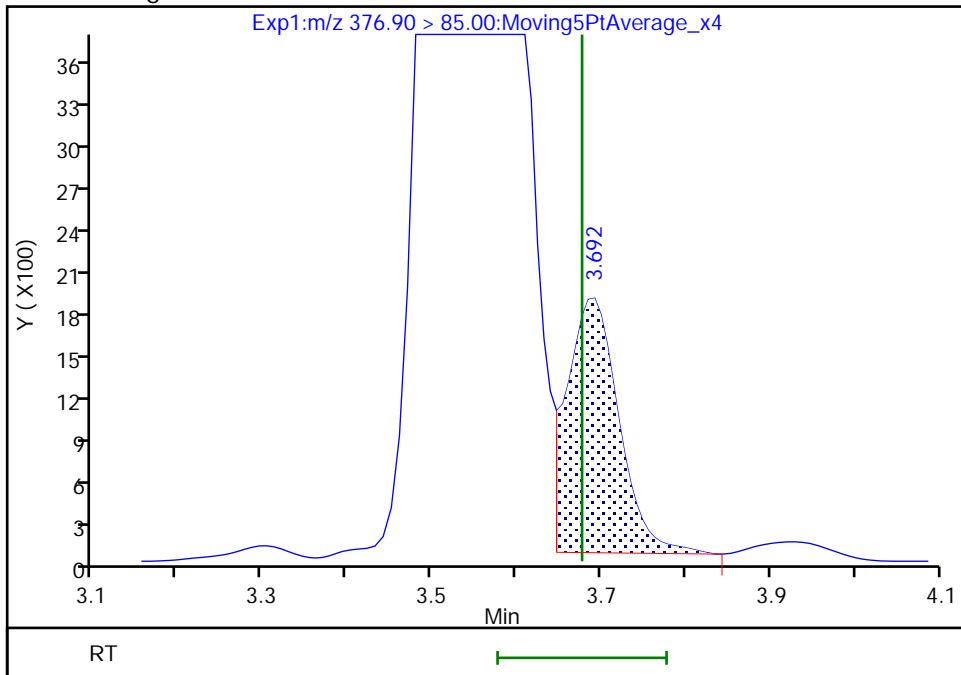
RT: 3.54  
Area: 129893  
Amount: 0.024199  
Amount Units: ng/ml

Processing Integration Results



RT: 3.69  
Area: 7548  
Amount: 0.035909  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:38:13

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

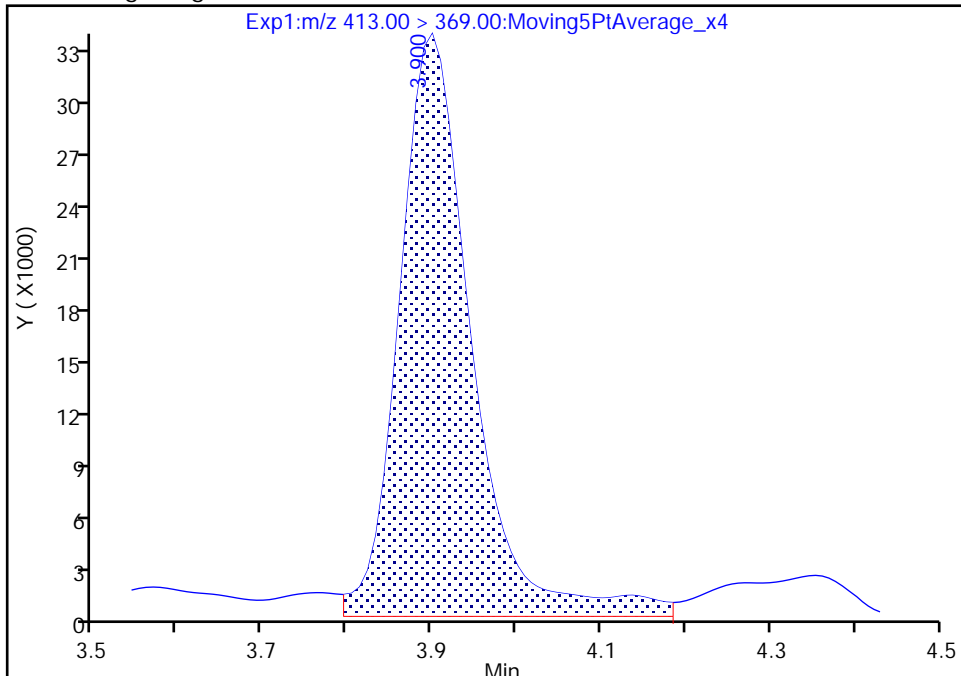
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

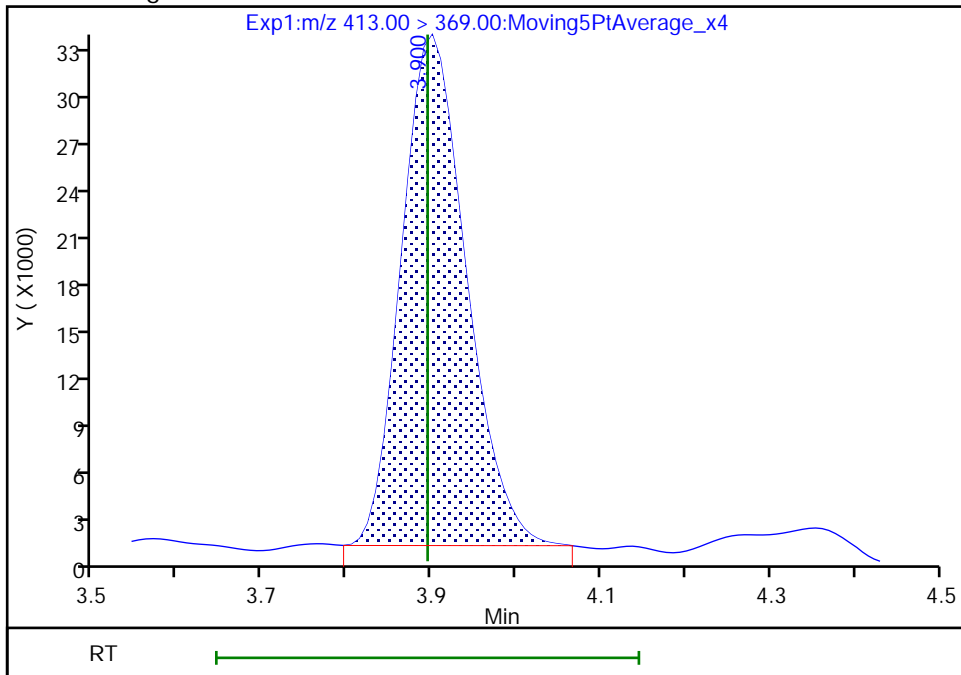
RT: 3.90  
Area: 201579  
Amount: 0.031262  
Amount Units: ng/ml

Processing Integration Results



RT: 3.90  
Area: 173386  
Amount: 0.028039  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:25:39  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

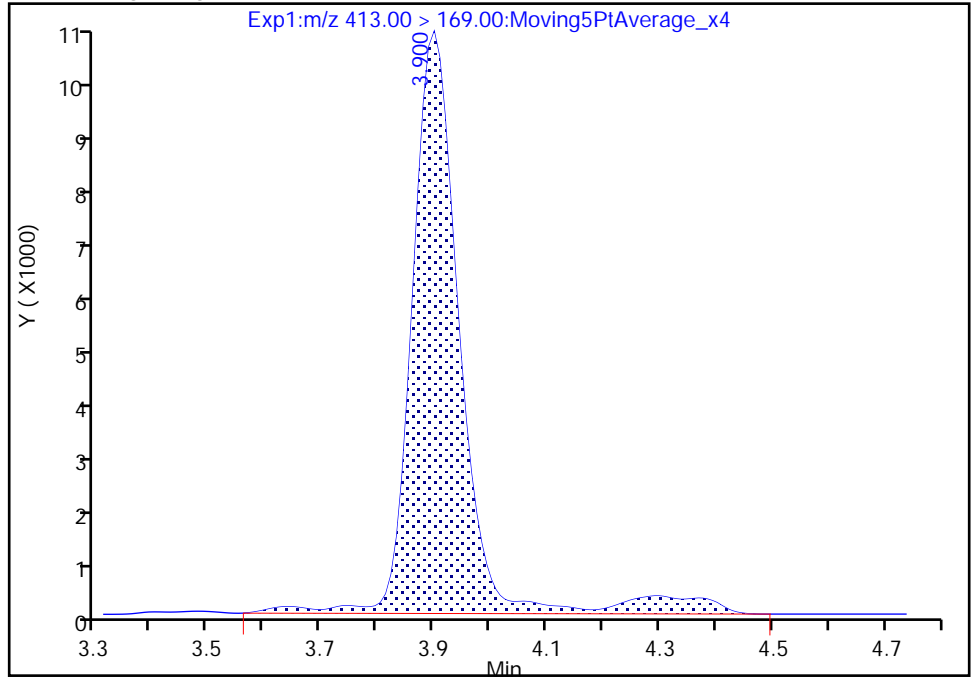
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
 Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
 Lims ID: IC L1  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

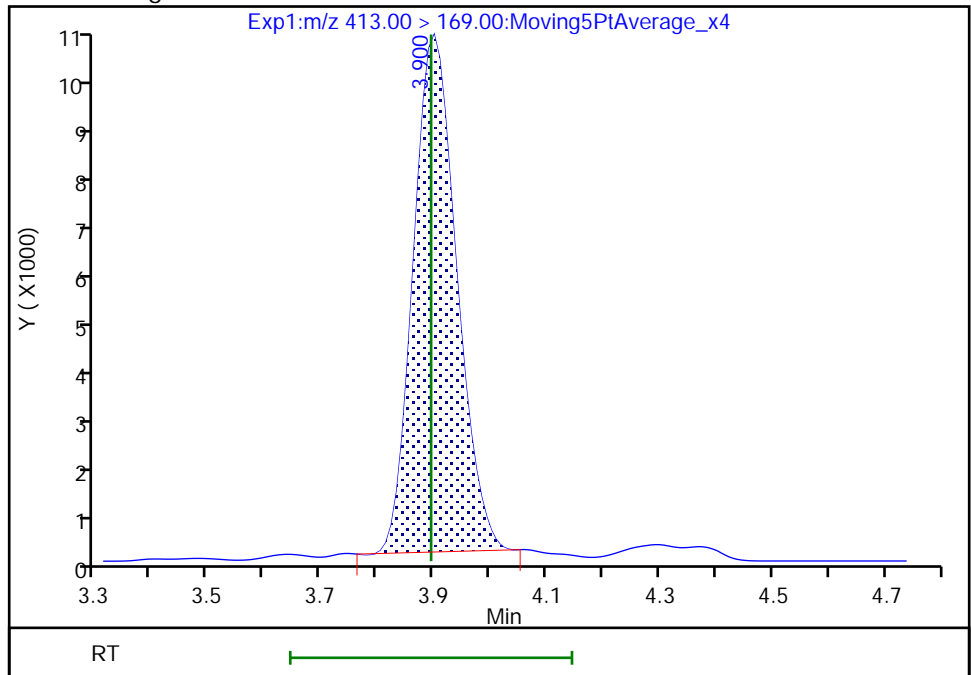
RT: 3.90  
 Area: 63917  
 Amount: 0.031262  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.90  
 Area: 55395  
 Amount: 0.028039  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:25:45

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

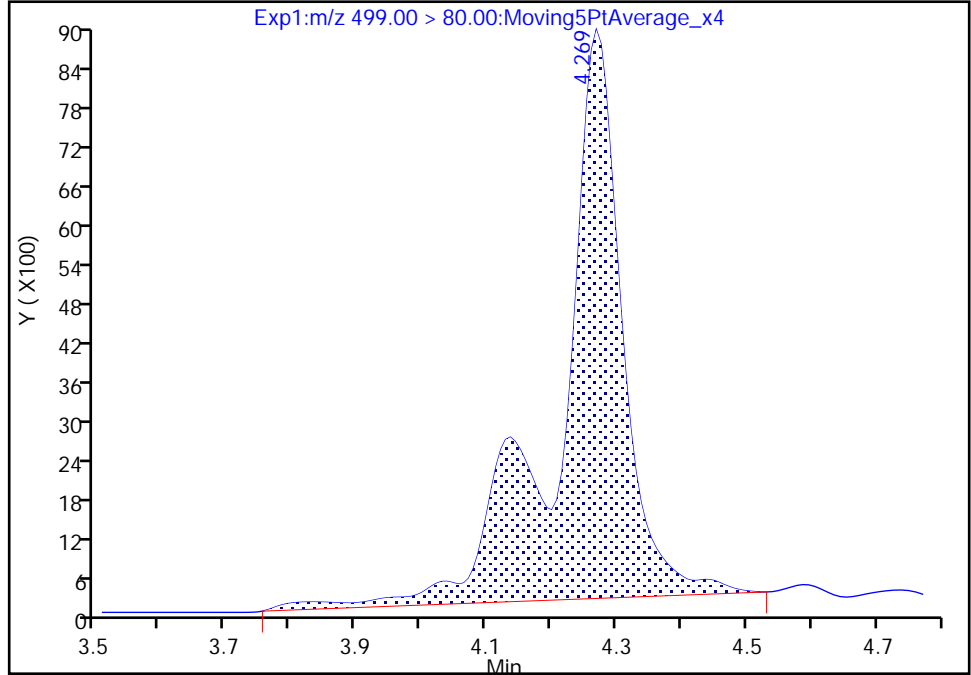
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

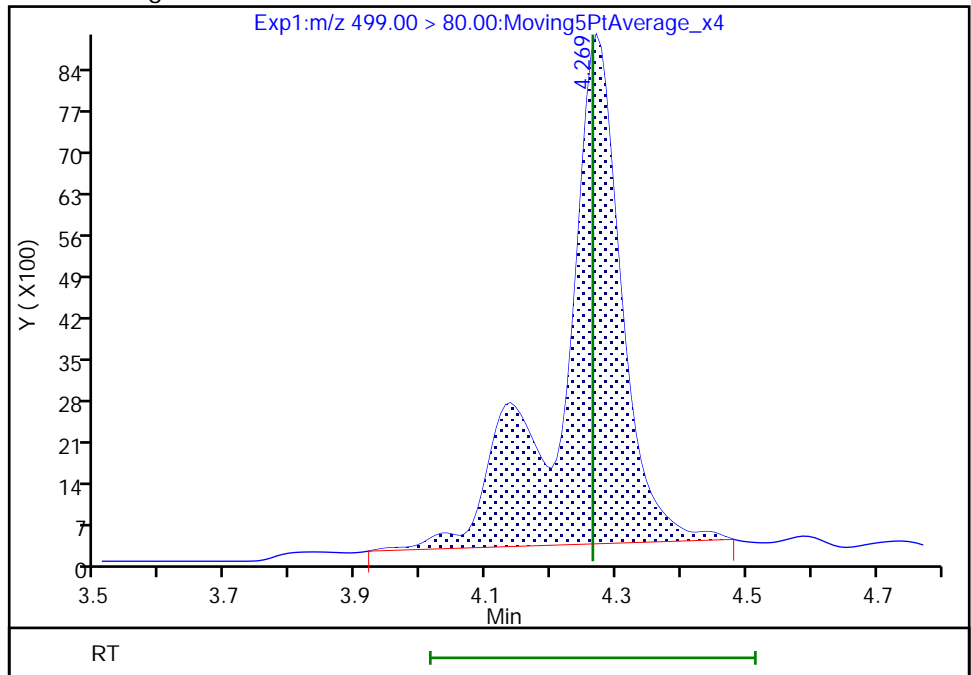
RT: 4.27  
Area: 59836  
Amount: 0.025173  
Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
Area: 56098  
Amount: 0.024146  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:25:59  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

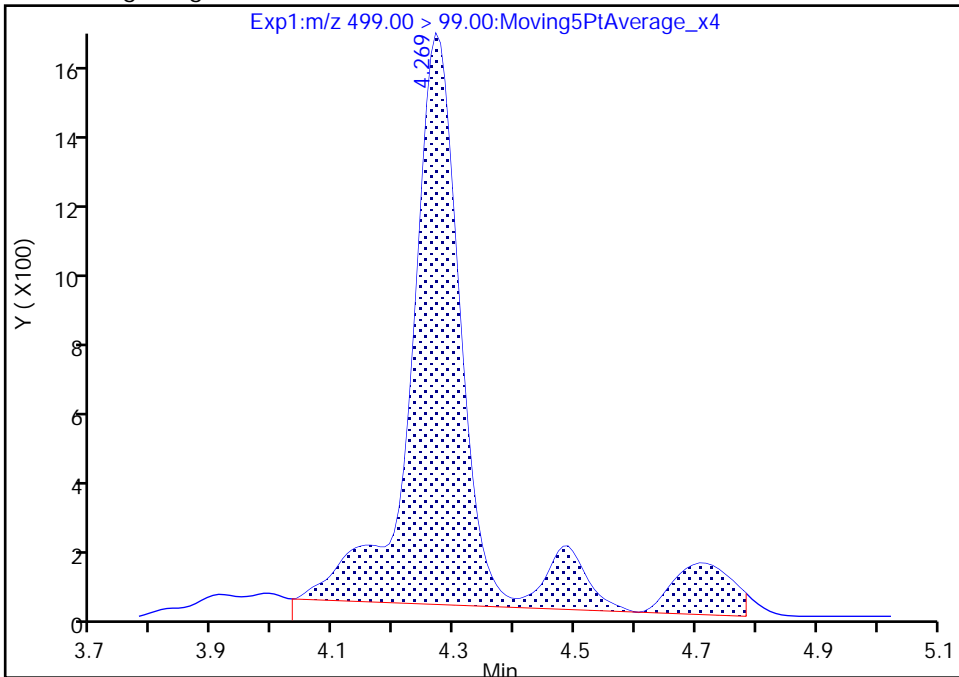
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_004.d  
Injection Date: 01-Jun-2021 14:07:28 Instrument ID: A15  
Lims ID: IC L1  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

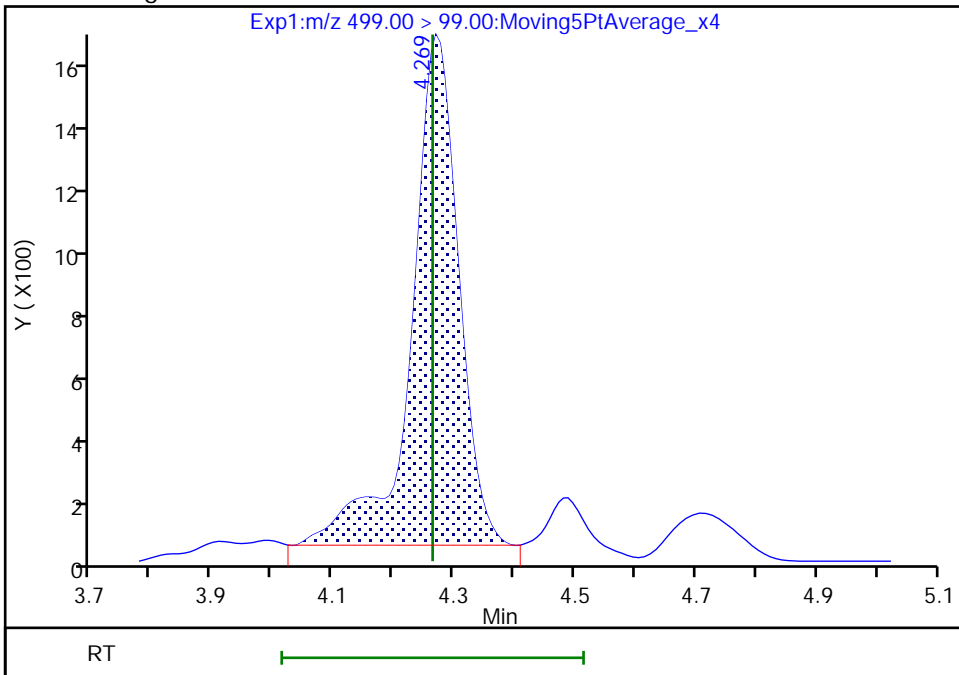
RT: 4.27  
Area: 10772  
Amount: 0.025173  
Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
Area: 8649  
Amount: 0.024146  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:26:04

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

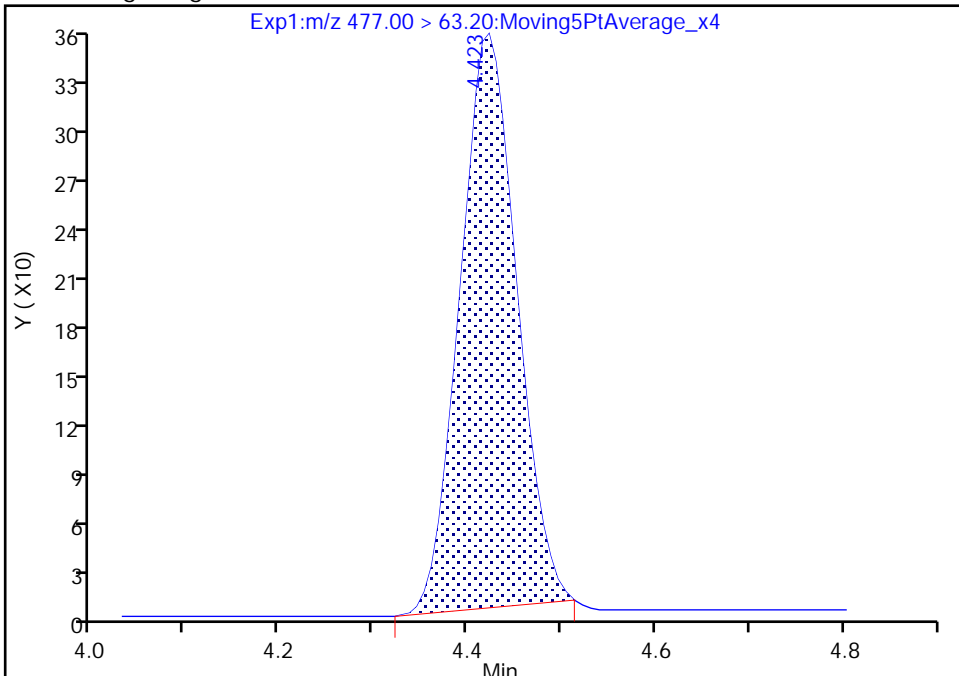
Data File:	\\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01_A15_PFC+_ICAL_004.d		
Injection Date:	01-Jun-2021 14:07:28	Instrument ID:	A15
Lims ID:	IC L1		
Client ID:			
Operator ID:	SACINSTA15	ALS Bottle#:	1
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

69 8:2 FTCA, CAS: 27854-31-5

Signal: 2

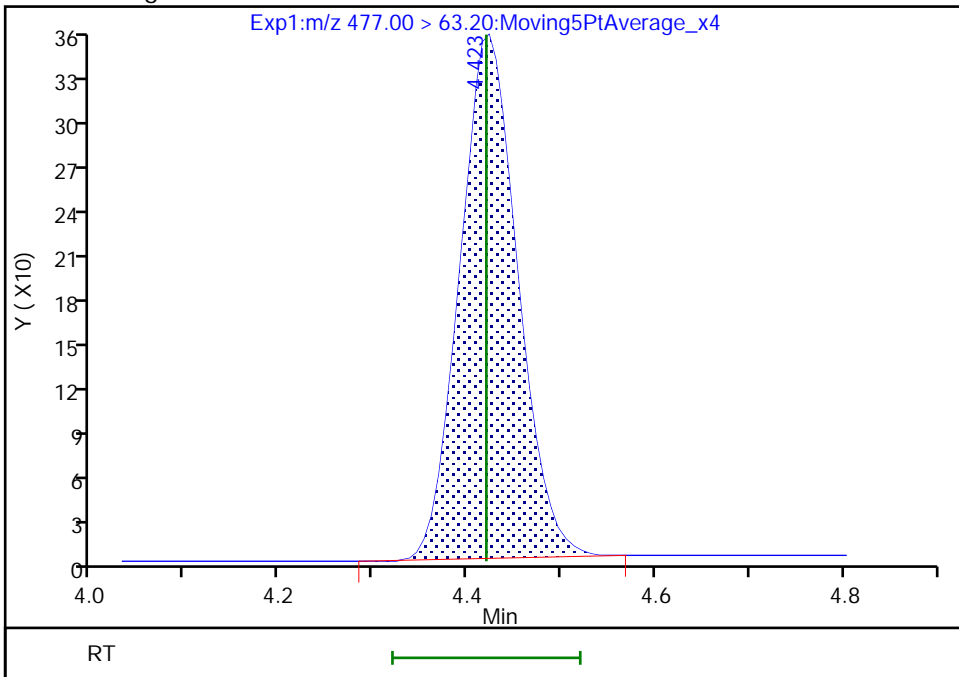
RT: 4.42  
 Area: 1481  
 Amount: 0.021996  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.42  
 Area: 1521  
 Amount: 0.021996  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:26:18  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
 Lims ID: IC L2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 01-Jun-2021 14:16:34 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 2 (3)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:53:32 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:38:30

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.778	0.773	0.005	0.333	10461	0.0462	92.4	16.5	
2 MMF	139.00 > 51.00	0.785	0.779	0.006	0.336	20043	0.0463	92.6	13.2	
3 MTP	175.00 > 97.00	1.166	1.196	-0.030	0.498	24244	0.0452	90.5	11.9	
4 PPF Acid	162.95 > 119.00	1.594	1.613	-0.019	0.681	161562	0.0428	88.2	22.2	M
5 PFMOAA	179.00 > 84.90	2.071	2.075	-0.004	0.885	88298	0.0479	95.8	45.7	M
6 R-PSDA	441.00 > 241.00	2.218	2.213	0.005	0.948	31379	0.0472	94.3	813	
7 R-EVE	405.00 > 217.00	2.227	2.220	0.006	0.952	94540	0.0475	95.0	2124	
8 Hydrolyzed PSDA	439.10 > 342.90	2.227	2.221	0.005	0.952	124289	0.0473	94.7	4948	
D 9 13C4 PFBA	217.00 > 172.00	2.339	2.334	0.005	0.600	7478381	1.22	97.9	94660	
10 Perfluorobutanoic acid	212.90 > 169.00	2.339	2.334	0.005	1.000	269178	0.0476	95.1	167	
11 PMPA	229.00 > 185.00	2.401	2.400	0.001	1.027	63920	0.0490	97.9	68.2	
12 PFPrS	249.10 > 80.00	2.410	2.405	0.005	0.887	200995	0.0453	99.0	784	
13 NVHOS	297.00 > 135.00	2.428	2.421	0.007	1.038	5942	0.0535	107	197	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.463	2.462	0.001	0.918	172554	0.0479		95.7	3323	
16 PFO2HxA										
245.00 > 85.00	2.607	2.602	0.005	0.972	14471	0.0360		72.0	71.2	
D 17 13C5 PFPeA										
267.90 > 223.00	2.683	2.681	0.002	0.688	6911317	1.20		95.8	60517	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.683	2.682	0.001	1.000	288391	0.0498		99.6	334	
19 3:3 FTCA										
241.00 > 177.10	2.694	2.690	0.004	0.992	16377	0.0436	Target=1.28	87.3	254	
241.00 > 116.90	2.694	2.690	0.004	0.992	13918		1.18(0.64-1.92)	87.3	72.3	
D 21 13C3 PFBS										
301.90 > 80.00	2.717	2.714	0.003	0.697	4441748	1.10		95.0	29752	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.717	2.716	0.001	1.000	191823	0.0444	Target=2.36	100	1798	
298.90 > 99.00	2.717	2.716	0.001	1.000	83987		2.28(1.18-3.53)	100	598	
22 PEPA										
278.90 > 234.90	2.781	2.778	0.003	1.037	42895	0.0471		94.1	63.3	
23 PFECA A										
278.95 > 84.90	2.801	2.795	0.006	1.044	312910	0.0474		94.7	6036	
24 PES										
314.80 > 135.00	2.870	2.868	0.002	1.056	637065	0.0434		97.4	9825	
25 PFECA B										
295.20 > 201.00	3.001	2.996	0.005	0.978	34510	0.0463		92.6	818	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.028	3.022	0.006	0.776	1372584	1.28		109	12014	
26 4:2 FTS										
327.00 > 307.00	3.028	3.022	0.006	1.000	130986	0.0466	Target=2.17	99.7	4918	
327.00 > 79.96	3.028	3.022	0.006	1.000	62335		2.10(1.09-3.26)	99.7	673	
D 28 13C2 PFHxA										
315.00 > 270.00	3.067	3.061	0.006	0.786	6993739	1.23		98.0	83550	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.067	3.062	0.005	1.000	344110	0.0549	Target=13.89	110	696	
313.00 > 119.00	3.067	3.062	0.005	1.000	25524		13.48(6.95-20.84)	110	343	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.087	3.081	0.006	1.136	182502	0.0480	Target=3.10	102	1627	
349.00 > 99.00	3.087	3.081	0.006	1.136	61037		2.99(1.55-4.65)	102	1195	
31 PFO3OA										
311.10 > 85.20	3.136	3.129	0.007	1.023	9527	0.0494		98.7	137	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.206	3.201	0.005	0.822	1243193	1.23		98.1	32245	
33 HFPO-DA										
285.00 > 169.00	3.206	3.201	0.005	1.000	50423	0.0498	Target=1.03	99.6	1808	
285.00 > 185.00	3.206	3.201	0.005	1.000	46725		1.08(0.52-1.55)	99.6	369	
34 R-PSDCA										
397.00 > 217.00	3.442	3.437	0.005	0.986	19114	0.0523		105	727	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.471	3.468	0.003	0.995	414534	0.0492		98.5	2673	
D 38 18O2 PFHxS										
403.00 > 84.00	3.490	3.485	0.005	0.895	3351435	1.17		99.2	69702	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.490	3.485	0.005	1.000	299153	0.0517	Target=3.81	103	1111	
363.00 > 169.00	3.490	3.485	0.005	1.000	79324		3.77(1.91-5.72)	103	992	
D 37 13C4 PFHpA										
367.00 > 322.00	3.490	3.482	0.008	0.895	6840178	1.22		97.4	69601	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.490	3.483	0.007	1.000	143537	0.0458	Target=3.50	101	1647	M
399.00 > 99.00	3.490	3.483	0.007	1.000	45601		3.15(1.75-5.25)	101	533	M
40 Hydro-PS Acid										
463.00 > 263.00	3.500	3.494	0.006	1.003	421134	0.0487		97.4	2005	
41 DONA										
377.00 > 251.00	3.544	3.538	0.006	0.830	592418	0.0481	Target=2.07	102	7724	
377.00 > 85.00	3.544	3.538	0.006	0.830	289939		2.04(1.03-3.10)	102	2754	
44 PFECA G										
378.90 > 184.90	3.562	3.558	0.004	0.991	38999	0.0488		97.6	769	
43 5:3 FTCA										
340.88 > 236.90	3.562	3.561	0.001	0.991	70305	0.0480	Target=1.08	96.0	747	
340.88 > 216.90	3.570	3.561	0.009	0.993	59590		1.18(0.54-1.62)	96.0	771	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.595	3.592	0.003	0.922	6165408	1.26		101	250041	
46 6:2 FTUCA										
356.86 > 292.90	3.595	3.592	0.003	0.994	259325	0.0521	Target=14.03	104	3768	
356.86 > 243.00	3.595	3.592	0.003	0.994	16541		15.68(7.02-21.05)	104	544	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.617	3.614	0.003	0.927	352012	1.17		94.0	5638	
48 6:2 FTCA										
377.10 > 313.10	3.617	3.614	0.003	1.006	3766	0.0476	Target=0.54	95.2	186	M
377.10 > 63.00	3.610	3.614	-0.004	1.004	7644		0.49(0.27-0.81)	95.2	310	M
42 PFO4DA										
376.90 > 85.00	3.685	3.677	0.008	1.056	10264	0.0476		95.1	4.4	M
49 PS Acid										
442.80 > 146.80	3.742	3.738	0.004	0.959	205331	0.0481		96.2	4462	
50 EVE Acid										
407.00 > 262.90	3.756	3.754	0.002	0.963	318679	0.0469		93.9	16560	
51 PFECHS										
460.80 > 380.90	3.834	3.833	0.001	0.983	309488	0.0399	Target=1.90	86.6	5644	
460.80 > 98.90	3.834	3.833	0.001	0.983	169390		1.83(0.95-2.85)	86.6	3385	
53 6:2 FTS										
427.00 > 407.00	3.881	3.876	0.005	1.000	141511	0.0480	Target=2.11	101	674	
427.00 > 79.96	3.881	3.876	0.005	1.000	66943		2.11(1.06-3.17)	101	316	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.881	3.876	0.005	0.995	1700674	1.31		110	28640	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.891	3.885	0.006	0.911	120540	0.0483	Target=4.82	101	1311	
449.00 > 99.00	3.891	3.885	0.006	0.911	26952		4.47(2.41-7.24)	101	413	
* 57 13C2 PFOA										
415.00 > 370.00	3.900	3.895	0.005		7657909	1.25			94953	
D 56 13C4 PFOA										
417.00 > 372.00	3.900	3.895	0.005	1.000	8106729	1.27		101	94896	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.900	3.895	0.005	1.000	9051470	1.27		101	112250	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.900	3.895	0.005	1.000	339852	0.0501	Target=2.87	100	499	M
413.00 > 169.00	3.900	3.895	0.005	1.000	121717		2.79(1.43-4.30)	100	1247	M
59 TAF										
442.90 > 85.00	4.185	4.180	0.005	1.073	6506	0.0648		130	74.8	
D 61 13C4 PFOS										
503.00 > 80.00	4.269	4.264	0.005	1.095	2616029	1.17		97.7	35681	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.269	4.264	0.005	1.095	775068	1.16		96.9	15270	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.269	4.264	0.005	1.000	110868	0.0450	Target=5.95	97.0	956	M
499.00 > 99.00	4.269	4.264	0.005	1.000	18634		5.95(2.97-8.92)	97.0	326	M
D 63 13C5 PFNA										
468.00 > 423.00	4.284	4.279	0.005	1.098	8126123	1.33		106	148786	
64 Perfluorononanoic acid										
463.00 > 419.00	4.284	4.280	0.004	1.000	323987	0.0503	Target=7.58	101	710	
463.00 > 169.00	4.284	4.280	0.004	1.000	40875		7.93(3.79-11.37)	101	613	
65 7:3 FTCA										
441.00 > 337.00	4.385	4.381	0.004	0.992	100673	0.0534	Target=1.21	107	1053	
441.00 > 317.00	4.385	4.381	0.004	0.992	77673		1.30(0.60-1.81)	107	1517	
67 8:2 FTUCA										
456.86 > 392.90	4.409	4.404	0.005	1.000	281320	0.0475	Target=35.28	95.0	8641	
456.86 > 343.00	4.409	4.404	0.005	1.000	7830		35.93(17.64-52.92)	95.0	283	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.409	4.404	0.005	1.130	7592059	1.26		100	271963	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.423	4.419	0.004	1.134	306013	1.11		88.6	9620	
69 8:2 FTCA										
477.00 > 393.10	4.430	4.420	0.010	1.002	16371	0.0578	Target=3.24	116	697	
477.00 > 63.20	4.423	4.420	0.003	1.000	4852		3.37(1.62-4.86)	116	257	
70 9CIFOS										
531.00 > 351.00	4.473	4.469	0.004	1.048	219225	0.0444		95.3	5828	
D 71 13C8 FOSA										
506.00 > 78.00	4.568	4.561	0.007	1.171	4594347	1.22		97.4	54233	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.568	4.561	0.007	1.000	185222	0.0502		100	3539	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.615	4.610	0.005	1.081	96634	0.0472	Target=3.28	98.2	1204	
549.00 > 99.00	4.615	4.610	0.005	1.081	29745		3.25(1.64-4.92)	98.2	638	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.644	4.636	0.008	1.000	343442	0.0563	Target=9.70	113	1957	
513.00 > 169.00	4.644	4.636	0.008	1.000	33220		10.34(4.85-14.54)	113	386	
D 74 13C2 PFDA										
515.00 > 470.00	4.644	4.637	0.007	1.191	7462899	1.22		97.8	151646	
77 8:2 FTS										
527.00 > 507.00	4.644	4.639	0.005	1.000	160765	0.0471	Target=2.33	98.3	5879	
527.00 > 79.96	4.644	4.639	0.005	1.000	68046		2.36(1.17-3.50)	98.3	605	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.644	4.640	0.004	1.191	2615181	1.29		108	42983	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.803	4.798	0.005	1.232	3068297	1.19		95.2	27279	
79 NMeFOSAA										
570.00 > 419.00	4.813	4.806	0.007	1.002	86827	0.0478	Target=0.83	95.6	1031	
570.00 > 483.00	4.813	4.806	0.007	1.002	114248		0.76(0.42-1.25)	95.6	3249	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.937	4.928	0.009	1.156	93344	0.0520	Target=3.22	108	2242	
599.00 > 99.00	4.937	4.928	0.009	1.156	28449		3.28(1.61-4.83)	108	915	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.966	4.959	0.007	1.000	278333	0.0522	Target=9.27	104	2114	
563.00 > 169.00	4.966	4.959	0.007	1.000	28258		9.85(4.63-13.90)	104	628	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.966	4.963	0.003	1.273	3404057	1.33		106	32875	
D 82 13C2 PFUnA										
565.00 > 520.00	4.966	4.958	0.008	1.273	7230977	1.23		98.3	90068	
84 NEtFOSAA										
584.00 > 419.00	4.975	4.970	0.005	1.002	93970	0.0482	Target=0.77	96.3	3048	M
584.00 > 526.10	4.975	4.970	0.005	1.002	118620		0.79(0.39-1.16)	96.3	1646	M
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.991	0.003	1.280	1919903	1.25		99.7	8422	
86 N-MeFOSE-M										
616.00 > 59.00	5.004	5.002	0.002	1.002	76850	0.0473		94.6	750	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.013	5.012	0.001	1.285	1301735	1.15		92.0	378	
90 NMeFOSA										
512.00 > 169.00	5.023	5.018	0.005	1.002	51318	0.0486	Target=1.61	97.2	1024	
512.00 > 218.99	5.023	5.018	0.005	1.002	32751		1.57(0.80-2.41)	97.2	665	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.086	5.080	0.006	1.304	9014871	1.27		102	230833	
89 10:2 FTUCA										
556.86 > 492.90	5.086	5.080	0.006	0.998	294532	0.0536		107	7546	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.096	5.091	0.005	1.306	244123	1.17		94.0	3616	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.106	5.093	0.013	1.004	8916	0.0435	Target=2.56	87.1	326	
576.80 > 63.10	5.096	5.093	0.003	1.002	3127		2.85(1.28-3.83)	87.1	144	
93 11CIFOS										
631.00 > 451.00	5.106	5.094	0.012	1.196	273379	0.0464		98.6	10076	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.164	5.158	0.006	1.324	2042625	1.19		95.3	13444	
95 N-EtFOSE-M										
630.00 > 59.00	5.172	5.171	0.001	1.002	93087	0.0485		97.1	1057	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.190	5.184	0.006	1.331	1331675	1.20		95.9	3325	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.000	52340	0.0474	Target=1.61	94.8	743	
526.00 > 218.99	5.190	5.190	0.0	1.000	33737		1.55(0.80-2.41)	94.8	722	
D 97 13C2 PFDaA										
615.00 > 570.00	5.251	5.246	0.005	1.346	7861576	1.23		98.8	108325	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.251	5.246	0.005	1.000	367422	0.0526	Target=7.93	105	1960	
613.00 > 169.00	5.251	5.246	0.005	1.000	45287		8.11(3.97-11.90)	105	1432	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.268	5.263	0.005	1.351	2113619	1.30		108	56404	
101 10:2 FTS										
627.00 > 607.00	5.277	5.271	0.006	1.002	127735	0.0480	Target=1.46	99.6	4795	
627.00 > 79.96	5.277	5.271	0.006	1.002	92099		1.39(0.73-2.19)	99.6	1314	
102 PFDoS										
699.00 > 80.00	5.485	5.477	0.008	1.285	24472	0.0481	Target=0.54	99.3	638	
699.00 > 99.00	5.485	5.477	0.008	1.285	45087		0.54(0.27-0.81)	99.3	936	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.527	5.513	0.014	1.053	312253	0.0535	Target=5.84	107	932	
663.00 > 169.00	5.516	5.513	0.003	1.051	49904		6.26(2.92-8.75)	107	1116	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.766	5.760	0.006	1.478	7039524	1.20		96.0	108478	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.766	5.761	0.005	1.000	35505	0.0513	Target=1.07	103	1071	
713.00 > 219.00	5.766	5.761	0.005	1.000	33784		1.05(0.53-1.60)	103	1467	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.230	6.223	0.007	1.597	4904544	1.09		87.5	30718	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.240	6.224	0.016	1.002	243025	0.0544	Target=7.49	109	591	
813.00 > 169.00	6.230	6.224	0.006	1.000	32533		7.47(3.75-11.24)	109	744	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.731	6.715	0.016	1.080	112705	0.0473	Target=9.70	94.6	433	
913.00 > 169.00	6.731	6.715	0.016	1.080	11417		9.87(4.85-14.55)	94.6	420	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC+\_LL2\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d

Injection Date: 01-Jun-2021 14:16:34

Instrument ID: A15

Lims ID: IC L2

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 2

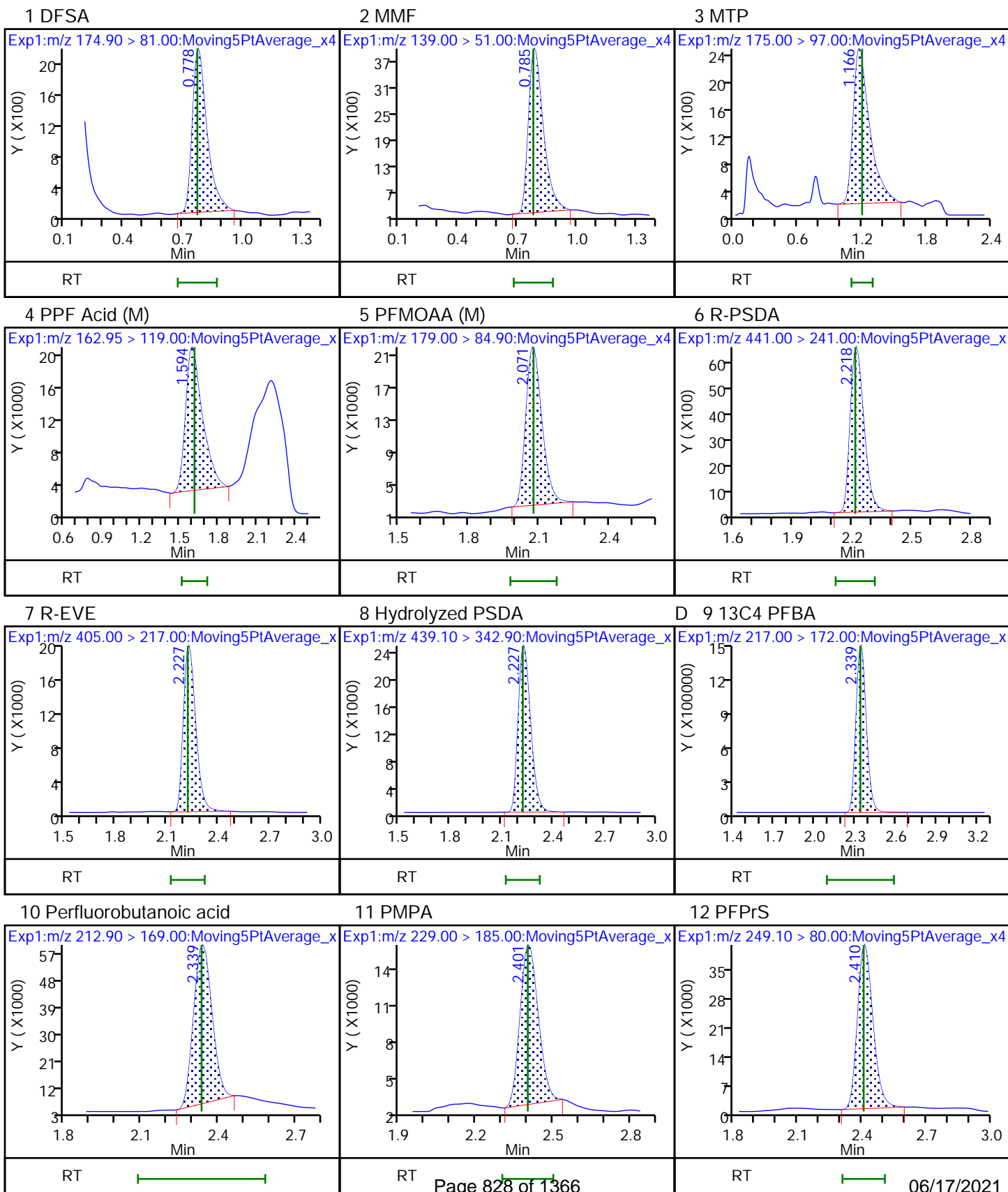
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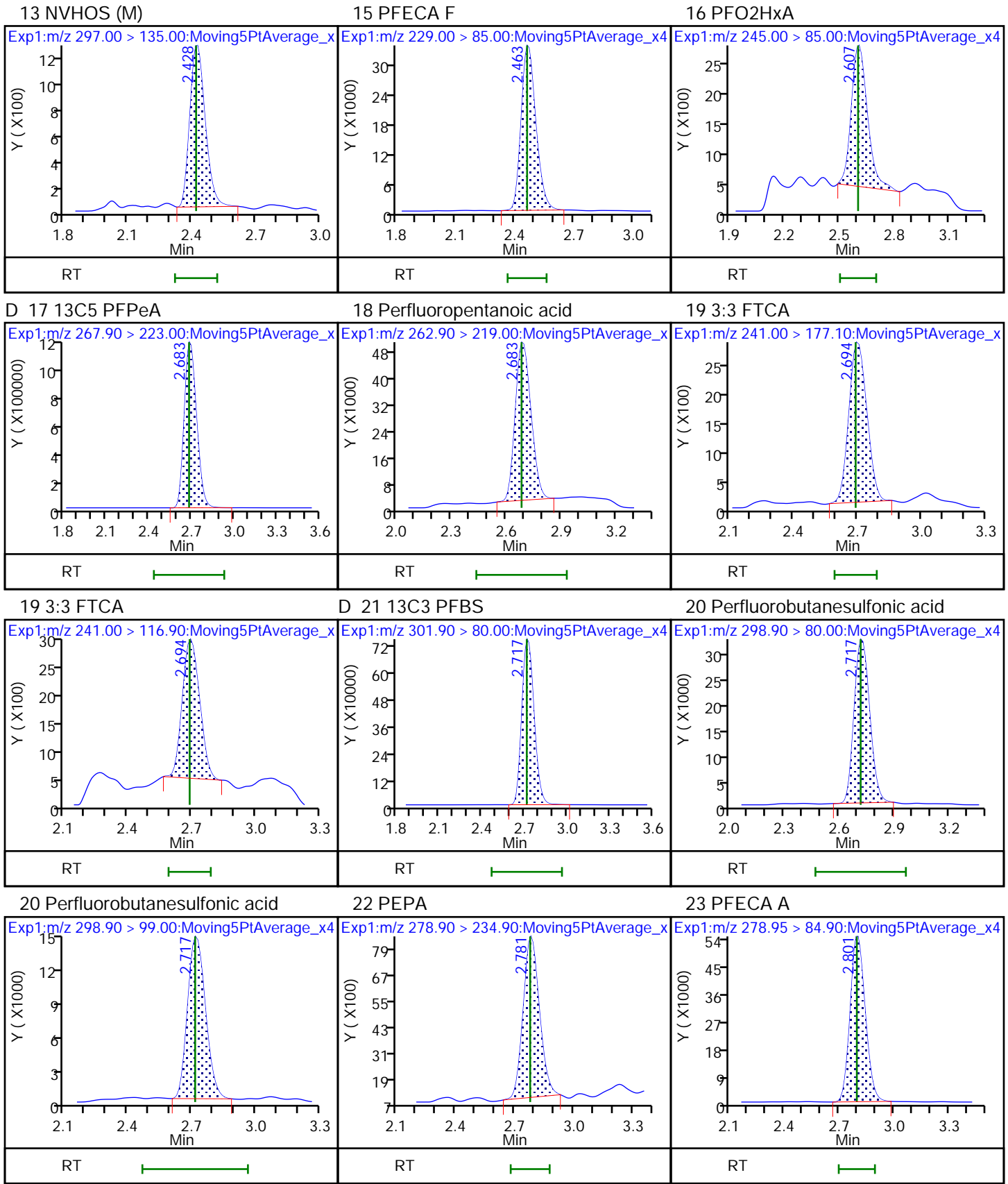
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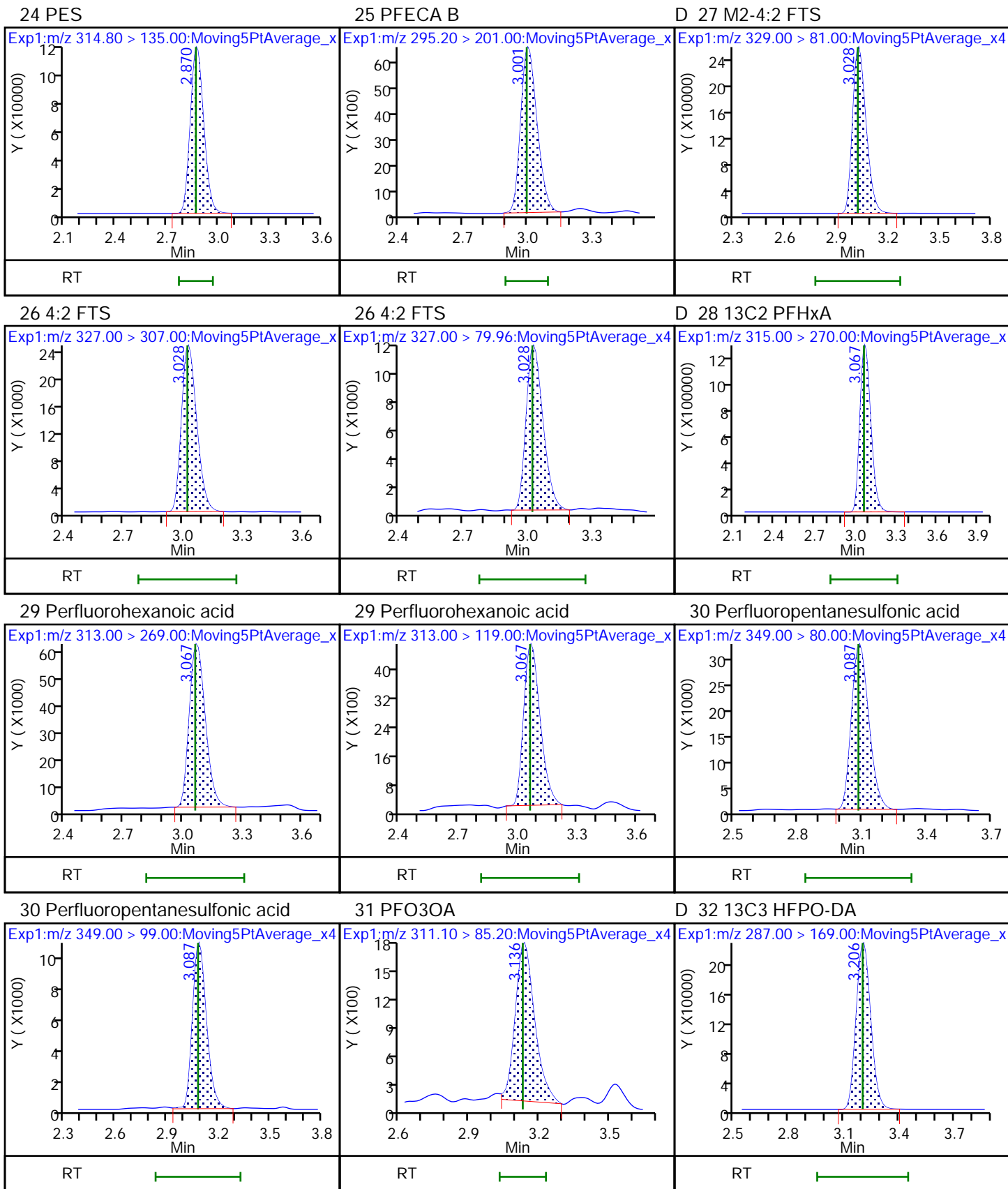
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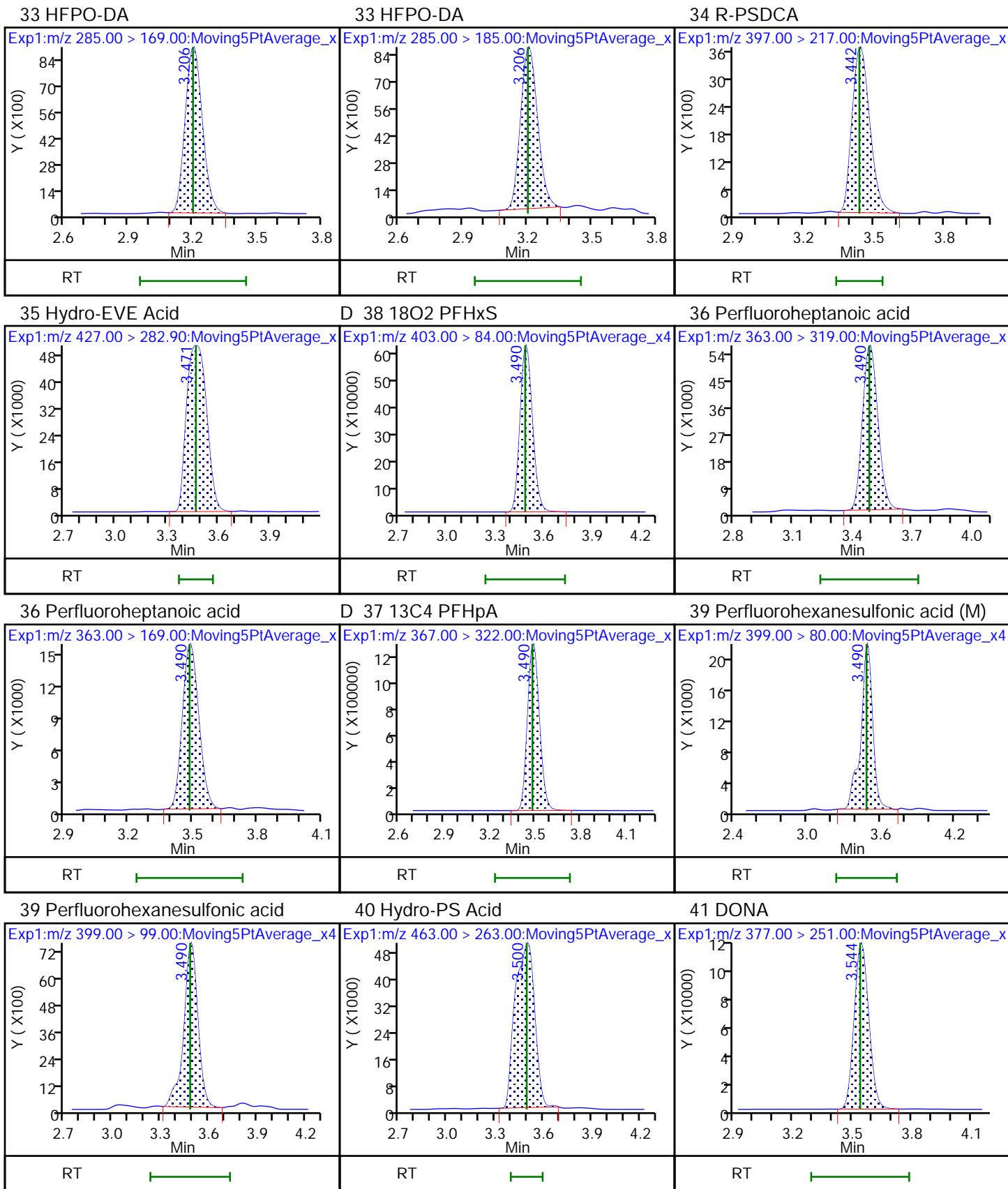
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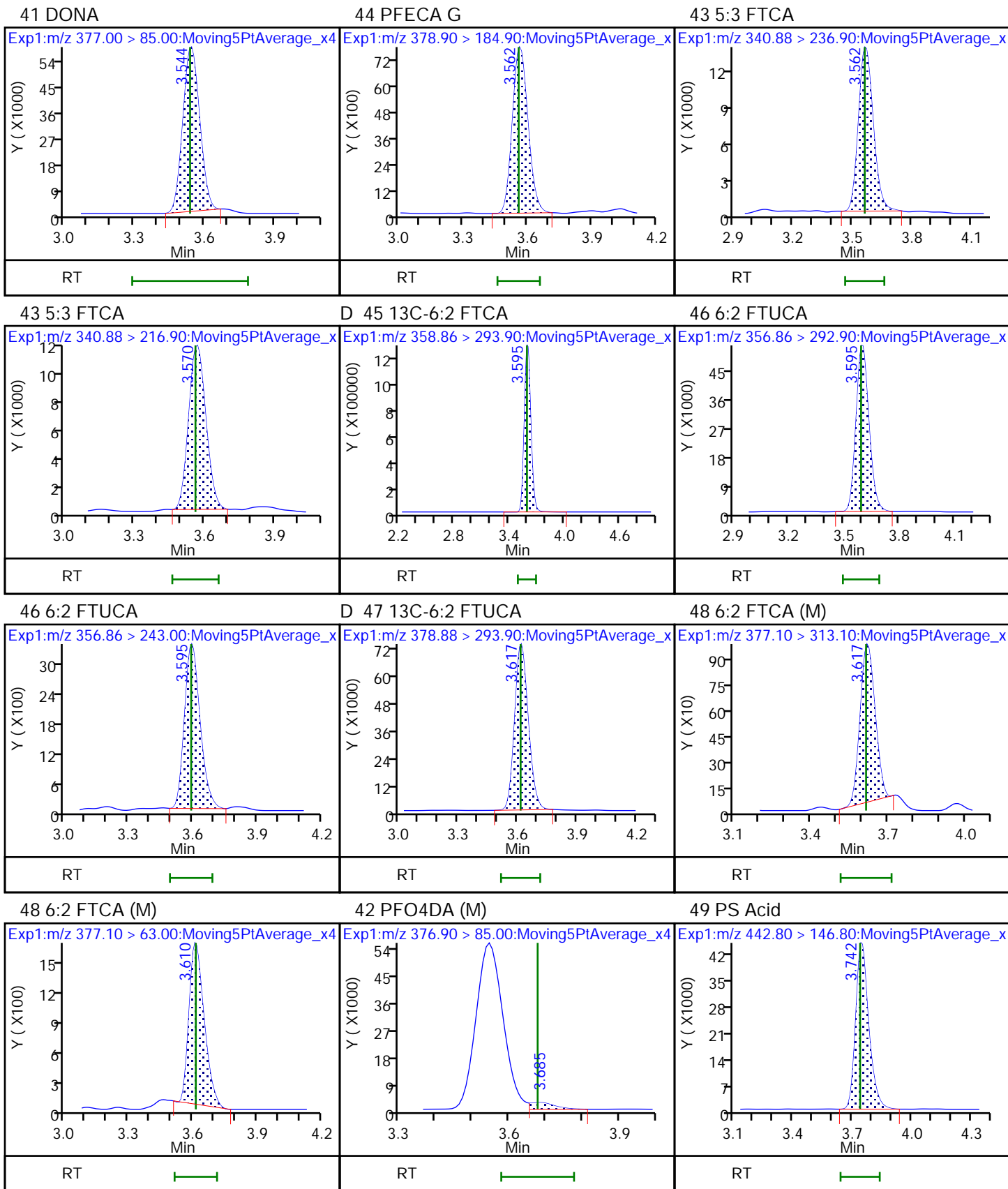
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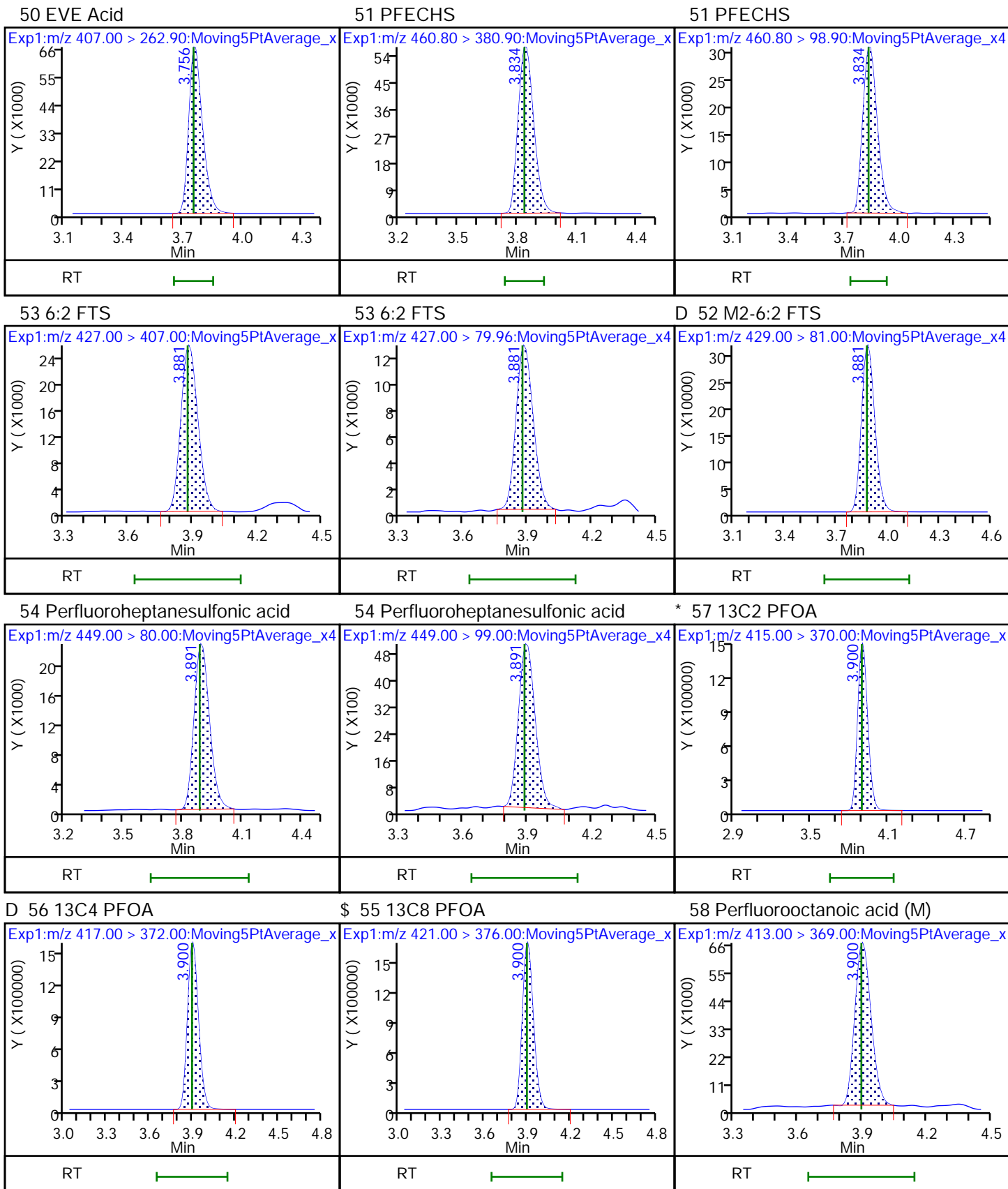




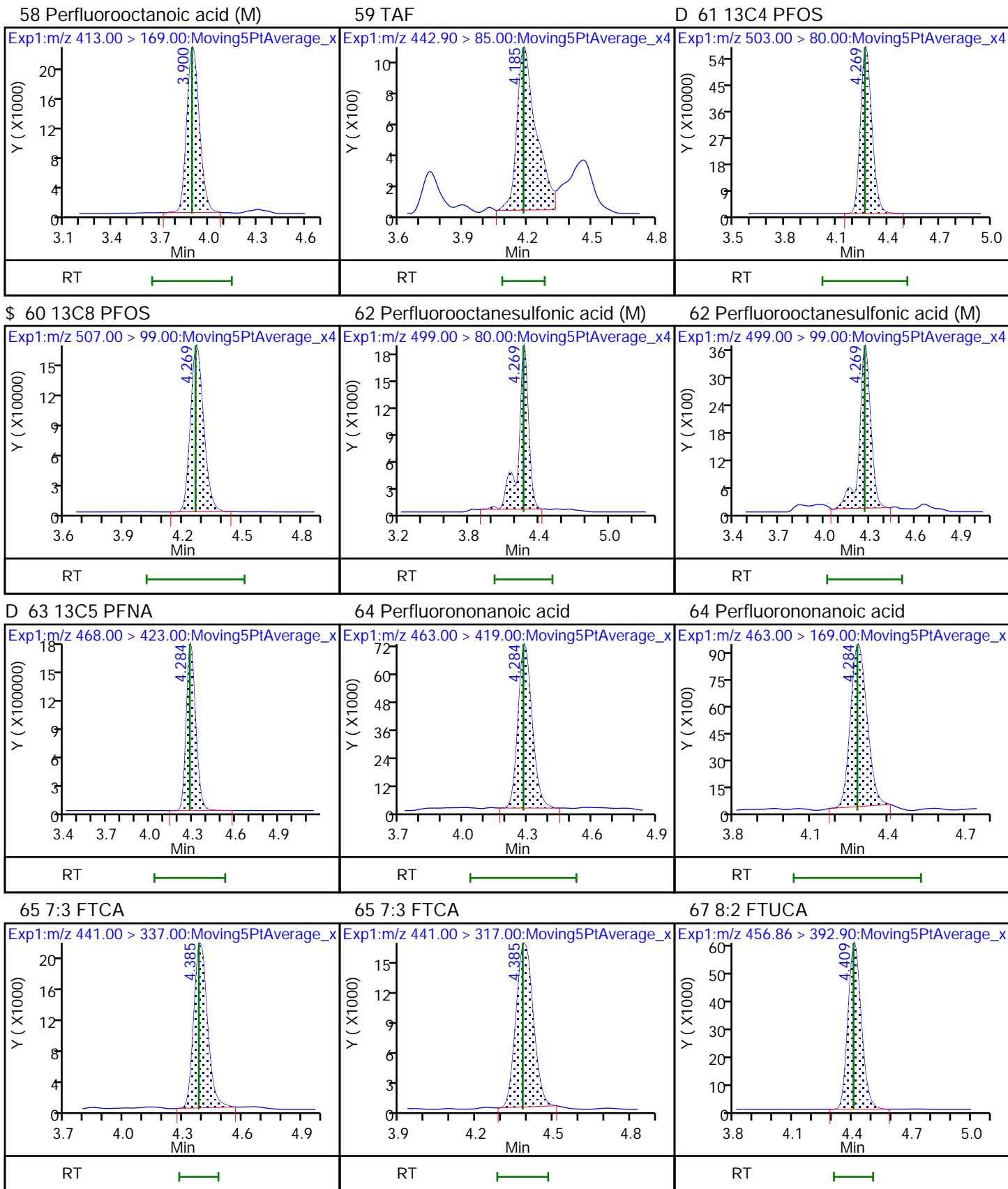


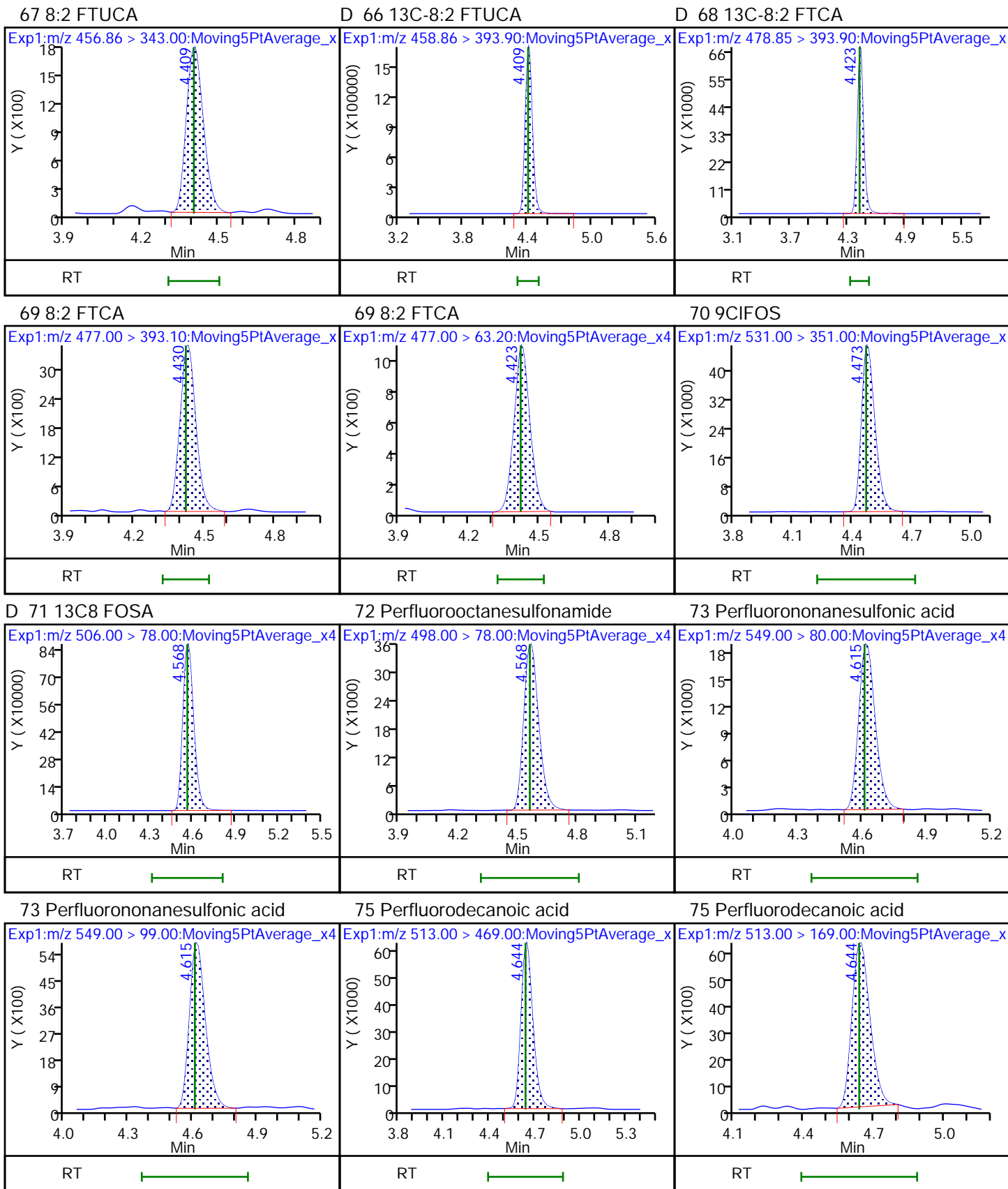








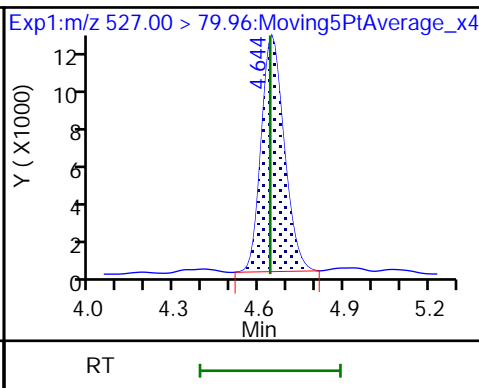
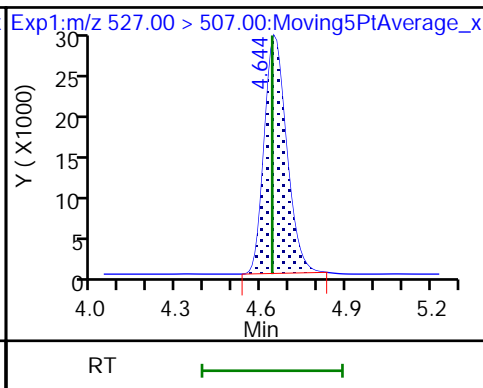
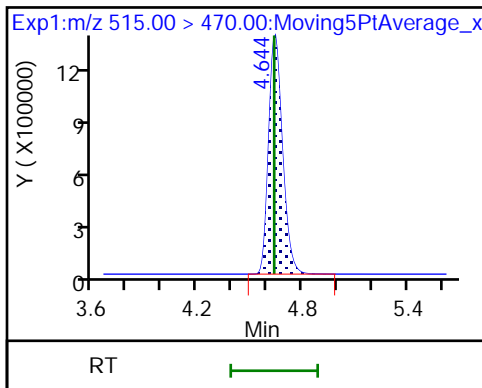




D 74 13C2 PFDA

77 8:2 FTS

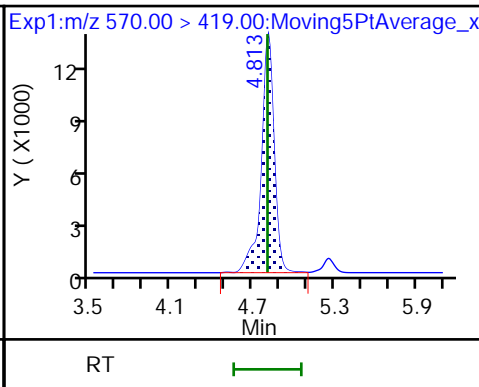
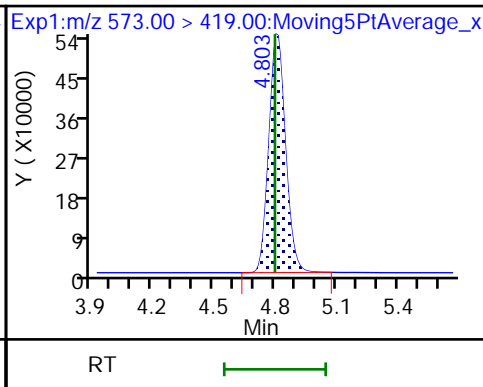
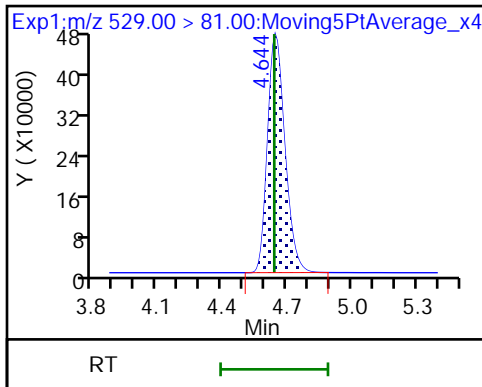
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

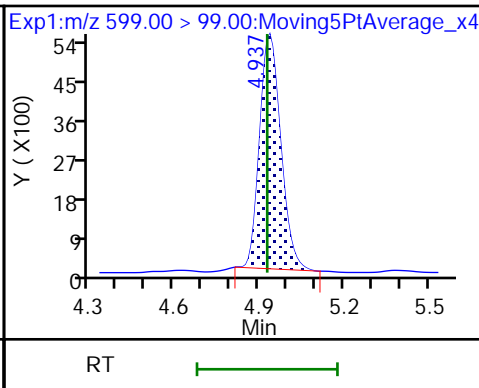
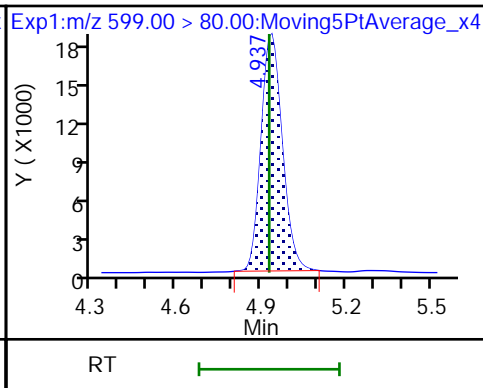
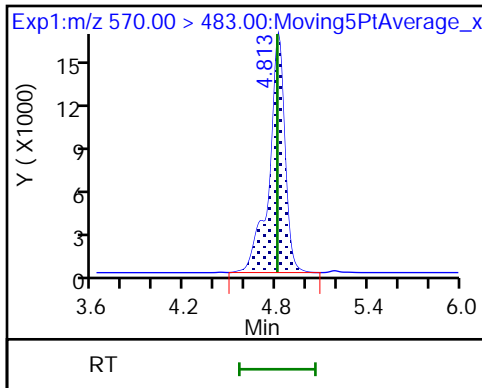
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

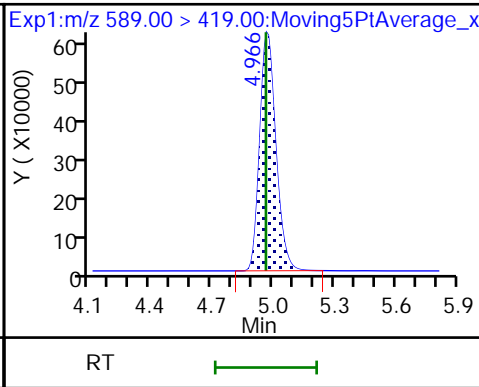
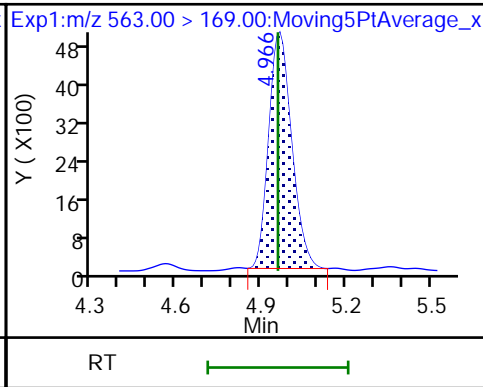
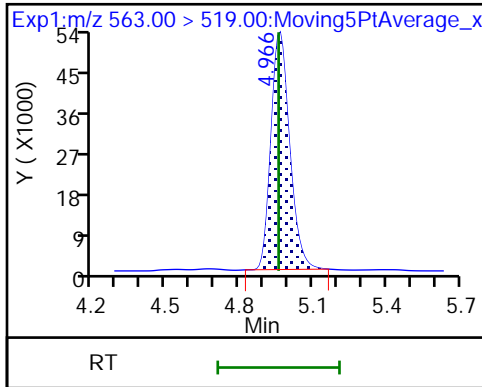
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

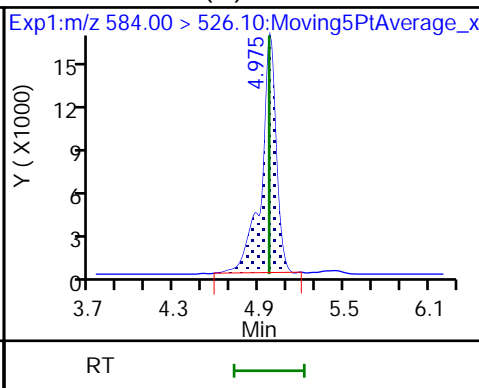
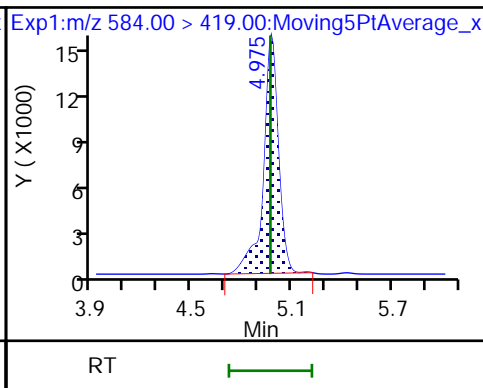
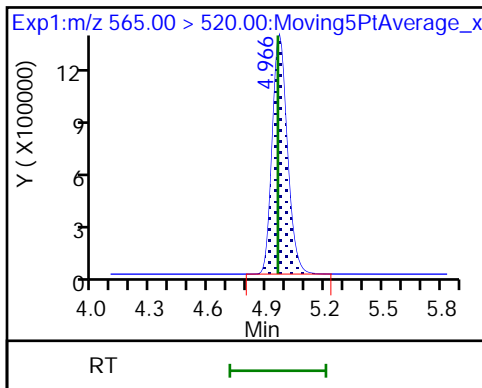
D 83 d5-NEtFOSAA



D 82 13C2 PFUnA

84 NEtFOSAA

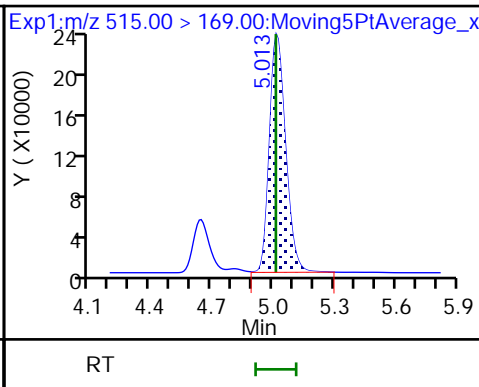
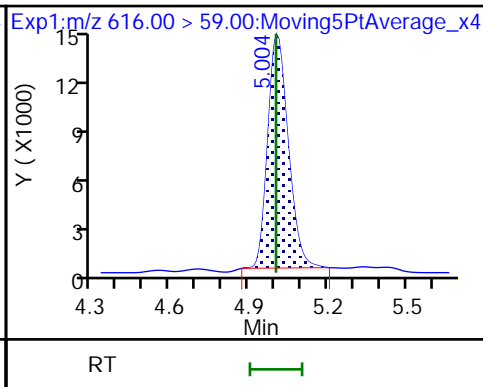
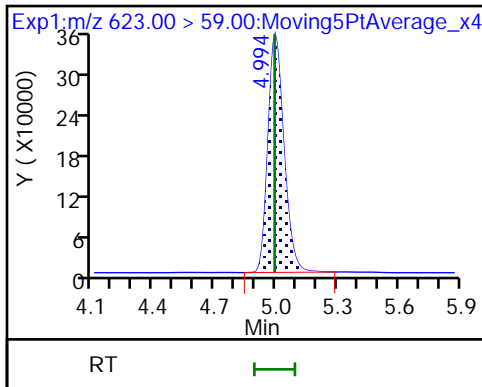
84 NEtFOSAA (M)



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

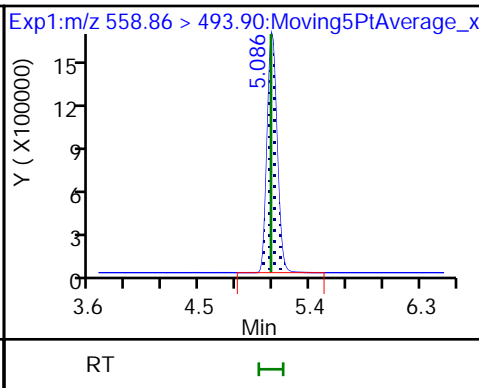
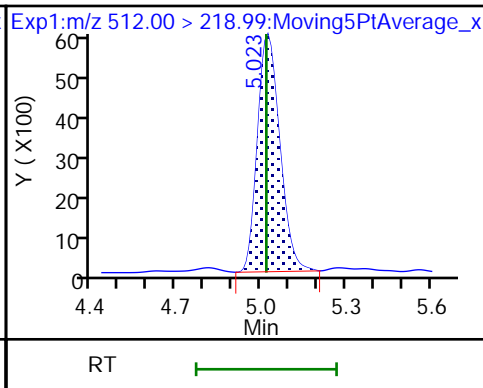
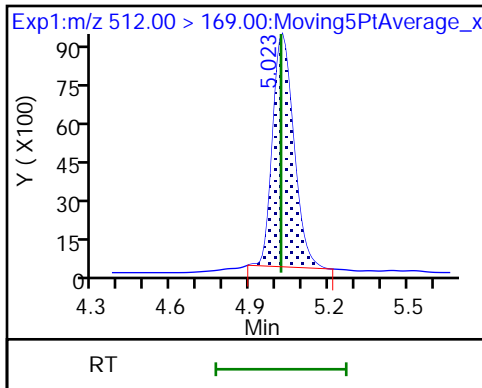
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

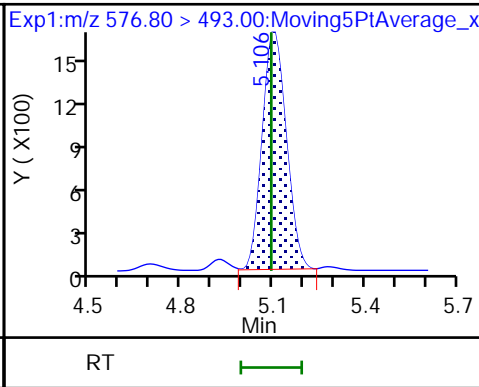
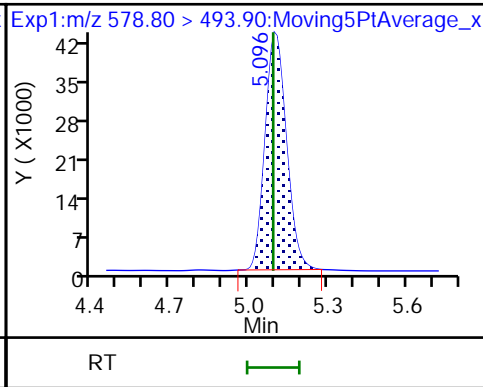
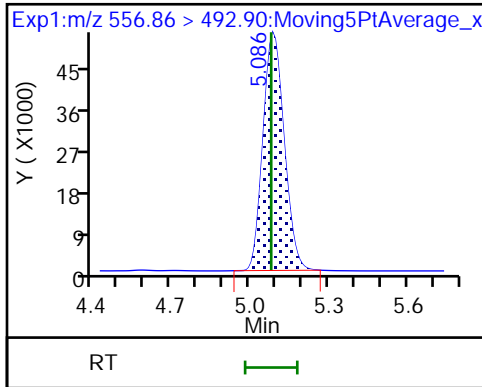
D 88 13C-10:2 FTCA

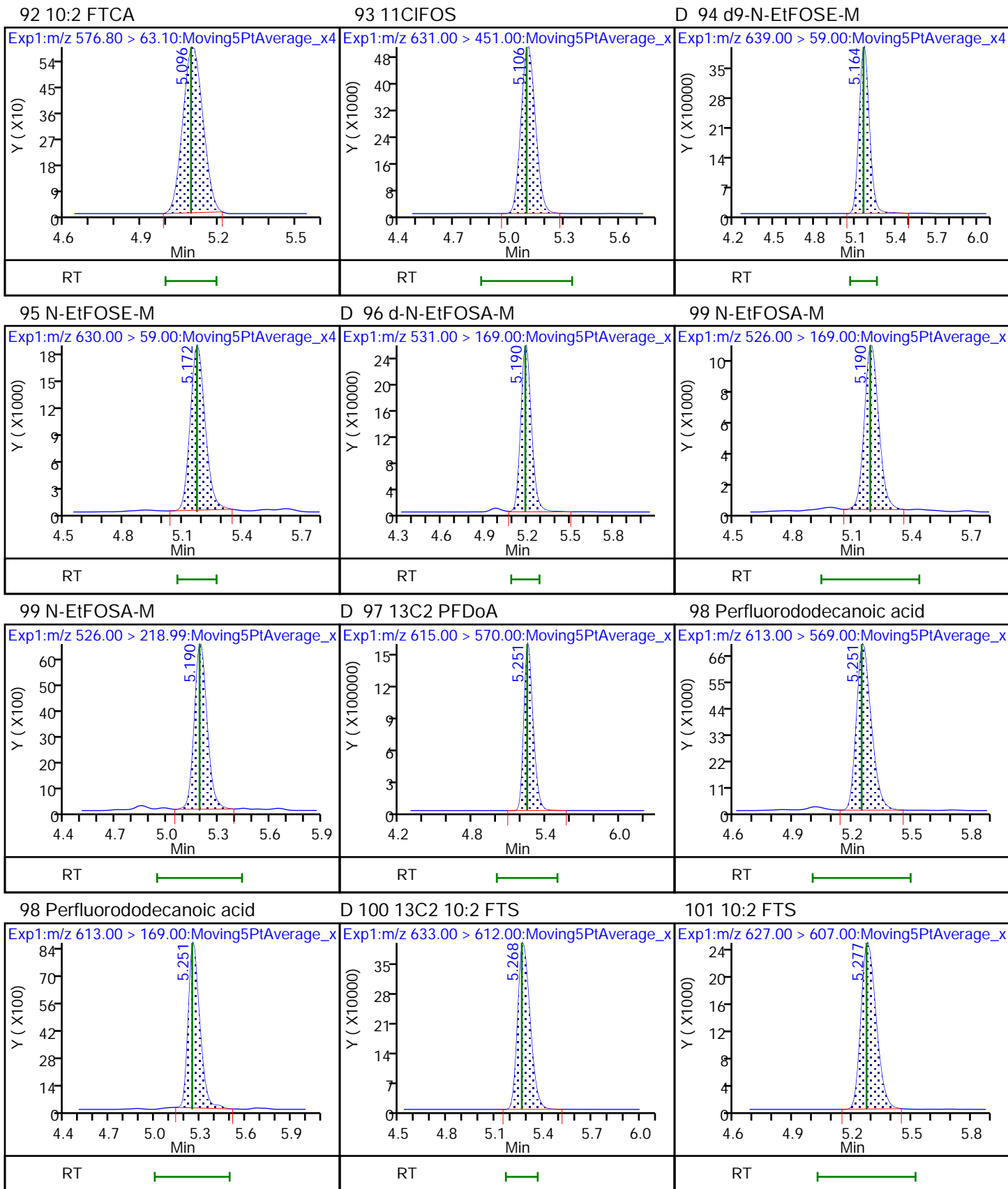


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

92 10:2 FTCA

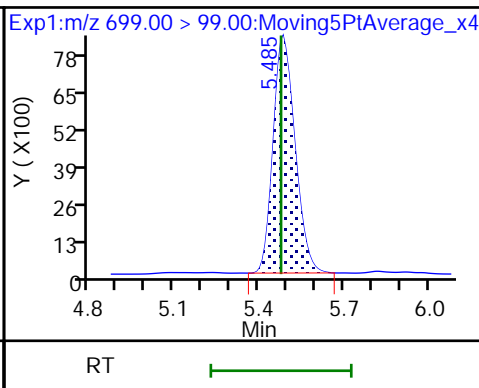
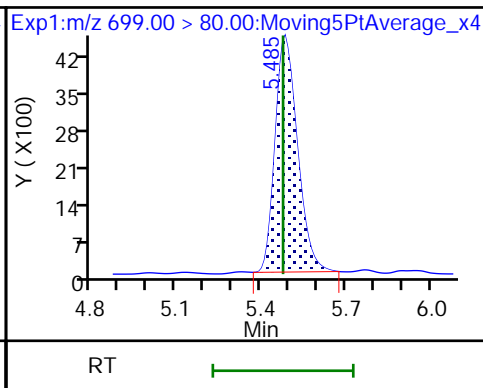
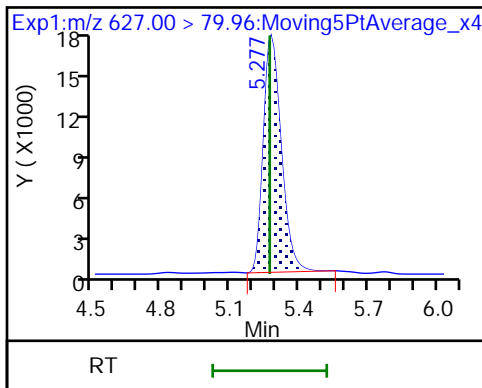




101 10:2 FTS

102 PFDoS

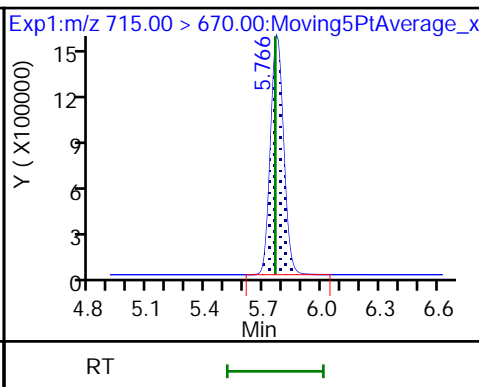
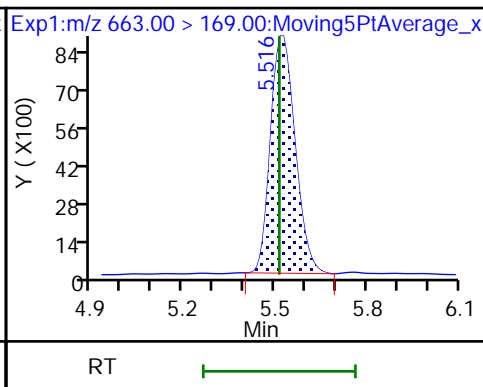
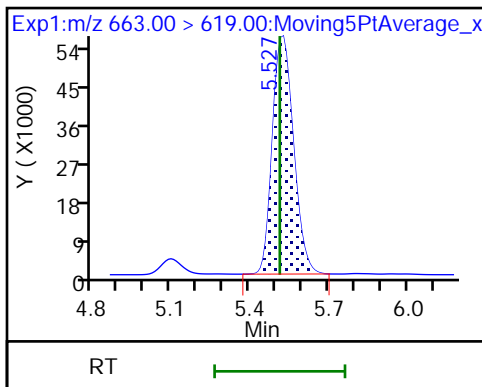
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

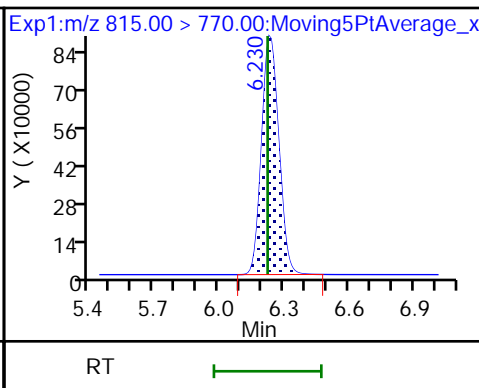
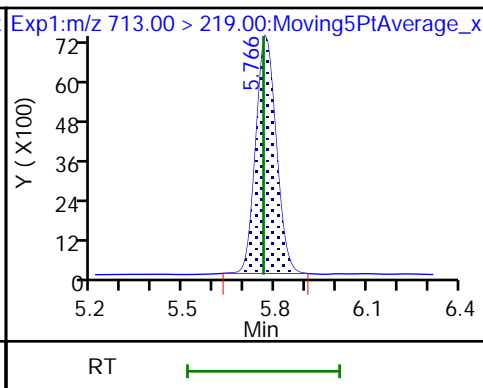
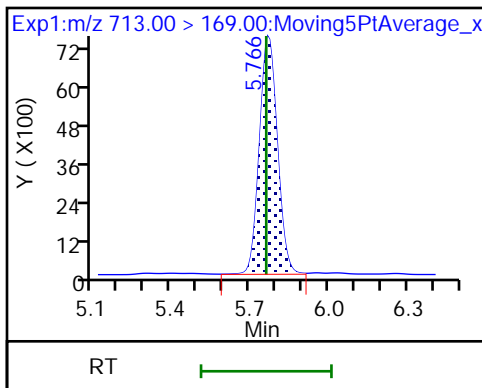
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

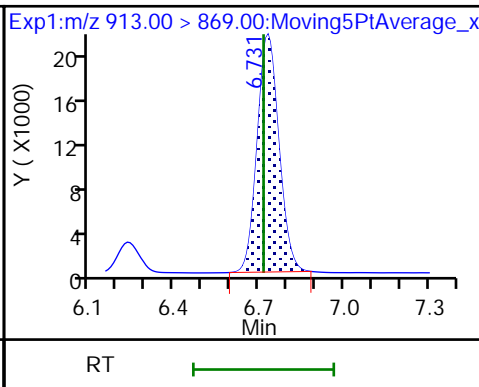
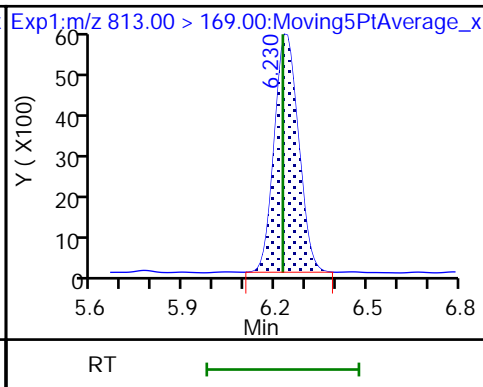
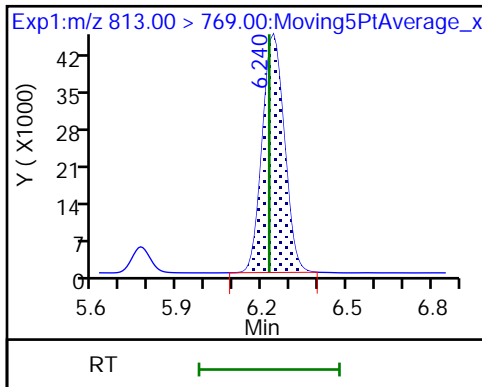
D 106 13C2 PFHxDA



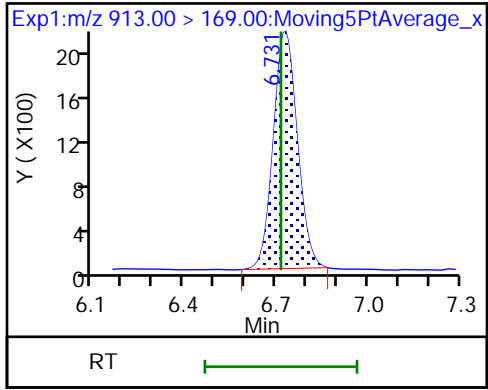
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

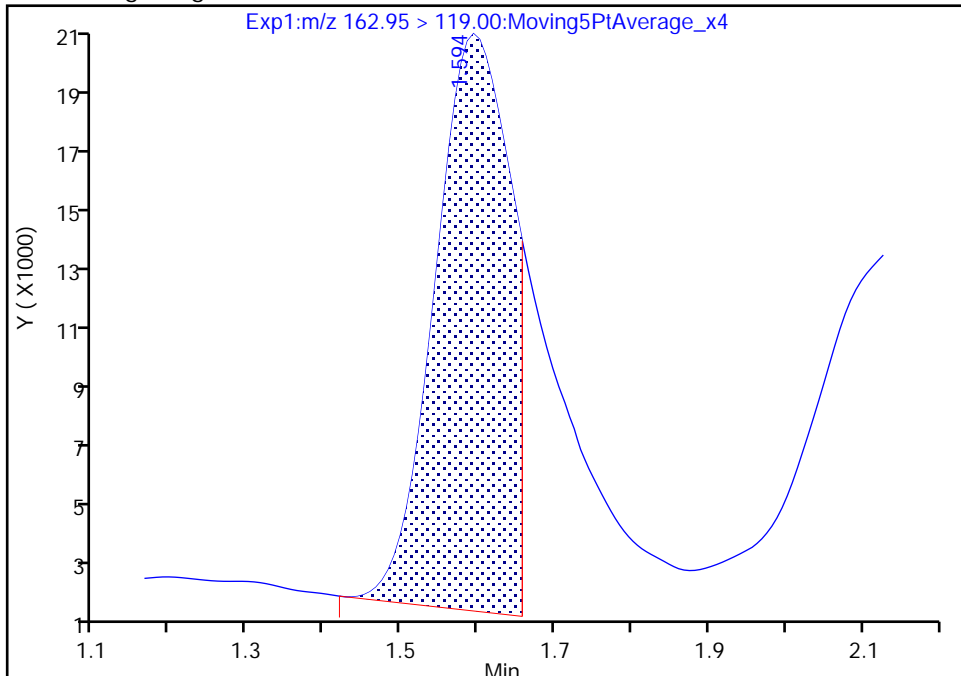
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

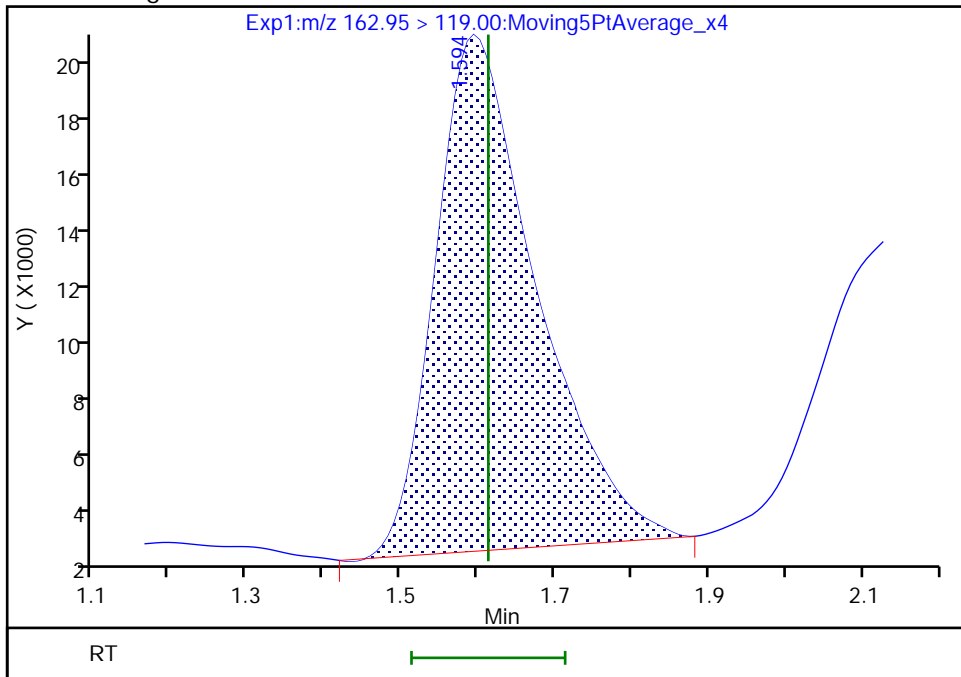
RT: 1.59  
Area: 124646  
Amount: 0.031923  
Amount Units: ng/ml

Processing Integration Results



RT: 1.59  
Area: 161562  
Amount: 0.042791  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:35:33  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

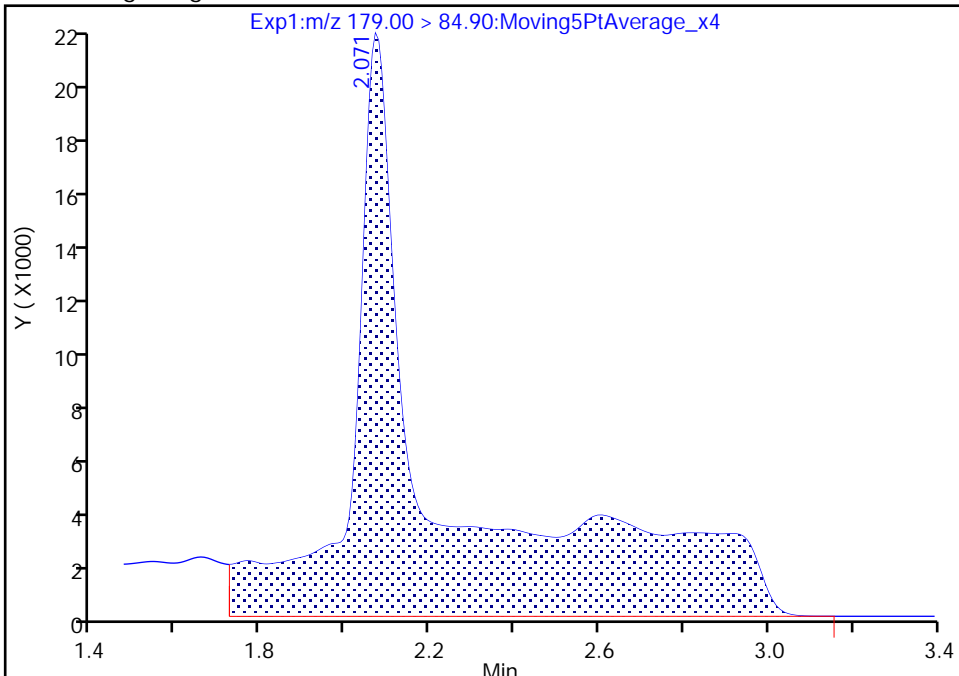
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

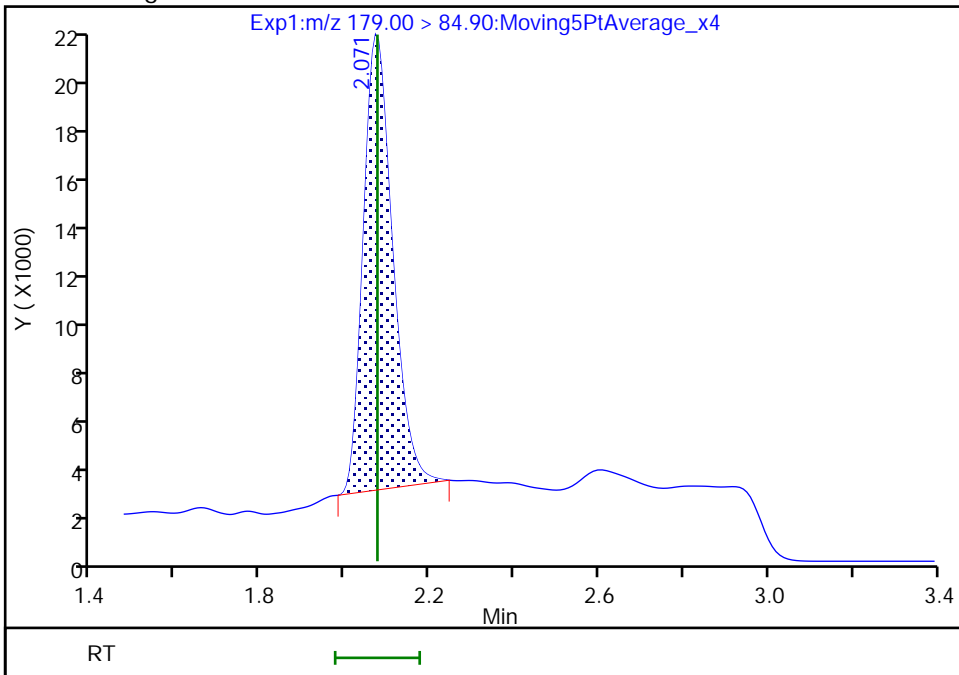
RT: 2.07  
Area: 308241  
Amount: 0.116294  
Amount Units: ng/ml

Processing Integration Results



RT: 2.07  
Area: 88298  
Amount: 0.047918  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:35:53  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

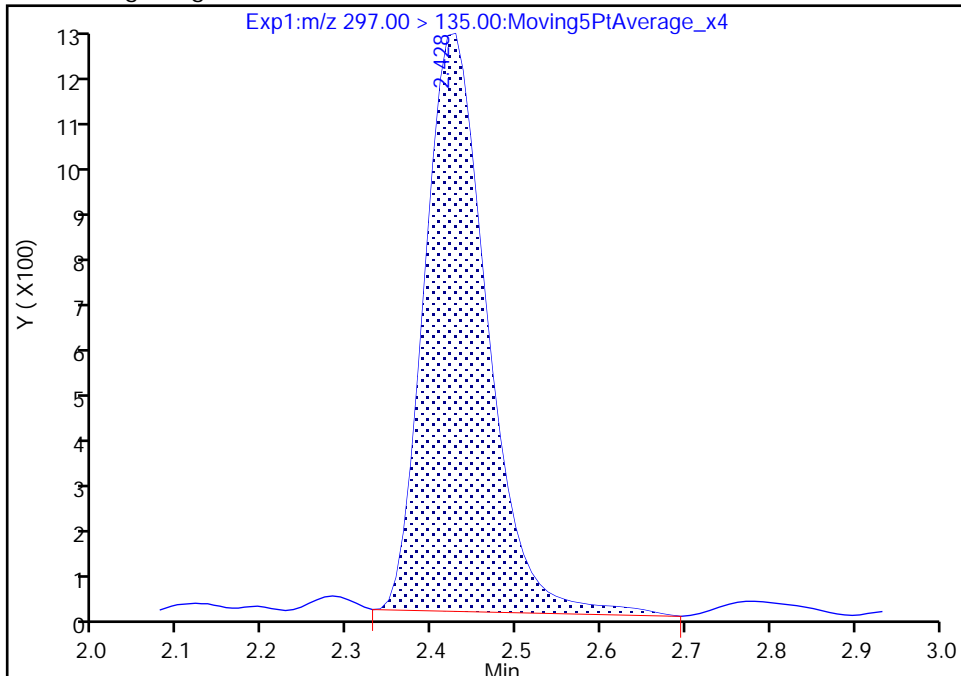
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

13 NVHOS, CAS: 1132933-86-8

Signal: 1

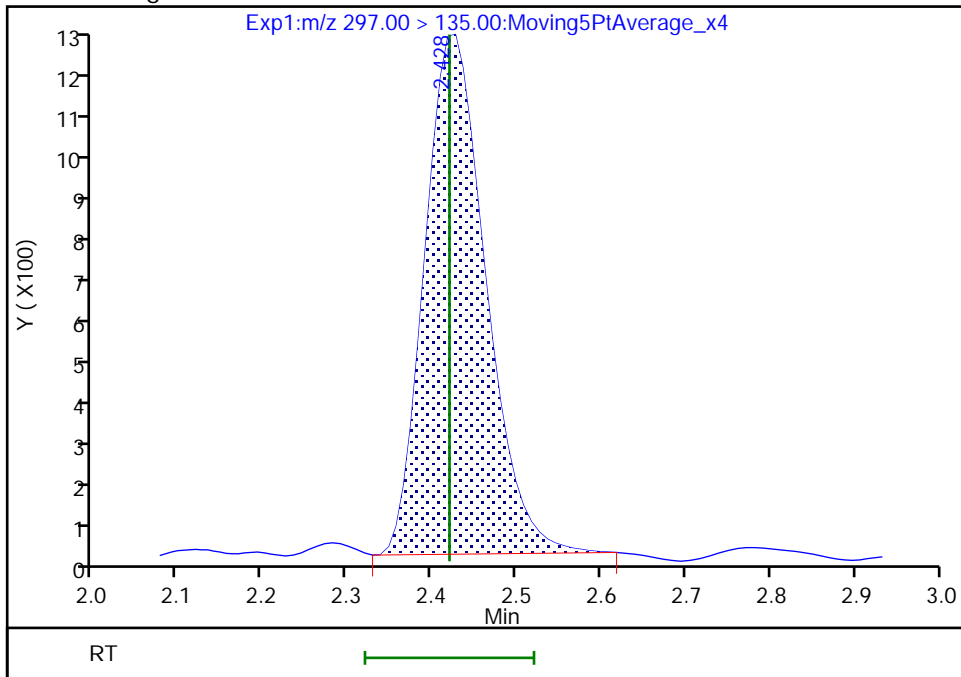
RT: 2.43  
Area: 6131  
Amount: 0.054929  
Amount Units: ng/ml

Processing Integration Results



RT: 2.43  
Area: 5942  
Amount: 0.053495  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:36:16  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

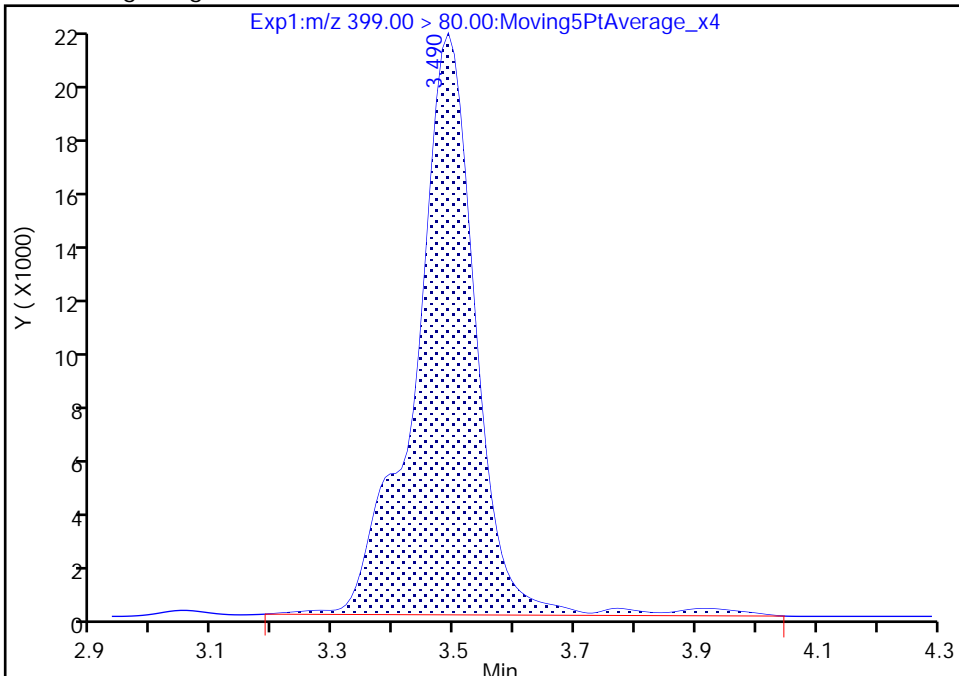
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

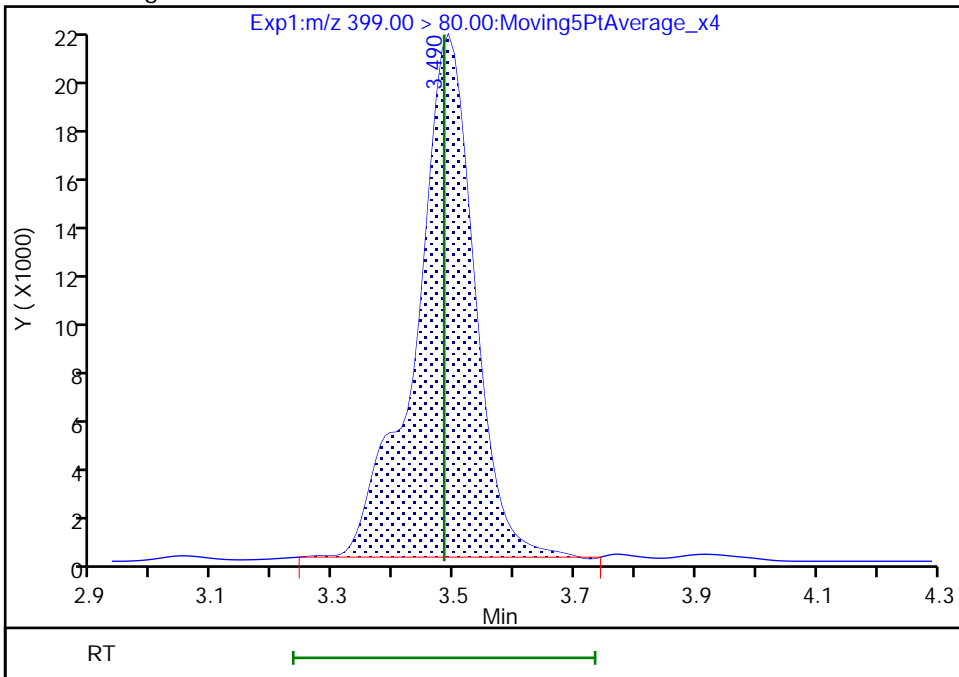
RT: 3.49  
Area: 149966  
Amount: 0.047515  
Amount Units: ng/ml

Processing Integration Results



RT: 3.49  
Area: 143537  
Amount: 0.045799  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:36:48  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

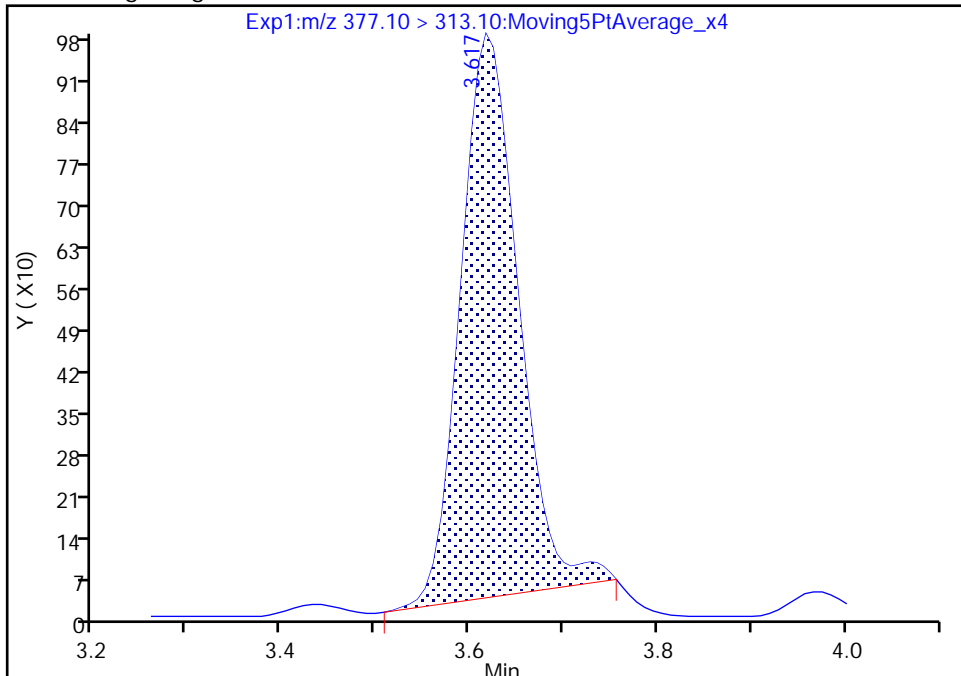
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
 Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
 Lims ID: IC L2  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

48 6:2 FTCA, CAS: 53826-12-3

Signal: 1

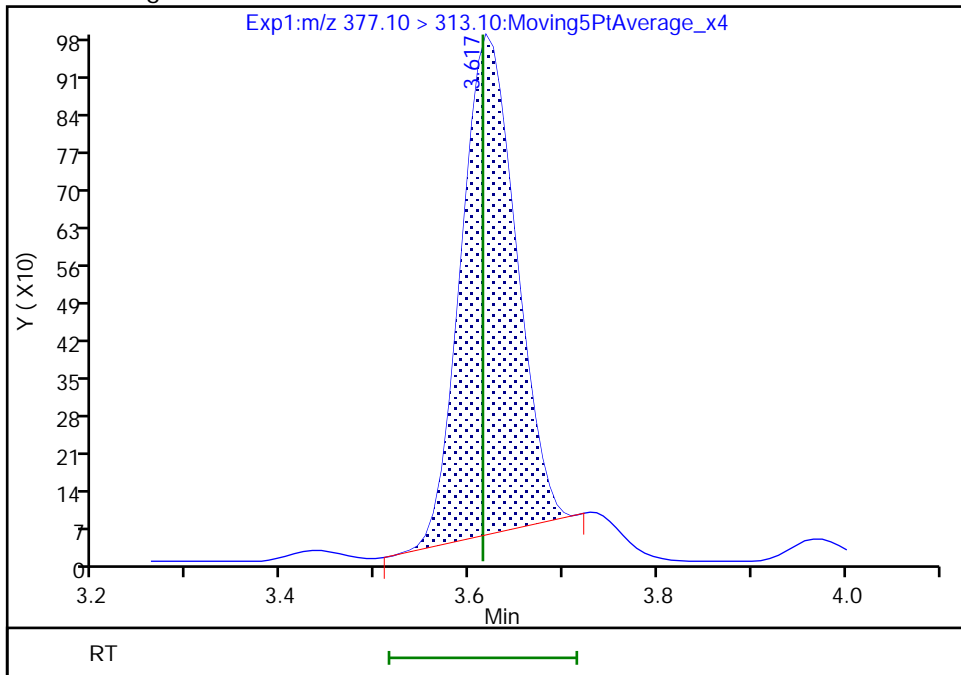
RT: 3.62  
 Area: 4038  
 Amount: 0.054539  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.62  
 Area: 3766  
 Amount: 0.047595  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:10  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

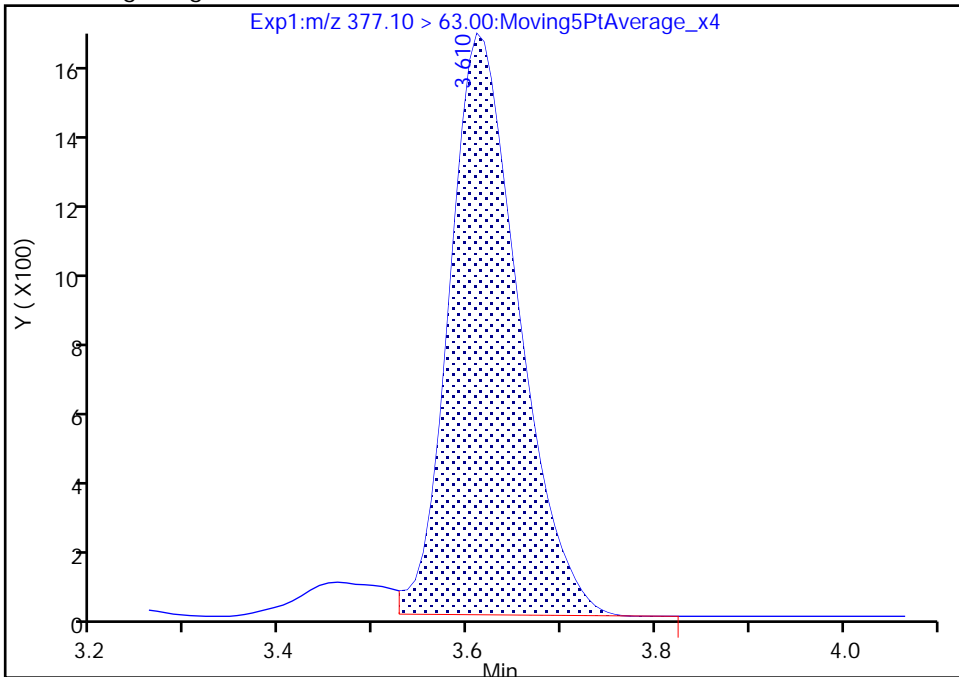
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
 Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
 Lims ID: IC L2  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

48 6:2 FTCA, CAS: 53826-12-3

Signal: 2

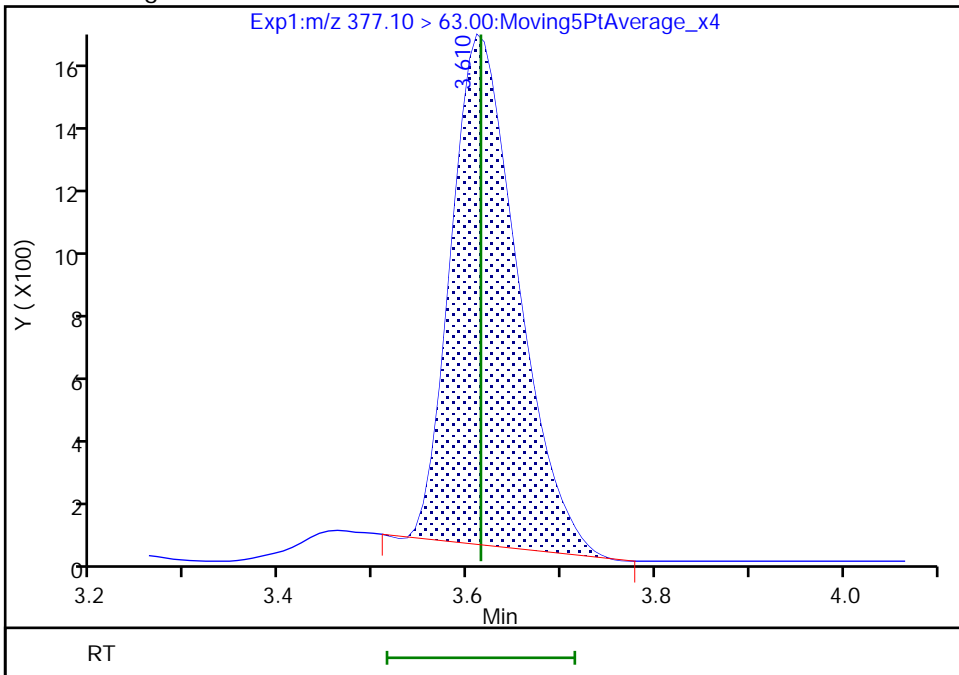
RT: 3.61  
 Area: 8170  
 Amount: 0.054539  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.61  
 Area: 7644  
 Amount: 0.047595  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:16

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

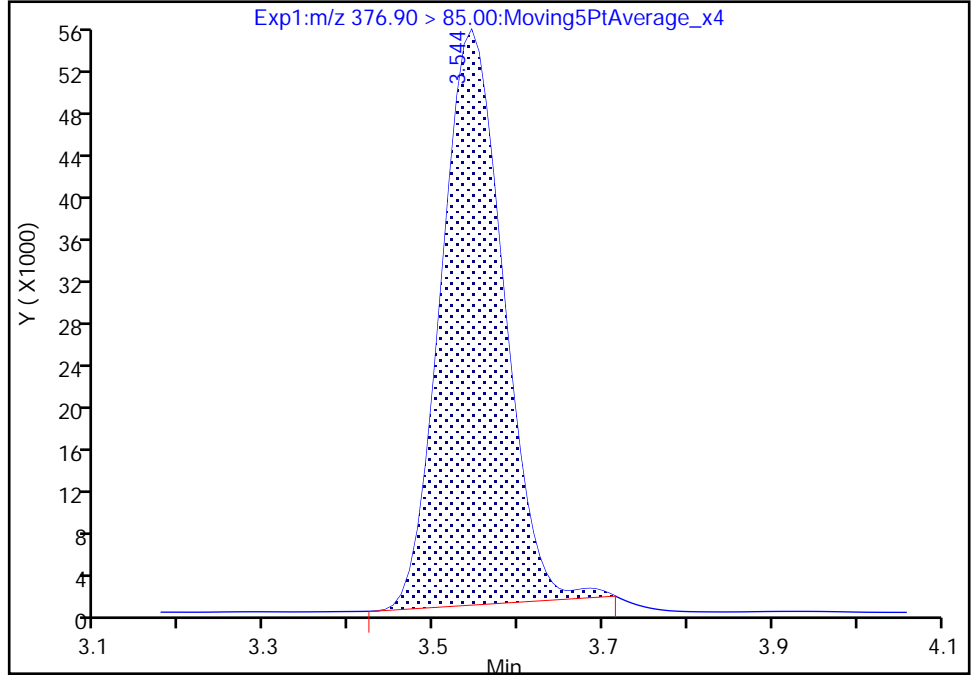
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

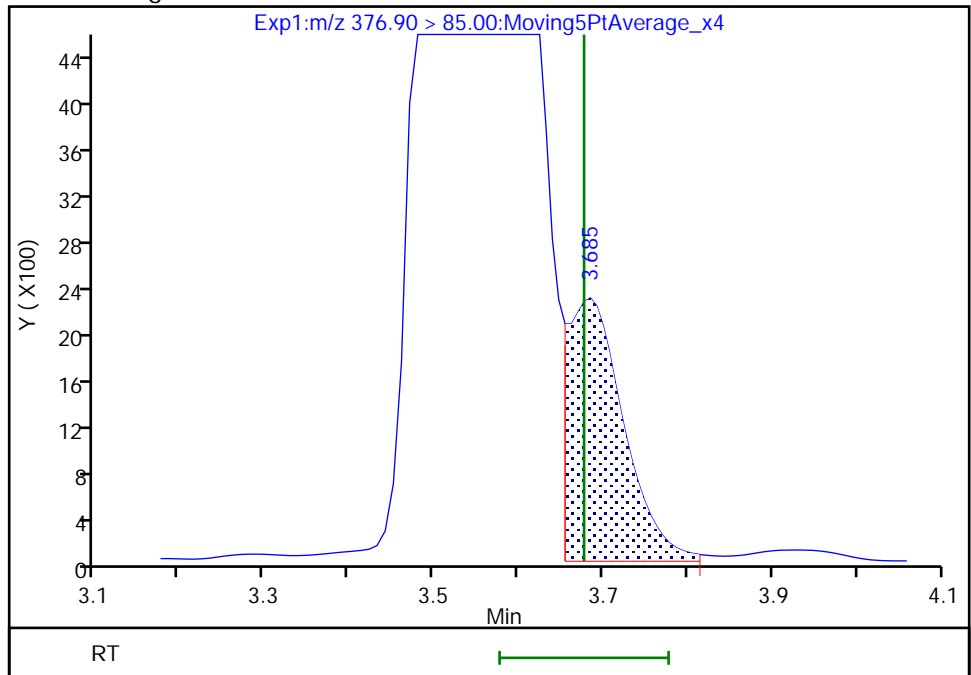
RT: 3.54  
Area: 281323  
Amount: 0.058678  
Amount Units: ng/ml

Processing Integration Results



RT: 3.69  
Area: 10264  
Amount: 0.047550  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:39:02  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

Eurofins TestAmerica, Sacramento

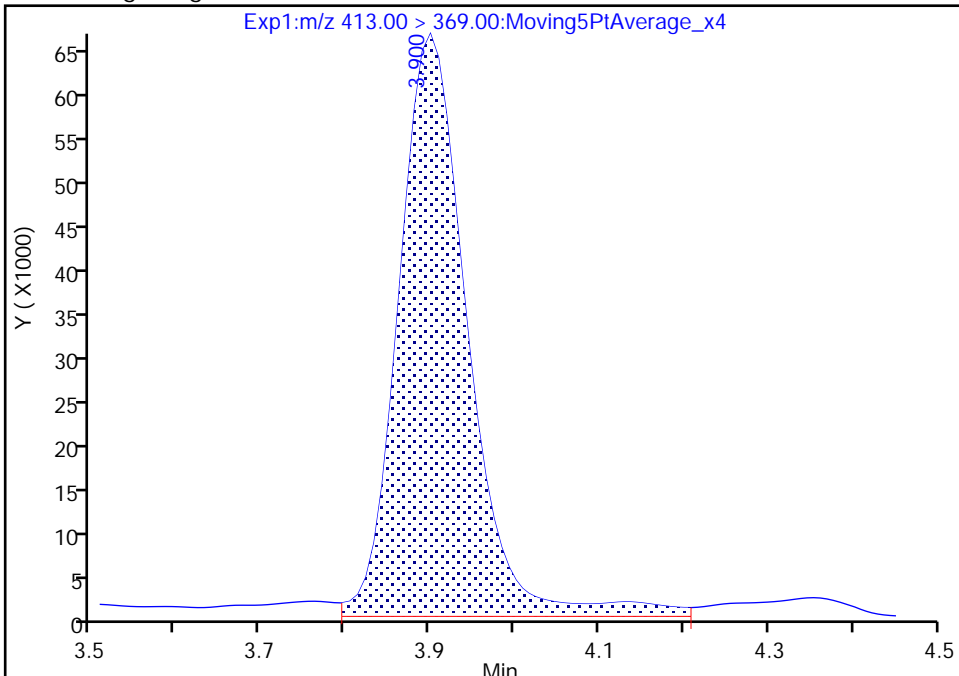
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

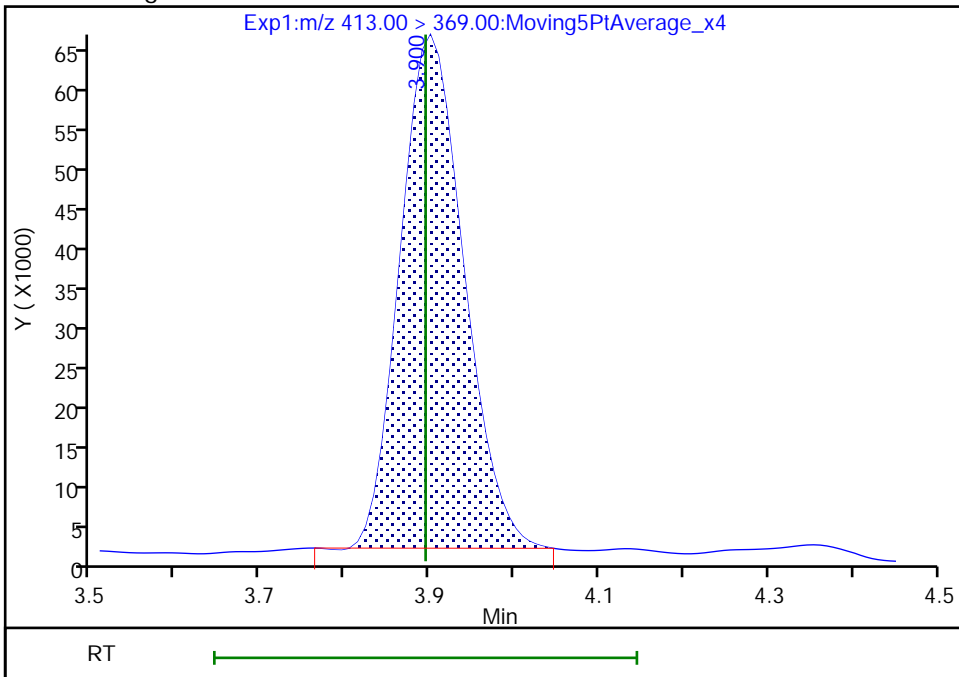
RT: 3.90  
Area: 379446  
Amount: 0.055068  
Amount Units: ng/ml

Processing Integration Results



RT: 3.90  
Area: 339852  
Amount: 0.050145  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:26  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

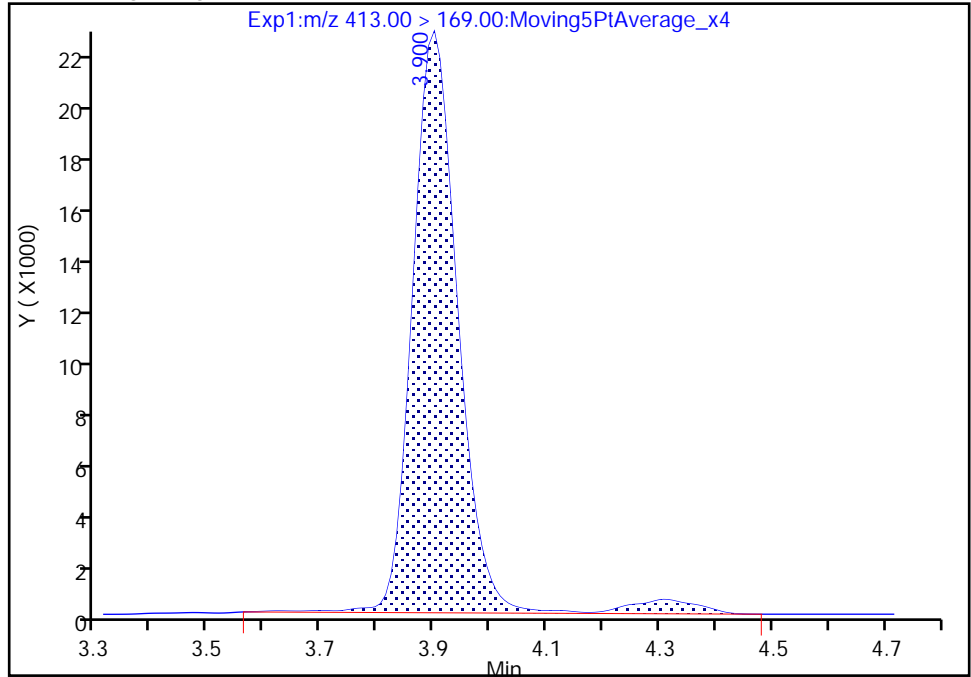
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

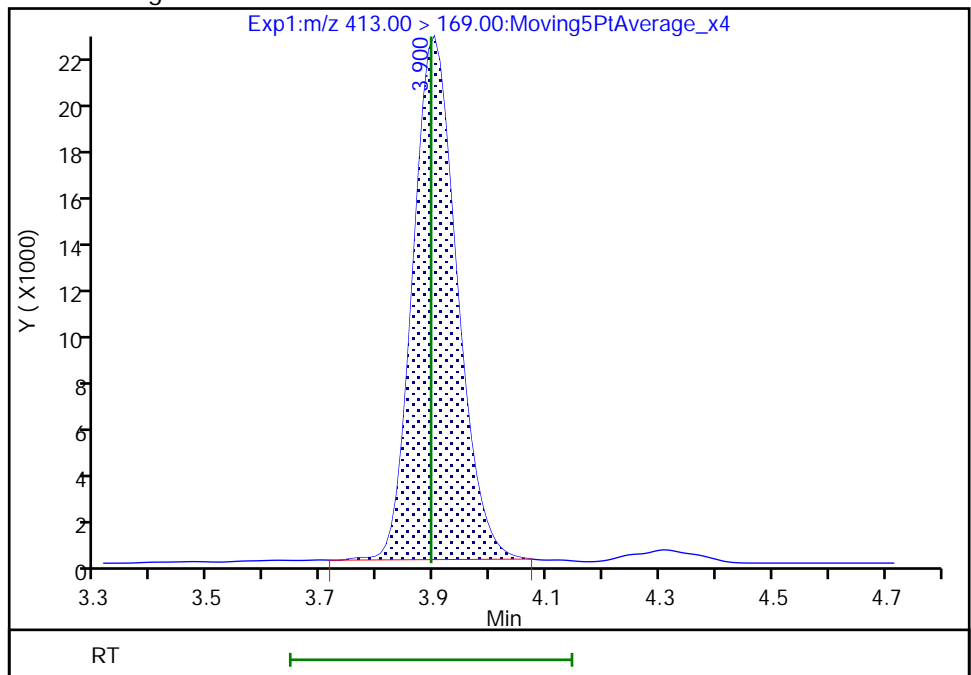
RT: 3.90  
Area: 128988  
Amount: 0.055068  
Amount Units: ng/ml

Processing Integration Results



RT: 3.90  
Area: 121717  
Amount: 0.050145  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:31

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

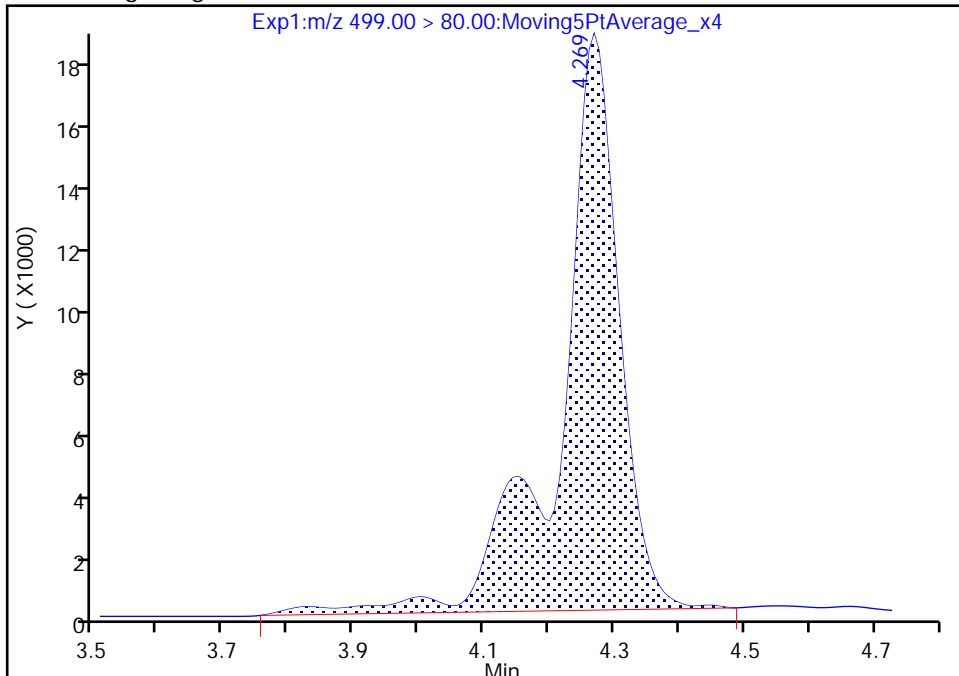
Data File:	\\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01_A15_PFC+_ICAL_005.d		
Injection Date:	01-Jun-2021 14:16:34	Instrument ID:	A15
Lims ID:	IC L2		
Client ID:			
Operator ID:	SACINSTA15	ALS Bottle#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

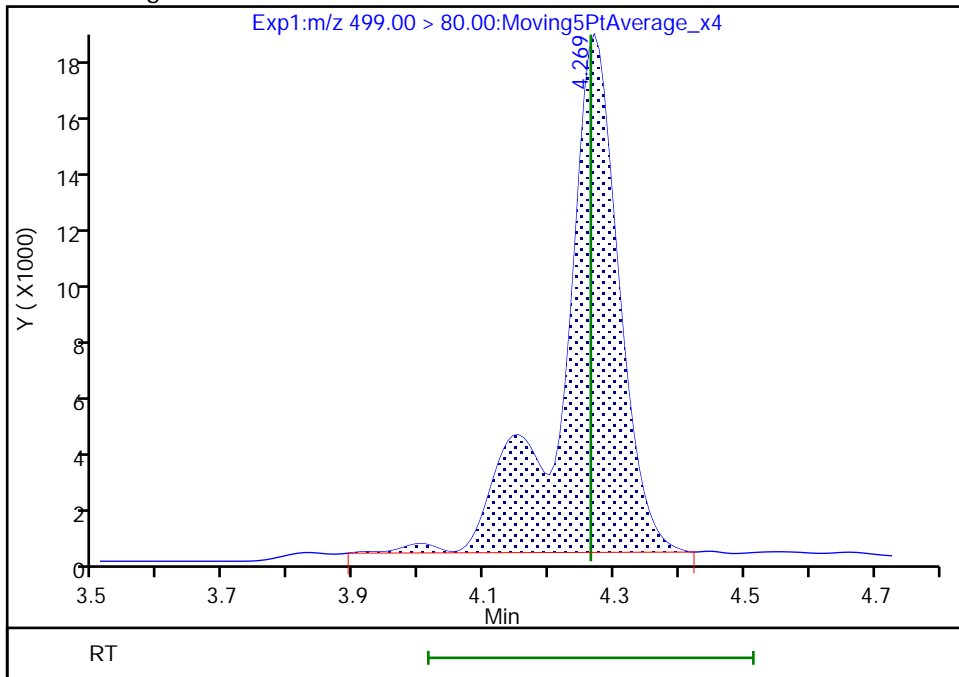
RT: 4.27  
 Area: 116980  
 Amount: 0.046875  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
 Area: 110868  
 Amount: 0.045014  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:43  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

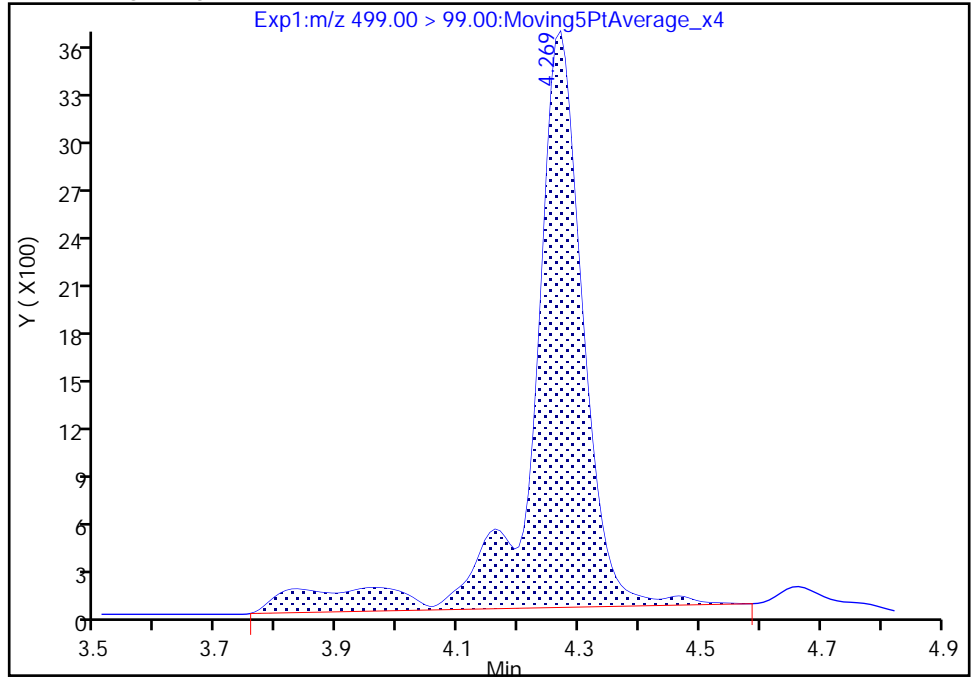
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
Lims ID: IC L2  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

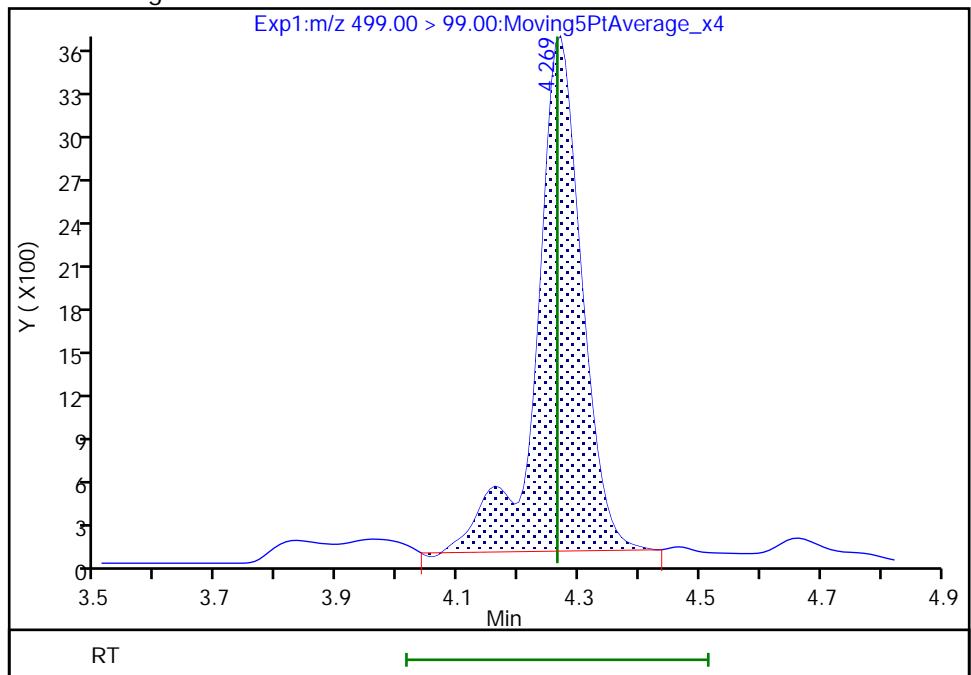
RT: 4.27  
Area: 21770  
Amount: 0.046875  
Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
Area: 18634  
Amount: 0.045014  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:37:47

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

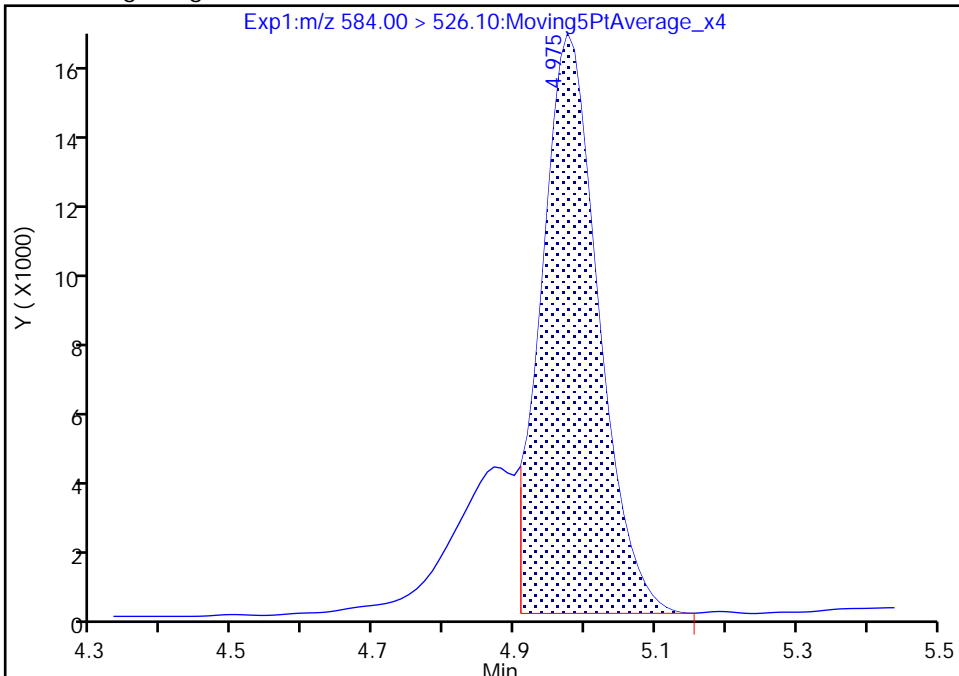
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_005.d  
 Injection Date: 01-Jun-2021 14:16:34 Instrument ID: A15  
 Lims ID: IC L2  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

84 NEtFOSAA, CAS: 2991-50-6

Signal: 2

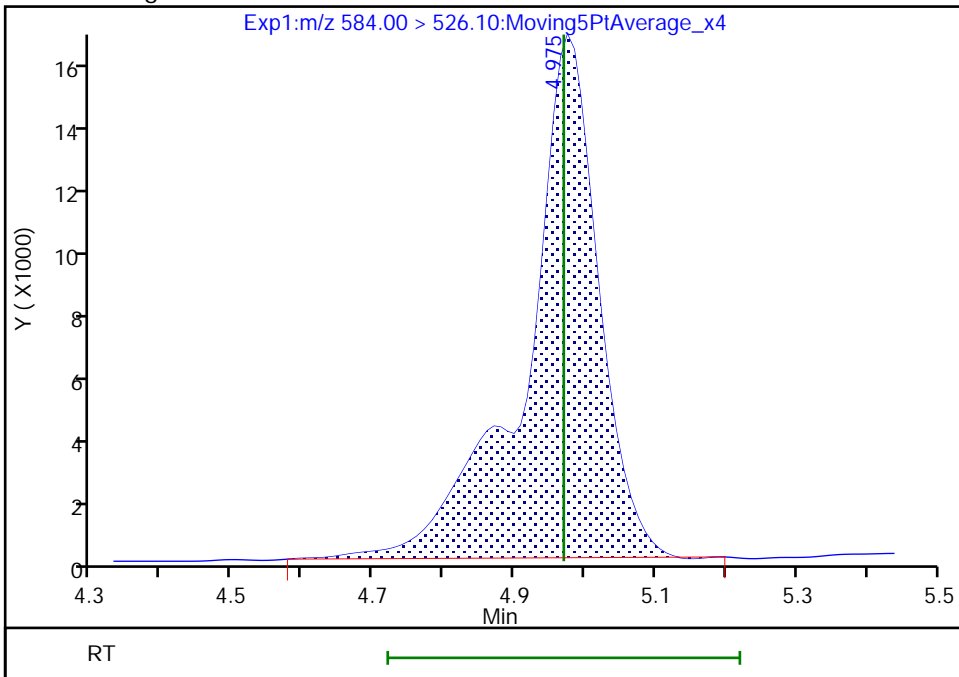
RT: 4.98  
 Area: 91962  
 Amount: 0.048160  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.98  
 Area: 118620  
 Amount: 0.048160  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:38:08  
 Audit Action: Manually Integrated

Audit Reason: Isomers

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_006.d  
 Lims ID: IC L3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 01-Jun-2021 14:25:41 ALS Bottle#: 3 Worklist Smp#: 4  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 3 (2)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:53:54 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:41:40

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.792	0.773	0.019	0.339	53964	0.2520	101	59.2	
2 MMF	139.00 > 51.00	0.799	0.779	0.020	0.342	115190	0.2754	110	69.4	
3 MTP	175.00 > 97.00	1.142	1.196	-0.054	0.488	127466	0.2462	98.5	53.4	
4 PPF Acid	162.95 > 119.00	1.578	1.613	-0.035	0.675	822770	0.2256	93.0	106	M
5 PFMOAA	179.00 > 84.90	2.070	2.075	-0.005	0.885	426511	0.2396	95.8	223	M
6 R-PSDA	441.00 > 241.00	2.217	2.213	0.004	0.948	155024	0.2412	96.5	3548	
7 R-EVE	405.00 > 217.00	2.225	2.220	0.005	0.952	472207	0.2456	98.3	13659	
8 Hydrolyzed PSDA	439.10 > 342.90	2.225	2.221	0.004	0.952	608077	0.2398	95.9	24137	
D 9 13C4 PFBA	217.00 > 172.00	2.338	2.334	0.004	0.599	7224001	1.21	96.8	80811	
10 Perfluorobutanoic acid	212.90 > 169.00	2.338	2.334	0.004	1.000	1398772	0.2559	102	902	
11 PMPA	229.00 > 185.00	2.400	2.400	0.0	1.027	327107	0.2594	104	422	
12 PFPrS	249.10 > 80.00	2.409	2.405	0.004	0.887	1012130	0.2290	100	4358	
13 NVHOS	297.00 > 135.00	2.426	2.421	0.005	1.038	24001	0.2237	89.5	1150	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.461	2.462	-0.001	0.918	896648	0.2497		99.9	15607	
16 PFO2HxA										
245.00 > 85.00	2.606	2.602	0.004	0.972	92181	0.2303		92.1	508	
D 17 13C5 PFPeA										
267.90 > 223.00	2.682	2.681	0.001	0.688	6883289	1.22		97.7	63896	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.682	2.682	0.0	1.000	1441844	0.2499		99.9	1760	
19 3:3 FTCA										
241.00 > 177.10	2.692	2.690	0.002	0.992	98868	0.2643	Target=1.28	106	1807	
241.00 > 116.90	2.692	2.690	0.002	0.992	69694		1.42(0.64-1.92)	106	318	
D 21 13C3 PFBS										
301.90 > 80.00	2.715	2.714	0.001	0.696	4426842	1.13		96.9	28499	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.715	2.716	-0.001	1.000	954874	0.2218	Target=2.36	100	7255	
298.90 > 99.00	2.715	2.716	-0.001	1.000	423839		2.25(1.18-3.53)	100	2621	
22 PEPA										
278.90 > 234.90	2.780	2.778	0.002	1.037	228553	0.2518		101	358	
23 PFECA A										
278.95 > 84.90	2.800	2.795	0.005	1.044	1628795	0.2476		99.0	25743	
24 PES										
314.80 > 135.00	2.869	2.868	0.001	1.057	3262411	0.2228		100	46179	
25 PFECA B										
295.20 > 201.00	3.000	2.996	0.004	0.978	182737	0.2651		106	5833	
26 4:2 FTS										
327.00 > 307.00	3.028	3.022	0.006	1.000	610494	0.2379	Target=2.17	102	18872	
327.00 > 79.96	3.028	3.022	0.006	1.000	262883		2.32(1.09-3.26)	102	3048	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.028	3.022	0.006	0.776	1251915	1.19		102	11517	
D 28 13C2 PFHxA										
315.00 > 270.00	3.067	3.061	0.005	0.786	6467493	1.16		92.7	60887	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.067	3.062	0.004	1.000	1460877	0.2520	Target=13.89	101	3025	
313.00 > 119.00	3.067	3.062	0.004	1.000	101155		14.44(6.95-20.84)	101	1390	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.086	3.081	0.005	1.137	868180	0.2290	Target=3.10	97.6	7666	
349.00 > 99.00	3.086	3.081	0.005	1.137	275439		3.15(1.55-4.65)	97.6	5450	
31 PFO3OA										
311.10 > 85.20	3.136	3.129	0.007	1.023	47230	0.2647		106	597	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.206	3.201	0.005	0.822	1209708	1.22		97.7	36387	
33 HFPO-DA										
285.00 > 169.00	3.206	3.201	0.005	1.000	251402	0.2551	Target=1.03	102	7576	
285.00 > 185.00	3.206	3.201	0.005	1.000	225709		1.11(0.52-1.55)	102	1949	
34 R-PSDCA										
397.00 > 217.00	3.442	3.437	0.005	0.989	79837	0.2228		89.1	3693	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.471	3.468	0.003	0.997	1979709	0.2396		95.8	9166	
D 38 18O2 PFHxS										
403.00 > 84.00	3.490	3.485	0.005	0.895	3058001	1.10		92.6	51466	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.490	3.485	0.005	1.003	1446396	0.2549	Target=3.81	102	5216	
363.00 > 169.00	3.481	3.485	-0.004	1.000	364282		3.97(1.91-5.72)	102	3726	
D 37 13C4 PFHpA										
367.00 > 322.00	3.481	3.482	-0.001	0.892	6712678	1.22		97.8	62183	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.481	3.483	-0.002	0.997	666227	0.2330	Target=3.50	102	7260	
399.00 > 99.00	3.490	3.483	0.007	1.000	189552		3.51(1.75-5.25)	102	2062	
40 Hydro-PS Acid										
463.00 > 263.00	3.499	3.494	0.005	1.005	2017221	0.2377		95.1	4852	
41 DONA										
377.00 > 251.00	3.544	3.538	0.006	0.830	2854561	0.2463	Target=2.07	105	36603	
377.00 > 85.00	3.544	3.538	0.006	0.830	1330448		2.15(1.03-3.10)	105	7445	
44 PFECA G										
378.90 > 184.90	3.561	3.558	0.003	0.991	185439	0.2472		98.9	3691	
43 5:3 FTCA										
340.88 > 236.90	3.561	3.561	0.0	0.991	363093	0.2640	Target=1.08	106	4001	
340.88 > 216.90	3.561	3.561	0.0	0.991	335371		1.08(0.54-1.62)	106	4754	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.594	3.592	0.002	0.922	5788825	1.21		97.0	293107	
46 6:2 FTUCA										
356.86 > 292.90	3.594	3.592	0.002	0.994	1240310	0.2328	Target=14.03	93.1	18124	
356.86 > 243.00	3.594	3.592	0.002	0.994	94772		13.09(7.02-21.05)	93.1	2801	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.614	-0.004	1.004	23075	0.3106	Target=0.54	124	666	
377.10 > 63.00	3.617	3.614	0.003	1.006	35433		0.65(0.27-0.81)	124	1541	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.617	3.614	0.003	0.927	376753	1.29		103	3959	
42 PFO4DA										
376.90 > 85.00	3.685	3.677	0.008	1.059	53028	0.2503		100	5.2	a
49 PS Acid										
442.80 > 146.80	3.742	3.738	0.004	0.959	949673	0.2326		93.0	20447	
50 EVE Acid										
407.00 > 262.90	3.756	3.754	0.002	0.963	1554230	0.2393		95.7	54275	
51 PFECHS										
460.80 > 380.90	3.833	3.833	0.0	0.983	1675588	0.2260	Target=1.90	98.0	25417	
460.80 > 98.90	3.833	3.833	0.0	0.983	883231		1.90(0.95-2.85)	98.0	18061	
53 6:2 FTS										
427.00 > 407.00	3.881	3.876	0.005	1.000	634062	0.2453	Target=2.11	103	2955	
427.00 > 79.96	3.881	3.876	0.005	1.000	298571		2.12(1.06-3.17)	103	1624	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.881	3.876	0.005	0.995	1490395	1.18		99.0	27378	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.891	3.885	0.006	0.911	582004	0.2474	Target=4.82	104	4755	
449.00 > 99.00	3.891	3.885	0.006	0.911	107408		5.42(2.41-7.24)	104	1549	
* 57 13C2 PFOA										
415.00 > 370.00	3.900	3.895	0.005		7483102	1.25			72505	
D 56 13C4 PFOA										
417.00 > 372.00	3.900	3.895	0.005	1.000	7753318	1.24		99.3	110217	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.900	3.895	0.005	1.000	8586998	1.23		98.3	87782	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.900	3.895	0.005	1.000	1643124	0.2535	Target=2.87	101	3084	
413.00 > 169.00	3.900	3.895	0.005	1.000	547069		3.00(1.43-4.30)	101	12479	
59 TAF										
442.90 > 85.00	4.185	4.180	0.005	1.073	17985	0.1874		75.0	206	
D 61 13C4 PFOS										
503.00 > 80.00	4.269	4.264	0.005	1.095	2463485	1.13		94.2	33515	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.269	4.264	0.005	1.095	732673	1.12		93.7	15863	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.269	4.264	0.005	1.000	537977	0.2320	Target=5.95	100.0	5000	M
499.00 > 99.00	4.269	4.264	0.005	1.000	87766		6.13(2.97-8.92)	100.0	2065	M
D 63 13C5 PFNA										
468.00 > 423.00	4.284	4.279	0.005	1.098	7224686	1.21		96.9	97530	
64 Perfluorononanoic acid										
463.00 > 419.00	4.284	4.280	0.004	1.000	1482464	0.2590	Target=7.58	104	3693	
463.00 > 169.00	4.284	4.280	0.004	1.000	193229		7.67(3.79-11.37)	104	2660	
65 7:3 FTCA										
441.00 > 337.00	4.385	4.381	0.004	0.992	494504	0.2193	Target=1.21	87.7	4168	
441.00 > 317.00	4.385	4.381	0.004	0.992	427630		1.16(0.60-1.81)	87.7	7553	
67 8:2 FTUCA										
456.86 > 392.90	4.409	4.404	0.005	1.000	1436470	0.2531	Target=35.28	101	25698	
456.86 > 343.00	4.409	4.404	0.005	1.000	43020		33.39(17.64-52.92)	101	1789	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.409	4.404	0.005	1.131	7277073	1.23		98.5	309299	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.423	4.419	0.004	1.134	365870	1.36		108	11639	
69 8:2 FTCA										
477.00 > 393.10	4.423	4.420	0.003	1.000	88554	0.2615	Target=3.24	105	3236	
477.00 > 63.20	4.423	4.420	0.003	1.000	31545		2.81(1.62-4.86)	105	1831	
70 9CIFOS										
531.00 > 351.00	4.473	4.469	0.004	1.048	1138668	0.2449		105	30288	
D 71 13C8 FOSA										
506.00 > 78.00	4.568	4.561	0.007	1.171	4385738	1.19		95.1	118202	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.568	4.561	0.007	1.000	874353	0.2482		99.3	13736	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.615	4.610	0.005	1.081	470960	0.2440	Target=3.28	102	6714	
549.00 > 99.00	4.615	4.610	0.005	1.081	135630		3.47(1.64-4.92)	102	2540	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.635	4.636	-0.001	0.998	1520447	0.2401	Target=9.70	96.0	8308	
513.00 > 169.00	4.635	4.636	-0.001	0.998	158225		9.61(4.85-14.54)	96.0	1616	
D 74 13C2 PFDA										
515.00 > 470.00	4.644	4.637	0.007	1.191	7743280	1.30		104	176206	
77 8:2 FTS										
527.00 > 507.00	4.644	4.639	0.005	1.000	793602	0.2445	Target=2.33	102	28584	
527.00 > 79.96	4.644	4.639	0.005	1.000	336145		2.36(1.17-3.50)	102	3168	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.644	4.640	0.004	1.191	2486771	1.26		105	34562	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.804	4.798	0.006	1.232	3014224	1.20		95.7	35709	
79 NMeFOSAA										
570.00 > 419.00	4.813	4.806	0.007	1.002	437621	0.2453	Target=0.83	98.1	5403	
570.00 > 483.00	4.813	4.806	0.007	1.002	551957		0.79(0.42-1.25)	98.1	13429	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.928	4.928	0.0	1.154	425988	0.2522	Target=3.22	105	7276	
599.00 > 99.00	4.928	4.928	0.0	1.154	130596		3.26(1.61-4.83)	105	3559	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.966	4.959	0.007	1.002	1369211	0.2588	Target=9.27	104	8928	
563.00 > 169.00	4.966	4.959	0.007	1.002	148782		9.20(4.63-13.90)	104	3522	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.966	4.963	0.003	1.273	3117654	1.24		99.5	26062	
D 82 13C2 PFUnA										
565.00 > 520.00	4.956	4.958	-0.002	1.271	7180240	1.25		99.9	134415	
84 NEtFOSAA										
584.00 > 419.00	4.975	4.970	0.005	1.002	454717	0.2545	Target=0.77	102	12261	
584.00 > 526.10	4.975	4.970	0.005	1.002	581459		0.78(0.39-1.16)	102	8449	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.991	0.003	1.280	1762540	1.17		93.7	9648	
86 N-MeFOSE-M										
616.00 > 59.00	5.004	5.002	0.002	1.002	401280	0.2691		108	3340	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.013	5.012	0.001	1.285	1314618	1.19		95.1	362	
90 NMeFOSA										
512.00 > 169.00	5.023	5.018	0.005	1.002	277621	0.2604	Target=1.61	104	2380	
512.00 > 218.99	5.023	5.018	0.005	1.002	162355		1.71(0.80-2.41)	104	1727	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.086	5.080	0.006	1.304	8815348	1.27		102	264698	
89 10:2 FTUCA										
556.86 > 492.90	5.086	5.080	0.006	0.998	1477553	0.2337		93.5	38004	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.096	5.091	0.005	1.307	280783	1.38		111	4076	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.096	5.093	0.003	1.002	53835	0.2688	Target=2.56	108	2405	
576.80 > 63.10	5.096	5.093	0.003	1.002	27270		1.97(1.28-3.83)	108	1260	
93 11CIFOS										
631.00 > 451.00	5.096	5.094	0.002	1.194	1338926	0.2415		103	35512	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.164	5.158	0.006	1.324	2035494	1.21		97.1	12156	
95 N-EtFOSE-M										
630.00 > 59.00	5.172	5.171	0.001	1.002	484370	0.2534		101	3779	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.190	5.184	0.006	1.331	1271228	1.17		93.7	3202	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.000	269330	0.2556	Target=1.61	102	1796	
526.00 > 218.99	5.190	5.190	0.0	1.000	164611		1.64(0.80-2.41)	102	1540	
D 97 13C2 PFDaA										
615.00 > 570.00	5.251	5.246	0.005	1.346	8225765	1.32		106	106294	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.251	5.246	0.005	1.000	1868060	0.2555	Target=7.93	102	10042	
613.00 > 169.00	5.251	5.246	0.005	1.000	226420		8.25(3.97-11.90)	102	7405	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.268	5.263	0.005	1.351	2034729	1.28		106	75883	
101 10:2 FTS										
627.00 > 607.00	5.277	5.271	0.006	1.002	616251	0.2405	Target=1.46	99.8	19050	
627.00 > 79.96	5.268	5.271	-0.003	1.000	408596		1.51(0.73-2.19)	99.8	4731	
102 PFDoS										
699.00 > 80.00	5.485	5.477	0.008	1.285	114540	0.2389	Target=0.54	98.7	3035	
699.00 > 99.00	5.485	5.477	0.008	1.285	210273		0.54(0.27-0.81)	98.7	4879	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.516	5.513	0.003	1.051	1423926	0.2332	Target=5.84	93.3	4580	
663.00 > 169.00	5.516	5.513	0.003	1.051	232137		6.13(2.92-8.75)	93.3	5233	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.767	5.760	0.007	1.479	6697651	1.17		93.5	117942	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.767	5.761	0.006	1.000	166723	0.2531	Target=1.07	101	7234	
713.00 > 219.00	5.767	5.761	0.006	1.000	173731		0.96(0.53-1.60)	101	7453	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.230	6.223	0.007	1.597	5490919	1.25		100	37446	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.230	6.224	0.006	1.000	1109391	0.2635	Target=7.49	105	2275	
813.00 > 169.00	6.230	6.224	0.006	1.000	139600		7.95(3.75-11.24)	105	3204	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.724	6.715	0.009	1.079	692594	0.2597	Target=9.70	104	2111	
913.00 > 169.00	6.724	6.715	0.009	1.079	69596		9.95(4.85-14.55)	104	1830	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

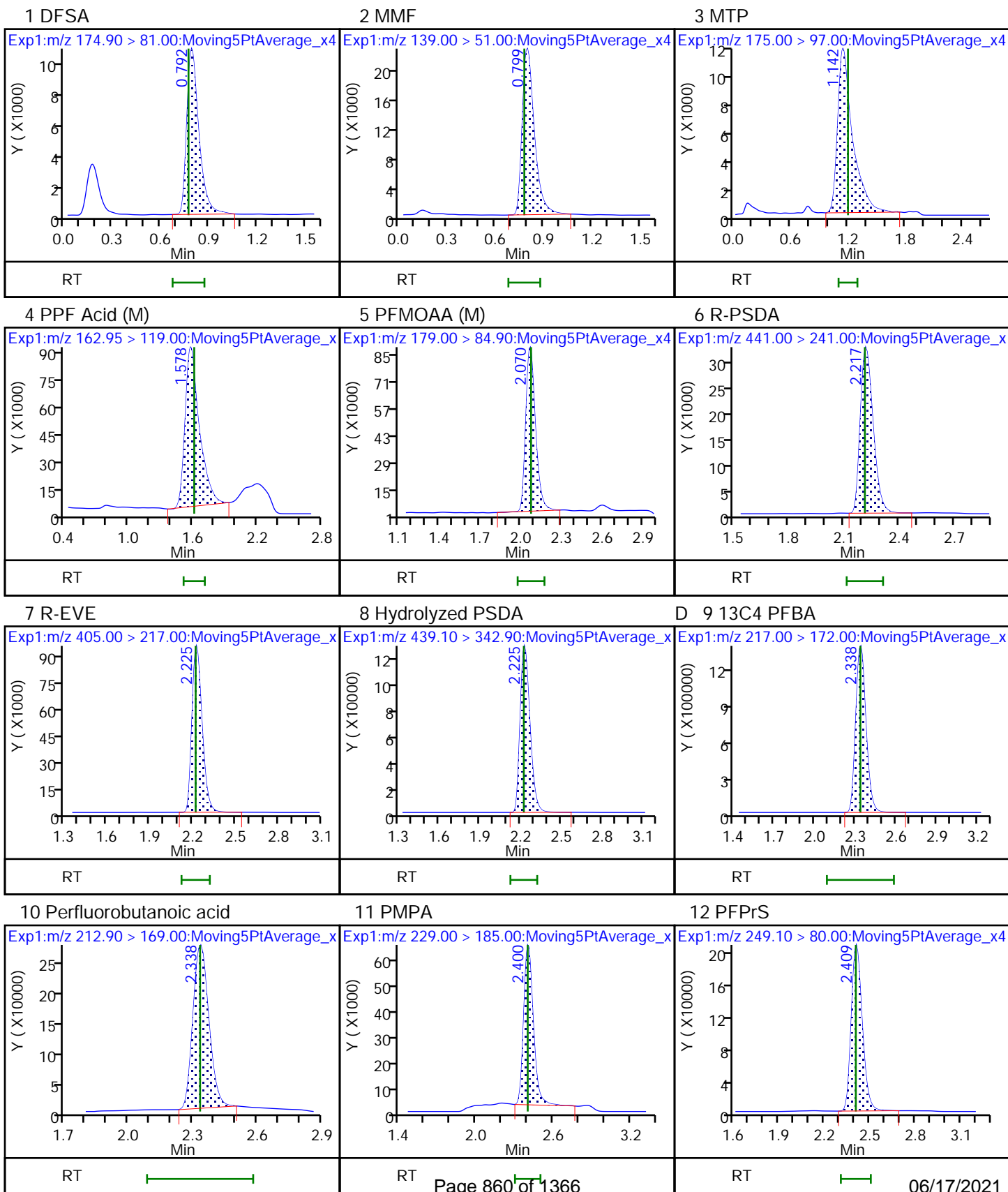
a - User Assigned ID

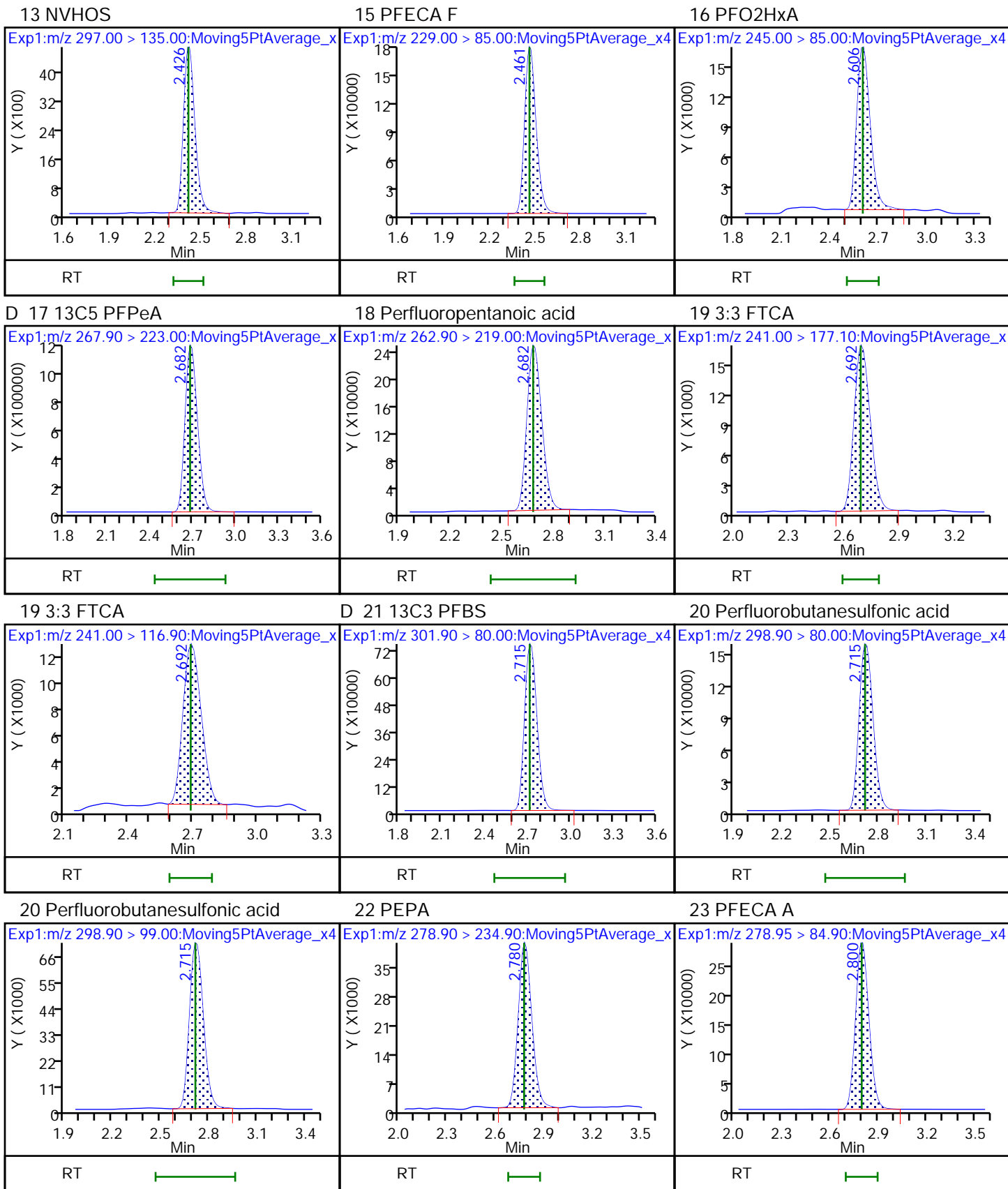
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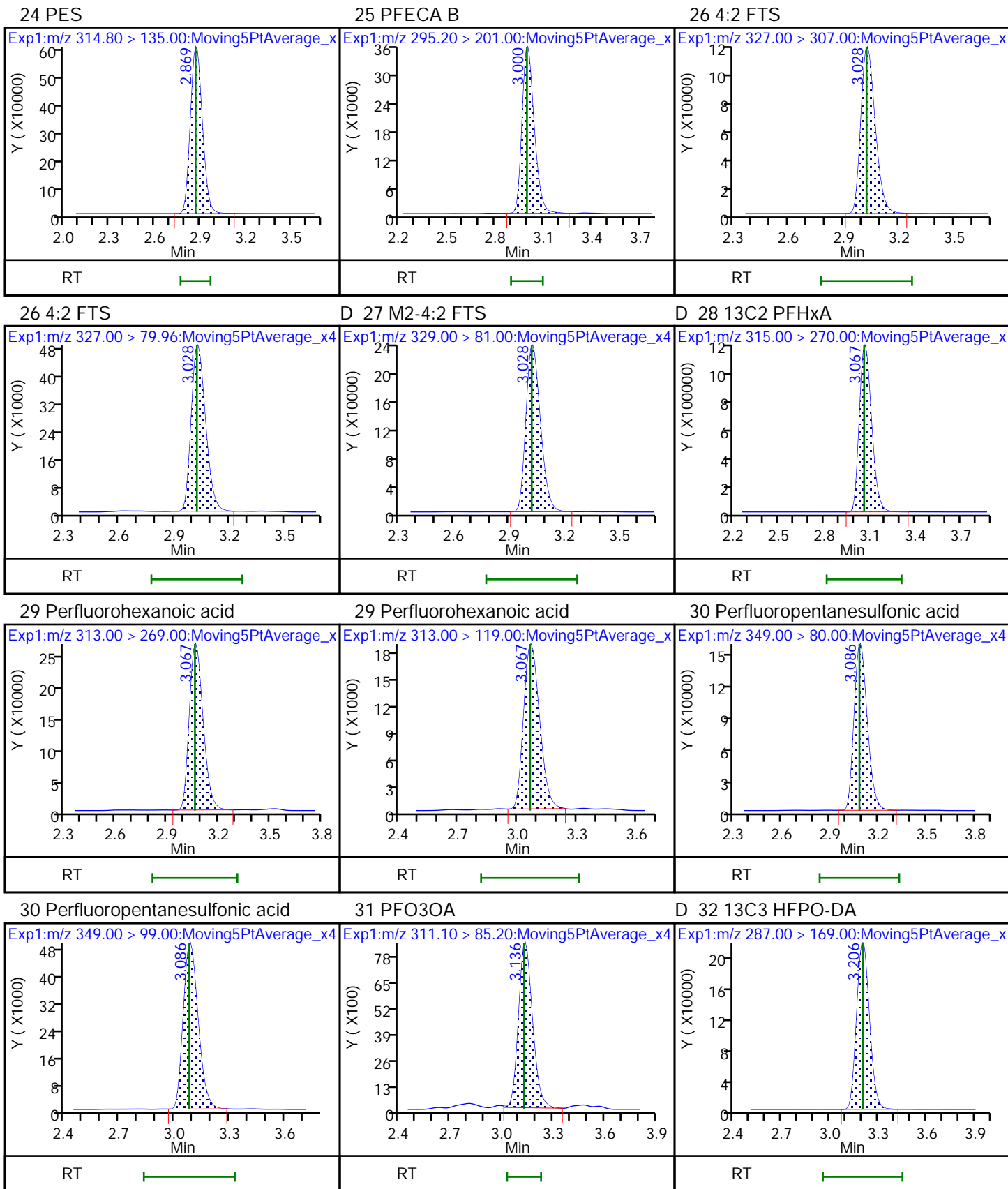
LCPFC+\_LL3\_00002

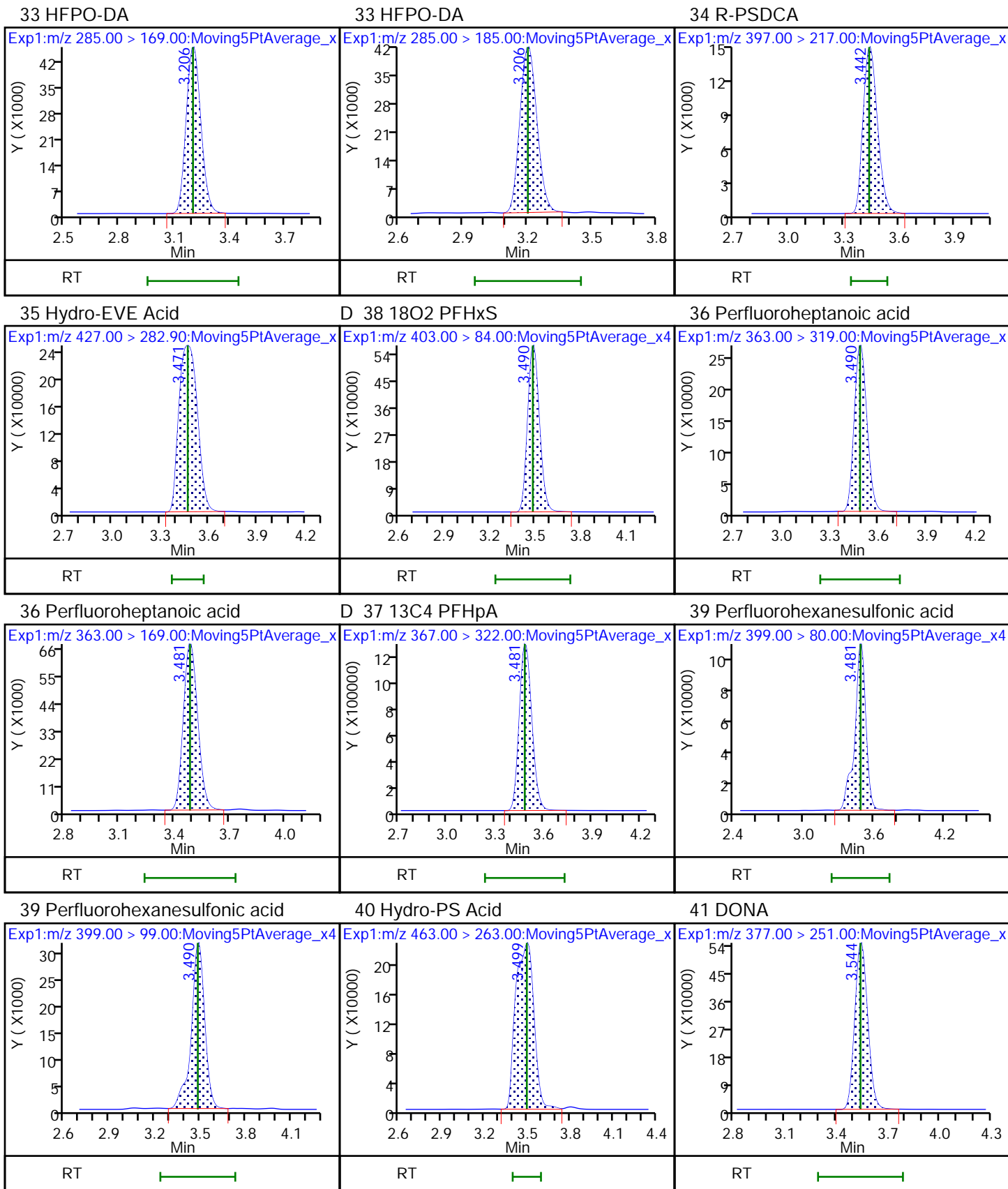
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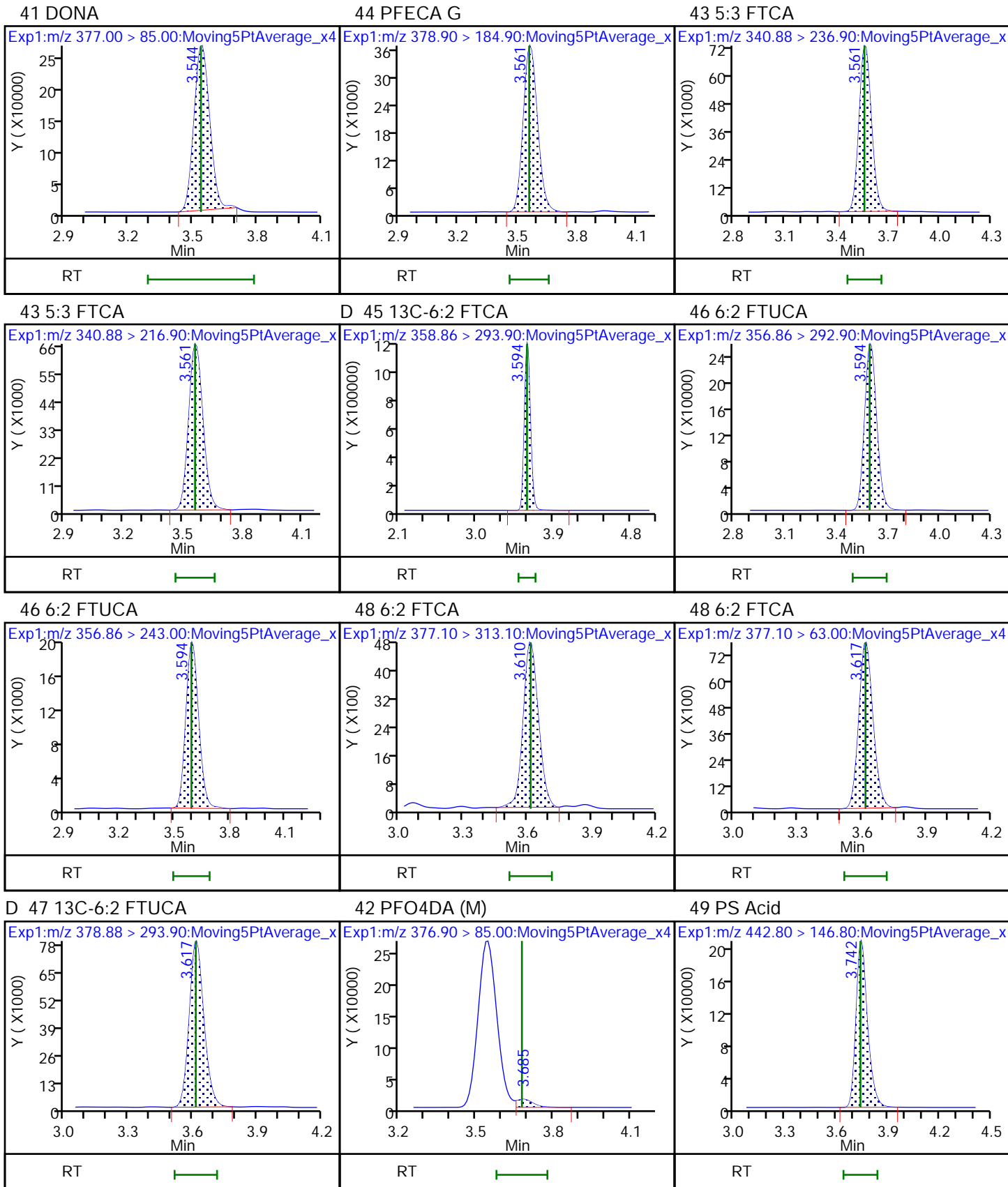
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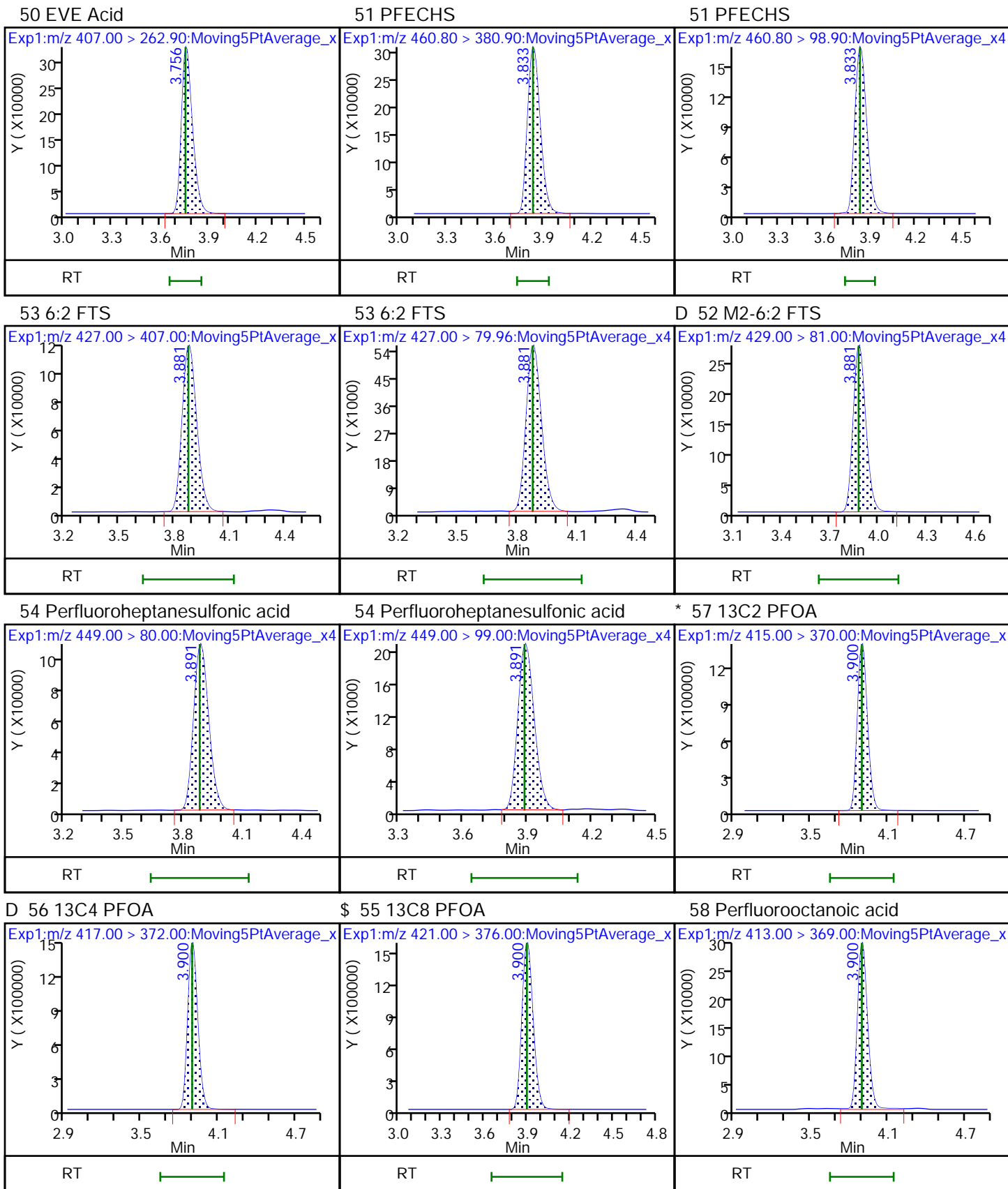




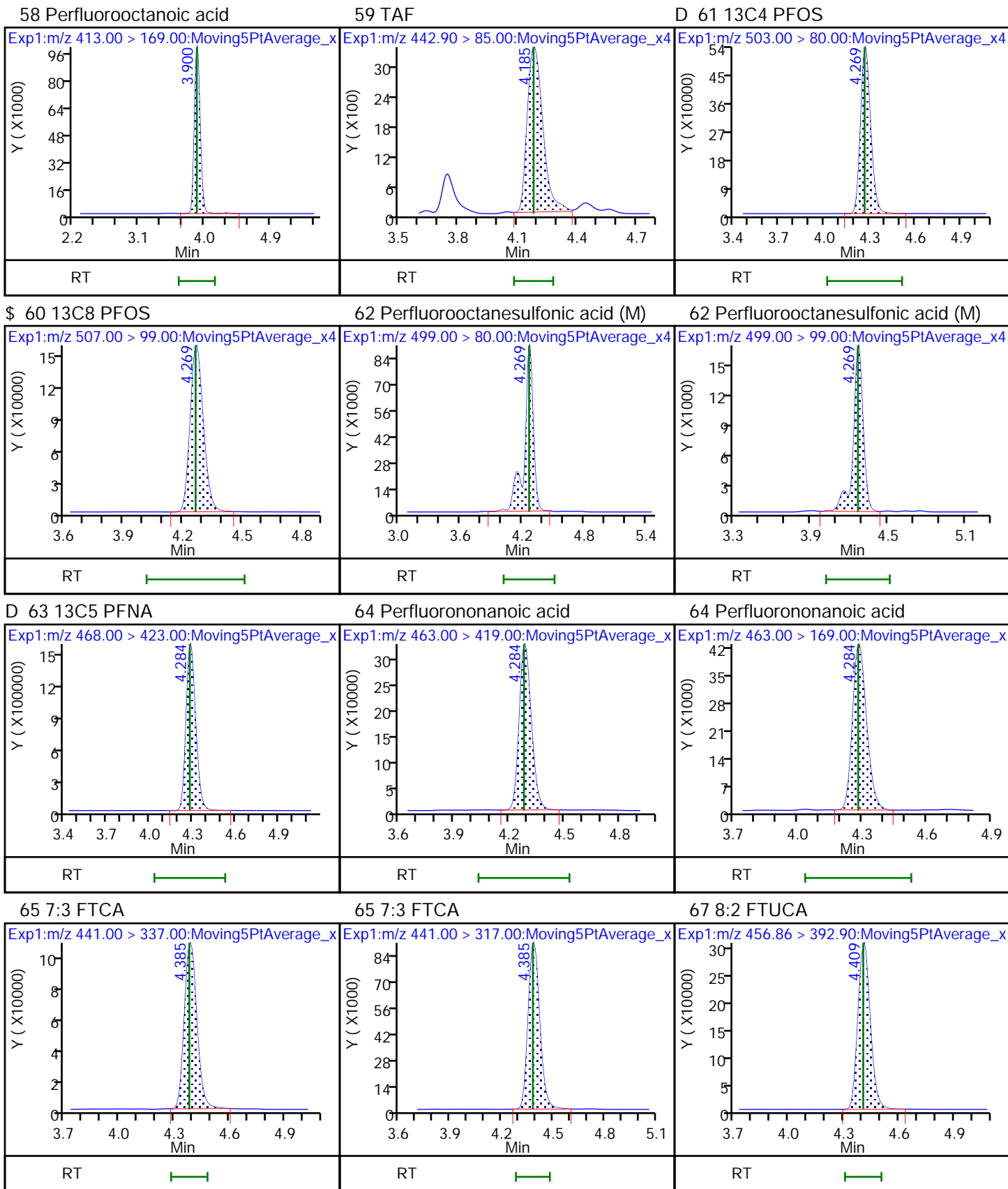


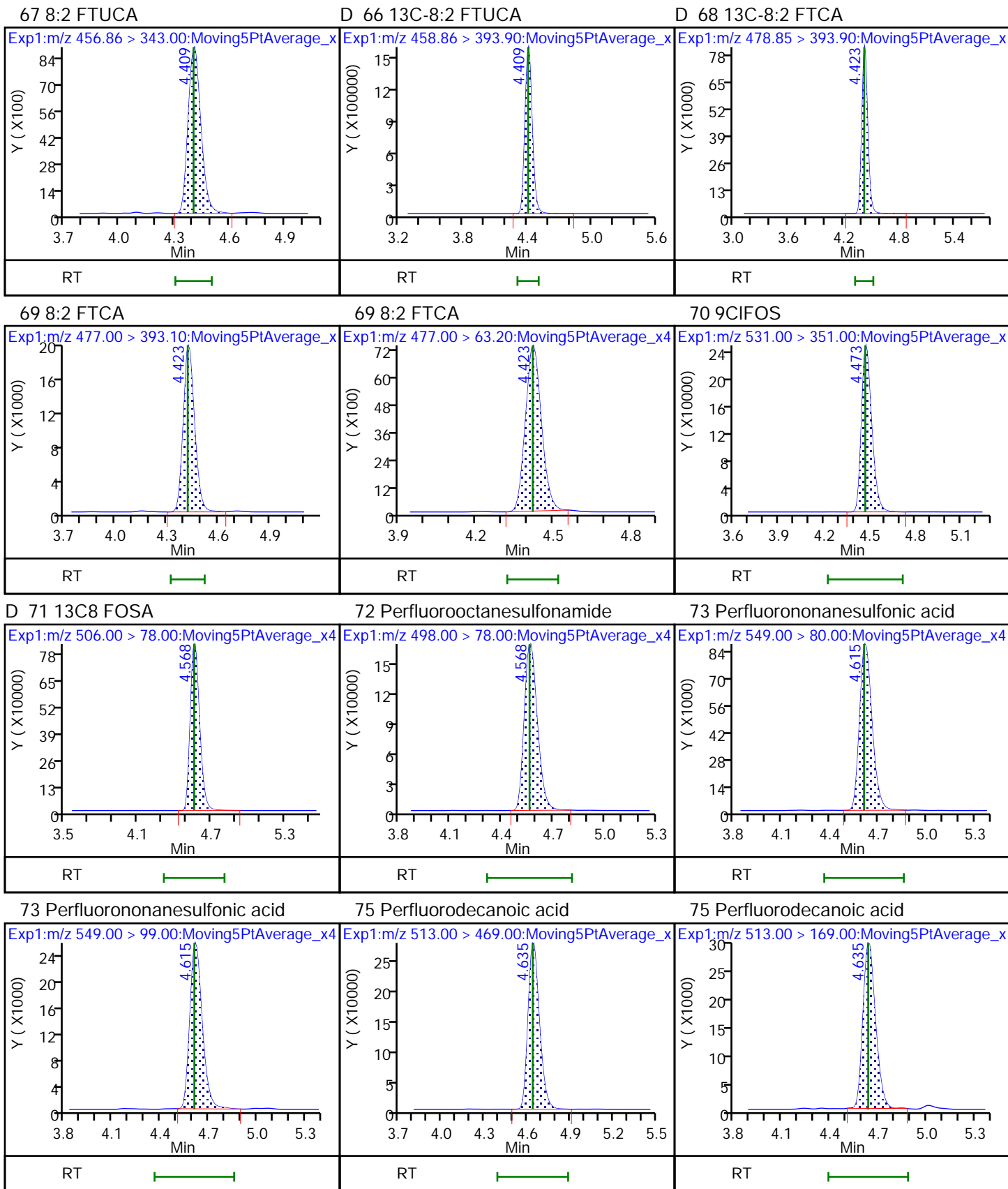








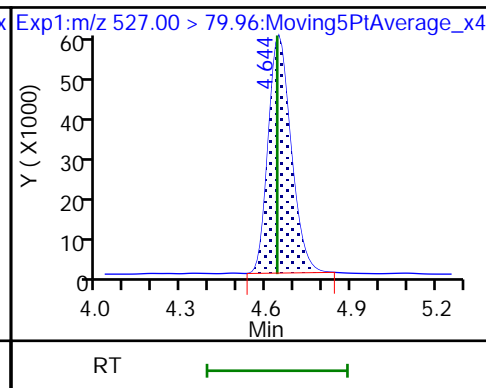
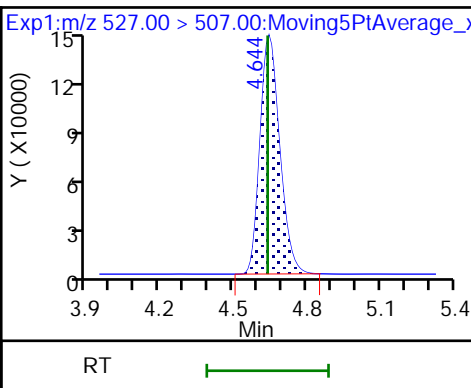
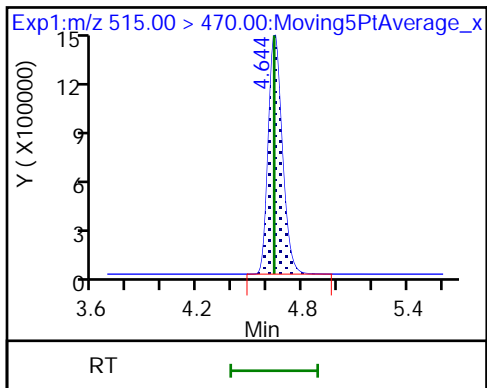




D 74 13C2 PFDA

77 8:2 FTS

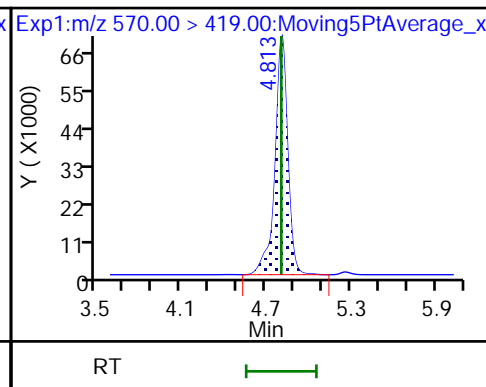
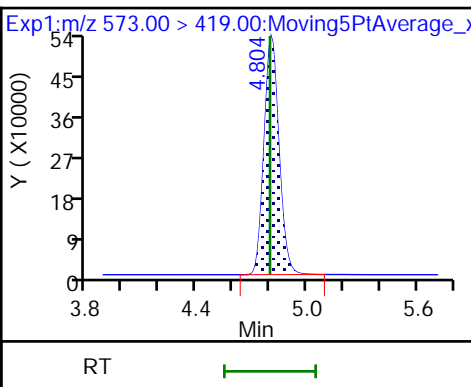
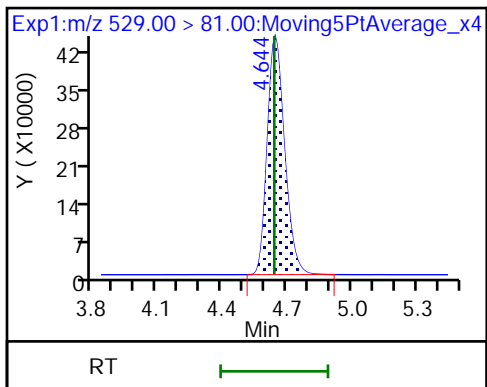
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

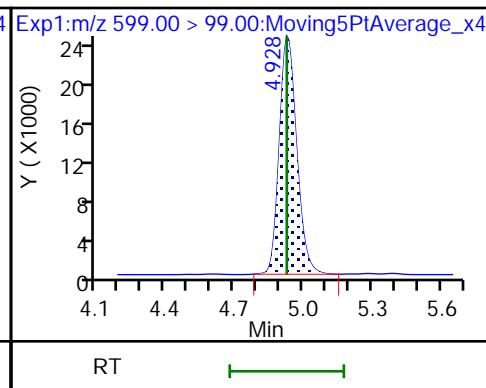
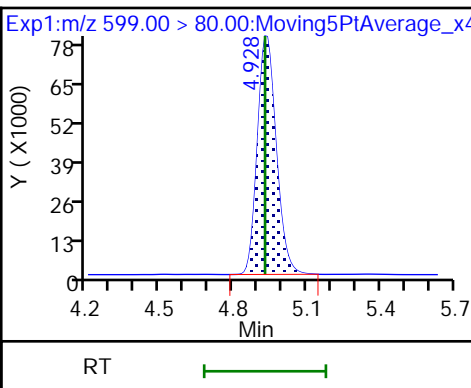
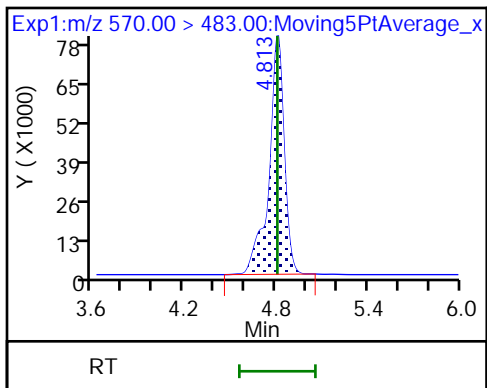
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

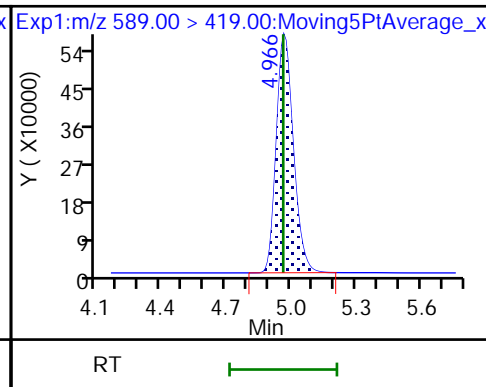
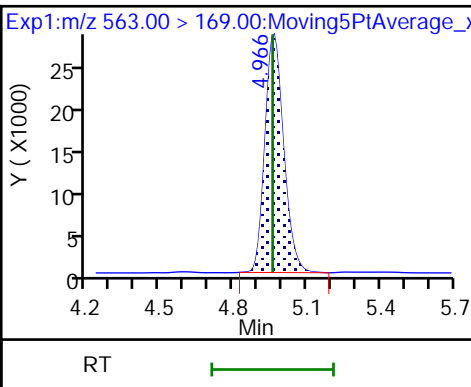
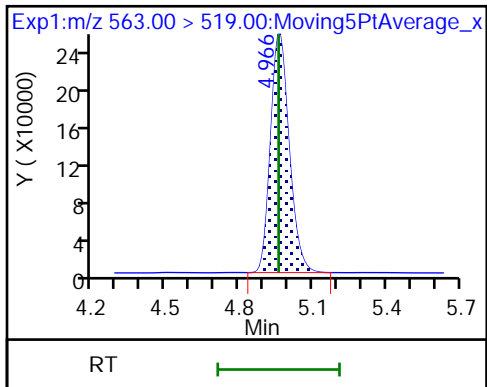
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

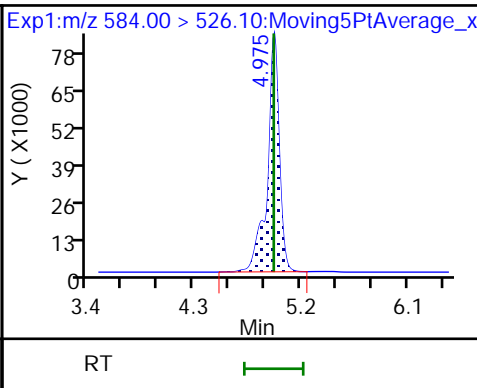
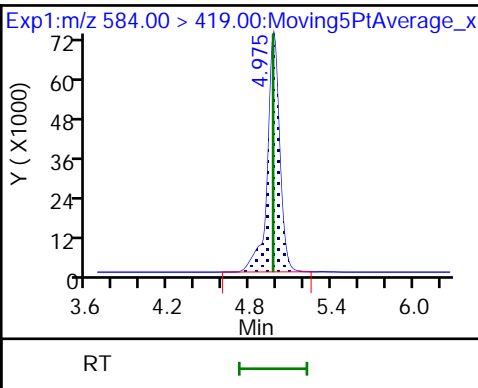
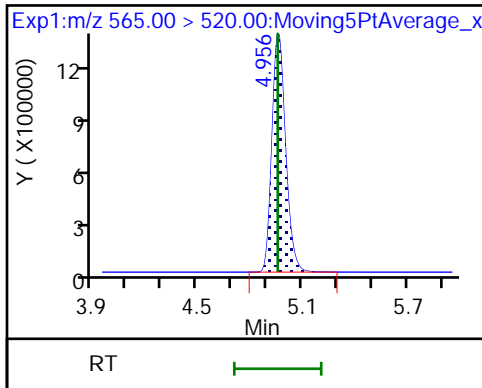
D 83 d5-NEtFOSAA



D 82 13C2 PFUnA

84 NEtFOSAA

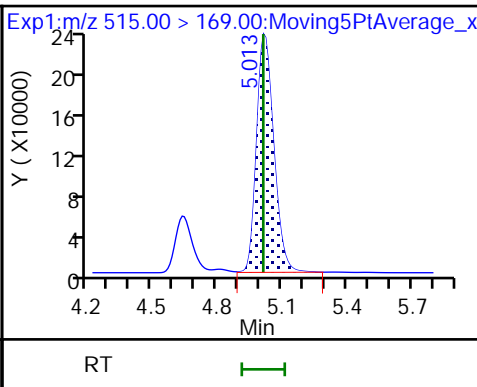
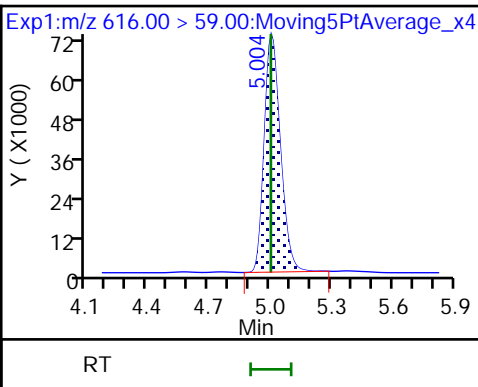
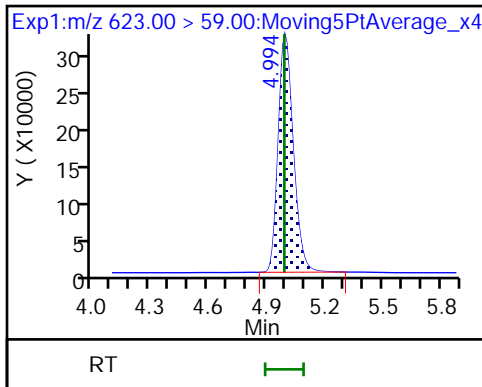
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

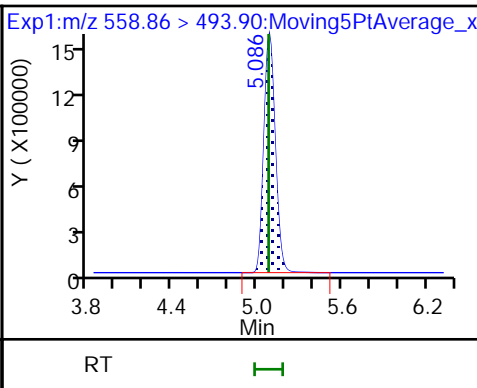
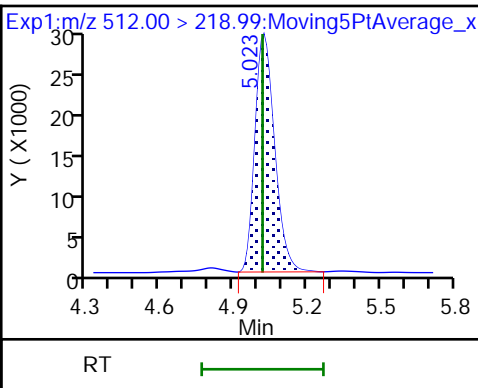
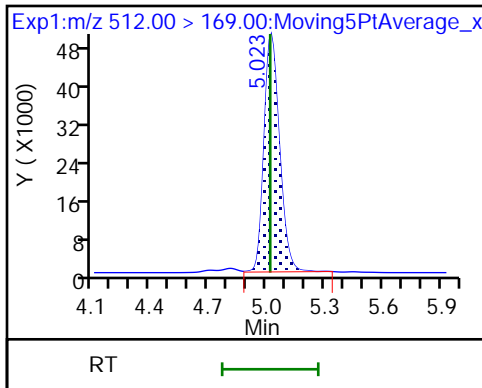
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

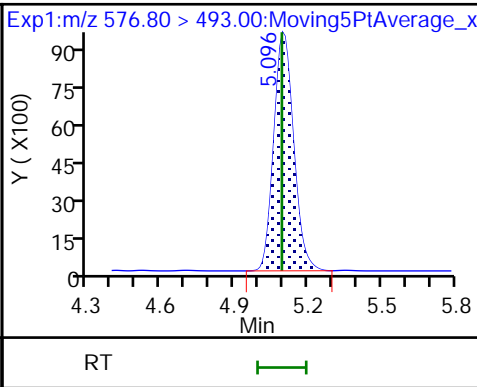
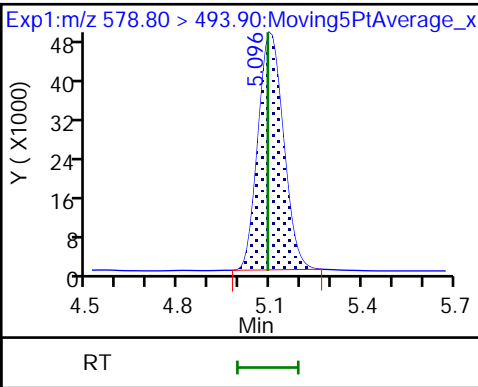
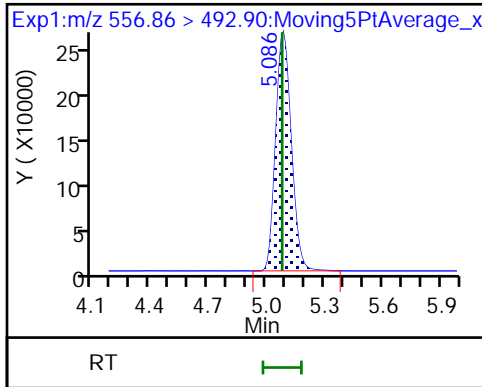
D 88 13C-10:2 FTCA

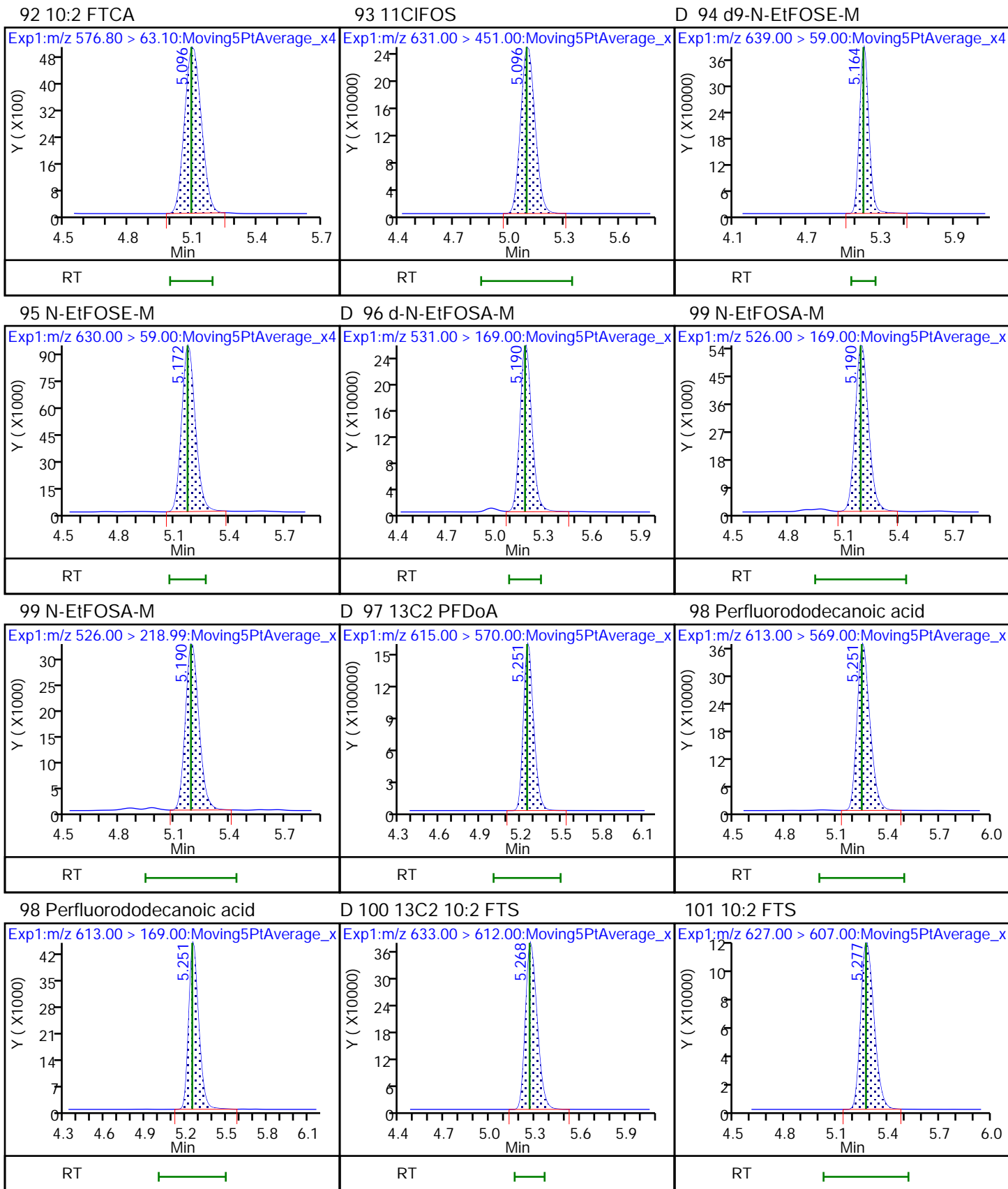


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

92 10:2 FTCA

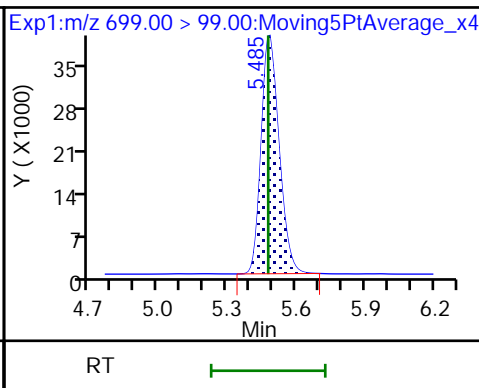
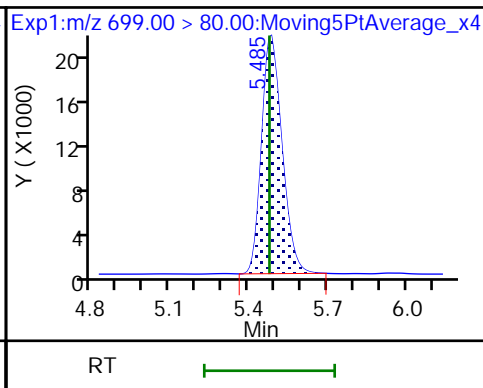
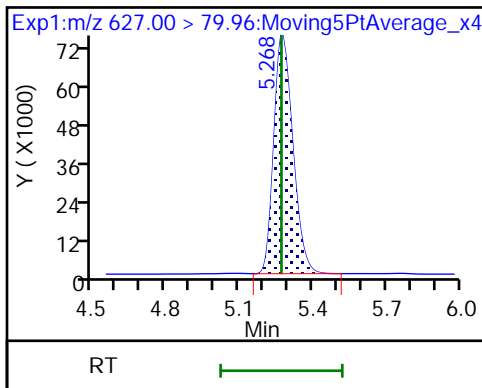




101 10:2 FTS

102 PFDoS

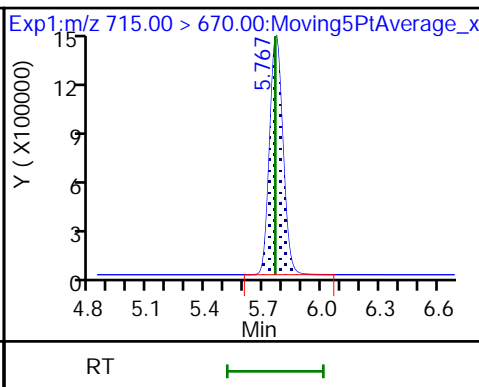
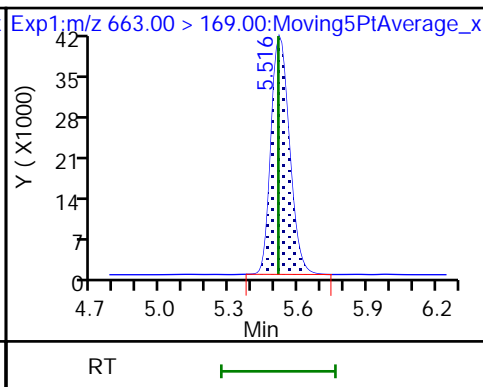
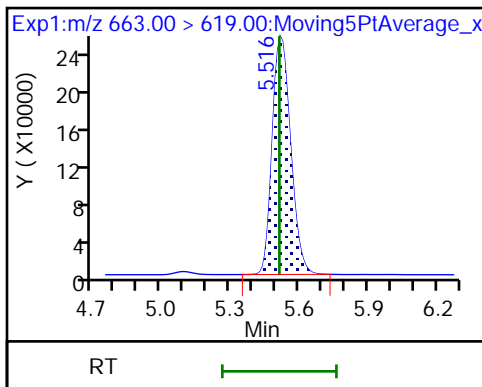
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

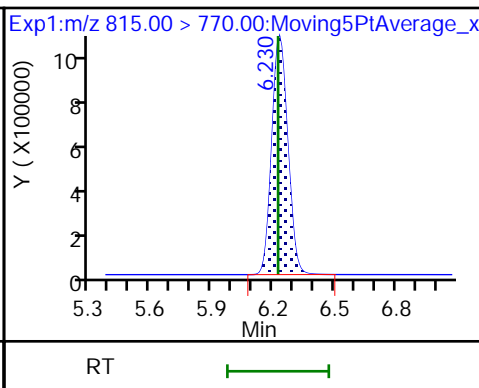
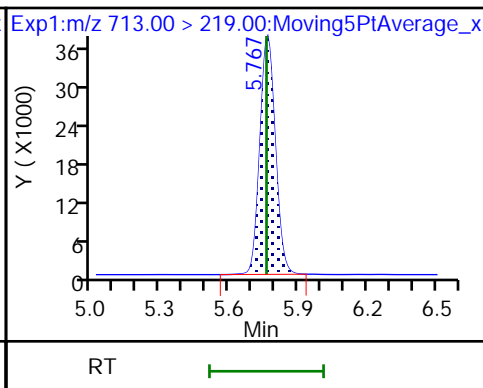
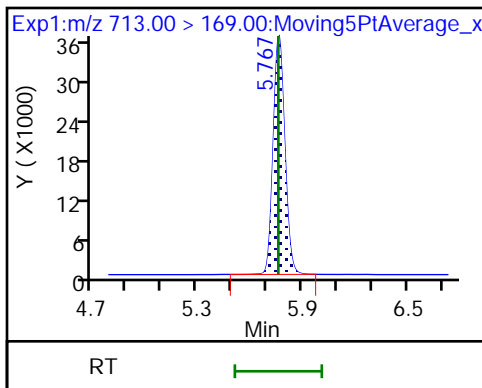
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

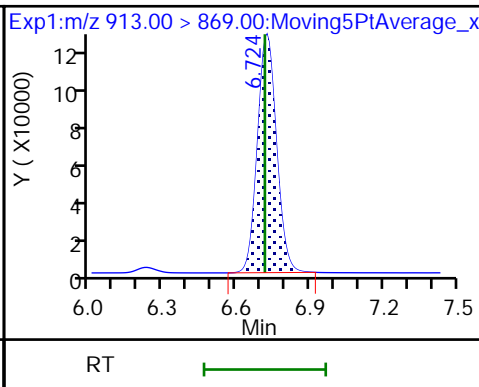
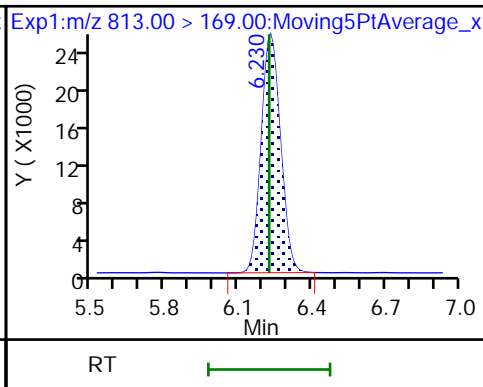
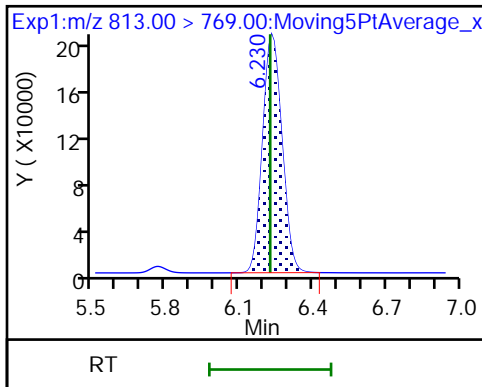
D 106 13C2 PFHxDA



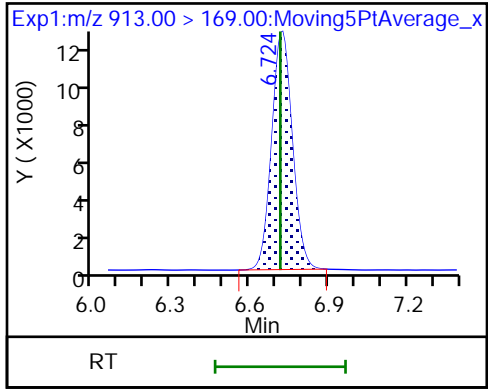
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

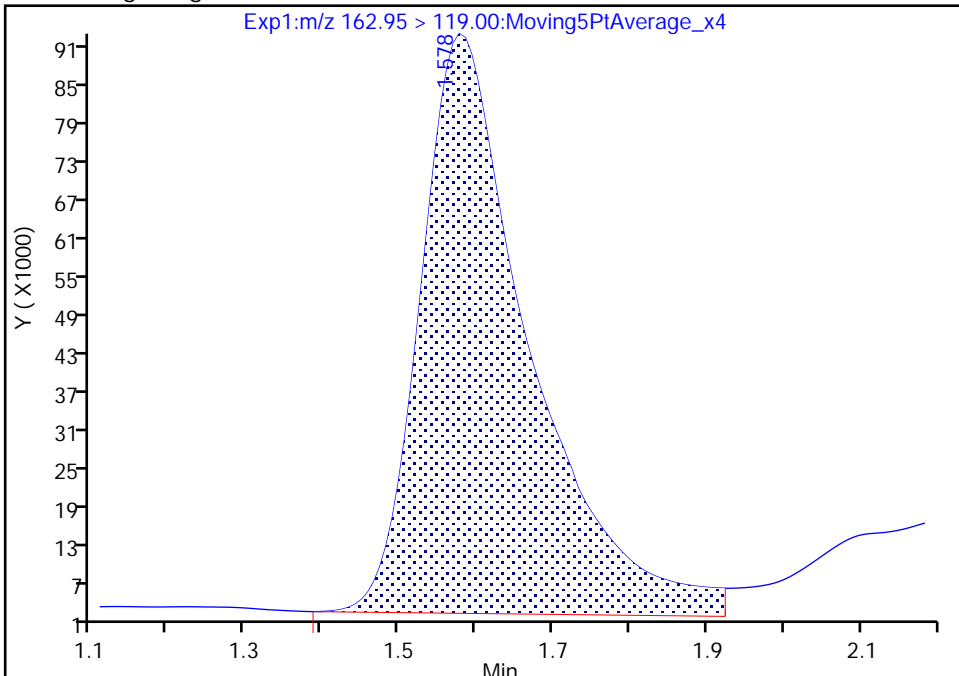
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Injection Date: 01-Jun-2021 14:25:41 Instrument ID: A15  
Lims ID: IC L3  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

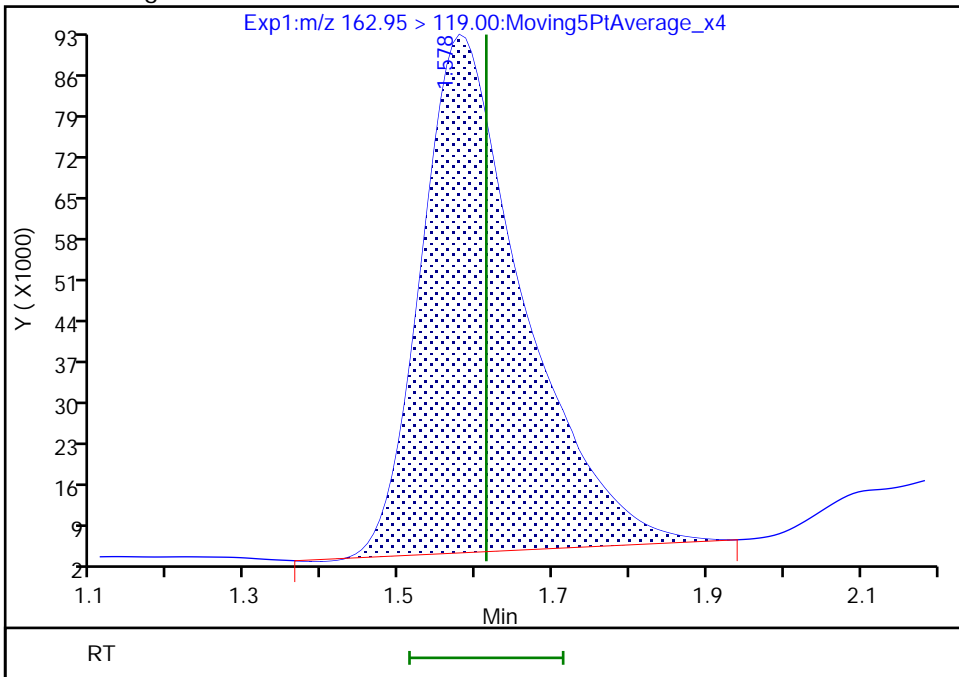
RT: 1.58  
Area: 896470  
Amount: 0.231238  
Amount Units: ng/ml

Processing Integration Results



RT: 1.58  
Area: 822770  
Amount: 0.225592  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:39:49  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

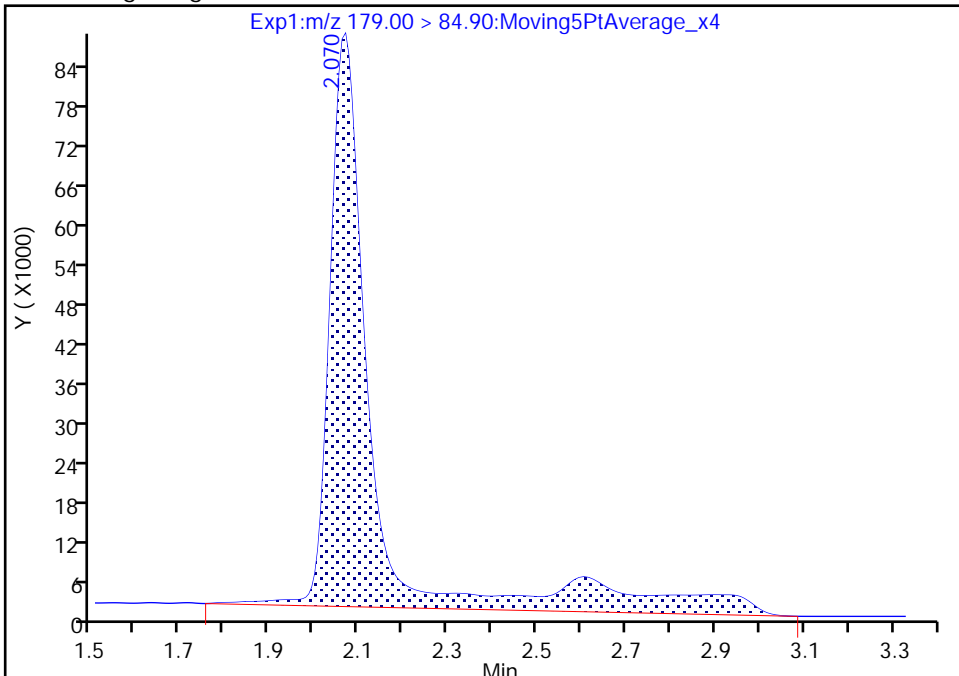
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Injection Date: 01-Jun-2021 14:25:41 Instrument ID: A15  
Lims ID: IC L3  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

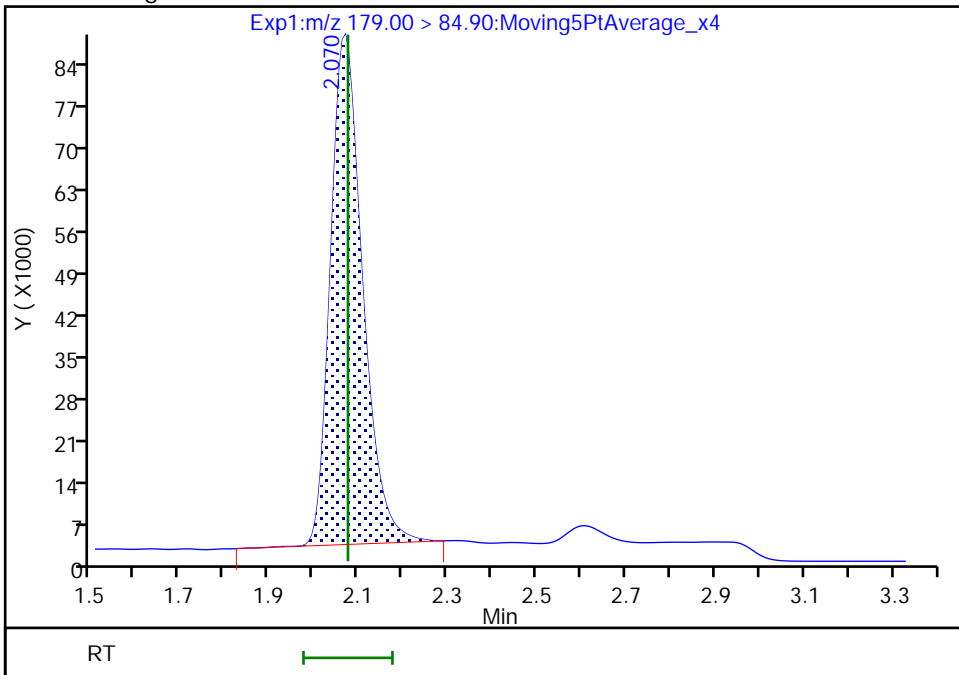
RT: 2.07  
Area: 583610  
Amount: 0.298777  
Amount Units: ng/ml

Processing Integration Results



RT: 2.07  
Area: 426511  
Amount: 0.239614  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:39:57  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

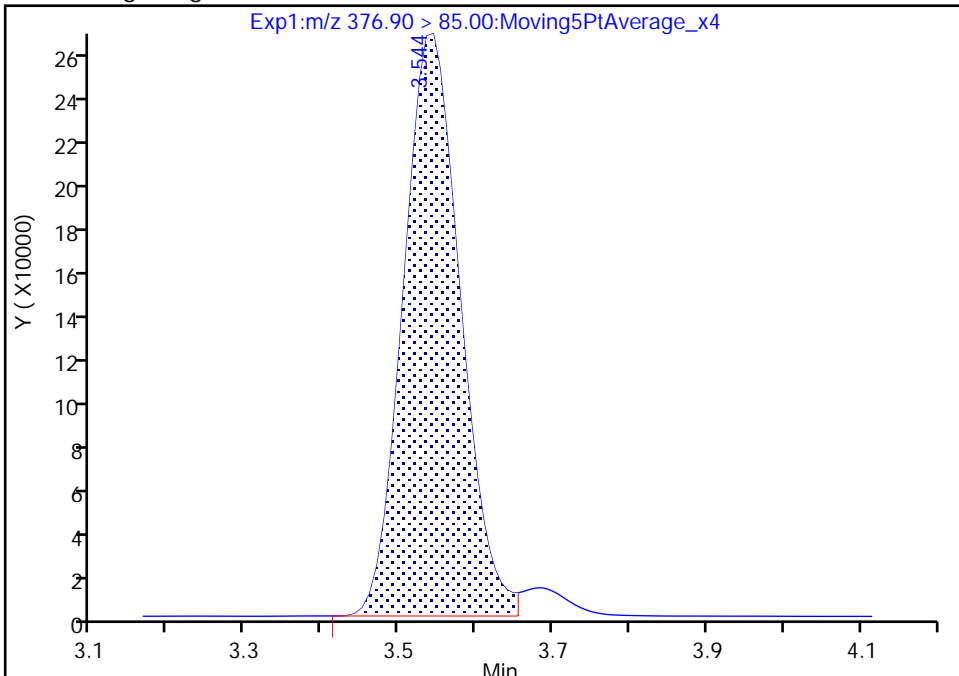
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Injection Date: 01-Jun-2021 14:25:41 Instrument ID: A15  
Lims ID: IC L3  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

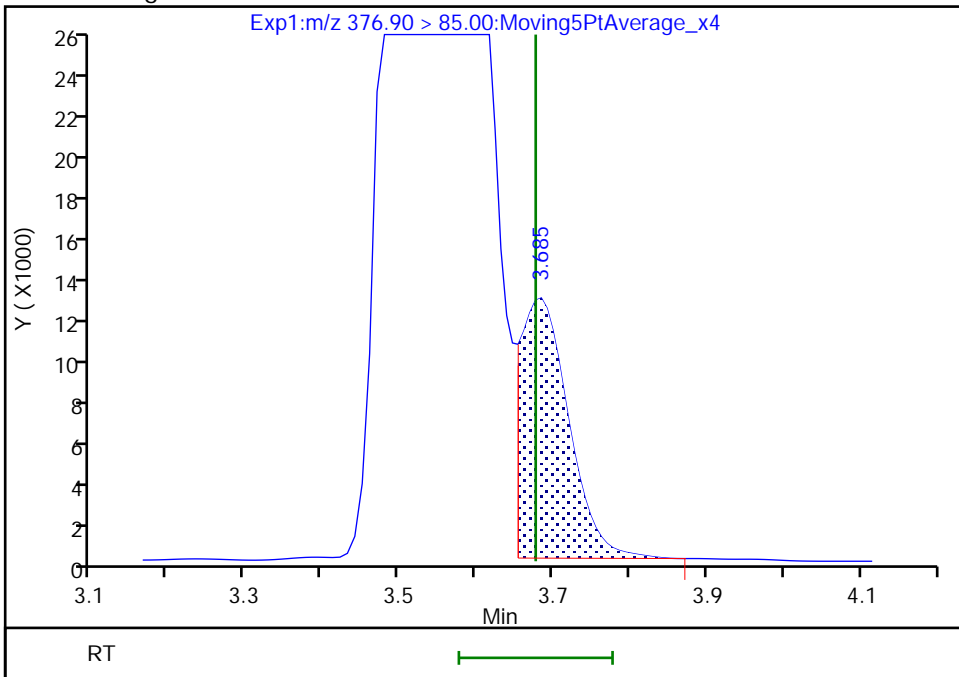
RT: 3.54  
Area: 1343944  
Amount: 0.340675  
Amount Units: ng/ml

Processing Integration Results



RT: 3.68  
Area: 53028  
Amount: 0.250331  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:39:41

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

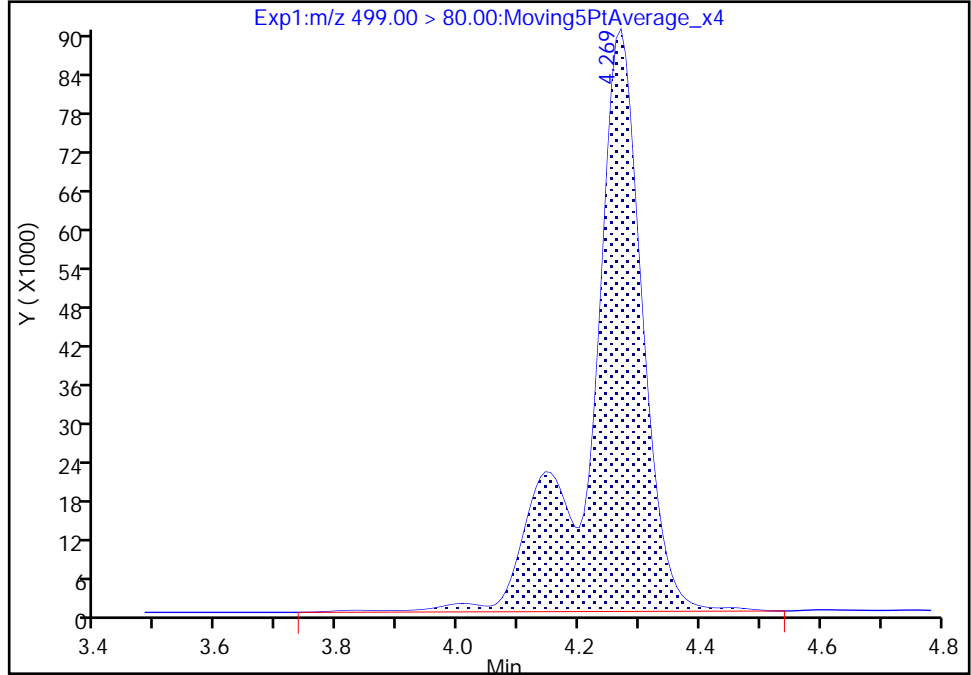
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Injection Date: 01-Jun-2021 14:25:41 Instrument ID: A15  
Lims ID: IC L3  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

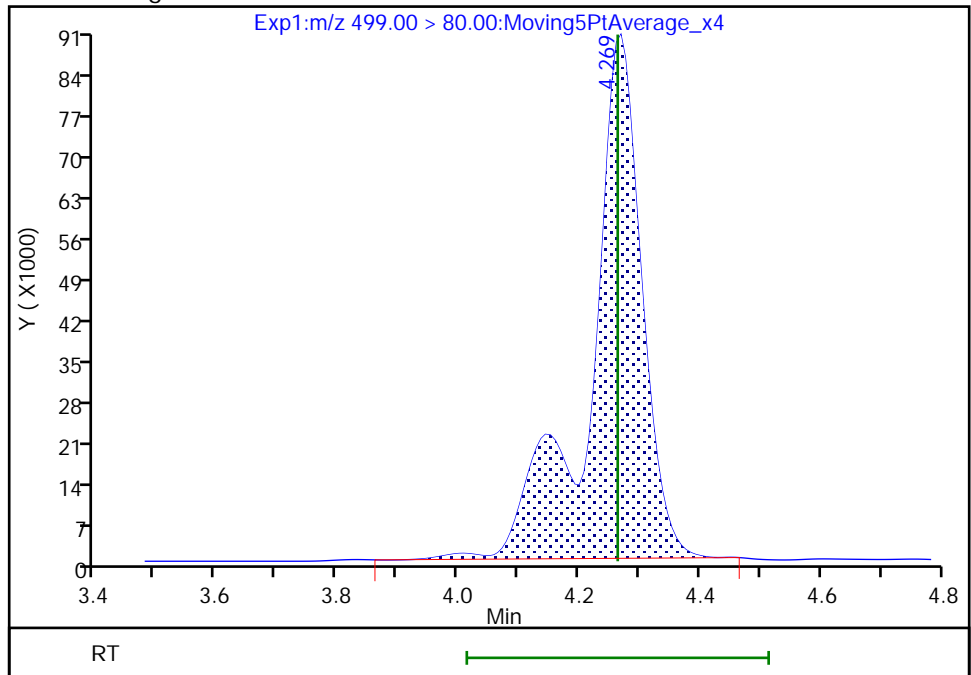
RT: 4.27  
Area: 551227  
Amount: 0.236342  
Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
Area: 537977  
Amount: 0.231951  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:41:05  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

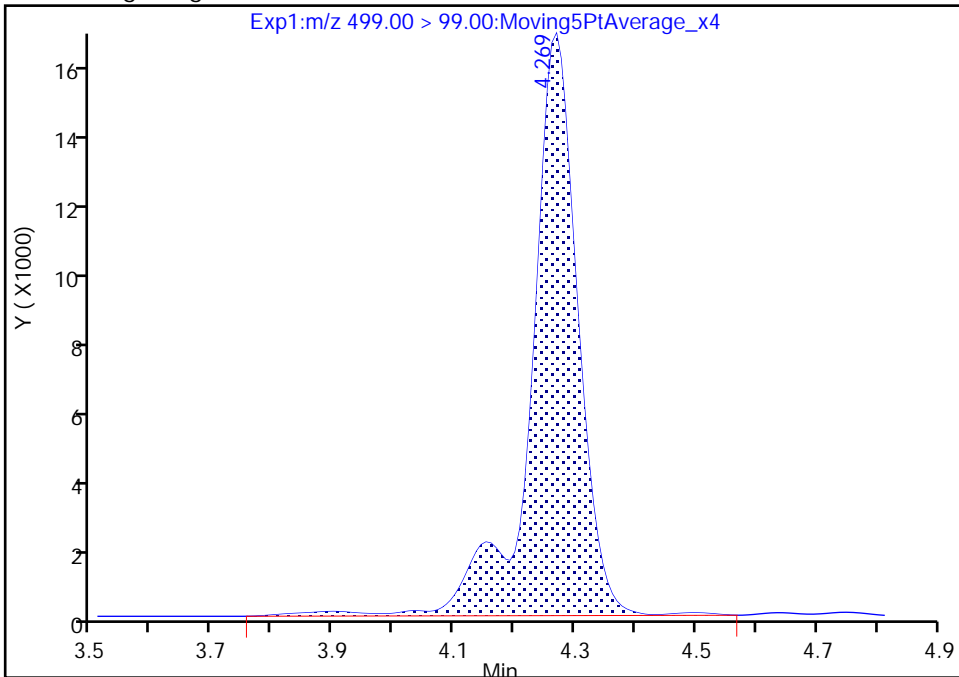
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_006.d  
Injection Date: 01-Jun-2021 14:25:41 Instrument ID: A15  
Lims ID: IC L3  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

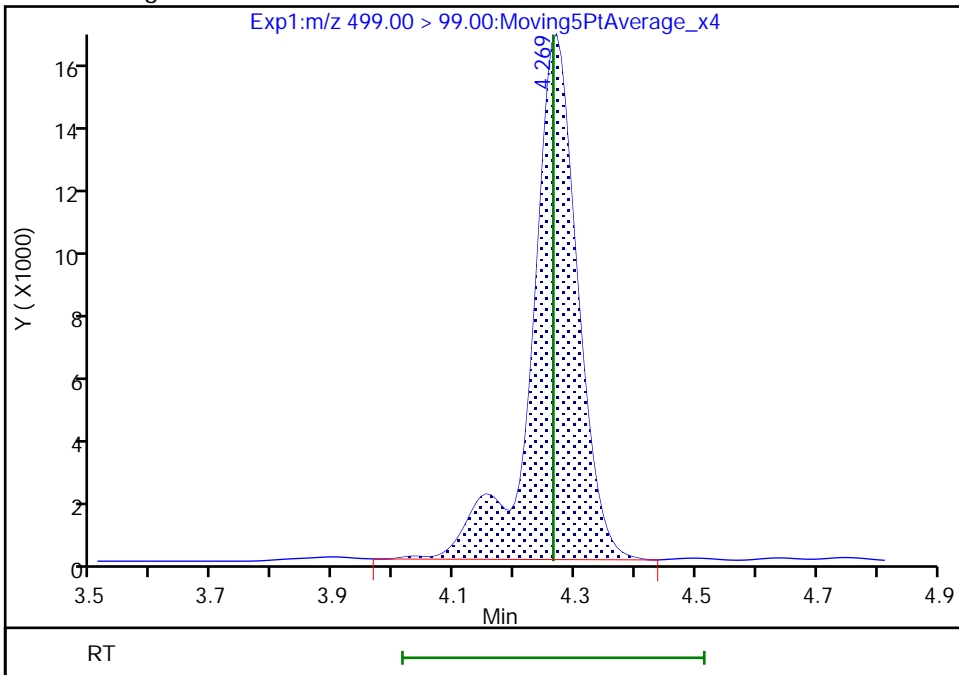
RT: 4.27  
Area: 90105  
Amount: 0.236342  
Amount Units: ng/ml

Processing Integration Results



RT: 4.27  
Area: 87766  
Amount: 0.231951  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:41:09

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_007.d  
 Lims ID: IC L4  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 01-Jun-2021 14:34:47 ALS Bottle#: 4 Worklist Smp#: 5  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 4 (2)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:54:15 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 09:55:47

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.778	0.773	0.005	0.334	183289	0.8665	86.7	215	
2 MMF	139.00 > 51.00	0.785	0.779	0.006	0.337	410793	0.99	99.1	280	
3 MTP	175.00 > 97.00	1.174	1.196	-0.022	0.504	511978	1.00	99.8	176	
4 PPF Acid	162.95 > 119.00	1.594	1.613	-0.019	0.684	3347282	0.9262	95.5	383	M
5 PFMOAA	179.00 > 84.90	2.072	2.075	-0.003	0.889	1722644	0.9767	97.7	780	M
6 R-PSDA	441.00 > 241.00	2.211	2.213	-0.002	0.949	603290	0.9473	94.7	20545	
7 R-EVE	405.00 > 217.00	2.219	2.220	-0.001	0.952	1954083	1.03	103	50176	
8 Hydrolyzed PSDA	439.10 > 342.90	2.219	2.221	-0.002	0.952	2409773	0.9589	95.9	80343	
D 9 13C4 PFBA	217.00 > 172.00	2.330	2.334	-0.004	0.599	7158252	1.34	107	90947	
10 Perfluorobutanoic acid	212.90 > 169.00	2.330	2.334	-0.004	1.000	5685204	1.05	105	5061	
11 PMPA	229.00 > 185.00	2.401	2.400	0.001	1.030	1279874	1.02	102	1545	
12 PFPrS	249.10 > 80.00	2.401	2.405	-0.004	0.884	4045844	0.9150	99.9	15525	
13 NVHOS	297.00 > 135.00	2.418	2.421	-0.003	1.038	99723	0.9379	93.8	3274	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.462	2.462	0.0	0.918	3517910	1.00		99.8	56256	
16 PFO2HxA										
245.00 > 85.00	2.596	2.602	-0.006	0.968	379228	0.9650		96.5	2543	
D 17 13C5 PFPeA										
267.90 > 223.00	2.683	2.681	0.002	0.690	6757107	1.34		107	59116	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.683	2.682	0.001	1.000	5521480	0.9747		97.5	7757	
19 3:3 FTCA										
241.00 > 177.10	2.694	2.690	0.004	0.992	379886	1.02	Target=1.28	102	6233	
241.00 > 116.90	2.694	2.690	0.004	0.992	275057		1.38(0.64-1.92)	102	1512	
D 21 13C3 PFBS										
301.90 > 80.00	2.716	2.714	0.002	0.698	4428472	1.26		108	28617	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.716	2.716	0.0	1.000	3732410	0.8665	Target=2.36	98.0	16501	
298.90 > 99.00	2.716	2.716	0.0	1.000	1567875		2.38(1.18-3.53)	98.0	8217	
22 PEPA										
278.90 > 234.90	2.781	2.778	0.003	1.037	898521	1.01		101	1327	
23 PFECA A										
278.95 > 84.90	2.791	2.795	-0.004	1.040	6629564	1.03		103	96916	
24 PES										
314.80 > 135.00	2.870	2.868	0.002	1.056	12949075	0.8840		99.3	131981	
25 PFECA B										
295.20 > 201.00	2.992	2.996	-0.004	0.979	781328	1.10		110	21371	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.018	3.022	-0.004	0.776	1189610	1.26		108	12802	
26 4:2 FTS										
327.00 > 307.00	3.018	3.022	-0.004	1.000	2330244	0.9555	Target=2.17	102	61090	
327.00 > 79.96	3.018	3.022	-0.004	1.000	1046662		2.23(1.09-3.26)	102	11201	
D 28 13C2 PFHxA										
315.00 > 270.00	3.056	3.061	-0.005	0.786	6690165	1.34		107	91955	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.066	3.062	0.004	1.003	5613933	0.9363	Target=13.89	93.6	10833	
313.00 > 119.00	3.066	3.062	0.004	1.003	408860		13.73(6.95-20.84)	93.6	4537	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.076	3.081	-0.005	1.132	3394965	0.8951	Target=3.10	95.4	27203	
349.00 > 99.00	3.076	3.081	-0.005	1.132	1117807		3.04(1.55-4.65)	95.4	16464	
31 PFO3OA										
311.10 > 85.20	3.126	3.129	-0.003	1.023	164078	0.8888		88.9	2256	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.197	3.201	-0.004	0.822	1103421	1.24		99.4	24892	
33 HFPO-DA										
285.00 > 169.00	3.197	3.201	-0.004	1.000	970453	1.08	Target=1.03	108	21913	
285.00 > 185.00	3.197	3.201	-0.004	1.000	925539		1.05(0.52-1.55)	108	10399	
34 R-PSDCA										
397.00 > 217.00	3.432	3.437	-0.005	0.986	352381	0.9875		98.7	13127	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.471	3.468	0.003	0.997	8037791	0.9766		97.7	32223	
D 37 13C4 PFHpA										
367.00 > 322.00	3.480	3.482	-0.002	0.895	6685179	1.36		109	88568	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.480	3.483	-0.003	1.000	2545301	0.8516	Target=3.50	93.6	43616	
399.00 > 99.00	3.480	3.483	-0.003	1.000	754422		3.37(1.75-5.25)	93.6	8820	
D 38 18O2 PFHxS										
403.00 > 84.00	3.480	3.485	-0.005	0.895	3196150	1.28		108	84358	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.480	3.485	-0.005	1.000	5594000	0.9899	Target=3.81	99.0	17320	
363.00 > 169.00	3.480	3.485	-0.005	1.000	1440235		3.88(1.91-5.72)	99.0	11591	
40 Hydro-PS Acid										
463.00 > 263.00	3.490	3.494	-0.004	1.003	8184281	0.9685		96.8	7024	
41 DONA										
377.00 > 251.00	3.536	3.538	-0.002	0.830	11147522	0.9494	Target=2.07	101	133759	
377.00 > 85.00	3.536	3.538	-0.002	0.830	5311929		2.10(1.03-3.10)	101	10557	
44 PFECA G										
378.90 > 184.90	3.553	3.558	-0.005	0.988	737991	1.01		101	14315	
43 5:3 FTCA										
340.88 > 236.90	3.561	3.561	0.0	0.991	1394544	1.04	Target=1.08	104	13028	
340.88 > 216.90	3.561	3.561	0.0	0.991	1256088		1.11(0.54-1.62)	104	12249	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.594	3.592	0.002	0.924	5637211	1.32		105	280935	
46 6:2 FTUCA										
356.86 > 292.90	3.594	3.592	0.002	0.996	4926160	0.9701	Target=14.03	97.0	90681	
356.86 > 243.00	3.594	3.592	0.002	0.996	364073		13.53(7.02-21.05)	97.0	14513	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.614	-0.004	1.004	66065	0.9132	Target=0.54	91.3	1243	
377.10 > 63.00	3.610	3.614	-0.004	1.004	130588		0.51(0.27-0.81)	91.3	6688	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.610	3.614	-0.004	0.928	359138	1.37		109	4521	
42 PFO4DA										
376.90 > 85.00	3.677	3.677	0.0	1.057	216821	1.03		103	4.8	a
49 PS Acid										
442.80 > 146.80	3.735	3.738	-0.003	0.960	3819790	1.00		99.5	67854	
50 EVE Acid										
407.00 > 262.90	3.749	3.754	-0.005	0.964	6112173	1.00		100	142079	
51 PFECHS										
460.80 > 380.90	3.833	3.833	0.0	0.985	6726839	0.9651	Target=1.90	105	152917	
460.80 > 98.90	3.833	3.833	0.0	0.985	3389370		1.98(0.95-2.85)	105	41260	
53 6:2 FTS										
427.00 > 407.00	3.871	3.876	-0.005	1.000	2555727	0.9898	Target=2.11	104	12307	
427.00 > 79.96	3.871	3.876	-0.005	1.000	1175147		2.17(1.06-3.17)	104	5131	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.871	3.876	-0.005	0.995	1488535	1.31		110	20846	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.881	3.885	-0.004	0.911	2354926	0.9883	Target=4.82	104	19002	
449.00 > 99.00	3.881	3.885	-0.004	0.911	476790		4.94(2.41-7.24)	104	5897	
* 57 13C2 PFOA										
415.00 > 370.00	3.890	3.895	-0.005		6708817	1.25			136607	
D 56 13C4 PFOA										
417.00 > 372.00	3.890	3.895	-0.005	1.000	7287539	1.30		104	73936	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.890	3.895	-0.005	1.000	8316024	1.33		106	95934	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.890	3.895	-0.005	1.000	6142294	1.01	Target=2.87	101	14751	
413.00 > 169.00	3.890	3.895	-0.005	1.000	2153316		2.85(1.43-4.30)	101	26704	
59 TAF										
442.90 > 85.00	4.177	4.180	-0.003	1.074	103402	1.15		115	470	
D 61 13C4 PFOS										
503.00 > 80.00	4.262	4.264	-0.002	1.095	2495449	1.27		106	25867	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.262	4.264	-0.002	1.095	747643	1.27		107	12479	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.262	4.264	-0.002	1.000	2134522	0.9085	Target=5.95	97.9	14538	M
499.00 > 99.00	4.262	4.264	-0.002	1.000	371800		5.74(2.97-8.92)	97.9	6429	M
D 63 13C5 PFNA										
468.00 > 423.00	4.277	4.279	-0.002	1.099	7047778	1.32		105	63849	
64 Perfluorononanoic acid										
463.00 > 419.00	4.277	4.280	-0.003	1.000	5506445	0.9863	Target=7.58	98.6	12564	
463.00 > 169.00	4.277	4.280	-0.003	1.000	765594		7.19(3.79-11.37)	98.6	10461	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.381	-0.004	0.990	1965478	0.8950	Target=1.21	89.5	15272	
441.00 > 317.00	4.377	4.381	-0.004	0.990	1661577		1.18(0.60-1.81)	89.5	20590	
67 8:2 FTUCA										
456.86 > 392.90	4.402	4.404	-0.002	1.000	5560304	1.02	Target=35.28	102	168243	
456.86 > 343.00	4.402	4.404	-0.002	1.000	157310		35.35(17.64-52.92)	102	8358	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.402	4.404	-0.002	1.132	6960694	1.31		105	183849	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.423	4.419	0.004	1.137	356358	1.47		118	10141	
69 8:2 FTCA										
477.00 > 393.10	4.416	4.420	-0.004	0.998	337635	1.02	Target=3.24	102	12605	
477.00 > 63.20	4.416	4.420	-0.004	0.998	101218		3.34(1.62-4.86)	102	5663	
70 9CIFOS										
531.00 > 351.00	4.465	4.469	-0.004	1.048	4544357	0.9647		104	70109	
D 71 13C8 FOSA										
506.00 > 78.00	4.558	4.561	-0.003	1.172	4356194	1.32		105	59364	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.558	4.561	-0.003	1.000	3487155	1.00		99.7	38789	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.605	4.610	-0.005	1.081	1958749	1.00	Target=3.28	104	25947	
549.00 > 99.00	4.615	4.610	0.005	1.083	576033		3.40(1.64-4.92)	104	6629	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.634	4.636	-0.002	1.000	5562564	0.9691	Target=9.70	96.9	33736	
513.00 > 169.00	4.634	4.636	-0.002	1.000	569252		9.77(4.85-14.54)	96.9	2356	
D 74 13C2 PFDA										
515.00 > 470.00	4.634	4.637	-0.003	1.191	7018140	1.31		105	96977	
77 8:2 FTS										
527.00 > 507.00	4.634	4.639	-0.005	1.000	3070717	0.9655	Target=2.33	101	68933	
527.00 > 79.96	4.634	4.639	-0.005	1.000	1345546		2.28(1.17-3.50)	101	15146	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.634	4.640	-0.006	1.191	2436481	1.37		115	31511	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.793	4.798	-0.005	1.232	2941738	1.30		104	39436	
79 NMeFOSAA										
570.00 > 419.00	4.803	4.806	-0.003	1.002	1740031	1.00	Target=0.83	100.0	16808	
570.00 > 483.00	4.803	4.806	-0.003	1.002	2073509		0.84(0.42-1.25)	100.0	50203	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.928	4.928	0.0	1.156	1632731	0.9541	Target=3.22	99.0	23835	
599.00 > 99.00	4.928	4.928	0.0	1.156	520160		3.14(1.61-4.83)	99.0	10896	
D 82 13C2 PFUnA										
565.00 > 520.00	4.956	4.958	-0.002	1.274	6750524	1.31		105	114268	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.956	4.959	-0.003	1.000	5204774	1.05	Target=9.27	105	29184	
563.00 > 169.00	4.956	4.959	-0.003	1.000	587107		8.87(4.63-13.90)	105	12113	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.966	4.963	0.003	1.276	2992785	1.33		107	21797	
84 NEtFOSAA										
584.00 > 419.00	4.966	4.970	-0.004	1.000	1729108	1.01	Target=0.77	101	54447	
584.00 > 526.10	4.966	4.970	-0.004	1.000	2233139		0.77(0.39-1.16)	101	46048	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.991	0.003	1.284	1776739	1.32		105	8371	
86 N-MeFOSE-M										
616.00 > 59.00	5.003	5.002	0.001	1.002	1444058	0.9606		96.1	13845	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.013	5.012	0.001	1.289	1287448	1.30		104	372	
90 NMeFOSA										
512.00 > 169.00	5.013	5.018	-0.005	1.000	1039073	1.00	Target=1.61	99.5	2966	
512.00 > 218.99	5.013	5.018	-0.005	1.000	666240		1.56(0.80-2.41)	99.5	3189	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.080	-0.004	1.305	8316033	1.34		107	212807	
89 10:2 FTUCA										
556.86 > 492.90	5.076	5.080	-0.004	0.998	5598514	0.9391		93.9	165719	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.086	5.091	-0.005	1.307	264722	1.45		116	4317	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.086	5.093	-0.007	1.002	231012	1.22	Target=2.56	122	10481	
576.80 > 63.10	5.096	5.093	0.003	1.004	90424		2.55(1.28-3.83)	122	3994	
93 11C1FOS										
631.00 > 451.00	5.096	5.094	0.002	1.196	5322406	0.9479		101	107408	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.158	-0.003	1.325	1872612	1.25		99.7	11149	
95 N-EtFOSE-M										
630.00 > 59.00	5.172	5.171	0.001	1.003	1828076	1.04		104	11160	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.184	-0.003	1.332	1263849	1.30		104	2796	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	1069326	1.02	Target=1.61	102	2615	
526.00 > 218.99	5.190	5.190	0.0	1.002	696449		1.54(0.80-2.41)	102	2690	
D 97 13C2 PFDaA										
615.00 > 570.00	5.242	5.246	-0.004	1.347	6326589	1.13		90.7	111090	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.242	5.246	-0.004	1.000	6244484	1.11	Target=7.93	111	37226	
613.00 > 169.00	5.242	5.246	-0.004	1.000	734379		8.50(3.97-11.90)	111	15858	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.259	5.263	-0.004	1.352	1896761	1.33		110	59053	
101 10:2 FTS										
627.00 > 607.00	5.268	5.271	-0.003	1.002	2269830	0.9502	Target=1.46	98.6	60767	
627.00 > 79.96	5.268	5.271	-0.003	1.002	1563195		1.45(0.73-2.19)	98.6	22451	
102 PFDoS										
699.00 > 80.00	5.476	5.477	-0.001	1.285	477008	0.9823	Target=0.54	101	12714	
699.00 > 99.00	5.476	5.477	-0.001	1.285	883905		0.54(0.27-0.81)	101	18322	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.505	5.513	-0.008	1.050	5172519	1.10	Target=5.84	110	16316	
663.00 > 169.00	5.505	5.513	-0.008	1.050	928740		5.57(2.92-8.75)	110	18619	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.759	5.760	-0.001	1.480	6544791	1.27		102	99372	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.759	5.761	-0.002	1.000	646360	1.00	Target=1.07	100	23086	
713.00 > 219.00	5.759	5.761	-0.002	1.000	621910		1.04(0.53-1.60)	100	22218	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.220	6.223	-0.003	1.599	5298257	1.35		108	36816	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.220	6.224	-0.004	1.000	3957744	1.01	Target=7.49	101	8066	
813.00 > 169.00	6.220	6.224	-0.004	1.000	509349		7.77(3.75-11.24)	101	10330	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.709	6.715	-0.006	1.079	2528527	0.9825	Target=9.70	98.3	5542	
913.00 > 169.00	6.709	6.715	-0.006	1.079	266666		9.48(4.85-14.55)	98.3	6277	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

LCPFC+\_LL4\_00002

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_007.d

Injection Date: 01-Jun-2021 14:34:47

Instrument ID: A15

Lims ID: IC L4

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 4

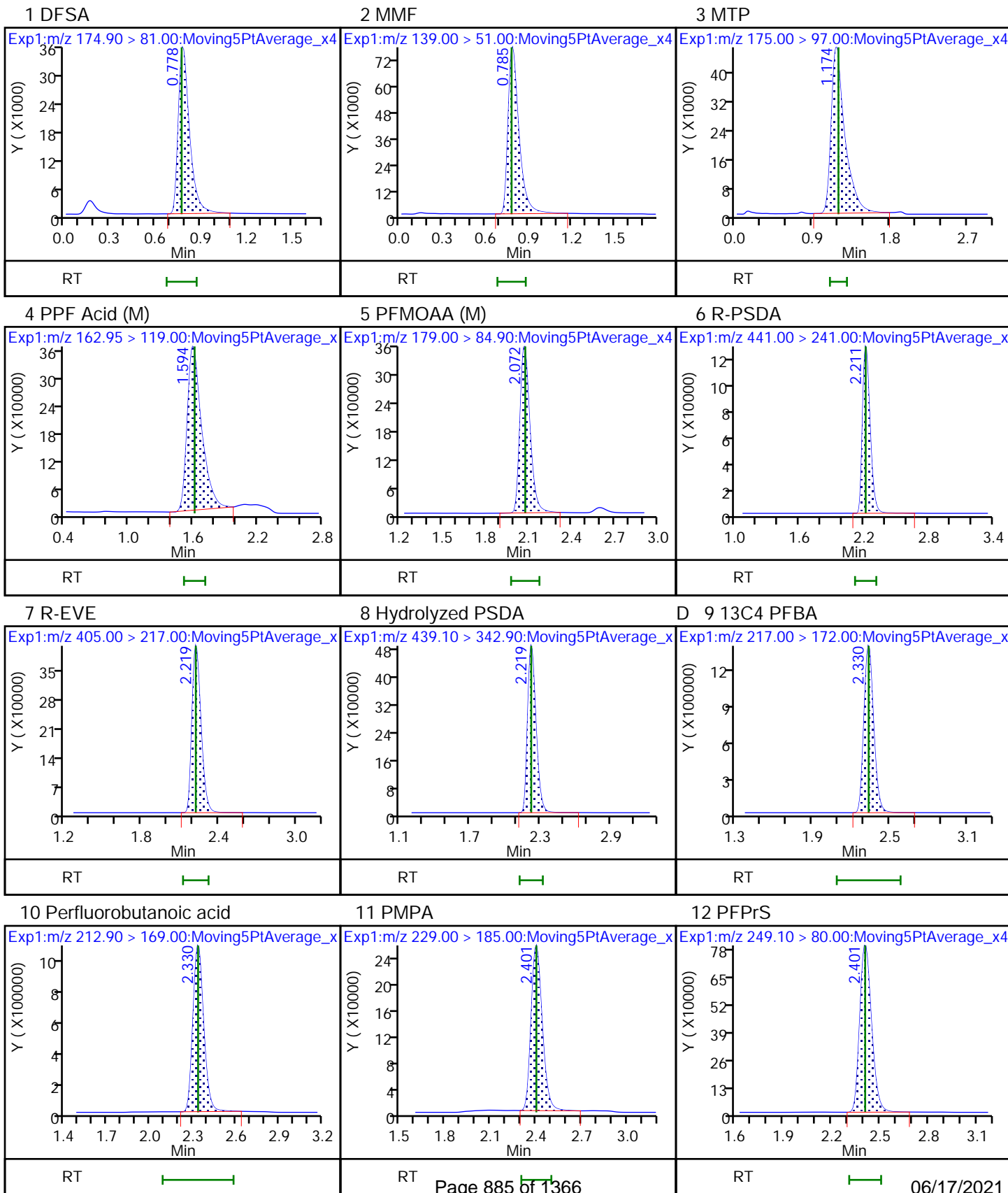
Worklist Smp#: 5

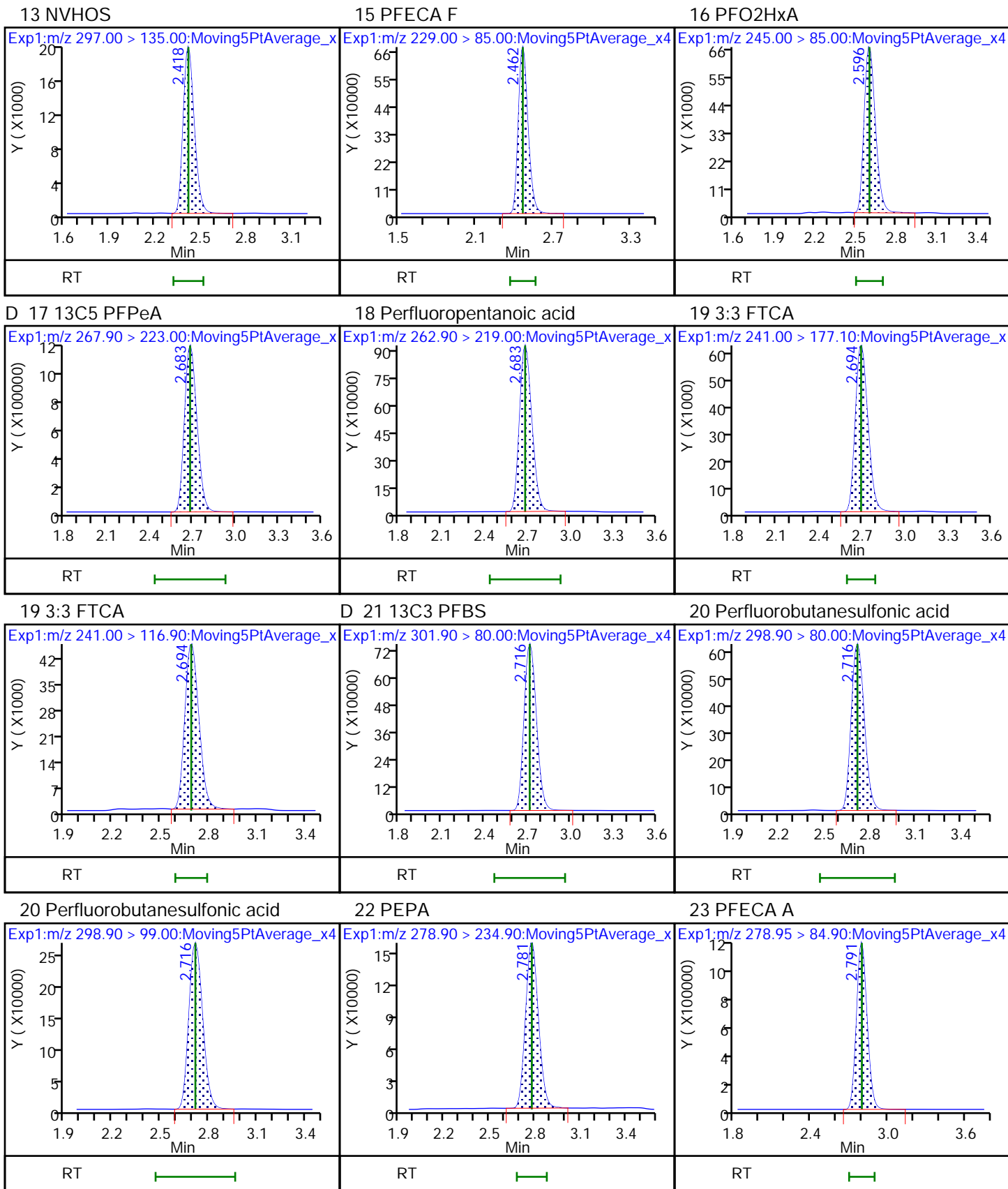
Injection Vol: 20.0 ul

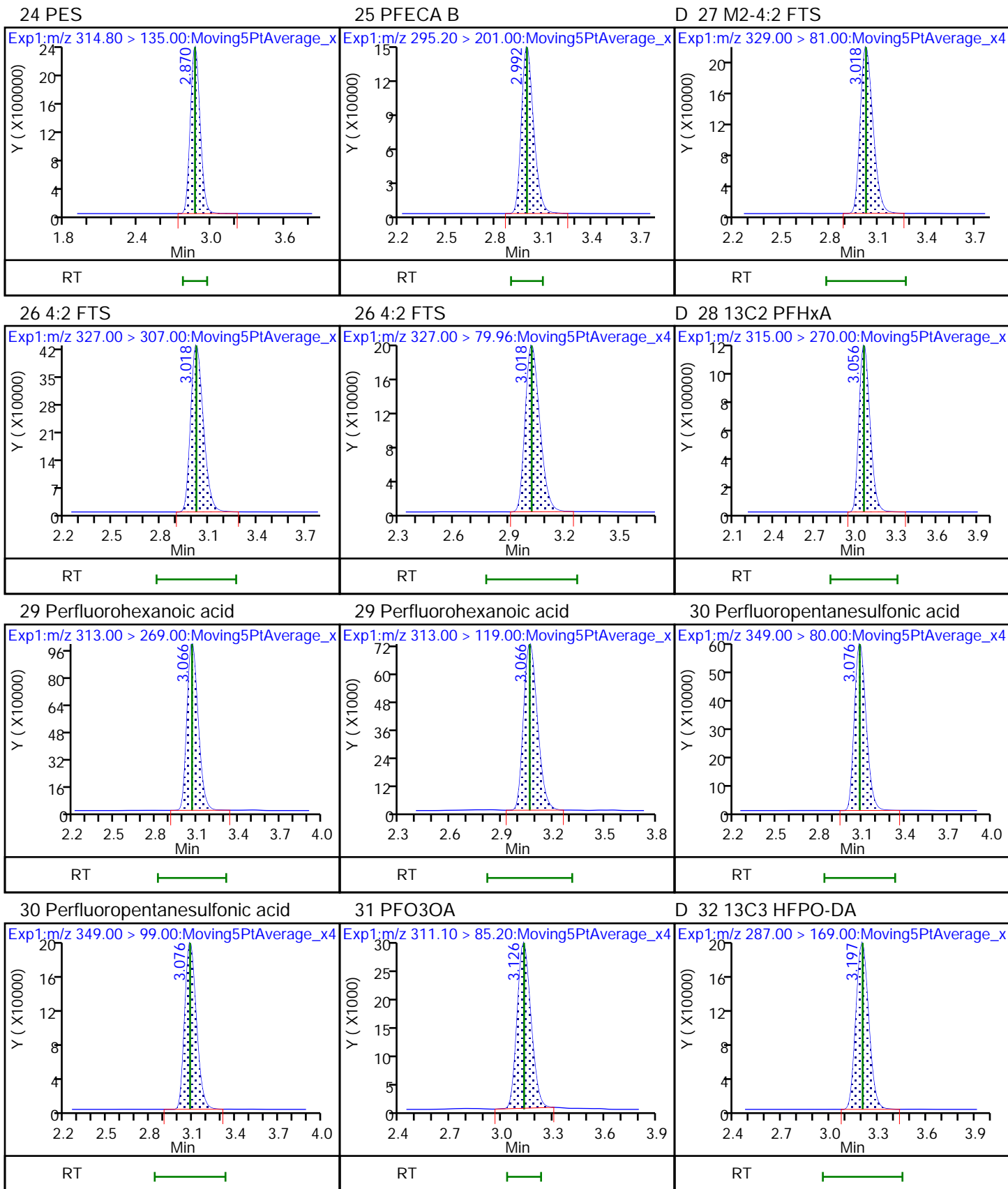
Dil. Factor: 1.0000

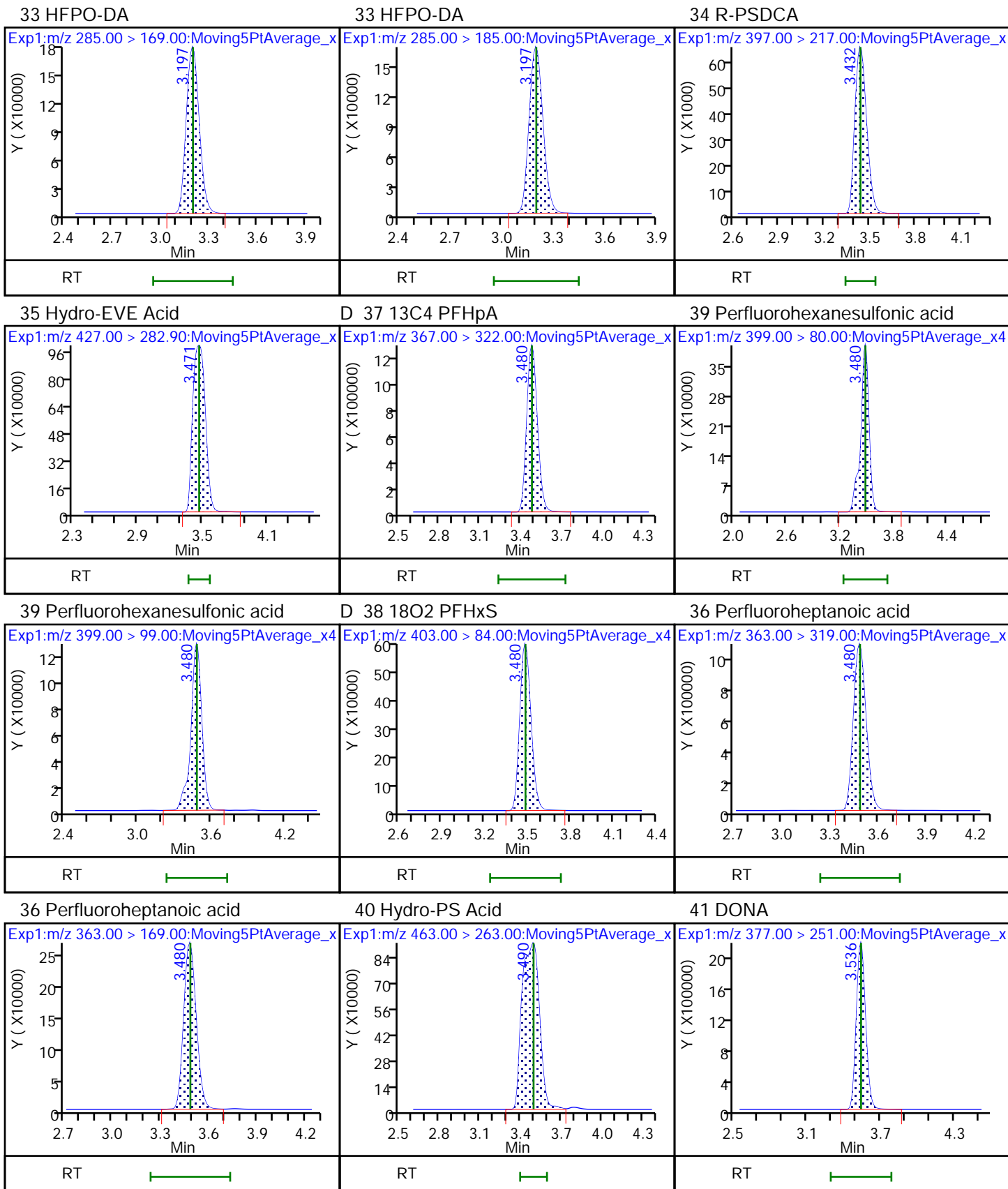
Method: PFAS+\_A15

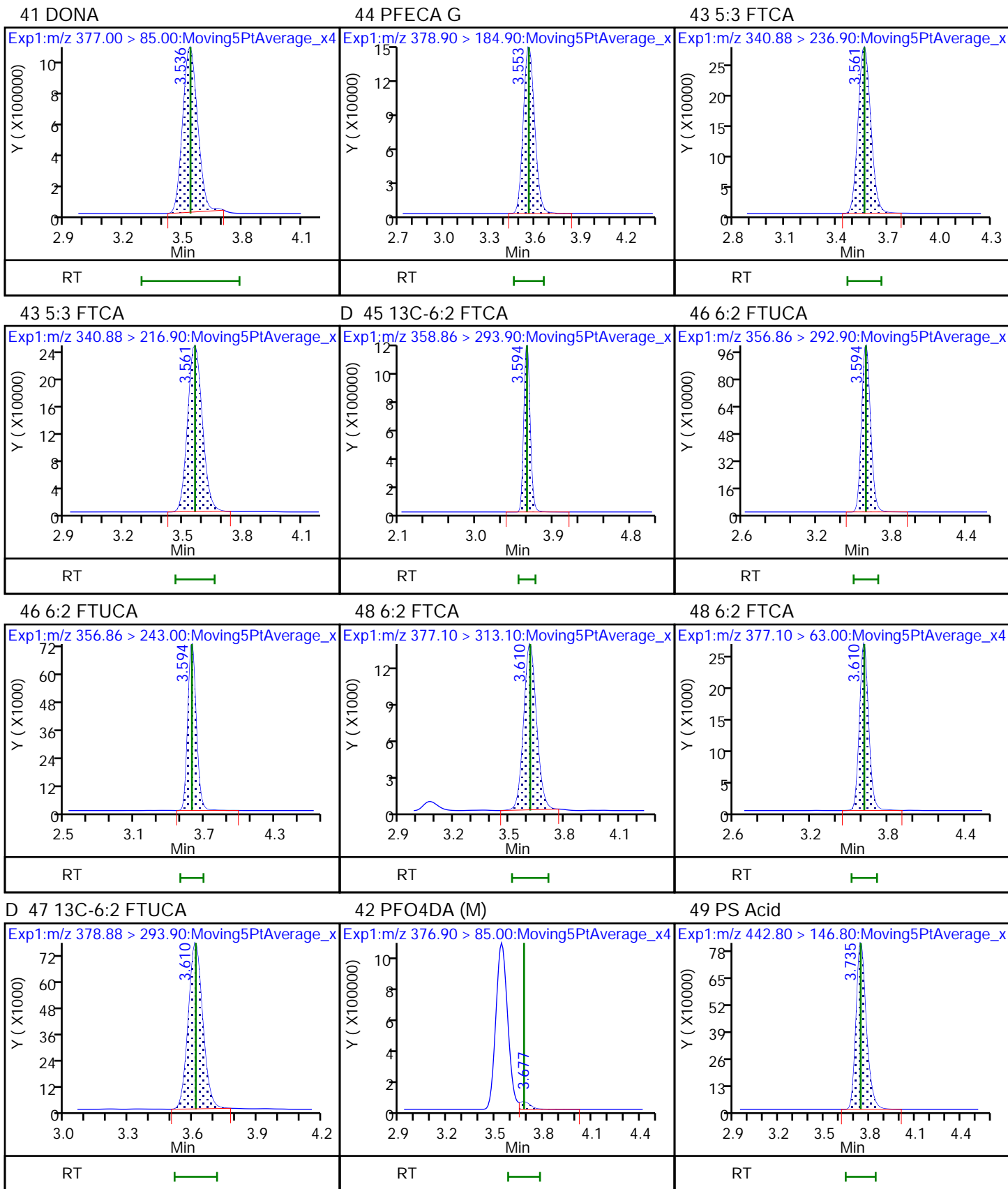
Limit Group: LC PFC ICAL



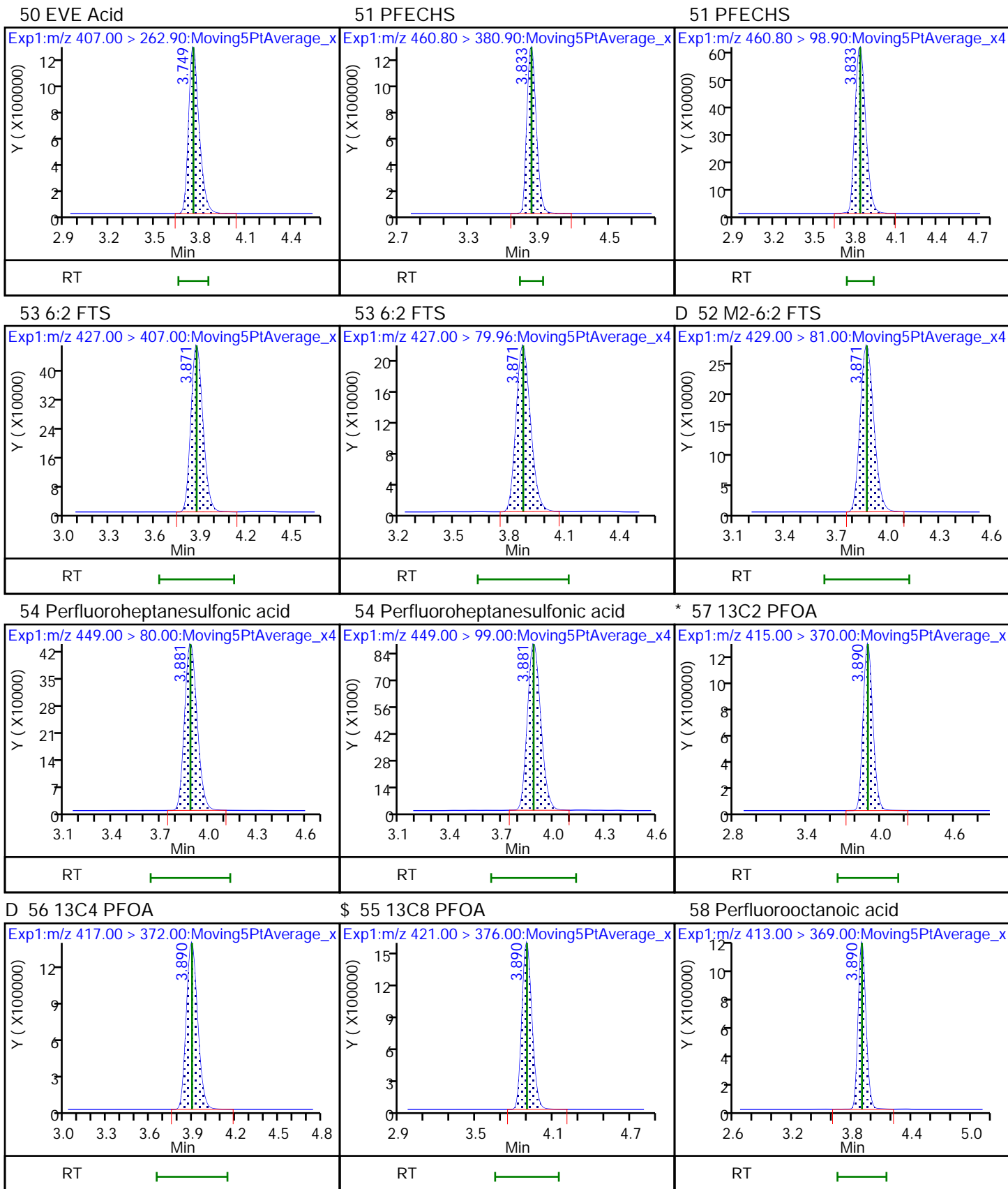


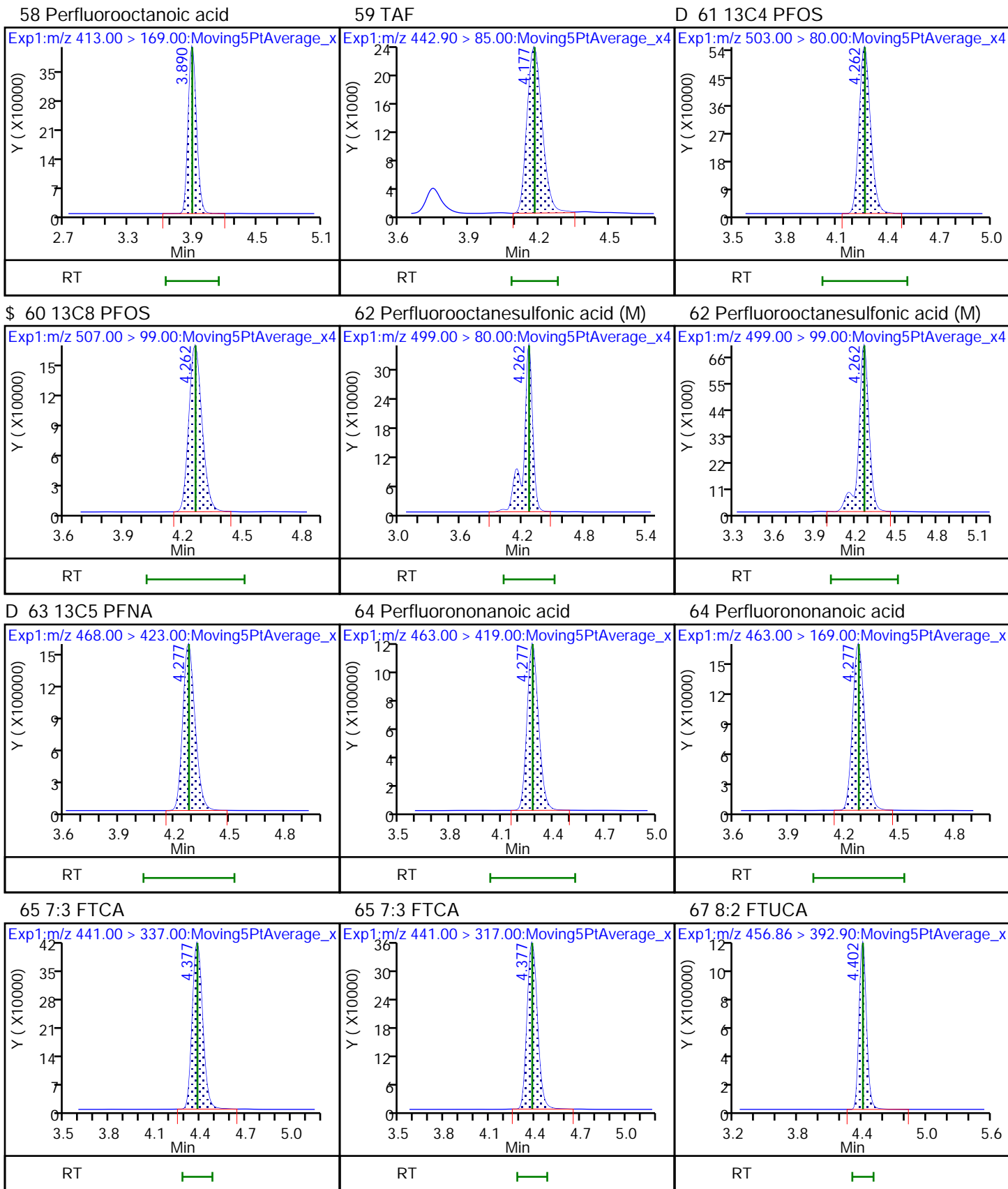


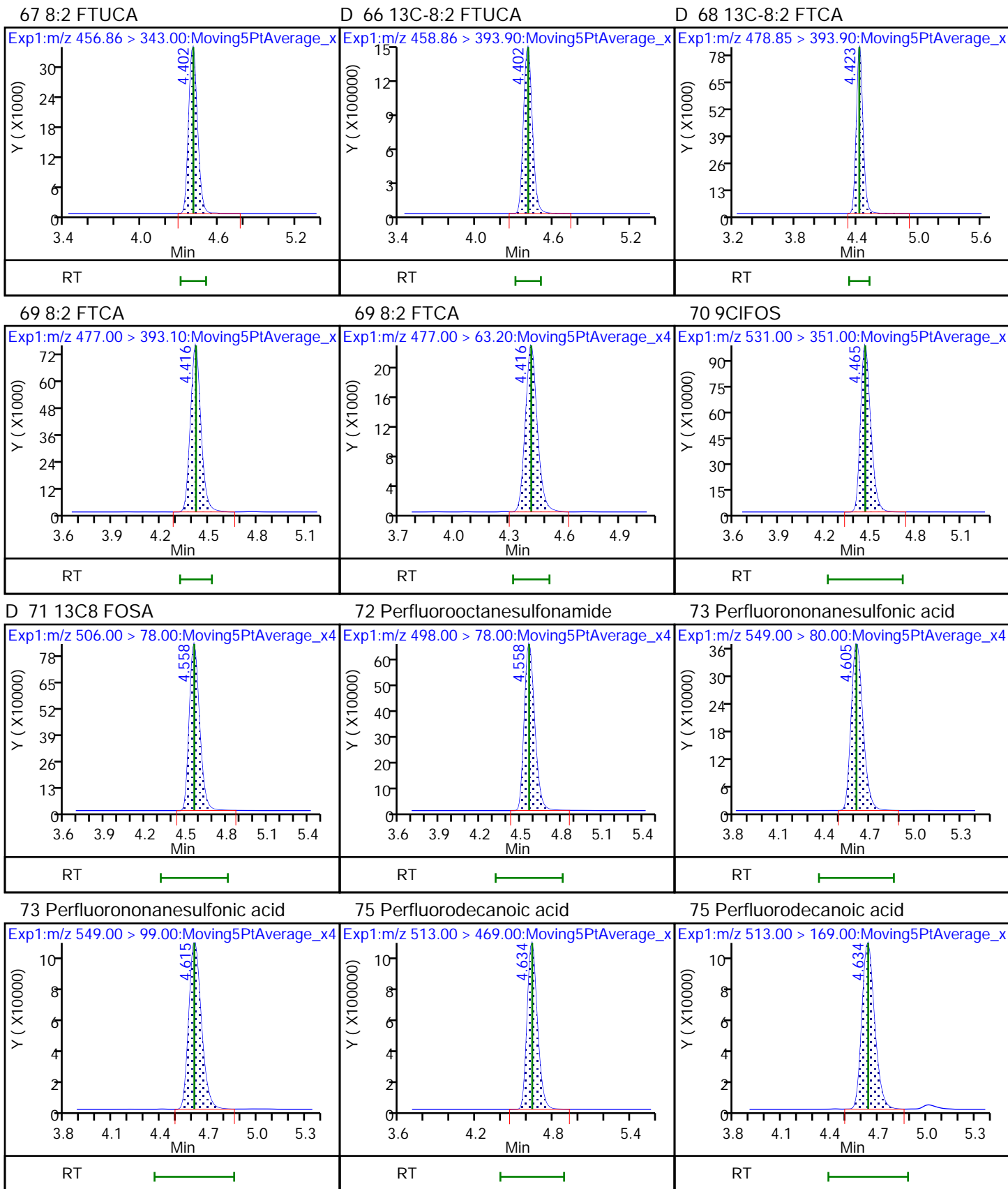








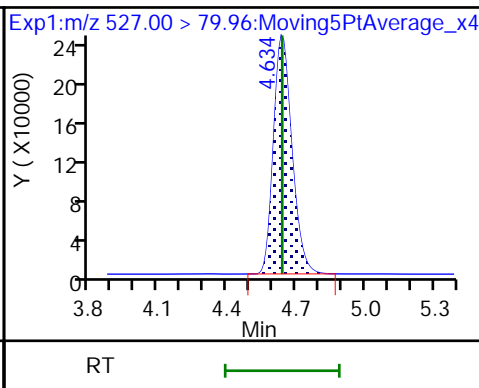
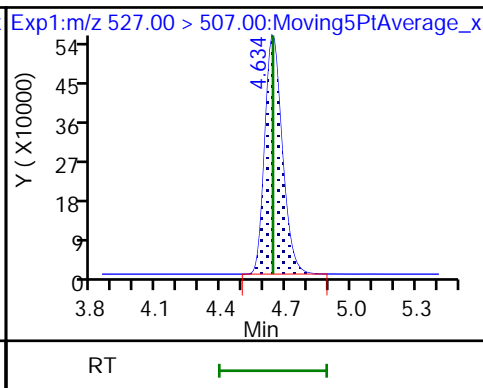
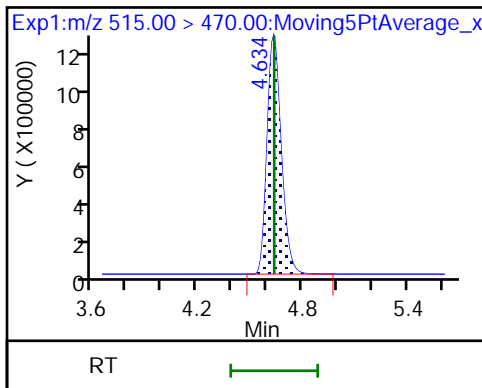




D 74 13C2 PFDA

77 8:2 FTS

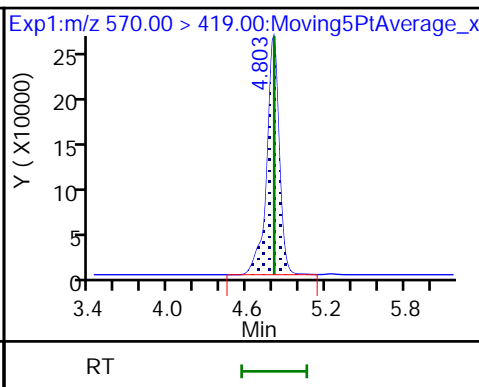
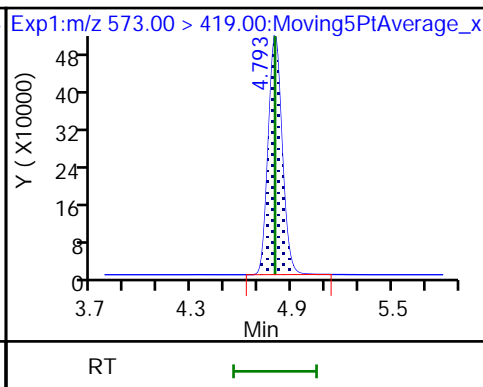
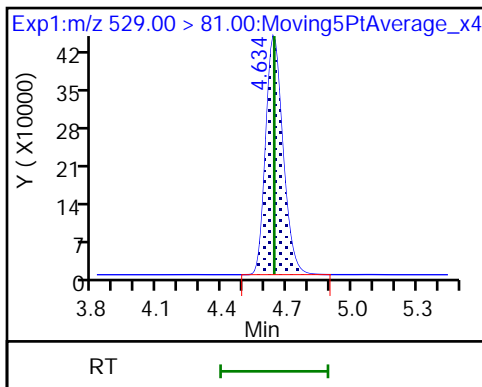
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

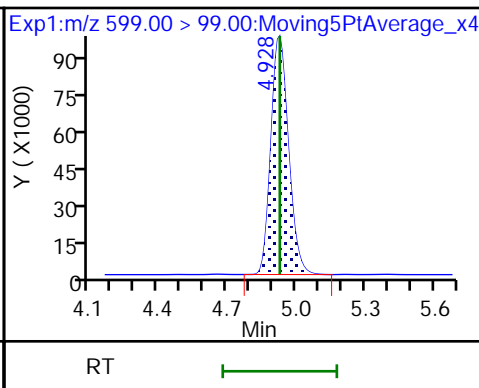
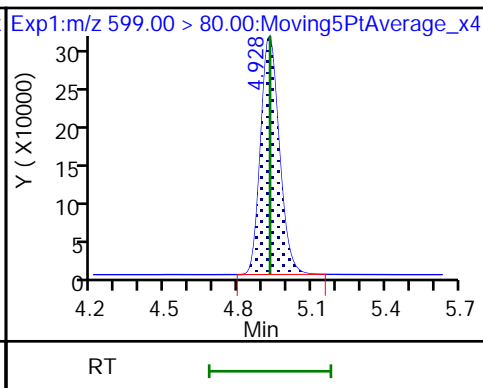
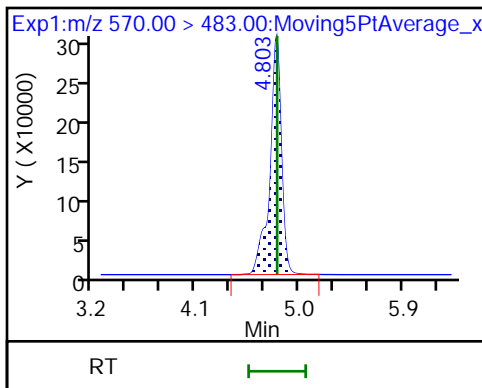
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

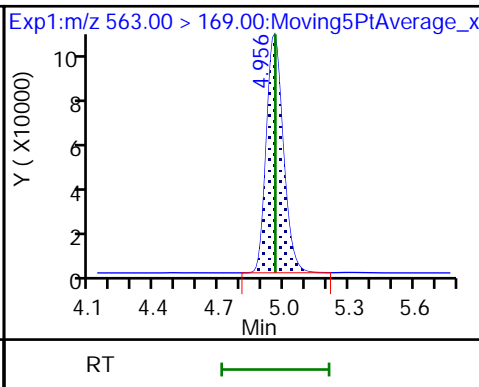
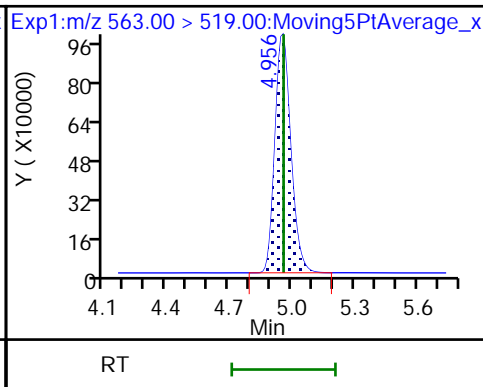
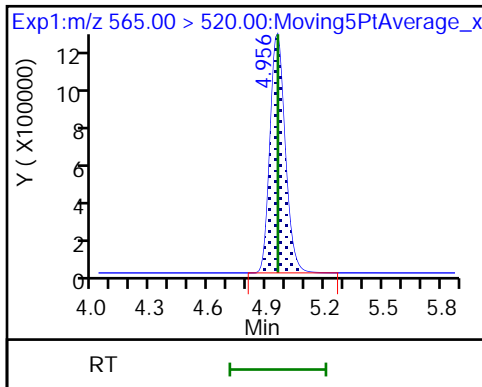
80 Perfluorodecanesulfonic acid



D 82 13C2 PFUnA

81 Perfluoroundecanoic acid

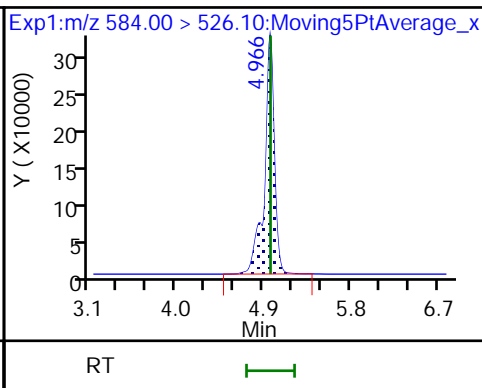
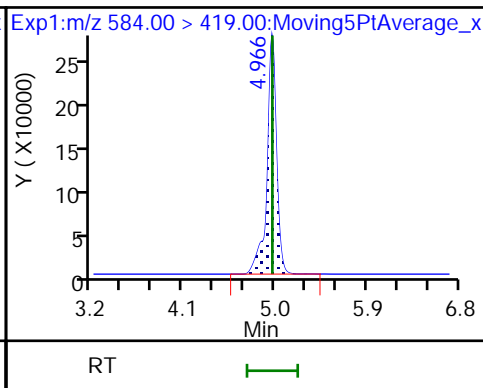
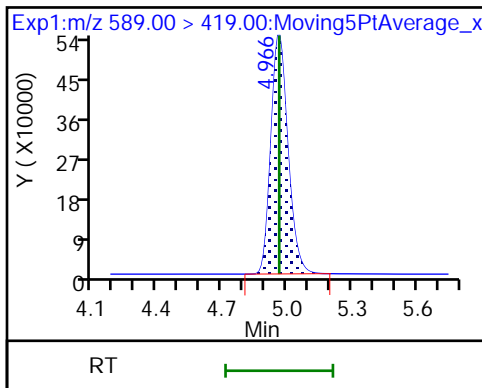
81 Perfluoroundecanoic acid



D 83 d5-NEtFOSAA

84 NEtFOSAA

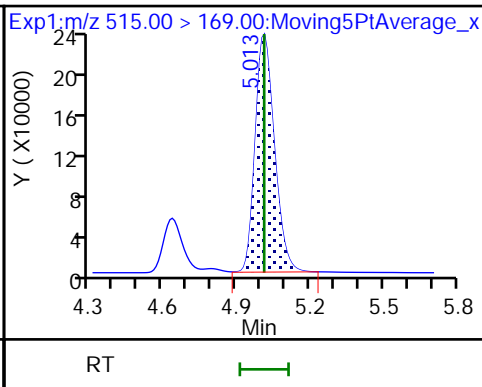
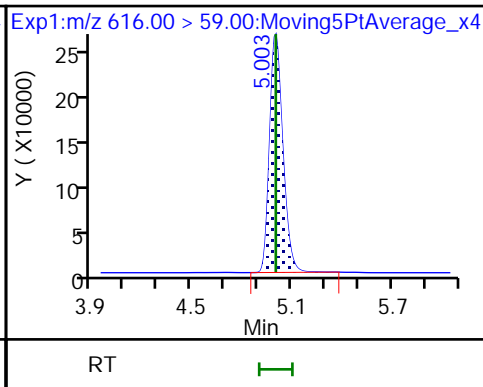
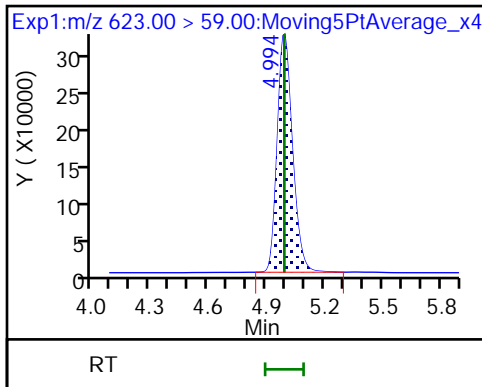
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

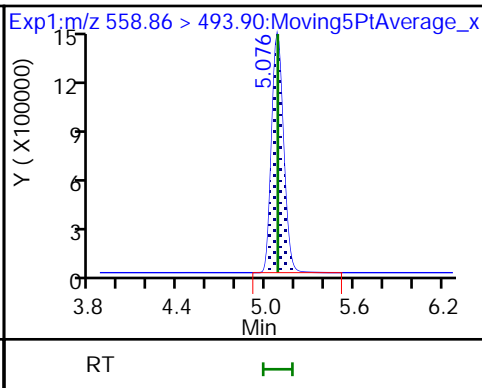
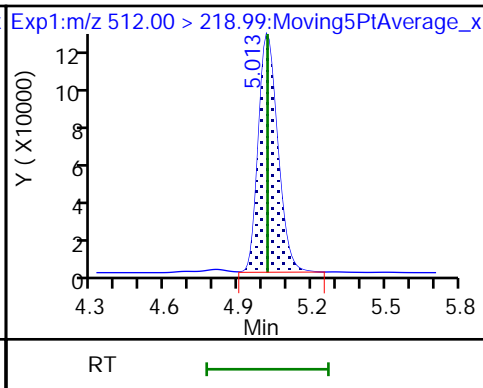
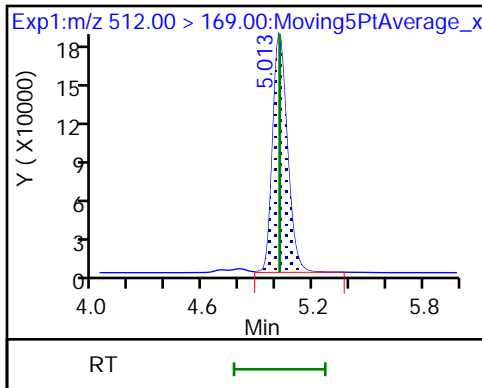
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

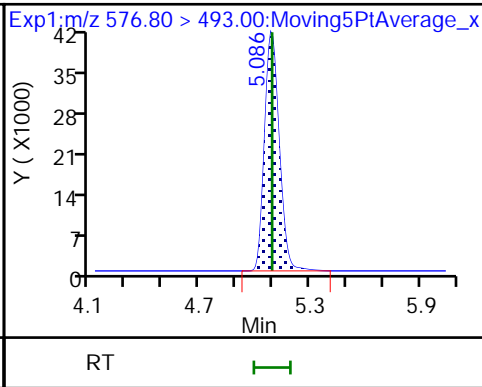
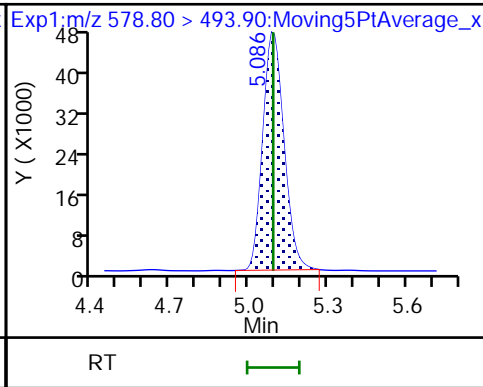
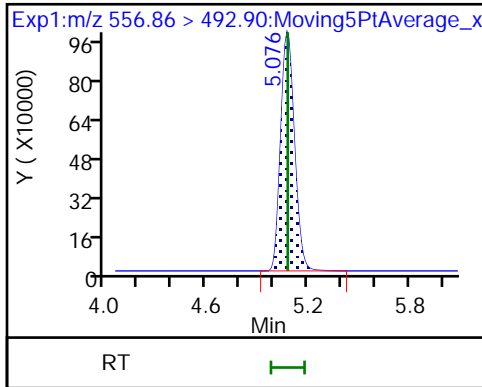
D 88 13C-10:2 FTCA

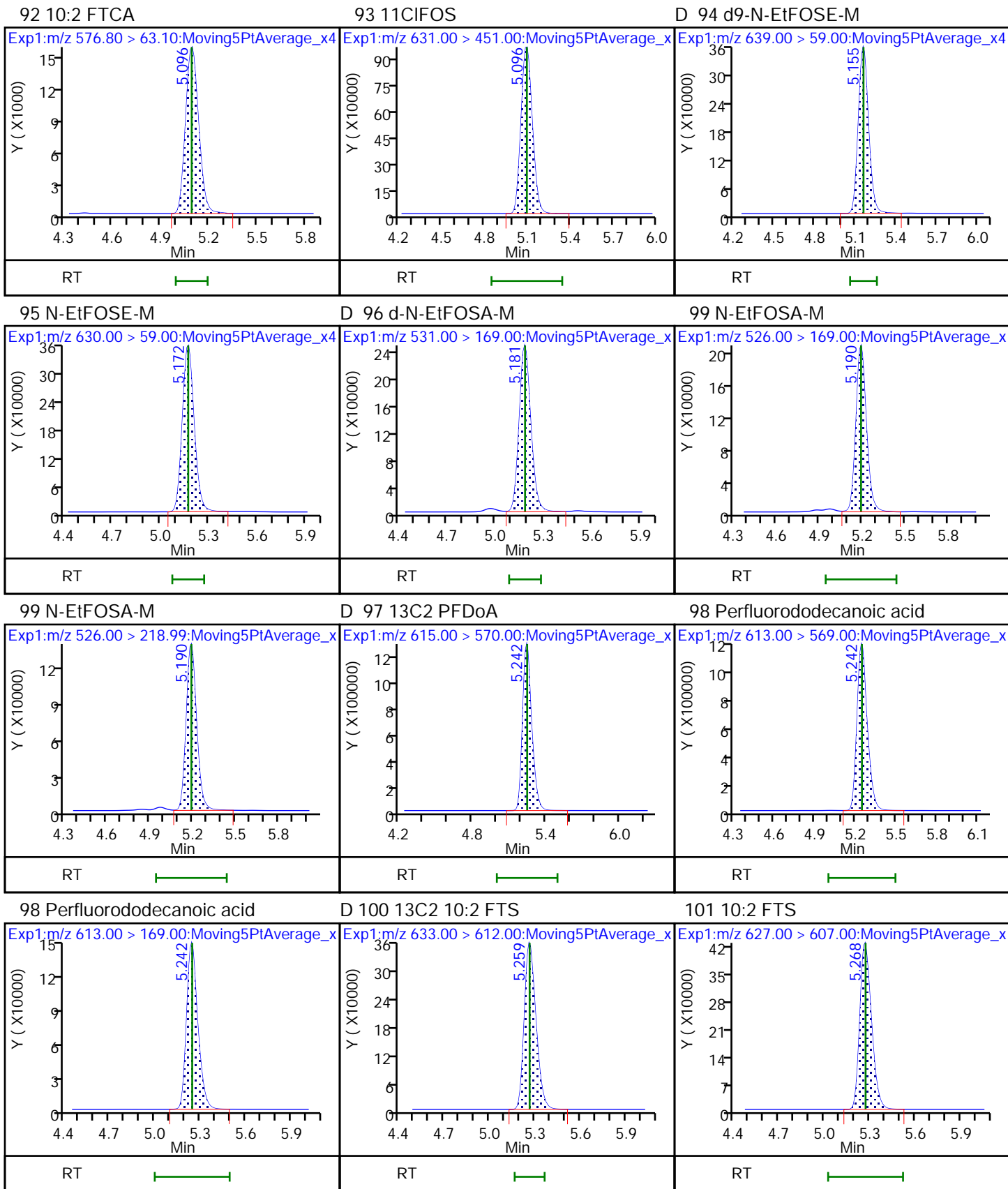


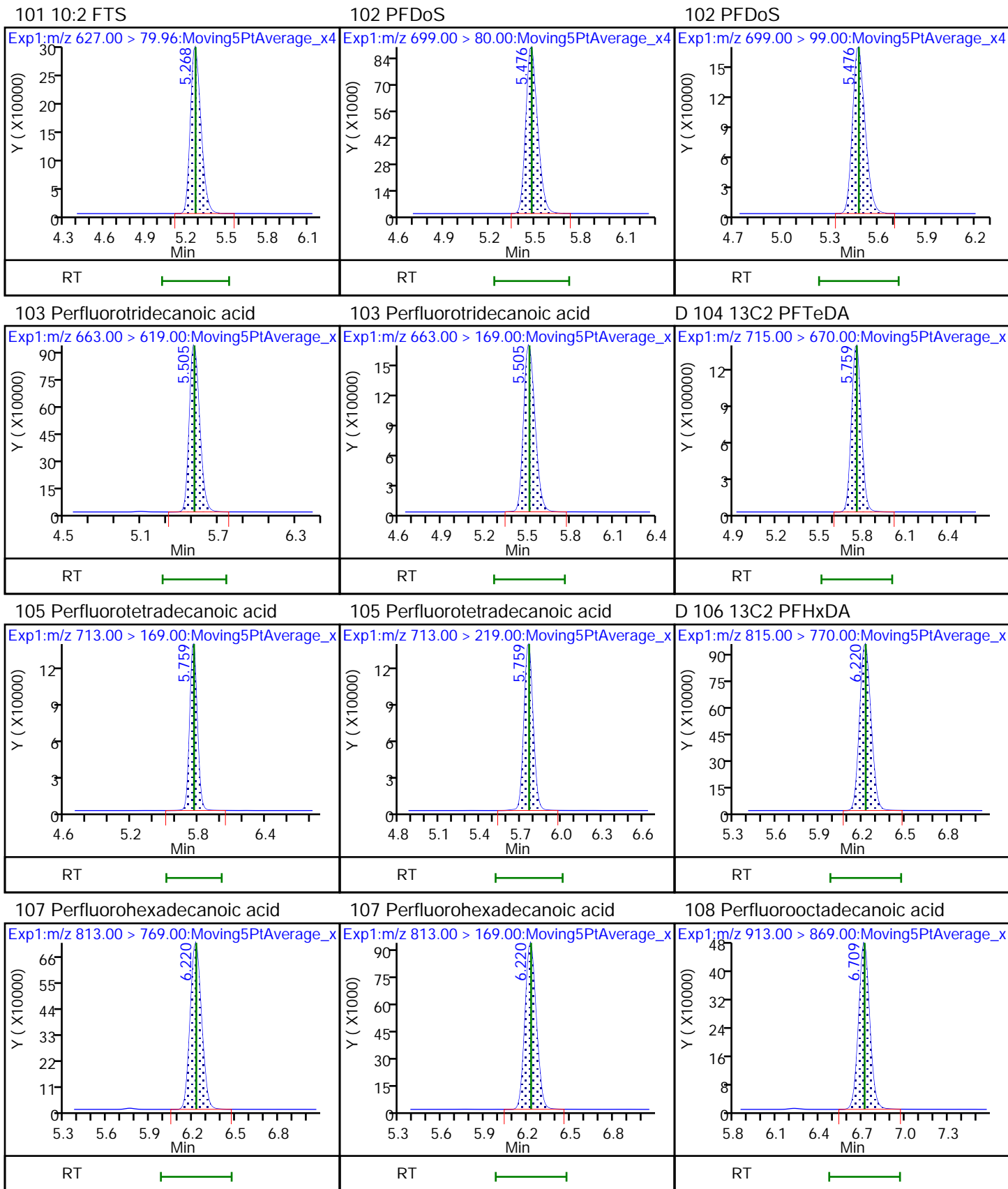
89 10:2 FTUCA

D 91 13C-10:2 FTUCA

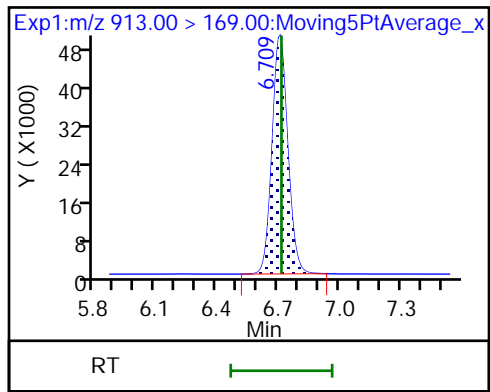
92 10:2 FTCA







108 Perfluorooctadecanoic acid





Eurofins TestAmerica, Sacramento

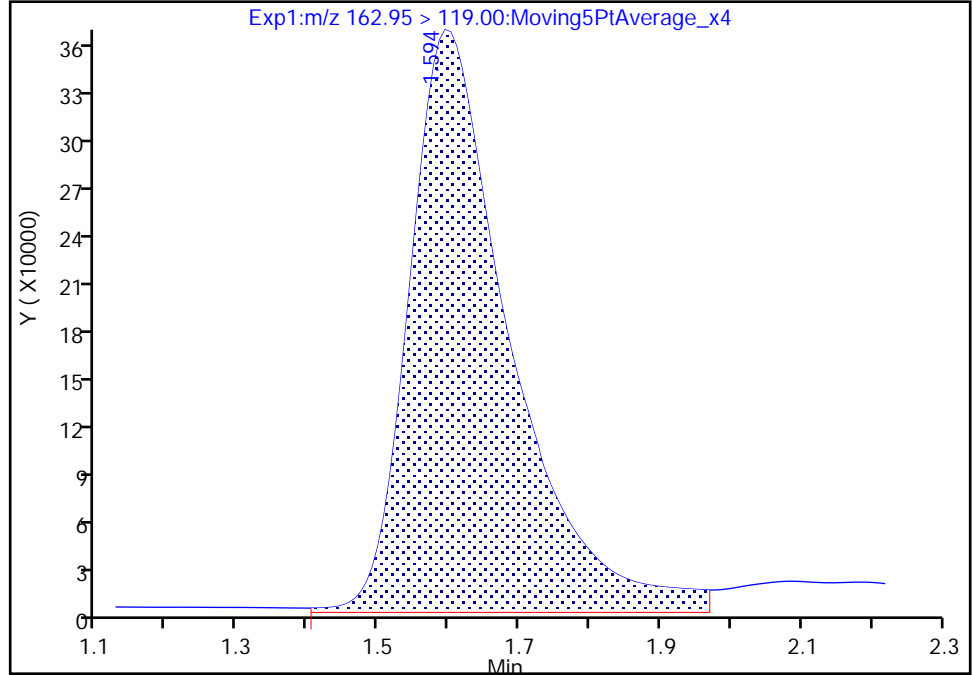
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_007.d  
Injection Date: 01-Jun-2021 14:34:47 Instrument ID: A15  
Lims ID: IC L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

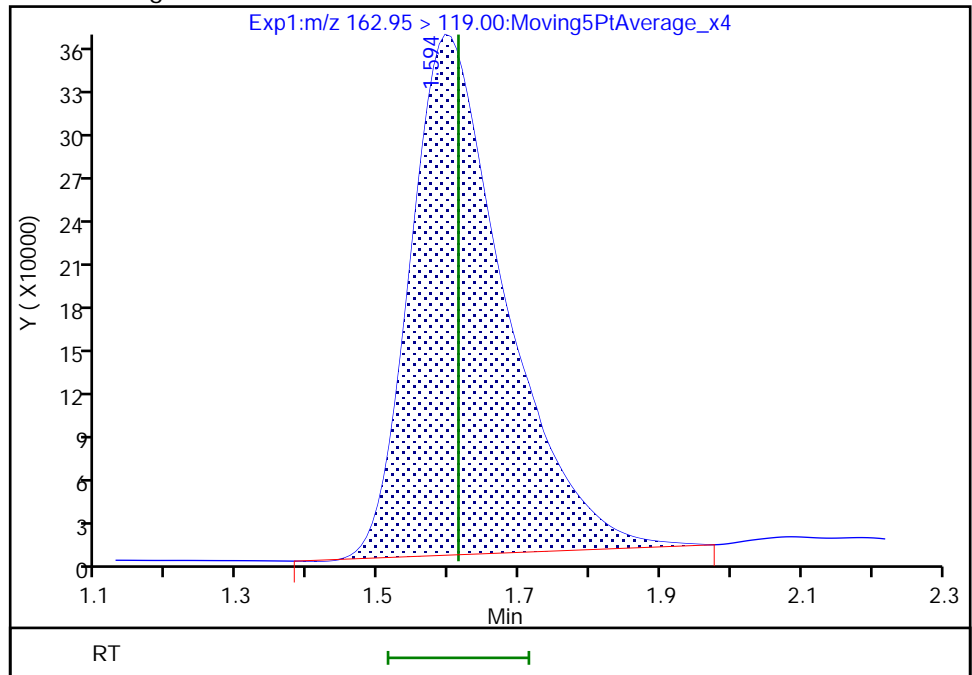
RT: 1.59  
Area: 3637967  
Amount: 0.957732  
Amount Units: ng/ml

Processing Integration Results



RT: 1.59  
Area: 3347282  
Amount: 0.926210  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:42:37  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

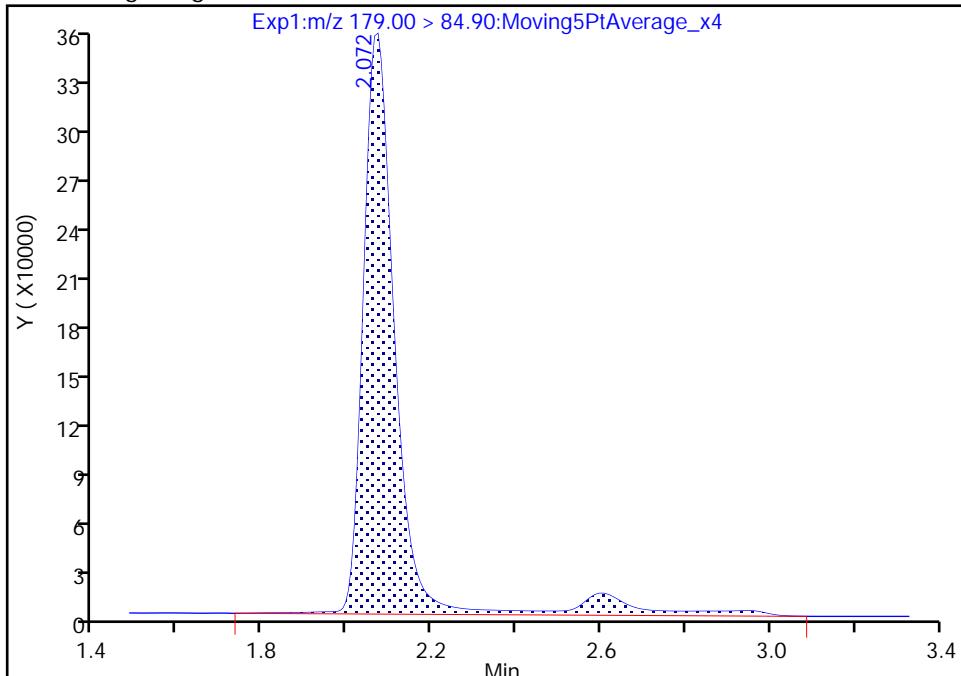
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Injection Date: 01-Jun-2021 14:34:47 Instrument ID: A15  
Lims ID: IC L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

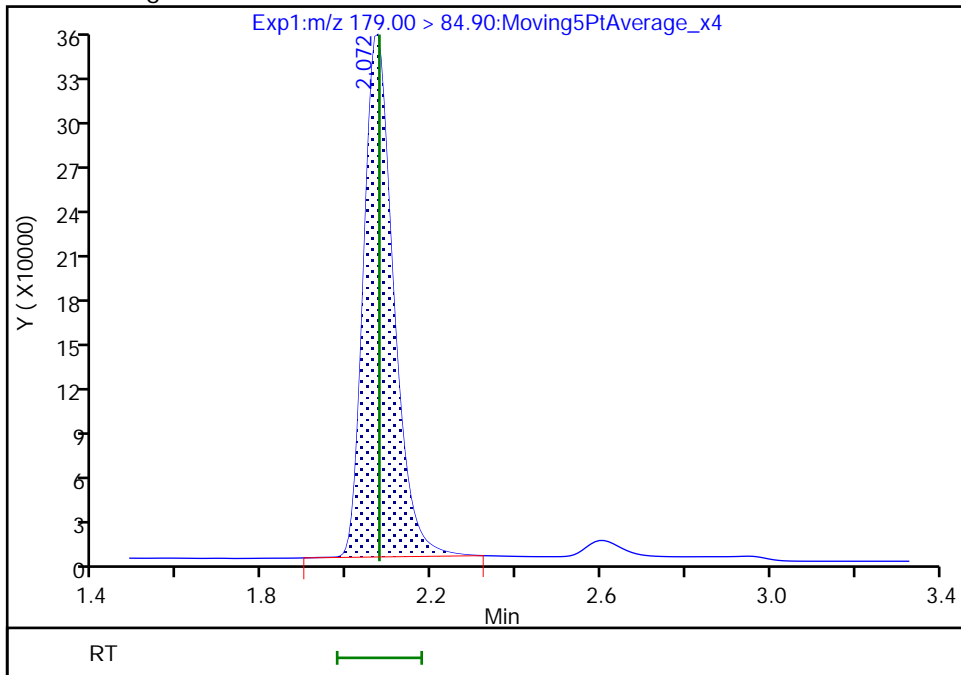
RT: 2.07  
Area: 1935946  
Amount: 1.048385  
Amount Units: ng/ml

Processing Integration Results



RT: 2.07  
Area: 1722644  
Amount: 0.976670  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:42:43  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

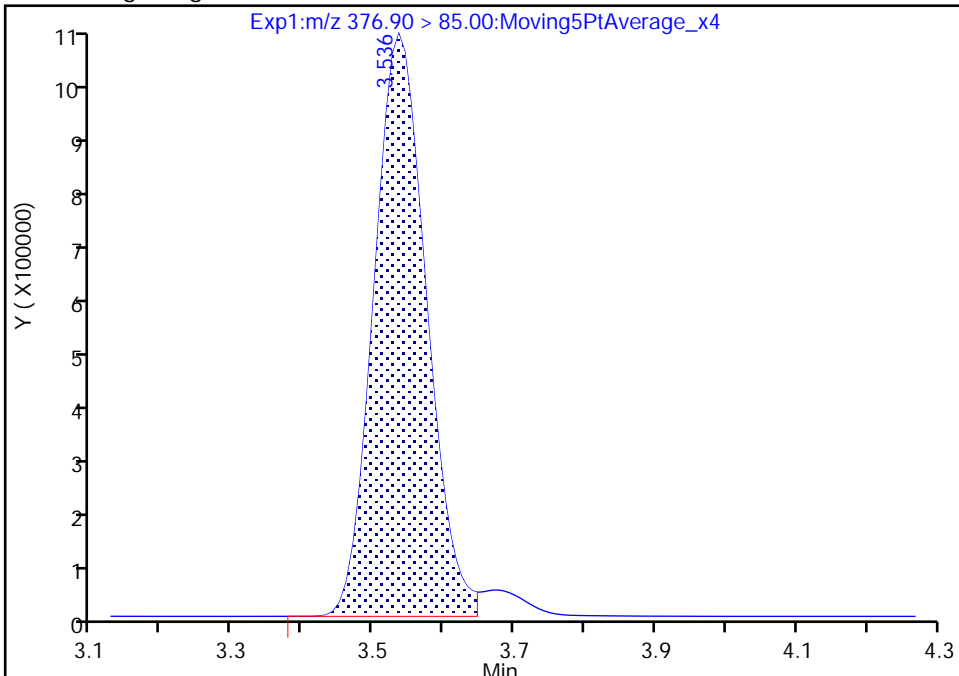
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_007.d  
Injection Date: 01-Jun-2021 14:34:47 Instrument ID: A15  
Lims ID: IC L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

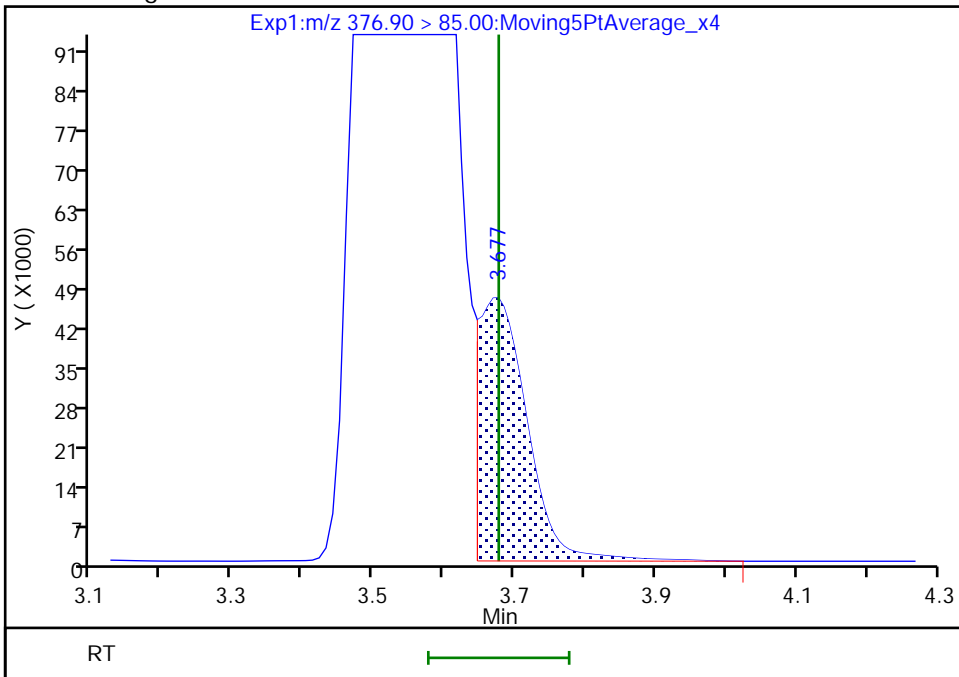
RT: 3.54  
Area: 5371621  
Amount: 1.681713  
Amount Units: ng/ml

Processing Integration Results



RT: 3.68  
Area: 216821  
Amount: 1.027762  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:40:11  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

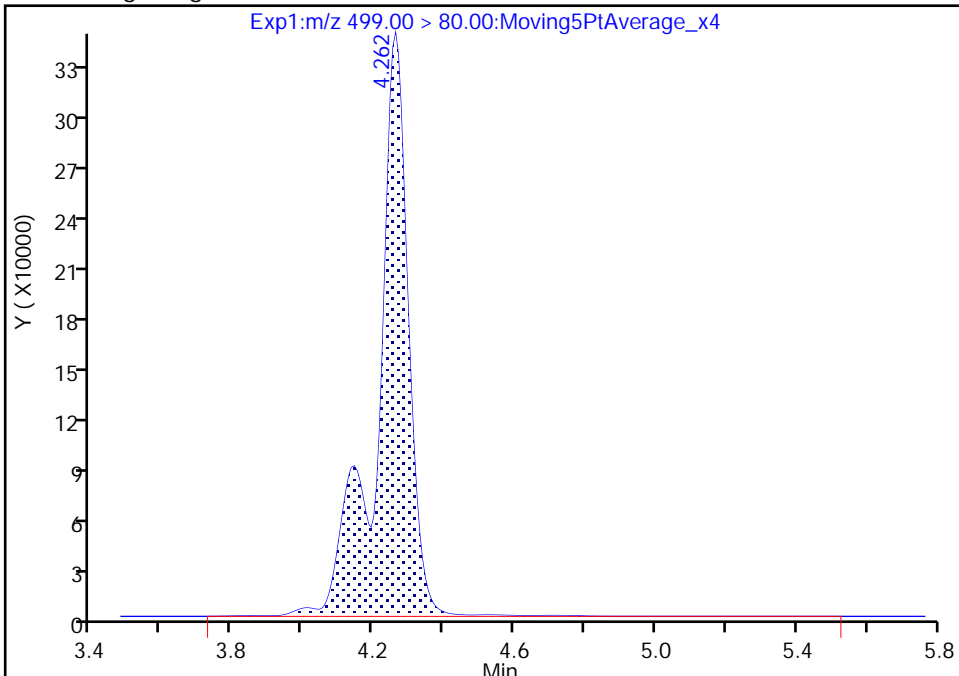
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_007.d  
Injection Date: 01-Jun-2021 14:34:47 Instrument ID: A15  
Lims ID: IC L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

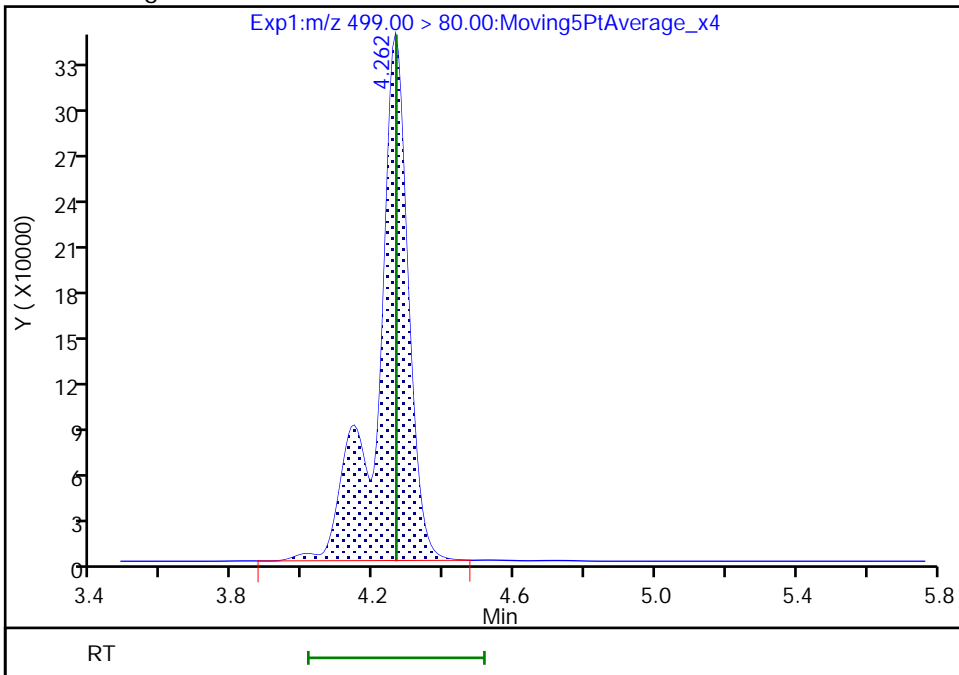
RT: 4.26  
Area: 2161046  
Amount: 0.917904  
Amount Units: ng/ml

Processing Integration Results



RT: 4.26  
Area: 2134522  
Amount: 0.908520  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:43:16  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

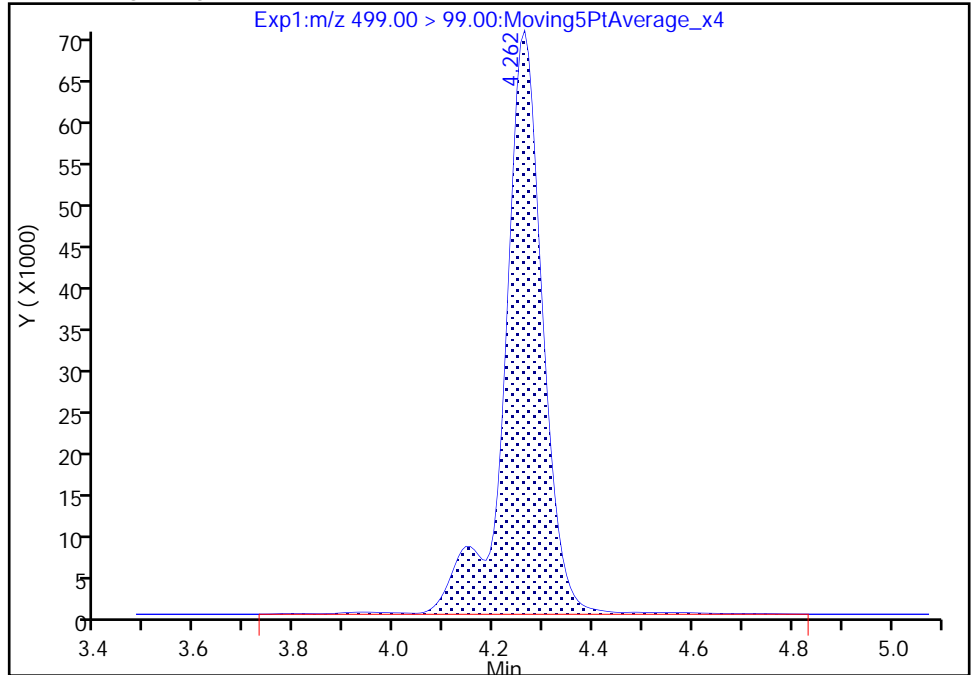
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Injection Date: 01-Jun-2021 14:34:47 Instrument ID: A15  
Lims ID: IC L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

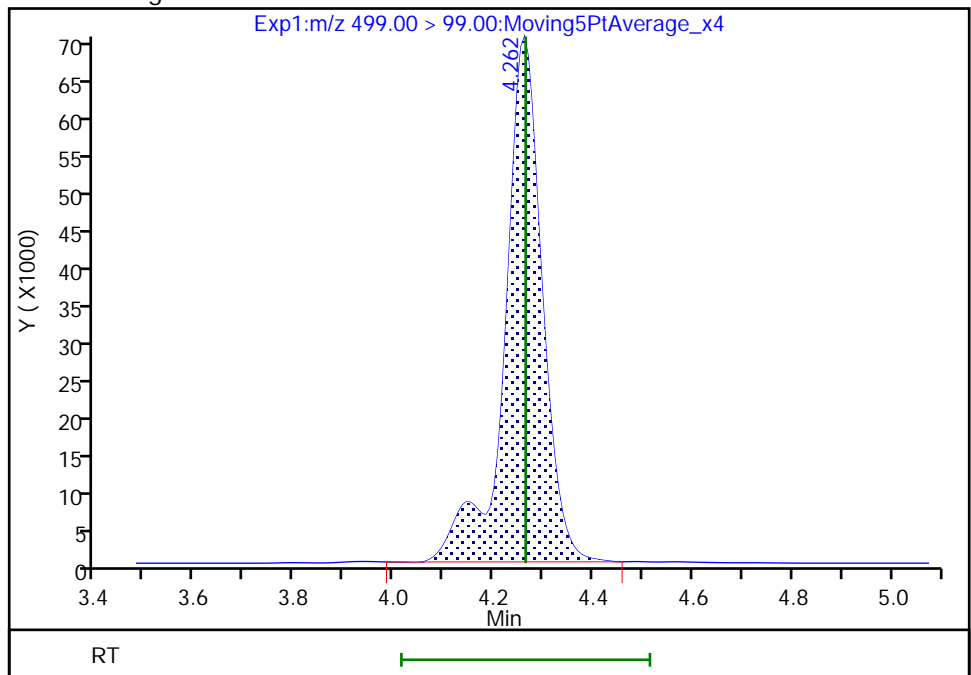
RT: 4.26  
Area: 380469  
Amount: 0.917904  
Amount Units: ng/ml

Processing Integration Results



RT: 4.26  
Area: 371800  
Amount: 0.908520  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:43:21

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
 Lims ID: IC L5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 01-Jun-2021 14:43:53 ALS Bottle#: 5 Worklist Smp#: 6  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 5 (2)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:54:37 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICAL File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:46:06

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.764	0.773	-0.009	0.328	431273	2.13		85.1	645	
2 MMF										
139.00 > 51.00	0.771	0.779	-0.008	0.331	927962	2.33		93.4	624	
3 MTP										
175.00 > 97.00	1.221	1.196	0.025	0.524	1259552	2.56		102	357	
4 PPF Acid										M
162.95 > 119.00	1.634	1.613	0.021	0.701	8862636	2.56		105	797	M
5 PFMOAA										M
179.00 > 84.90	2.078	2.075	0.003	0.892	4358599	2.58		103	1601	M
6 R-PSDA										
441.00 > 241.00	2.210	2.213	-0.003	0.949	1536439	2.52		101	39858	
7 R-EVE										
405.00 > 217.00	2.218	2.220	-0.002	0.952	4696335	2.57		103	96025	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.218	2.221	-0.003	0.952	6177141	2.56		103	309817	
D 9 13C4 PFBA										
217.00 > 172.00	2.330	2.334	-0.004	0.599	6863062	1.22		97.8	86998	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.330	2.334	-0.004	1.000	13706739	2.64		106	12113	
11 PMPA										
229.00 > 185.00	2.401	2.400	0.001	1.031	3128276	2.61		104	4324	
12 PFPrS										
249.10 > 80.00	2.401	2.405	-0.004	0.884	10575154	2.47		108	44514	
13 NVHOS										
297.00 > 135.00	2.419	2.421	-0.002	1.038	252464	2.48		99.1	8233	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.463	2.462	0.001	0.918	9018455	2.69		108	108742	
16 PFO2HxA										
245.00 > 85.00	2.597	2.602	-0.005	0.968	937301	2.51		100	5441	
D 17 13C5 PFPeA										
267.90 > 223.00	2.683	2.681	0.002	0.690	6417385	1.21		96.9	66592	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.683	2.682	0.001	1.000	13560531	2.52		101	45109	
19 3:3 FTCA										
241.00 > 177.10	2.683	2.690	-0.007	0.988	945876	2.61	Target=1.28	105	12933	
241.00 > 116.90	2.694	2.690	0.004	0.992	693902		1.36(0.64-1.92)	105	3949	
D 21 13C3 PFBS										
301.90 > 80.00	2.717	2.714	0.003	0.698	4284122	1.16		99.8	23859	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.717	2.716	0.001	1.000	9334014	2.24	Target=2.36	101	26050	
298.90 > 99.00	2.717	2.716	0.001	1.000	3972309		2.35(1.18-3.53)	101	19546	
22 PEPA										
278.90 > 234.90	2.771	2.778	-0.007	1.033	2202024	2.60		104	3351	
23 PFECA A										
278.95 > 84.90	2.791	2.795	-0.004	1.040	16343263	2.66		107	144470	
24 PES										
314.80 > 135.00	2.870	2.868	0.002	1.056	32191570	2.27		102	361576	
25 PFECA B										
295.20 > 201.00	2.992	2.996	-0.004	0.979	1781780	2.67		107	34255	
26 4:2 FTS										
327.00 > 307.00	3.018	3.022	-0.004	1.000	5520613	2.40	Target=2.17	103	113651	
327.00 > 79.96	3.018	3.022	-0.004	1.000	2498433		2.21(1.09-3.26)	103	28706	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.018	3.022	-0.004	0.776	1124092	1.14		97.6	10786	
D 28 13C2 PFHxA										
315.00 > 270.00	3.057	3.061	-0.004	0.786	6250426	1.19		95.4	79250	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.057	3.062	-0.005	1.000	13219258	2.36	Target=13.89	94.4	27539	
313.00 > 119.00	3.057	3.062	-0.005	1.000	973670		13.58(6.95-20.84)	94.4	11505	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.077	3.081	-0.004	1.132	8688571	2.37	Target=3.10	101	59347	
349.00 > 99.00	3.077	3.081	-0.004	1.132	2920120		2.98(1.55-4.65)	101	40076	
31 PFO3OA										
311.10 > 85.20	3.126	3.129	-0.003	1.023	441849	2.56		102	6128	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.197	3.201	-0.004	0.822	1100904	1.18		94.6	33064	
33 HFPO-DA										
285.00 > 169.00	3.197	3.201	-0.004	1.000	2323170	2.59	Target=1.03	104	52049	
285.00 > 185.00	3.197	3.201	-0.004	1.000	2274632		1.02(0.52-1.55)	104	17020	
34 R-PSDCA										
397.00 > 217.00	3.433	3.437	-0.004	0.986	844599	2.38		95.4	26158	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.462	3.468	-0.006	0.994	19776420	2.42		96.8	33876	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.481	3.485	-0.004	1.000	13776939	2.46	Target=3.81	98.2	53587	
363.00 > 169.00	3.481	3.485	-0.004	1.000	3617464		3.81(1.91-5.72)	98.2	14127	
D 38 18O2 PFHxS										
403.00 > 84.00	3.481	3.485	-0.004	0.895	3133297	1.19		101	64196	
D 37 13C4 PFHpA										
367.00 > 322.00	3.481	3.482	-0.001	0.895	6635341	1.29		103	93924	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.481	3.483	-0.002	1.000	6437588	2.20	Target=3.50	96.6	110113	
399.00 > 99.00	3.481	3.483	-0.002	1.000	1807263		3.56(1.75-5.25)	96.6	18617	
40 Hydro-PS Acid										
463.00 > 263.00	3.490	3.494	-0.004	1.003	20332556	2.42		97.0	7610	
41 DONA										
377.00 > 251.00	3.536	3.538	-0.002	0.830	27940341	2.37	Target=2.07	101	762719	
377.00 > 85.00	3.536	3.538	-0.002	0.830	13506723		2.07(1.03-3.10)	101	3442	
44 PFECA G										
378.90 > 184.90	3.553	3.558	-0.005	0.991	1833689	2.54		101	32171	
43 5:3 FTCA										
340.88 > 236.90	3.562	3.561	0.001	0.993	3404324	2.57	Target=1.08	103	44006	
340.88 > 216.90	3.562	3.561	0.001	0.993	3176112		1.07(0.54-1.62)	103	40970	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.587	3.592	-0.005	0.922	5579562	1.24		99.5	224042	
46 6:2 FTUCA										
356.86 > 292.90	3.587	3.592	-0.005	0.994	12579797	2.83	Target=14.03	113	148623	
356.86 > 243.00	3.595	3.592	0.003	0.996	884492		14.22(7.02-21.05)	113	35723	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.614	-0.004	1.007	155714	2.17	Target=0.54	87.0	1194	
377.10 > 63.00	3.610	3.614	-0.004	1.007	321898		0.48(0.27-0.81)	87.0	16659	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.610	3.614	-0.004	0.928	314666	1.14		91.5	4295	
42 PFO4DA										
376.90 > 85.00	3.670	3.677	-0.007	1.054	385012	1.84		73.5	3.9	a
49 PS Acid										
442.80 > 146.80	3.735	3.738	-0.003	0.960	9774773	2.51		101	139665	a
50 EVE Acid										
407.00 > 262.90	3.756	3.754	0.002	0.965	15351017	2.48		99.3	176850	
51 PFECHS										
460.80 > 380.90	3.833	3.833	0.0	0.985	17152406	2.43	Target=1.90	105	626194	
460.80 > 98.90	3.833	3.833	0.0	0.985	8887873		1.93(0.95-2.85)	105	108013	
53 6:2 FTS										
427.00 > 407.00	3.871	3.876	-0.005	1.000	5567609	2.28	Target=2.11	96.3	21248	
427.00 > 79.96	3.871	3.876	-0.005	1.000	2756162		2.02(1.06-3.17)	96.3	13439	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.871	3.876	-0.005	0.995	1406104	1.18		99.3	16849	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.881	3.885	-0.004	0.911	5642852	2.36	Target=4.82	99.1	35810	
449.00 > 99.00	3.881	3.885	-0.004	0.911	1152139		4.90(2.41-7.24)	99.1	21172	
* 57 13C2 PFOA										
415.00 > 370.00	3.890	3.895	-0.005		7033039	1.25			76126	
D 56 13C4 PFOA										
417.00 > 372.00	3.890	3.895	-0.005	1.000	7383540	1.26		101	84874	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.890	3.895	-0.005	1.000	8021799	1.22		97.7	86976	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.890	3.895	-0.005	1.000	14724039	2.39	Target=2.87	95.4	64320	
413.00 > 169.00	3.890	3.895	-0.005	1.000	5182997		2.84(1.43-4.30)	95.4	118400	
59 TAF										
442.90 > 85.00	4.177	4.180	-0.003	1.074	236516	2.59		104	488	
D 61 13C4 PFOS										
503.00 > 80.00	4.262	4.264	-0.002	1.096	2504282	1.22		102	25551	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.262	4.264	-0.002	1.096	750097	1.22		102	10793	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.262	4.264	-0.002	1.000	5492665	2.33	Target=5.95	100	33515	M
499.00 > 99.00	4.262	4.264	-0.002	1.000	958689		5.73(2.97-8.92)	100	15380	M
D 63 13C5 PFNA										
468.00 > 423.00	4.277	4.279	-0.002	1.099	6699779	1.19		95.6	78439	
64 Perfluorononanoic acid										
463.00 > 419.00	4.277	4.280	-0.003	1.000	13755308	2.59	Target=7.58	104	32801	
463.00 > 169.00	4.277	4.280	-0.003	1.000	1853884		7.42(3.79-11.37)	104	27931	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.381	-0.004	0.991	4945358	2.62	Target=1.21	105	46949	
441.00 > 317.00	4.377	4.381	-0.004	0.991	4162849		1.19(0.60-1.81)	105	62237	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.403	4.404	-0.001	1.132	7068168	1.27		102	167373	
67 8:2 FTUCA										
456.86 > 392.90	4.403	4.404	-0.001	1.000	13868973	2.52	Target=35.28	101	172368	
456.86 > 343.00	4.403	4.404	-0.001	1.000	390648		35.50(17.64-52.92)	101	20374	
69 8:2 FTCA										
477.00 > 393.10	4.416	4.420	-0.004	1.000	722900	2.55	Target=3.24	102	19855	
477.00 > 63.20	4.423	4.420	0.003	1.002	228356		3.17(1.62-4.86)	102	12111	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.416	4.419	-0.003	1.135	305990	1.21		96.5	7922	
70 9CIFOS										
531.00 > 351.00	4.466	4.469	-0.003	1.048	10802136	2.28		98.1	110692	
D 71 13C8 FOSA										
506.00 > 78.00	4.559	4.561	-0.002	1.172	4235443	1.22		97.8	57867	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.559	4.561	-0.002	1.000	8631515	2.54		102	102539	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.606	4.610	-0.004	1.081	4639403	2.36	Target=3.28	98.5	40796	
549.00 > 99.00	4.606	4.610	-0.004	1.081	1434522		3.23(1.64-4.92)	98.5	16691	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.635	4.636	-0.001	1.000	13386012	2.38	Target=9.70	95.4	73445	
513.00 > 169.00	4.635	4.636	-0.001	1.000	1349070		9.92(4.85-14.54)	95.4	2733	
D 74 13C2 PFDA										
515.00 > 470.00	4.635	4.637	-0.002	1.191	6865528	1.22		98.0	112810	
77 8:2 FTS										
527.00 > 507.00	4.635	4.639	-0.004	1.000	6799781	2.45	Target=2.33	102	151668	
527.00 > 79.96	4.635	4.639	-0.004	1.000	2980011		2.28(1.17-3.50)	102	22152	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.635	4.640	-0.005	1.191	2122669	1.14		95.2	31441	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.794	4.798	-0.004	1.232	2886800	1.22		97.6	25149	
79 NMeFOSAA										
570.00 > 419.00	4.804	4.806	-0.002	1.002	4354181	2.55	Target=0.83	102	28200	
570.00 > 483.00	4.804	4.806	-0.002	1.002	5351395		0.81(0.42-1.25)	102	194419	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.928	4.928	0.0	1.156	4025709	2.34	Target=3.22	97.3	54282	
599.00 > 99.00	4.928	4.928	0.0	1.156	1316941		3.06(1.61-4.83)	97.3	27502	
D 82 13C2 PFUnA										
565.00 > 520.00	4.957	4.958	-0.001	1.274	6436464	1.19		95.3	85742	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.957	4.959	-0.002	1.000	11952030	2.52	Target=9.27	101	65560	
563.00 > 169.00	4.957	4.959	-0.002	1.000	1300833		9.19(4.63-13.90)	101	40659	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.966	4.963	0.003	1.276	2826822	1.20		96.0	30294	
84 NEtFOSAA										
584.00 > 419.00	4.966	4.970	-0.004	1.000	4127942	2.55	Target=0.77	102	43514	
584.00 > 526.10	4.966	4.970	-0.004	1.000	5331916		0.77(0.39-1.16)	102	248775	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.991	0.003	1.284	1697476	1.20		96.0	9743	
86 N-MeFOSE-M										
616.00 > 59.00	5.004	5.002	0.002	1.002	3739480	2.60		104	24339	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.014	5.012	0.002	1.289	1278029	1.23		98.4	365	
90 NMeFOSA										
512.00 > 169.00	5.014	5.018	-0.004	1.000	2678342	2.58	Target=1.61	103	3790	
512.00 > 218.99	5.014	5.018	-0.004	1.000	1603465		1.67(0.80-2.41)	103	4028	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.080	-0.004	1.305	7785957	1.19		95.5	230065	
89 10:2 FTUCA										
556.86 > 492.90	5.076	5.080	-0.004	0.998	13056540	2.20		88.1	287796	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.086	5.091	-0.005	1.307	263217	1.38		110	4279	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.086	5.093	-0.007	1.002	534457	3.02	Target=2.56	121	13731	
576.80 > 63.10	5.086	5.093	-0.007	1.002	169409		3.15(1.28-3.83)	121	5706	
93 11CIFOS										
631.00 > 451.00	5.086	5.094	-0.008	1.193	13212660	2.34		99.6	184542	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.158	-0.003	1.325	1952148	1.24		99.1	10785	
95 N-EtFOSE-M										
630.00 > 59.00	5.173	5.171	0.002	1.003	4372518	2.39		95.4	21813	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.184	-0.003	1.332	1247523	1.22		97.8	1965	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	2587082	2.50	Target=1.61	100	3130	
526.00 > 218.99	5.190	5.190	0.0	1.002	1639802		1.58(0.80-2.41)	100	3015	
D 97 13C2 PFDaA										
615.00 > 570.00	5.242	5.246	-0.004	1.347	7152063	1.22		97.8	98123	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.242	5.246	-0.004	1.000	16967737	2.67	Target=7.93	107	85821	
613.00 > 169.00	5.242	5.246	-0.004	1.000	2075698		8.17(3.97-11.90)	107	44183	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.260	5.263	-0.003	1.352	1687459	1.13		93.7	44645	
101 10:2 FTS										
627.00 > 607.00	5.268	5.271	-0.003	1.002	5156522	2.43	Target=1.46	101	95741	
627.00 > 79.96	5.268	5.271	-0.003	1.002	3475093		1.48(0.73-2.19)	101	40378	
102 PFDoS										
699.00 > 80.00	5.476	5.477	-0.001	1.285	1160923	2.38	Target=0.54	98.4	27129	
699.00 > 99.00	5.476	5.477	-0.001	1.285	2156547		0.54(0.27-0.81)	98.4	40242	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.505	5.513	-0.008	1.050	13831397	2.61	Target=5.84	104	40087	
663.00 > 169.00	5.505	5.513	-0.008	1.050	2378768		5.81(2.92-8.75)	104	35400	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.759	5.760	-0.001	1.480	6993758	1.30		104	82963	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.759	5.761	-0.002	1.000	1568599	2.28	Target=1.07	91.2	36914	
713.00 > 219.00	5.759	5.761	-0.002	1.000	1482391		1.06(0.53-1.60)	91.2	62648	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.220	6.223	-0.003	1.599	4619724	1.12		89.7	31098	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.220	6.224	-0.004	1.000	8712635	2.57	Target=7.49	103	15085	
813.00 > 169.00	6.211	6.224	-0.013	0.998	1146704		7.60(3.75-11.24)	103	18863	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.708	6.715	-0.007	1.078	5824872	2.60	Target=9.70	104	10167	
913.00 > 169.00	6.708	6.715	-0.007	1.078	594522		9.80(4.85-14.55)	104	8424	

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

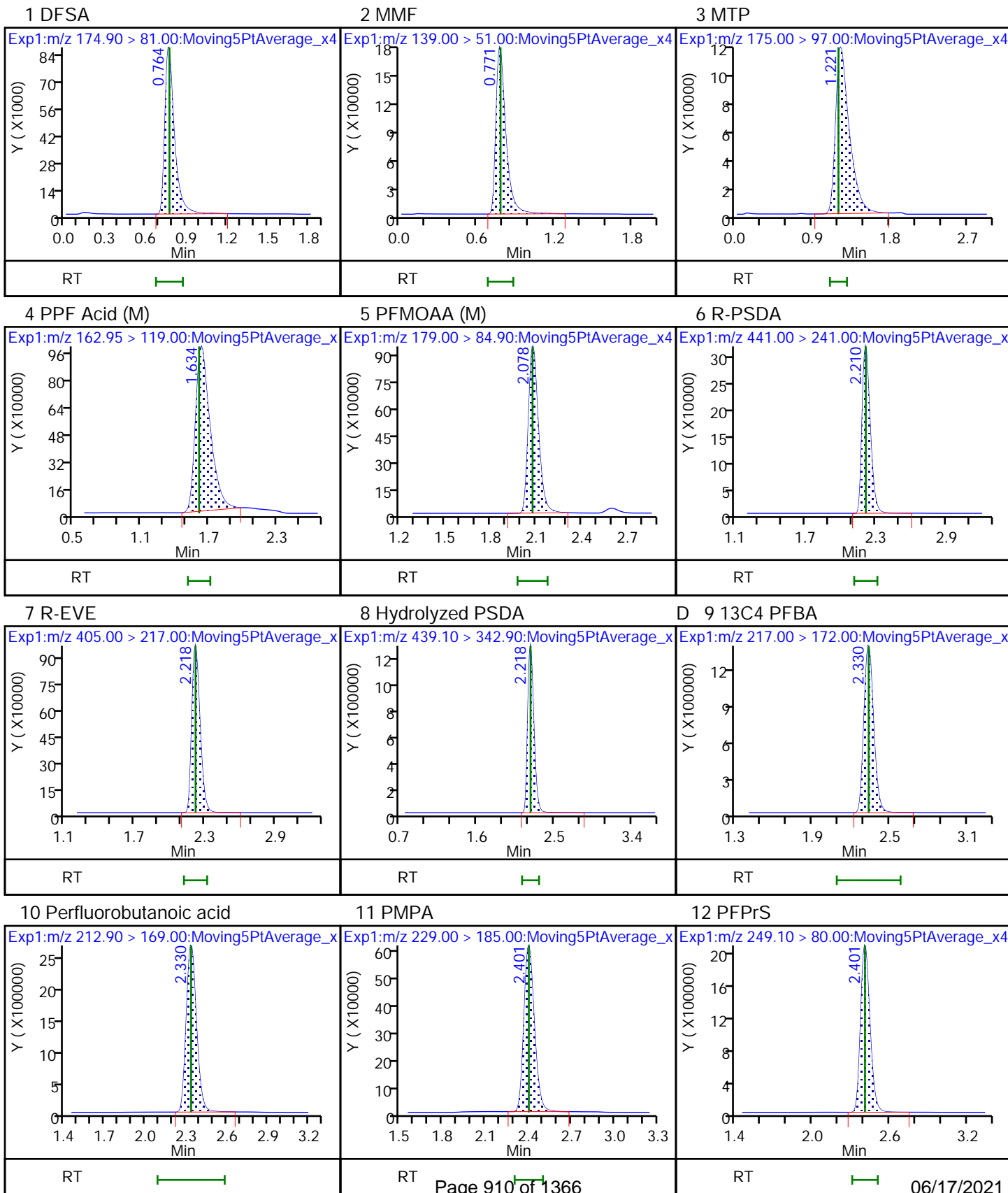
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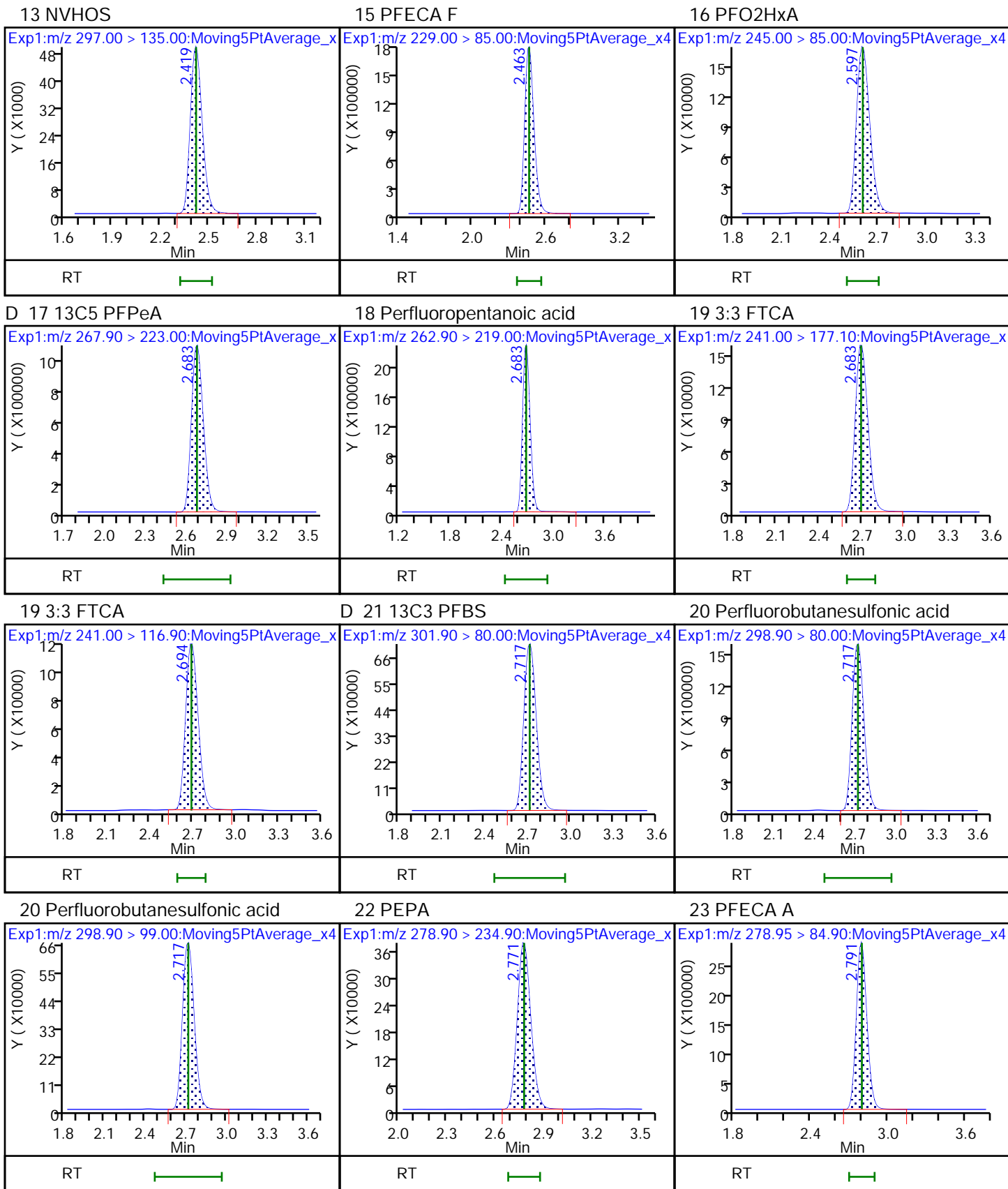
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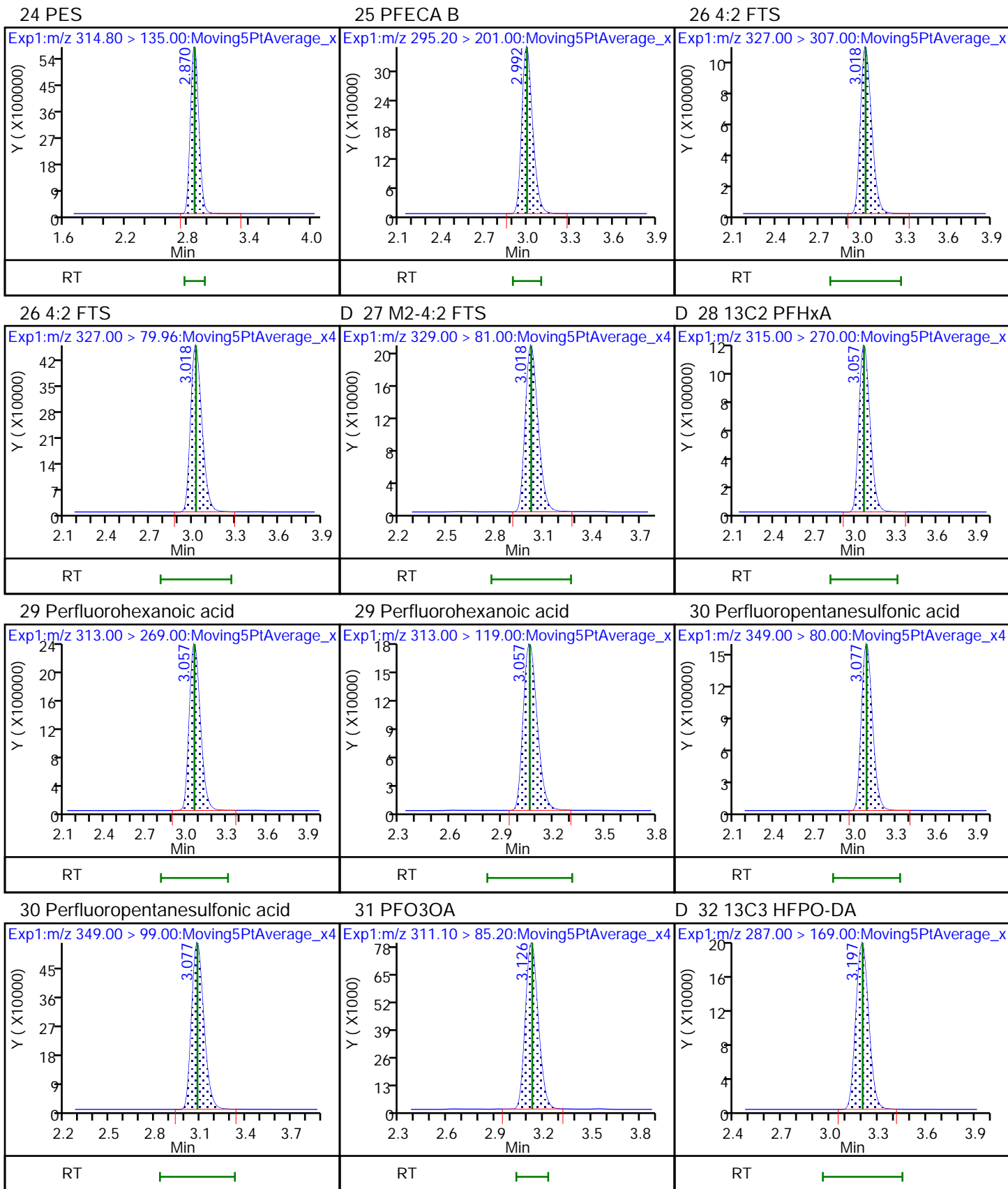
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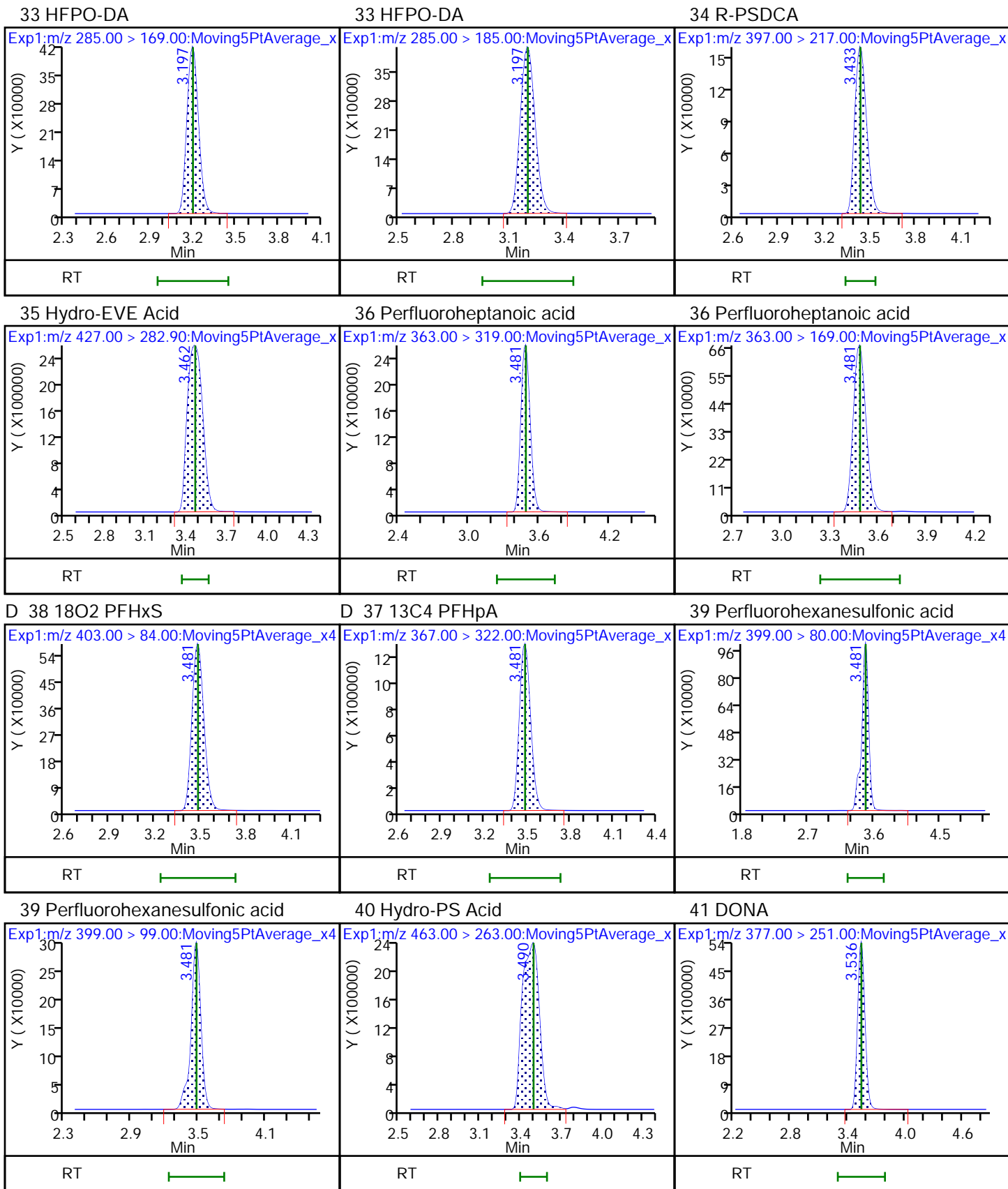
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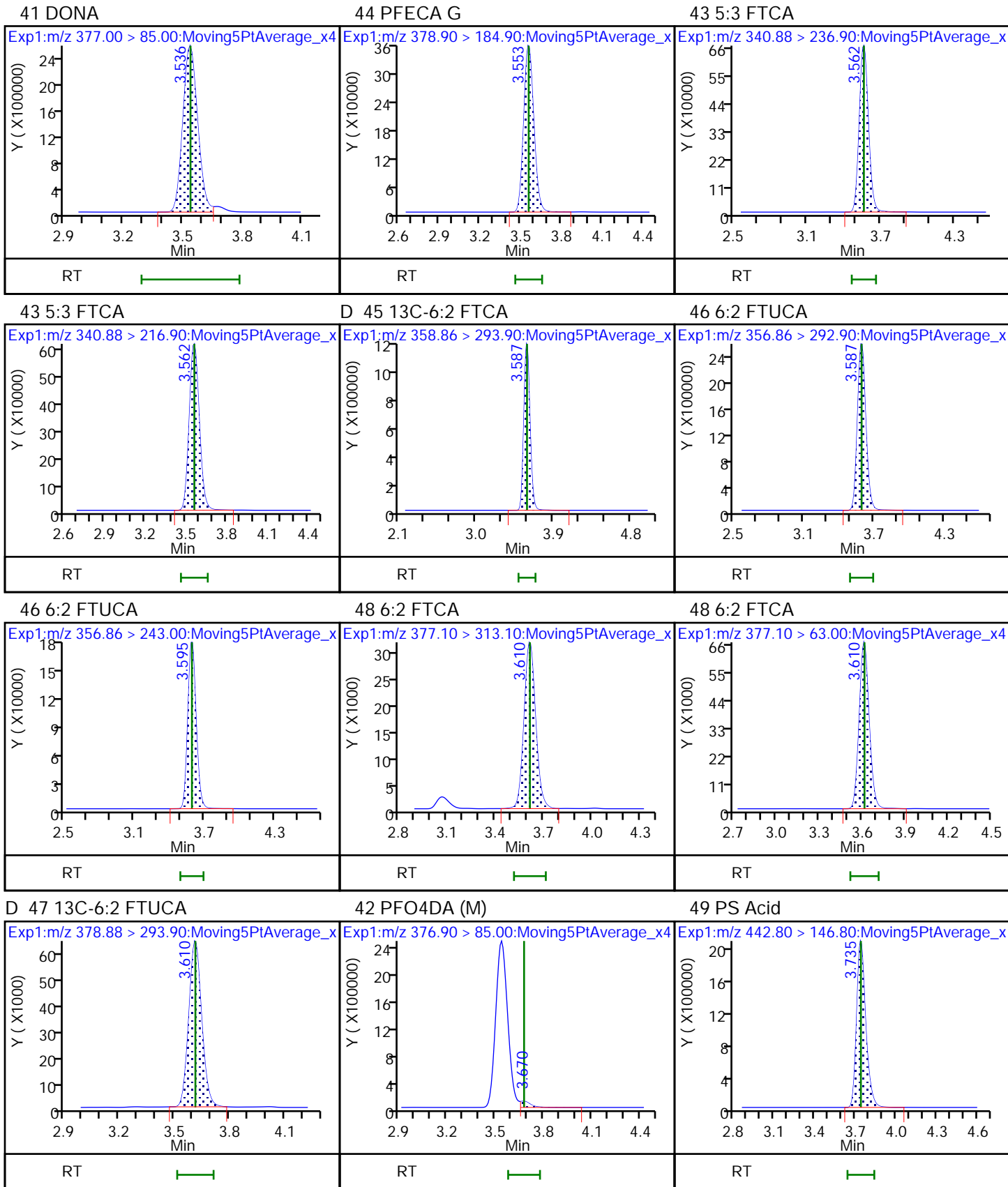


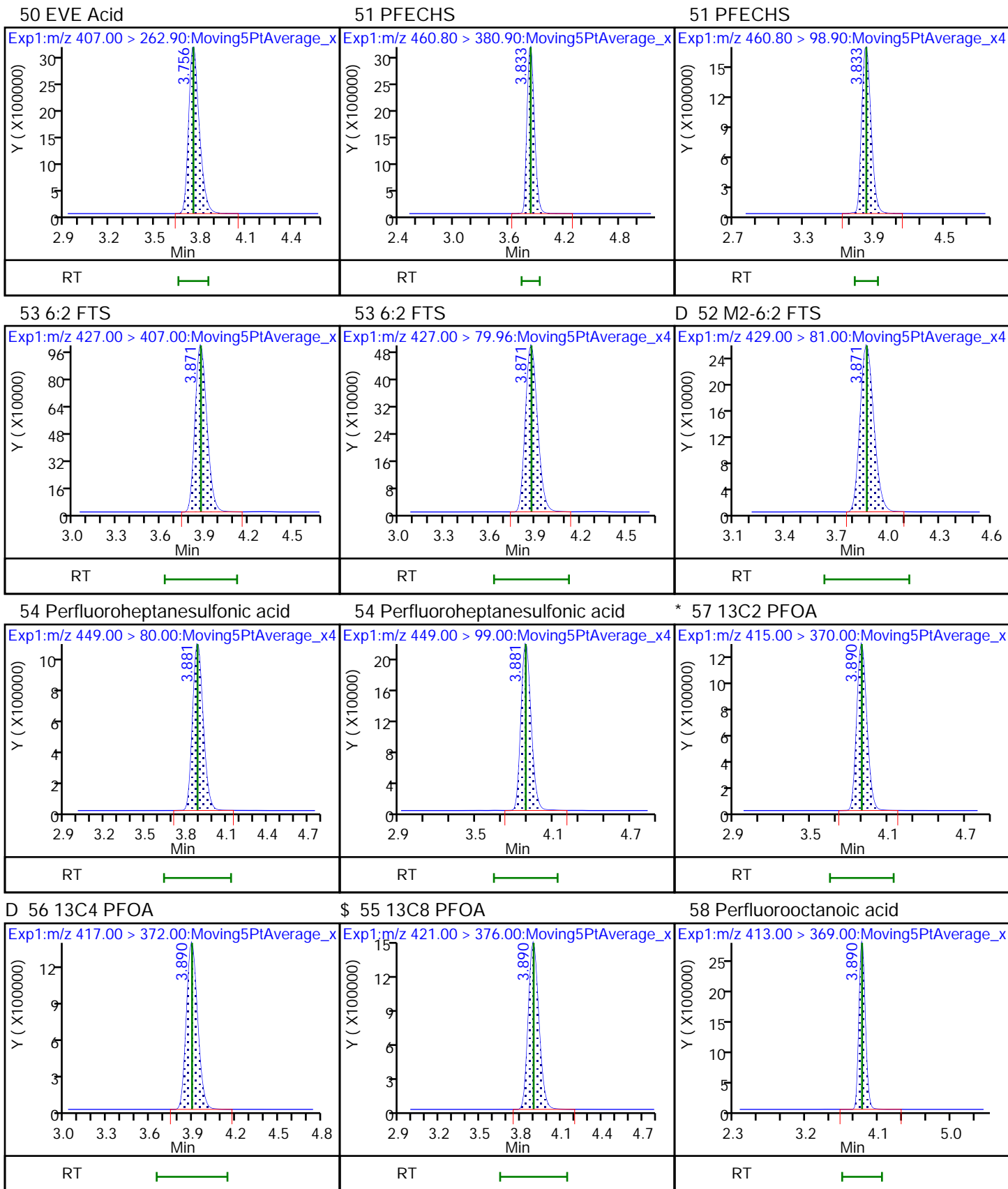


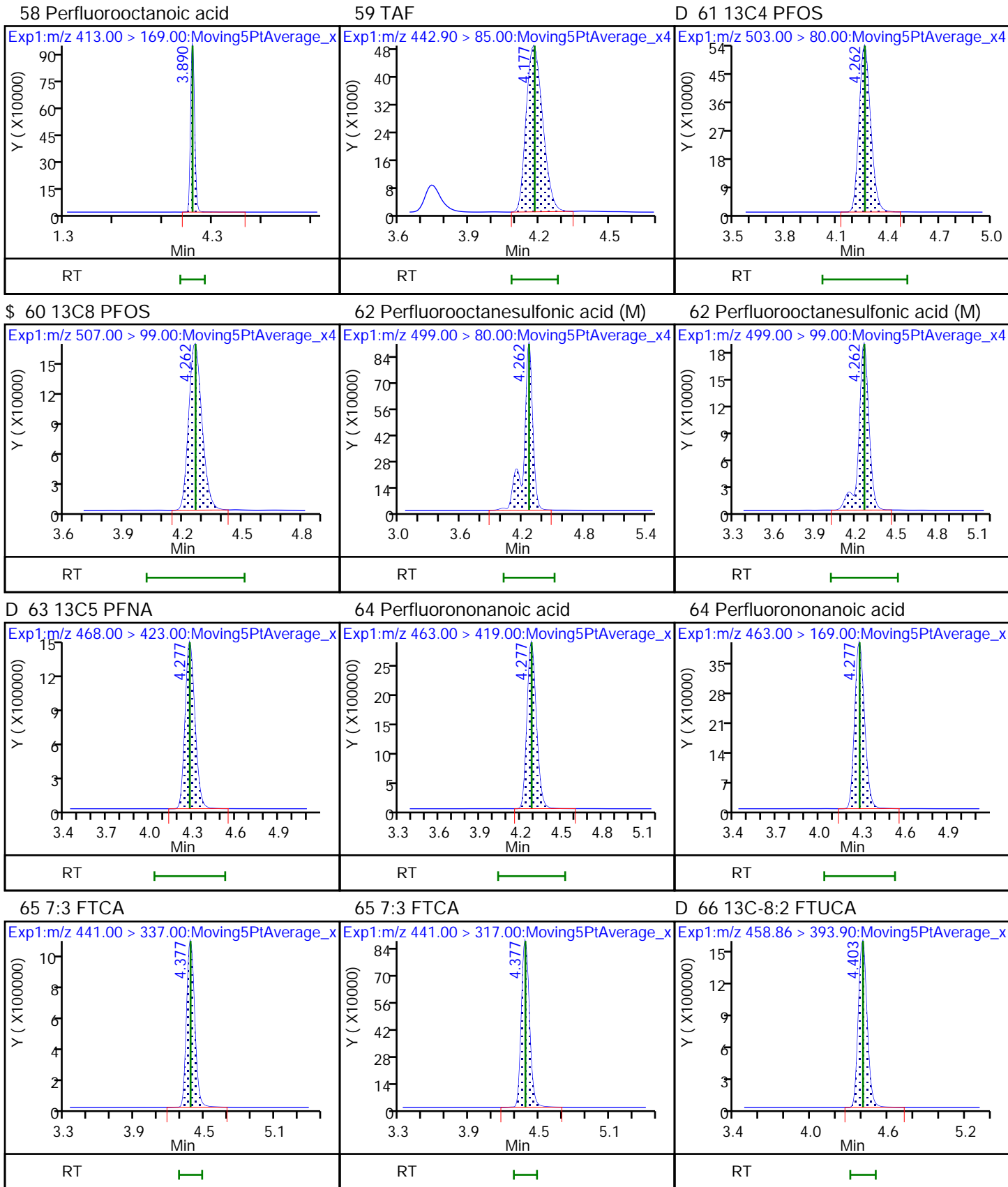


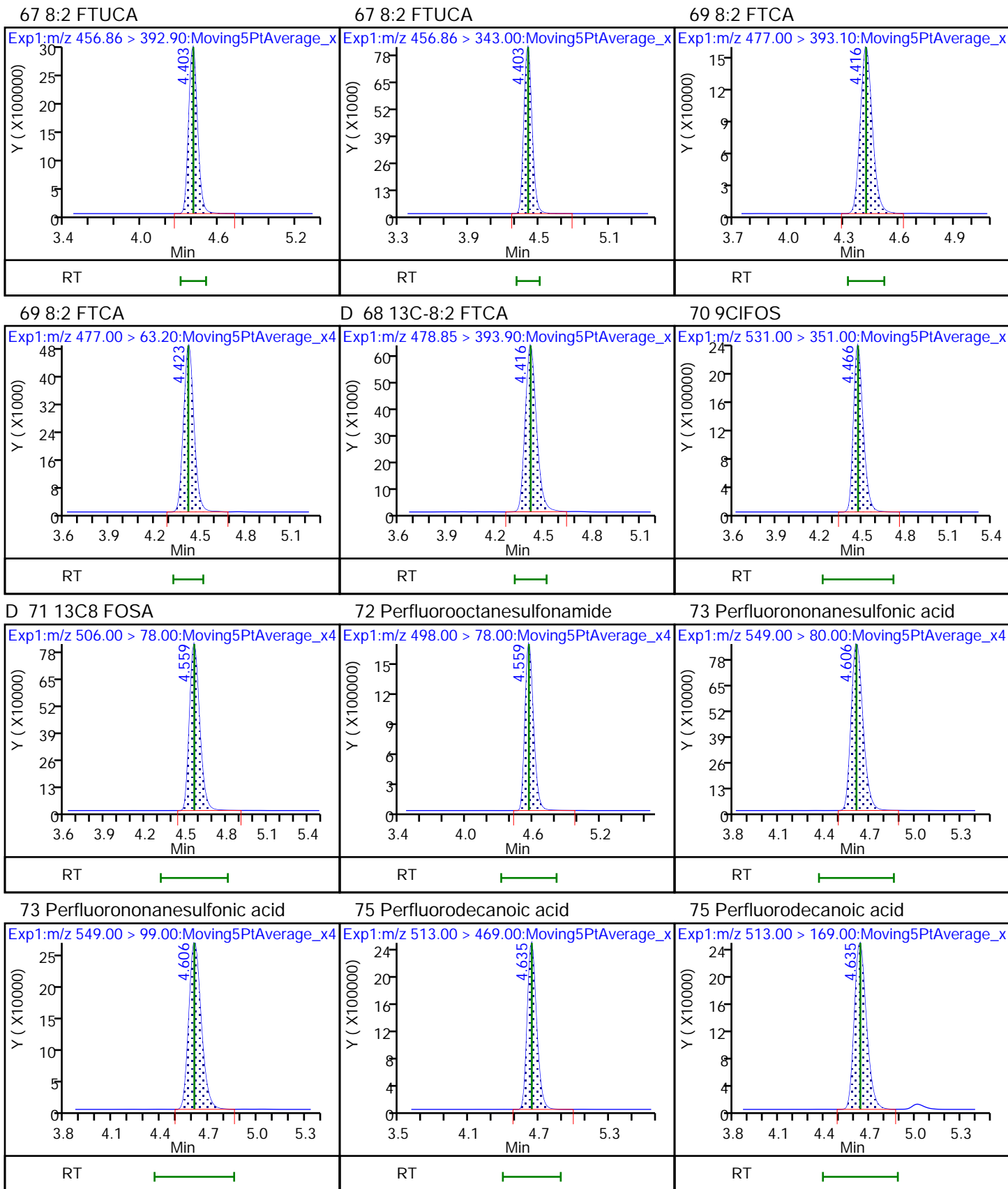








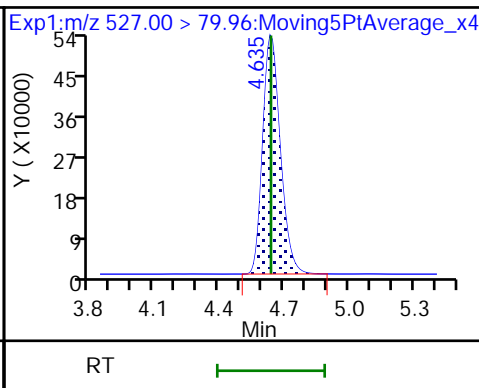
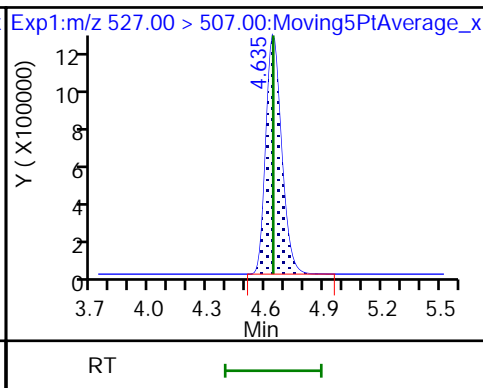
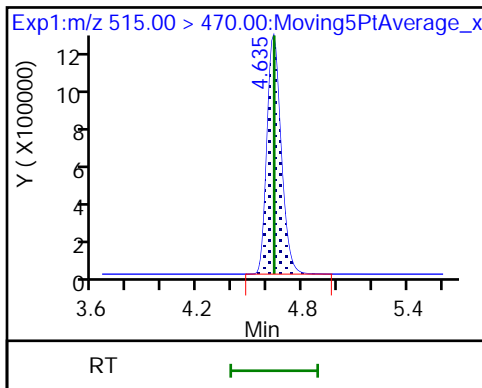




D 74 13C2 PFDA

77 8:2 FTS

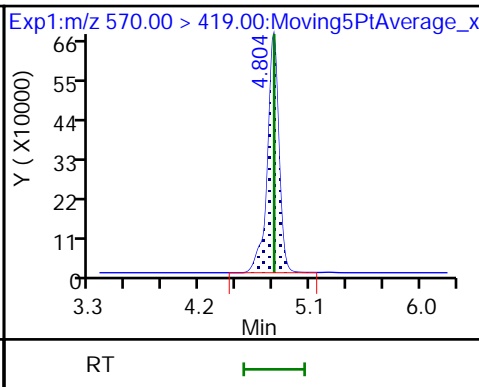
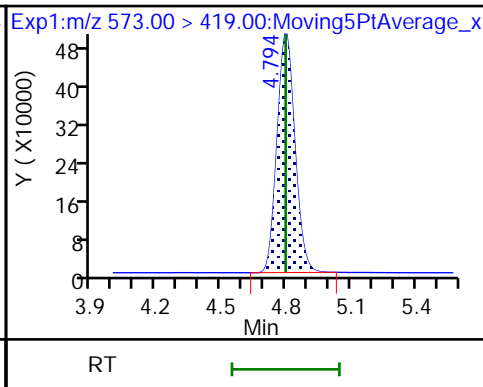
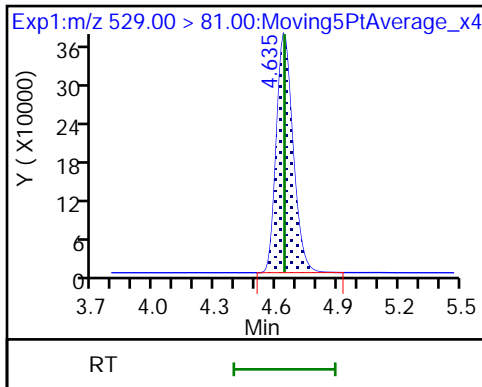
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

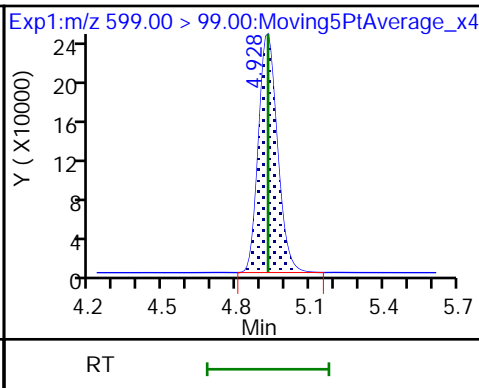
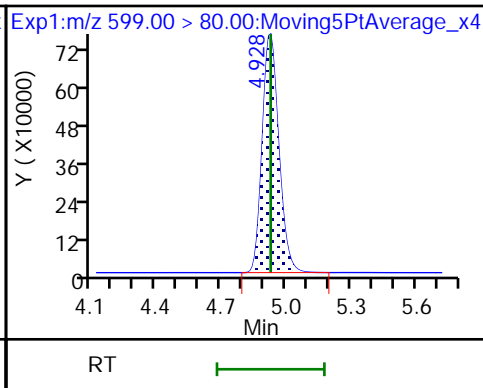
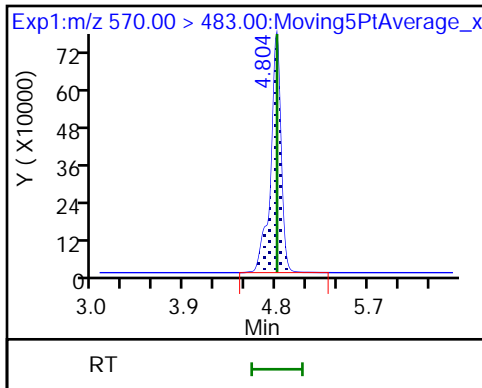
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

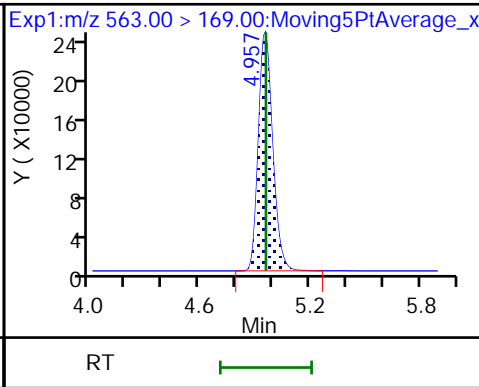
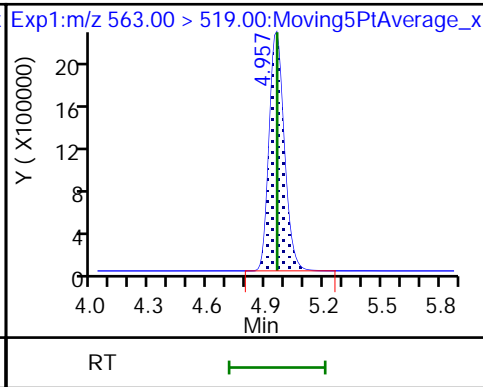
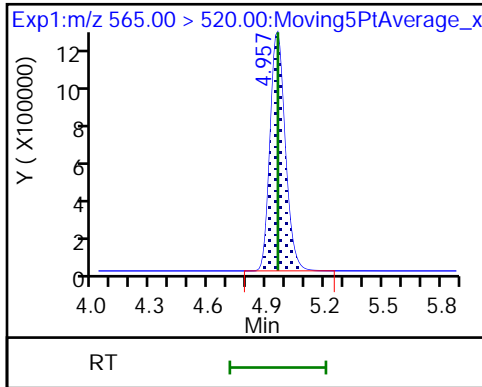
80 Perfluorodecanesulfonic acid



D 82 13C2 PFUnA

81 Perfluoroundecanoic acid

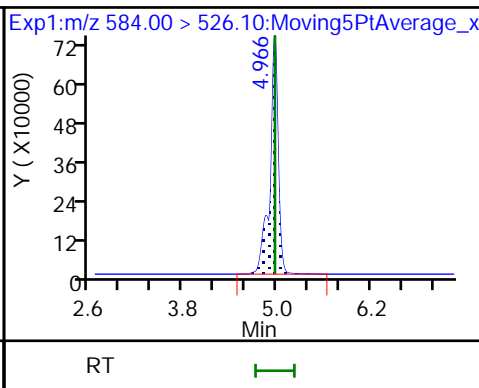
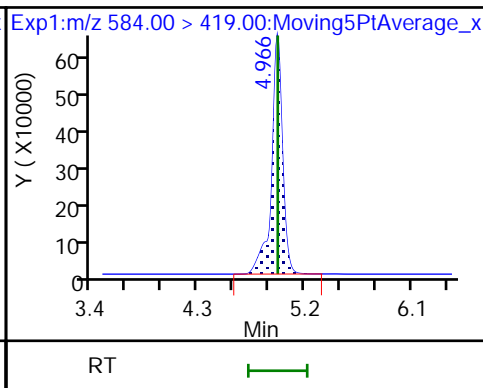
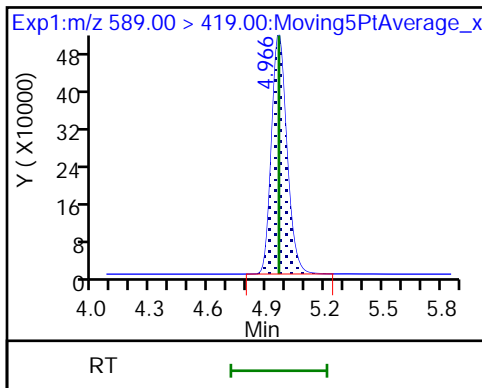
81 Perfluoroundecanoic acid



D 83 d5-NEtFOSAA

84 NEtFOSAA

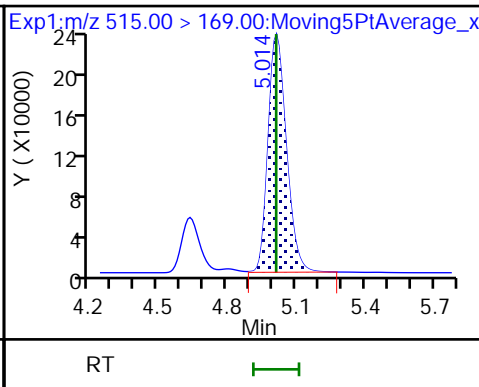
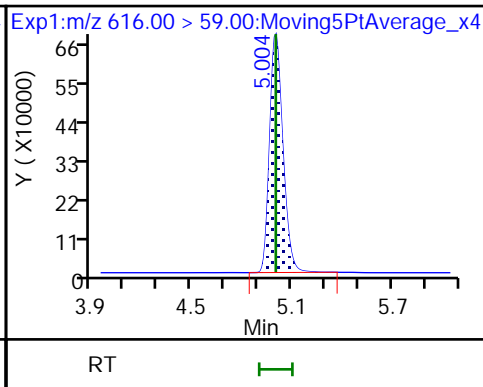
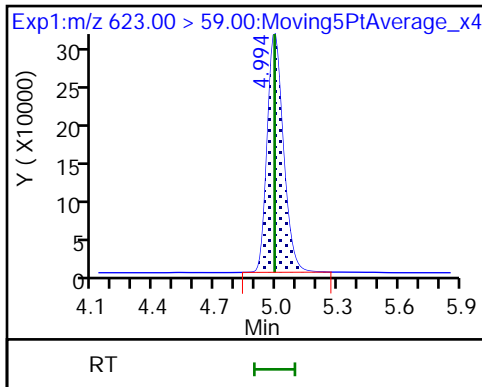
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

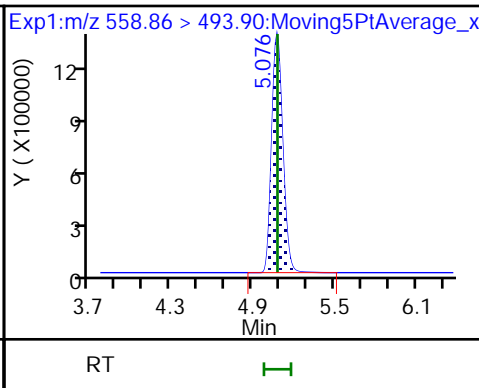
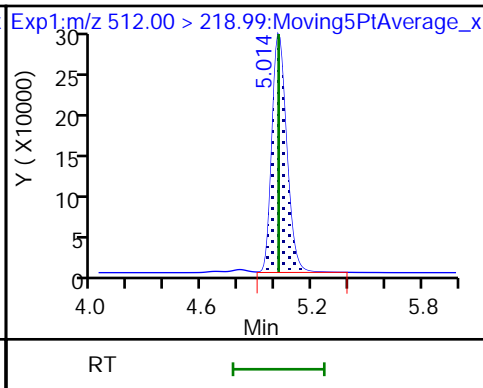
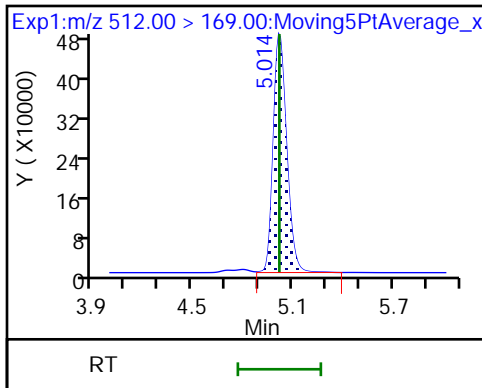
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

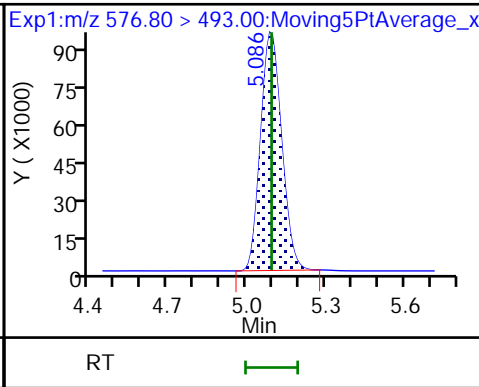
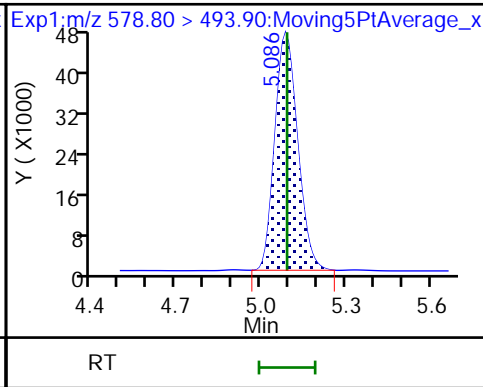
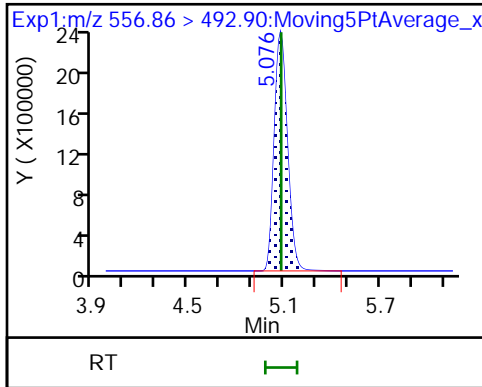
D 88 13C-10:2 FTCA

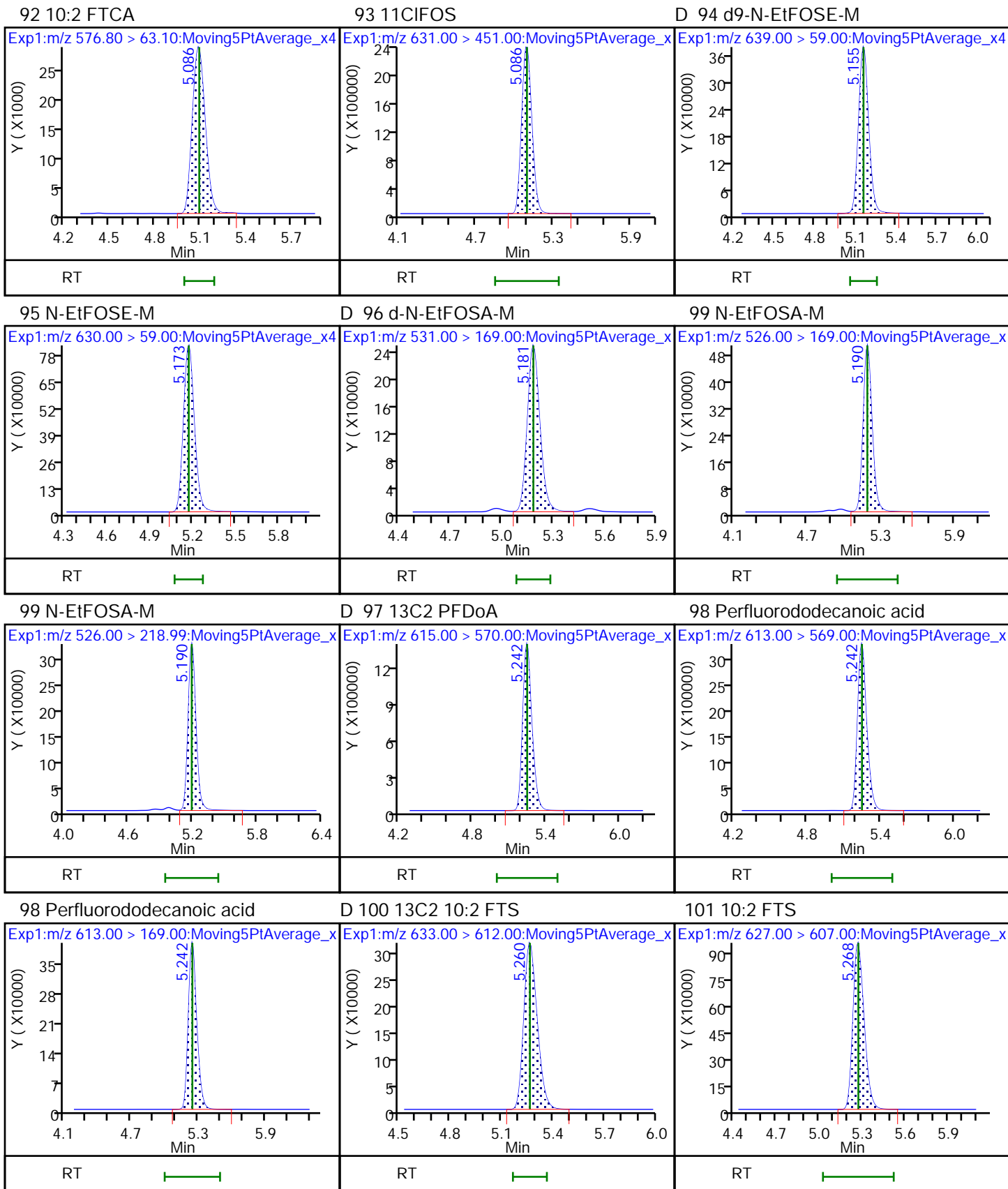


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

92 10:2 FTCA

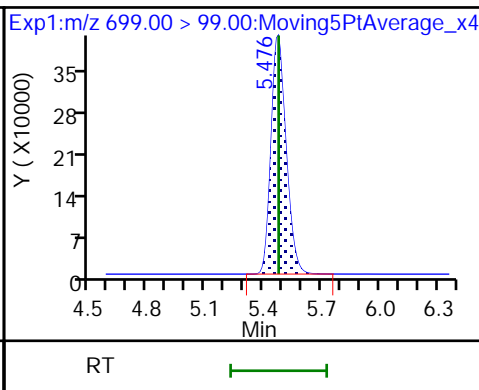
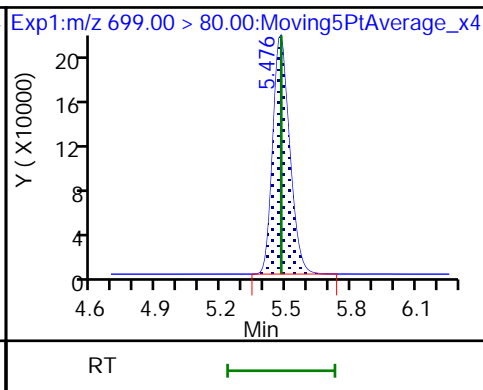
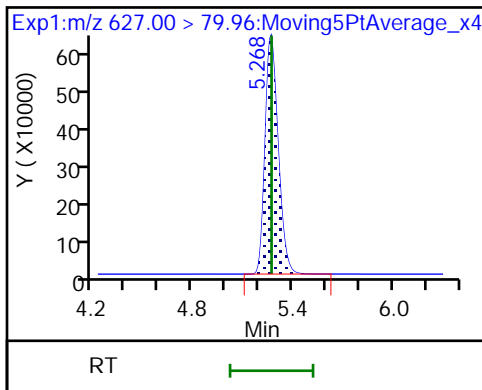




101 10:2 FTS

102 PFDoS

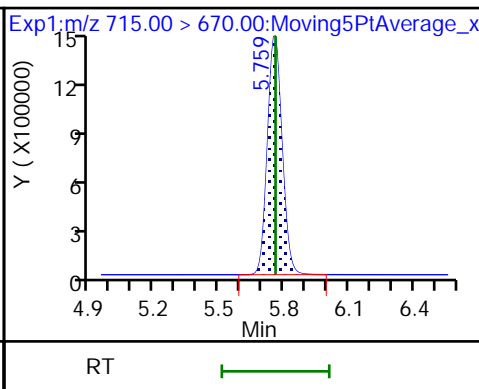
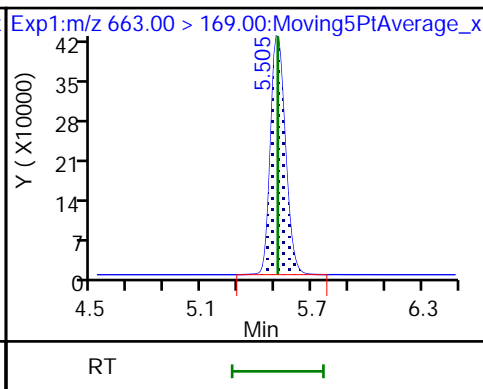
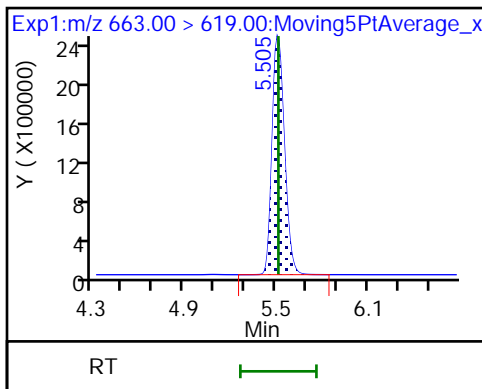
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

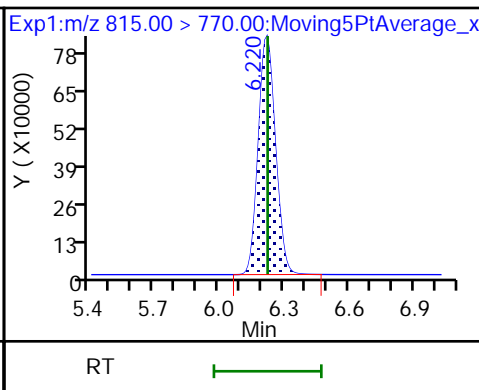
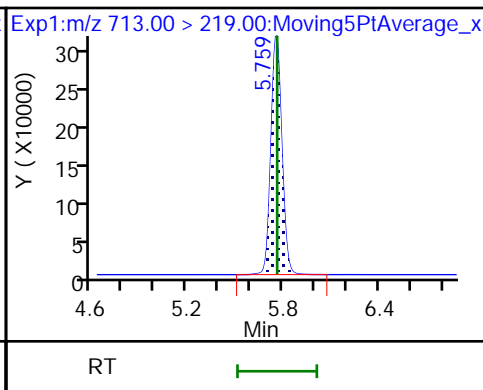
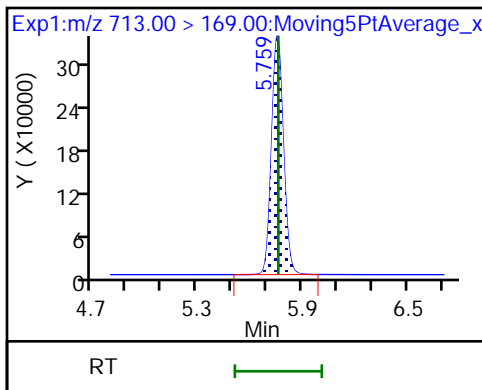
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

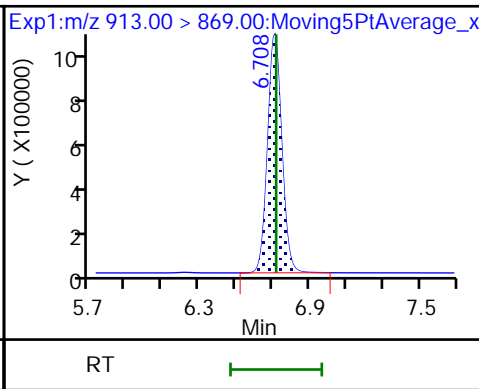
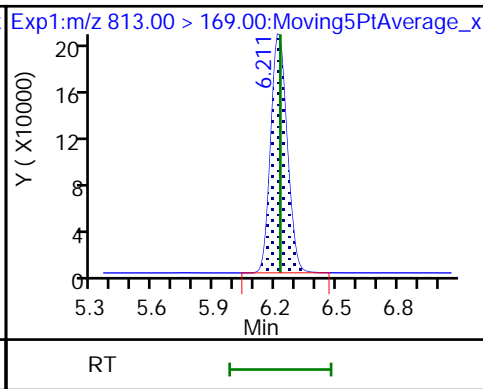
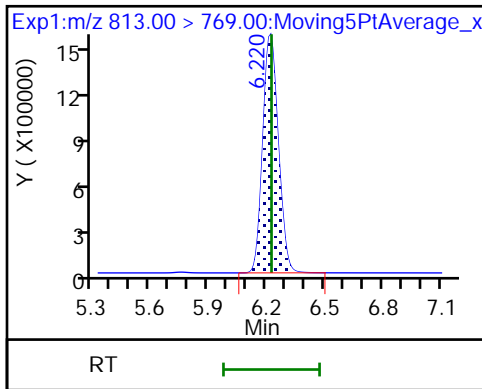
D 106 13C2 PFHxDA



107 Perfluorohexadecanoic acid

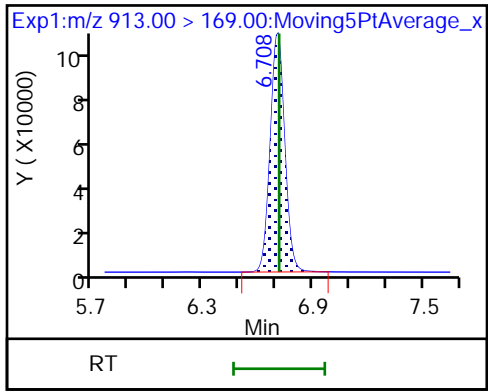
107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid





108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

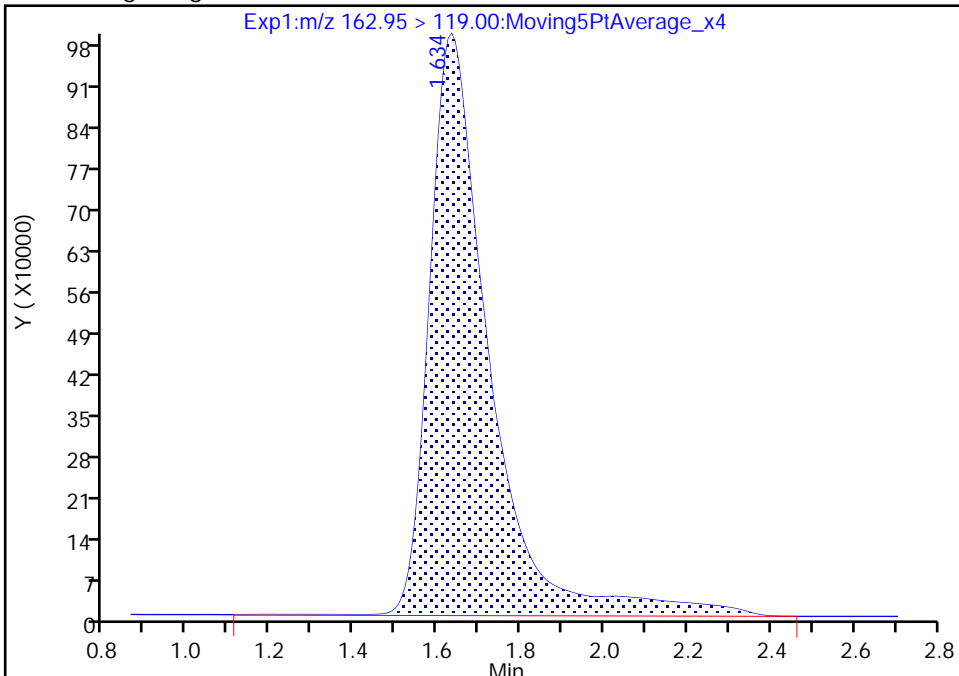
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
Injection Date: 01-Jun-2021 14:43:53 Instrument ID: A15  
Lims ID: IC L5  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

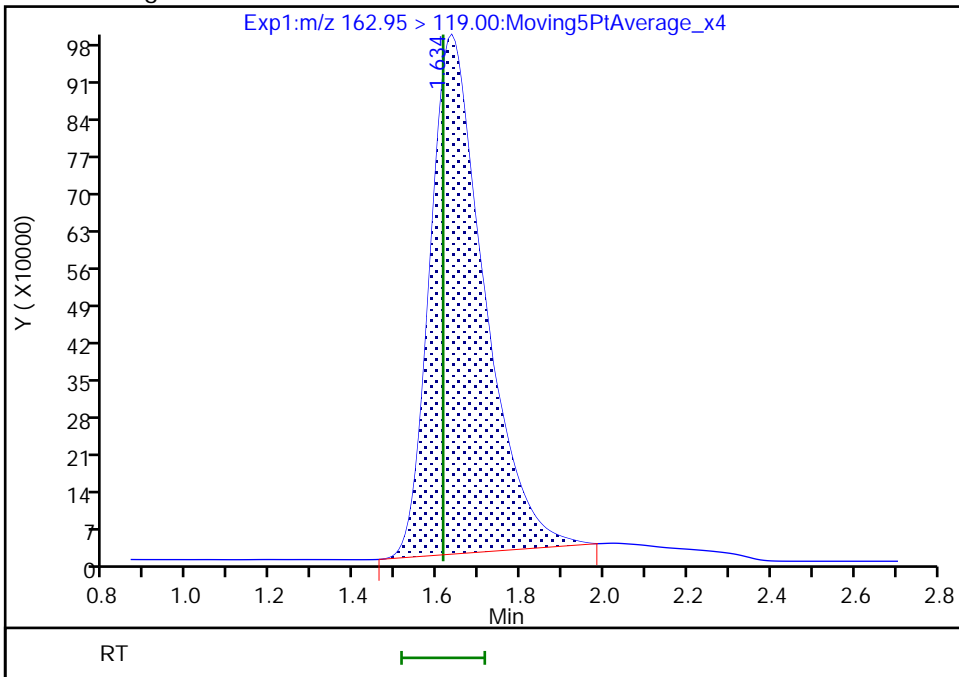
RT: 1.63  
Area: 9958955  
Amount: 2.765735  
Amount Units: ng/ml

Processing Integration Results



RT: 1.63  
Area: 8862636  
Amount: 2.557814  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:44:54  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

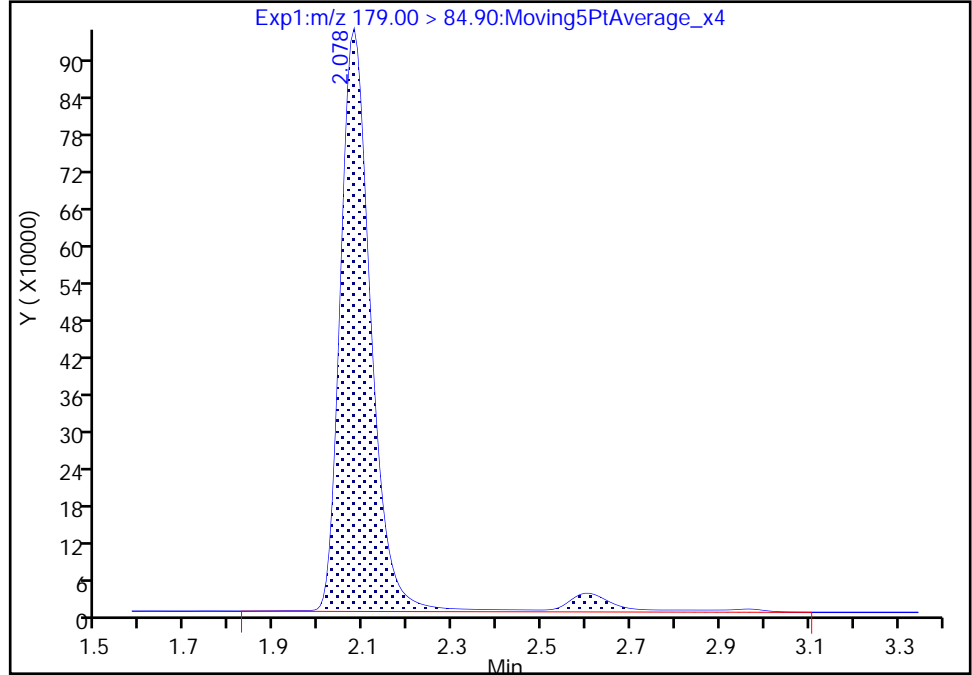
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
Injection Date: 01-Jun-2021 14:43:53 Instrument ID: A15  
Lims ID: IC L5  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

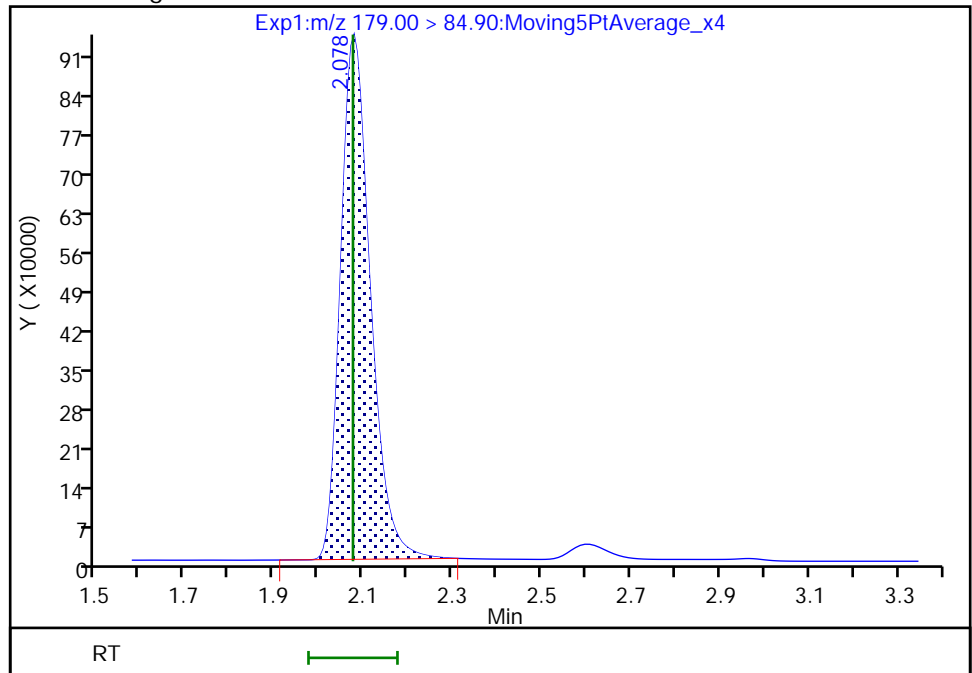
RT: 2.08  
Area: 4693664  
Amount: 2.695596  
Amount Units: ng/ml

Processing Integration Results



RT: 2.08  
Area: 4358599  
Amount: 2.577437  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:45:02  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

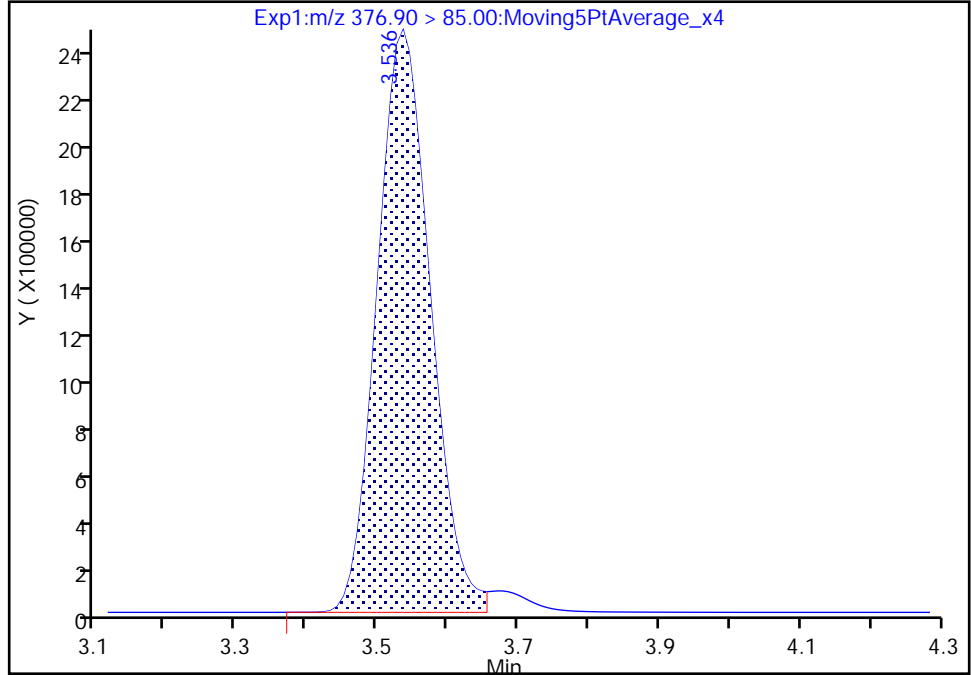
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
Injection Date: 01-Jun-2021 14:43:53 Instrument ID: A15  
Lims ID: IC L5  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

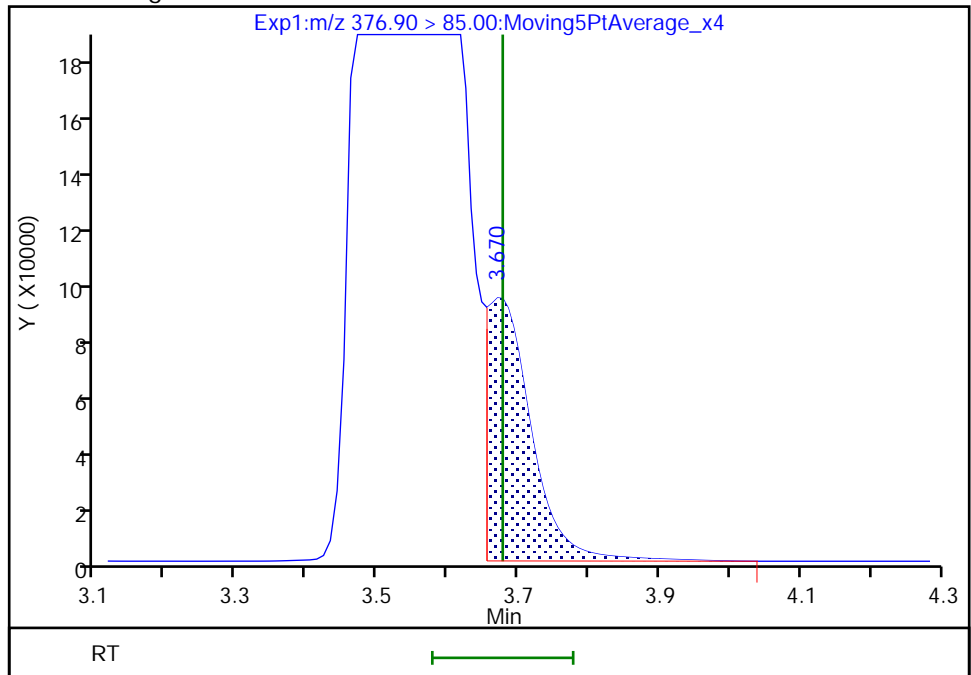
RT: 3.54  
Area: 13051432  
Amount: 5.350232  
Amount Units: ng/ml

Processing Integration Results



RT: 3.67  
Area: 385012  
Amount: 1.838719  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:40:44  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

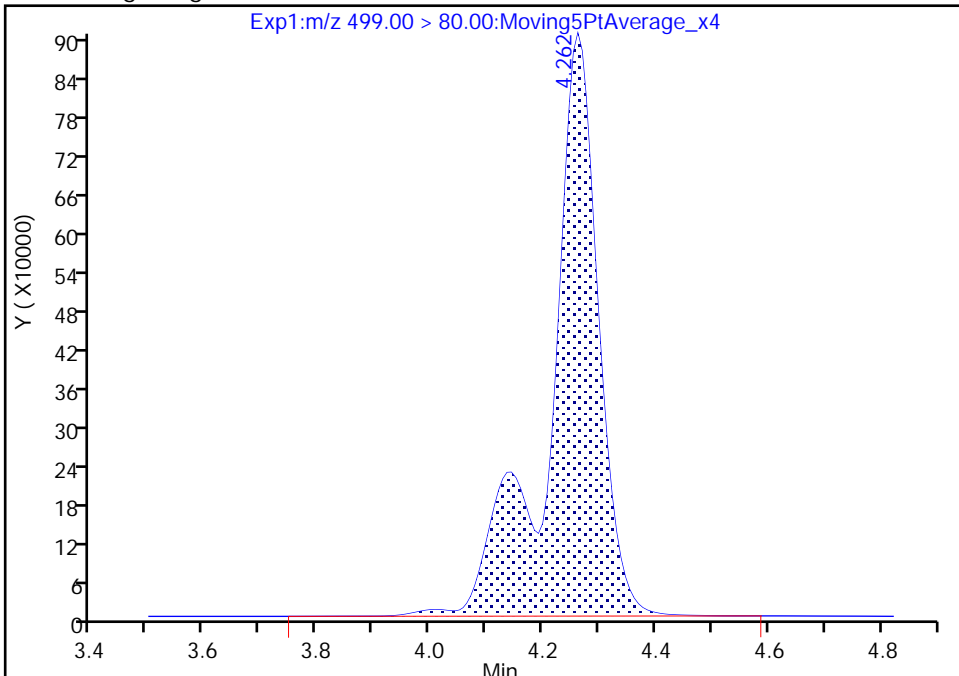
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
Injection Date: 01-Jun-2021 14:43:53 Instrument ID: A15  
Lims ID: IC L5  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

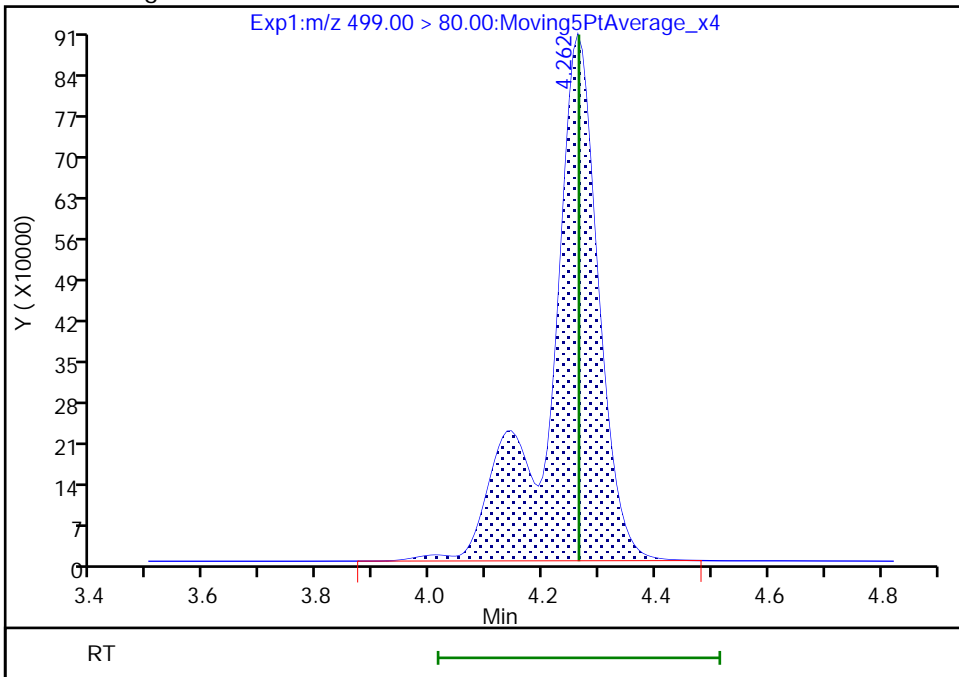
RT: 4.26  
Area: 5505618  
Amount: 2.334311  
Amount Units: ng/ml

Processing Integration Results



RT: 4.26  
Area: 5492665  
Amount: 2.329607  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:45:31  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

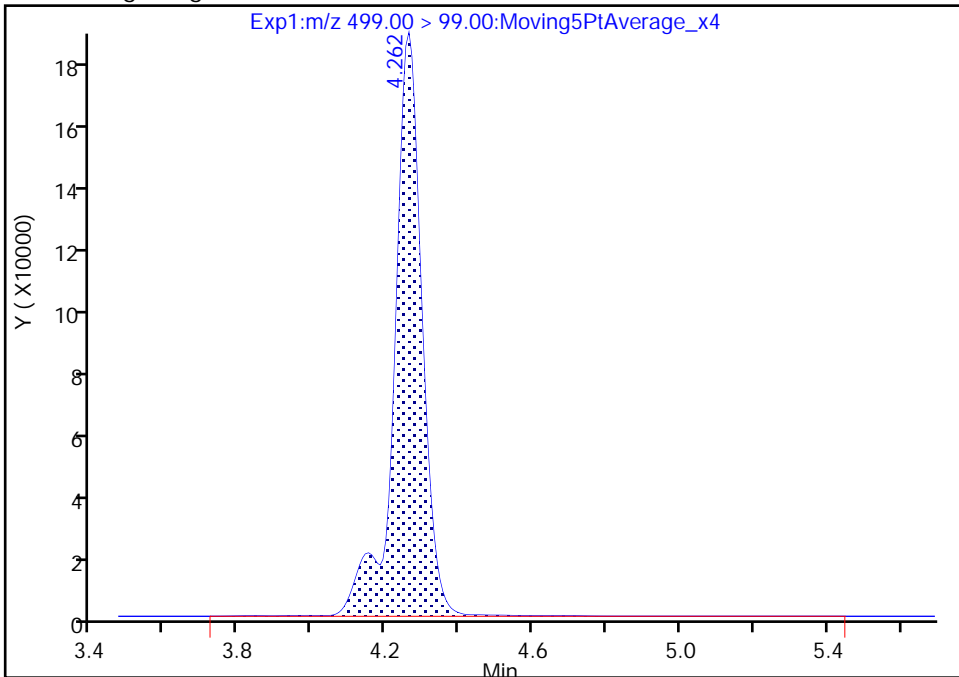
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_008.d  
Injection Date: 01-Jun-2021 14:43:53 Instrument ID: A15  
Lims ID: IC L5  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 5 Worklist Smp#: 6  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

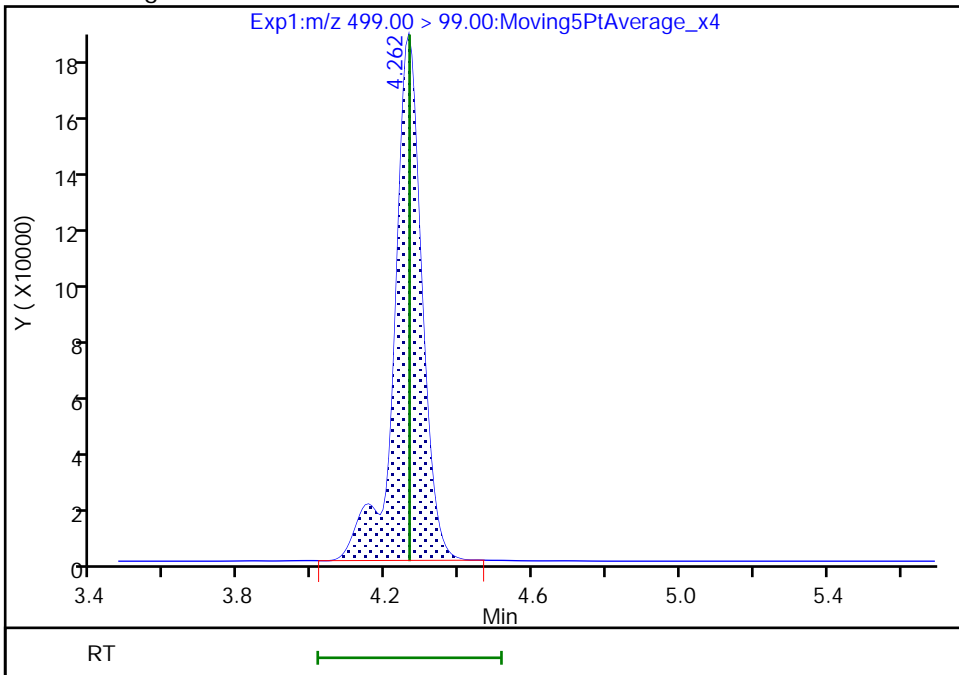
RT: 4.26  
Area: 970687  
Amount: 2.334311  
Amount Units: ng/ml

Processing Integration Results



RT: 4.26  
Area: 958689  
Amount: 2.329607  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:45:38  
Audit Action: Manually Integrated

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
 Lims ID: IC L6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 01-Jun-2021 14:53:02 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 6 (2)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:54:58 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:48:07

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.764	0.773	-0.009	0.328	1063573	5.16	103	1237	
2 MMF	139.00 > 51.00	0.771	0.779	-0.008	0.331	2063129	5.10	102	1210	
3 MTP	175.00 > 97.00	1.237	1.196	0.041	0.531	2649940	5.30	106	409	M
4 PPF Acid	162.95 > 119.00	1.641	1.613	0.028	0.705	19577970	5.56	115	2834	M
5 PFMOAA	179.00 > 84.90	2.077	2.075	0.002	0.892	9071215	5.27	105	2364	M
6 R-PSDA	441.00 > 241.00	2.209	2.213	-0.004	0.949	3344951	5.39	108	138380	
7 R-EVE	405.00 > 217.00	2.217	2.220	-0.003	0.952	9561398	5.15	103	277557	
8 Hydrolyzed PSDA	439.10 > 342.90	2.217	2.221	-0.004	0.952	13140523	5.36	107	652568	
D 9 13C4 PFBA	217.00 > 172.00	2.328	2.334	-0.006	0.598	6979889	1.24	99.5	88665	
10 Perfluorobutanoic acid	212.90 > 169.00	2.328	2.334	-0.006	1.000	27201752	5.15	103	23239	
11 PMPA	229.00 > 185.00	2.400	2.400	0.0	1.031	6295608	5.17	103	9263	
12 PFPrS	249.10 > 80.00	2.400	2.405	-0.005	0.888	20231852	4.67	102	88874	
13 NVHOS	297.00 > 135.00	2.418	2.421	-0.003	1.038	535518	5.17	103	20996	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.461	2.462	-0.001	0.922	17681431	5.02		100	170493	
16 PFO2HxA										
245.00 > 85.00	2.595	2.602	-0.007	0.972	2269369	5.78		116	16644	
D 17 13C5 PFPeA										
267.90 > 223.00	2.671	2.681	-0.010	0.687	6754556	1.27		102	65276	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.682	2.682	0.0	1.004	27053783	4.78		95.6	56220	
19 3:3 FTCA										
241.00 > 177.10	2.682	2.690	-0.008	0.992	1950160	5.31	Target=1.28	106	26714	
241.00 > 116.90	2.682	2.690	-0.008	0.992	1413558		1.38(0.64-1.92)	106	7058	
D 21 13C3 PFBS										
301.90 > 80.00	2.704	2.714	-0.010	0.695	4342278	1.18		101	27566	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.716	2.716	0.0	1.004	18696870	4.43	Target=2.36	100	33517	
298.90 > 99.00	2.716	2.716	0.0	1.004	7862341		2.38(1.18-3.53)	100	27566	
22 PEPA										
278.90 > 234.90	2.771	2.778	-0.007	1.037	4584835	5.15		103	6570	
23 PFECA A										
278.95 > 84.90	2.791	2.795	-0.004	1.045	32783953	5.08		102	245481	
24 PES										
314.80 > 135.00	2.860	2.868	-0.008	1.058	62974926	4.38		98.5	627969	
25 PFECA B										
295.20 > 201.00	2.992	2.996	-0.004	0.979	3696127	5.13		103	79583	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.018	3.022	-0.004	0.776	1080486	1.10		93.8	10981	
26 4:2 FTS										
327.00 > 307.00	3.018	3.022	-0.004	1.000	10058262	4.54	Target=2.17	97.2	133095	
327.00 > 79.96	3.018	3.022	-0.004	1.000	4615162		2.18(1.09-3.26)	97.2	42367	
D 28 13C2 PFHxA										
315.00 > 270.00	3.057	3.061	-0.004	0.786	6760589	1.29		103	76018	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.057	3.062	-0.005	1.000	27027195	4.46	Target=13.89	89.2	51850	
313.00 > 119.00	3.057	3.062	-0.005	1.000	1918433		14.09(6.95-20.84)	89.2	21539	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.077	3.081	-0.004	1.138	17930588	4.82	Target=3.10	103	227951	
349.00 > 99.00	3.077	3.081	-0.004	1.138	5792428		3.10(1.55-4.65)	103	73559	
31 PFO3OA										
311.10 > 85.20	3.116	3.129	-0.013	1.020	996129	5.34		107	13509	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.197	3.201	-0.004	0.822	1196589	1.28		103	23735	
33 HFPO-DA										
285.00 > 169.00	3.197	3.201	-0.004	1.000	4674183	4.80	Target=1.03	95.9	83295	
285.00 > 185.00	3.197	3.201	-0.004	1.000	4748280		0.98(0.52-1.55)	95.9	35185	
34 R-PSDCA										
397.00 > 217.00	3.432	3.437	-0.005	0.989	1858731	5.56		111	85751	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.461	3.468	-0.007	0.997	41282597	5.35		107	21849	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.481	3.485	-0.004	1.003	26050172	4.92	Target=3.81	98.4	107185	
363.00 > 169.00	3.481	3.485	-0.004	1.003	7044635		3.70(1.91-5.72)	98.4	14005	
D 38 18O2 PFHxS										
403.00 > 84.00	3.481	3.485	-0.004	0.895	3141813	1.20		101	52211	
D 37 13C4 PFHpA										
367.00 > 322.00	3.471	3.482	-0.011	0.892	6265091	1.21		97.1	60340	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.481	3.483	-0.002	1.000	12992564	4.42	Target=3.50	97.2	246626	
399.00 > 99.00	3.481	3.483	-0.002	1.000	3655980		3.55(1.75-5.25)	97.2	45294	
40 Hydro-PS Acid										
463.00 > 263.00	3.490	3.494	-0.004	1.005	43117365	5.44		109	7866	
41 DONA										
377.00 > 251.00	3.527	3.538	-0.011	0.829	52095835	4.59	Target=2.07	97.5	1225410	
377.00 > 85.00	3.527	3.538	-0.011	0.829	25424353		2.05(1.03-3.10)	97.5	2849	
44 PFECA G										
378.90 > 184.90	3.553	3.558	-0.005	0.991	3560056	5.07		101	40694	
43 5:3 FTCA										
340.88 > 236.90	3.553	3.561	-0.008	0.991	6734658	5.23	Target=1.08	105	76624	
340.88 > 216.90	3.553	3.561	-0.008	0.991	6536202		1.03(0.54-1.62)	105	116001	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.586	3.592	-0.006	0.922	5421593	1.21		96.7	216418	
46 6:2 FTUCA										
356.86 > 292.90	3.586	3.592	-0.006	0.994	23966284	5.03	Target=14.03	101	209534	
356.86 > 243.00	3.586	3.592	-0.006	0.994	1779177		13.47(7.02-21.05)	101	59091	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.614	-0.004	1.007	346985	4.99	Target=0.54	99.7	1639	
377.10 > 63.00	3.610	3.614	-0.004	1.007	591570		0.59(0.27-0.81)	99.7	30883	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.610	3.614	-0.004	0.928	336685	1.22		97.8	4527	
42 PFO4DA										
376.90 > 85.00	3.662	3.677	-0.015	1.055	1159010	5.86		117	5.5	a
49 PS Acid										
442.80 > 146.80	3.735	3.738	-0.003	0.960	19912969	5.38		108	224399	
50 EVE Acid										
407.00 > 262.90	3.749	3.754	-0.005	0.964	31164545	5.29		106	1626226	
51 PFECHS										
460.80 > 380.90	3.824	3.833	-0.009	0.983	32658403	4.85	Target=1.90	105	1190495	
460.80 > 98.90	3.824	3.833	-0.009	0.983	17691061		1.85(0.95-2.85)	105	405229	
53 6:2 FTS										
427.00 > 407.00	3.872	3.876	-0.004	1.000	9816217	4.47	Target=2.11	94.4	35185	
427.00 > 79.96	3.872	3.876	-0.004	1.000	4751452		2.07(1.06-3.17)	94.4	19987	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.872	3.876	-0.004	0.995	1264947	1.06		89.4	17207	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.881	3.885	-0.004	0.912	10867482	4.72	Target=4.82	99.1	60854	
449.00 > 99.00	3.881	3.885	-0.004	0.912	2250266		4.83(2.41-7.24)	99.1	27612	
* 57 13C2 PFOA										
415.00 > 370.00	3.891	3.895	-0.004		7033885	1.25			86257	
D 56 13C4 PFOA										
417.00 > 372.00	3.891	3.895	-0.004	1.000	7033219	1.20		95.9	90955	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.891	3.895	-0.004	1.000	8151178	1.24		99.3	98920	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.891	3.895	-0.004	1.000	27801698	4.73	Target=2.87	94.6	73753	
413.00 > 169.00	3.891	3.895	-0.004	1.000	10298426		2.70(1.43-4.30)	94.6	474484	
59 TAF										
442.90 > 85.00	4.177	4.180	-0.003	1.074	336234	3.86		77.2	350	
D 61 13C4 PFOS										
503.00 > 80.00	4.255	4.264	-0.009	1.094	2411706	1.17		98.1	21575	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.255	4.264	-0.009	1.094	728407	1.18		99.1	12048	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.255	4.264	-0.009	1.000	10696679	4.71	Target=5.95	102	100760	M
499.00 > 99.00	4.255	4.264	-0.009	1.000	1853827		5.77(2.97-8.92)	102	31445	M
D 63 13C5 PFNA										
468.00 > 423.00	4.269	4.279	-0.010	1.097	6840328	1.22		97.6	85743	
64 Perfluorononanoic acid										
463.00 > 419.00	4.277	4.280	-0.003	1.002	26382201	4.87	Target=7.58	97.4	81759	
463.00 > 169.00	4.269	4.280	-0.011	1.000	3557167		7.42(3.79-11.37)	97.4	44668	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.381	-0.004	0.993	9932745	5.53	Target=1.21	111	145620	
441.00 > 317.00	4.377	4.381	-0.004	0.993	8354226		1.19(0.60-1.81)	111	57303	
67 8:2 FTUCA										
456.86 > 392.90	4.394	4.404	-0.010	1.000	26105589	4.93	Target=35.28	98.7	674077	
456.86 > 343.00	4.394	4.404	-0.010	1.000	755136		34.57(17.64-52.92)	98.7	26460	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.394	4.404	-0.010	1.129	6785334	1.22		97.7	235358	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.409	4.419	-0.010	1.133	291303	1.15		91.9	6927	
69 8:2 FTCA										
477.00 > 393.10	4.416	4.420	-0.004	1.002	1251198	4.64	Target=3.24	92.8	34281	
477.00 > 63.20	4.416	4.420	-0.004	1.002	449762		2.78(1.62-4.86)	92.8	24409	
70 9CIFOS										
531.00 > 351.00	4.465	4.469	-0.004	1.050	21864243	4.80		103	247459	
D 71 13C8 FOSA										
506.00 > 78.00	4.558	4.561	-0.003	1.172	4460298	1.29		103	84539	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.558	4.561	-0.003	1.000	17188836	4.80		96.0	117230	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.605	4.610	-0.005	1.082	9229525	4.89	Target=3.28	102	74747	
549.00 > 99.00	4.605	4.610	-0.005	1.082	2804932		3.29(1.64-4.92)	102	43858	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.625	4.636	-0.011	1.000	26305625	4.64	Target=9.70	92.8	151077	
513.00 > 169.00	4.625	4.636	-0.011	1.000	2703190		9.73(4.85-14.54)	92.8	2804	
D 74 13C2 PFDA										
515.00 > 470.00	4.625	4.637	-0.012	1.189	6928661	1.24		98.8	104189	
77 8:2 FTS										
527.00 > 507.00	4.635	4.639	-0.004	1.000	11723830	4.72	Target=2.33	98.5	188261	
527.00 > 79.96	4.635	4.639	-0.004	1.000	5023865		2.33(1.17-3.50)	98.5	40125	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.635	4.640	-0.005	1.191	1903089	1.02		85.4	25767	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.793	4.798	-0.005	1.232	2951899	1.25		99.7	32266	
79 NMeFOSAA										
570.00 > 419.00	4.793	4.806	-0.013	1.000	8689053	4.97	Target=0.83	99.5	37419	
570.00 > 483.00	4.793	4.806	-0.013	1.000	10478550		0.83(0.42-1.25)	99.5	298019	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.918	4.928	-0.010	1.156	8205245	4.96	Target=3.22	103	86286	
599.00 > 99.00	4.918	4.928	-0.010	1.156	2617779		3.13(1.61-4.83)	103	70987	
D 82 13C2 PFUnA										
565.00 > 520.00	4.947	4.958	-0.011	1.271	6979534	1.29		103	99924	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.947	4.959	-0.012	1.000	23510529	4.57	Target=9.27	91.4	109255	
563.00 > 169.00	4.947	4.959	-0.012	1.000	2865636		8.20(4.63-13.90)	91.4	41417	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.956	4.963	-0.007	1.274	2861614	1.21		97.2	27641	
84 NEtFOSAA										
584.00 > 419.00	4.966	4.970	-0.004	1.002	7979386	4.86	Target=0.77	97.3	305439	M
584.00 > 526.10	4.966	4.970	-0.004	1.002	10270382		0.78(0.39-1.16)	97.3	23762	M
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.985	4.991	-0.006	1.281	1789694	1.26		101	8736	
86 N-MeFOSE-M										
616.00 > 59.00	4.994	5.002	-0.008	1.002	7550358	4.99		99.7	113380	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.004	5.012	-0.008	1.286	1333882	1.28		103	393	
90 NMeFOSA										
512.00 > 169.00	5.013	5.018	-0.005	1.002	5470792	5.06	Target=1.61	101	4357	
512.00 > 218.99	5.013	5.018	-0.005	1.002	3294762		1.66(0.80-2.41)	101	5044	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.080	-0.004	1.305	8004420	1.23		98.1	201353	
89 10:2 FTUCA										
556.86 > 492.90	5.076	5.080	-0.004	0.998	23806952	5.21		104	689065	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.086	5.091	-0.005	1.307	203030	1.06		85.1	2563	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.096	5.093	0.003	1.004	784516	4.31	Target=2.56	86.3	26572	
576.80 > 63.10	5.086	5.093	-0.007	1.002	272318		2.88(1.28-3.83)	86.3	6435	
93 11CIFOS										
631.00 > 451.00	5.086	5.094	-0.008	1.195	26523728	4.89		104	209944	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.158	-0.003	1.325	2042373	1.30		104	14376	
95 N-EtFOSE-M										
630.00 > 59.00	5.164	5.171	-0.007	1.002	9724225	5.07		101	58518	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.184	-0.003	1.332	1370026	1.34		107	2119	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	5463865	4.81	Target=1.61	96.2	3584	
526.00 > 218.99	5.181	5.190	-0.009	1.000	3465989		1.58(0.80-2.41)	96.2	3358	
D 97 13C2 PFDaA										
615.00 > 570.00	5.242	5.246	-0.004	1.347	7354983	1.26		101	99898	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.242	5.246	-0.004	1.000	27995197	4.28	Target=7.93	85.7	107264	
613.00 > 169.00	5.242	5.246	-0.004	1.000	3752929		7.46(3.97-11.90)	85.7	80085	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.260	5.263	-0.003	1.352	1569420	1.05		87.1	48309	
101 10:2 FTS										
627.00 > 607.00	5.260	5.271	-0.011	1.000	9010825	4.56	Target=1.46	94.6	150626	
627.00 > 79.96	5.260	5.271	-0.011	1.000	6344168		1.42(0.73-2.19)	94.6	73210	
102 PFDoS										
699.00 > 80.00	5.467	5.477	-0.010	1.285	2337182	4.98	Target=0.54	103	48744	
699.00 > 99.00	5.467	5.477	-0.010	1.285	4321554		0.54(0.27-0.81)	103	81291	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.505	5.513	-0.008	1.050	24798939	4.54	Target=5.84	90.8	66457	
663.00 > 169.00	5.505	5.513	-0.008	1.050	4424666		5.60(2.92-8.75)	90.8	57036	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.751	5.760	-0.009	1.478	6874886	1.28		102	98979	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.751	5.761	-0.010	1.000	3368546	4.98	Target=1.07	99.7	142502	
713.00 > 219.00	5.751	5.761	-0.010	1.000	3089843		1.09(0.53-1.60)	99.7	92893	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.210	6.223	-0.013	1.596	5221297	1.27		101	34624	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.210	6.224	-0.014	1.000	18042532	4.73	Target=7.49	94.5	28297	
813.00 > 169.00	6.210	6.224	-0.014	1.000	2726357		6.62(3.75-11.24)	94.5	36007	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.700	6.715	-0.015	1.079	12921972	5.10	Target=9.70	102	14306	
913.00 > 169.00	6.693	6.715	-0.022	1.078	1363970		9.47(4.85-14.55)	102	12369	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

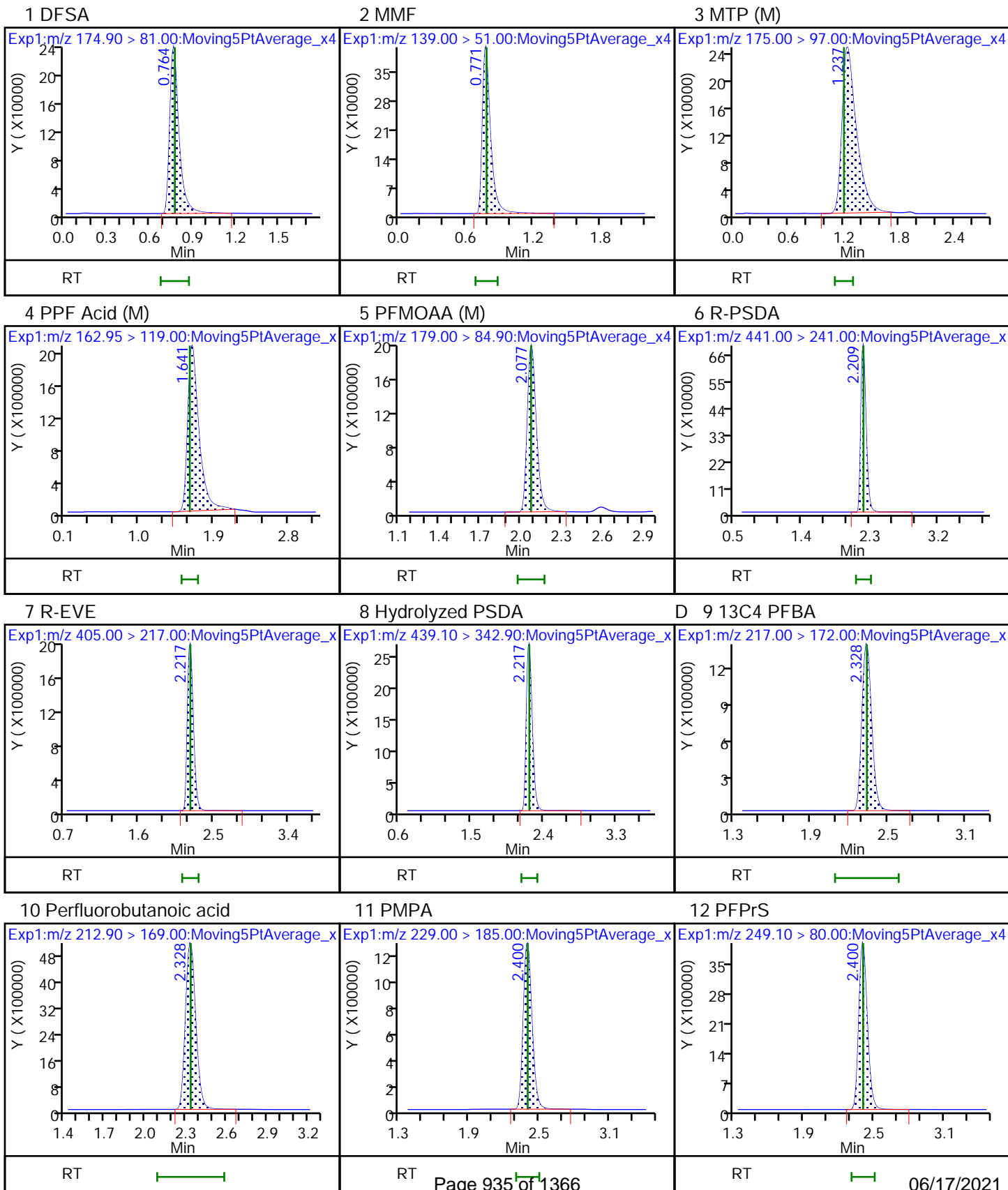
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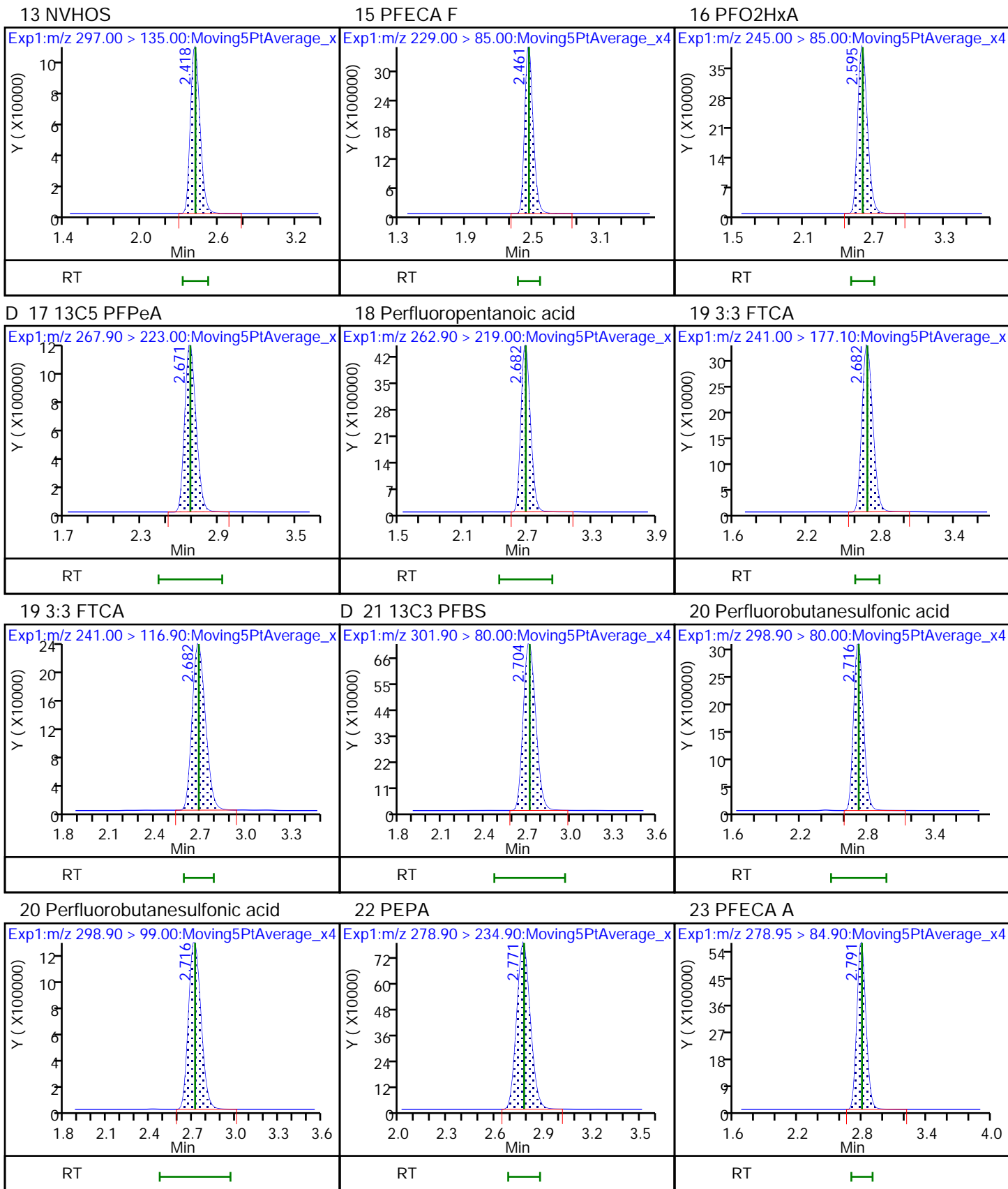
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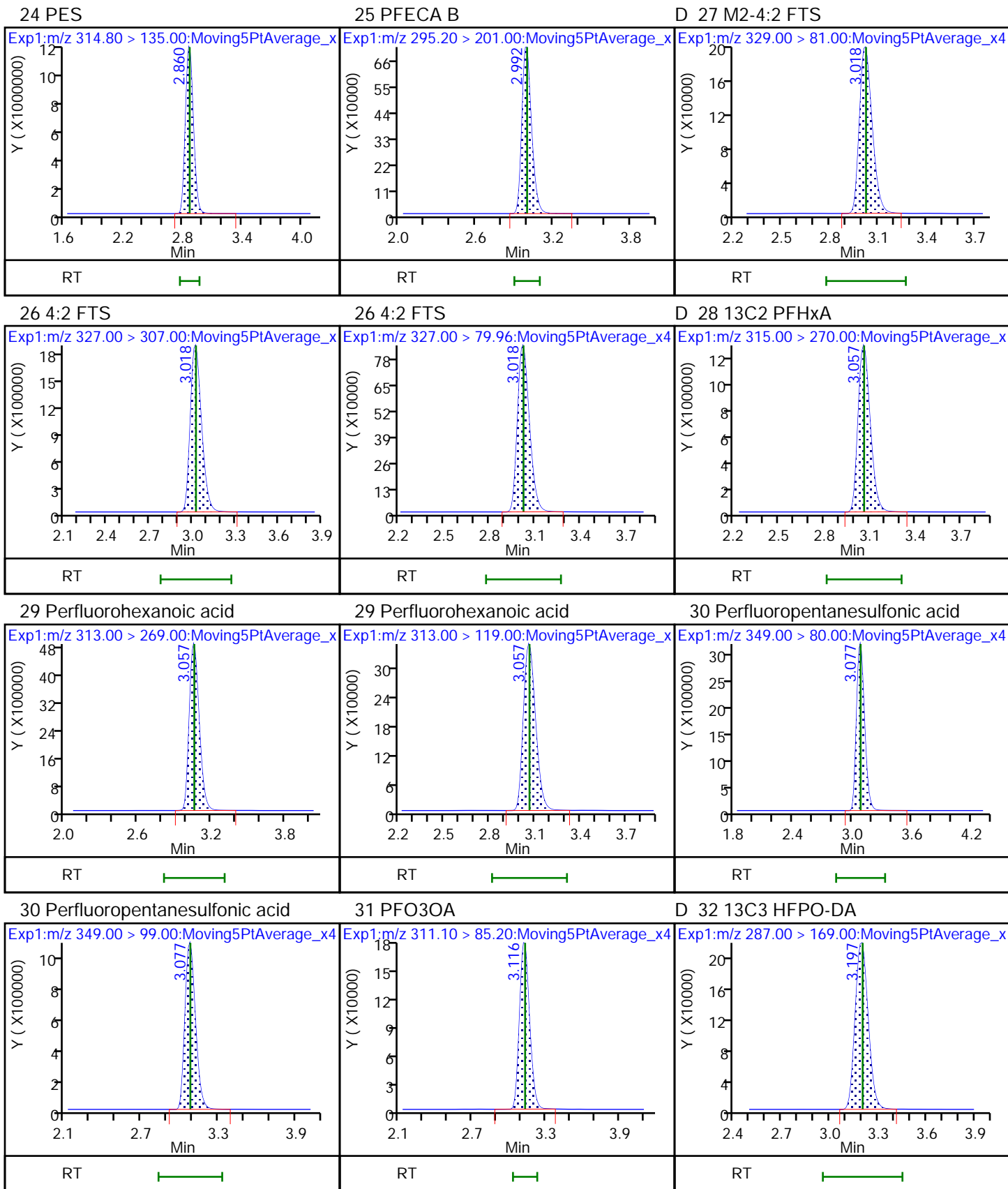
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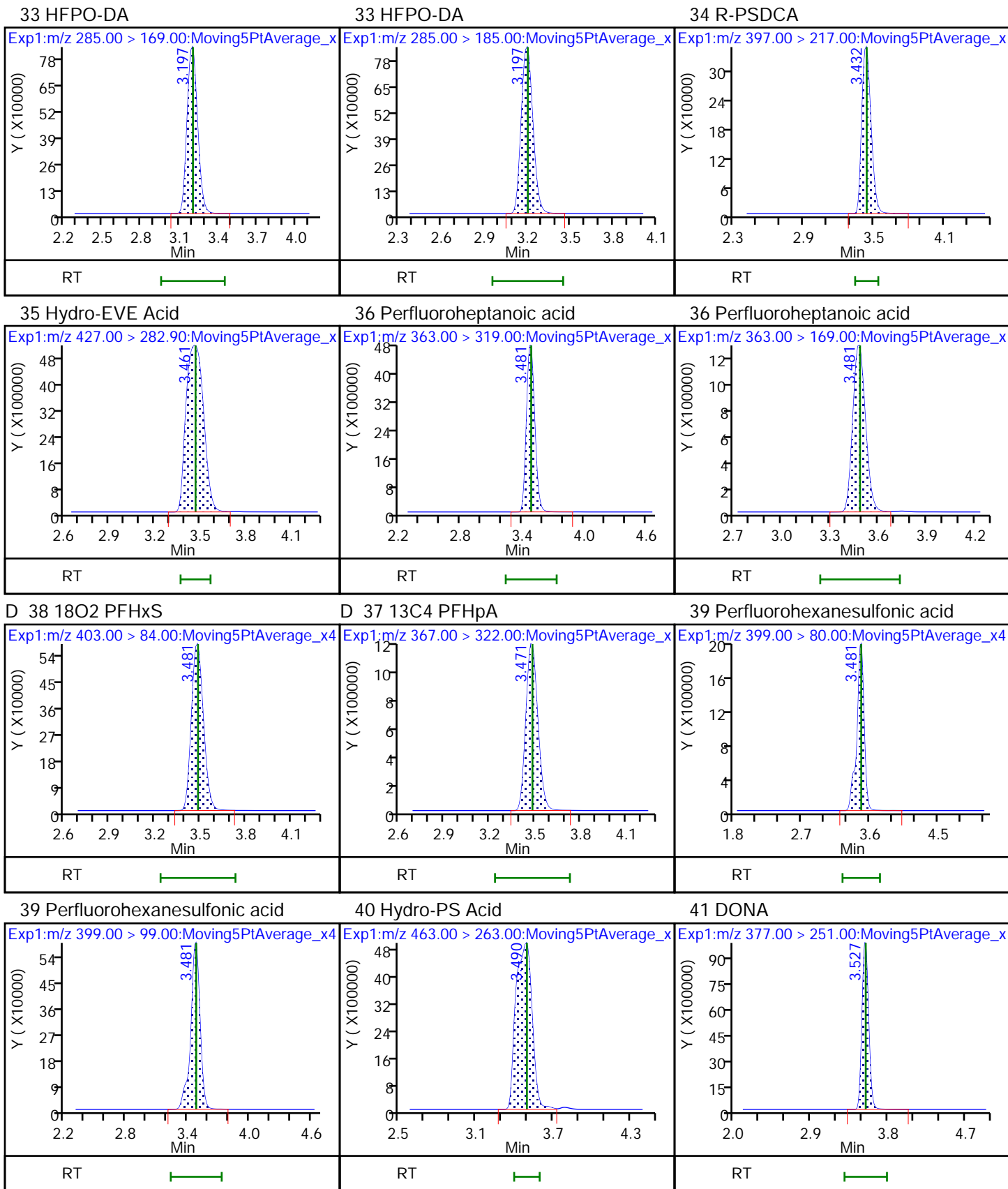
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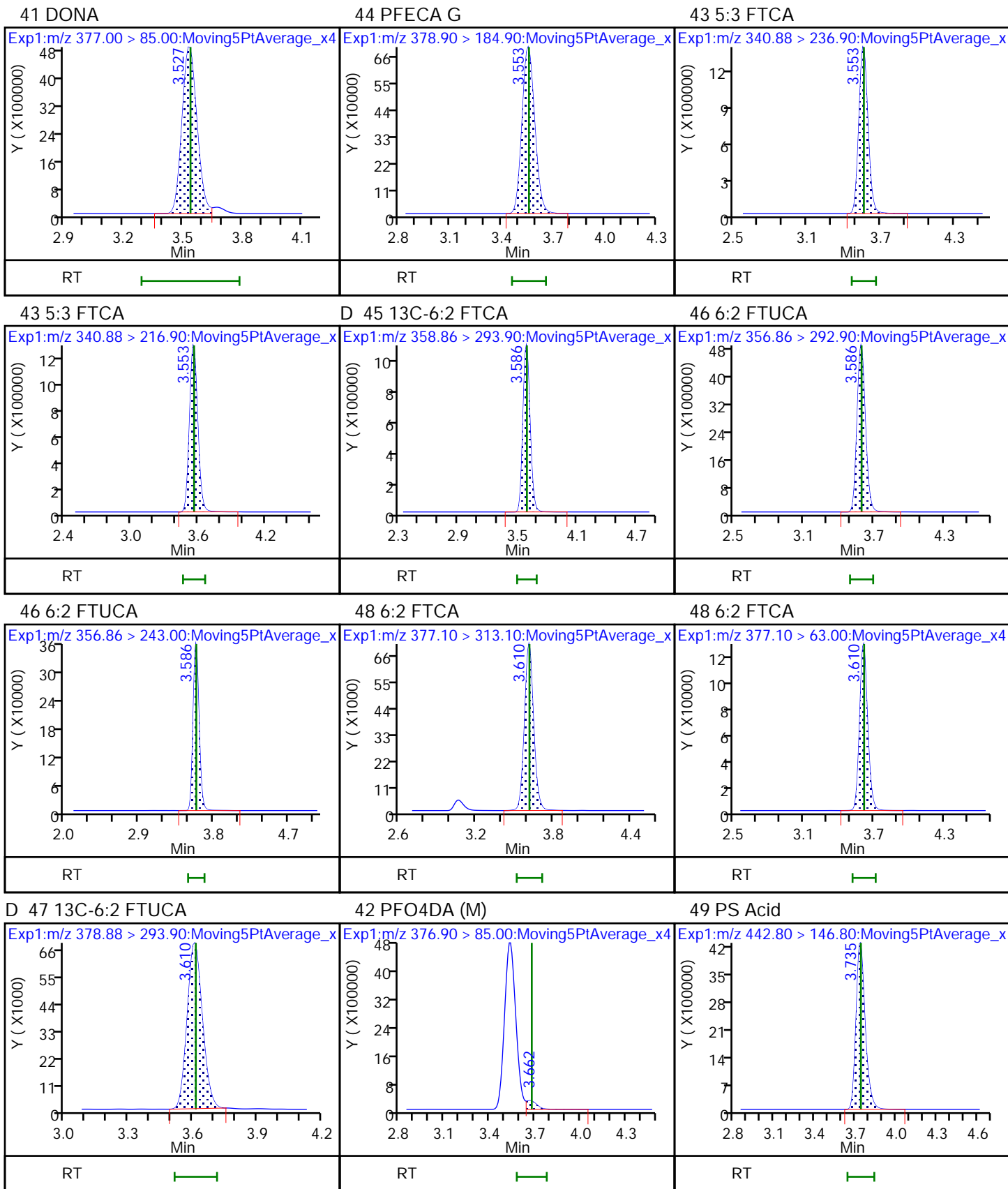


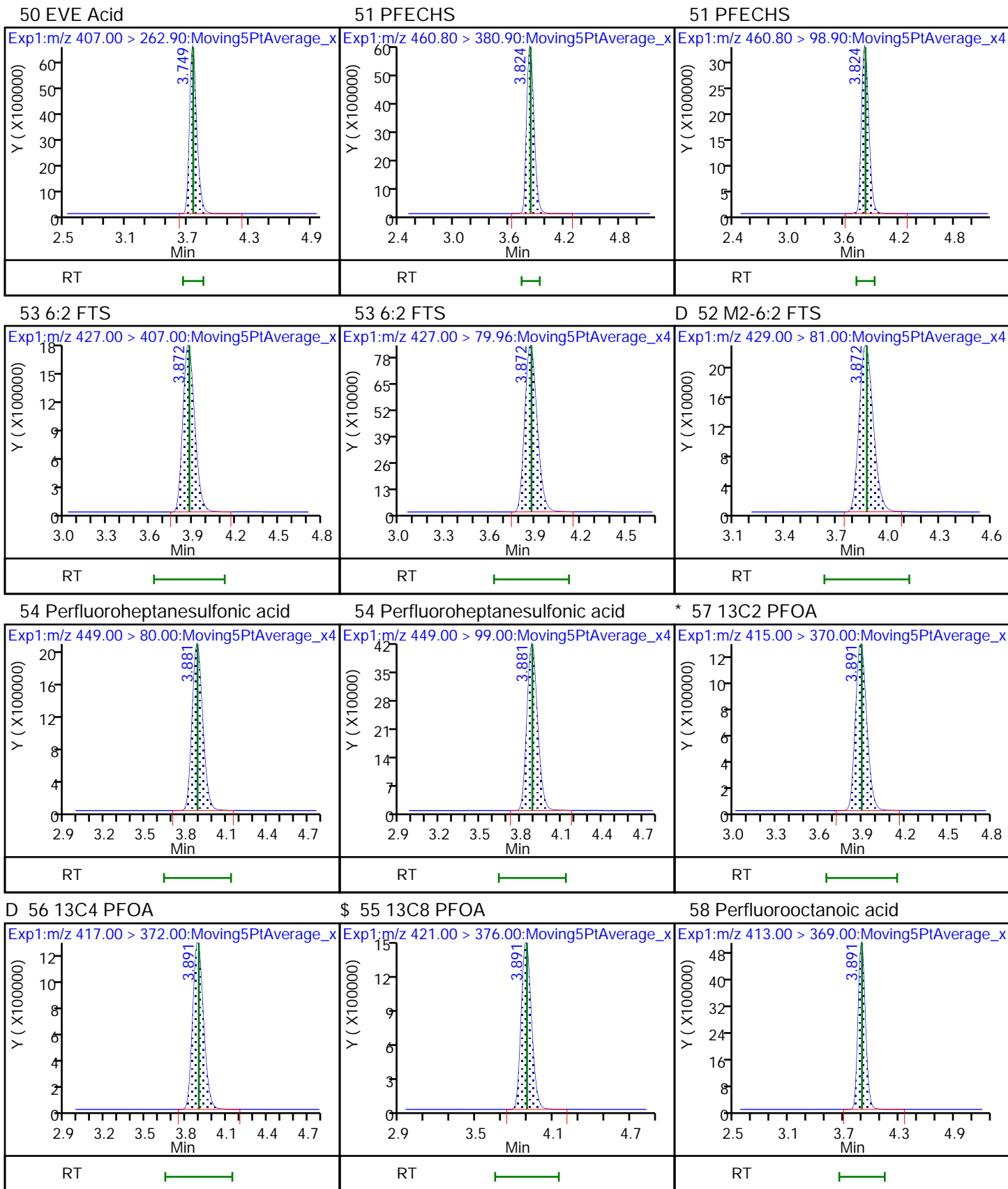


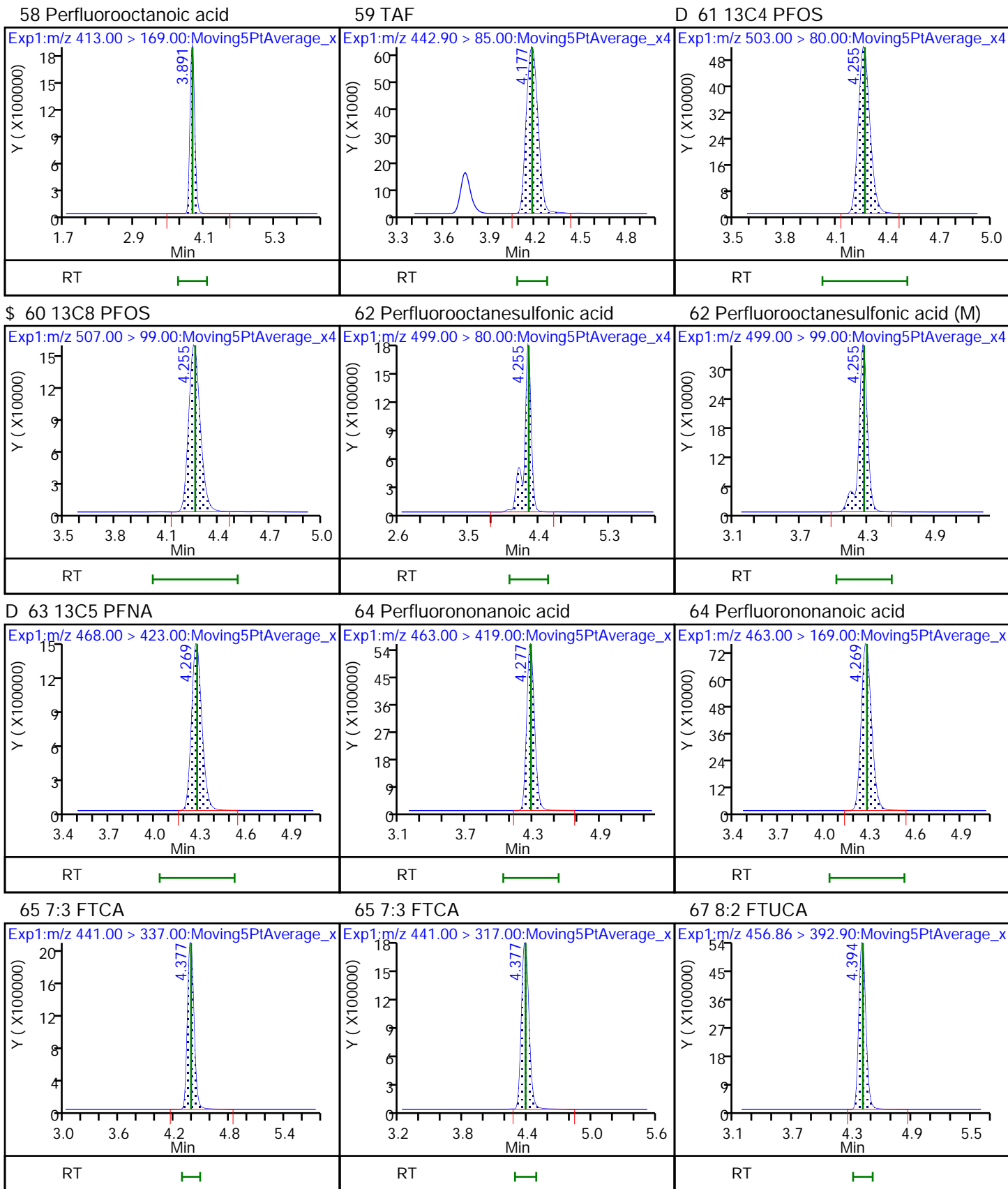


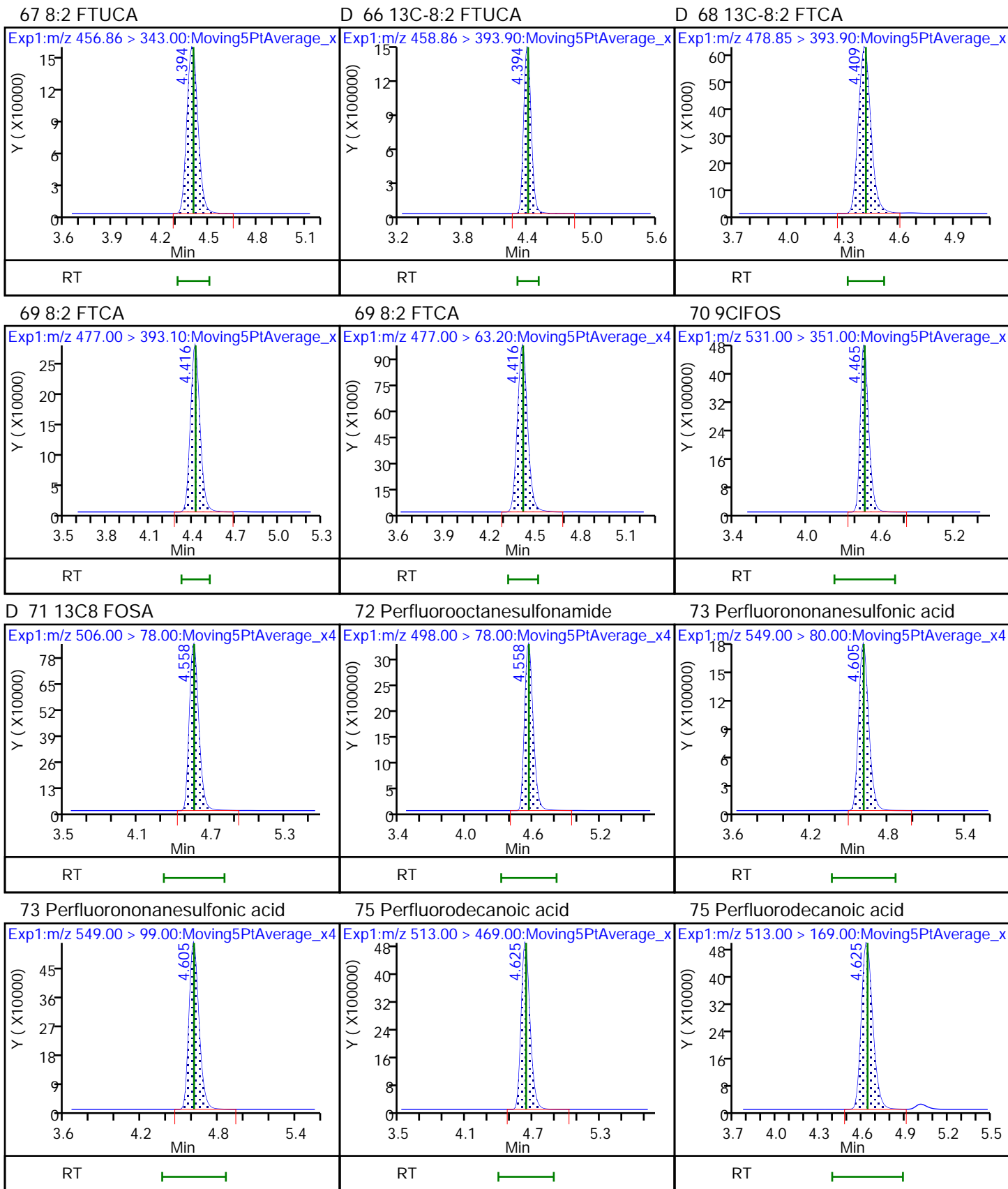








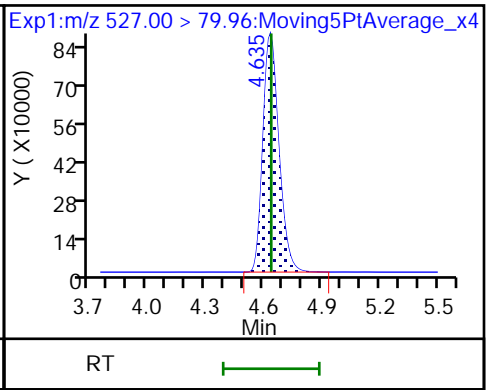
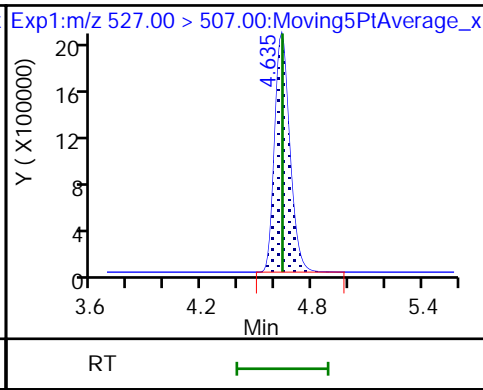
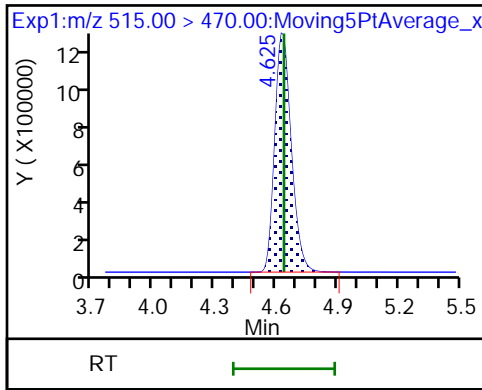




D 74 13C2 PFDA

77 8:2 FTS

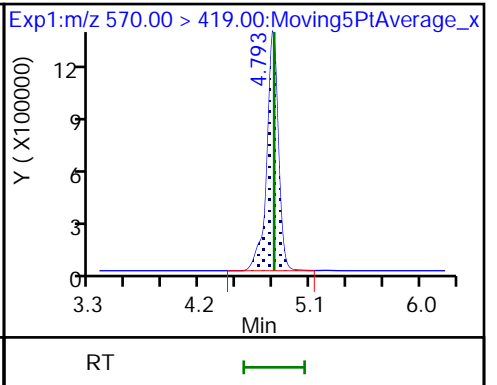
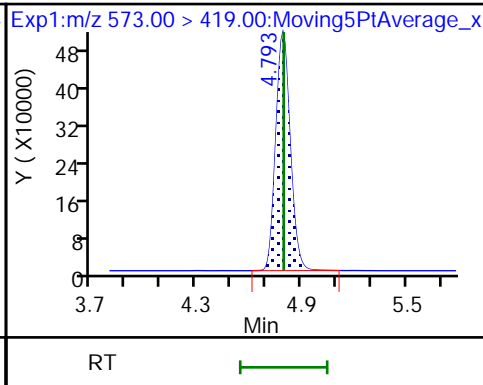
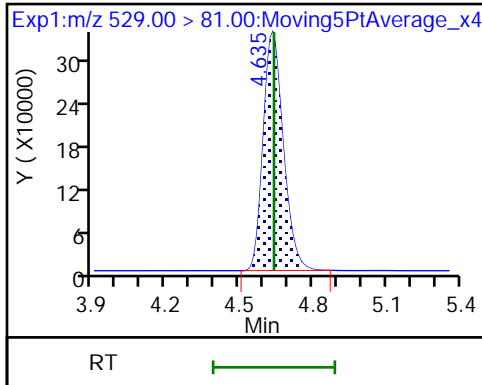
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

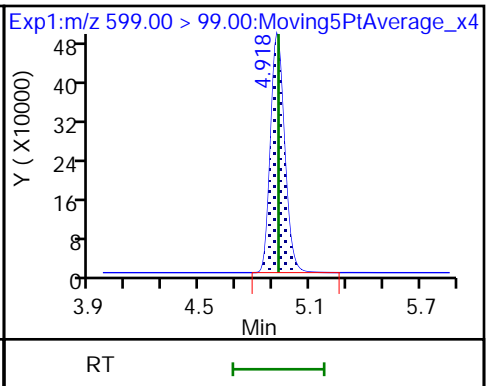
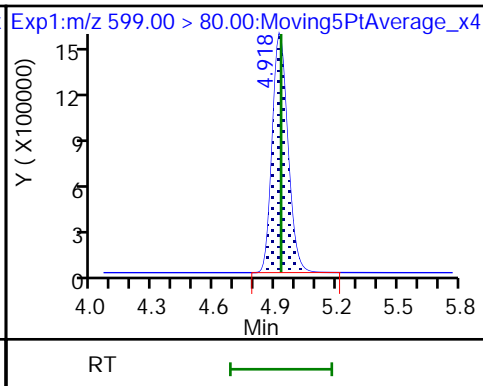
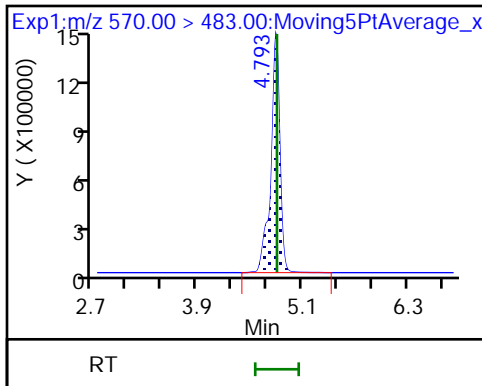
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

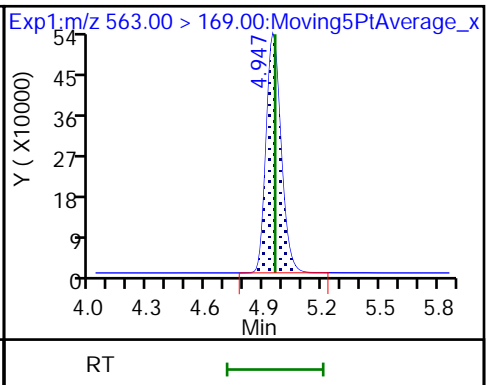
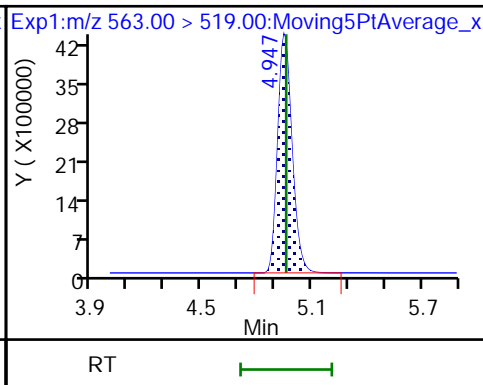
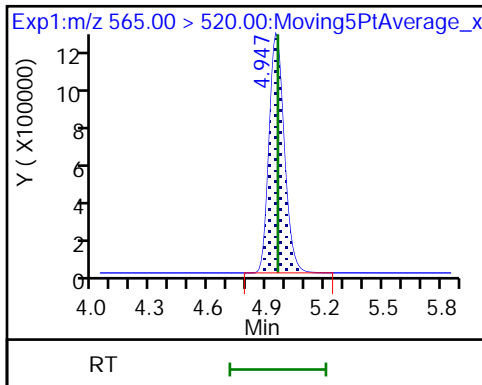
80 Perfluorodecanesulfonic acid



D 82 13C2 PUnA

81 Perfluoroundecanoic acid

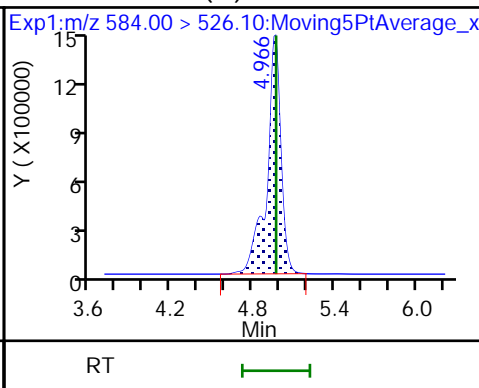
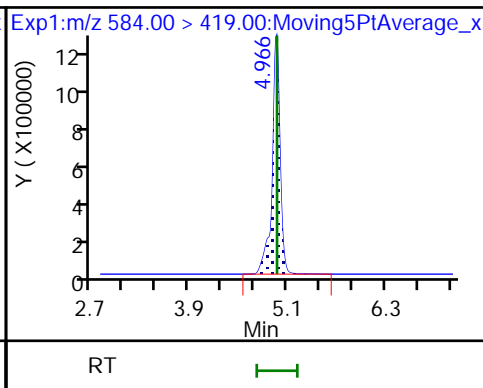
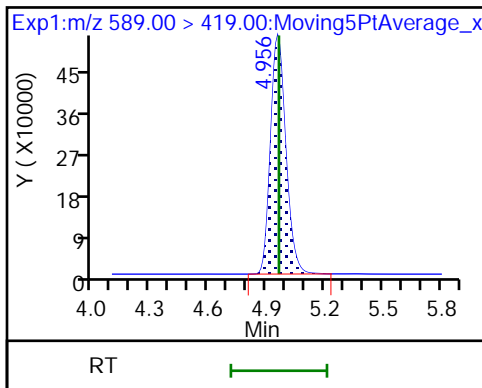
81 Perfluoroundecanoic acid



D 83 d5-NEtFOSAA

84 NEtFOSAA

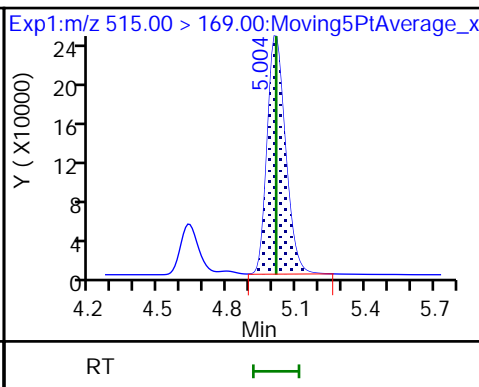
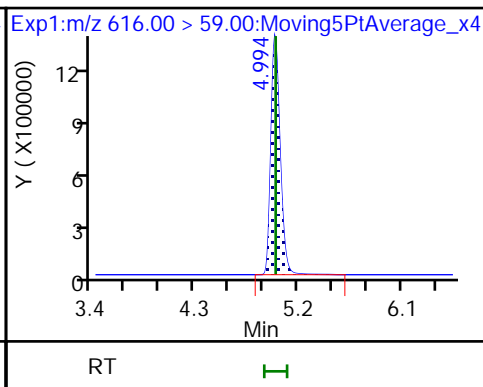
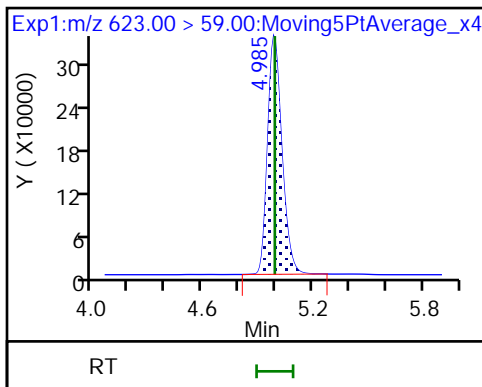
84 NEtFOSAA (M)



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

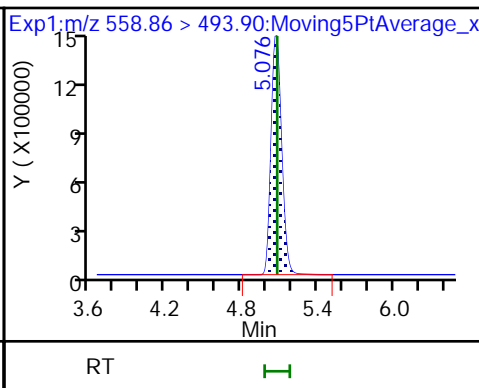
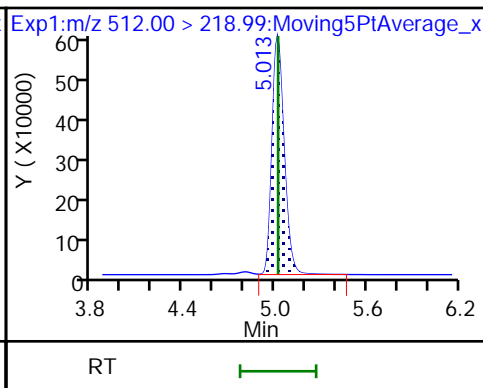
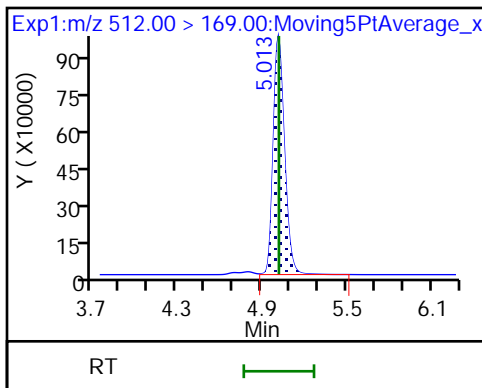
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

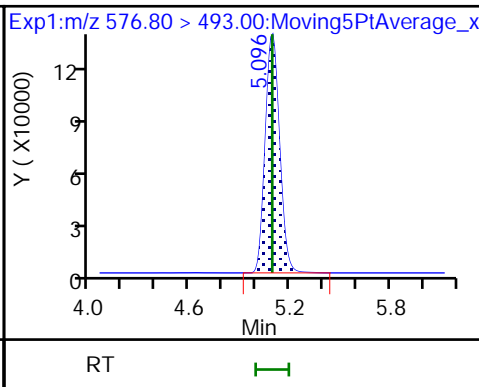
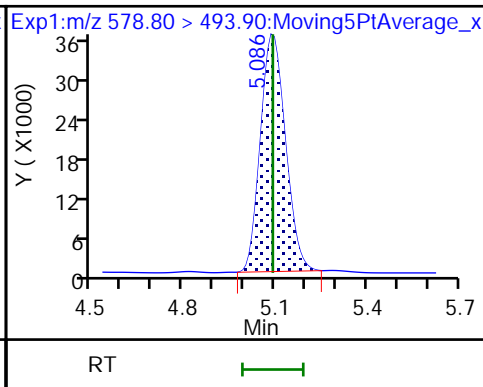
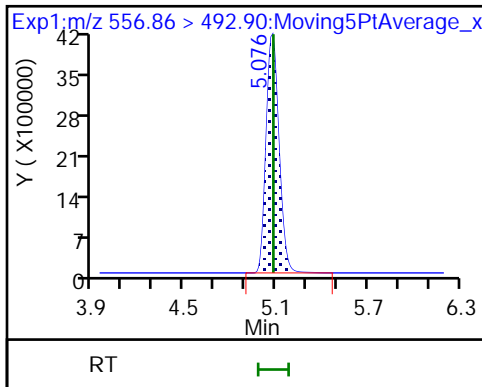
D 88 13C-10:2 FTCA

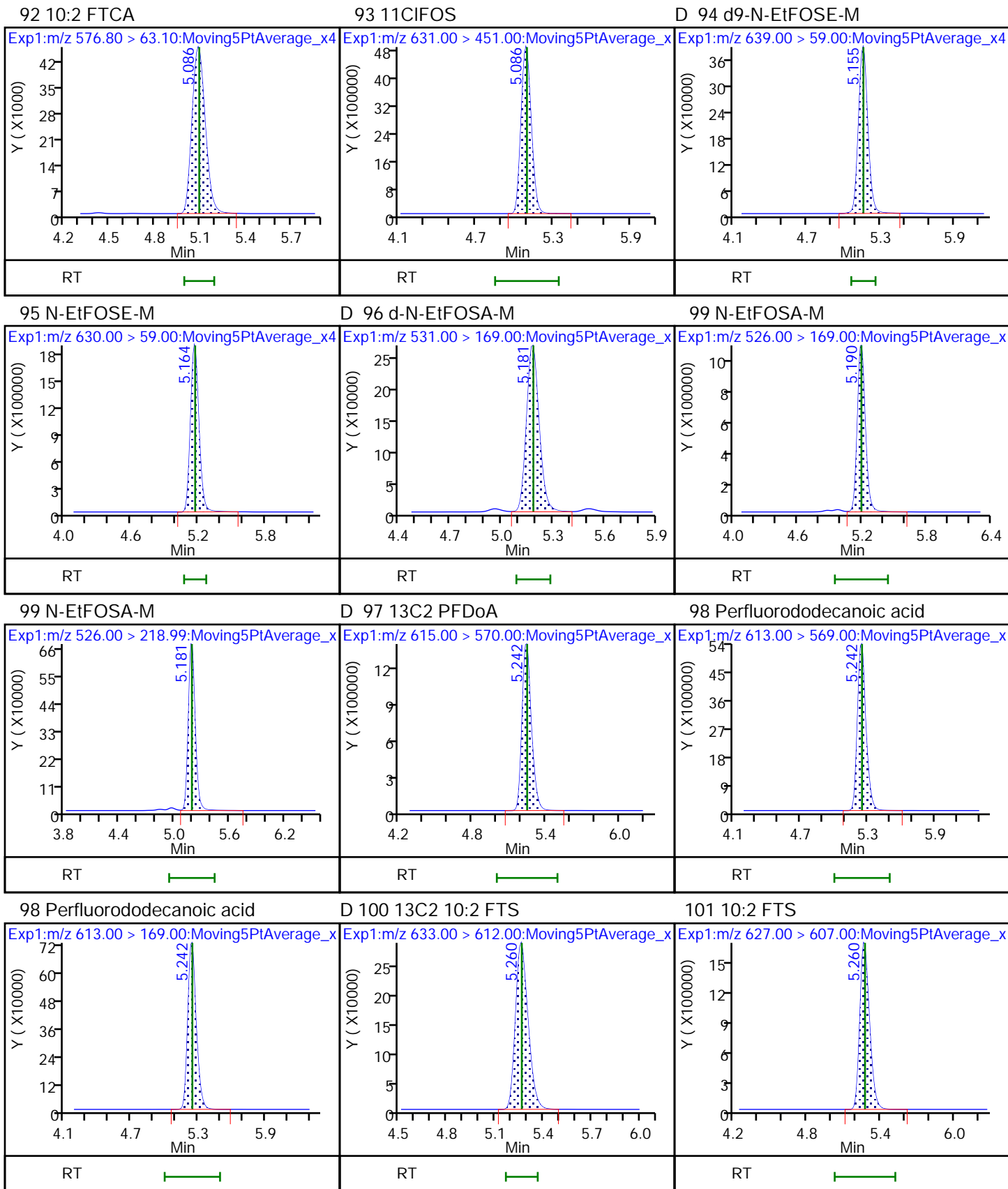


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

92 10:2 FTCA



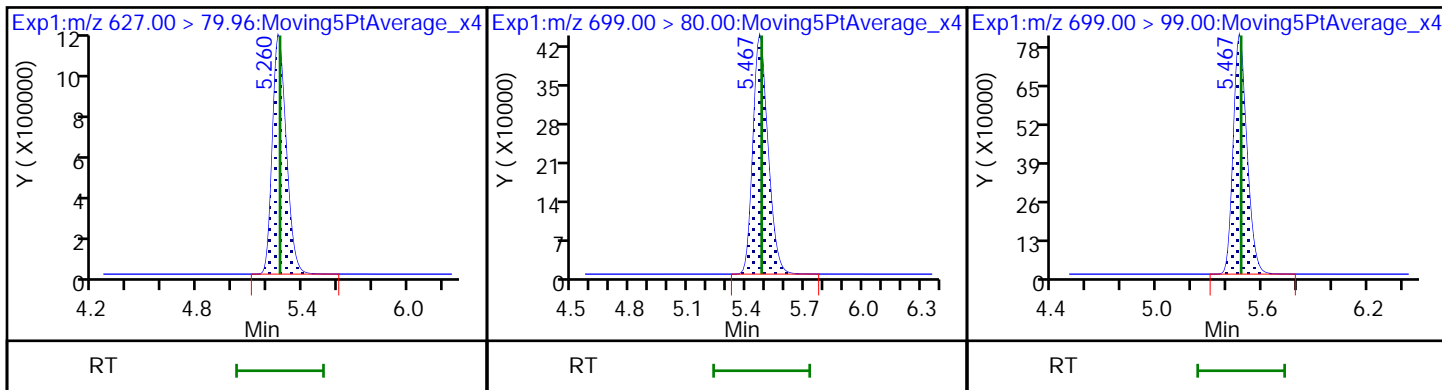




101 10:2 FTS

102 PFDoS

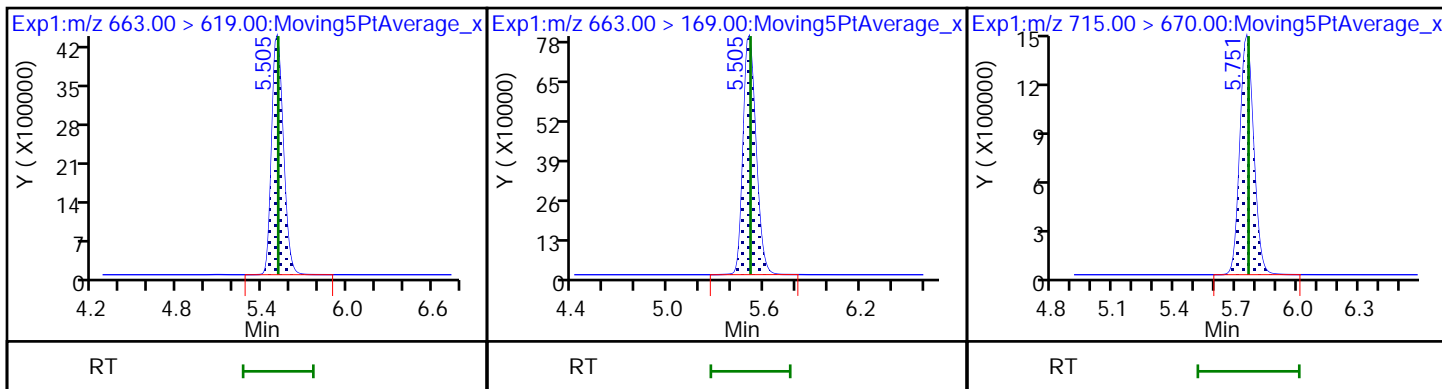
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

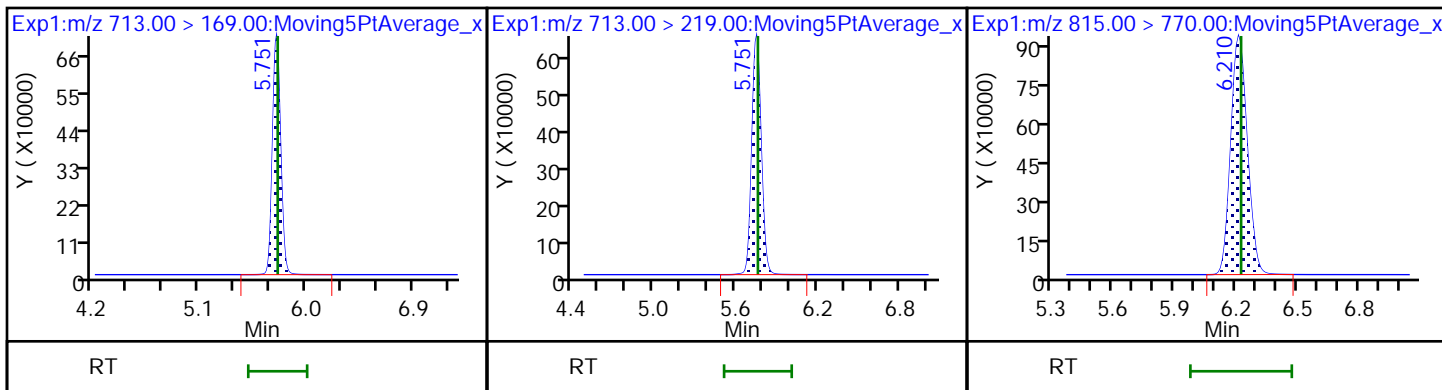
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

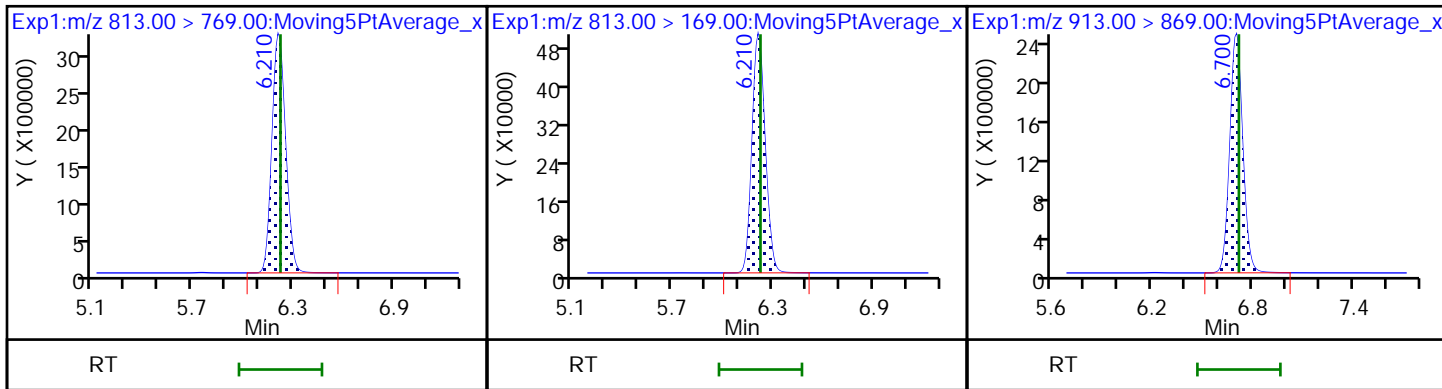
D 106 13C2 PFHxDA



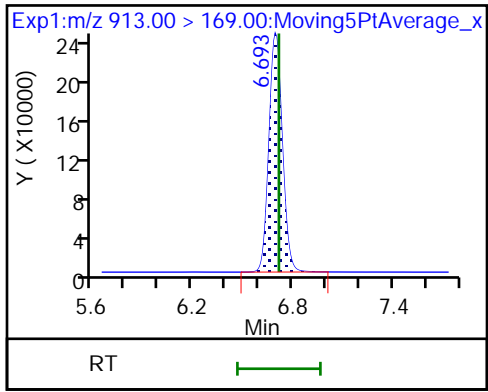
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

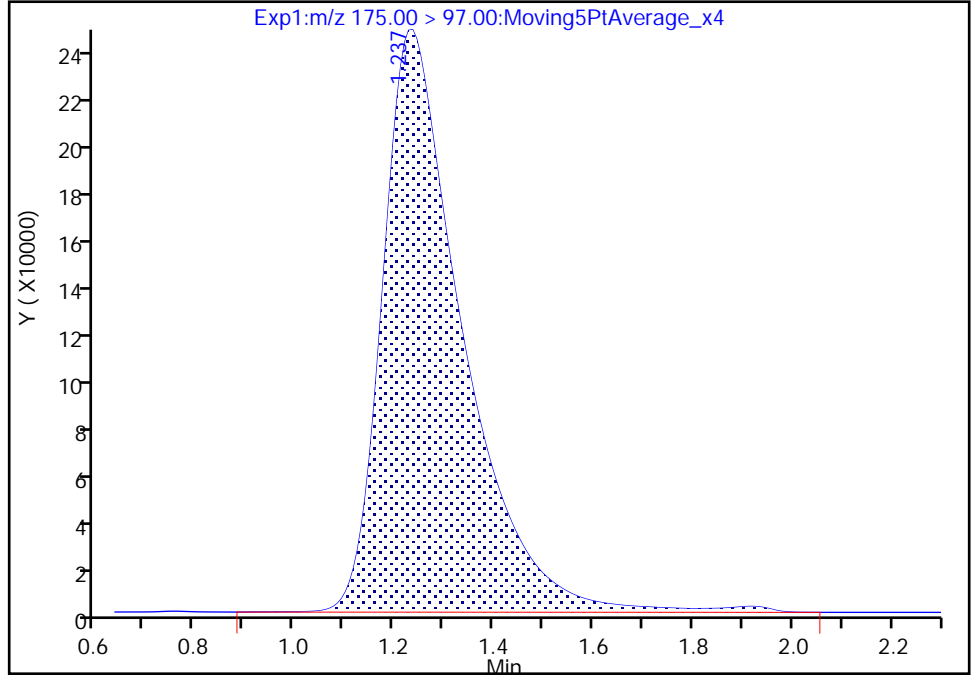
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
 Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
 Lims ID: IC L6  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

3 MTP, CAS: 93449-21-9

Signal: 1

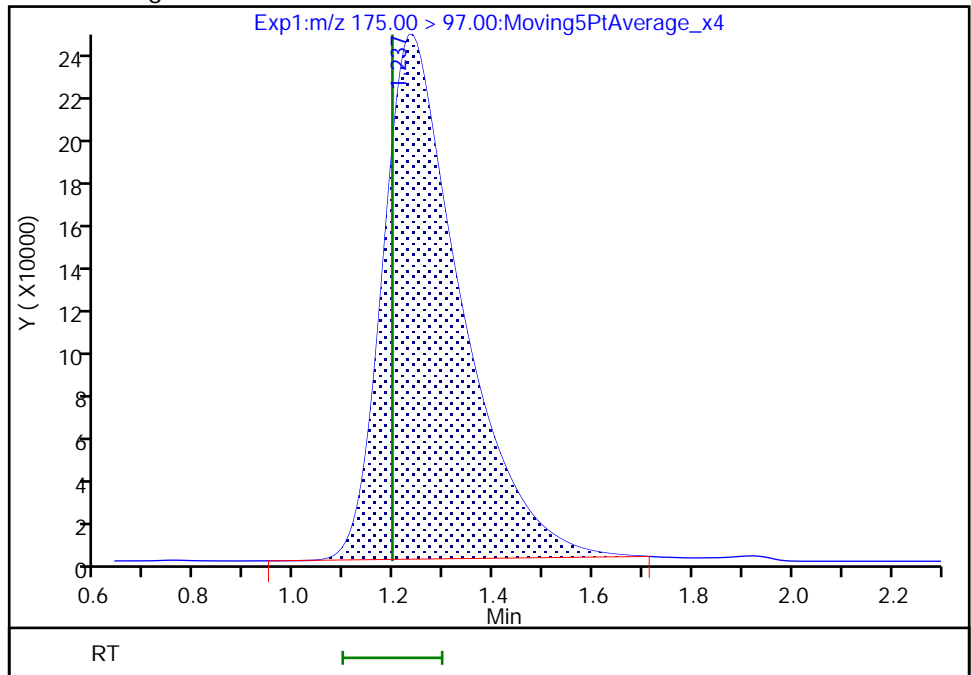
RT: 1.24  
 Area: 2730293  
 Amount: 5.433801  
 Amount Units: ng/ml

Processing Integration Results



RT: 1.24  
 Area: 2649940  
 Amount: 5.298090  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:46:52  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

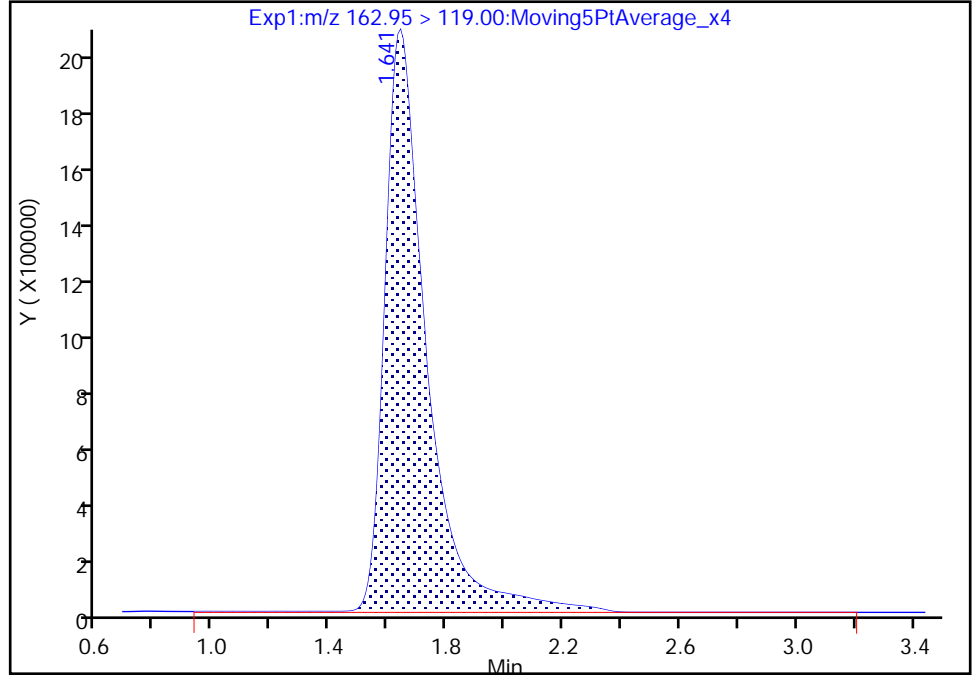
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
Lims ID: IC L6  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

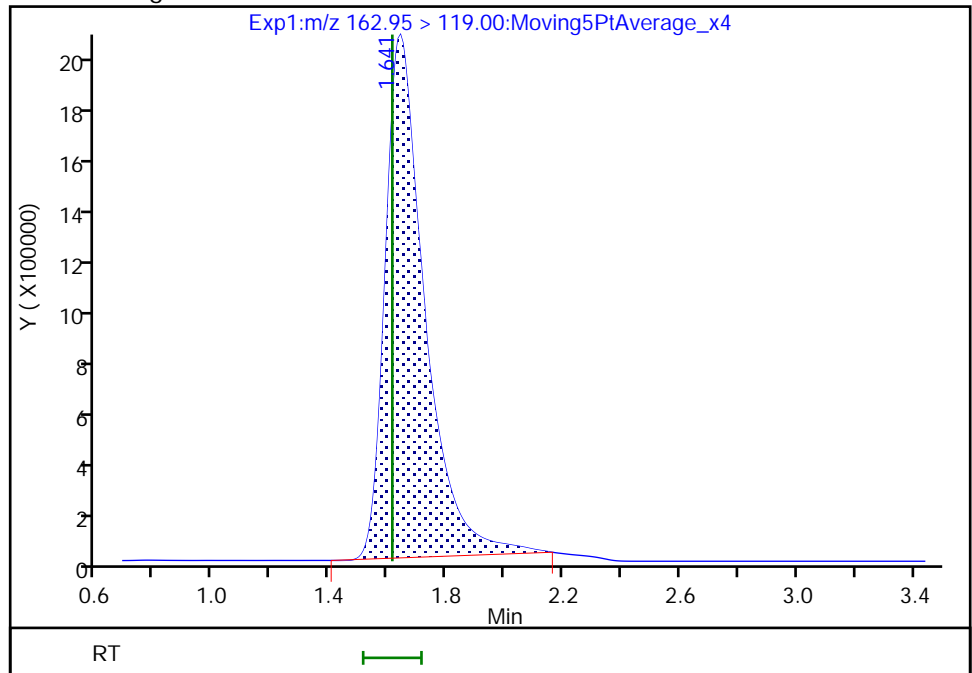
RT: 1.64  
Area: 20823302  
Amount: 5.789966  
Amount Units: ng/ml

Processing Integration Results



RT: 1.64  
Area: 19577970  
Amount: 5.555755  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:46:59  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

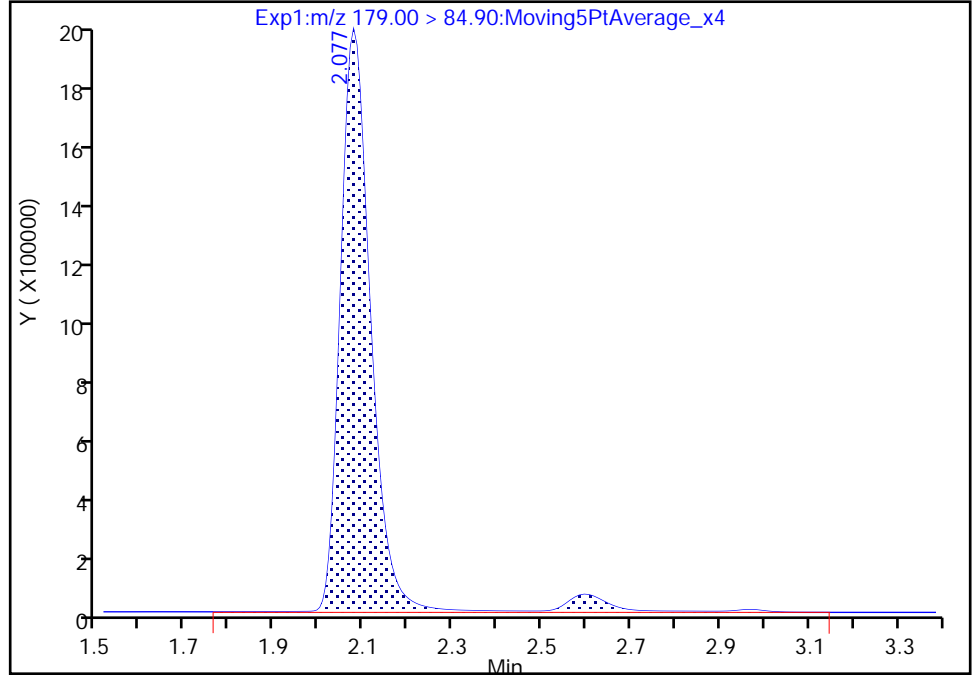
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
Lims ID: IC L6  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

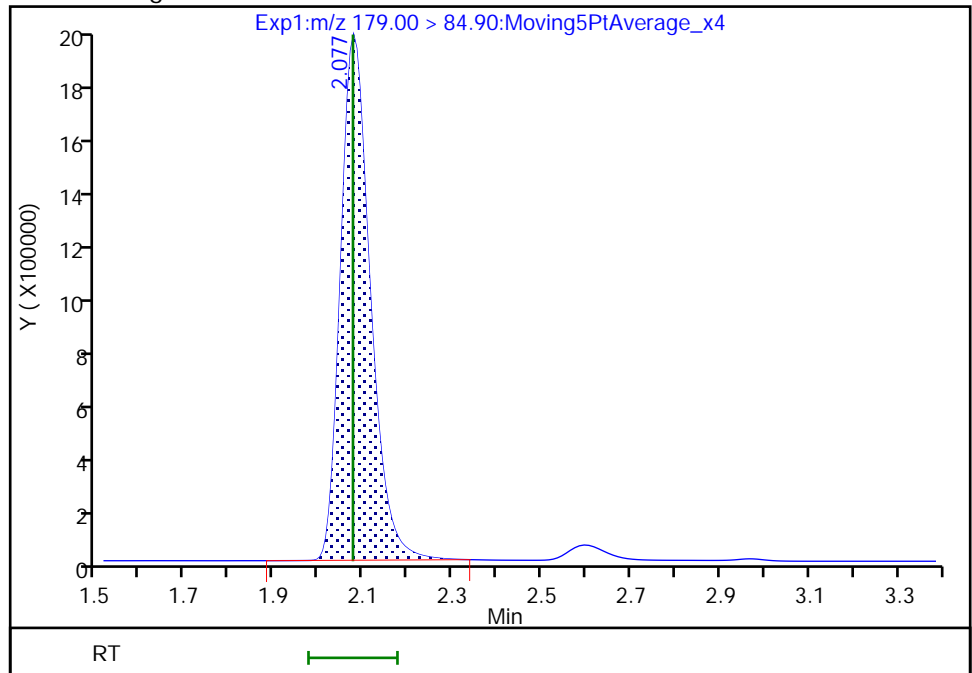
RT: 2.08  
Area: 9695507  
Amount: 5.535854  
Amount Units: ng/ml

Processing Integration Results



RT: 2.08  
Area: 9071215  
Amount: 5.274436  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:47:08  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

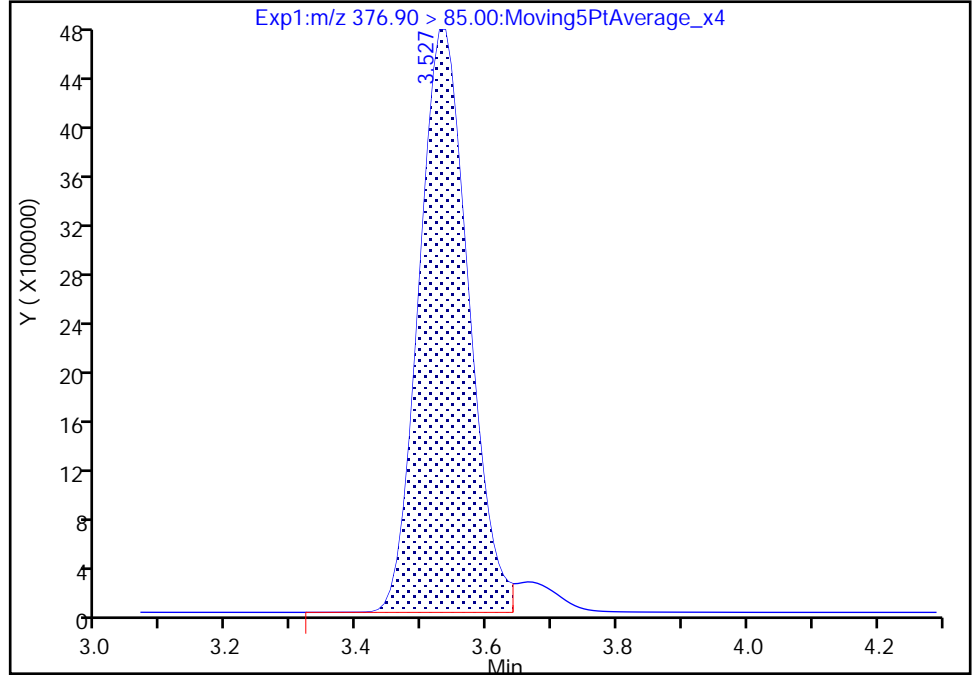
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
Lims ID: IC L6  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

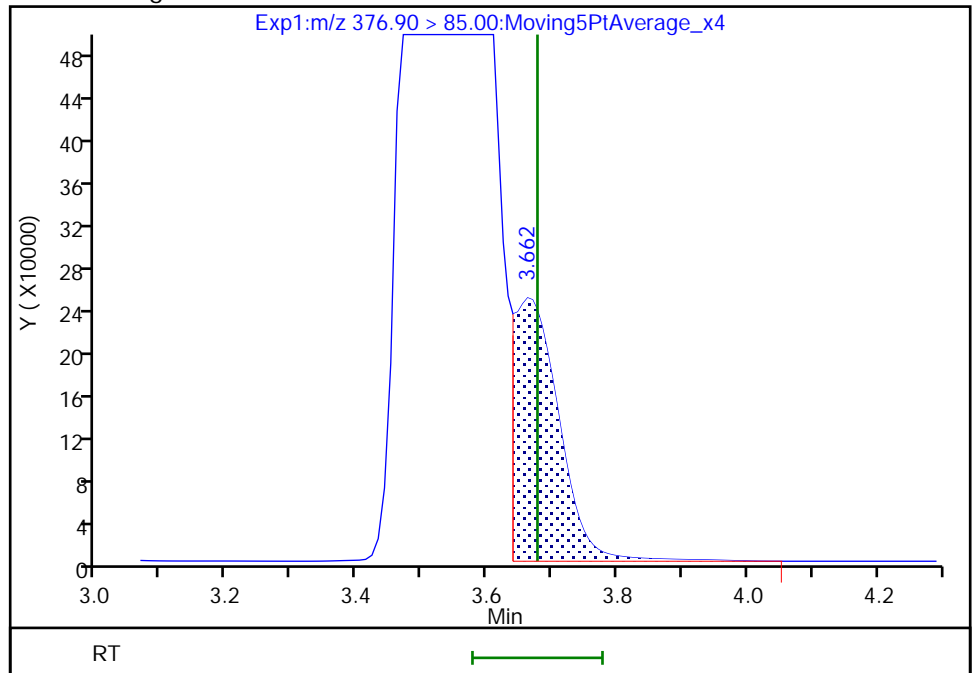
RT: 3.53  
Area: 25084028  
Amount: 15.485039  
Amount Units: ng/ml

Processing Integration Results



RT: 3.66  
Area: 1159010  
Amount: 5.862249  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:41:36  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

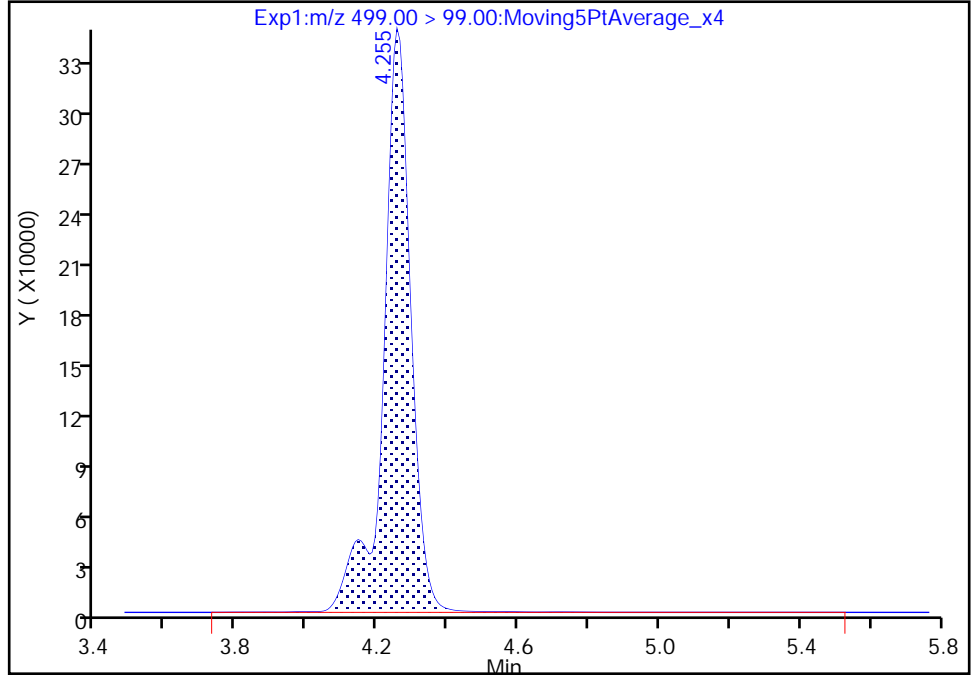
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
Lims ID: IC L6  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

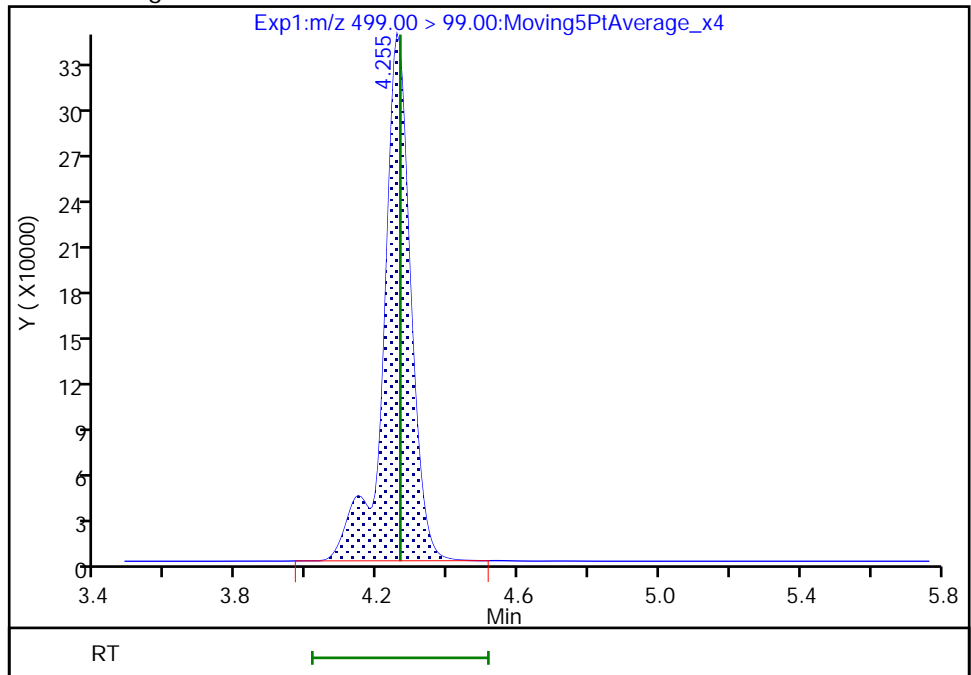
RT: 4.25  
Area: 1867867  
Amount: 4.710937  
Amount Units: ng/ml

Processing Integration Results



RT: 4.25  
Area: 1853827  
Amount: 4.710937  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:47:37  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

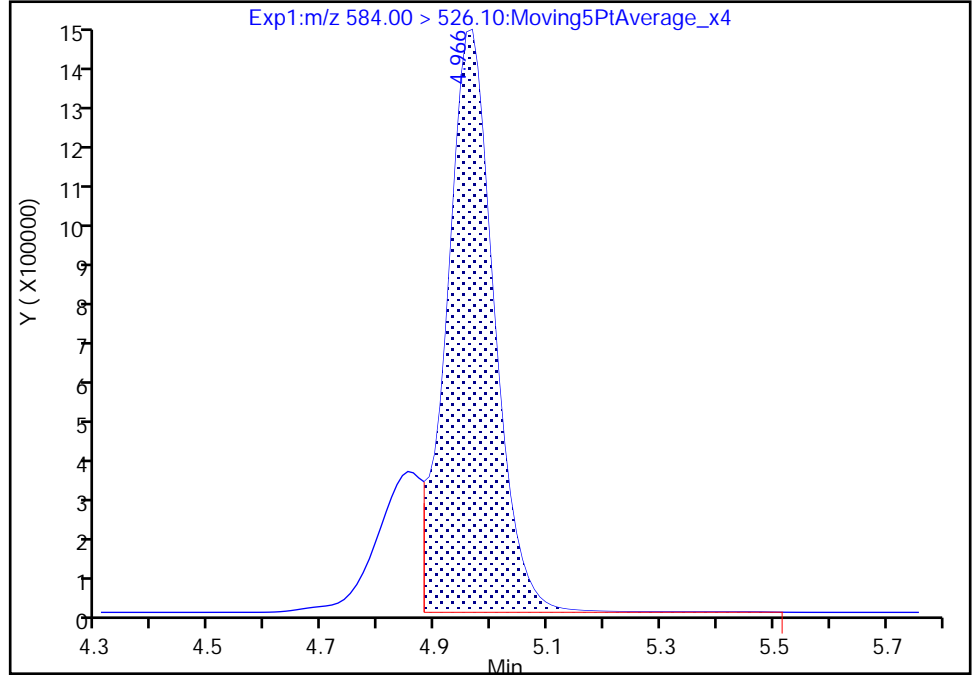
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_009.d  
 Injection Date: 01-Jun-2021 14:53:02 Instrument ID: A15  
 Lims ID: IC L6  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

84 NEFOSAA, CAS: 2991-50-6

Signal: 2

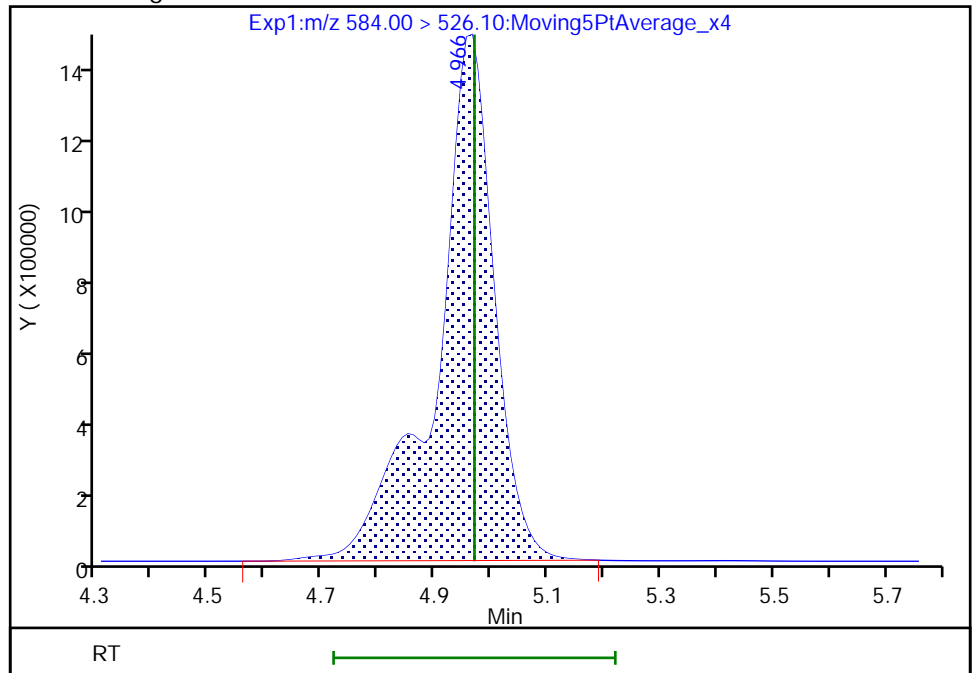
RT: 4.97  
 Area: 8405046  
 Amount: 4.864643  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.97  
 Area: 10270382  
 Amount: 4.864643  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:47:54  
 Audit Action: Manually Integrated

Audit Reason: Isomers



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Lims ID: IC L7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 01-Jun-2021 15:02:11 ALS Bottle#: 7 Worklist Smp#: 8  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: STD 7 (2)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:55:21 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:50:07

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										M
174.90 > 81.00	0.764	0.773	-0.009	0.327	2030238	10.3		103	1116	M
2 MMF										M
139.00 > 51.00	0.764	0.779	-0.015	0.327	3643964	9.46		94.6	1599	M
3 MTP										
175.00 > 97.00	1.229	1.196	0.033	0.526	5162908	10.8		108	690	
4 PPF Acid										M
162.95 > 119.00	1.633	1.613	0.020	0.699	36283920	10.8		111	2968	M
5 PFMOAA										M
179.00 > 84.90	2.084	2.075	0.009	0.891	16672540	10.2		102	2900	M
6 R-PSDA										
441.00 > 241.00	2.209	2.213	-0.004	0.945	6319517	10.7		107	260609	
7 R-EVE										
405.00 > 217.00	2.217	2.220	-0.003	0.948	16448710	9.29		92.9	546463	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.217	2.221	-0.004	0.948	22603255	9.67		96.7	887314	
D 9 13C4 PFBA										
217.00 > 172.00	2.338	2.334	0.004	0.601	6654827	1.29		103	79511	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.338	2.334	0.004	1.000	49964863	9.92		99.2	47828	
11 PMPA										
229.00 > 185.00	2.400	2.400	0.0	1.027	11541499	9.93		99.3	17516	
12 PFPrS										
249.10 > 80.00	2.409	2.405	0.004	0.887	34038899	8.62		94.1	153898	
13 NVHOS										
297.00 > 135.00	2.418	2.421	-0.003	1.034	944422	9.55		95.5	30652	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.462	2.462	0.0	0.918	32310324	9.96		99.6	268749	
16 PFO2HxA										
245.00 > 85.00	2.606	2.602	0.004	0.972	3780335	10.4		104	23813	
D 17 13C5 PFPeA										
267.90 > 223.00	2.682	2.681	0.001	0.689	6220538	1.28		102	54448	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.682	2.682	0.0	1.000	50057820	9.60		96.0	88416	
19 3:3 FTCA										
241.00 > 177.10	2.693	2.690	0.003	0.992	3564825	10.7	Target=1.28	107	58696	
241.00 > 116.90	2.693	2.690	0.003	0.992	2608869		1.37(0.64-1.92)	107	15380	
D 21 13C3 PFBS										
301.90 > 80.00	2.716	2.714	0.002	0.698	3955482	1.17		100	26398	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.716	2.716	0.0	1.000	34384037	8.94	Target=2.36	101	36357	
298.90 > 99.00	2.716	2.716	0.0	1.000	14227200		2.42(1.18-3.53)	101	32520	
22 PEPA										
278.90 > 234.90	2.780	2.778	0.002	1.037	8916246	10.9		109	12382	
23 PFECA A										
278.95 > 84.90	2.790	2.795	-0.005	1.040	60228882	10.1		101	1310936	
24 PES										
314.80 > 135.00	2.869	2.868	0.001	1.056	121926494	9.32		105	3667787	
25 PFECA B										
295.20 > 201.00	2.991	2.996	-0.005	0.979	7247213	10.9		109	174219	
26 4:2 FTS										
327.00 > 307.00	3.018	3.022	-0.004	1.000	15364320	8.85	Target=2.17	94.8	707840	
327.00 > 79.96	3.018	3.022	-0.004	1.000	7110303		2.16(1.09-3.26)	94.8	101080	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.018	3.022	-0.004	0.776	846773	0.9343		80.0	8783	
D 28 13C2 PFHxA										
315.00 > 270.00	3.056	3.061	-0.005	0.786	6213293	1.29		103	64965	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.056	3.062	-0.006	1.000	48490256	8.71	Target=13.89	87.1	202691	
313.00 > 119.00	3.066	3.062	0.004	1.003	3551762		13.65(6.95-20.84)	87.1	39174	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.076	3.081	-0.005	1.133	31612266	9.33	Target=3.10	99.5	620181	
349.00 > 99.00	3.076	3.081	-0.005	1.133	10556329		2.99(1.55-4.65)	99.5	143694	
31 PFO3OA										
311.10 > 85.20	3.126	3.129	-0.003	1.023	1294847	7.55		75.5	13258	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.197	3.201	-0.004	0.822	1147328	1.34		107	34670	
33 HFPO-DA										
285.00 > 169.00	3.197	3.201	-0.004	1.000	9221213	9.87	Target=1.03	98.7	138043	
285.00 > 185.00	3.197	3.201	-0.004	1.000	8705155		1.06(0.52-1.55)	98.7	67624	
34 R-PSDCA										
397.00 > 217.00	3.432	3.437	-0.005	0.986	3238323	10.9		109	74790	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.471	3.468	0.003	0.997	73295829	10.7		107	22142	
D 37 13C4 PFHpA										
367.00 > 322.00	3.480	3.482	-0.002	0.895	5552296	1.17		93.6	63510	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.480	3.485	-0.005	1.000	45578953	9.71	Target=3.81	97.1	168989	
363.00 > 169.00	3.480	3.485	-0.005	1.000	12262327		3.72(1.91-5.72)	97.1	17029	
D 38 18O2 PFHxS										
403.00 > 84.00	3.480	3.485	-0.005	0.895	2796283	1.16		98.1	46416	
39 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.480	3.483	-0.003	1.000	23092506	8.83	Target=3.50	97.0	51404	M
399.00 > 99.00	3.480	3.483	-0.003	1.000	6403659		3.61(1.75-5.25)	97.0	100874	
40 Hydro-PS Acid										
463.00 > 263.00	3.490	3.494	-0.004	1.003	78311320	11.2		112	7574	
41 DONA										
377.00 > 251.00	3.536	3.538	-0.002	0.830	91722414	8.48	Target=2.07	90.0	1742874	
377.00 > 85.00	3.536	3.538	-0.002	0.830	46576174		1.97(1.03-3.10)	90.0	2921	
44 PFECA G										
378.90 > 184.90	3.561	3.558	0.003	0.991	6003759	9.51		95.1	68465	
43 5:3 FTCA										
340.88 > 236.90	3.561	3.561	0.0	0.991	11392692	9.84	Target=1.08	98.4	155960	
340.88 > 216.90	3.561	3.561	0.0	0.991	10985635		1.04(0.54-1.62)	98.4	192240	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.595	3.592	0.003	0.924	4874188	1.18		94.6	242188	
46 6:2 FTUCA										
356.86 > 292.90	3.595	3.592	0.003	0.994	41629970	10.0	Target=14.03	100	923020	
356.86 > 243.00	3.595	3.592	0.003	0.994	3108571		13.39(7.02-21.05)	100	69089	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.614	-0.004	1.004	641384	10.3	Target=0.54	103	2233	
377.10 > 63.00	3.610	3.614	-0.004	1.004	1234166		0.52(0.27-0.81)	103	49407	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.618	3.614	0.004	0.930	294231	1.16		93.1	3278	
42 PFO4DA										a
376.90 > 85.00	3.670	3.677	-0.007	1.055	1948326	11.1		111	5.2	a
49 PS Acid										
442.80 > 146.80	3.735	3.738	-0.003	0.960	35779183	10.3		103	840449	
50 EVE Acid										
407.00 > 262.90	3.756	3.754	0.002	0.965	57066493	10.3		103	1933784	
51 PFECHS										
460.80 > 380.90	3.833	3.833	0.0	0.985	61060344	9.64	Target=1.90	105	1581112	
460.80 > 98.90	3.833	3.833	0.0	0.985	33302677		1.83(0.95-2.85)	105	1007555	
53 6:2 FTS										
427.00 > 407.00	3.871	3.876	-0.005	1.000	14860175	8.94	Target=2.11	94.3	53960	
427.00 > 79.96	3.871	3.876	-0.005	1.000	7291007		2.04(1.06-3.17)	94.3	27568	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.871	3.876	-0.005	0.995	958472	0.8750		73.7	13937	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.881	3.885	-0.004	0.911	19471630	8.87	Target=4.82	93.2	125846	
449.00 > 99.00	3.881	3.885	-0.004	0.911	4118383		4.73(2.41-7.24)	93.2	83432	
* 57 13C2 PFOA										
415.00 > 370.00	3.891	3.895	-0.005		6463225	1.25			97758	
D 56 13C4 PFOA										
417.00 > 372.00	3.891	3.895	-0.005	1.000	6620796	1.23		98.2	54936	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.891	3.895	-0.005	1.000	7231109	1.20		95.9	59917	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.891	3.895	-0.005	1.000	52785001	9.54	Target=2.87	95.4	433735	
413.00 > 169.00	3.891	3.895	-0.005	1.000	19309980		2.73(1.43-4.30)	95.4	1170368	
59 TAF										
442.90 > 85.00	4.177	4.180	-0.003	1.074	796650	9.72		97.2	541	
D 61 13C4 PFOS										
503.00 > 80.00	4.262	4.264	-0.002	1.095	2298584	1.22		102	27227	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.262	4.264	-0.002	1.095	660640	1.17		97.8	7775	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.262	4.264	-0.002	1.000	19899411	9.20	Target=5.95	99.1	158142	M
499.00 > 99.00	4.262	4.264	-0.002	1.000	3421350		5.82(2.97-8.92)	99.1	45657	M
D 63 13C5 PFNA										
468.00 > 423.00	4.276	4.279	-0.003	1.099	6581692	1.28		102	138180	
64 Perfluorononanoic acid										
463.00 > 419.00	4.276	4.280	-0.004	1.000	48131661	9.23	Target=7.58	92.3	95989	
463.00 > 169.00	4.276	4.280	-0.004	1.000	6450776		7.46(3.79-11.37)	92.3	61944	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.381	-0.004	0.991	18137161	11.1	Target=1.21	111	270599	
441.00 > 317.00	4.377	4.381	-0.004	0.991	15589924		1.16(0.60-1.81)	111	359351	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.402	4.404	-0.002	1.132	6074113	1.19		95.2	181284	
67 8:2 FTUCA										
456.86 > 392.90	4.402	4.404	-0.002	1.000	46657021	9.85	Target=35.28	98.5	1079678	
456.86 > 343.00	4.402	4.404	-0.002	1.000	1331630		35.04(17.64-52.92)	98.5	70223	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.416	4.419	-0.003	1.135	265113	1.14		91.0	4332	
69 8:2 FTCA										
477.00 > 393.10	4.416	4.420	-0.004	1.000	2321583	9.46	Target=3.24	94.6	100569	
477.00 > 63.20	4.416	4.420	-0.004	1.000	865390		2.68(1.62-4.86)	94.6	46232	
70 9C1FOS										
531.00 > 351.00	4.465	4.469	-0.004	1.048	40561901	9.35		100	580221	
D 71 13C8 FOSA										
506.00 > 78.00	4.558	4.561	-0.003	1.172	4029476	1.27		101	85652	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.558	4.561	-0.003	1.000	31949636	9.87		98.7	863088	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.605	4.610	-0.005	1.081	16786975	9.32	Target=3.28	97.1	86746	
549.00 > 99.00	4.605	4.610	-0.005	1.081	4986955		3.37(1.64-4.92)	97.1	70898	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.634	4.636	-0.002	1.000	46145466	9.42	Target=9.70	94.2	484194	
513.00 > 169.00	4.634	4.636	-0.002	1.000	5033036		9.17(4.85-14.54)	94.2	2848	
D 74 13C2 PFDA										
515.00 > 470.00	4.634	4.637	-0.003	1.191	5988554	1.16		93.0	97485	
77 8:2 FTS										
527.00 > 507.00	4.634	4.639	-0.005	0.998	18585877	9.22	Target=2.33	96.3	167454	
527.00 > 79.96	4.644	4.639	0.005	1.000	8354026		2.22(1.17-3.50)	96.3	55170	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.644	4.640	0.004	1.194	1543724	0.9025		75.4	22016	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.793	4.798	-0.005	1.232	2724566	1.25		100	27799	
79 NMeFOSAA										
570.00 > 419.00	4.803	4.806	-0.003	1.002	15041975	9.33	Target=0.83	93.3	461058	
570.00 > 483.00	4.803	4.806	-0.003	1.002	18782663		0.80(0.42-1.25)	93.3	659612	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.918	4.928	-0.010	1.154	14555788	9.23	Target=3.22	95.8	194449	
599.00 > 99.00	4.928	4.928	0.0	1.156	4638321		3.14(1.61-4.83)	95.8	86839	
D 82 13C2 PFUnA										
565.00 > 520.00	4.956	4.958	-0.002	1.274	5938460	1.20		95.6	98977	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.956	4.959	-0.003	1.000	42442720	9.70	Target=9.27	97.0	209353	
563.00 > 169.00	4.956	4.959	-0.003	1.000	4682655		9.06(4.63-13.90)	97.0	57271	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.956	4.963	-0.007	1.274	2200301	1.02		81.3	21080	
84 NEtFOSAA										
584.00 > 419.00	4.966	4.970	-0.004	1.002	13793800	10.9	Target=0.77	109	518884	
584.00 > 526.10	4.966	4.970	-0.004	1.002	17290920		0.80(0.39-1.16)	109	774933	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.991	0.003	1.284	1746929	1.34		107	6426	
86 N-MeFOSE-M										
616.00 > 59.00	5.003	5.002	0.001	1.002	14703680	9.95		99.5	239385	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.013	5.012	0.001	1.289	1281760	1.34		107	383	
90 NMeFOSA										
512.00 > 169.00	5.013	5.018	-0.005	1.000	10262228	9.87	Target=1.61	98.7	4256	
512.00 > 218.99	5.013	5.018	-0.005	1.000	6174003		1.66(0.80-2.41)	98.7	4708	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.080	-0.004	1.305	6532684	1.09		87.2	229274	
89 10:2 FTUCA										
556.86 > 492.90	5.076	5.080	-0.004	0.996	44739567	11.9		119	710349	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.096	5.091	0.005	1.310	166608	0.9500		76.0	2495	
93 11CIFOS										
631.00 > 451.00	5.086	5.094	-0.008	1.193	46276836	8.95		95.0	268607	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.086	5.093	-0.007	1.002	1146761	7.73	Target=2.56	77.3	47550	
576.80 > 63.10	5.096	5.093	0.003	1.004	475140		2.41(1.28-3.83)	77.3	6664	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.158	-0.003	1.325	1993060	1.38		110	10158	
95 N-EtFOSE-M										
630.00 > 59.00	5.172	5.171	0.001	1.003	17299819	9.24		92.4	367381	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.184	-0.003	1.332	1236372	1.32		105	1254	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	10480347	10.2	Target=1.61	102	3842	
526.00 > 218.99	5.190	5.190	0.0	1.002	6594339		1.59(0.80-2.41)	102	3535	
D 97 13C2 PFDaA										
615.00 > 570.00	5.242	5.246	-0.004	1.347	6314922	1.17		94.0	85641	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.242	5.246	-0.004	1.000	52982209	9.44	Target=7.93	94.4	226217	
613.00 > 169.00	5.242	5.246	-0.004	1.000	6869213		7.71(3.97-11.90)	94.4	108644	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.259	5.263	-0.004	1.352	1276564	0.9304		77.1	38835	
101 10:2 FTS										
627.00 > 607.00	5.268	5.271	-0.003	1.002	15368150	9.56	Target=1.46	99.2	200357	
627.00 > 79.96	5.268	5.271	-0.003	1.002	9879850		1.56(0.73-2.19)	99.2	127508	
102 PFDoS										
699.00 > 80.00	5.467	5.477	-0.010	1.283	4396734	9.83	Target=0.54	102	90926	
699.00 > 99.00	5.467	5.477	-0.010	1.283	8025985		0.55(0.27-0.81)	102	93599	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.505	5.513	-0.008	1.050	45675875	9.74	Target=5.84	97.4	114560	
663.00 > 169.00	5.505	5.513	-0.008	1.050	8481637		5.39(2.92-8.75)	97.4	89795	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.751	5.760	-0.009	1.478	6030561	1.22		97.5	80269	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.751	5.761	-0.010	1.000	6028165	10.2	Target=1.07	102	255619	
713.00 > 219.00	5.751	5.761	-0.010	1.000	5509279		1.09(0.53-1.60)	102	143735	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.210	6.223	-0.013	1.596	5029597	1.33		106	34796	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.210	6.224	-0.014	1.000	33874655	9.22	Target=7.49	92.2	42635	
813.00 > 169.00	6.210	6.224	-0.014	1.000	4776597		7.09(3.75-11.24)	92.2	47615	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.693	6.715	-0.022	1.078	24075014	9.85	Target=9.70	98.5	19553	
913.00 > 169.00	6.693	6.715	-0.022	1.078	2466175		9.76(4.85-14.55)	98.5	17534	

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

LCPFC+\_LL7\_00002

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Injection Date: 01-Jun-2021 15:02:11

Instrument ID: A15

Lims ID: IC L7

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 7

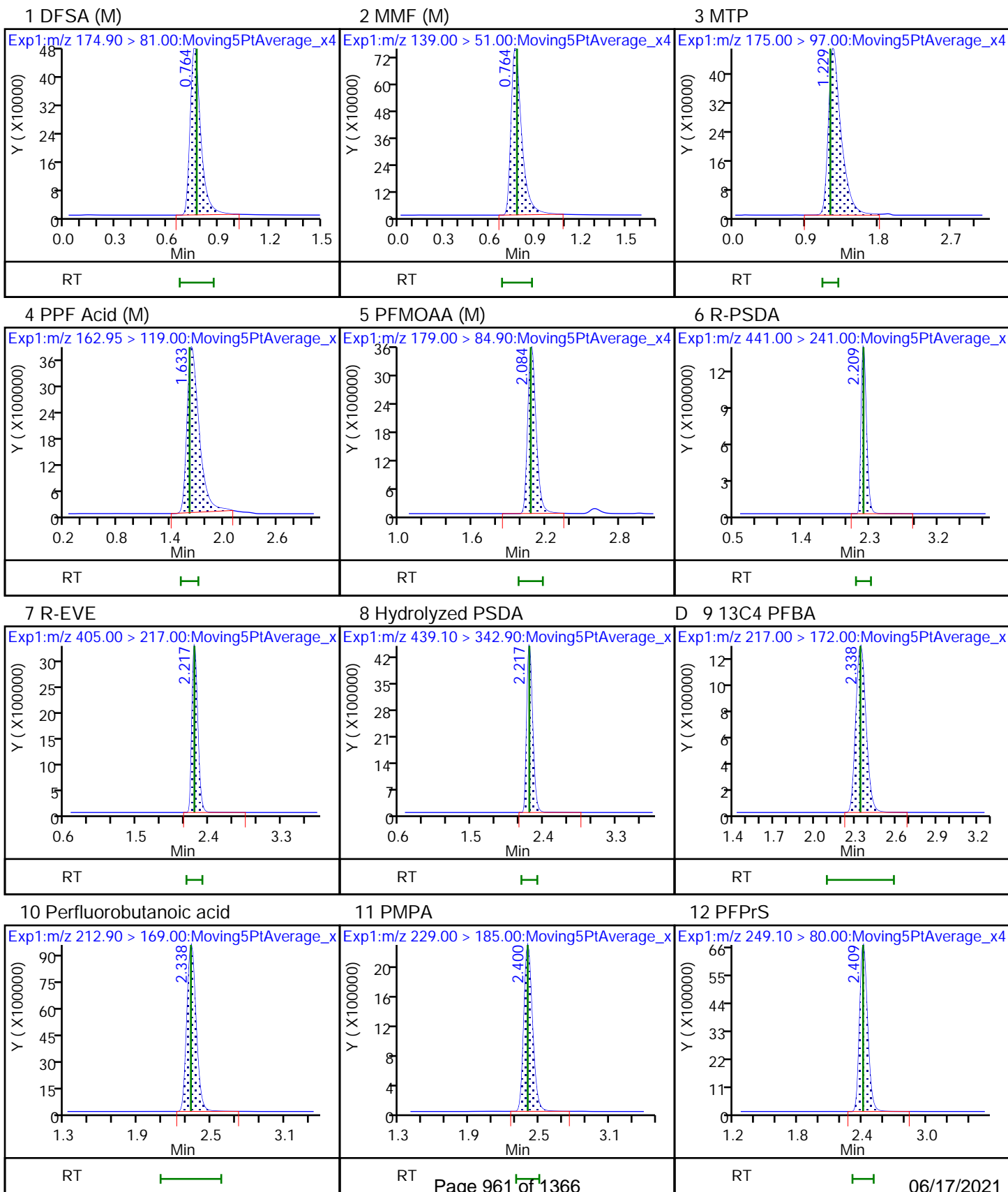
Worklist Smp#: 8

Injection Vol: 20.0 ul

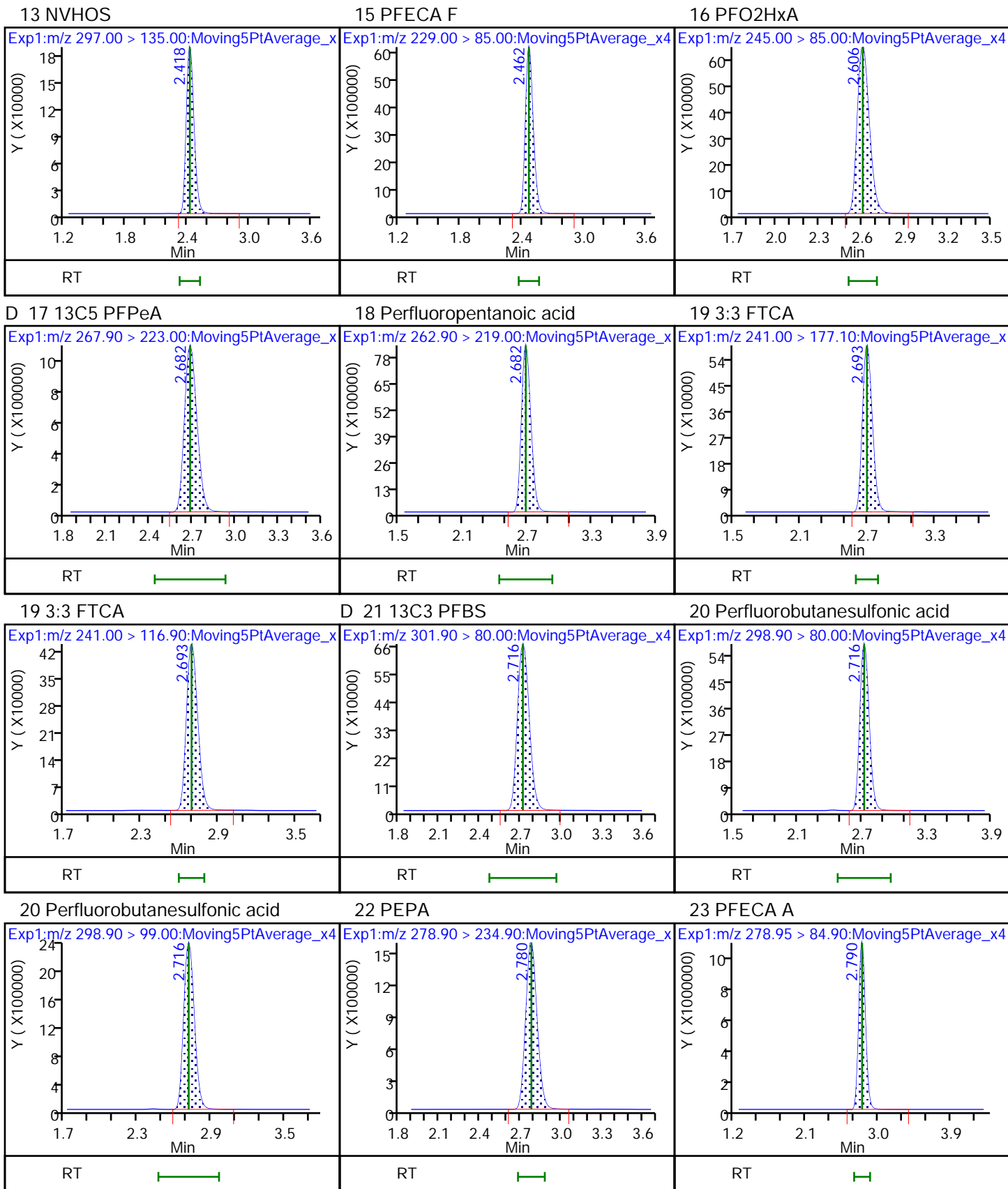
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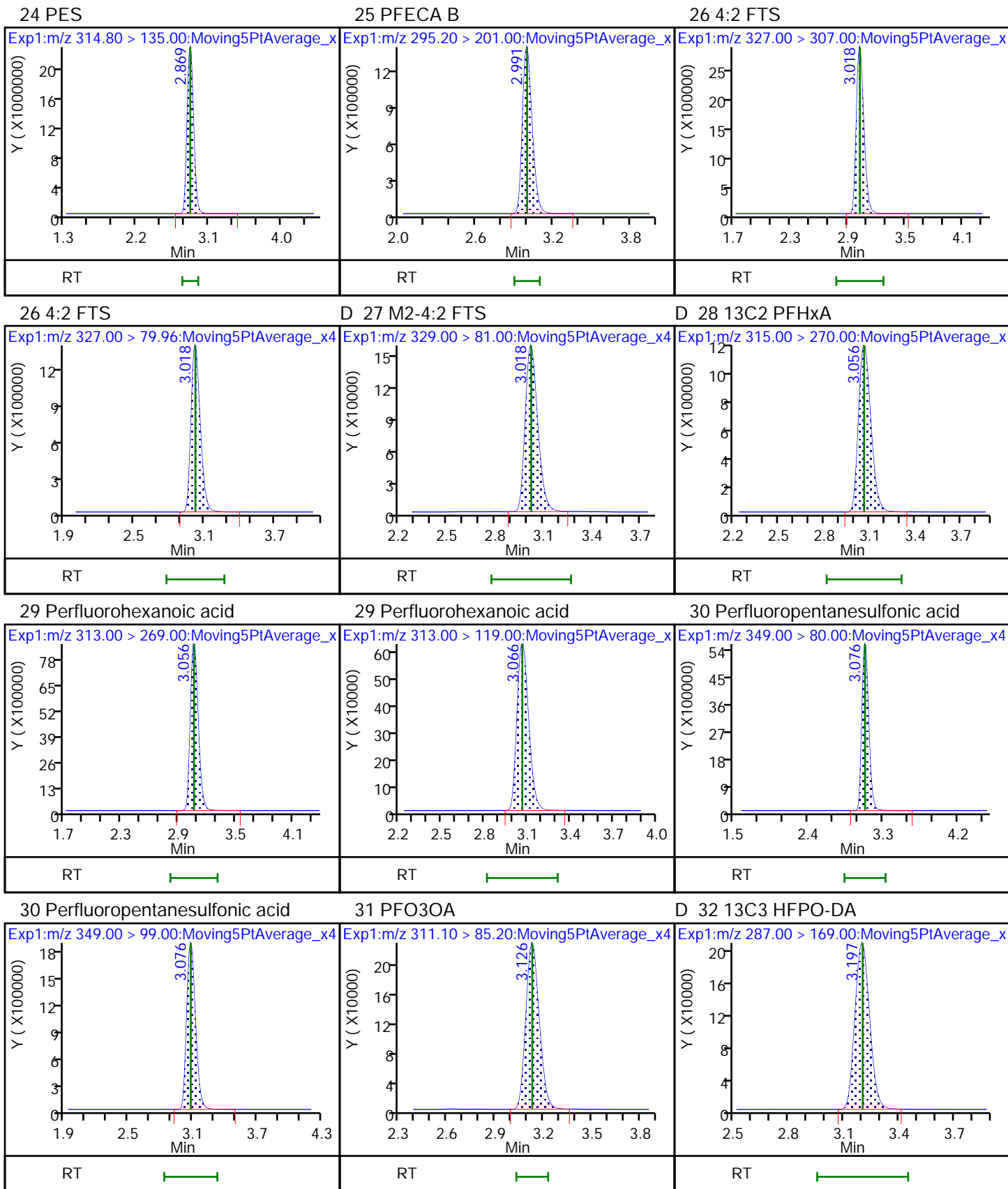
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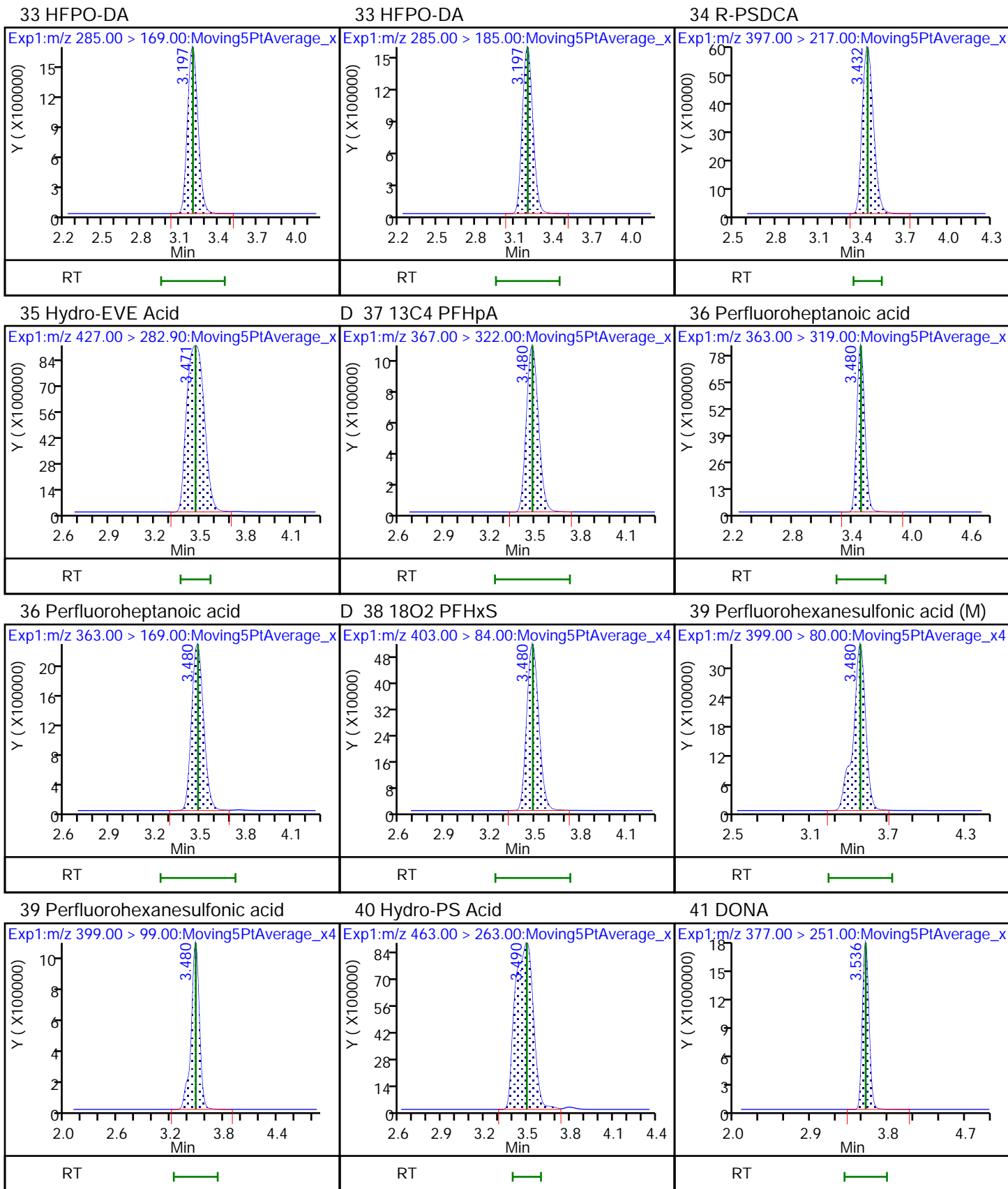
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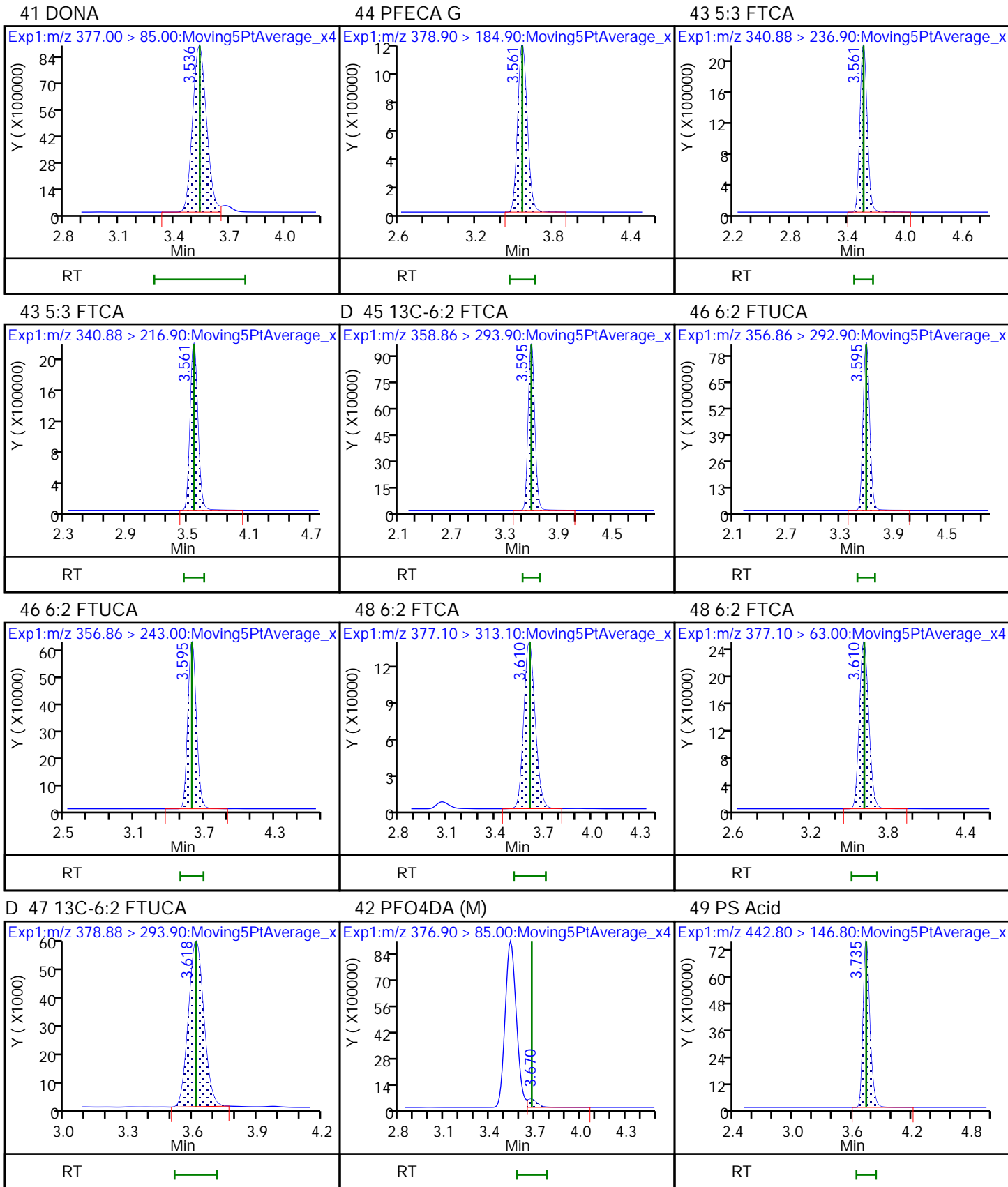


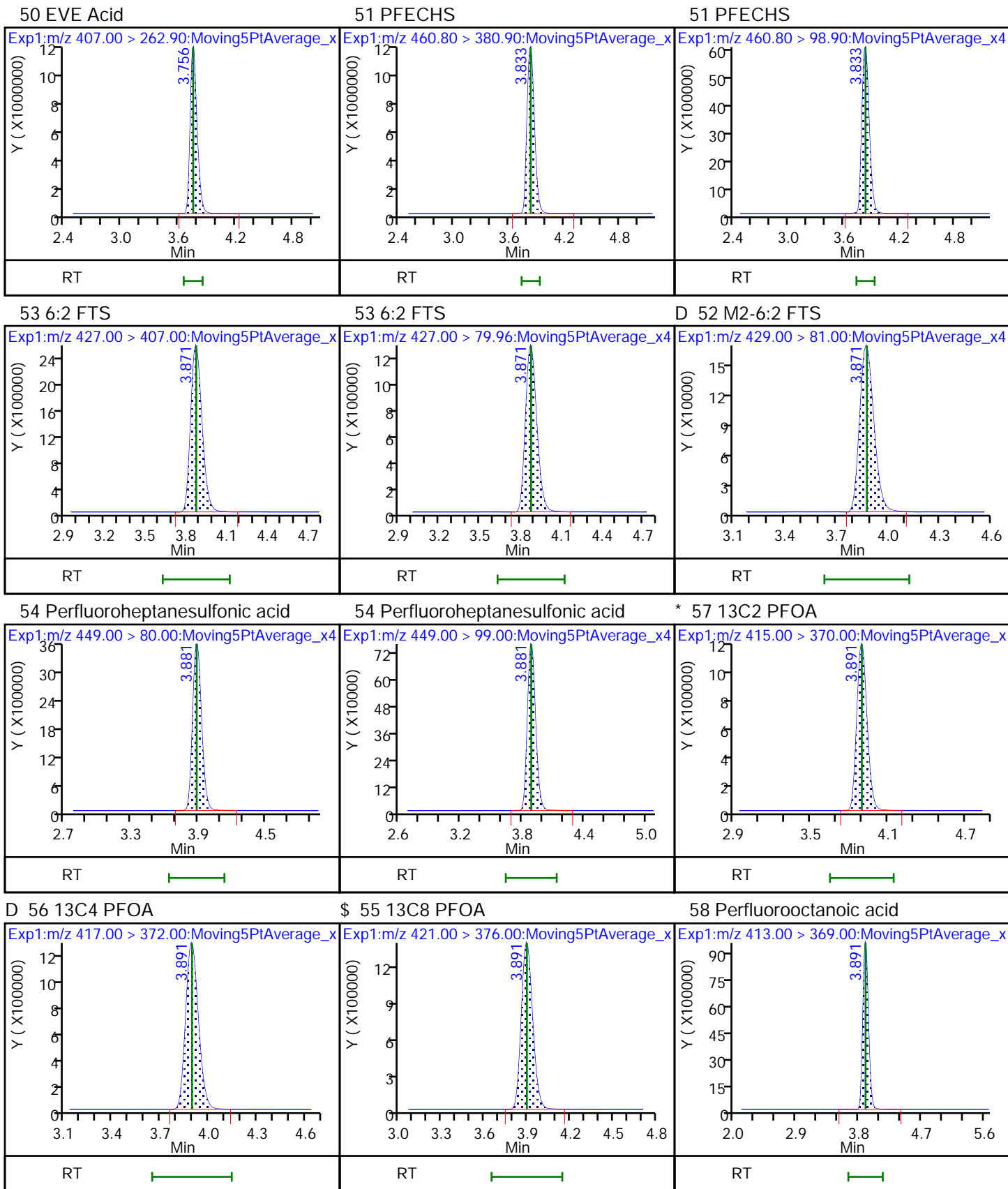


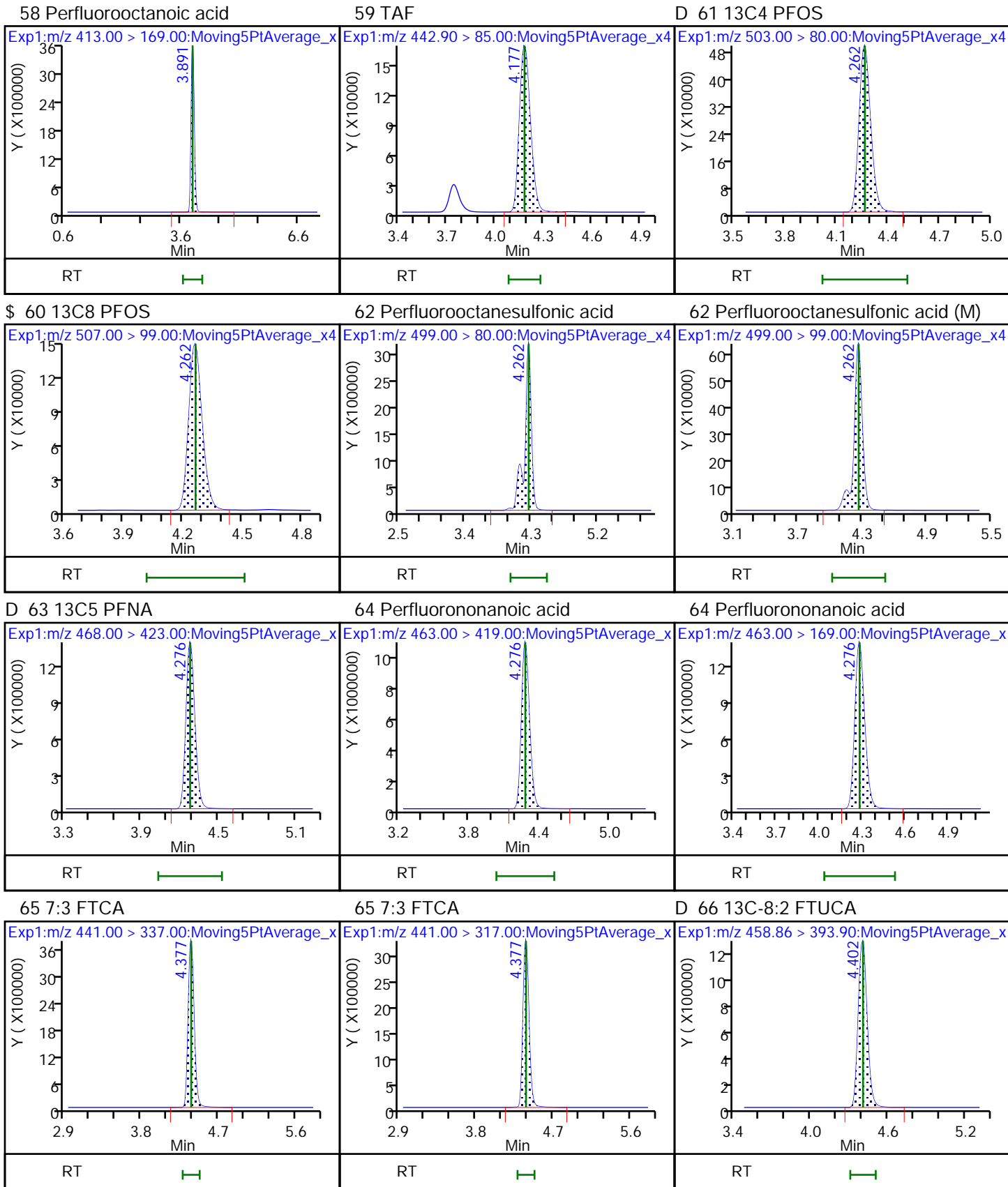


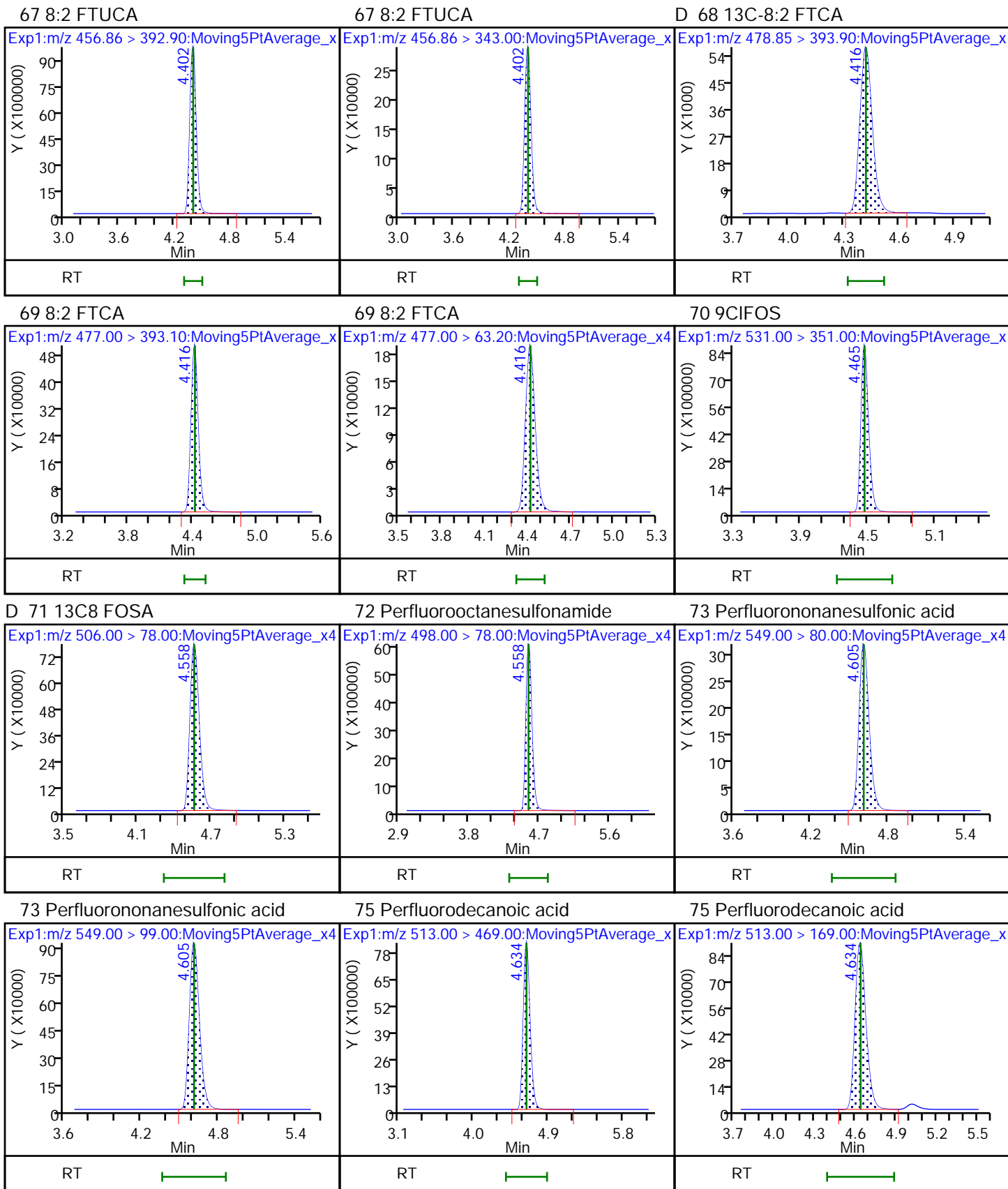








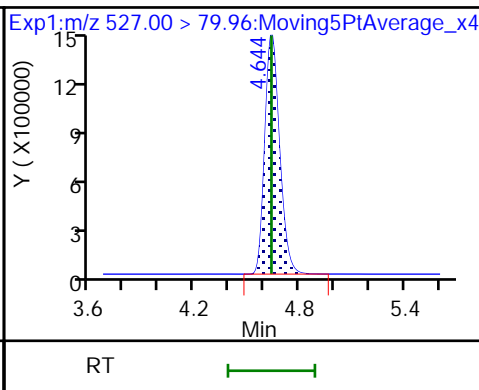
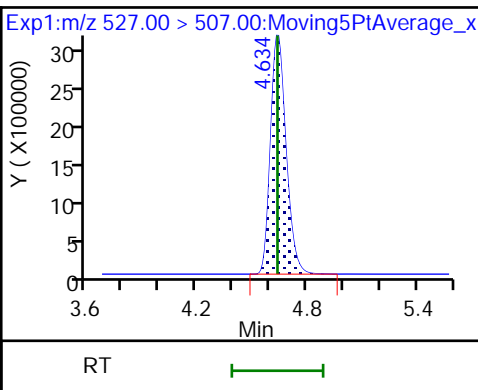
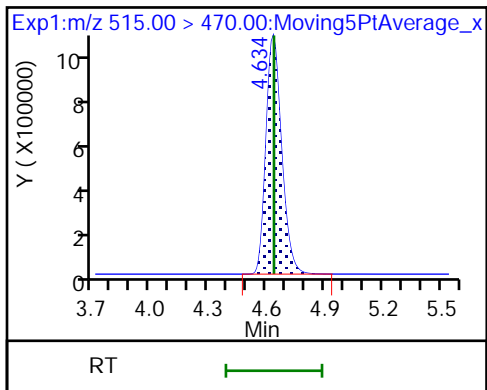




D 74 13C2 PFDA

77 8:2 FTS

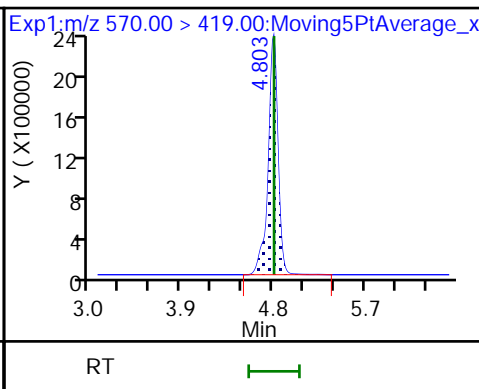
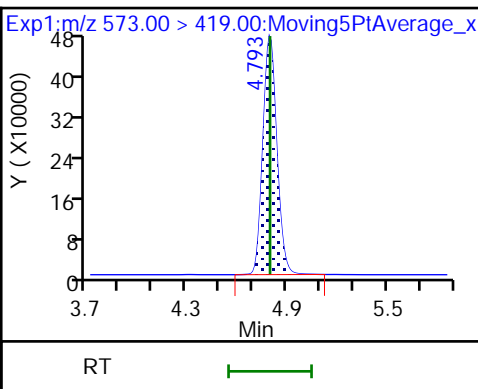
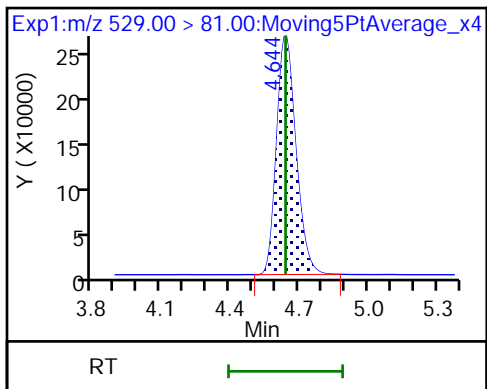
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

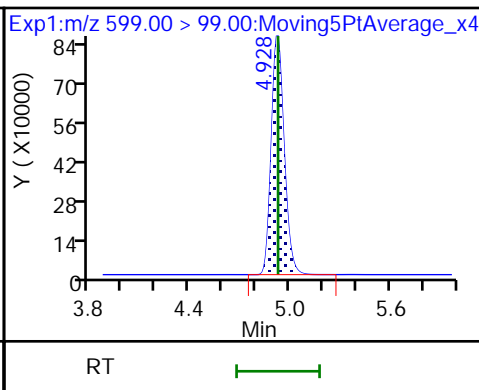
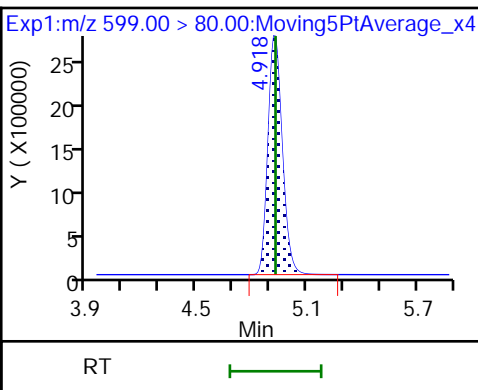
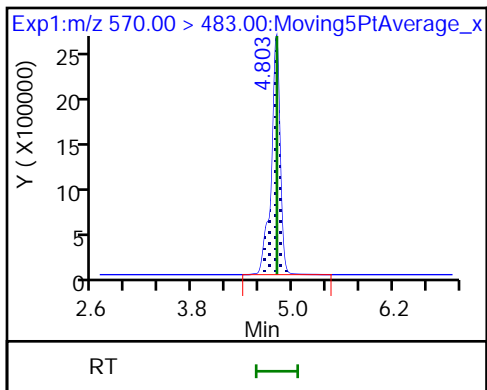
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

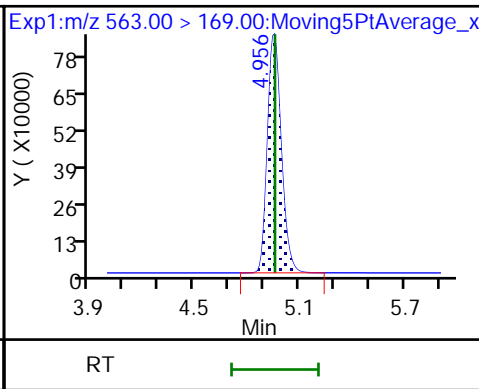
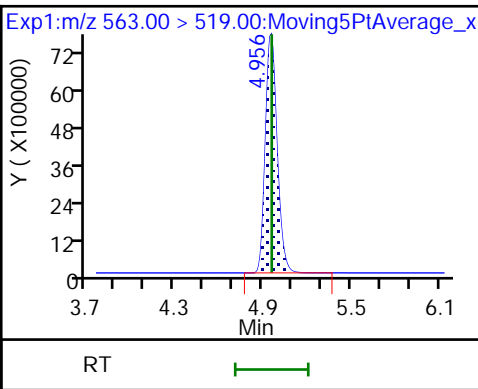
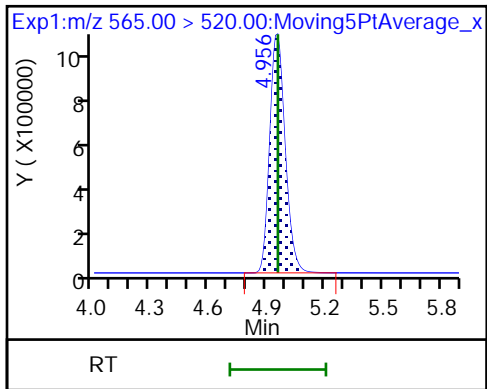
80 Perfluorodecanesulfonic acid



D 82 13C2 PFUnA

81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

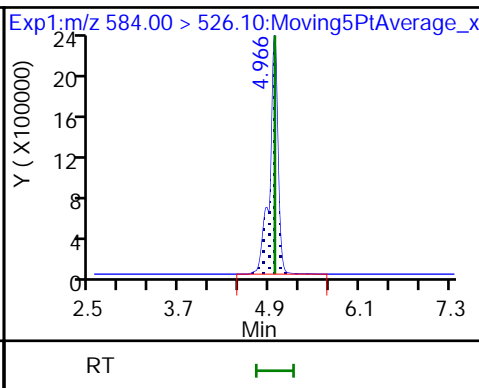
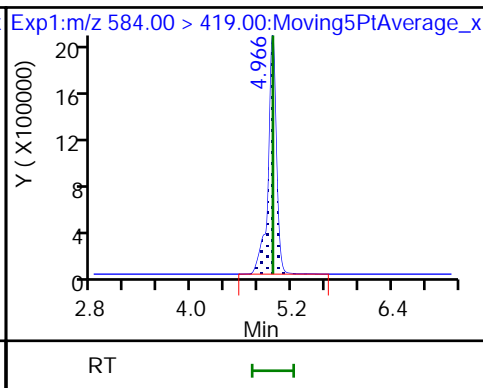
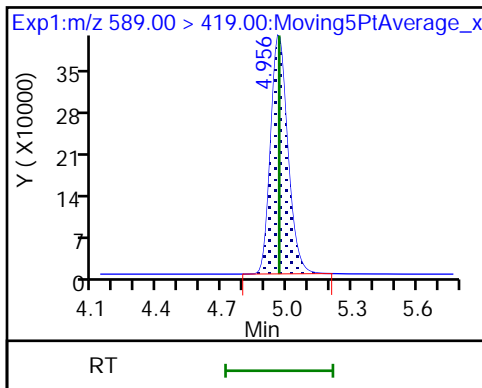




D 83 d5-NEtFOSAA

84 NEtFOSAA

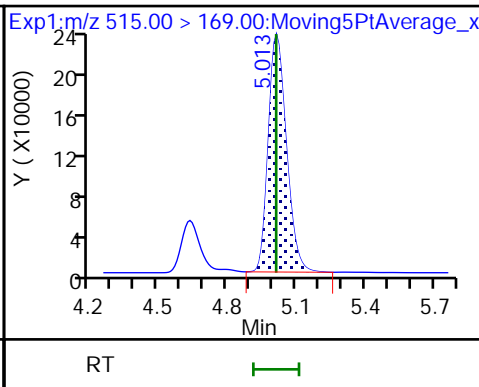
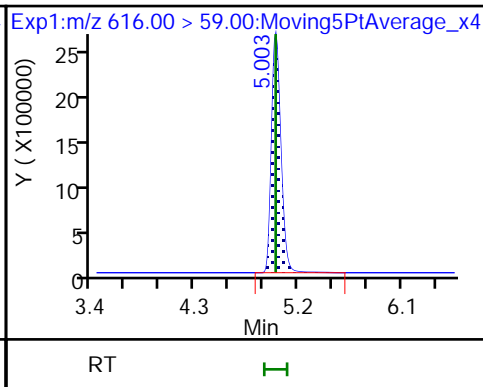
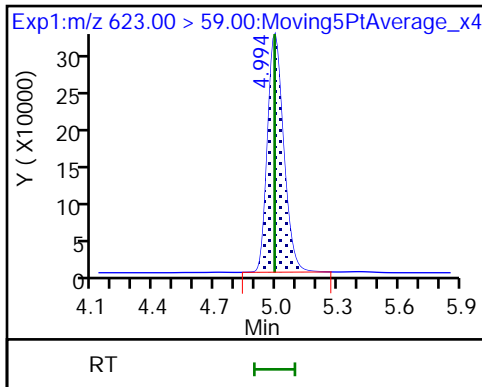
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

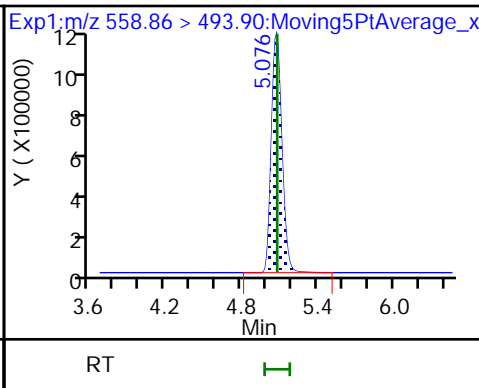
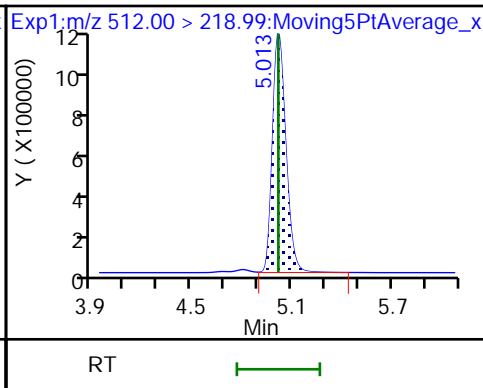
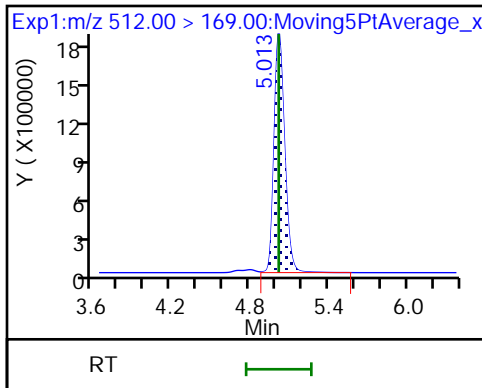
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

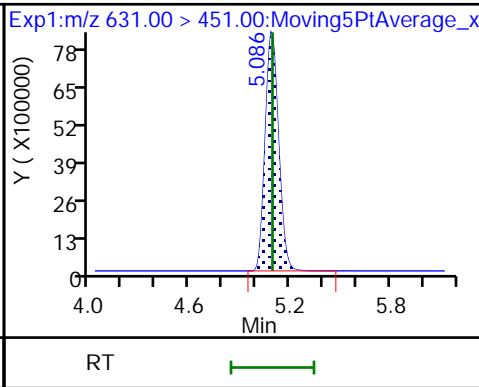
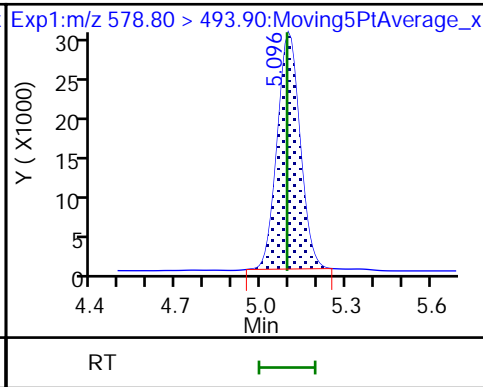
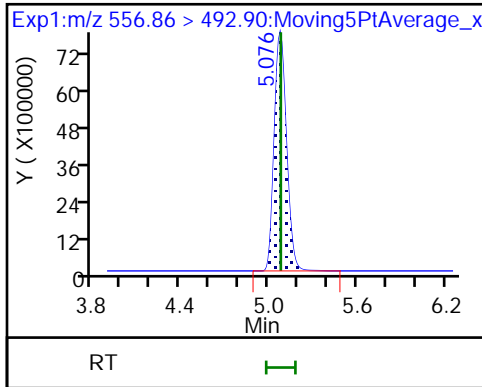
D 88 13C-10:2 FTCA

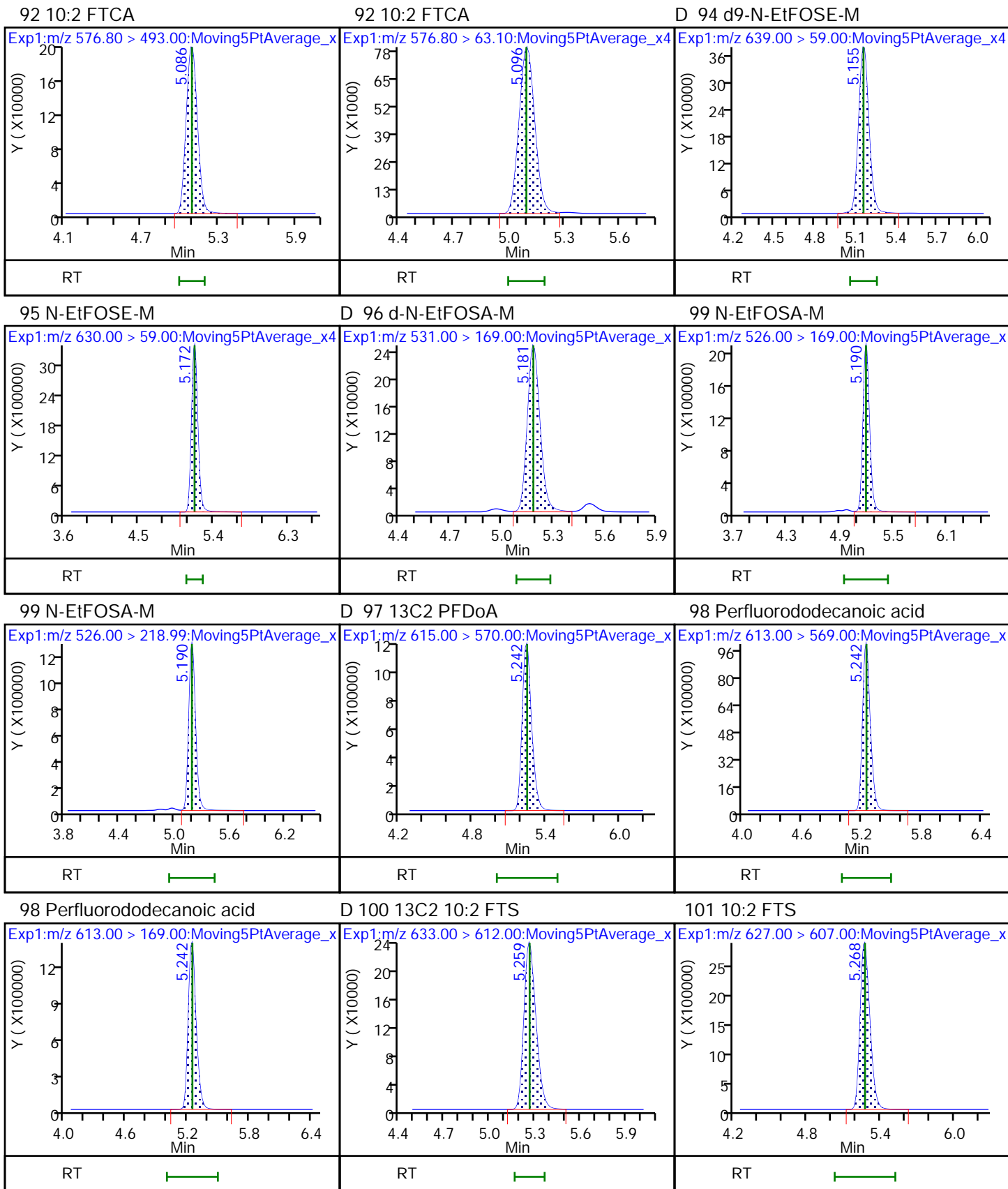


89 10:2 FTUCA

D 91 13C-10:2 FTUCA

93 11CIFOS

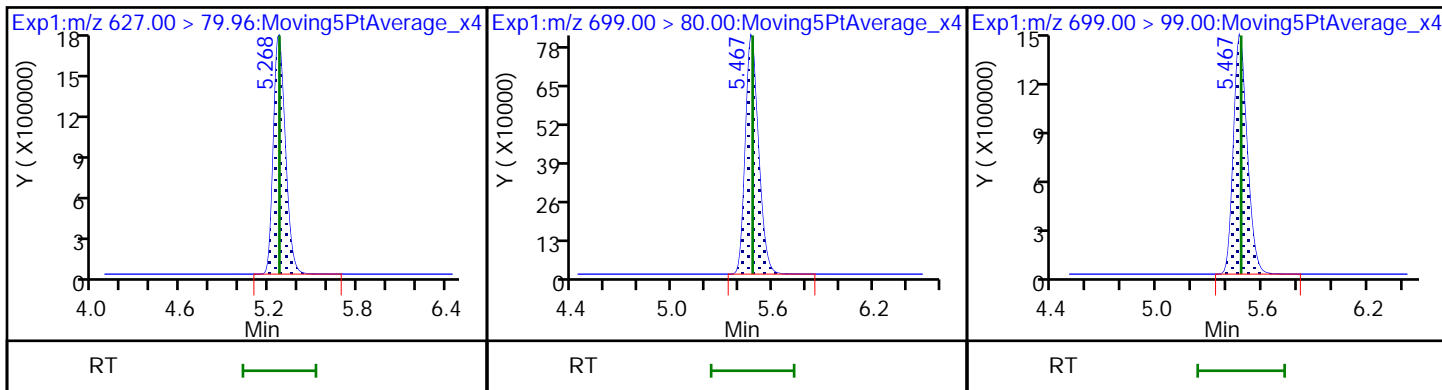




101 10:2 FTS

102 PFDoS

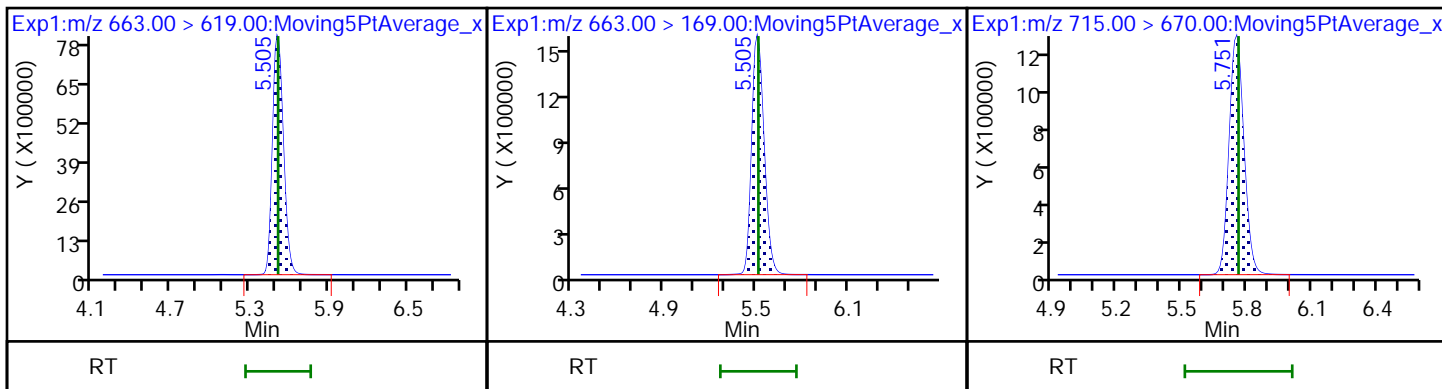
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

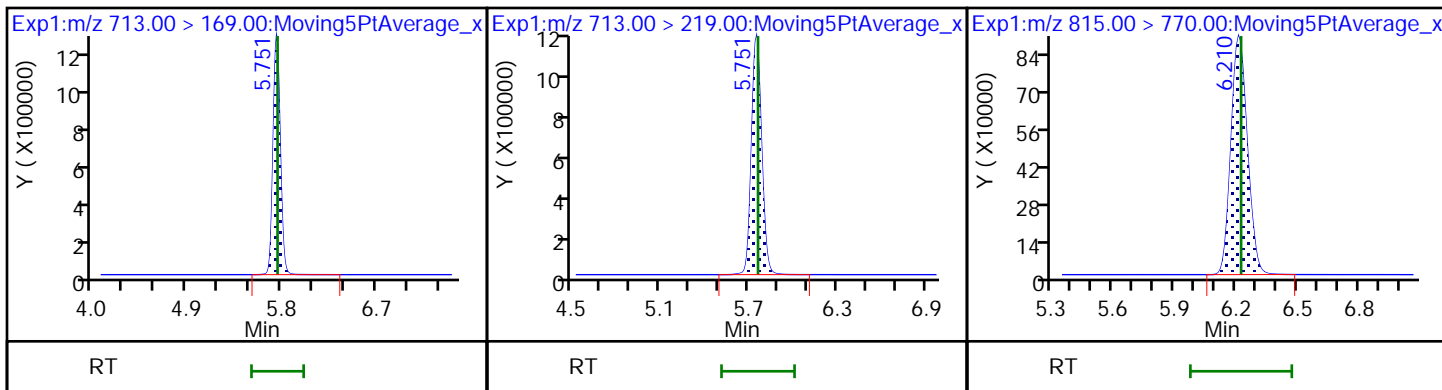
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

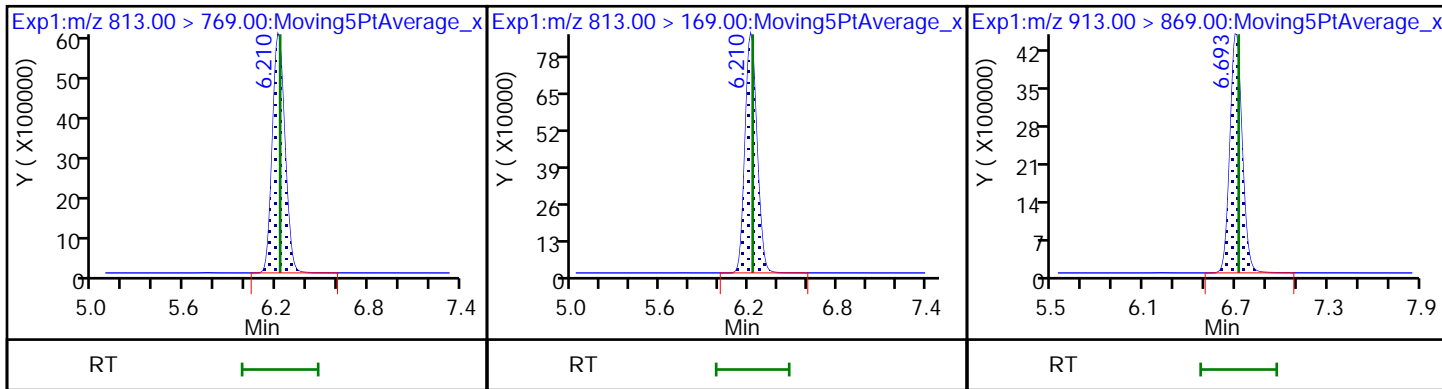
D 106 13C2 PFHxDA



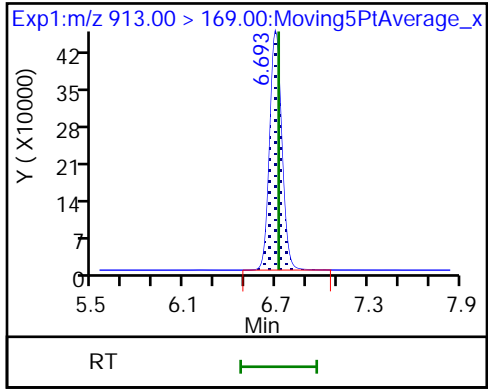
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

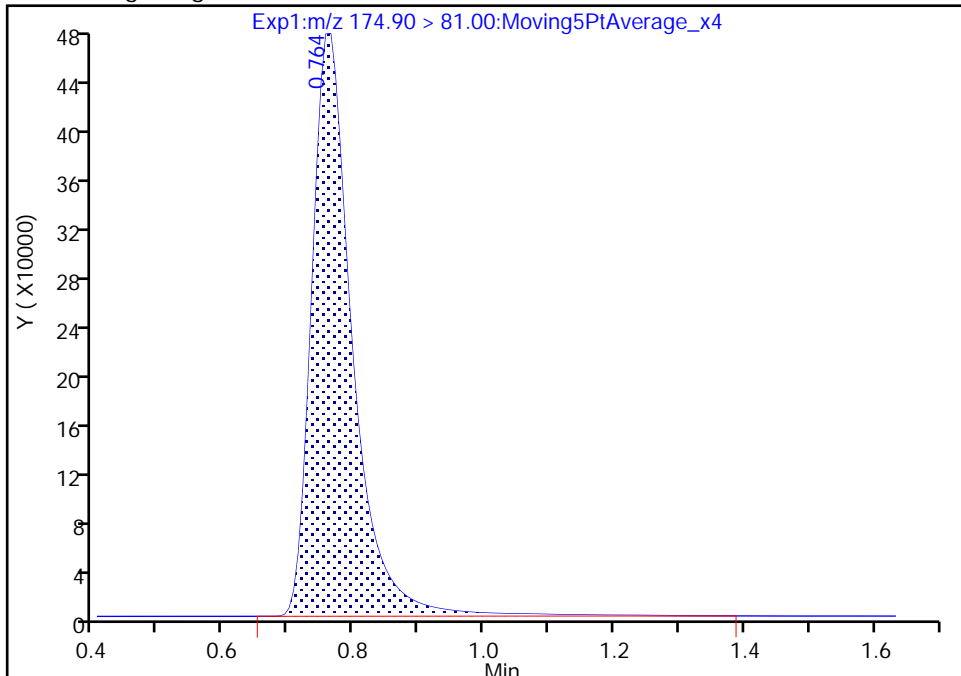
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

1 DFSA, CAS: 422-67-3

Signal: 1

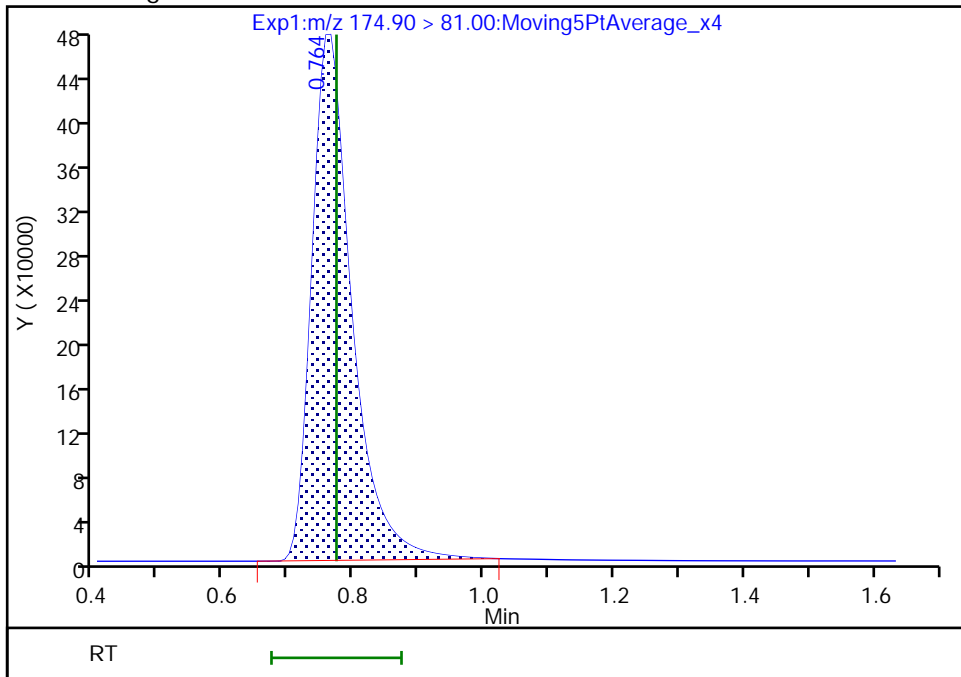
RT: 0.76  
Area: 2070834  
Amount: 10.398022  
Amount Units: ng/ml

Processing Integration Results



RT: 0.76  
Area: 2030238  
Amount: 10.337317  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

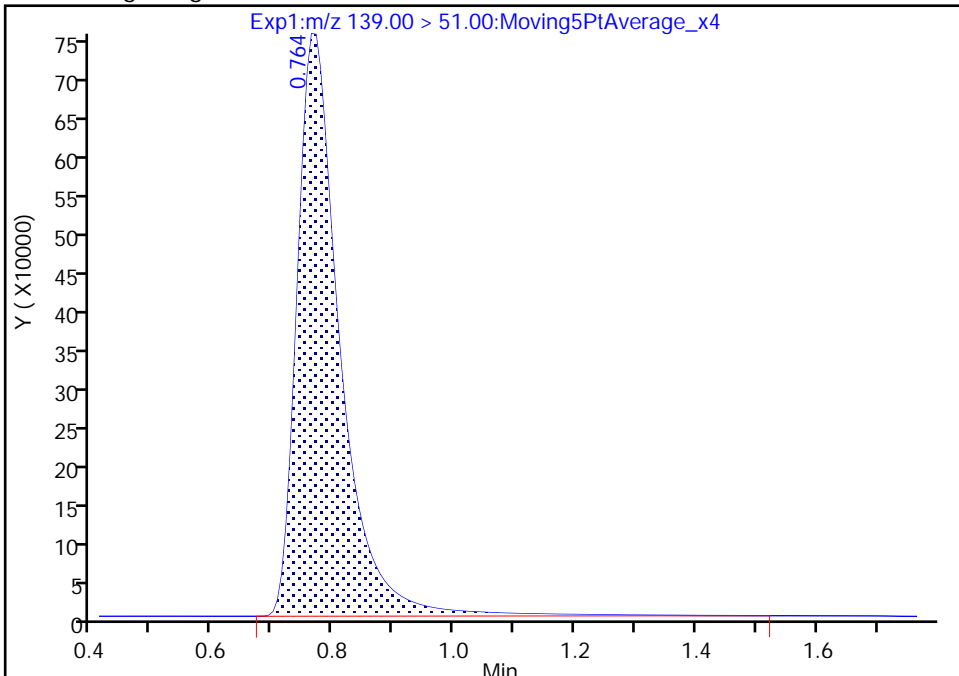
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

2 MMF, CAS: 1514-85-8

Signal: 1

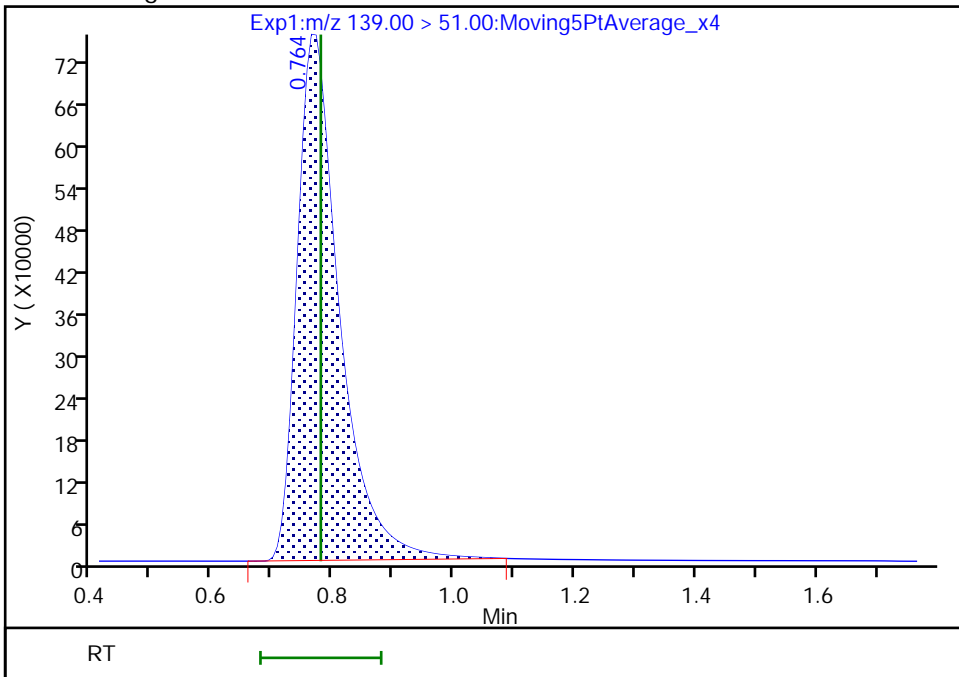
RT: 0.76  
Area: 3719540  
Amount: 9.624859  
Amount Units: ng/ml

Processing Integration Results



RT: 0.76  
Area: 3643964  
Amount: 9.455712  
Amount Units: ng/ml

Manual Integration Results



Eurofins TestAmerica, Sacramento

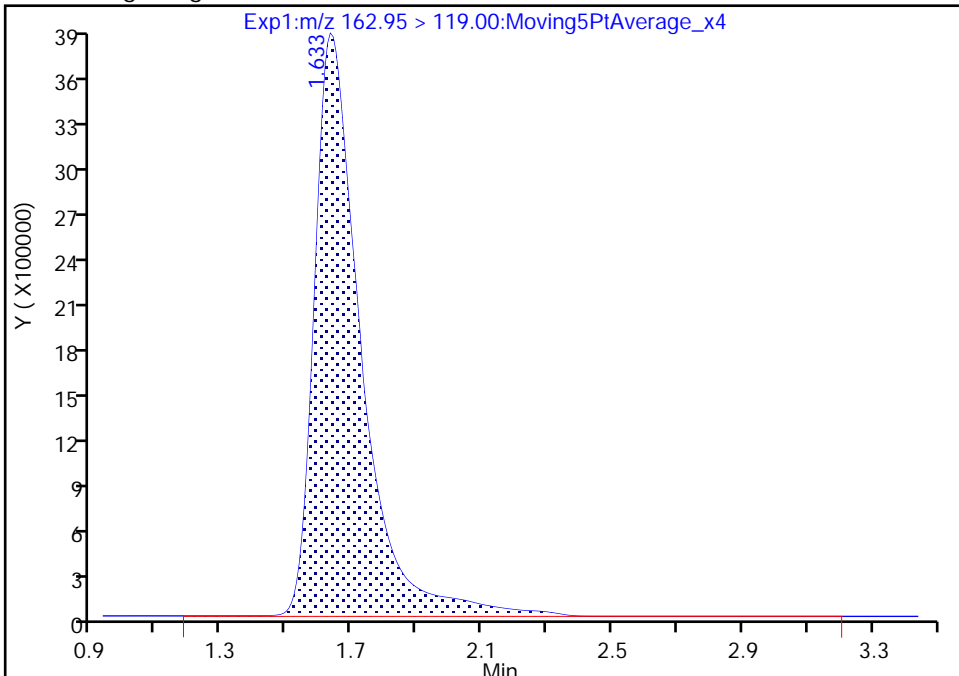
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

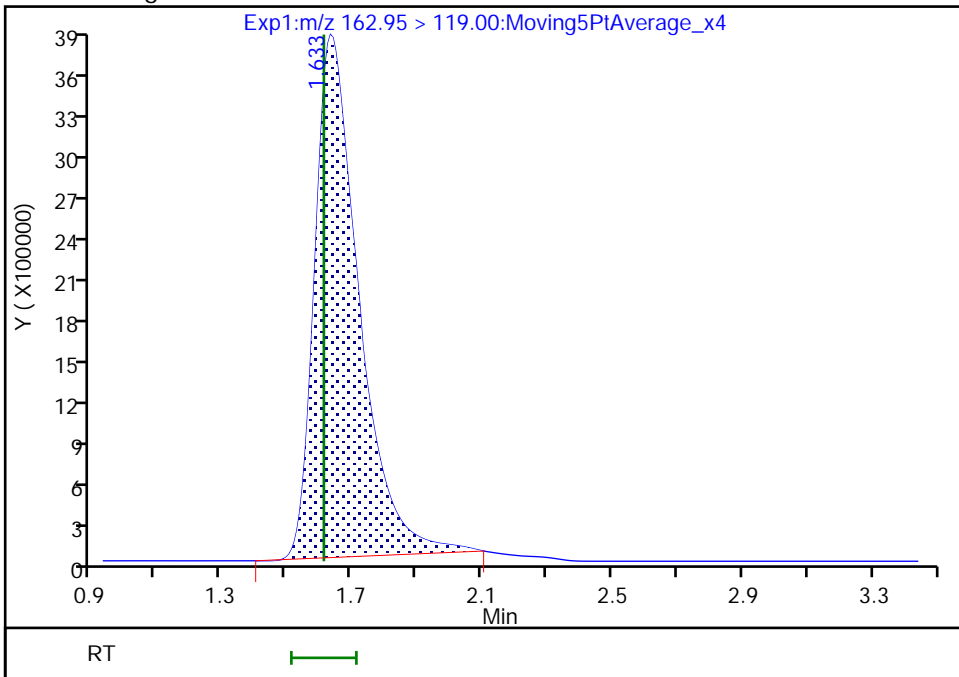
RT: 1.63  
Area: 38605213  
Amount: 11.374606  
Amount Units: ng/ml

Processing Integration Results



RT: 1.63  
Area: 36283920  
Amount: 10.799443  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:49:07  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

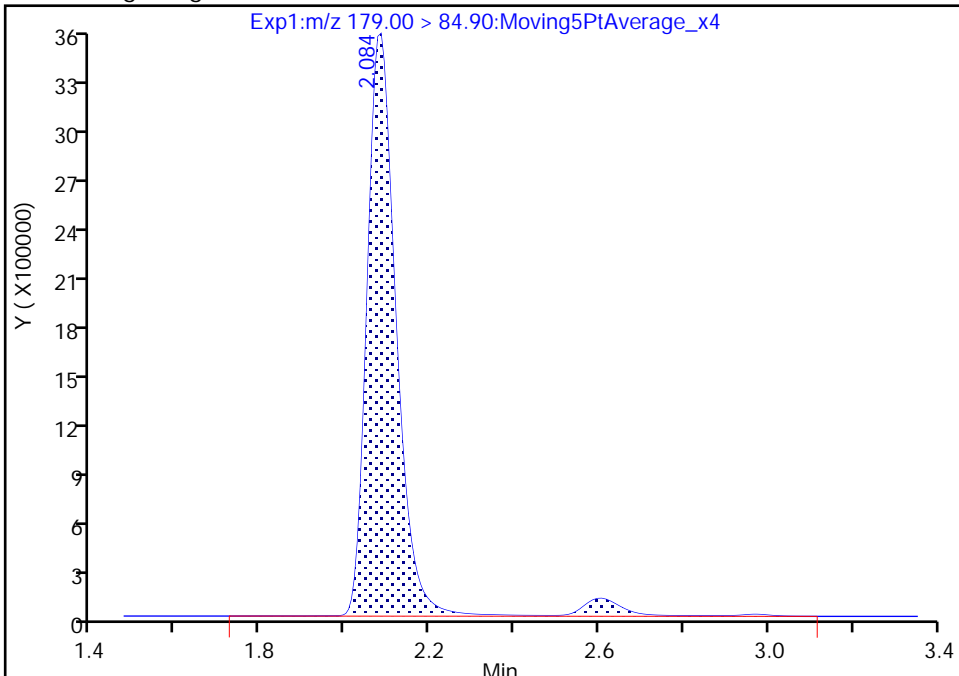
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm ( 3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

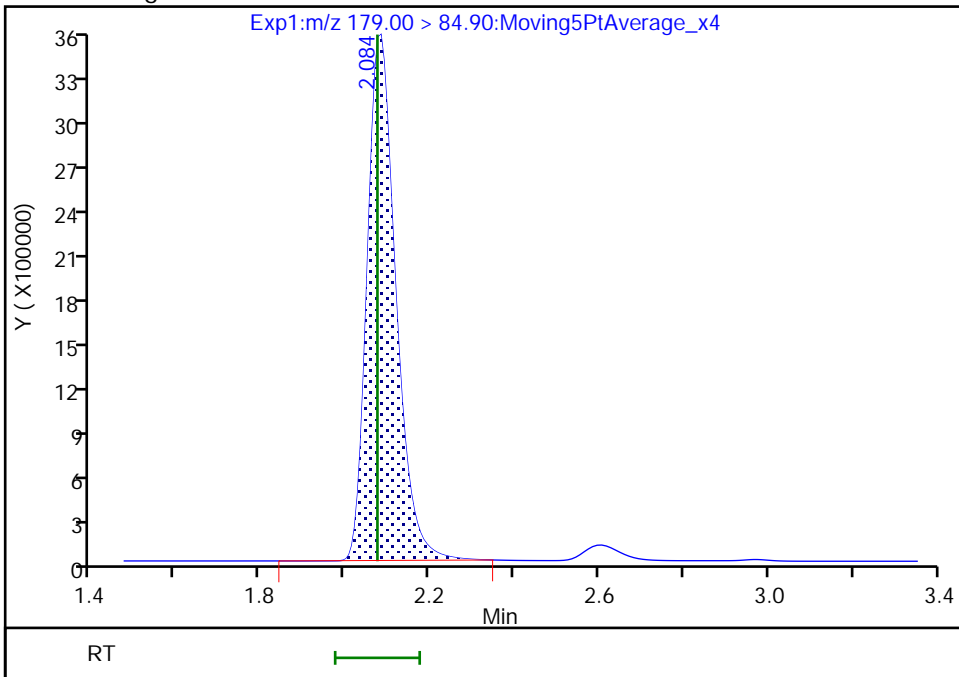
RT: 2.08  
Area: 17588199  
Amount: 10.641257  
Amount Units: ng/ml

Processing Integration Results



RT: 2.08  
Area: 16672540  
Amount: 10.167732  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:49:13  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

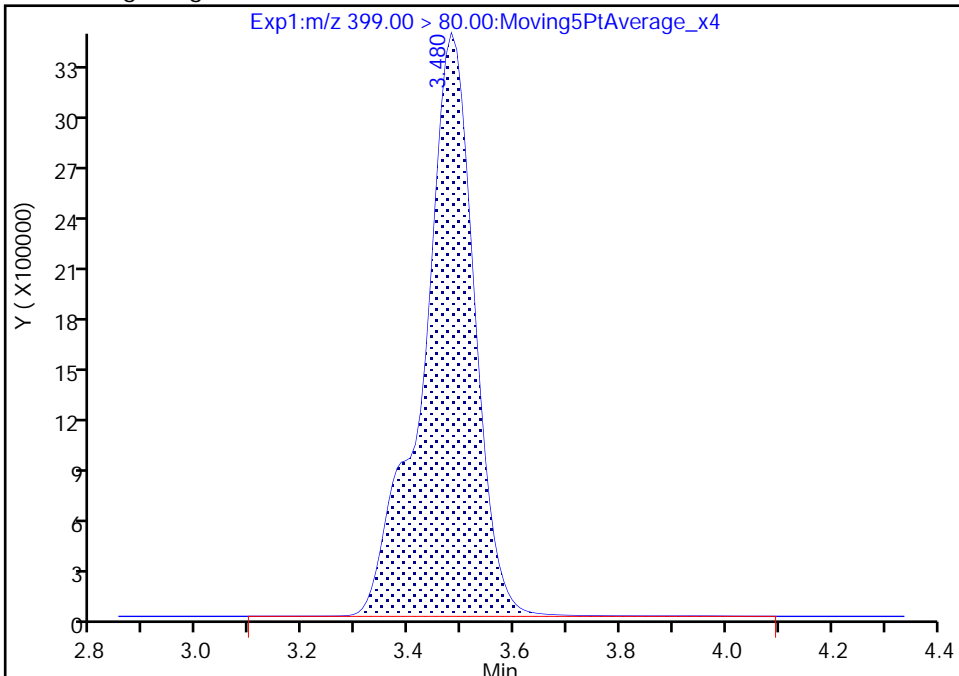
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

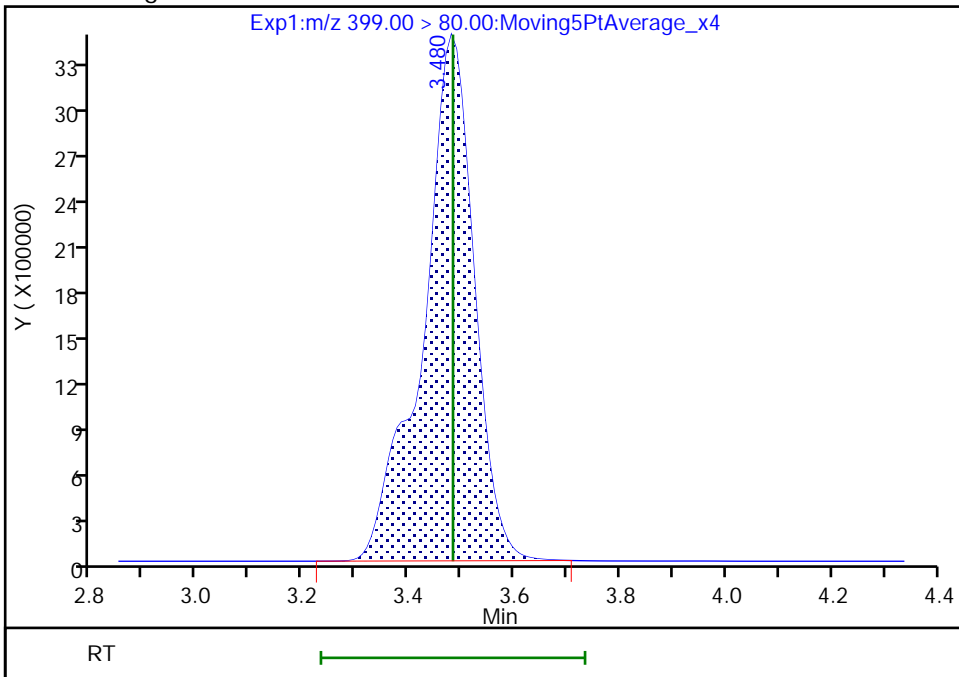
RT: 3.48  
Area: 23196562  
Amount: 8.865367  
Amount Units: ng/ml

Processing Integration Results



RT: 3.48  
Area: 23092506  
Amount: 8.831112  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:49:34  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

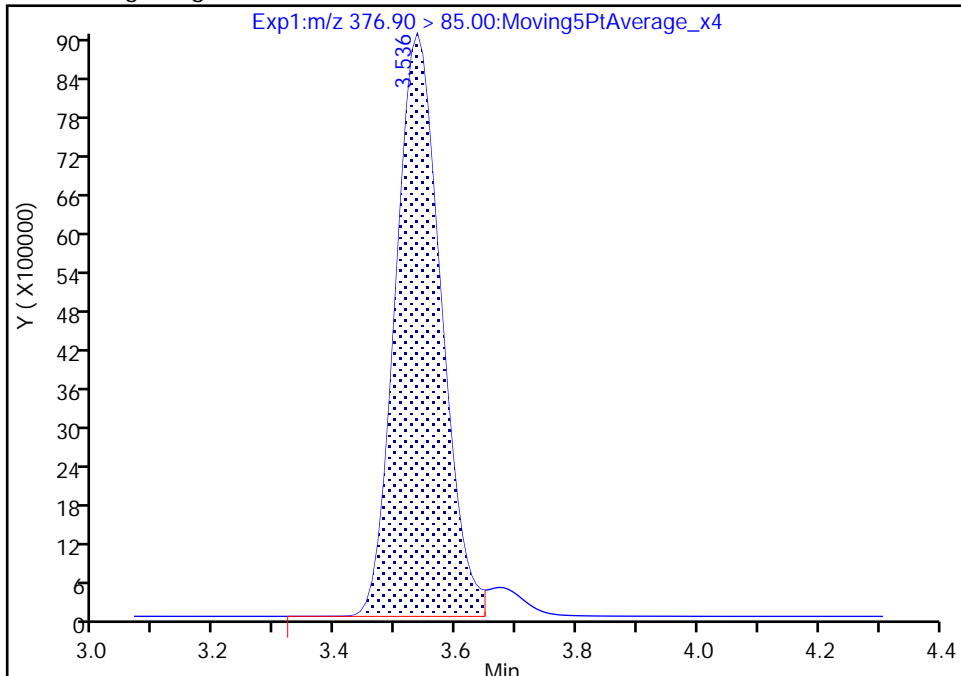
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
Injection Date: 01-Jun-2021 15:02:11 Instrument ID: A15  
Lims ID: IC L7  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 7 Worklist Smp#: 8  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

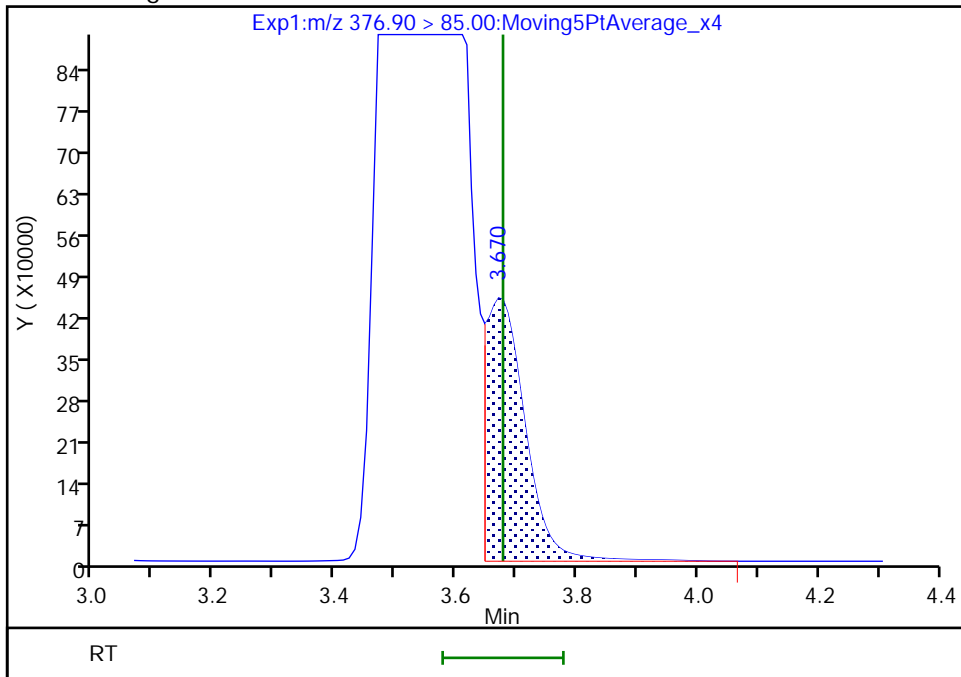
RT: 3.54  
Area: 47004040  
Amount: 56.645775  
Amount Units: ng/ml

Processing Integration Results



RT: 3.67  
Area: 1948326  
Amount: 11.119710  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:42:09  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

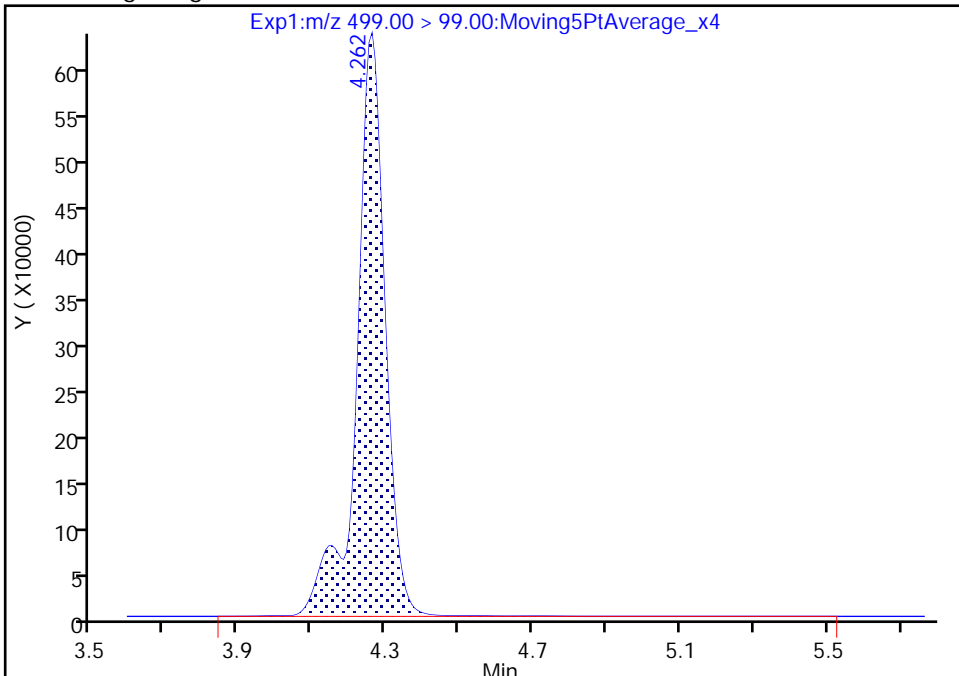
Data File:	\\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01_A15_PFC+_ICAL_010.d		
Injection Date:	01-Jun-2021 15:02:11	Instrument ID:	A15
Lims ID:	IC L7		
Client ID:			
Operator ID:	SACINSTA15	ALS Bottle#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFAS+_A15	Limit Group:	LC PFC ICAL
Column:	Gemini C18 3um 3mm x 50 mm (3.00um)	Detector:	EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

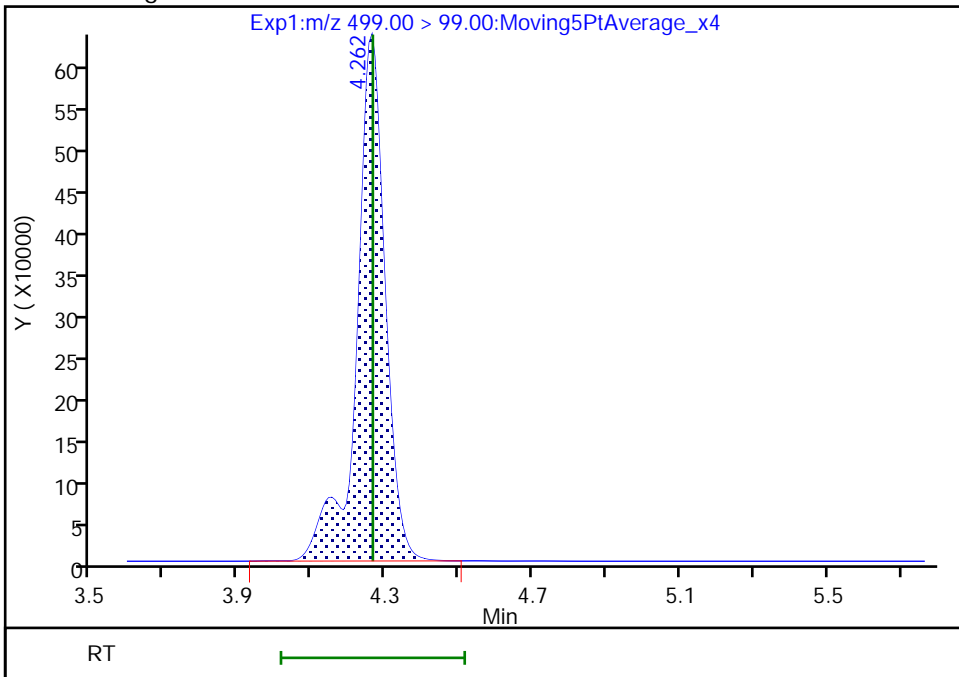
RT: 4.26  
 Area: 3436769  
 Amount: 9.195229  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.26  
 Area: 3421350  
 Amount: 9.195229  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:49:49  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Calibration

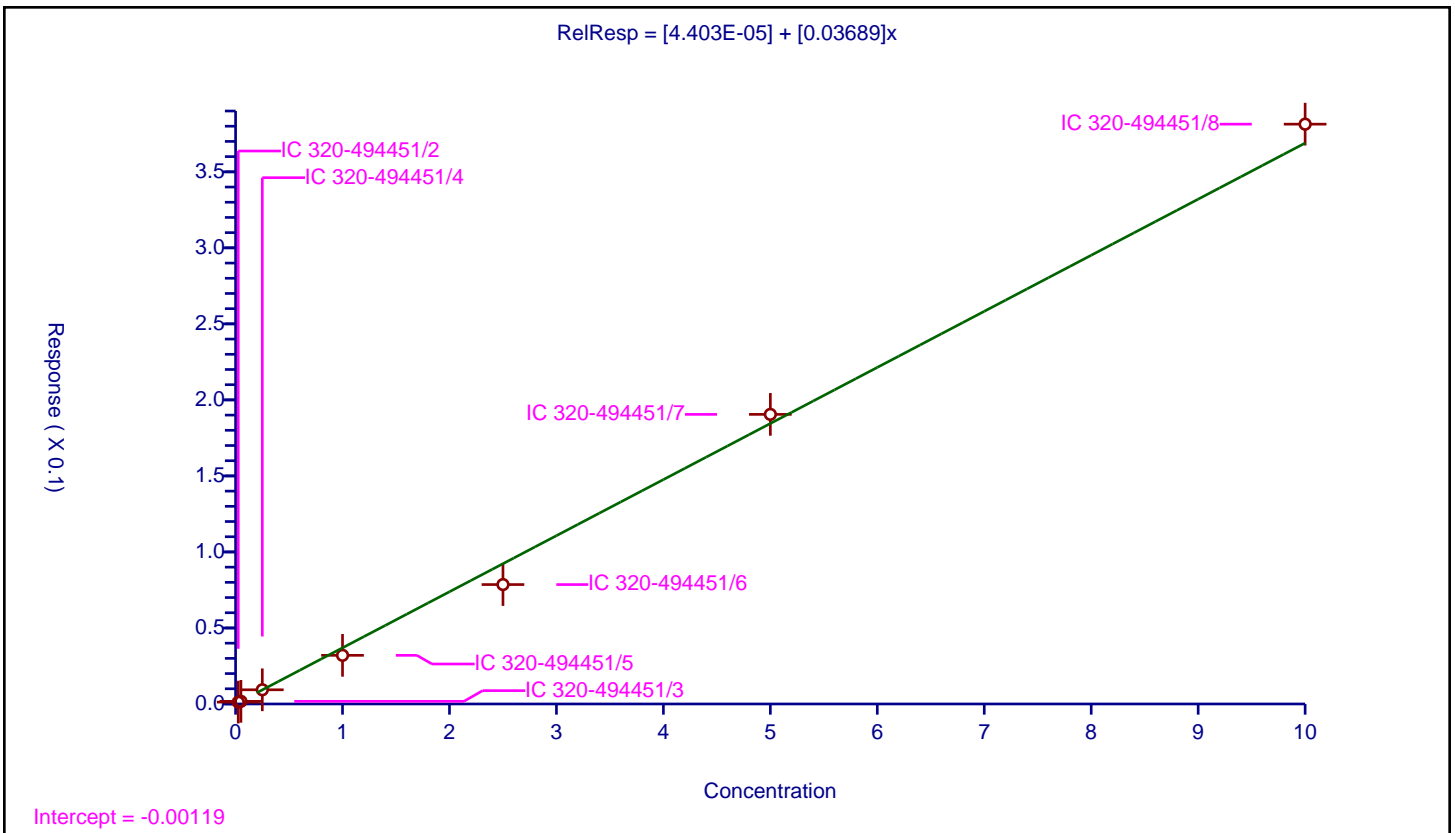
/ DFSA

Curve Type: Linear  
 Weighting: Conc  
 Origin: None  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	4.403E-05
Slope:	0.03689

Error Coefficients	
Standard Error:	1050000
Relative Standard Error:	16.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.001228	1.25	6902649.0	0.049119	Y
2	IC 320-494451/3	0.05	0.001749	1.25	7478381.0	0.034971	Y
3	IC 320-494451/4	0.25	0.009338	1.25	7224001.0	0.03735	Y
4	IC 320-494451/5	1.0	0.032007	1.25	7158252.0	0.032007	Y
5	IC 320-494451/6	2.5	0.07855	1.25	6863062.0	0.03142	Y
6	IC 320-494451/7	5.0	0.190471	1.25	6979889.0	0.038094	Y
7	IC 320-494451/8	10.0	0.381347	1.25	6654827.0	0.038135	Y



Calibration

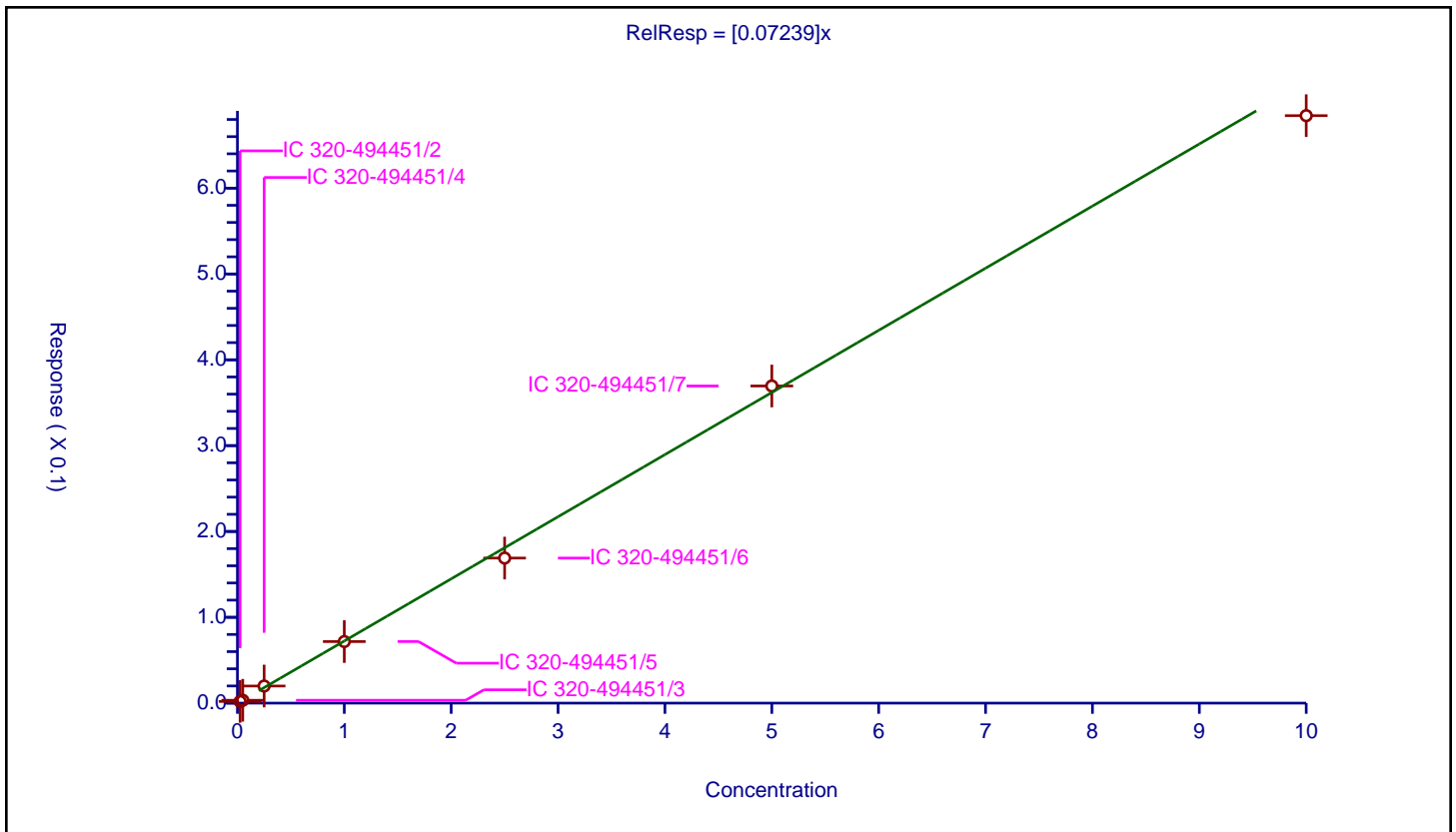
/ MMF

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.07239

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	7.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.001957	1.25	6902649.0	0.078289	Y
2	IC 320-494451/3	0.05	0.00335	1.25	7478381.0	0.067003	Y
3	IC 320-494451/4	0.25	0.019932	1.25	7224001.0	0.079727	Y
4	IC 320-494451/5	1.0	0.071734	1.25	7158252.0	0.071734	Y
5	IC 320-494451/6	2.5	0.169014	1.25	6863062.0	0.067606	Y
6	IC 320-494451/7	5.0	0.369477	1.25	6979889.0	0.073895	Y
7	IC 320-494451/8	10.0	0.684459	1.25	6654827.0	0.068446	Y



**Calibration**

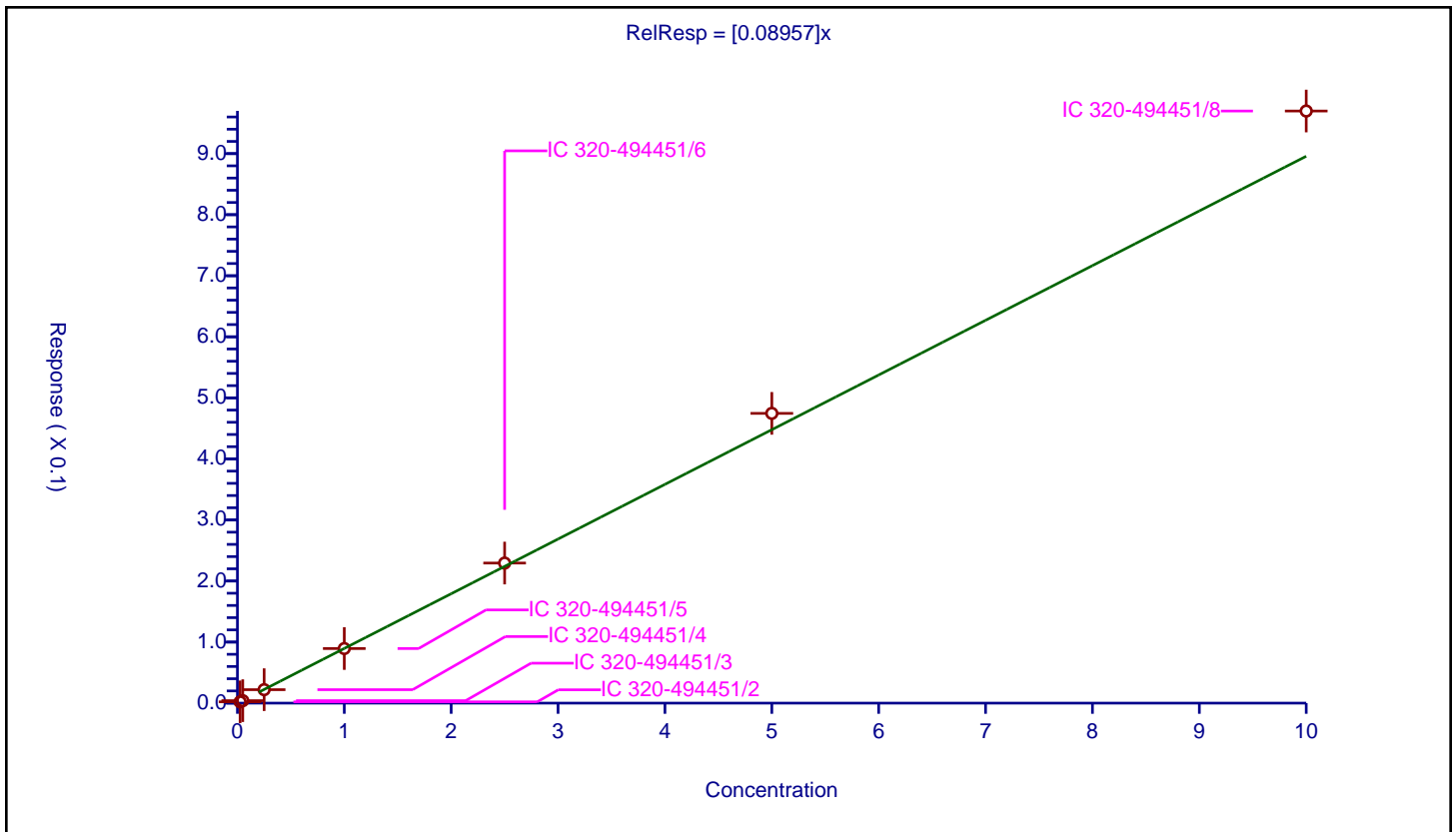
/ MTP

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.08957

Error Coefficients	
Standard Error:	2430000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.002117	1.25	6902649.0	0.084685	Y
2	IC 320-494451/3	0.05	0.004052	1.25	7478381.0	0.081047	Y
3	IC 320-494451/4	0.25	0.022056	1.25	7224001.0	0.088224	Y
4	IC 320-494451/5	1.0	0.089403	1.25	7158252.0	0.089403	Y
5	IC 320-494451/6	2.5	0.229408	1.25	6863062.0	0.091763	Y
6	IC 320-494451/7	5.0	0.474567	1.25	6979889.0	0.094913	Y
7	IC 320-494451/8	10.0	0.969768	1.25	6654827.0	0.096977	Y



**Calibration**

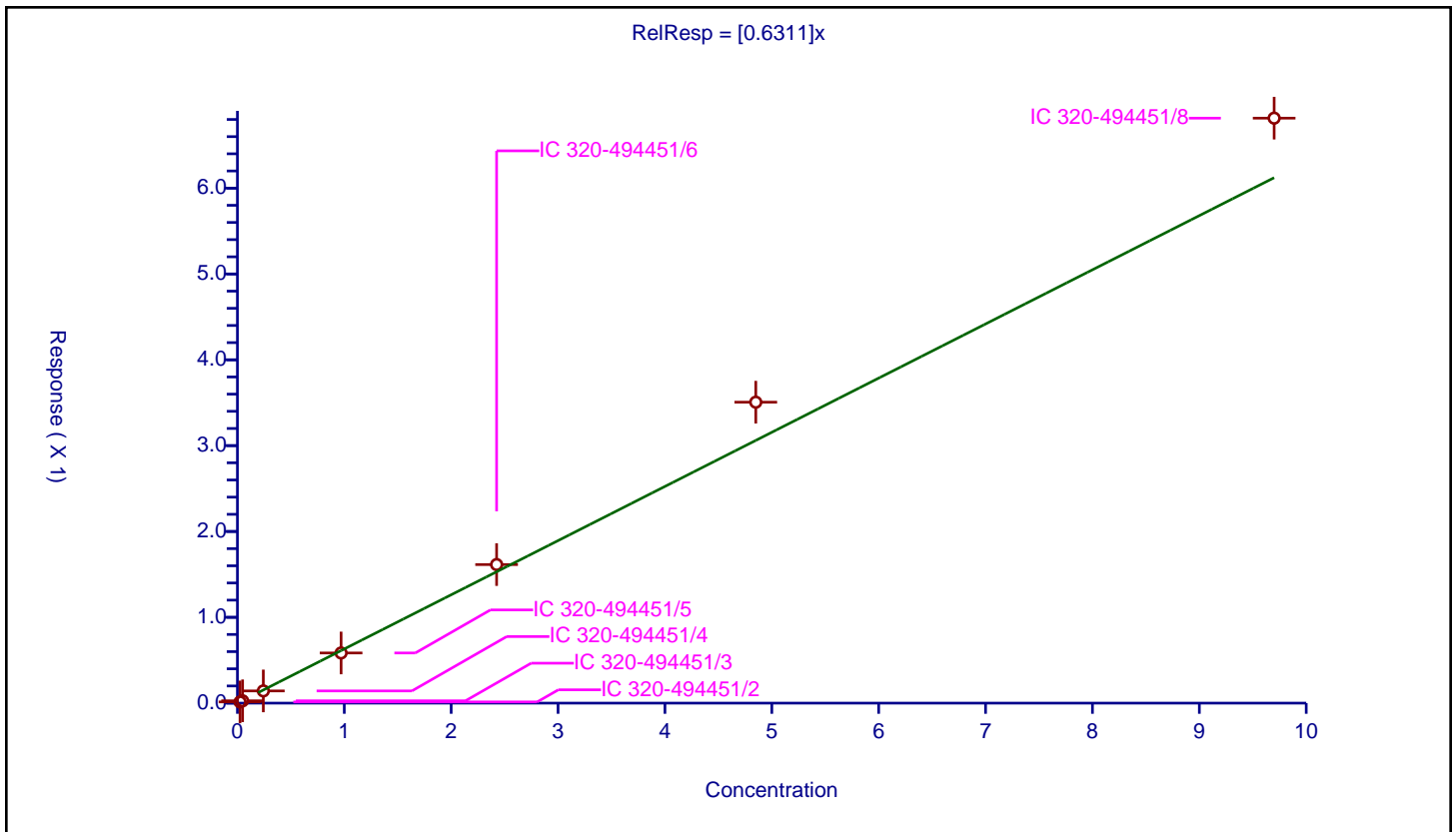
/ PPF Acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6311

Error Coefficients	
Standard Error:	17300000
Relative Standard Error:	10.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02425	0.014063	1.25	6902649.0	0.579928	Y
2	IC 320-494451/3	0.0485	0.027005	1.25	7478381.0	0.556801	Y
3	IC 320-494451/4	0.2425	0.142367	1.25	7224001.0	0.587082	Y
4	IC 320-494451/5	0.97	0.584515	1.25	7158252.0	0.602592	Y
5	IC 320-494451/6	2.425	1.614191	1.25	6863062.0	0.665646	Y
6	IC 320-494451/7	4.85	3.506139	1.25	6979889.0	0.722915	Y
7	IC 320-494451/8	9.7	6.815339	1.25	6654827.0	0.702612	Y



**Calibration**

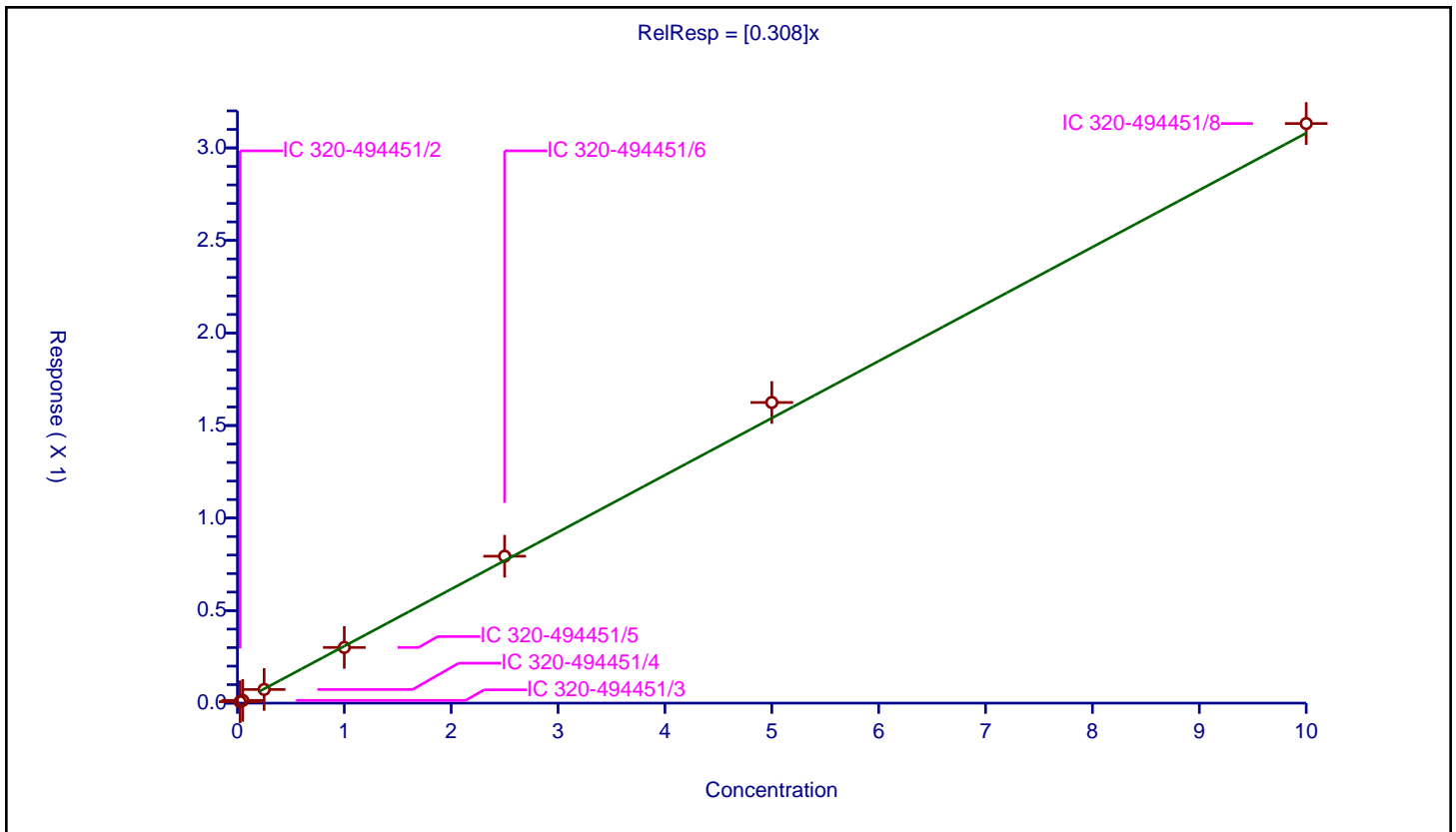
/ PFMOAA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.308

Error Coefficients	
Standard Error:	7980000
Relative Standard Error:	3.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.00773	1.25	6902649.0	0.309193	Y
2	IC 320-494451/3	0.05	0.014759	1.25	7478381.0	0.295178	Y
3	IC 320-494451/4	0.25	0.073801	1.25	7224001.0	0.295204	Y
4	IC 320-494451/5	1.0	0.300814	1.25	7158252.0	0.300814	Y
5	IC 320-494451/6	2.5	0.793851	1.25	6863062.0	0.31754	Y
6	IC 320-494451/7	5.0	1.624527	1.25	6979889.0	0.324905	Y
7	IC 320-494451/8	10.0	3.131663	1.25	6654827.0	0.313166	Y





Calibration

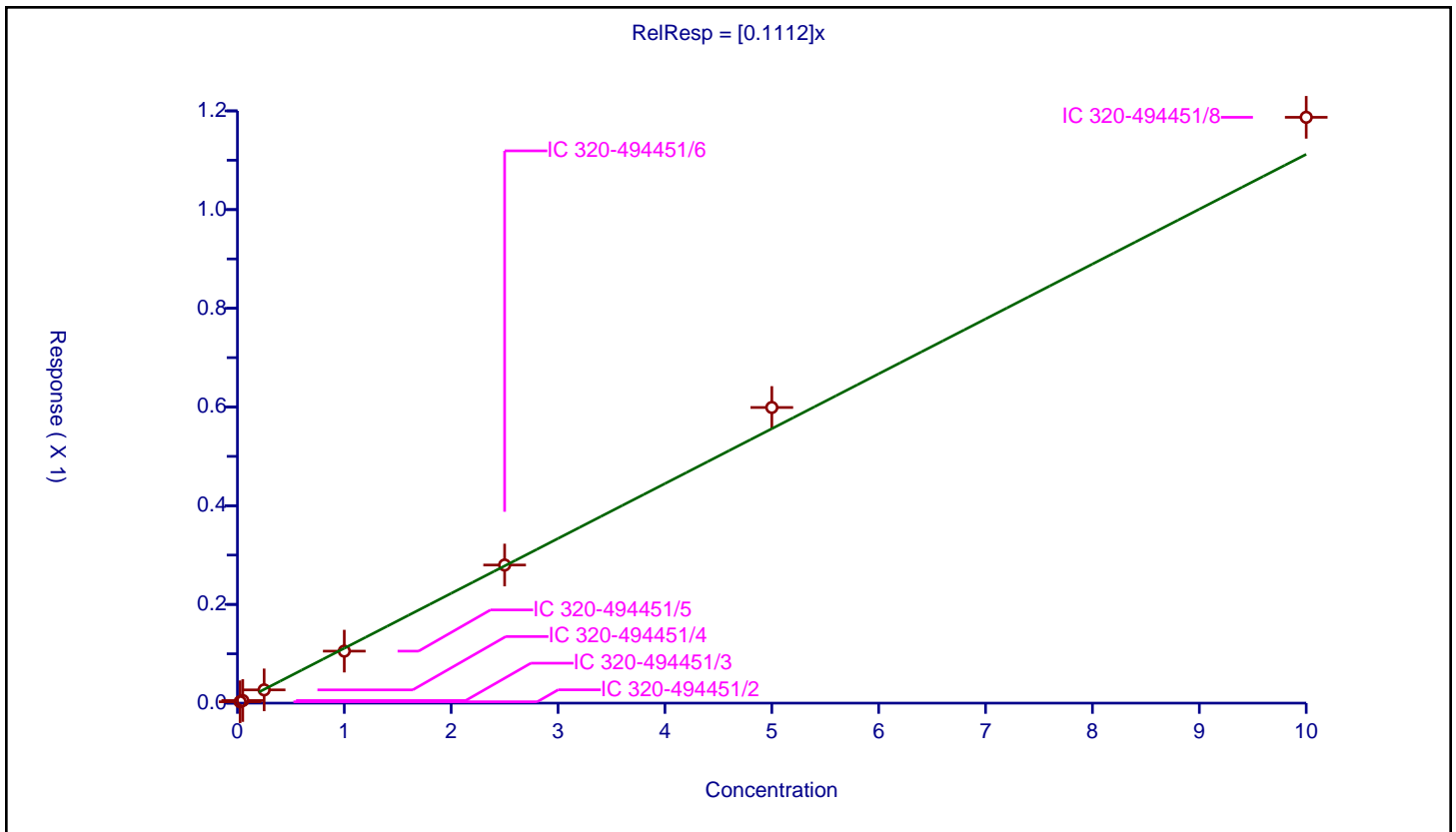
/ R-PSDA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1112

Error Coefficients	
Standard Error:	3000000
Relative Standard Error:	5.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.002761	1.25	6902649.0	0.110443	Y
2	IC 320-494451/3	0.05	0.005245	1.25	7478381.0	0.104899	Y
3	IC 320-494451/4	0.25	0.026824	1.25	7224001.0	0.107298	Y
4	IC 320-494451/5	1.0	0.105349	1.25	7158252.0	0.105349	Y
5	IC 320-494451/6	2.5	0.279838	1.25	6863062.0	0.111935	Y
6	IC 320-494451/7	5.0	0.599034	1.25	6979889.0	0.119807	Y
7	IC 320-494451/8	10.0	1.187018	1.25	6654827.0	0.118702	Y



**Calibration**

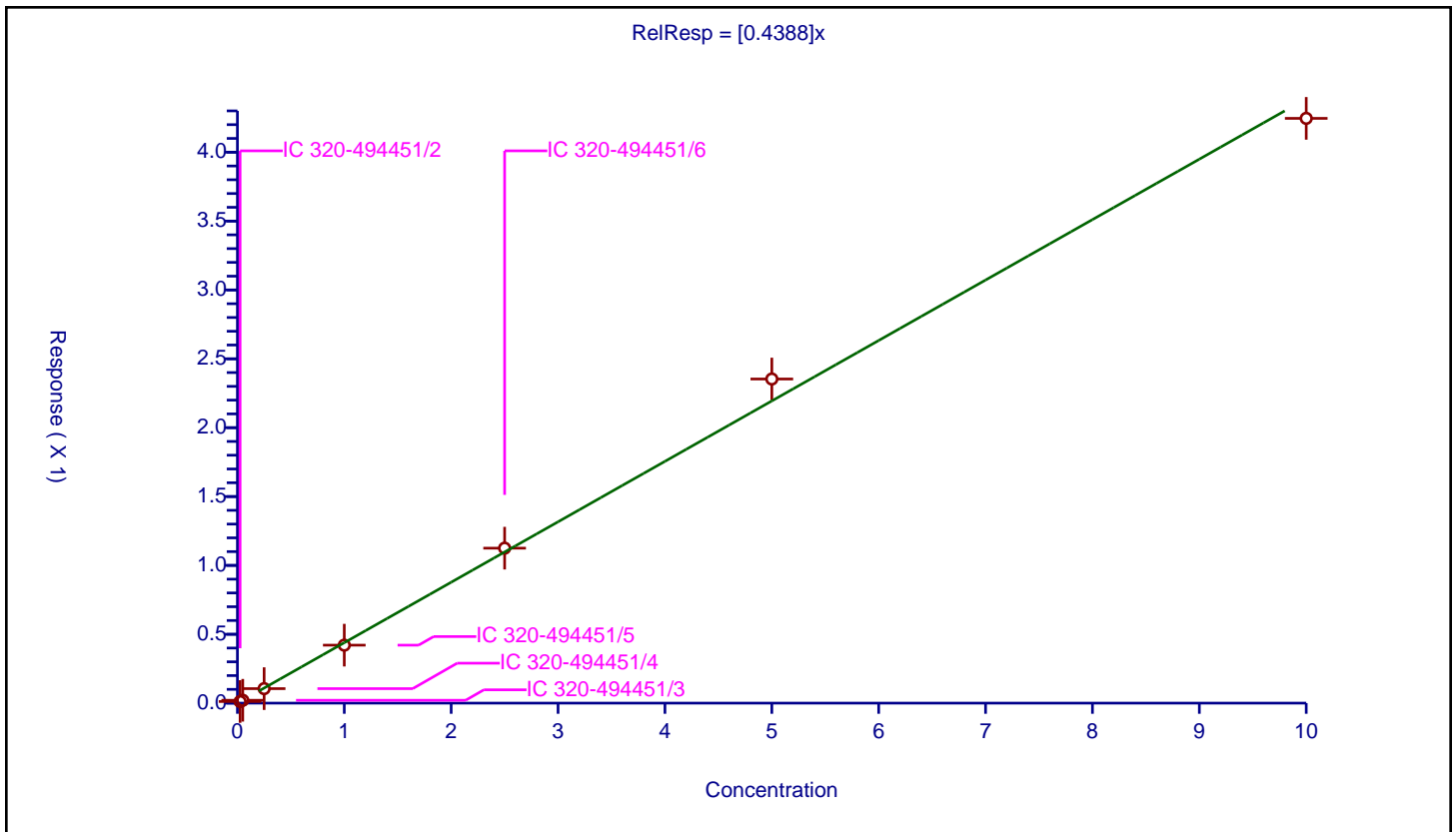
/ Hydrolyzed PSDA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4388

Error Coefficients	
Standard Error:	11000000
Relative Standard Error:	5.5
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.011734	1.25	6902649.0	0.469378	Y
2	IC 320-494451/3	0.05	0.020775	1.25	7478381.0	0.415494	Y
3	IC 320-494451/4	0.25	0.105218	1.25	7224001.0	0.420873	Y
4	IC 320-494451/5	1.0	0.420803	1.25	7158252.0	0.420803	Y
5	IC 320-494451/6	2.5	1.12507	1.25	6863062.0	0.450028	Y
6	IC 320-494451/7	5.0	2.353283	1.25	6979889.0	0.470657	Y
7	IC 320-494451/8	10.0	4.24565	1.25	6654827.0	0.424565	Y



Calibration

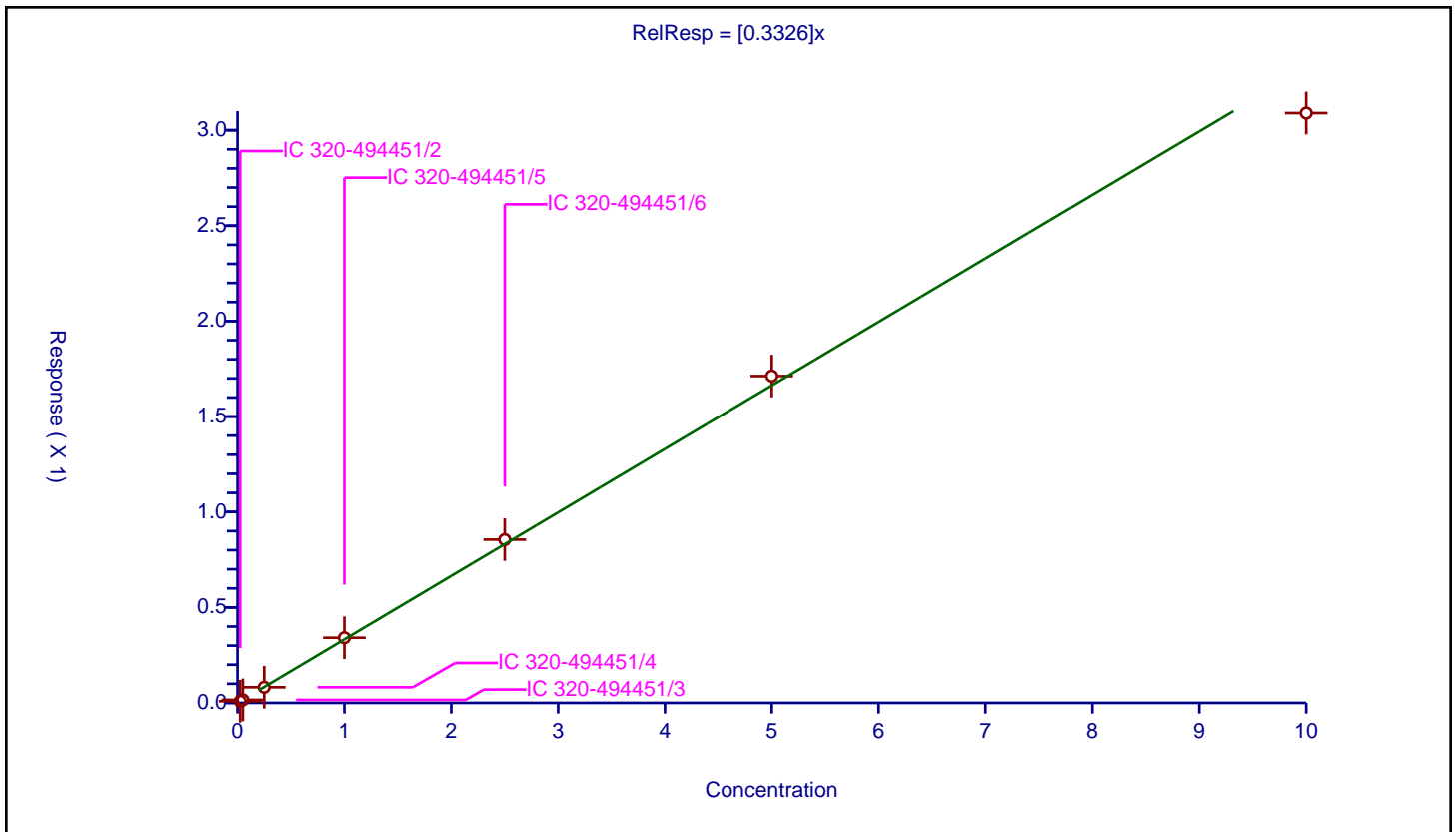
/ R-EVE

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3326

Error Coefficients	
Standard Error:	8040000
Relative Standard Error:	4.7
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.008771	1.25	6902649.0	0.350836	Y
2	IC 320-494451/3	0.05	0.015802	1.25	7478381.0	0.316044	Y
3	IC 320-494451/4	0.25	0.081708	1.25	7224001.0	0.326832	Y
4	IC 320-494451/5	1.0	0.341229	1.25	7158252.0	0.341229	Y
5	IC 320-494451/6	2.5	0.855364	1.25	6863062.0	0.342146	Y
6	IC 320-494451/7	5.0	1.712312	1.25	6979889.0	0.342462	Y
7	IC 320-494451/8	10.0	3.08962	1.25	6654827.0	0.308962	Y



**Calibration**

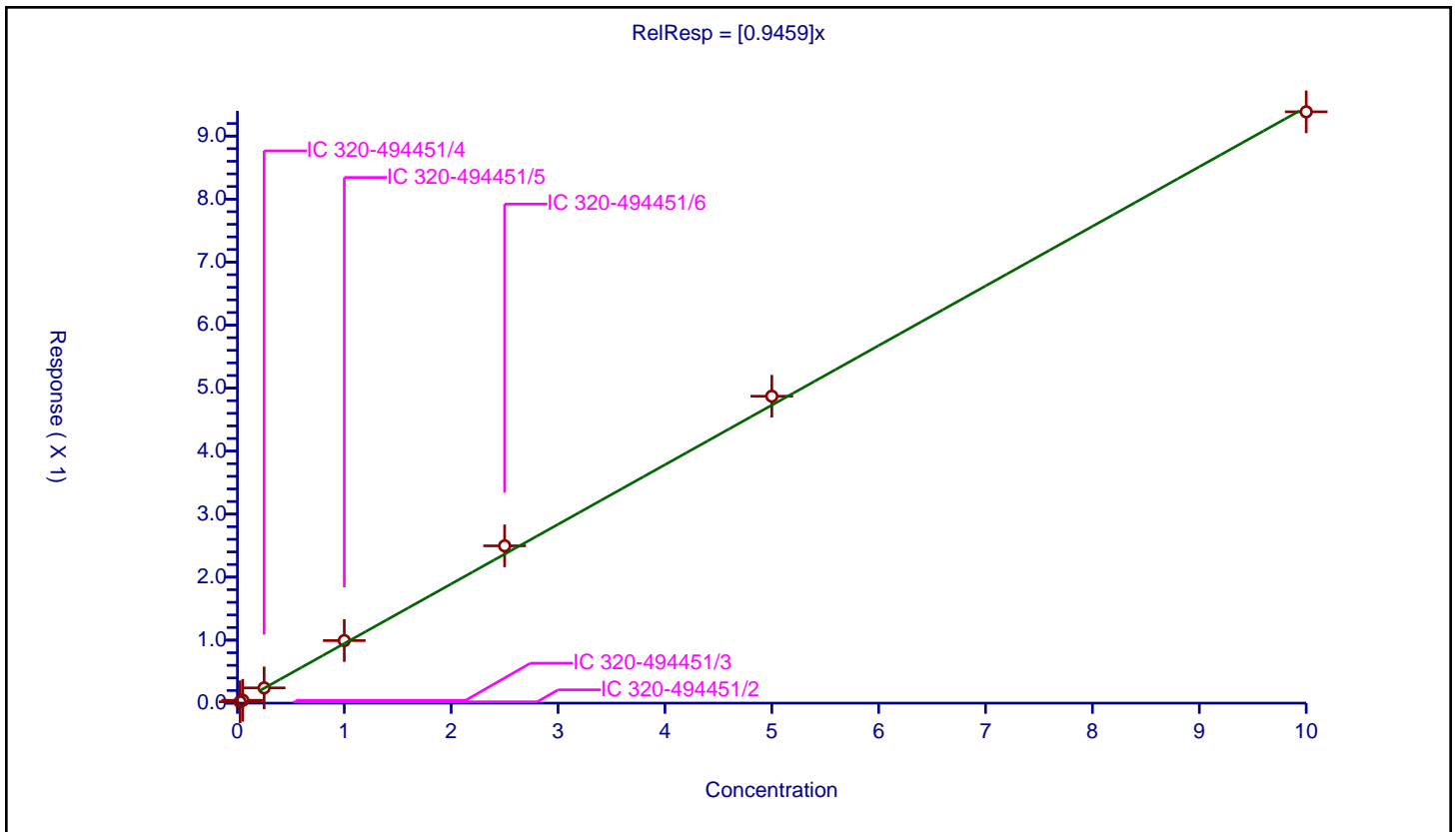
/ Perfluorobutanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9459

Error Coefficients	
Standard Error:	24000000
Relative Standard Error:	5.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.021233	1.25	6902649.0	0.849333	Y
2	IC 320-494451/3	0.05	0.044993	1.25	7478381.0	0.899854	Y
3	IC 320-494451/4	0.25	0.242036	1.25	7224001.0	0.968142	Y
4	IC 320-494451/5	1.0	0.992771	1.25	7158252.0	0.992771	Y
5	IC 320-494451/6	2.5	2.496469	1.25	6863062.0	0.998588	Y
6	IC 320-494451/7	5.0	4.871451	1.25	6979889.0	0.97429	Y
7	IC 320-494451/8	10.0	9.385079	1.25	6654827.0	0.938508	Y



Calibration

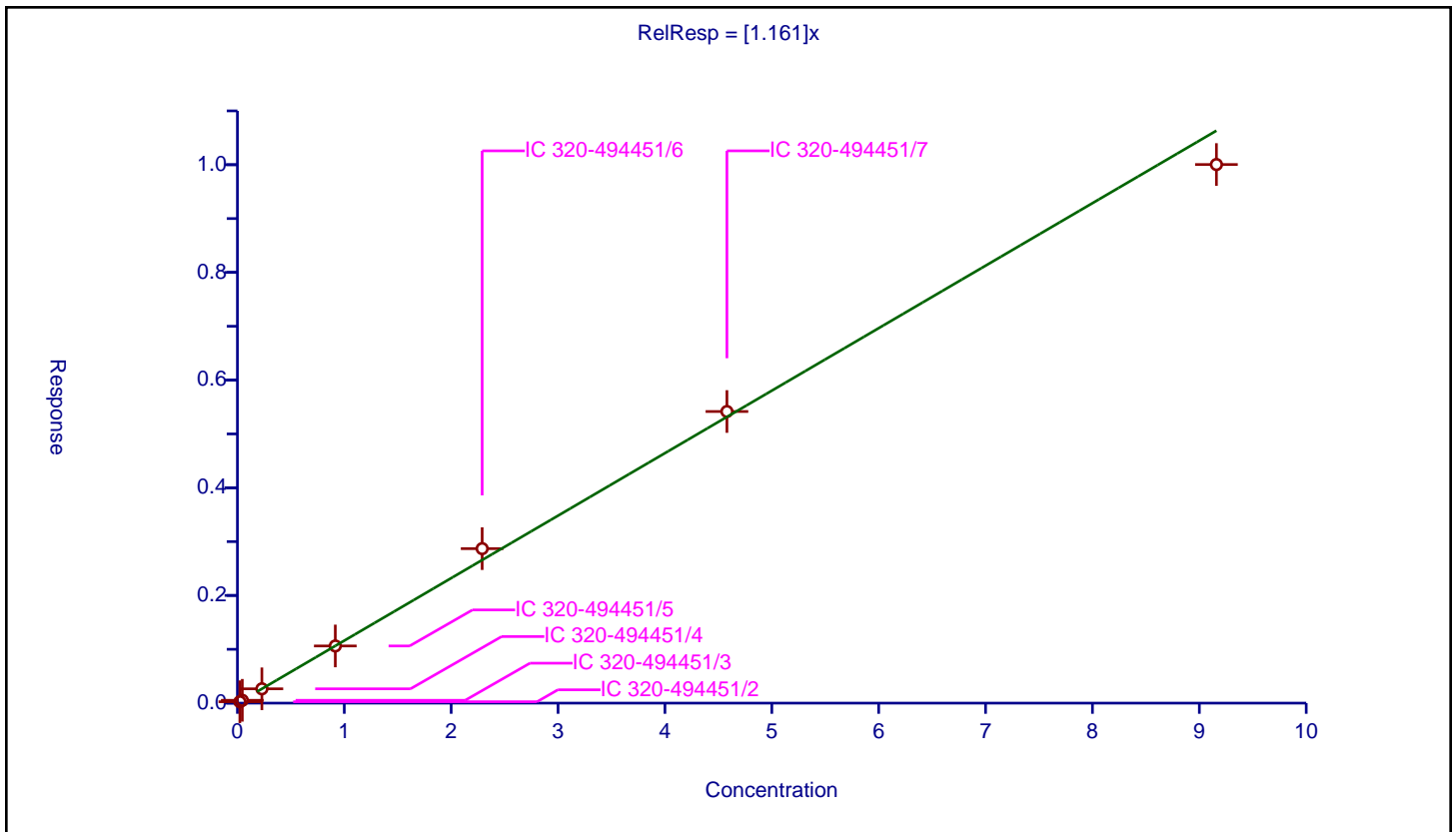
/ PFPrS

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.161

Error Coefficients	
Standard Error:	16800000
Relative Standard Error:	4.3
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0229	0.025847	1.1625	4258334.0	1.12867	Y
2	IC 320-494451/3	0.0458	0.052605	1.1625	4441748.0	1.148574	Y
3	IC 320-494451/4	0.229	0.265788	1.1625	4426842.0	1.160646	Y
4	IC 320-494451/5	0.916	1.062058	1.1625	4428472.0	1.159452	Y
5	IC 320-494451/6	2.29	2.869577	1.1625	4284122.0	1.25309	Y
6	IC 320-494451/7	4.58	5.416403	1.1625	4342278.0	1.182621	Y
7	IC 320-494451/8	9.16	10.003893	1.1625	3955482.0	1.092128	Y



Calibration

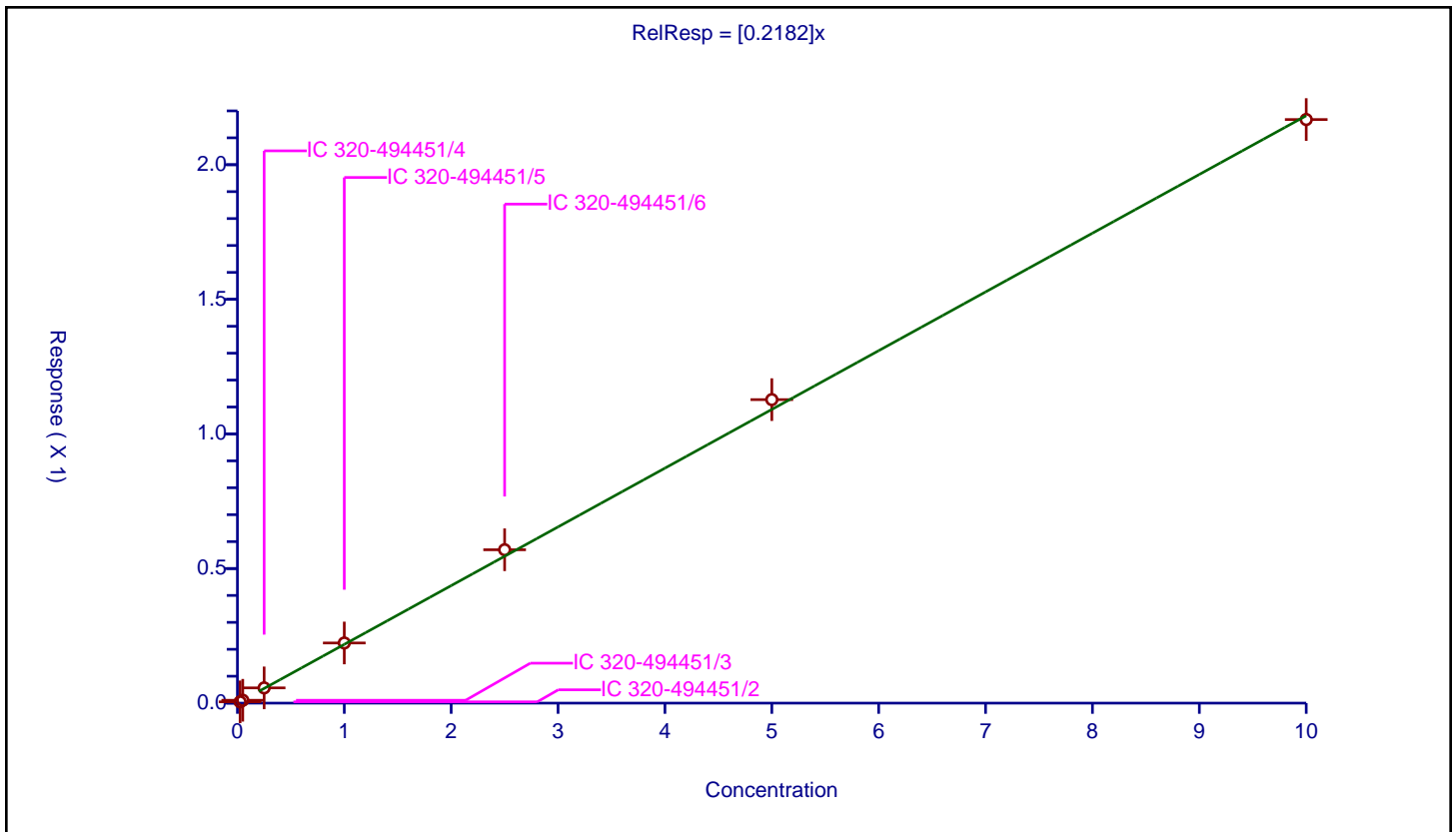
/ PMPA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2182

Error Coefficients	
Standard Error:	5540000
Relative Standard Error:	5.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.004843	1.25	6902649.0	0.19373	Y
2	IC 320-494451/3	0.05	0.010684	1.25	7478381.0	0.213683	Y
3	IC 320-494451/4	0.25	0.056601	1.25	7224001.0	0.226403	Y
4	IC 320-494451/5	1.0	0.223496	1.25	7158252.0	0.223496	Y
5	IC 320-494451/6	2.5	0.569767	1.25	6863062.0	0.227907	Y
6	IC 320-494451/7	5.0	1.127455	1.25	6979889.0	0.225491	Y
7	IC 320-494451/8	10.0	2.167881	1.25	6654827.0	0.216788	Y



Calibration

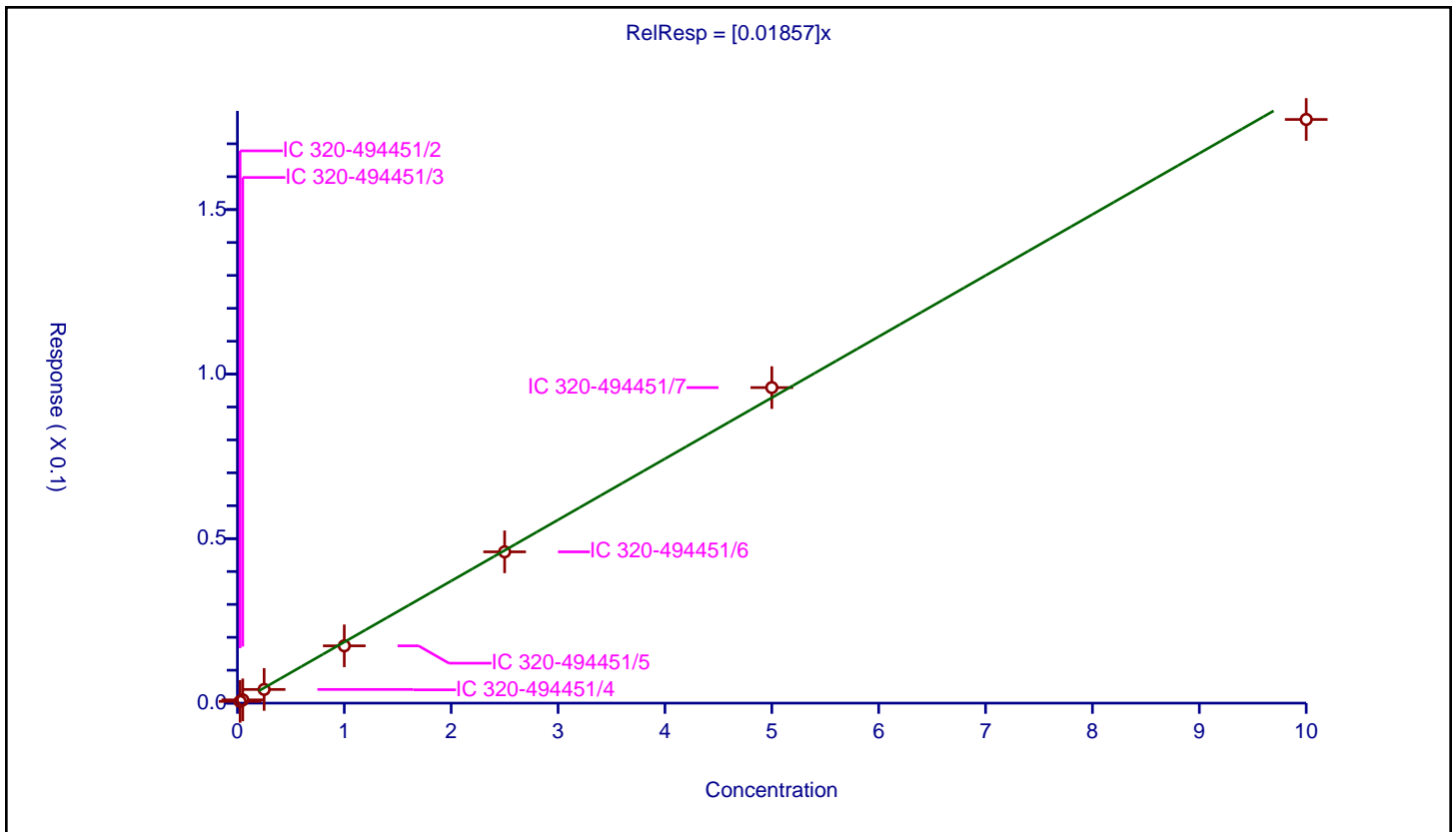
/ NVHOS

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.01857

Error Coefficients	
Standard Error:	457000
Relative Standard Error:	7.8
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.000519	1.25	6902649.0	0.02076	Y
2	IC 320-494451/3	0.05	0.000993	1.25	7478381.0	0.019864	Y
3	IC 320-494451/4	0.25	0.004153	1.25	7224001.0	0.016612	Y
4	IC 320-494451/5	1.0	0.017414	1.25	7158252.0	0.017414	Y
5	IC 320-494451/6	2.5	0.045982	1.25	6863062.0	0.018393	Y
6	IC 320-494451/7	5.0	0.095904	1.25	6979889.0	0.019181	Y
7	IC 320-494451/8	10.0	0.177394	1.25	6654827.0	0.017739	Y



Calibration

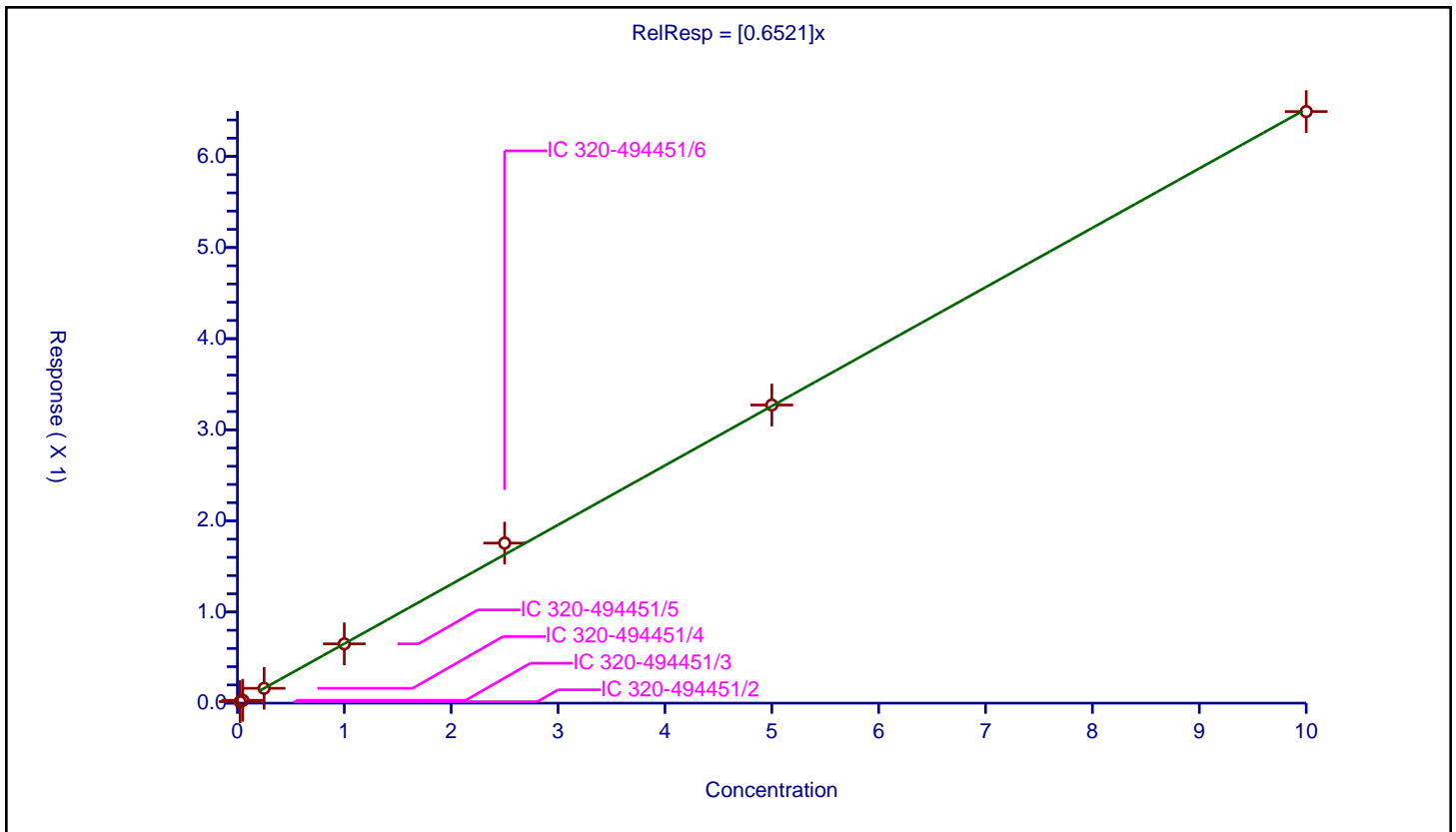
/ PFECA F

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6521

Error Coefficients	
Standard Error:	15600000
Relative Standard Error:	3.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.015794	1.25	6549815.0	0.631774	Y
2	IC 320-494451/3	0.05	0.031209	1.25	6911317.0	0.624172	Y
3	IC 320-494451/4	0.25	0.162831	1.25	6883289.0	0.651322	Y
4	IC 320-494451/5	1.0	0.65078	1.25	6757107.0	0.65078	Y
5	IC 320-494451/6	2.5	1.756645	1.25	6417385.0	0.702658	Y
6	IC 320-494451/7	5.0	3.272131	1.25	6754556.0	0.654426	Y
7	IC 320-494451/8	10.0	6.492671	1.25	6220538.0	0.649267	Y





Calibration

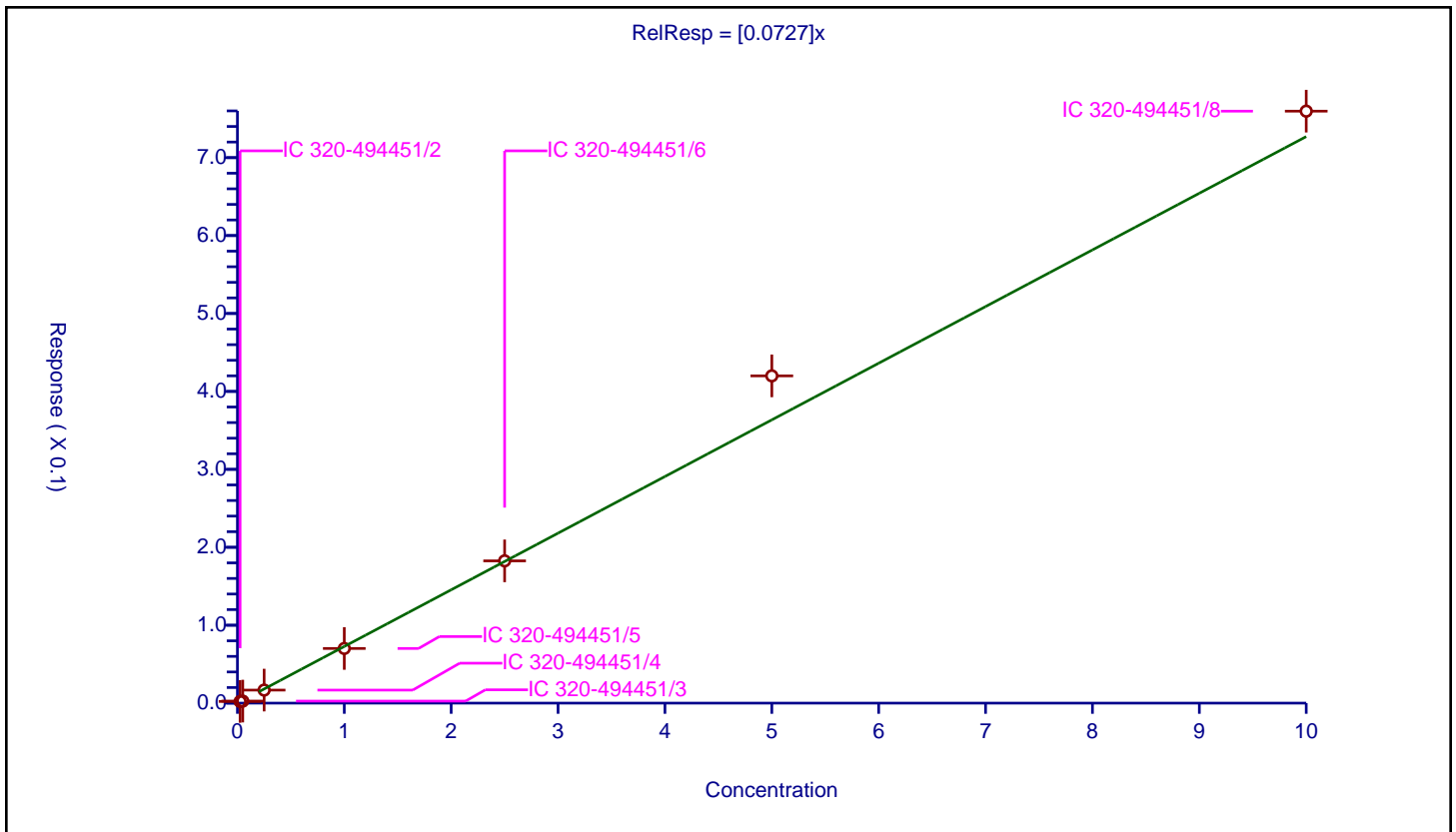
/ PFO2HxA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.0727

Error Coefficients	
Standard Error:	1850000
Relative Standard Error:	15.7
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.970

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.002162	1.25	6549815.0	0.08646	Y
2	IC 320-494451/3	0.05	0.002617	1.25	6911317.0	0.052345	Y
3	IC 320-494451/4	0.25	0.01674	1.25	6883289.0	0.06696	Y
4	IC 320-494451/5	1.0	0.070154	1.25	6757107.0	0.070154	Y
5	IC 320-494451/6	2.5	0.182571	1.25	6417385.0	0.073028	Y
6	IC 320-494451/7	5.0	0.41997	1.25	6754556.0	0.083994	Y
7	IC 320-494451/8	10.0	0.759648	1.25	6220538.0	0.075965	Y



Calibration

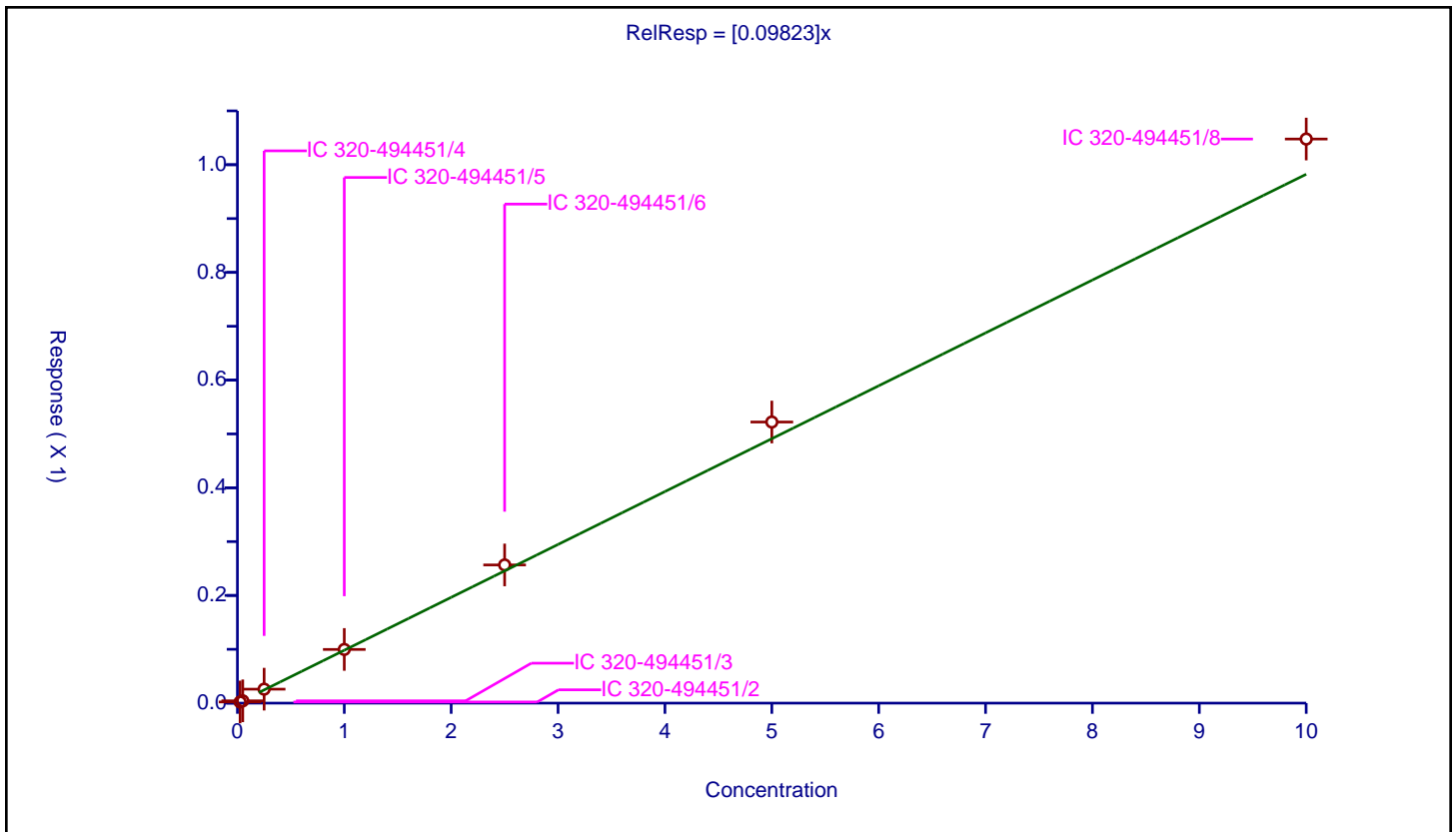
/ 3:3 FTCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.09823

Error Coefficients	
Standard Error:	1710000
Relative Standard Error:	8.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.002162	1.1625	4258334.0	0.086474	Y
2	IC 320-494451/3	0.05	0.004286	1.1625	4441748.0	0.085724	Y
3	IC 320-494451/4	0.25	0.025963	1.1625	4426842.0	0.103852	Y
4	IC 320-494451/5	1.0	0.099722	1.1625	4428472.0	0.099722	Y
5	IC 320-494451/6	2.5	0.256664	1.1625	4284122.0	0.102666	Y
6	IC 320-494451/7	5.0	0.52209	1.1625	4342278.0	0.104418	Y
7	IC 320-494451/8	10.0	1.047688	1.1625	3955482.0	0.104769	Y



**Calibration**

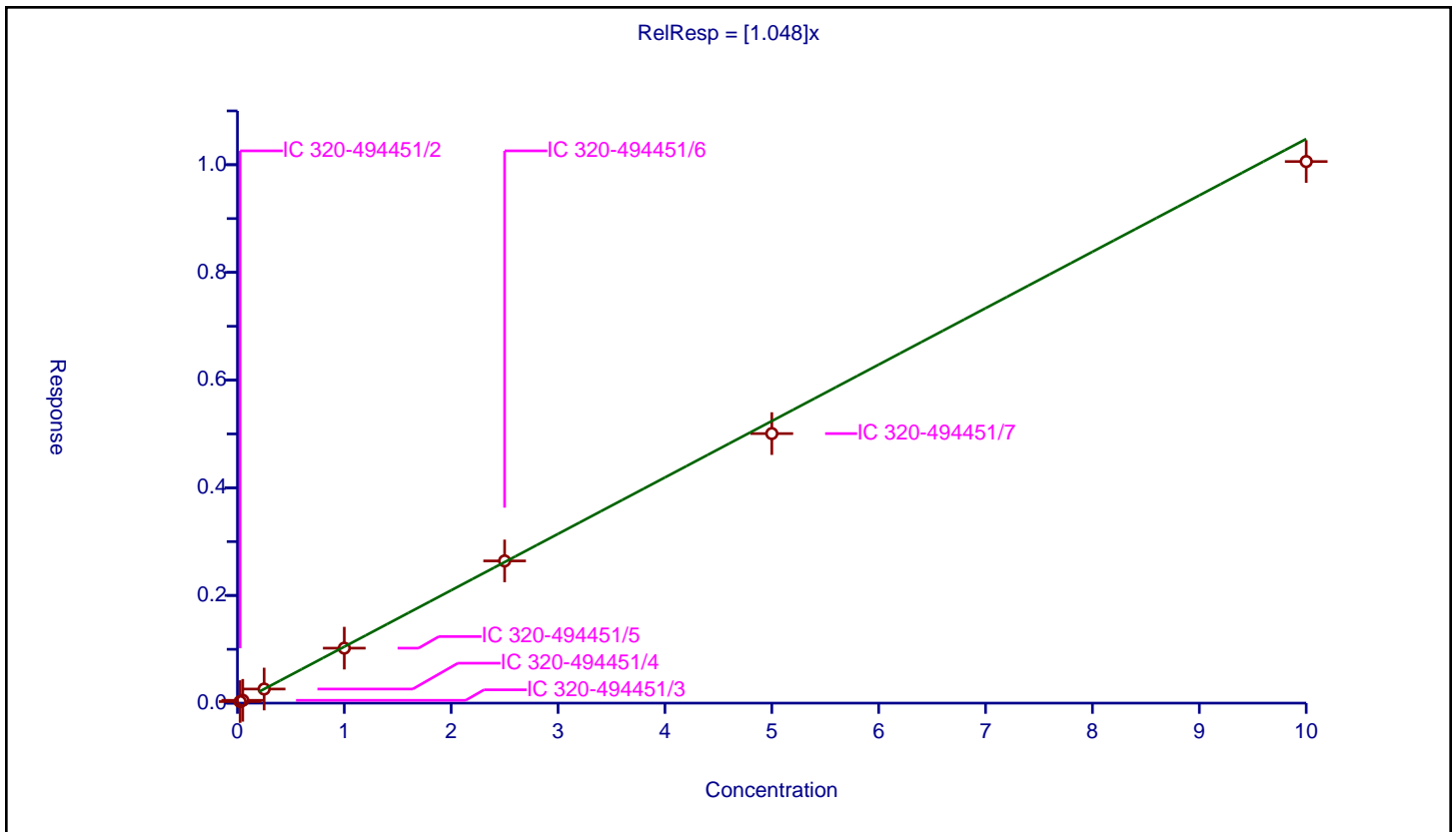
/ Perfluoropentanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.048

Error Coefficients	
Standard Error:	24000000
Relative Standard Error:	5.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.028986	1.25	6549815.0	1.159453	Y
2	IC 320-494451/3	0.05	0.052159	1.25	6911317.0	1.043184	Y
3	IC 320-494451/4	0.25	0.261838	1.25	6883289.0	1.047351	Y
4	IC 320-494451/5	1.0	1.021421	1.25	6757107.0	1.021421	Y
5	IC 320-494451/6	2.5	2.641366	1.25	6417385.0	1.056546	Y
6	IC 320-494451/7	5.0	5.006581	1.25	6754556.0	1.001316	Y
7	IC 320-494451/8	10.0	10.058981	1.25	6220538.0	1.005898	Y



**Calibration**

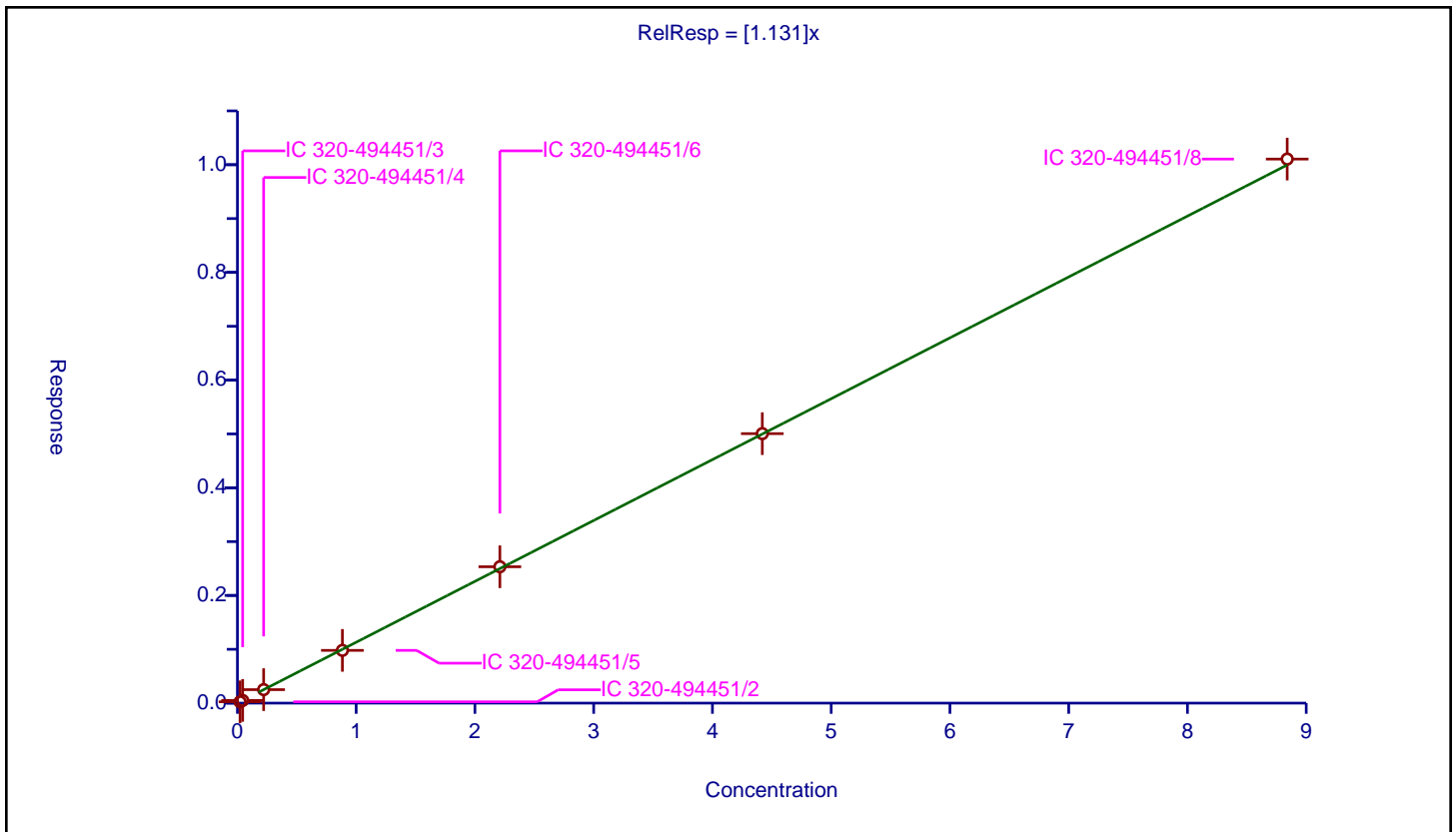
/ Perfluorobutanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.131

Error Coefficients	
Standard Error:	16500000
Relative Standard Error:	1.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0221	0.024635	1.1625	4258334.0	1.114718	Y
2	IC 320-494451/3	0.0442	0.050204	1.1625	4441748.0	1.135841	Y
3	IC 320-494451/4	0.221	0.250752	1.1625	4426842.0	1.134626	Y
4	IC 320-494451/5	0.884	0.97978	1.1625	4428472.0	1.108348	Y
5	IC 320-494451/6	2.21	2.532792	1.1625	4284122.0	1.14606	Y
6	IC 320-494451/7	4.42	5.005463	1.1625	4342278.0	1.132458	Y
7	IC 320-494451/8	8.84	10.105328	1.1625	3955482.0	1.143137	Y



Calibration

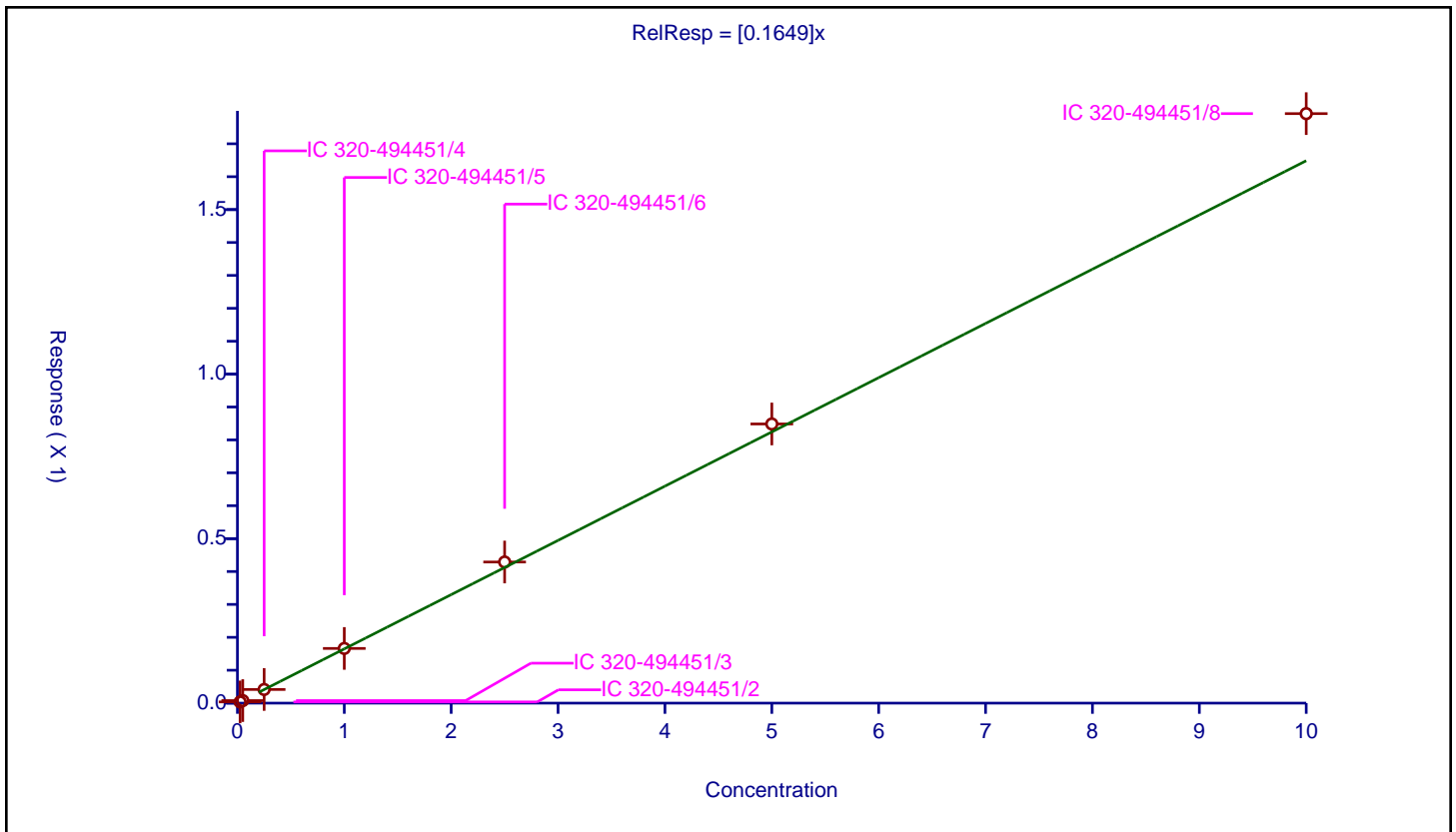
/ PEPA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1649

Error Coefficients	
Standard Error:	4210000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.003653	1.25	6549815.0	0.146134	Y
2	IC 320-494451/3	0.05	0.007758	1.25	6911317.0	0.155162	Y
3	IC 320-494451/4	0.25	0.041505	1.25	6883289.0	0.16602	Y
4	IC 320-494451/5	1.0	0.166218	1.25	6757107.0	0.166218	Y
5	IC 320-494451/6	2.5	0.428918	1.25	6417385.0	0.171567	Y
6	IC 320-494451/7	5.0	0.848471	1.25	6754556.0	0.169694	Y
7	IC 320-494451/8	10.0	1.791695	1.25	6220538.0	0.17917	Y



Calibration

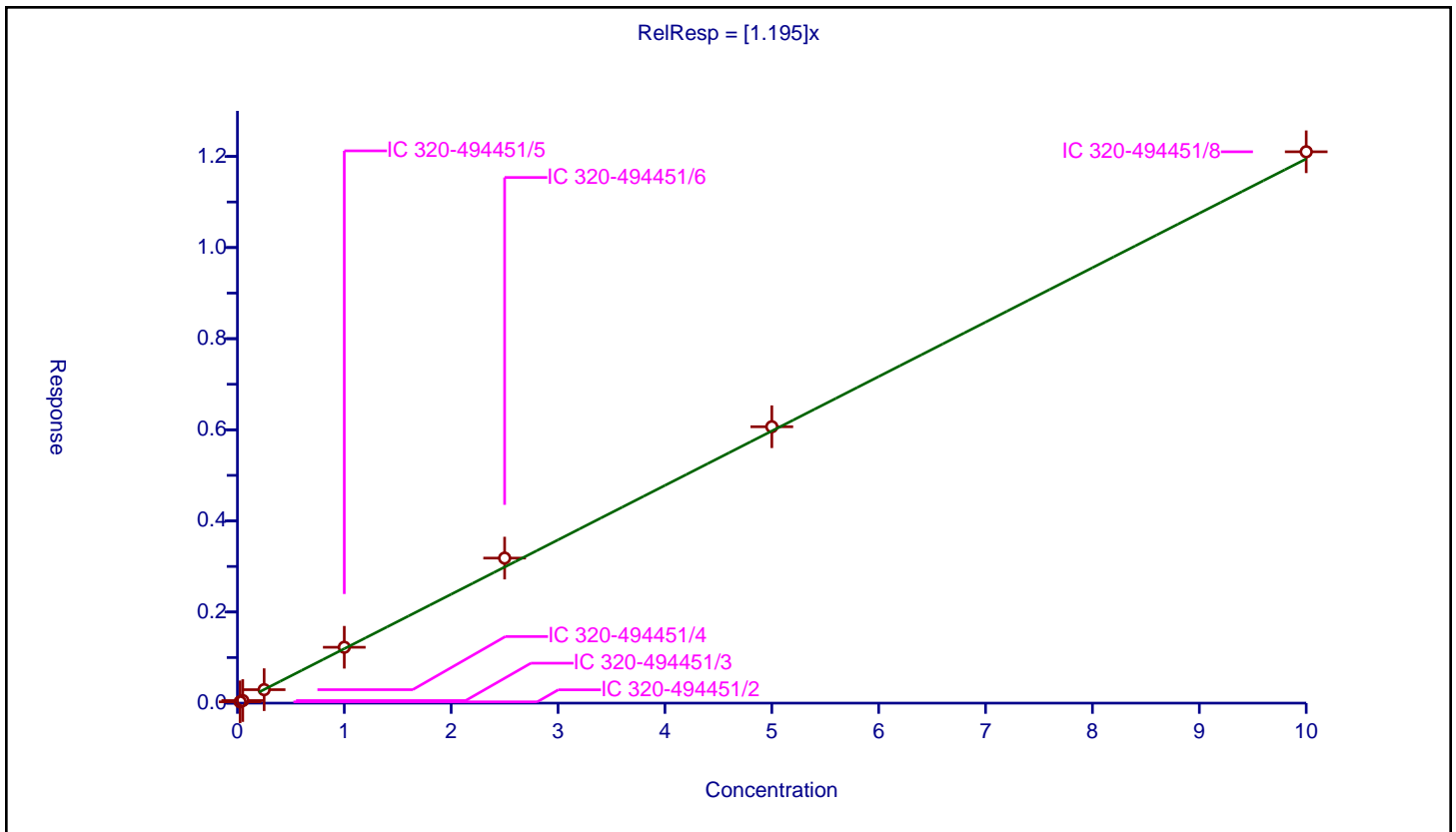
/ PFECA A

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.195

Error Coefficients	
Standard Error:	28900000
Relative Standard Error:	4.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.028113	1.25	6549815.0	1.12452	Y
2	IC 320-494451/3	0.05	0.056594	1.25	6911317.0	1.131875	Y
3	IC 320-494451/4	0.25	0.295788	1.25	6883289.0	1.183152	Y
4	IC 320-494451/5	1.0	1.226406	1.25	6757107.0	1.226406	Y
5	IC 320-494451/6	2.5	3.183396	1.25	6417385.0	1.273358	Y
6	IC 320-494451/7	5.0	6.067007	1.25	6754556.0	1.213401	Y
7	IC 320-494451/8	10.0	12.102828	1.25	6220538.0	1.210283	Y



Calibration

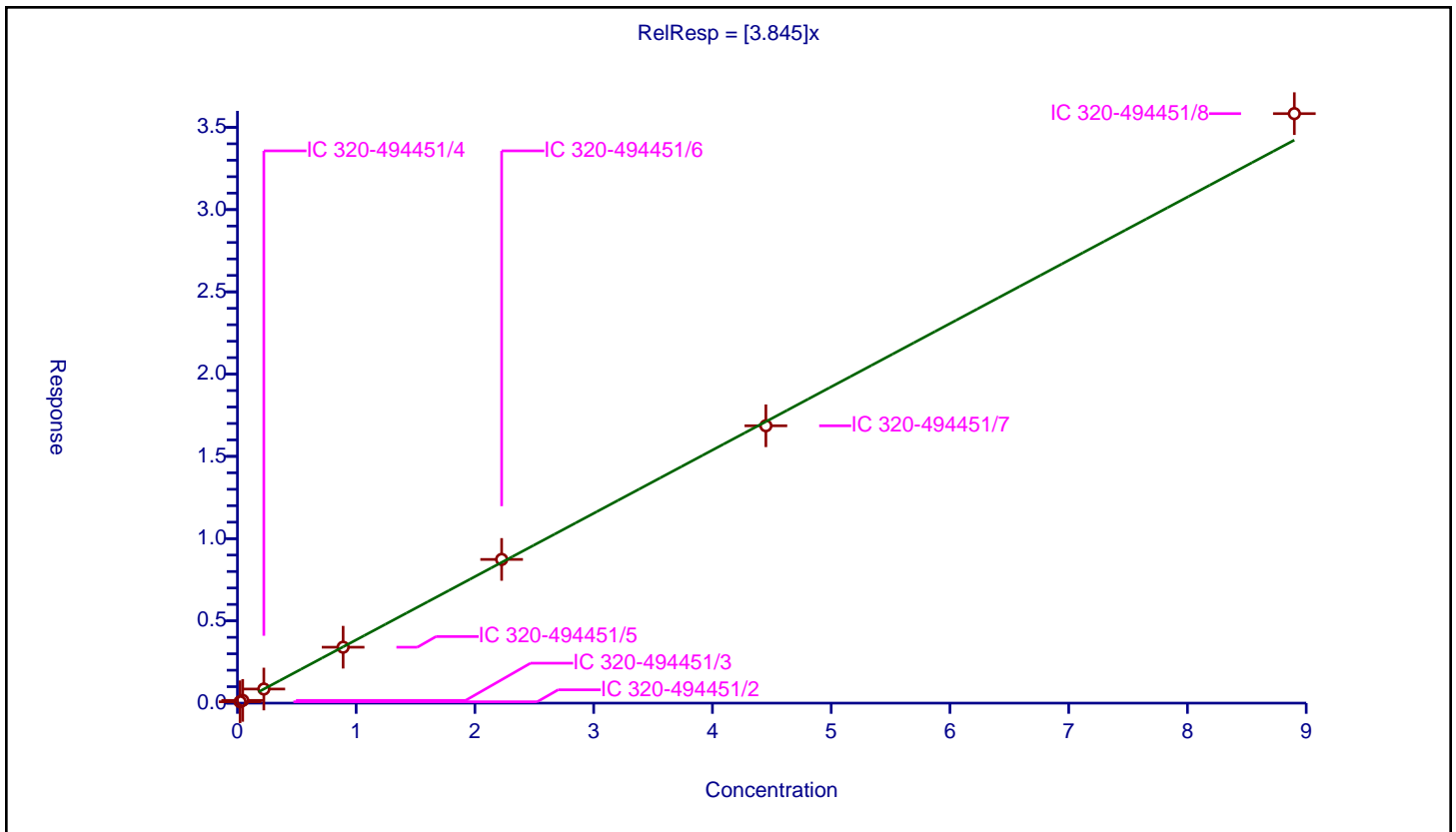
/ PES

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.845

Error Coefficients	
Standard Error:	57800000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02225	0.083665	1.1625	4258334.0	3.760239	Y
2	IC 320-494451/3	0.0445	0.166733	1.1625	4441748.0	3.74682	Y
3	IC 320-494451/4	0.2225	0.856717	1.1625	4426842.0	3.850416	Y
4	IC 320-494451/5	0.89	3.399209	1.1625	4428472.0	3.819335	Y
5	IC 320-494451/6	2.225	8.735209	1.1625	4284122.0	3.925937	Y
6	IC 320-494451/7	4.45	16.859434	1.1625	4342278.0	3.788637	Y
7	IC 320-494451/8	8.9	35.833698	1.1625	3955482.0	4.026258	Y



**Calibration**

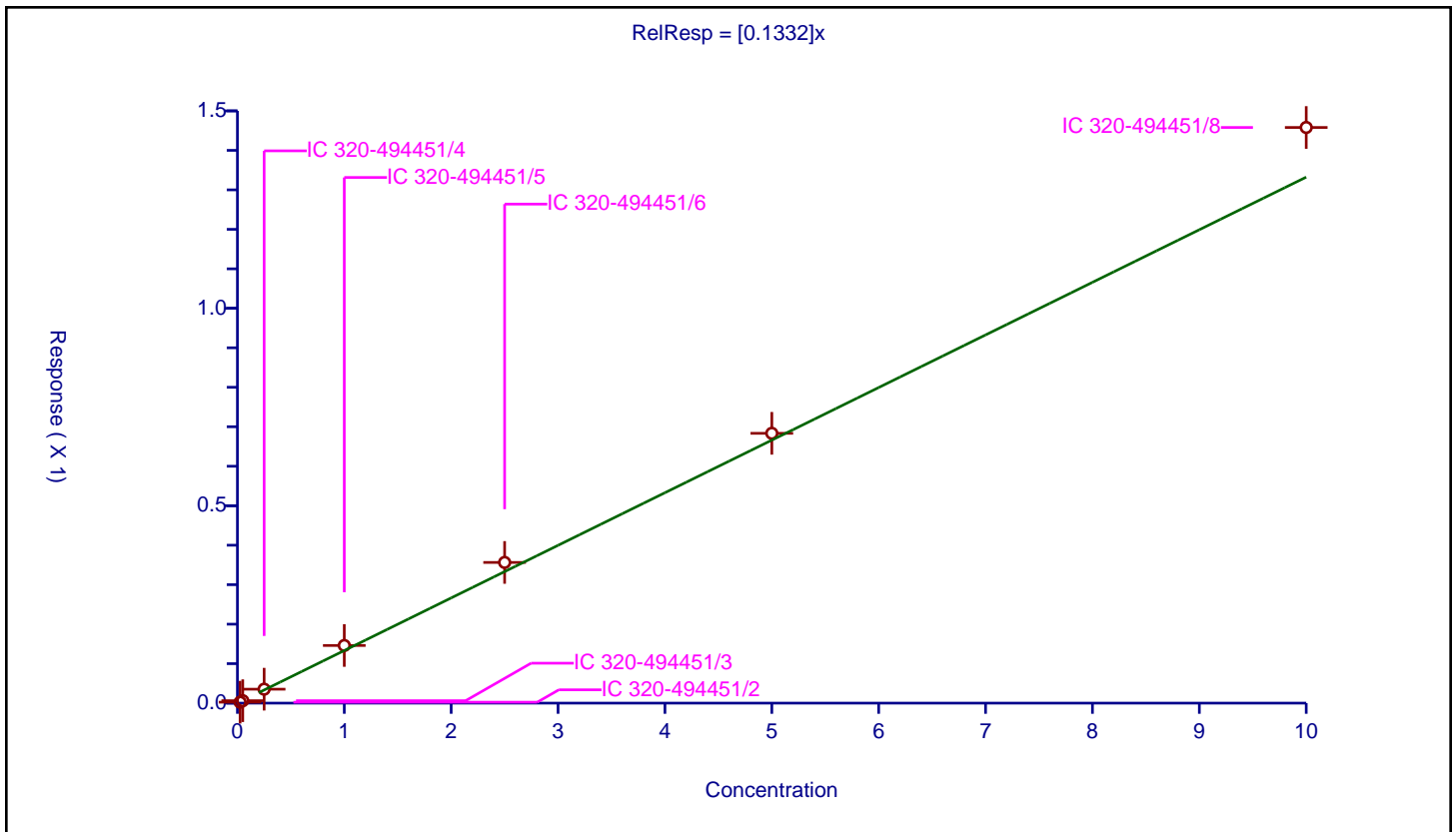
**/ PFECA B**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	0.1332

Error Coefficients	
<b>Standard Error:</b>	3420000
<b>Relative Standard Error:</b>	13.4
<b>Correlation Coefficient:</b>	1.000
<b>Coefficient of Determination (Adjusted):</b>	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.002423	1.25	6624478.0	0.096928	Y
2	IC 320-494451/3	0.05	0.006168	1.25	6993739.0	0.12336	Y
3	IC 320-494451/4	0.25	0.035318	1.25	6467493.0	0.141273	Y
4	IC 320-494451/5	1.0	0.145984	1.25	6690165.0	0.145984	Y
5	IC 320-494451/6	2.5	0.356332	1.25	6250426.0	0.142533	Y
6	IC 320-494451/7	5.0	0.683396	1.25	6760589.0	0.136679	Y
7	IC 320-494451/8	10.0	1.458006	1.25	6213293.0	0.145801	Y





**Calibration**

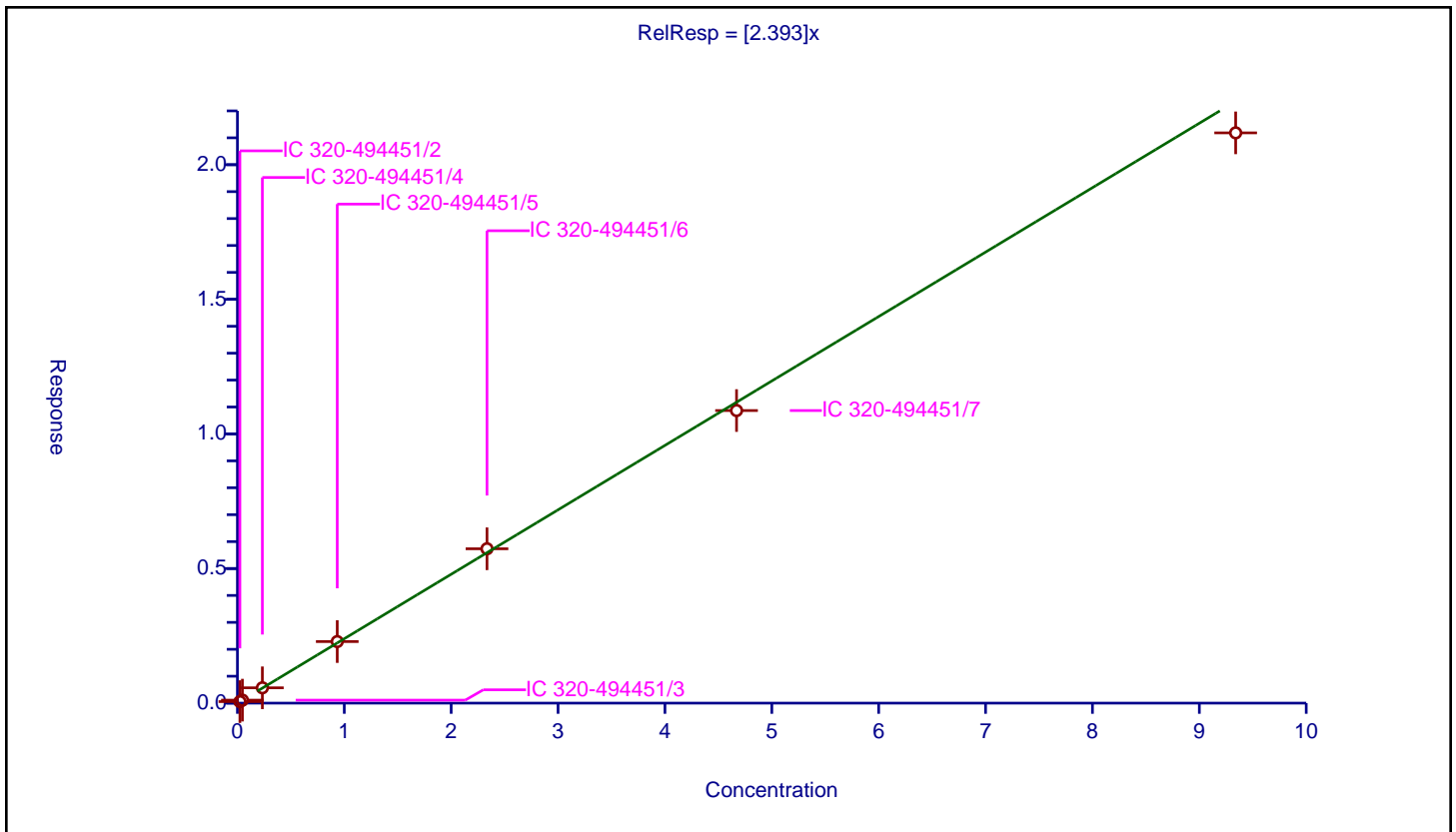
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.393

Error Coefficients	
Standard Error:	7890000
Relative Standard Error:	3.0
Correlation Coefficient:	0.975
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02335	0.056755	1.1675	1256631.0	2.430626	Y
2	IC 320-494451/3	0.0467	0.111415	1.1675	1372584.0	2.385756	Y
3	IC 320-494451/4	0.2335	0.569329	1.1675	1251915.0	2.438241	Y
4	IC 320-494451/5	0.934	2.286934	1.1675	1189610.0	2.448538	Y
5	IC 320-494451/6	2.335	5.733797	1.1675	1124092.0	2.455588	Y
6	IC 320-494451/7	4.67	10.868277	1.1675	1080486.0	2.327254	Y
7	IC 320-494451/8	9.34	21.183769	1.1675	846773.0	2.268069	Y



**Calibration**

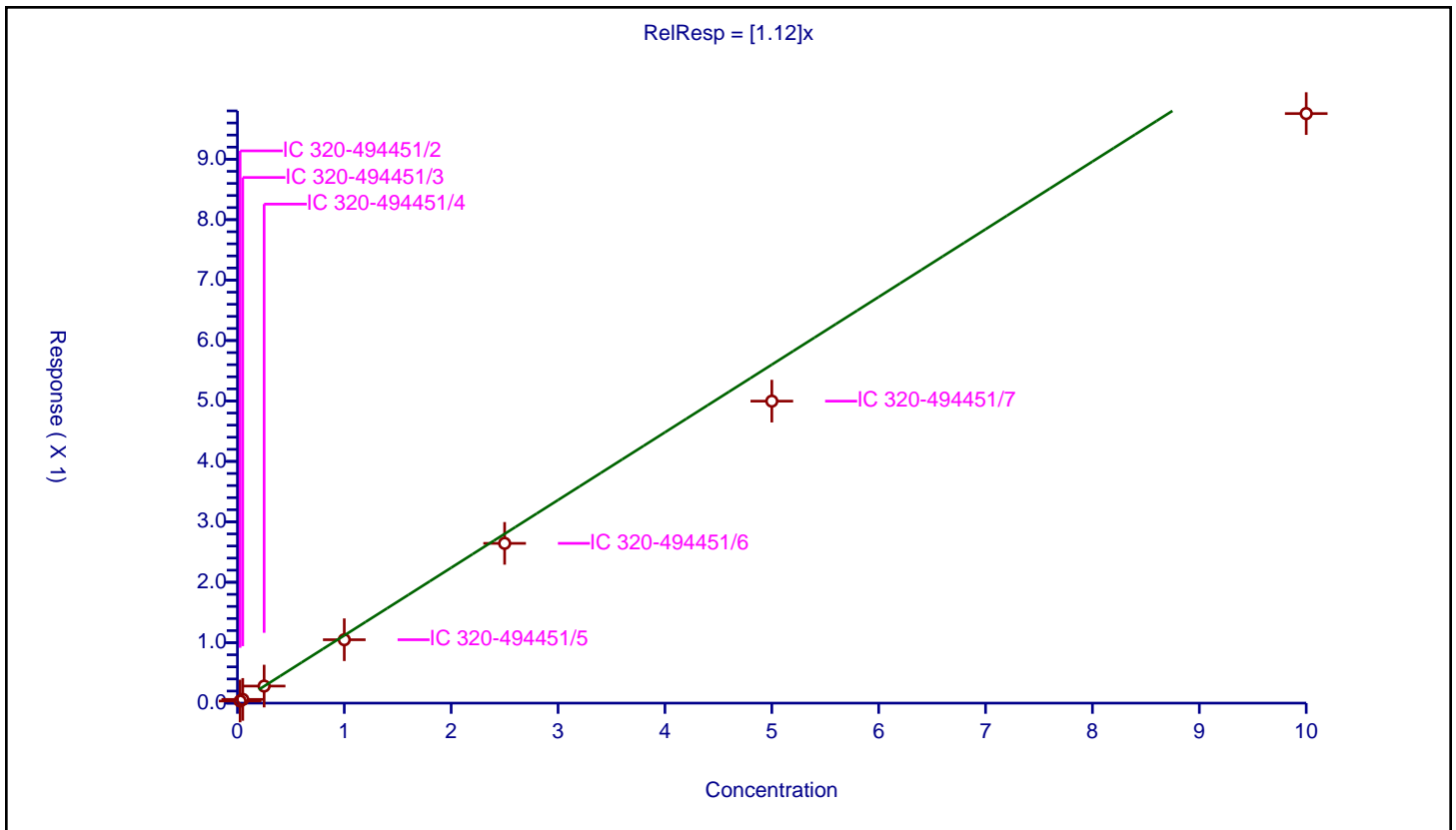
/ Perfluorohexanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.12

Error Coefficients	
Standard Error:	23400000
Relative Standard Error:	13.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.035018	1.25	6624478.0	1.400737	Y
2	IC 320-494451/3	0.05	0.061503	1.25	6993739.0	1.230064	Y
3	IC 320-494451/4	0.25	0.28235	1.25	6467493.0	1.1294	Y
4	IC 320-494451/5	1.0	1.048915	1.25	6690165.0	1.048915	Y
5	IC 320-494451/6	2.5	2.643671	1.25	6250426.0	1.057469	Y
6	IC 320-494451/7	5.0	4.997197	1.25	6760589.0	0.999439	Y
7	IC 320-494451/8	10.0	9.755346	1.25	6213293.0	0.975535	Y



**Calibration**

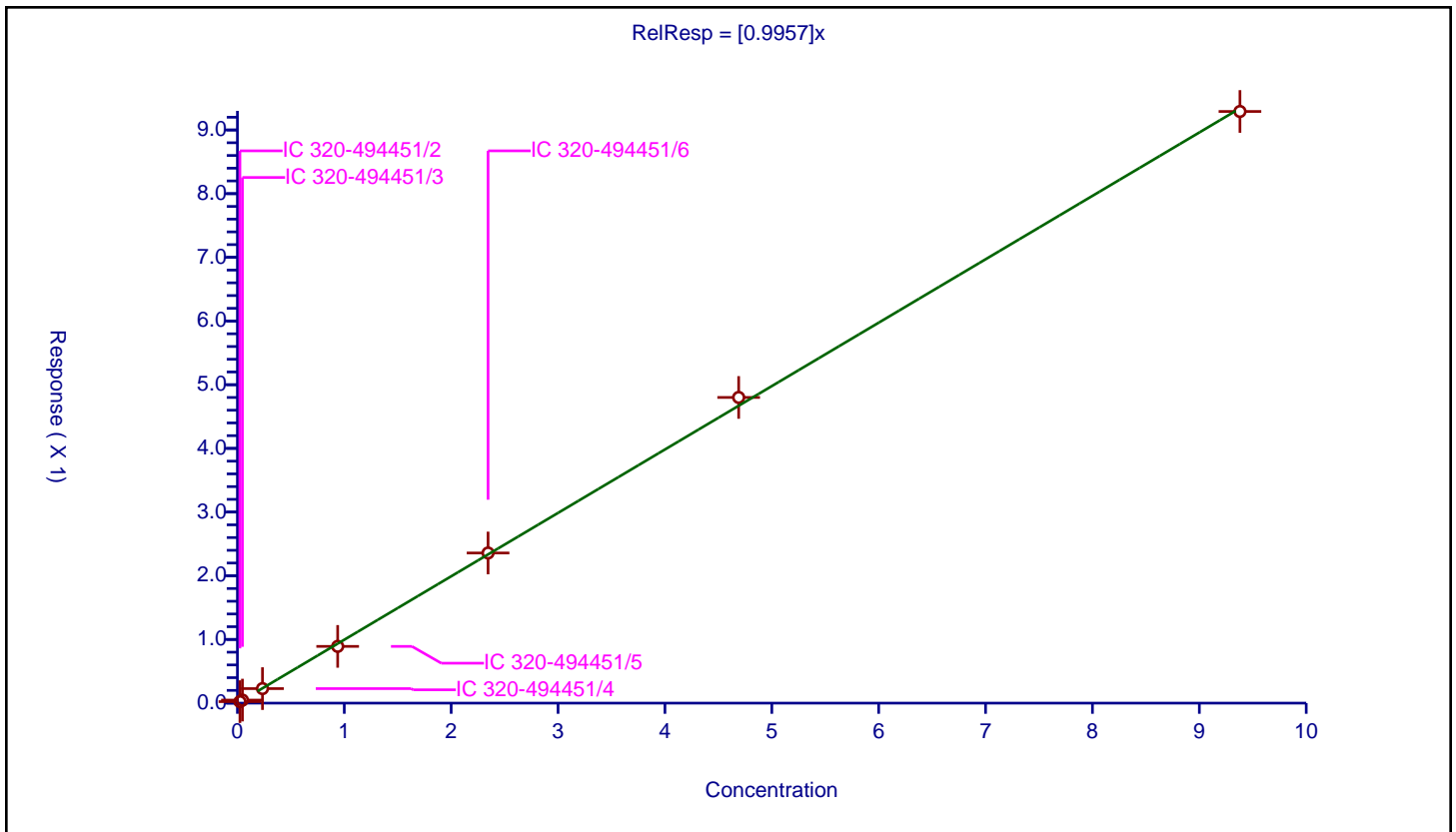
/ Perfluoropentanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9957

Error Coefficients	
Standard Error:	15300000
Relative Standard Error:	2.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02345	0.023676	1.1625	4258334.0	1.009636	Y
2	IC 320-494451/3	0.0469	0.047765	1.1625	4441748.0	1.018436	Y
3	IC 320-494451/4	0.2345	0.227986	1.1625	4426842.0	0.972223	Y
4	IC 320-494451/5	0.938	0.891198	1.1625	4428472.0	0.950105	Y
5	IC 320-494451/6	2.345	2.357651	1.1625	4284122.0	1.005395	Y
6	IC 320-494451/7	4.69	4.800316	1.1625	4342278.0	1.023522	Y
7	IC 320-494451/8	9.38	9.290716	1.1625	3955482.0	0.990481	Y



Calibration

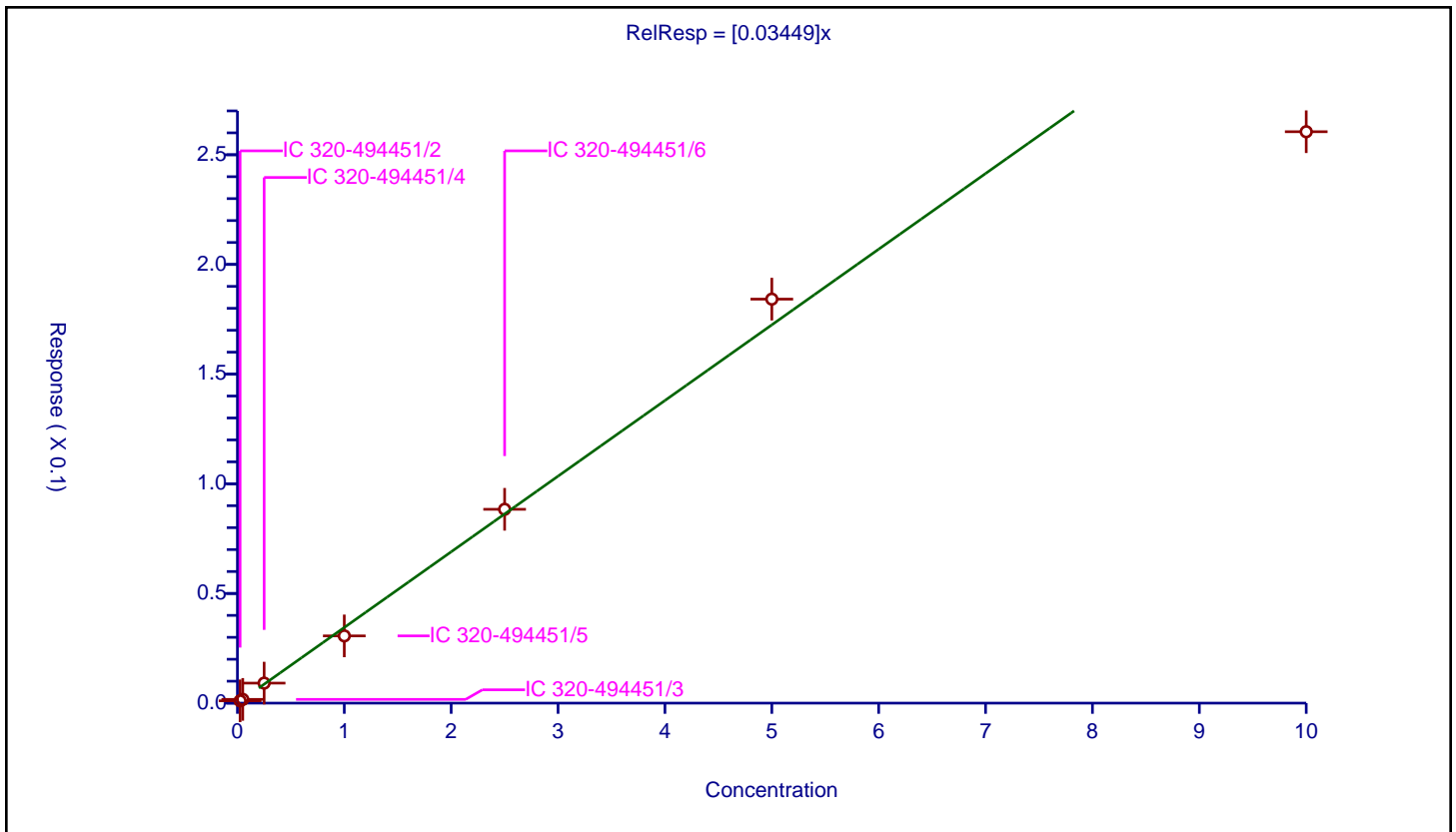
/ PFO3OA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.03449

Error Coefficients	
Standard Error:	694000
Relative Standard Error:	14.6
Correlation Coefficient:	0.944
Coefficient of Determination (Adjusted):	0.971

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.00105	1.25	6624478.0	0.041981	Y
2	IC 320-494451/3	0.05	0.001703	1.25	6993739.0	0.034055	Y
3	IC 320-494451/4	0.25	0.009128	1.25	6467493.0	0.036513	Y
4	IC 320-494451/5	1.0	0.030657	1.25	6690165.0	0.030657	Y
5	IC 320-494451/6	2.5	0.088364	1.25	6250426.0	0.035346	Y
6	IC 320-494451/7	5.0	0.184179	1.25	6760589.0	0.036836	Y
7	IC 320-494451/8	10.0	0.260499	1.25	6213293.0	0.02605	Y



**Calibration**

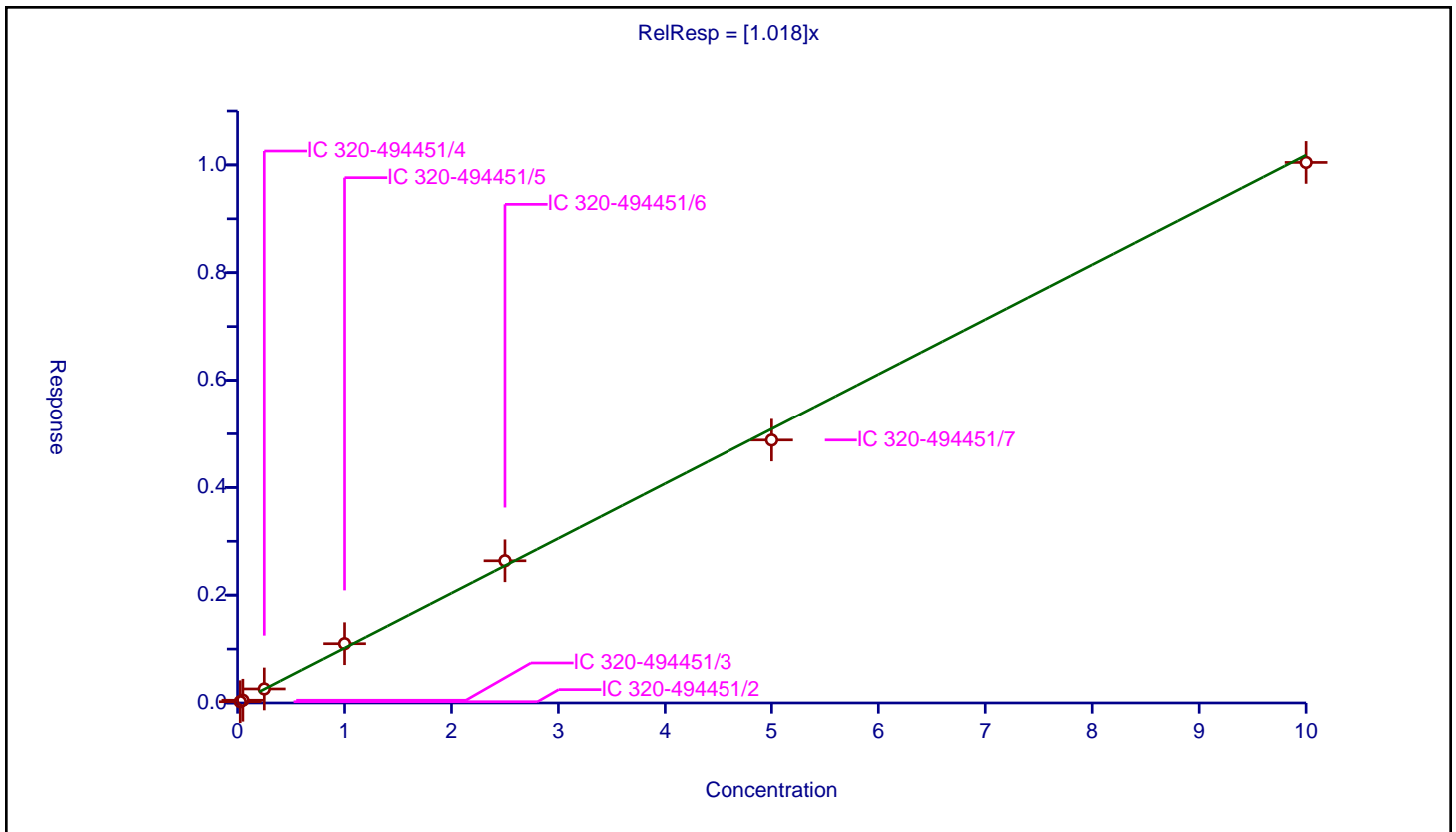
**/ Perfluoro(2-propoxypropanoic) acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.018

Error Coefficients	
Standard Error:	4350000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.023486	1.25	1173542.0	0.939421	Y
2	IC 320-494451/3	0.05	0.050699	1.25	1243193.0	1.013982	Y
3	IC 320-494451/4	0.25	0.259775	1.25	1209708.0	1.039102	Y
4	IC 320-494451/5	1.0	1.099368	1.25	1103421.0	1.099368	Y
5	IC 320-494451/6	2.5	2.637798	1.25	1100904.0	1.055119	Y
6	IC 320-494451/7	5.0	4.88282	1.25	1196589.0	0.976564	Y
7	IC 320-494451/8	10.0	10.0464	1.25	1147328.0	1.00464	Y



Calibration

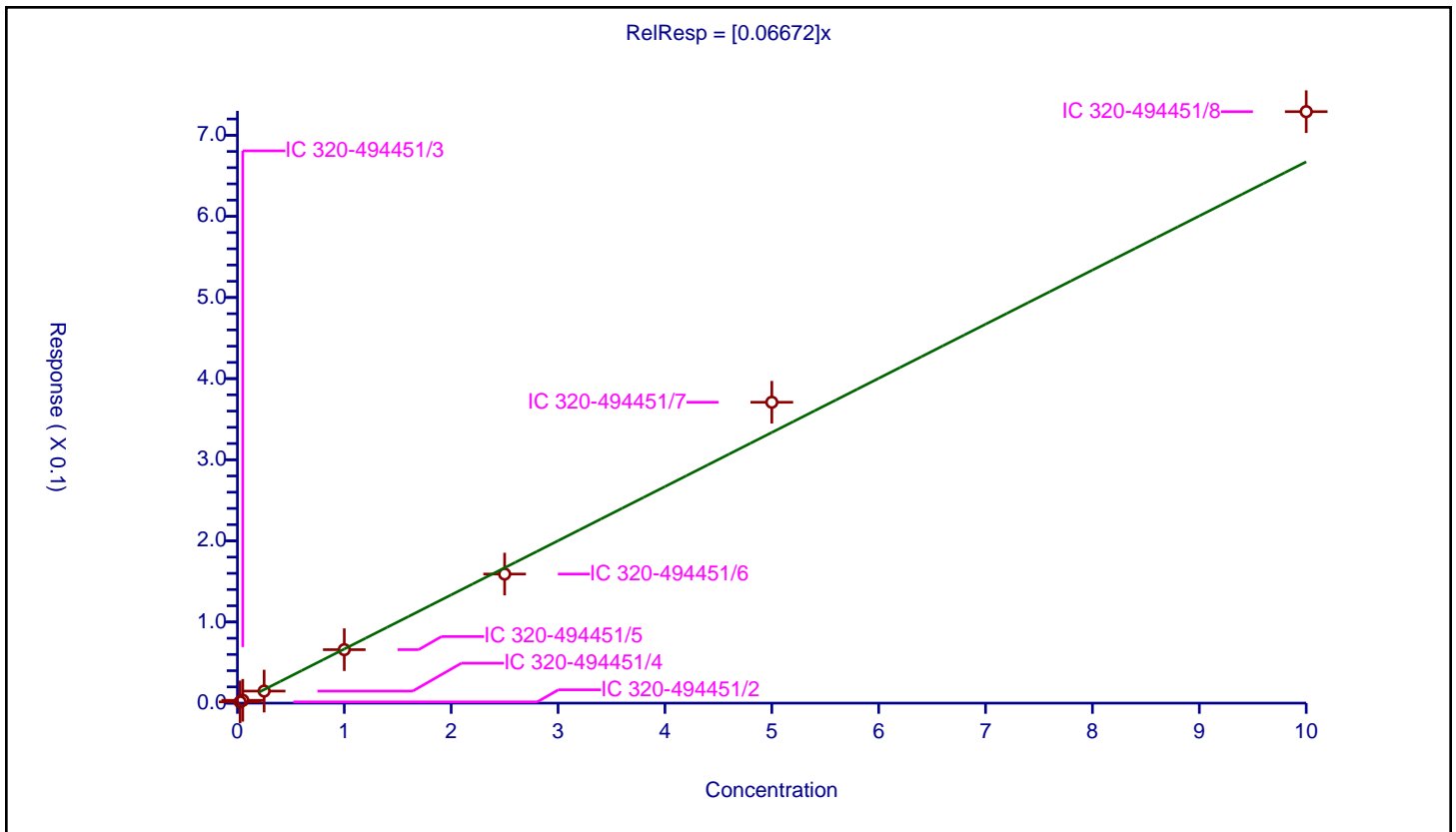
/ R-PSDCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.06672

Error Coefficients	
Standard Error:	1570000
Relative Standard Error:	8.6
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.001528	1.25	6660929.0	0.061133	Y
2	IC 320-494451/3	0.05	0.003493	1.25	6840178.0	0.069859	Y
3	IC 320-494451/4	0.25	0.014867	1.25	6712678.0	0.059467	Y
4	IC 320-494451/5	1.0	0.065888	1.25	6685179.0	0.065888	Y
5	IC 320-494451/6	2.5	0.15911	1.25	6635341.0	0.063644	Y
6	IC 320-494451/7	5.0	0.370851	1.25	6265091.0	0.07417	Y
7	IC 320-494451/8	10.0	0.72905	1.25	5552296.0	0.072905	Y



**Calibration**

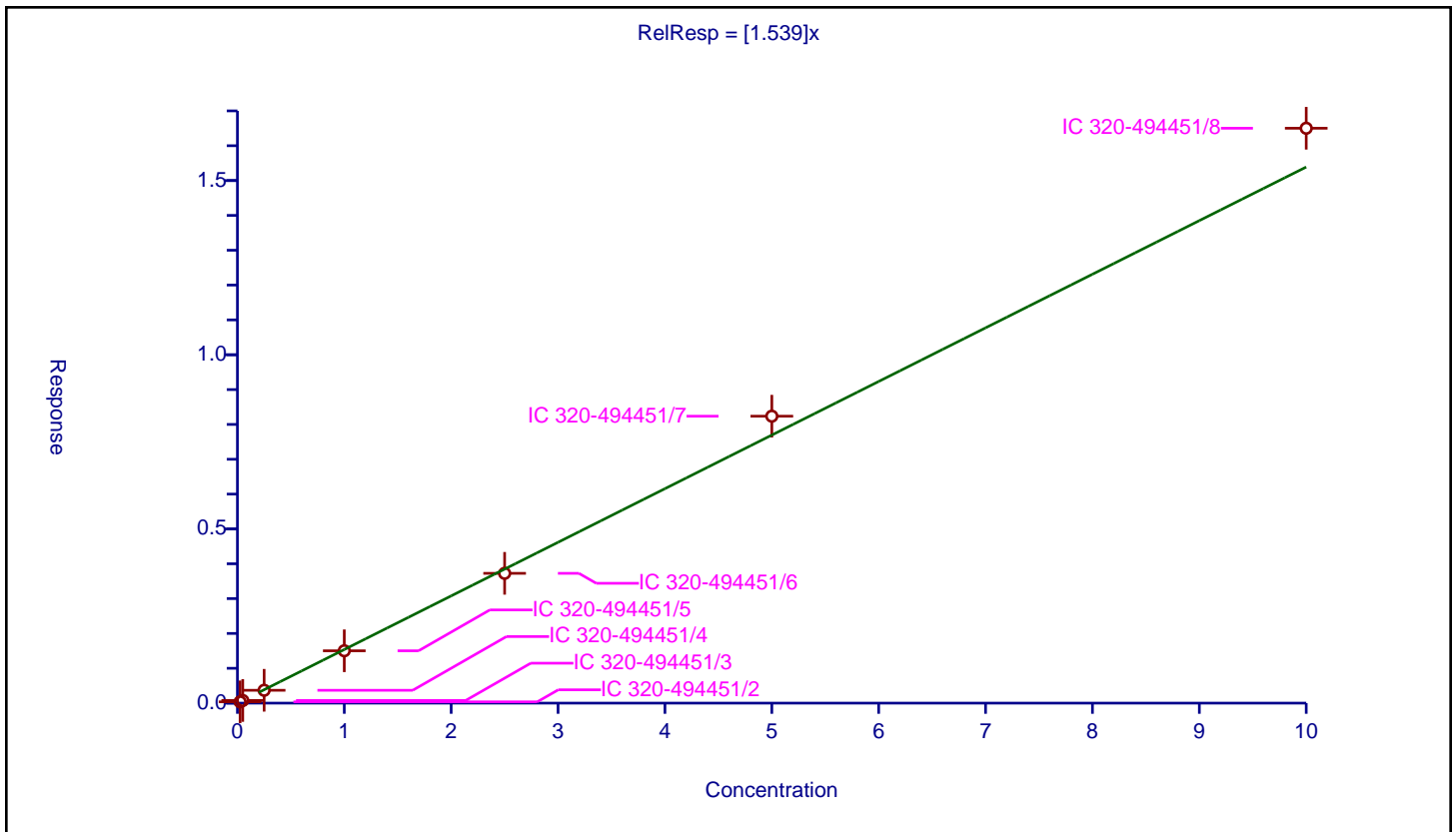
/ Hydro-EVE Acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.539

Error Coefficients	
Standard Error:	35400000
Relative Standard Error:	4.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.037297	1.25	6660929.0	1.491886	Y
2	IC 320-494451/3	0.05	0.075754	1.25	6840178.0	1.51507	Y
3	IC 320-494451/4	0.25	0.368651	1.25	6712678.0	1.474604	Y
4	IC 320-494451/5	1.0	1.502912	1.25	6685179.0	1.502912	Y
5	IC 320-494451/6	2.5	3.725585	1.25	6635341.0	1.490234	Y
6	IC 320-494451/7	5.0	8.236632	1.25	6265091.0	1.647326	Y
7	IC 320-494451/8	10.0	16.501243	1.25	5552296.0	1.650124	Y



**Calibration**

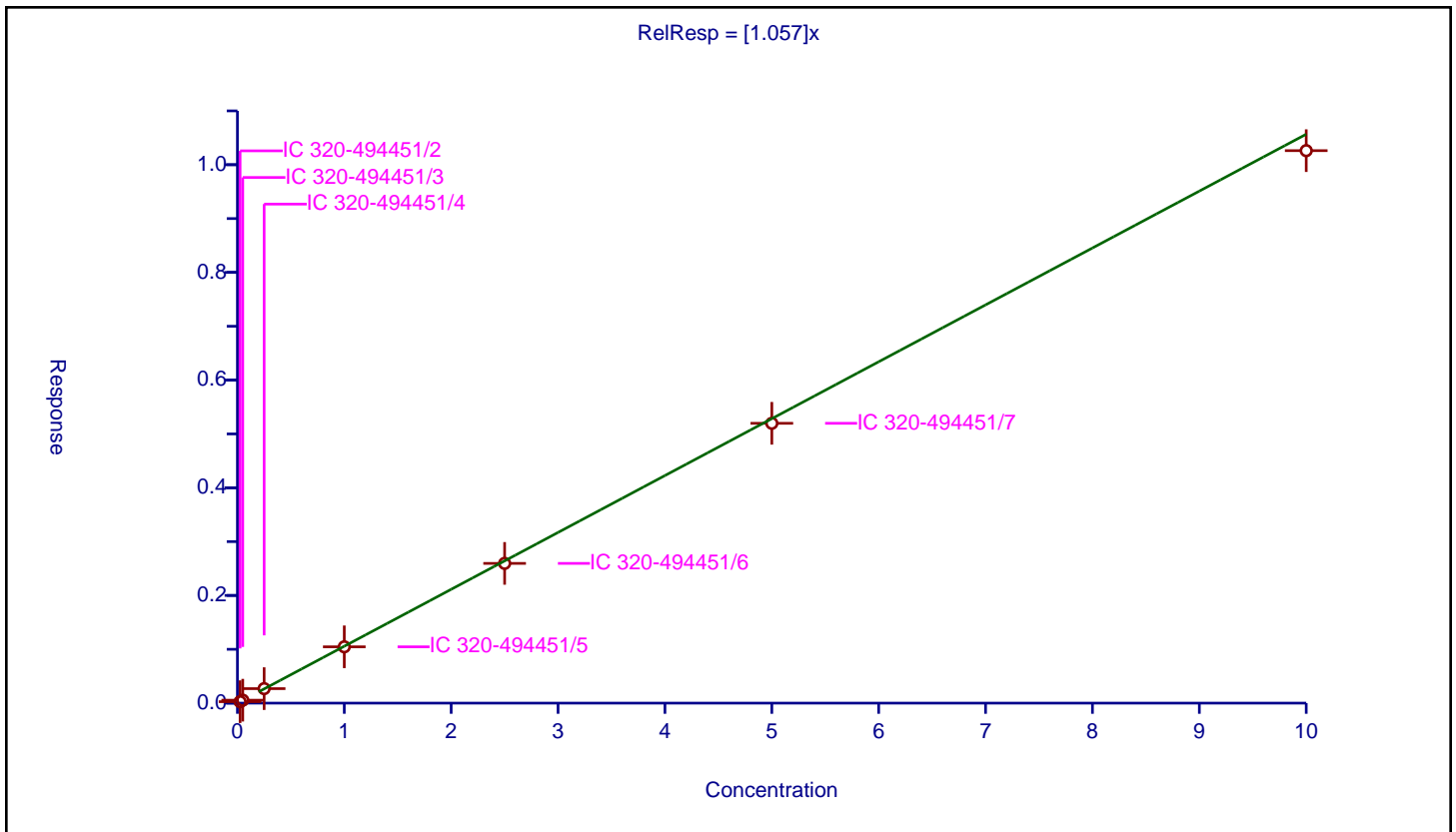
/ Perfluoroheptanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.057

Error Coefficients	
Standard Error:	22300000
Relative Standard Error:	2.4
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.026906	1.25	6660929.0	1.076239	Y
2	IC 320-494451/3	0.05	0.054668	1.25	6840178.0	1.093367	Y
3	IC 320-494451/4	0.25	0.26934	1.25	6712678.0	1.077361	Y
4	IC 320-494451/5	1.0	1.04597	1.25	6685179.0	1.04597	Y
5	IC 320-494451/6	2.5	2.595371	1.25	6635341.0	1.038149	Y
6	IC 320-494451/7	5.0	5.197485	1.25	6265091.0	1.039497	Y
7	IC 320-494451/8	10.0	10.261285	1.25	5552296.0	1.026128	Y





**Calibration**

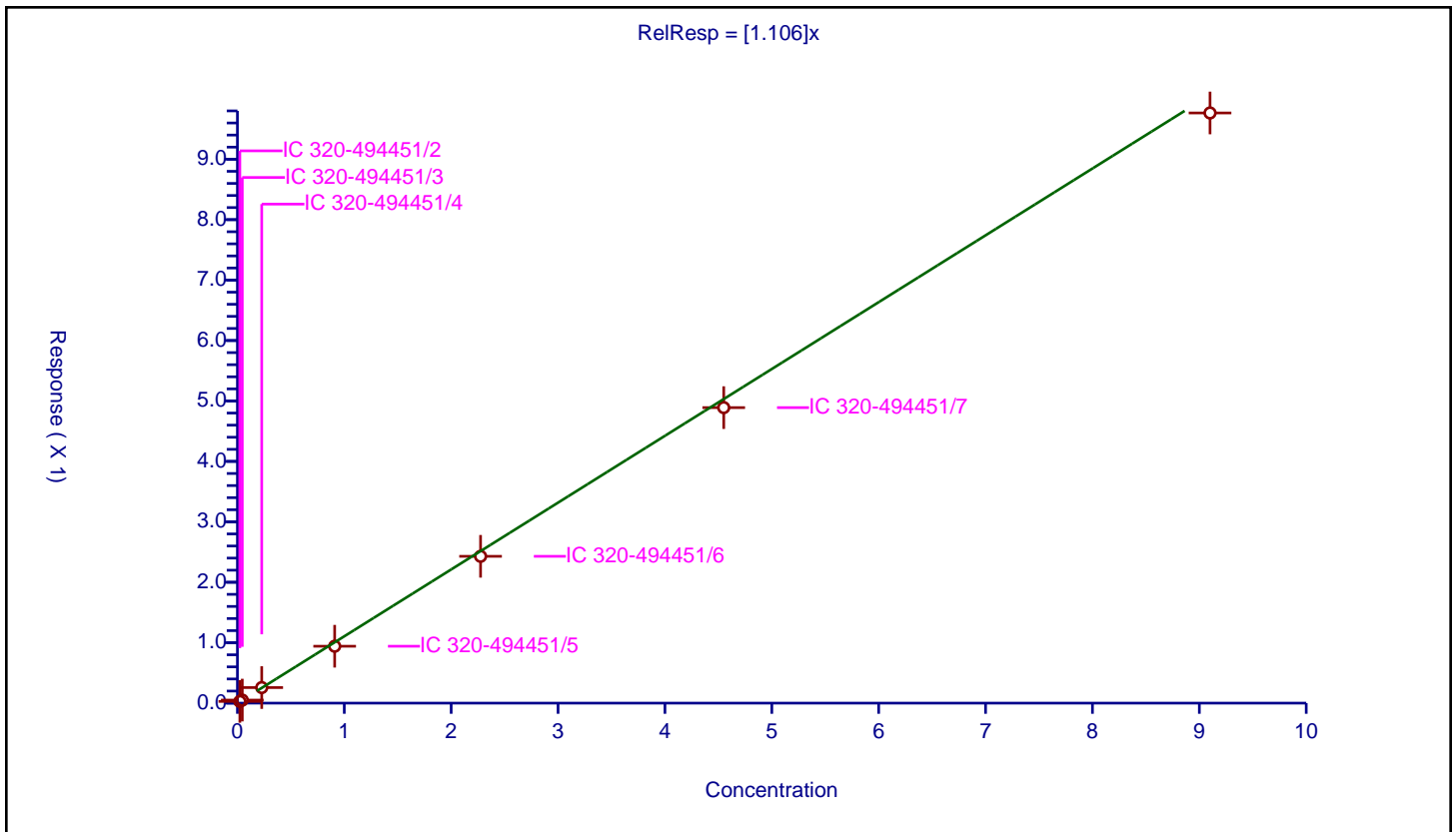
**/ Perfluorohexanesulfonic acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.106

Error Coefficients	
Standard Error:	11200000
Relative Standard Error:	6.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02275	0.028312	1.1825	3118582.0	1.244473	Y
2	IC 320-494451/3	0.0455	0.050645	1.1825	3351435.0	1.113071	Y
3	IC 320-494451/4	0.2275	0.257624	1.1825	3058001.0	1.132412	Y
4	IC 320-494451/5	0.91	0.941701	1.1825	3196150.0	1.034837	Y
5	IC 320-494451/6	2.275	2.429533	1.1825	3133297.0	1.067927	Y
6	IC 320-494451/7	4.55	4.890077	1.1825	3141813.0	1.074742	Y
7	IC 320-494451/8	9.1	9.765424	1.1825	2796283.0	1.073123	Y



Calibration

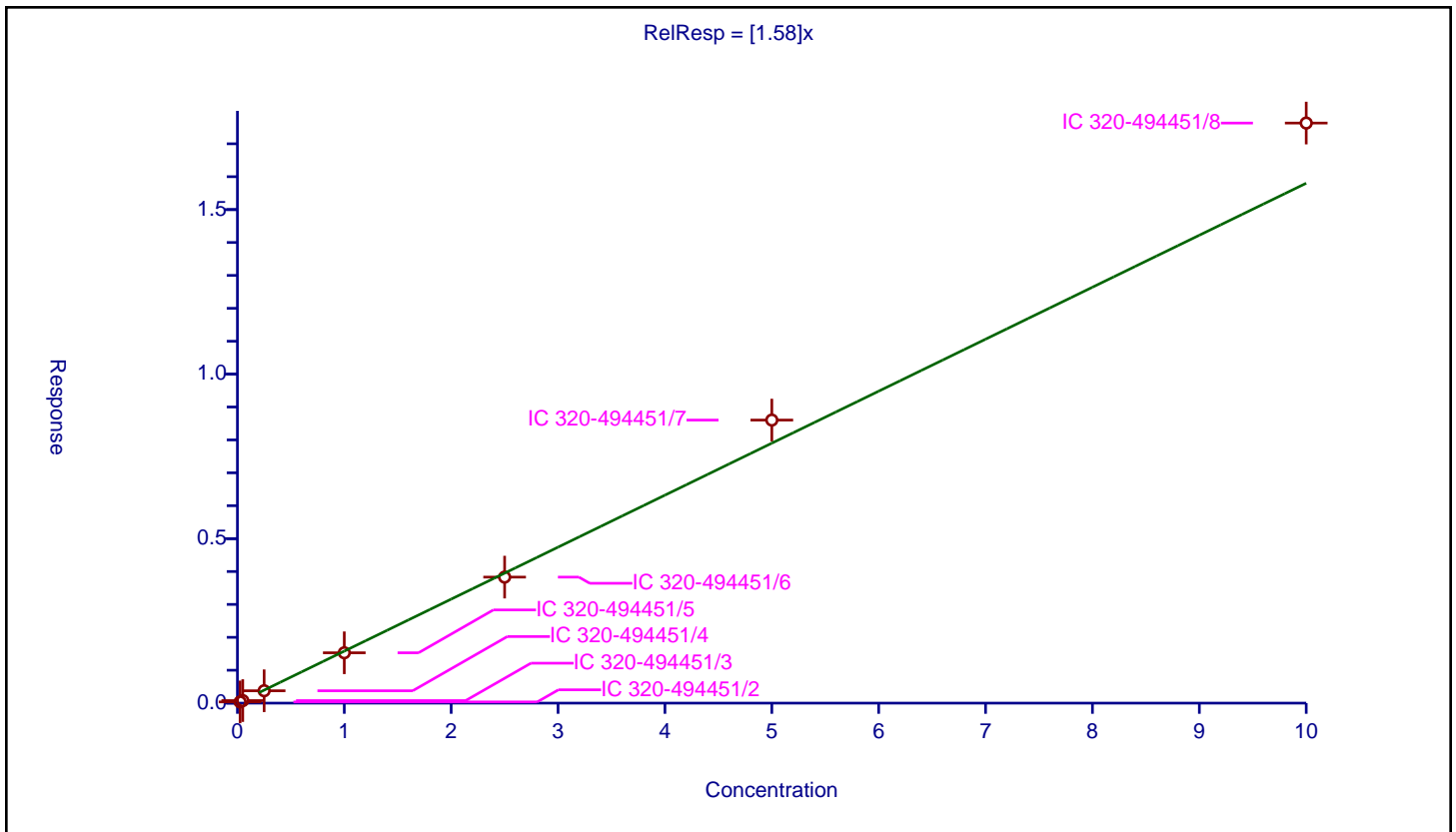
/ Hydro-PS Acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.58

Error Coefficients	
Standard Error:	37600000
Relative Standard Error:	7.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.036829	1.25	6660929.0	1.473173	Y
2	IC 320-494451/3	0.05	0.07696	1.25	6840178.0	1.539192	Y
3	IC 320-494451/4	0.25	0.375636	1.25	6712678.0	1.502546	Y
4	IC 320-494451/5	1.0	1.530303	1.25	6685179.0	1.530303	Y
5	IC 320-494451/6	2.5	3.830353	1.25	6635341.0	1.532141	Y
6	IC 320-494451/7	5.0	8.602701	1.25	6265091.0	1.72054	Y
7	IC 320-494451/8	10.0	17.630391	1.25	5552296.0	1.763039	Y



Calibration

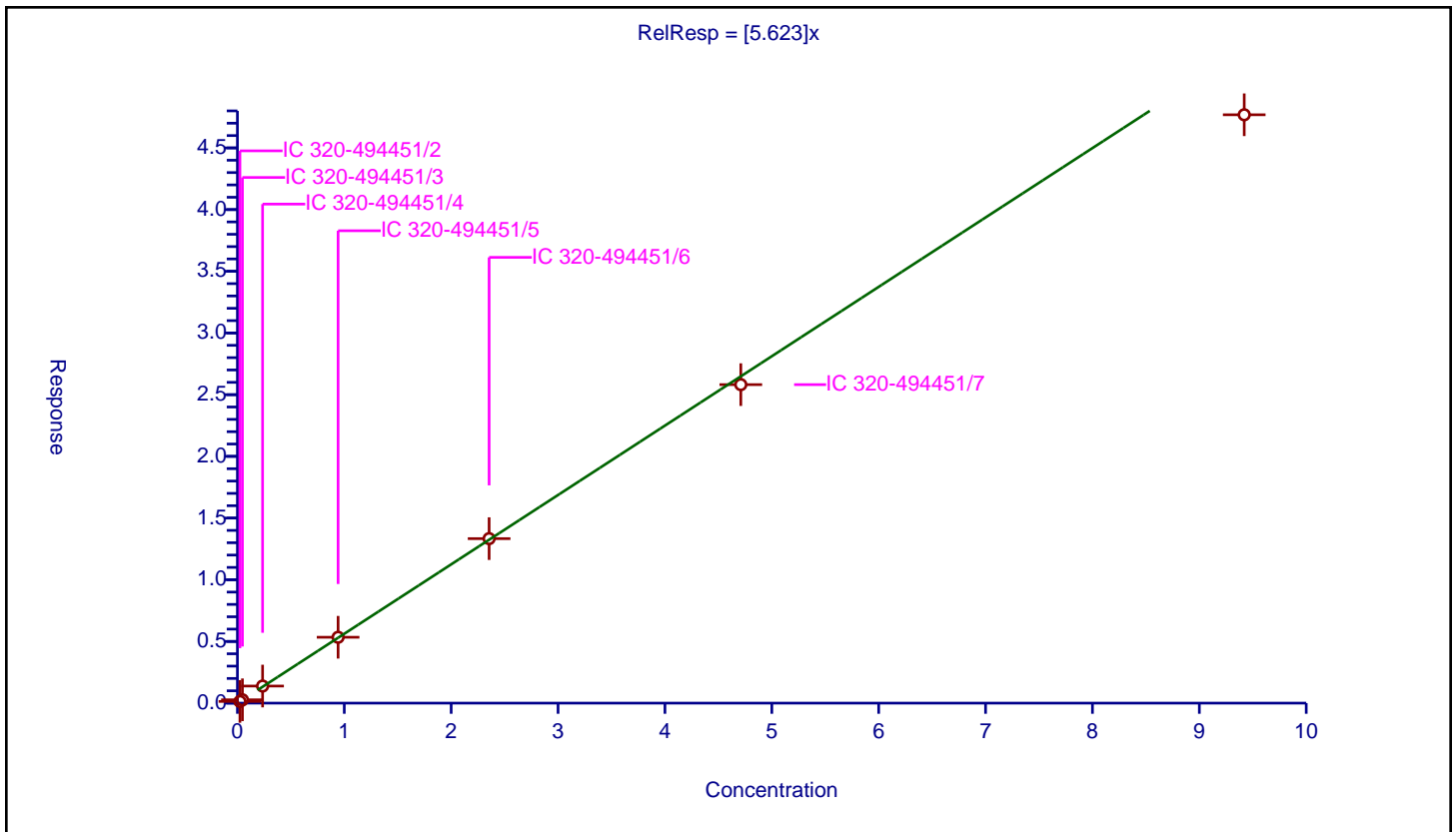
/ DONA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	5.623

Error Coefficients	
Standard Error:	44800000
Relative Standard Error:	5.0
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02355	0.138111	1.195	2467646.0	5.864568	Y
2	IC 320-494451/3	0.0471	0.270616	1.195	2616029.0	5.745564	Y
3	IC 320-494451/4	0.2355	1.384705	1.195	2463485.0	5.879852	Y
4	IC 320-494451/5	0.942	5.338233	1.195	2495449.0	5.666914	Y
5	IC 320-494451/6	2.355	13.332647	1.195	2504282.0	5.661421	Y
6	IC 320-494451/7	4.71	25.813479	1.195	2411706.0	5.480569	Y
7	IC 320-494451/8	9.42	47.685133	1.195	2298584.0	5.062116	Y



Calibration

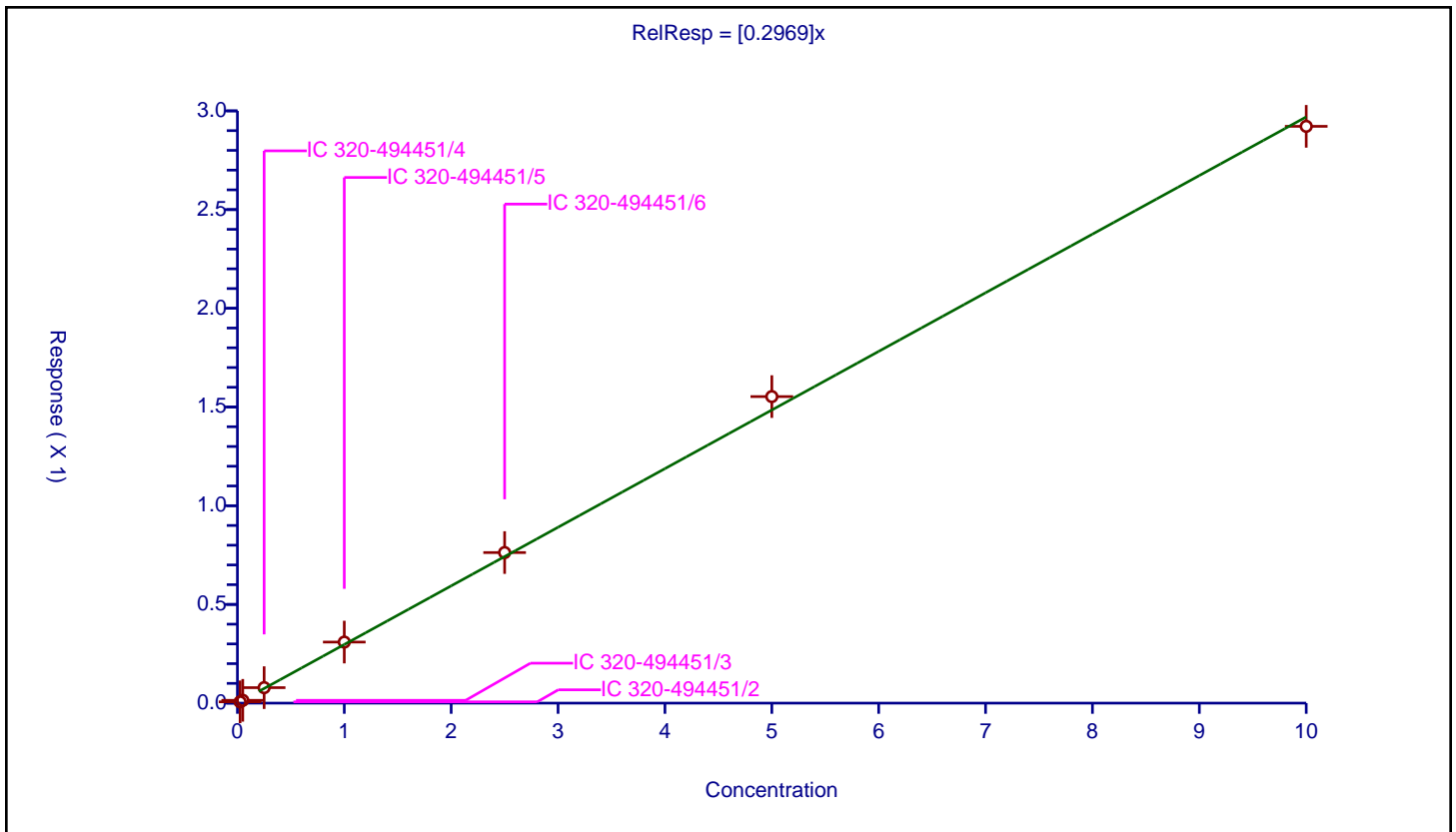
/ 5:3 FTCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2969

Error Coefficients	
Standard Error:	5610000
Relative Standard Error:	6.2
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.006573	1.25	5971568.0	0.262913	Y
2	IC 320-494451/3	0.05	0.014254	1.25	6165408.0	0.285078	Y
3	IC 320-494451/4	0.25	0.078404	1.25	5788825.0	0.313615	Y
4	IC 320-494451/5	1.0	0.309227	1.25	5637211.0	0.309227	Y
5	IC 320-494451/6	2.5	0.762677	1.25	5579562.0	0.305071	Y
6	IC 320-494451/7	5.0	1.55274	1.25	5421593.0	0.310548	Y
7	IC 320-494451/8	10.0	2.92169	1.25	4874188.0	0.292169	Y



Calibration

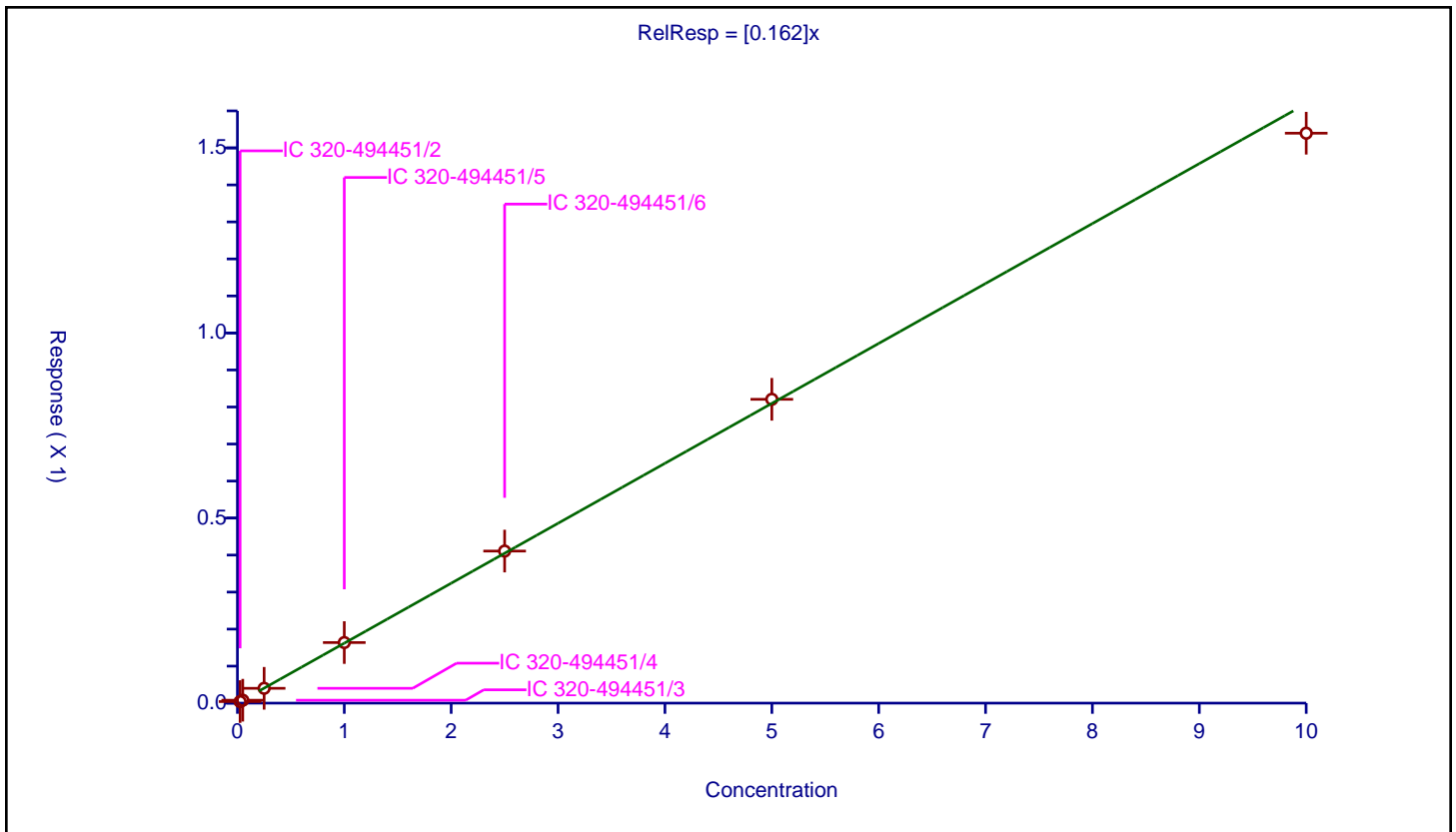
/ PFECA G

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.162

Error Coefficients	
Standard Error:	2960000
Relative Standard Error:	3.1
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.004232	1.25	5971568.0	0.169277	Y
2	IC 320-494451/3	0.05	0.007907	1.25	6165408.0	0.158136	Y
3	IC 320-494451/4	0.25	0.040042	1.25	5788825.0	0.16017	Y
4	IC 320-494451/5	1.0	0.163643	1.25	5637211.0	0.163643	Y
5	IC 320-494451/6	2.5	0.410805	1.25	5579562.0	0.164322	Y
6	IC 320-494451/7	5.0	0.820805	1.25	5421593.0	0.164161	Y
7	IC 320-494451/8	10.0	1.539682	1.25	4874188.0	0.153968	Y



Calibration

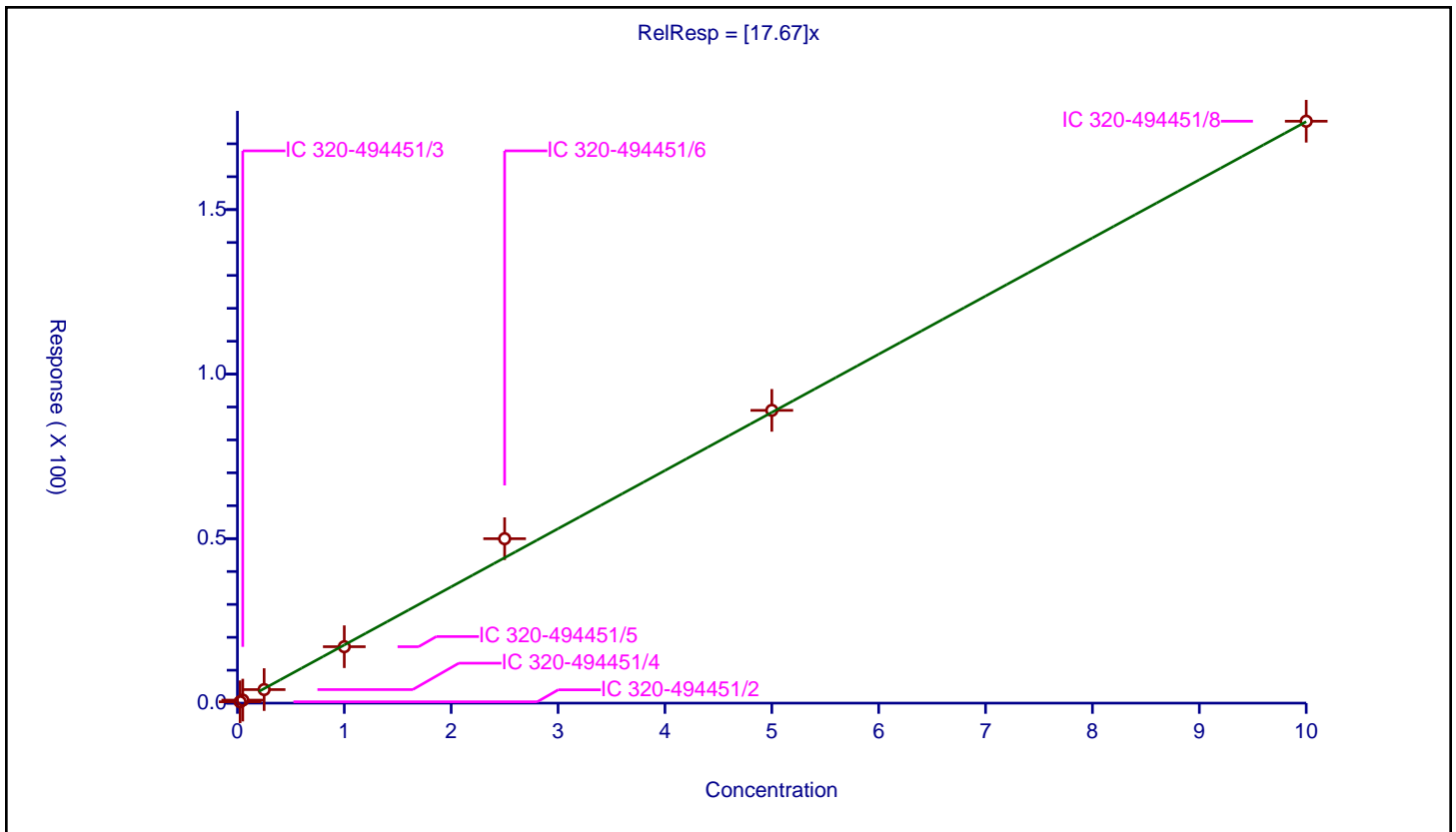
/ 6:2 FTUCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	17.67

Error Coefficients	
Standard Error:	20400000
Relative Standard Error:	7.2
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.405569	1.25	385030.0	16.222762	Y
2	IC 320-494451/3	0.05	0.920867	1.25	352012.0	18.417341	Y
3	IC 320-494451/4	0.25	4.11513	1.25	376753.0	16.460519	Y
4	IC 320-494451/5	1.0	17.145777	1.25	359138.0	17.145777	Y
5	IC 320-494451/6	2.5	49.972816	1.25	314666.0	19.989127	Y
6	IC 320-494451/7	5.0	88.978882	1.25	336685.0	17.795776	Y
7	IC 320-494451/8	10.0	176.859211	1.25	294231.0	17.685921	Y



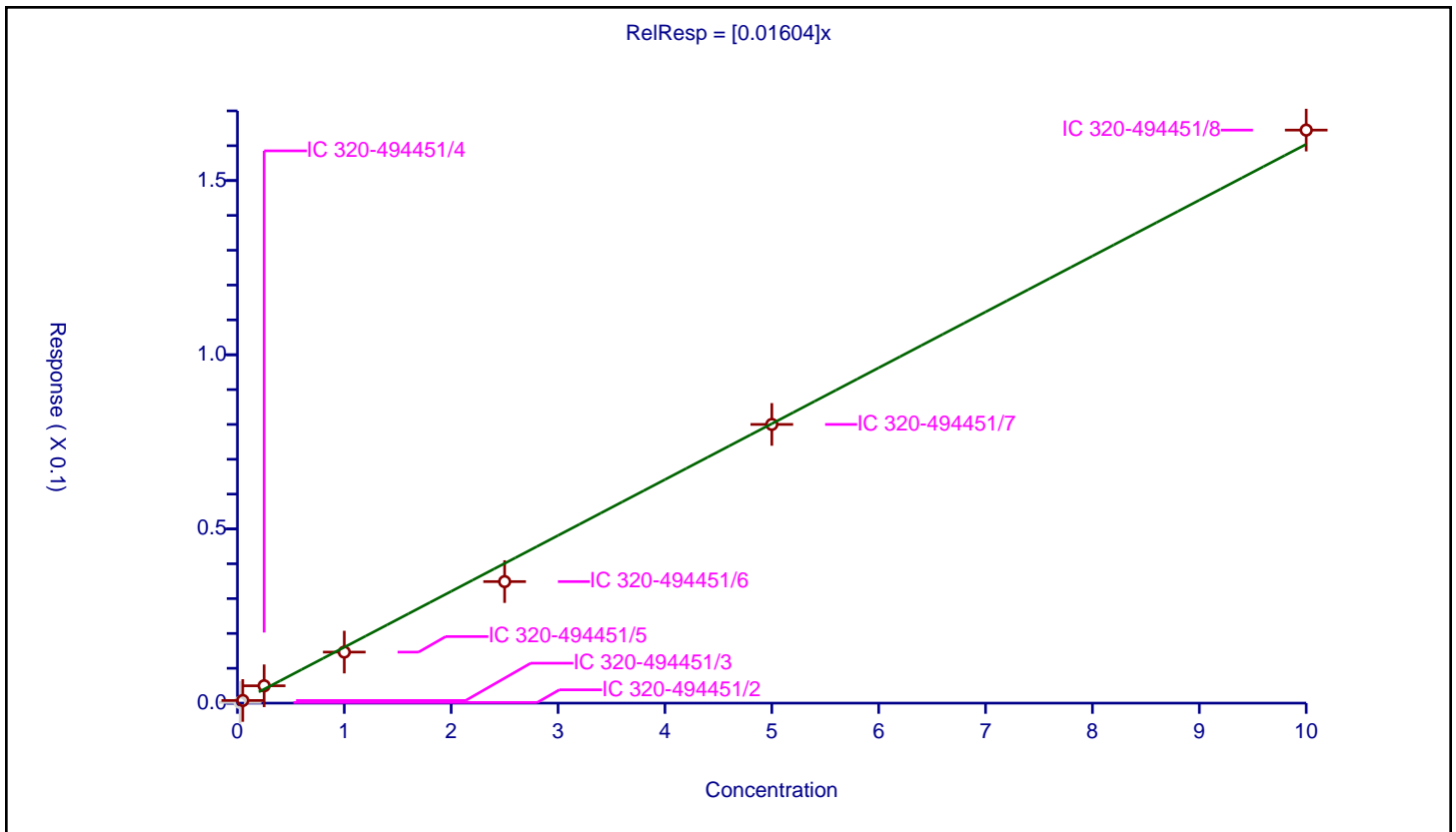
Calibration

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.01604

Error Coefficients	
Standard Error:	335000
Relative Standard Error:	13.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.000193	1.25	5971568.0	0.00772	N
2	IC 320-494451/3	0.05	0.000764	1.25	6165408.0	0.015271	Y
3	IC 320-494451/4	0.25	0.004983	1.25	5788825.0	0.019931	Y
4	IC 320-494451/5	1.0	0.014649	1.25	5637211.0	0.014649	Y
5	IC 320-494451/6	2.5	0.034885	1.25	5579562.0	0.013954	Y
6	IC 320-494451/7	5.0	0.080001	1.25	5421593.0	0.016	Y
7	IC 320-494451/8	10.0	0.164485	1.25	4874188.0	0.016448	Y



Calibration

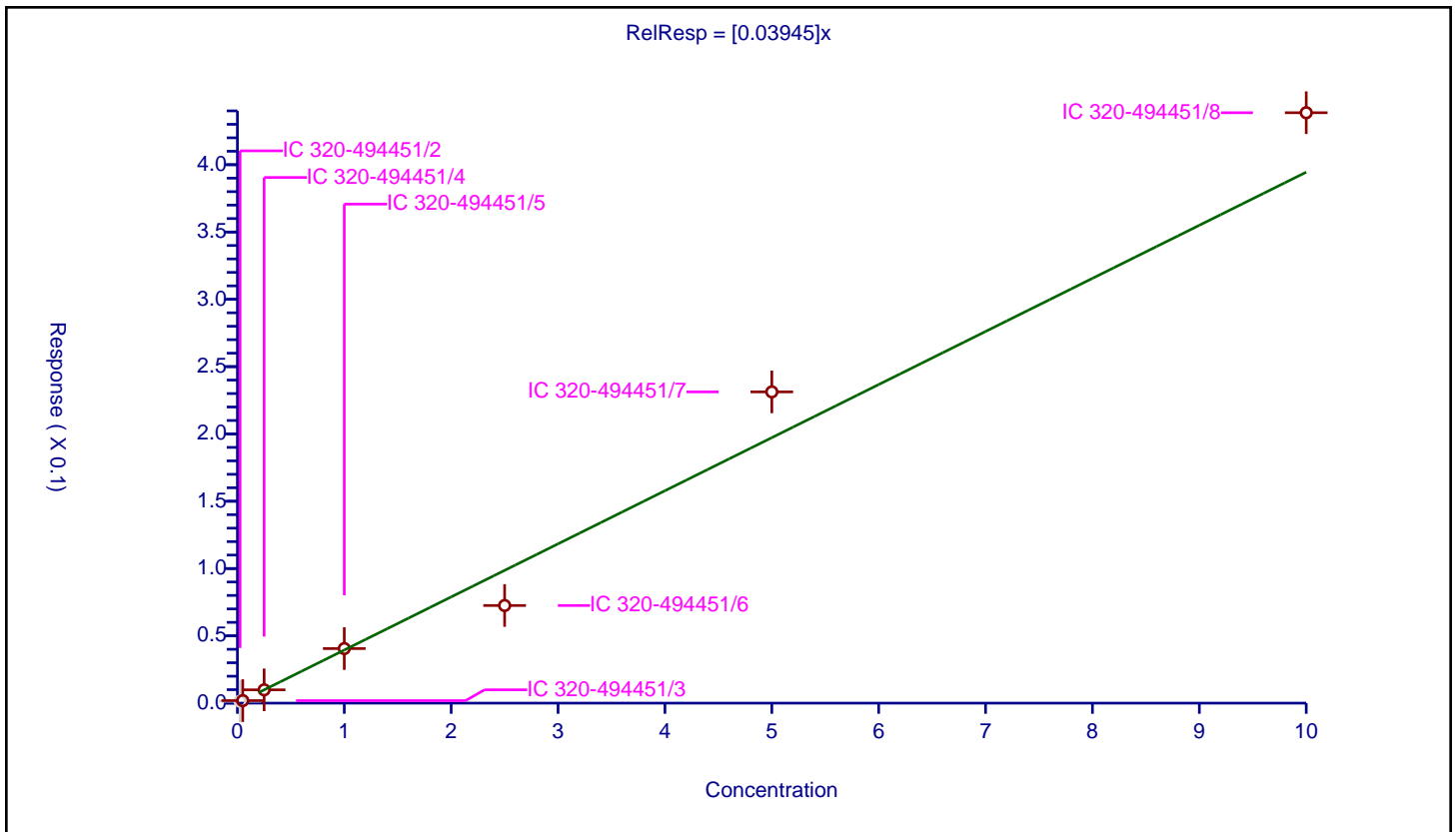
/ PFO4DA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.03945

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	15.2
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.001416	1.25	6660929.0	0.056659	N
2	IC 320-494451/3	0.05	0.001876	1.25	6840178.0	0.037514	Y
3	IC 320-494451/4	0.25	0.009875	1.25	6712678.0	0.039498	Y
4	IC 320-494451/5	1.0	0.040541	1.25	6685179.0	0.040541	Y
5	IC 320-494451/6	2.5	0.072531	1.25	6635341.0	0.029012	Y
6	IC 320-494451/7	5.0	0.231244	1.25	6265091.0	0.046249	Y
7	IC 320-494451/8	10.0	0.438631	1.25	5552296.0	0.043863	Y





**Calibration**

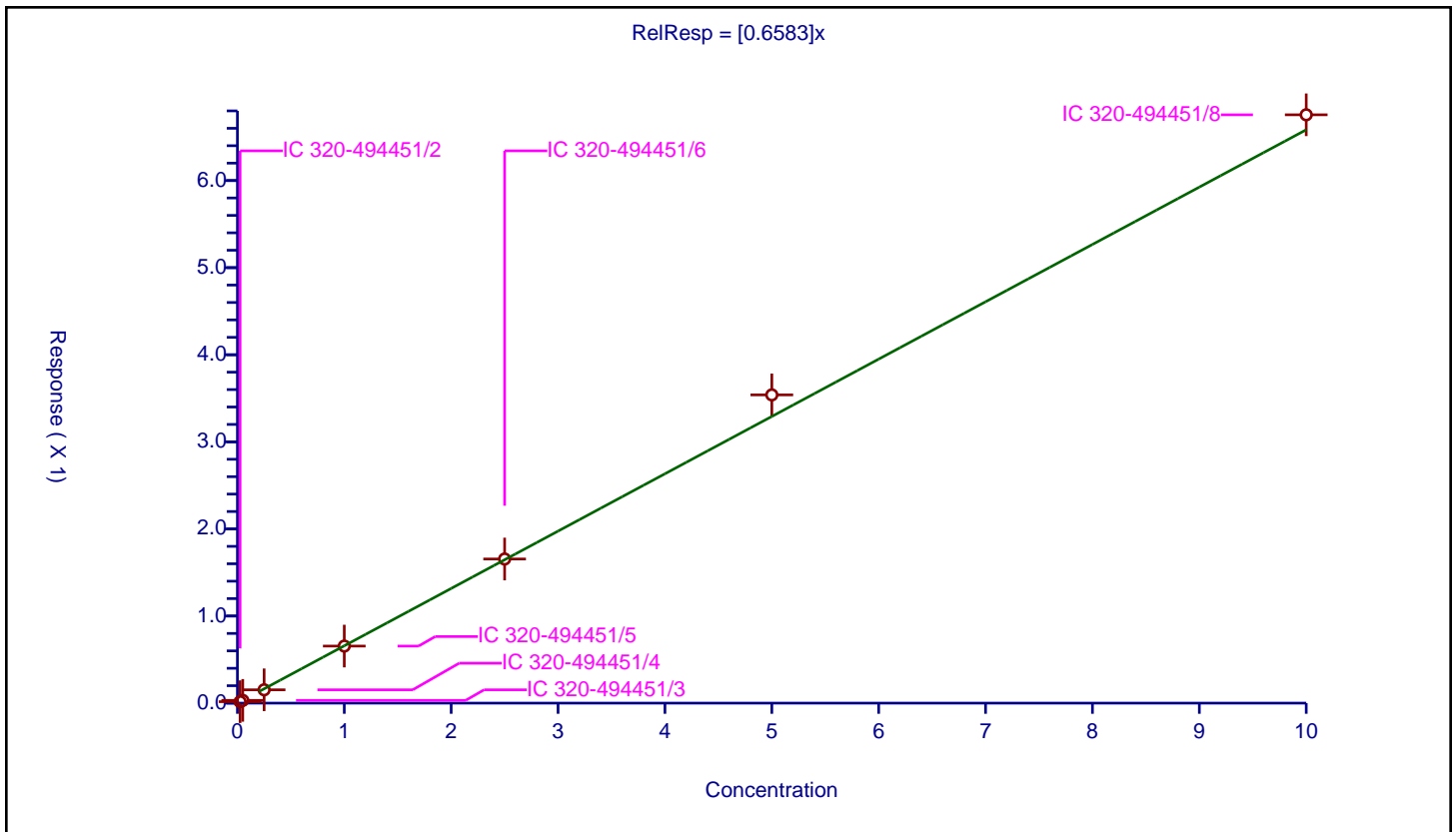
**/ PS Acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	0.6583

Error Coefficients	
<b>Standard Error:</b>	17300000
<b>Relative Standard Error:</b>	4.6
<b>Correlation Coefficient:</b>	0.997
<b>Coefficient of Determination (Adjusted):</b>	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.016553	1.25	7396728.0	0.662104	Y
2	IC 320-494451/3	0.05	0.031661	1.25	8106729.0	0.633212	Y
3	IC 320-494451/4	0.25	0.153108	1.25	7753318.0	0.61243	Y
4	IC 320-494451/5	1.0	0.655192	1.25	7287539.0	0.655192	Y
5	IC 320-494451/6	2.5	1.654825	1.25	7383540.0	0.66193	Y
6	IC 320-494451/7	5.0	3.539092	1.25	7033219.0	0.707818	Y
7	IC 320-494451/8	10.0	6.755076	1.25	6620796.0	0.675508	Y



**Calibration**

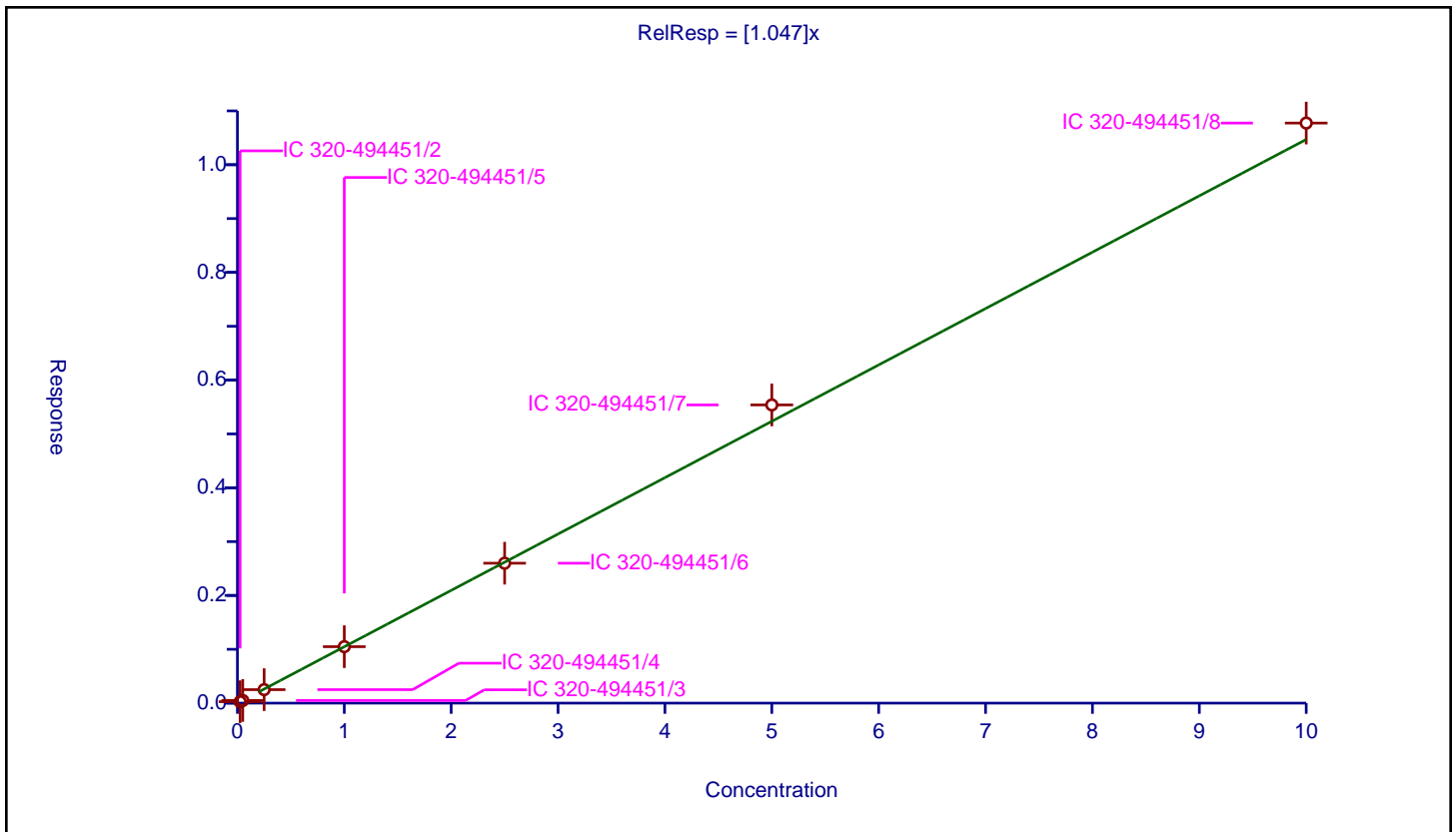
**/ EVE Acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	1.047

Error Coefficients	
<b>Standard Error:</b>	27400000
<b>Relative Standard Error:</b>	4.2
<b>Correlation Coefficient:</b>	0.998
<b>Coefficient of Determination (Adjusted):</b>	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.026759	1.25	7396728.0	1.070358	Y
2	IC 320-494451/3	0.05	0.049138	1.25	8106729.0	0.982761	Y
3	IC 320-494451/4	0.25	0.250575	1.25	7753318.0	1.0023	Y
4	IC 320-494451/5	1.0	1.048395	1.25	7287539.0	1.048395	Y
5	IC 320-494451/6	2.5	2.598858	1.25	7383540.0	1.039543	Y
6	IC 320-494451/7	5.0	5.538812	1.25	7033219.0	1.107762	Y
7	IC 320-494451/8	10.0	10.7741	1.25	6620796.0	1.07741	Y



Calibration

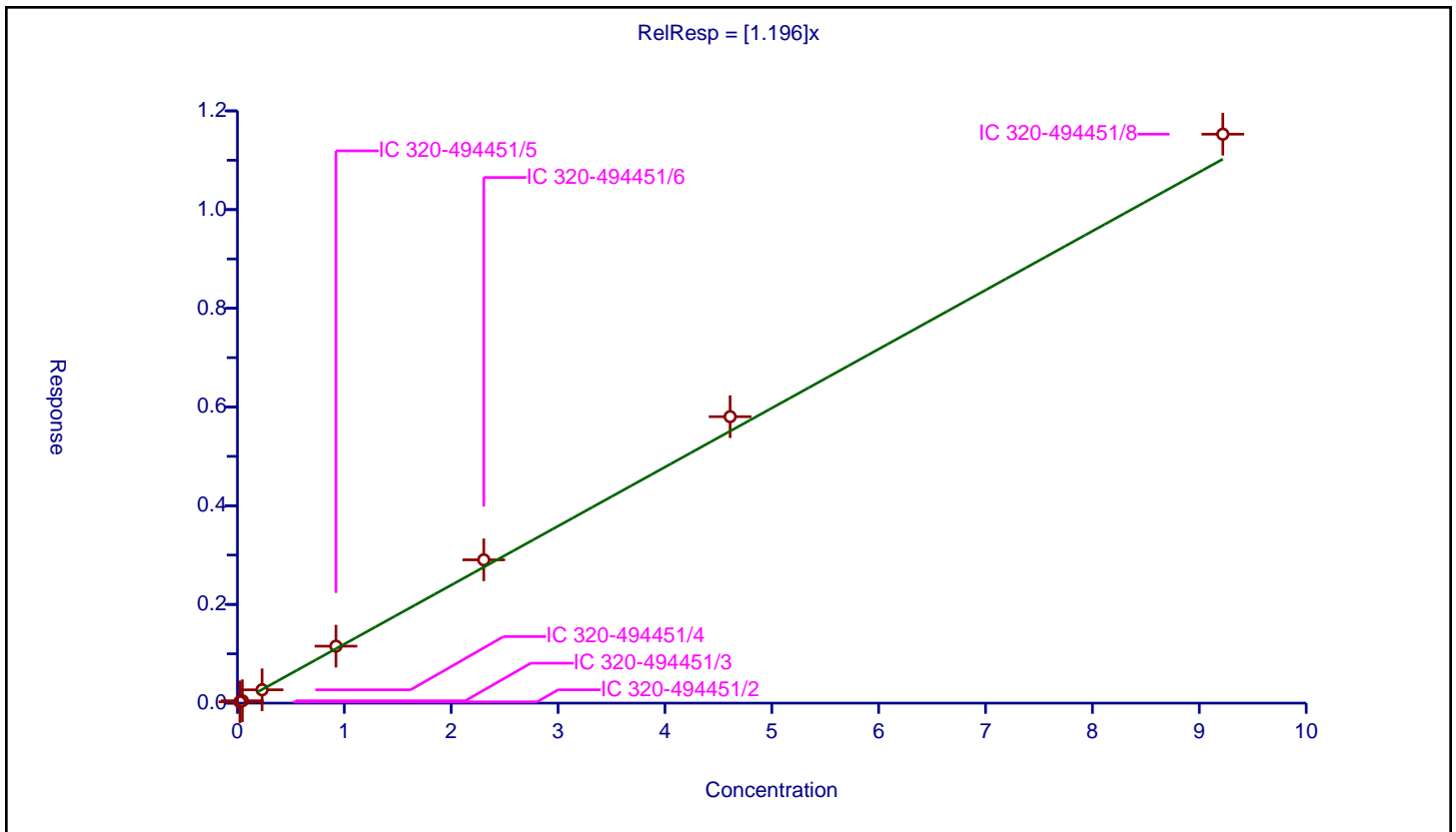
/ PFECHS

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.196

Error Coefficients	
Standard Error:	29300000
Relative Standard Error:	7.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02305	0.026301	1.25	7396728.0	1.141033	Y
2	IC 320-494451/3	0.0461	0.047721	1.25	8106729.0	1.035159	Y
3	IC 320-494451/4	0.2305	0.27014	1.25	7753318.0	1.171976	Y
4	IC 320-494451/5	0.922	1.153826	1.25	7287539.0	1.251438	Y
5	IC 320-494451/6	2.305	2.903825	1.25	7383540.0	1.259794	Y
6	IC 320-494451/7	4.61	5.804313	1.25	7033219.0	1.25907	Y
7	IC 320-494451/8	9.22	11.528135	1.25	6620796.0	1.25034	Y



**Calibration**

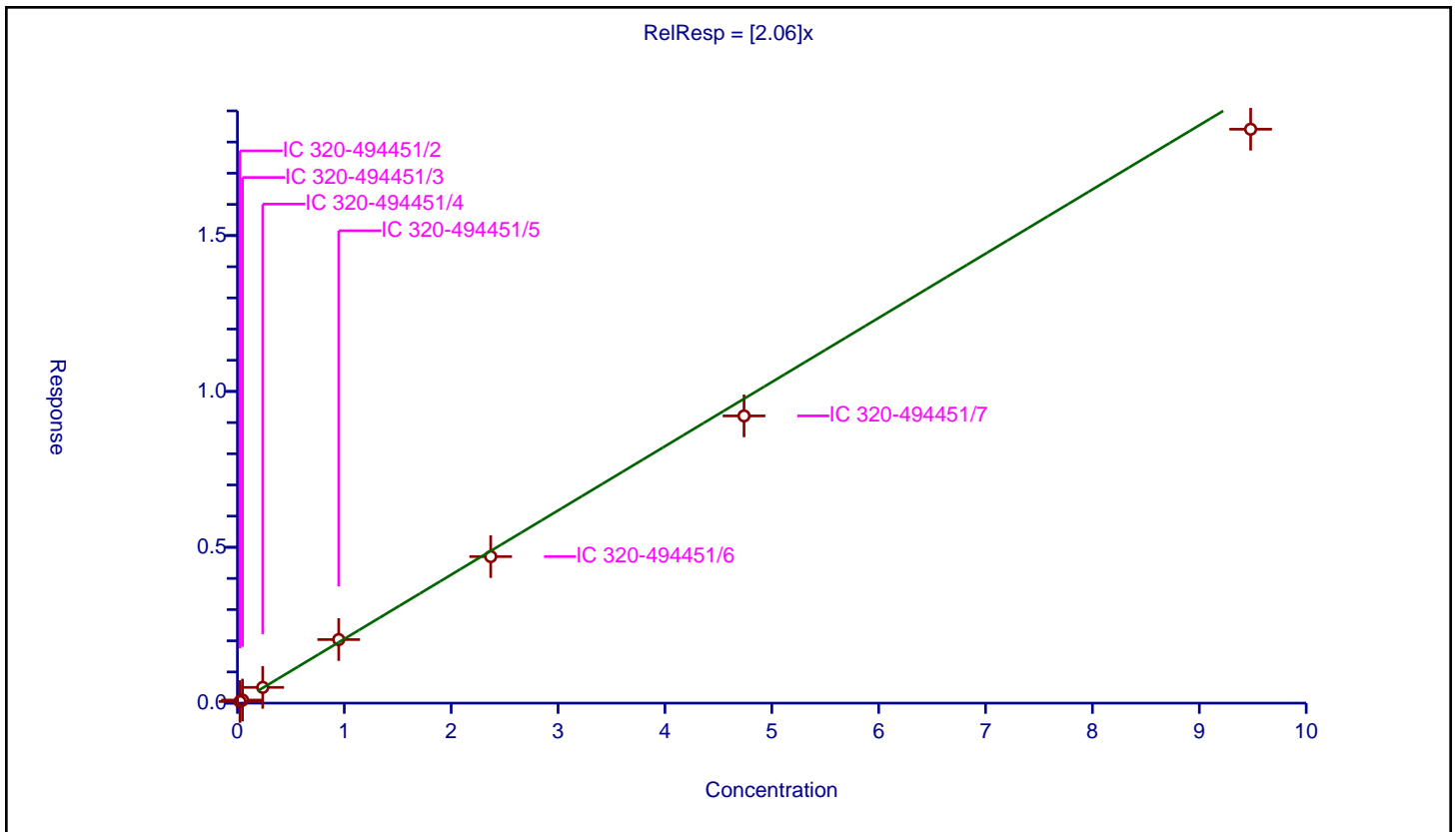
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.06

Error Coefficients	
Standard Error:	7690000
Relative Standard Error:	4.9
Correlation Coefficient:	0.971
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0237	0.05172	1.1875	1679850.0	2.182259	Y
2	IC 320-494451/3	0.0474	0.09881	1.1875	1700674.0	2.084608	Y
3	IC 320-494451/4	0.237	0.505201	1.1875	1490395.0	2.131649	Y
4	IC 320-494451/5	0.948	2.038868	1.1875	1488535.0	2.150704	Y
5	IC 320-494451/6	2.37	4.702025	1.1875	1406104.0	1.983977	Y
6	IC 320-494451/7	4.74	9.215214	1.1875	1264947.0	1.944138	Y
7	IC 320-494451/8	9.48	18.411031	1.1875	958472.0	1.942092	Y



Calibration

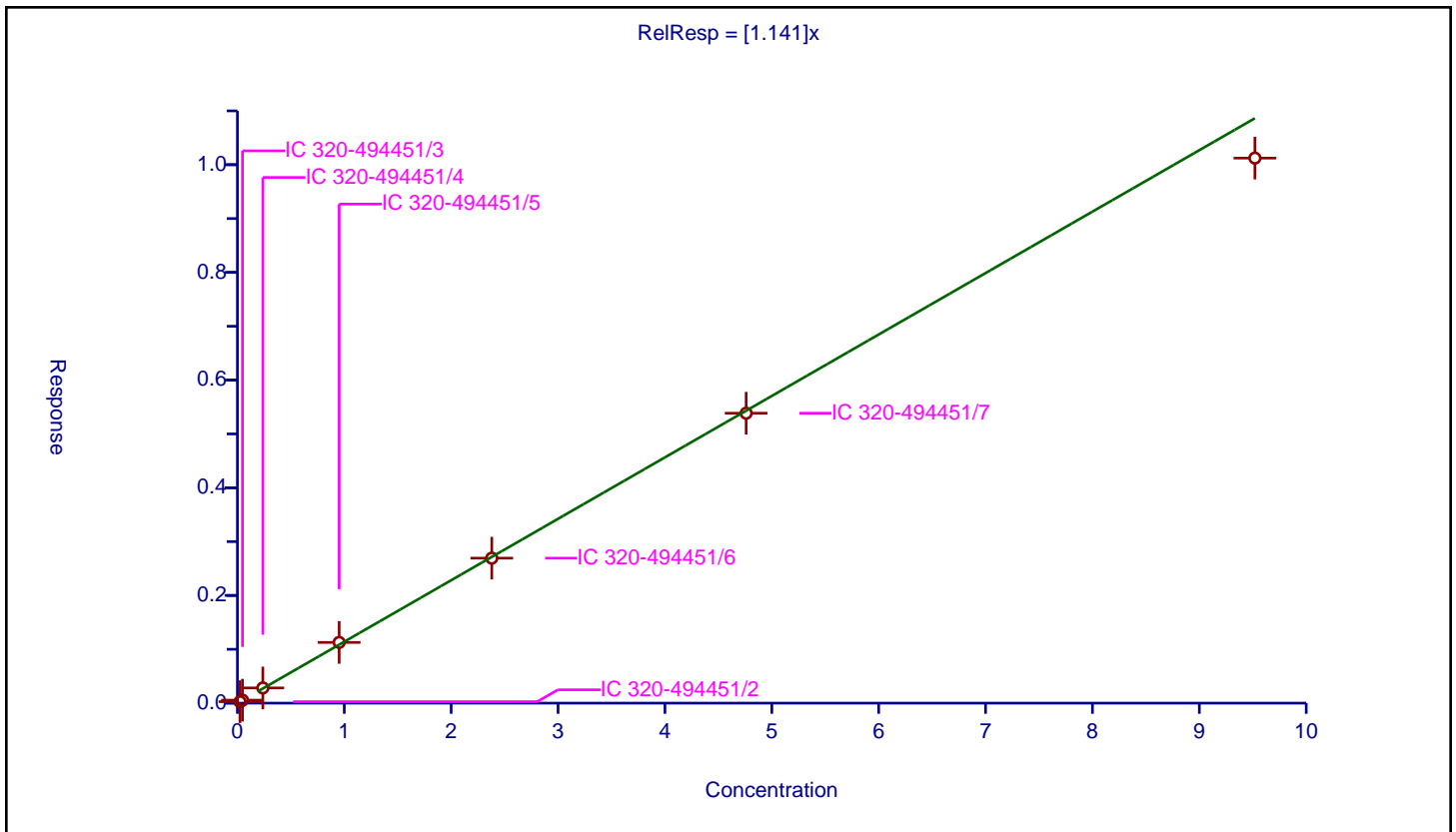
/ Perfluoroheptanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.141

Error Coefficients	
Standard Error:	9440000
Relative Standard Error:	3.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0238	0.02699	1.195	2467646.0	1.13404	Y
2	IC 320-494451/3	0.0476	0.055063	1.195	2616029.0	1.156777	Y
3	IC 320-494451/4	0.238	0.282321	1.195	2463485.0	1.186225	Y
4	IC 320-494451/5	0.952	1.127708	1.195	2495449.0	1.184567	Y
5	IC 320-494451/6	2.38	2.692671	1.195	2504282.0	1.131374	Y
6	IC 320-494451/7	4.76	5.384836	1.195	2411706.0	1.131268	Y
7	IC 320-494451/8	9.52	10.123014	1.195	2298584.0	1.063342	Y



**Calibration**

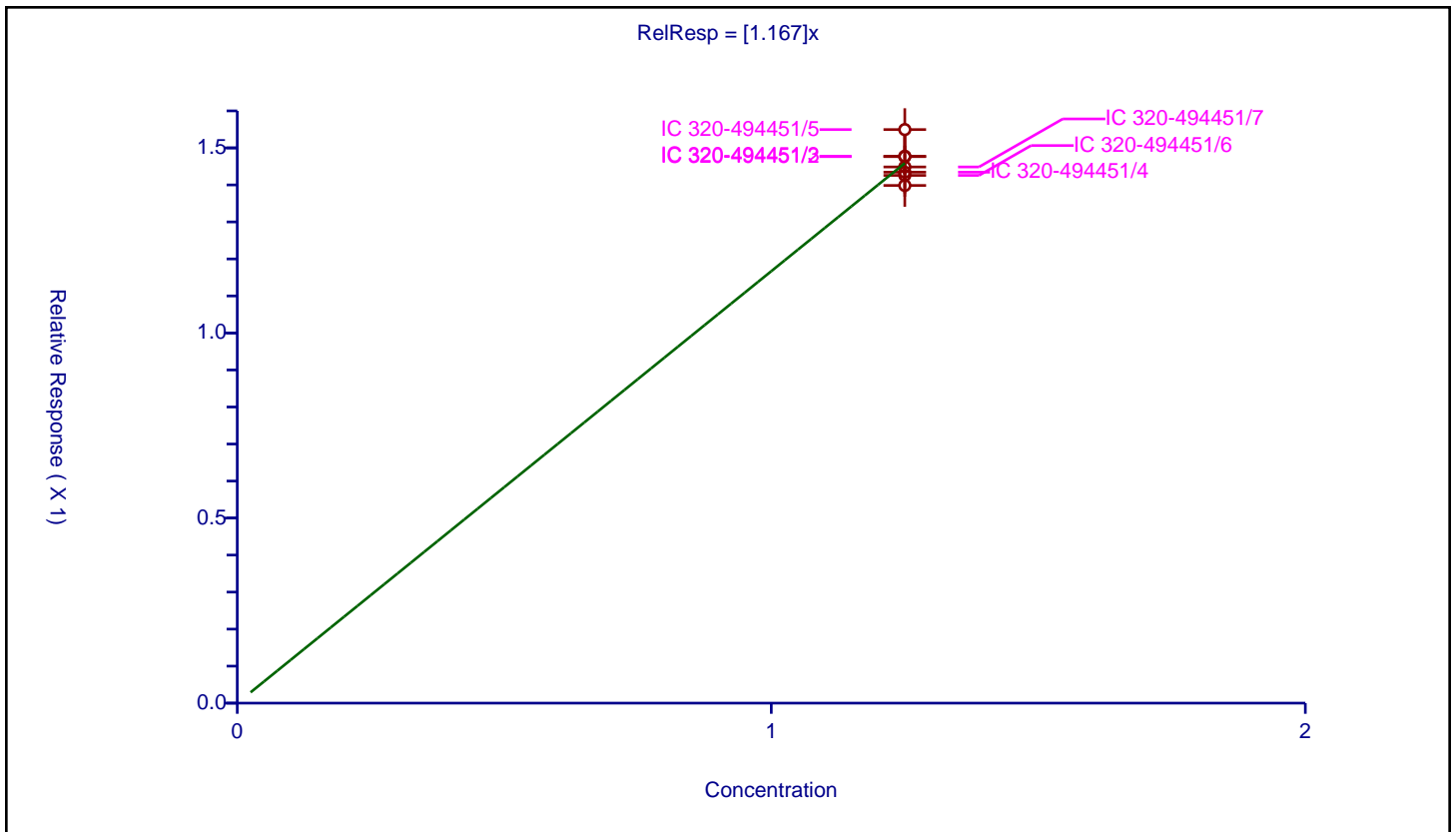
/ 13C8 PFOA

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.167

Error Coefficients	
Standard Error:	8920000
Relative Standard Error:	3.3
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/5	1.25	1.549458	1.25	6708817.0	1.239566	Y
2	IC 320-494451/2	1.25	1.476383	1.25	7069526.0	1.181106	Y
3	IC 320-494451/4	1.25	1.434398	1.25	7483102.0	1.147519	Y
4	IC 320-494451/3	1.25	1.477471	1.25	7657909.0	1.181977	Y
5	IC 320-494451/6	1.25	1.425735	1.25	7033039.0	1.140588	Y
6	IC 320-494451/7	1.25	1.448555	1.25	7033885.0	1.158844	Y
7	IC 320-494451/8	1.25	1.39851	1.25	6463225.0	1.118808	Y



**Calibration**

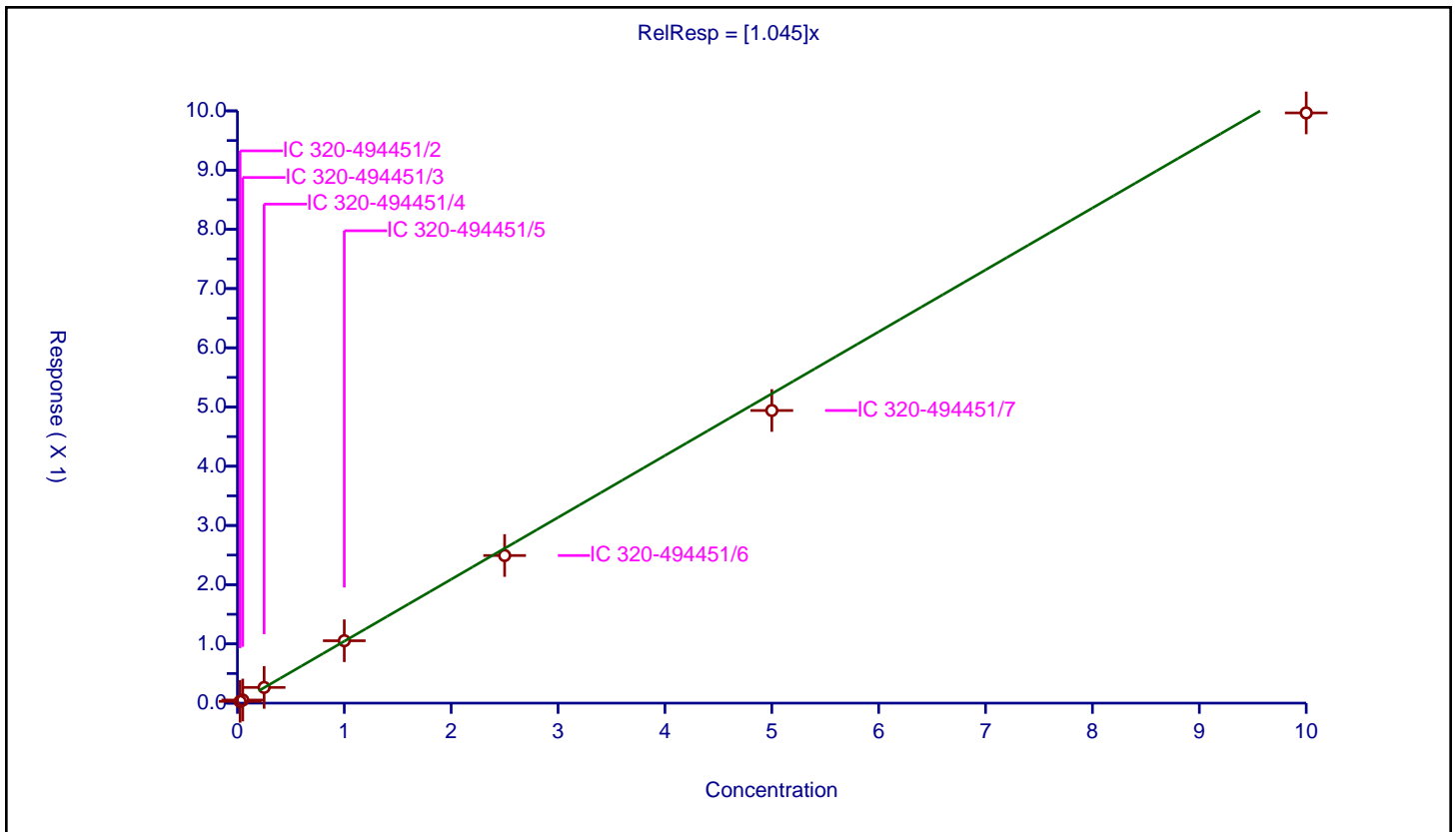
/ Perfluorooctanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.045

Error Coefficients	
Standard Error:	25200000
Relative Standard Error:	6.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.029301	1.25	7396728.0	1.172045	Y
2	IC 320-494451/3	0.05	0.052403	1.25	8106729.0	1.048055	Y
3	IC 320-494451/4	0.25	0.264907	1.25	7753318.0	1.059626	Y
4	IC 320-494451/5	1.0	1.053561	1.25	7287539.0	1.053561	Y
5	IC 320-494451/6	2.5	2.492713	1.25	7383540.0	0.997085	Y
6	IC 320-494451/7	5.0	4.94114	1.25	7033219.0	0.988228	Y
7	IC 320-494451/8	10.0	9.965758	1.25	6620796.0	0.996576	Y



**Calibration**

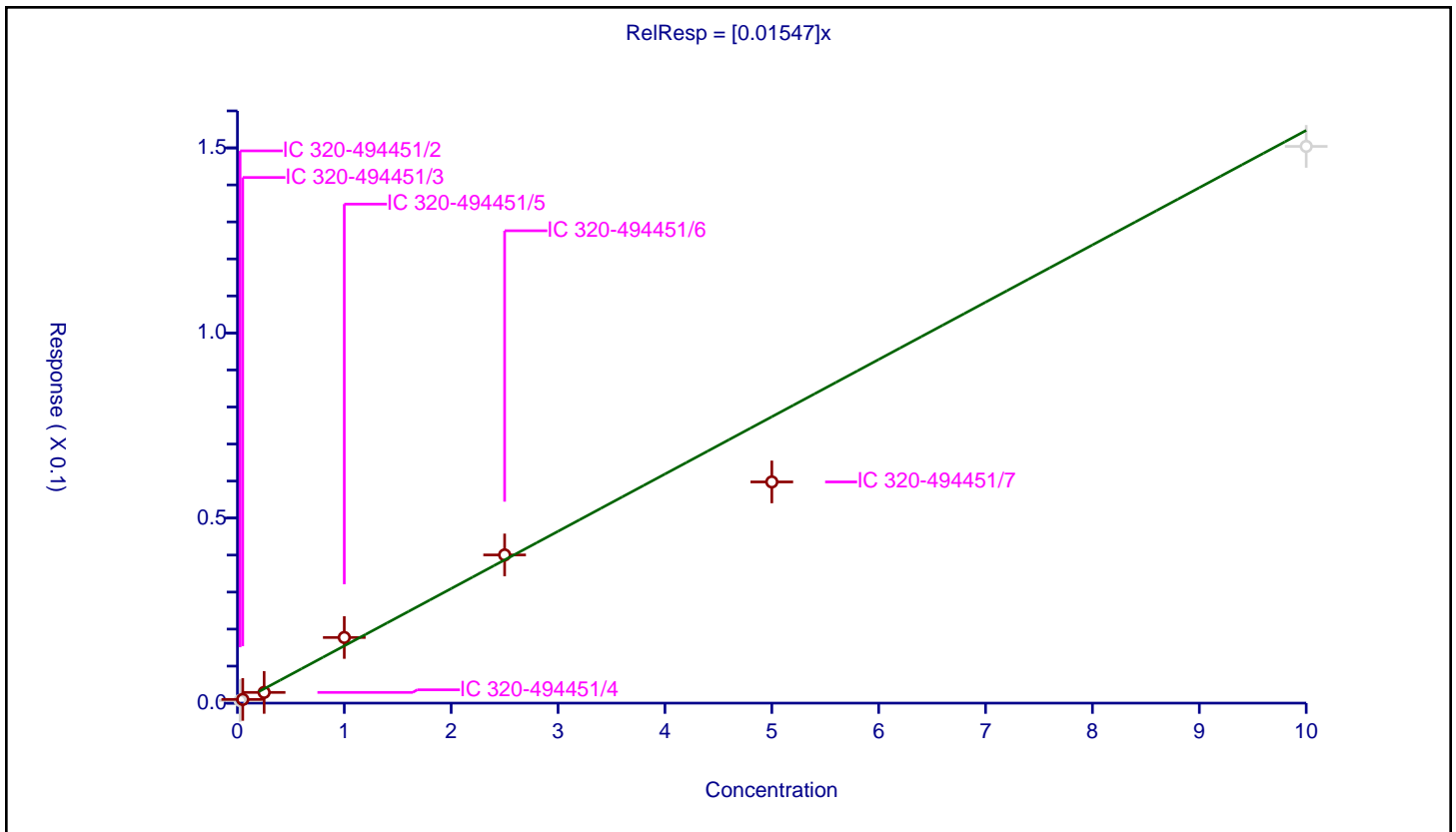
/ TAF

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.01547

Error Coefficients	
Standard Error:	212000
Relative Standard Error:	23.7
Correlation Coefficient:	0.956
Coefficient of Determination (Adjusted):	0.924

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.000708	1.25	7396728.0	0.028317	N
2	IC 320-494451/3	0.05	0.001003	1.25	8106729.0	0.020064	Y
3	IC 320-494451/4	0.25	0.0029	1.25	7753318.0	0.011598	Y
4	IC 320-494451/5	1.0	0.017736	1.25	7287539.0	0.017736	Y
5	IC 320-494451/6	2.5	0.040041	1.25	7383540.0	0.016016	Y
6	IC 320-494451/7	5.0	0.059758	1.25	7033219.0	0.011952	Y
7	IC 320-494451/8	10.0	0.150407	1.25	6620796.0	0.015041	N





**Calibration**

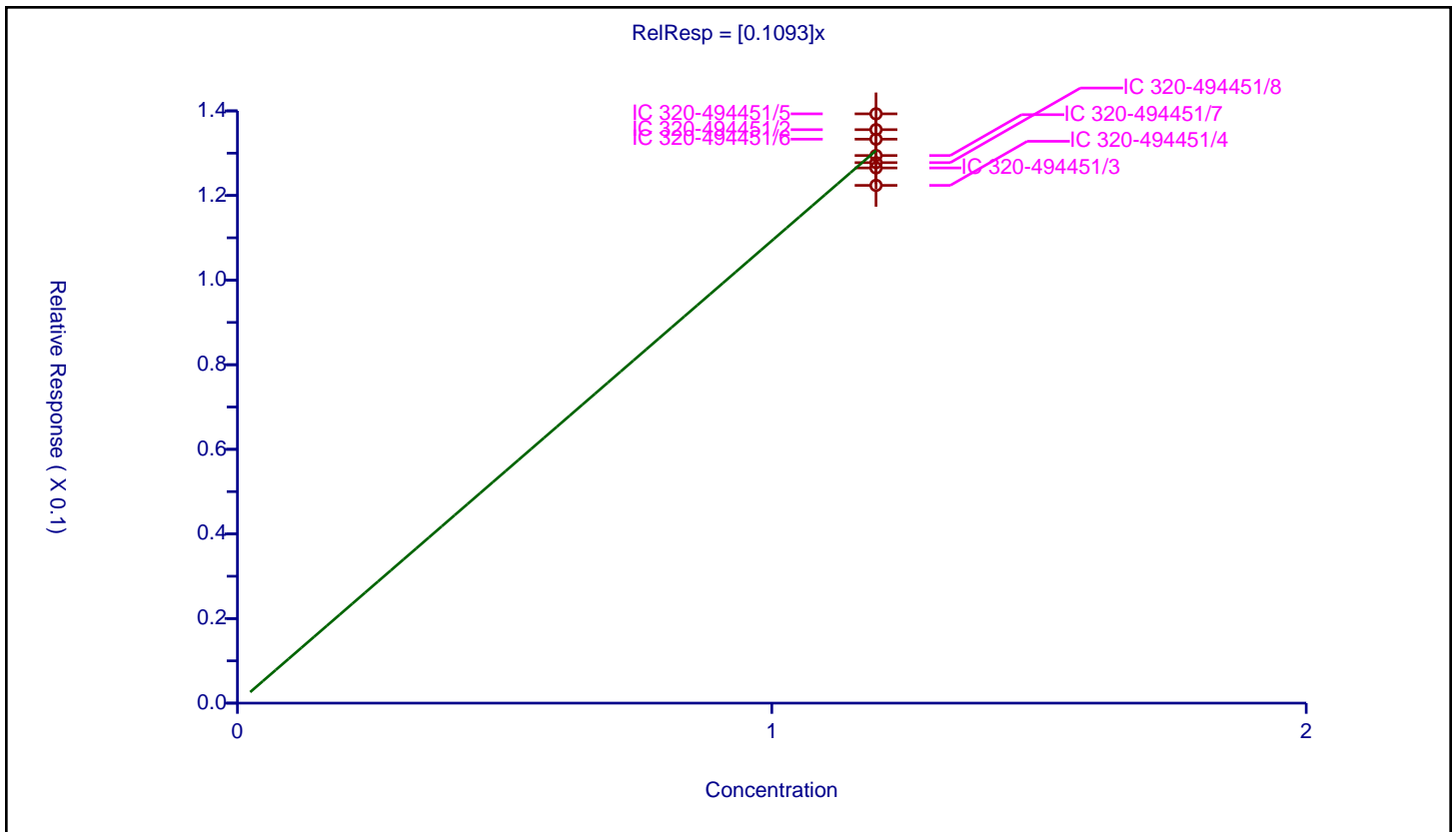
/ 13C8 PFOS

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1093

Error Coefficients	
Standard Error:	797000
Relative Standard Error:	4.4
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/5	1.195	0.139302	1.25	6708817.0	0.116571	Y
2	IC 320-494451/2	1.195	0.135564	1.25	7069526.0	0.113442	Y
3	IC 320-494451/3	1.195	0.126514	1.25	7657909.0	0.10587	Y
4	IC 320-494451/4	1.195	0.122388	1.25	7483102.0	0.102417	Y
5	IC 320-494451/6	1.195	0.133317	1.25	7033039.0	0.111562	Y
6	IC 320-494451/7	1.195	0.129446	1.25	7033885.0	0.108323	Y
7	IC 320-494451/8	1.195	0.127769	1.25	6463225.0	0.10692	Y



**Calibration**

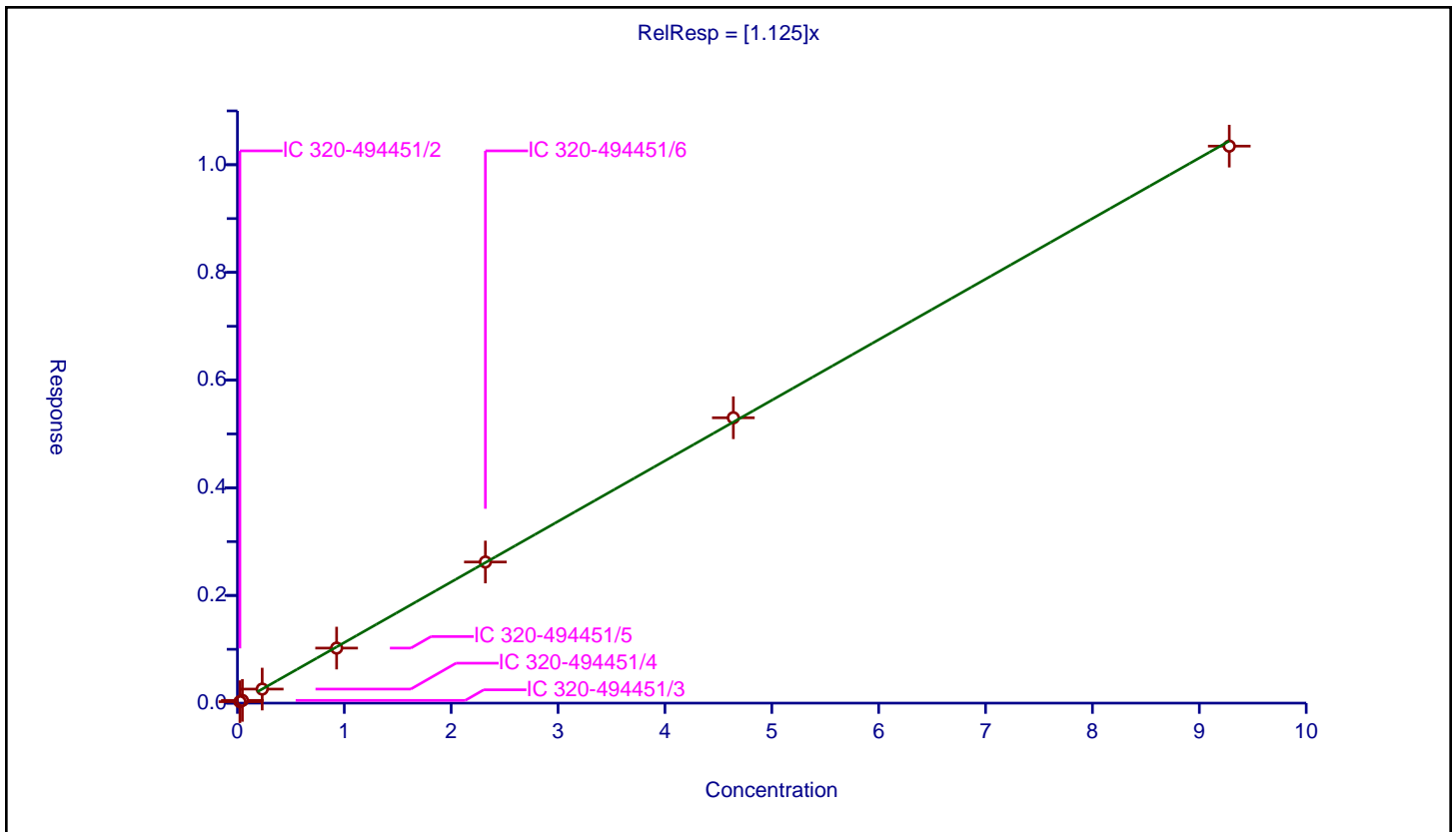
/ Perfluorooctanesulfonic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.125

Error Coefficients	
Standard Error:	9530000
Relative Standard Error:	2.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0232	0.027166	1.195	2467646.0	1.170966	Y
2	IC 320-494451/3	0.0464	0.050644	1.195	2616029.0	1.091474	Y
3	IC 320-494451/4	0.232	0.260965	1.195	2463485.0	1.124848	Y
4	IC 320-494451/5	0.928	1.022162	1.195	2495449.0	1.101468	Y
5	IC 320-494451/6	2.32	2.621005	1.195	2504282.0	1.129743	Y
6	IC 320-494451/7	4.64	5.300203	1.195	2411706.0	1.142285	Y
7	IC 320-494451/8	9.28	10.345411	1.195	2298584.0	1.114807	Y



**Calibration**

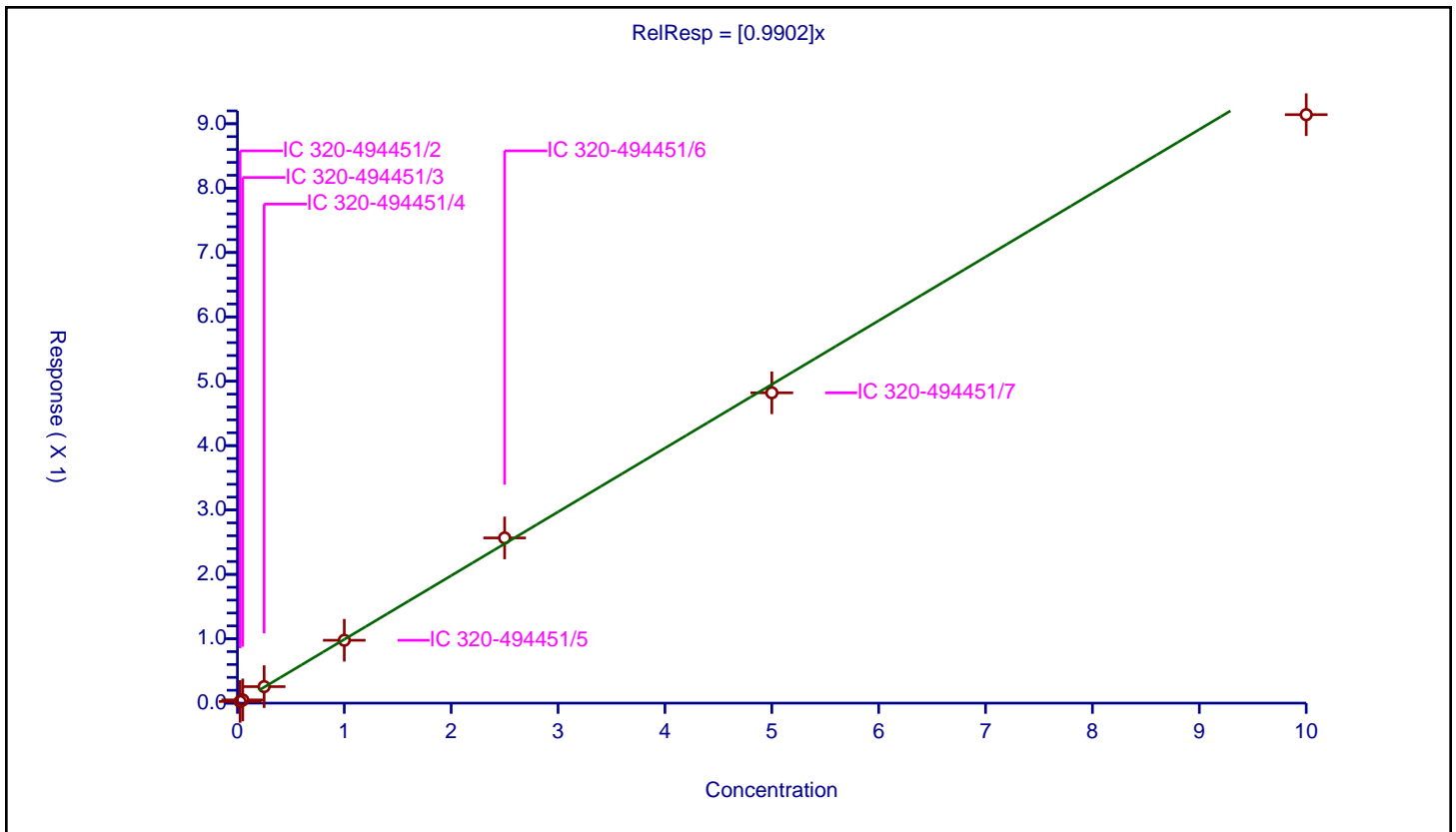
/ Perfluorononanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9902

Error Coefficients	
Standard Error:	23200000
Relative Standard Error:	4.3
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.025676	1.25	6754201.0	1.02705	Y
2	IC 320-494451/3	0.05	0.049837	1.25	8126123.0	0.996745	Y
3	IC 320-494451/4	0.25	0.256493	1.25	7224686.0	1.025971	Y
4	IC 320-494451/5	1.0	0.976628	1.25	7047778.0	0.976628	Y
5	IC 320-494451/6	2.5	2.566373	1.25	6699779.0	1.026549	Y
6	IC 320-494451/7	5.0	4.821077	1.25	6840328.0	0.964215	Y
7	IC 320-494451/8	10.0	9.141202	1.25	6581692.0	0.91412	Y



Calibration

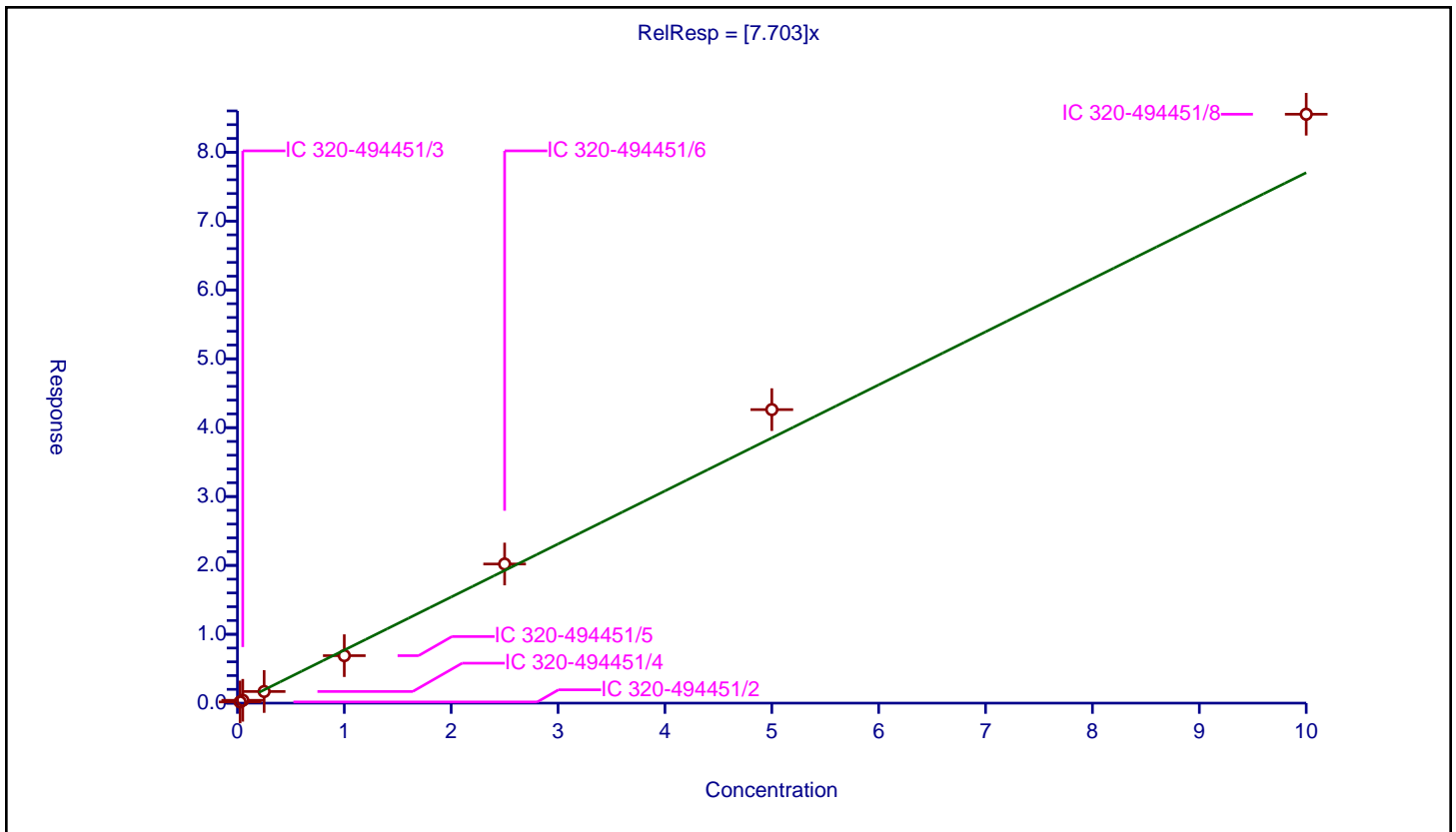
/ 7:3 FTCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	7.703

Error Coefficients	
Standard Error:	8720000
Relative Standard Error:	10.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.17216	1.25	336859.0	6.886412	Y
2	IC 320-494451/3	0.05	0.411228	1.25	306013.0	8.224569	Y
3	IC 320-494451/4	0.25	1.68948	1.25	365870.0	6.757919	Y
4	IC 320-494451/5	1.0	6.894324	1.25	356358.0	6.894324	Y
5	IC 320-494451/6	2.5	20.202286	1.25	305990.0	8.080914	Y
6	IC 320-494451/7	5.0	42.622051	1.25	291303.0	8.52441	Y
7	IC 320-494451/8	10.0	85.516181	1.25	265113.0	8.551618	Y



Calibration

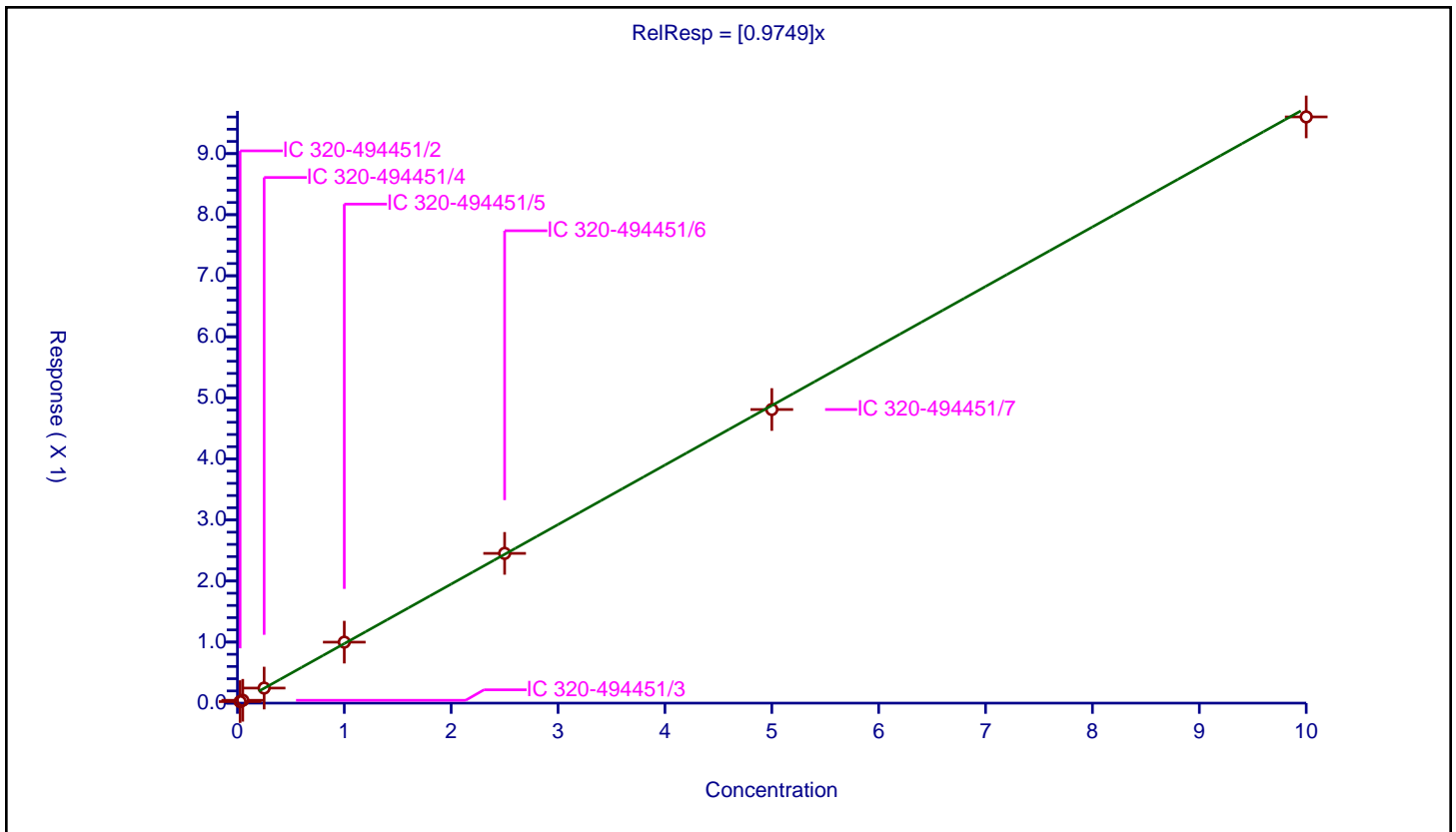
/ 8:2 FTUCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9749

Error Coefficients	
Standard Error:	22700000
Relative Standard Error:	2.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.02524	1.25	7065751.0	1.009581	Y
2	IC 320-494451/3	0.05	0.046318	1.25	7592059.0	0.926363	Y
3	IC 320-494451/4	0.25	0.246746	1.25	7277073.0	0.986983	Y
4	IC 320-494451/5	1.0	0.998518	1.25	6960694.0	0.998518	Y
5	IC 320-494451/6	2.5	2.452717	1.25	7068168.0	0.981087	Y
6	IC 320-494451/7	5.0	4.809194	1.25	6785334.0	0.961839	Y
7	IC 320-494451/8	10.0	9.601612	1.25	6074113.0	0.960161	Y



Calibration

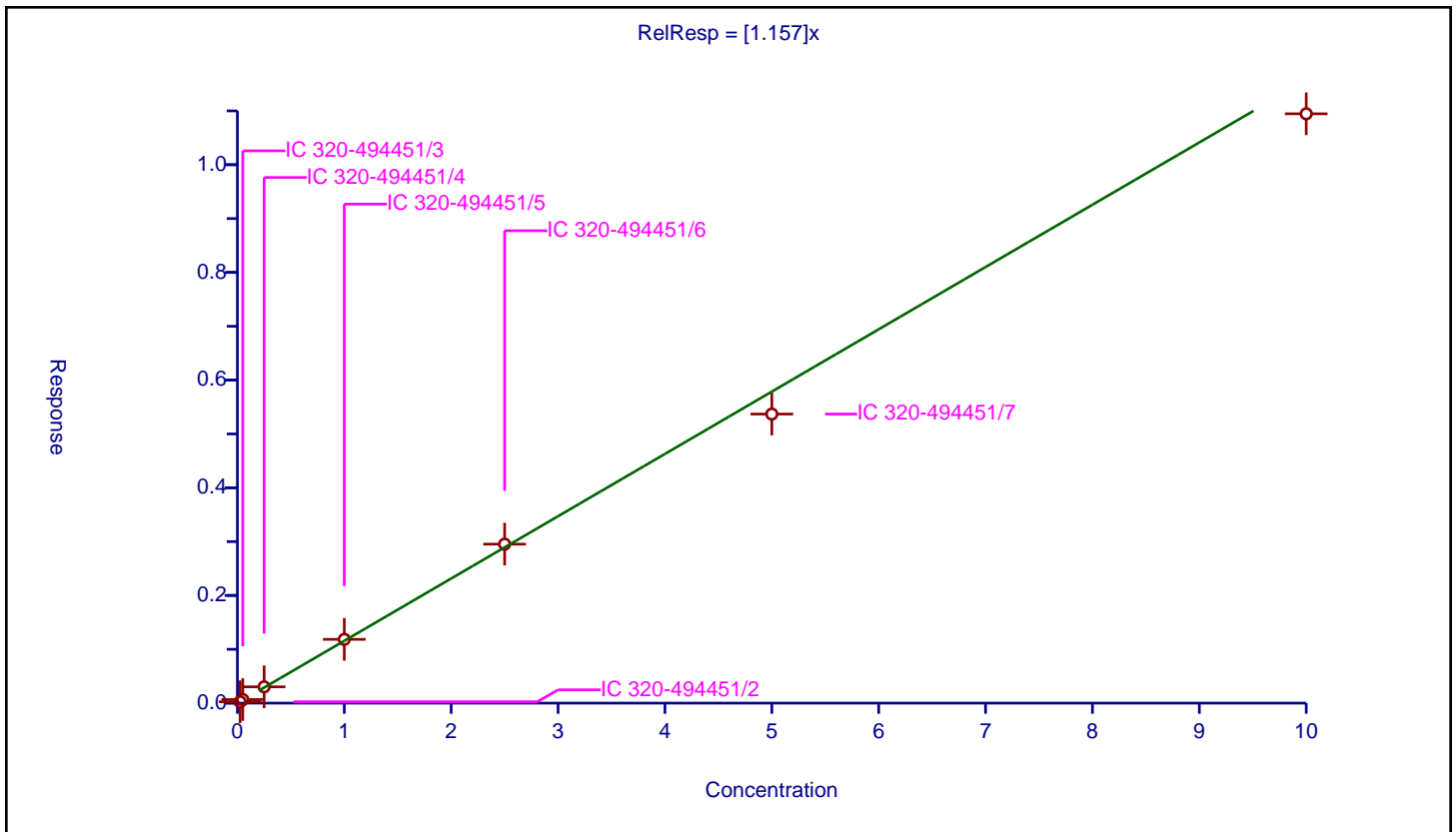
/ 8:2 FTCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.157

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	9.1
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.025452	1.25	336859.0	1.018082	Y
2	IC 320-494451/3	0.05	0.066872	1.25	306013.0	1.337443	Y
3	IC 320-494451/4	0.25	0.302546	1.25	365870.0	1.210184	Y
4	IC 320-494451/5	1.0	1.184325	1.25	356358.0	1.184325	Y
5	IC 320-494451/6	2.5	2.953119	1.25	305990.0	1.181248	Y
6	IC 320-494451/7	5.0	5.368971	1.25	291303.0	1.073794	Y
7	IC 320-494451/8	10.0	10.946196	1.25	265113.0	1.09462	Y



**Calibration**

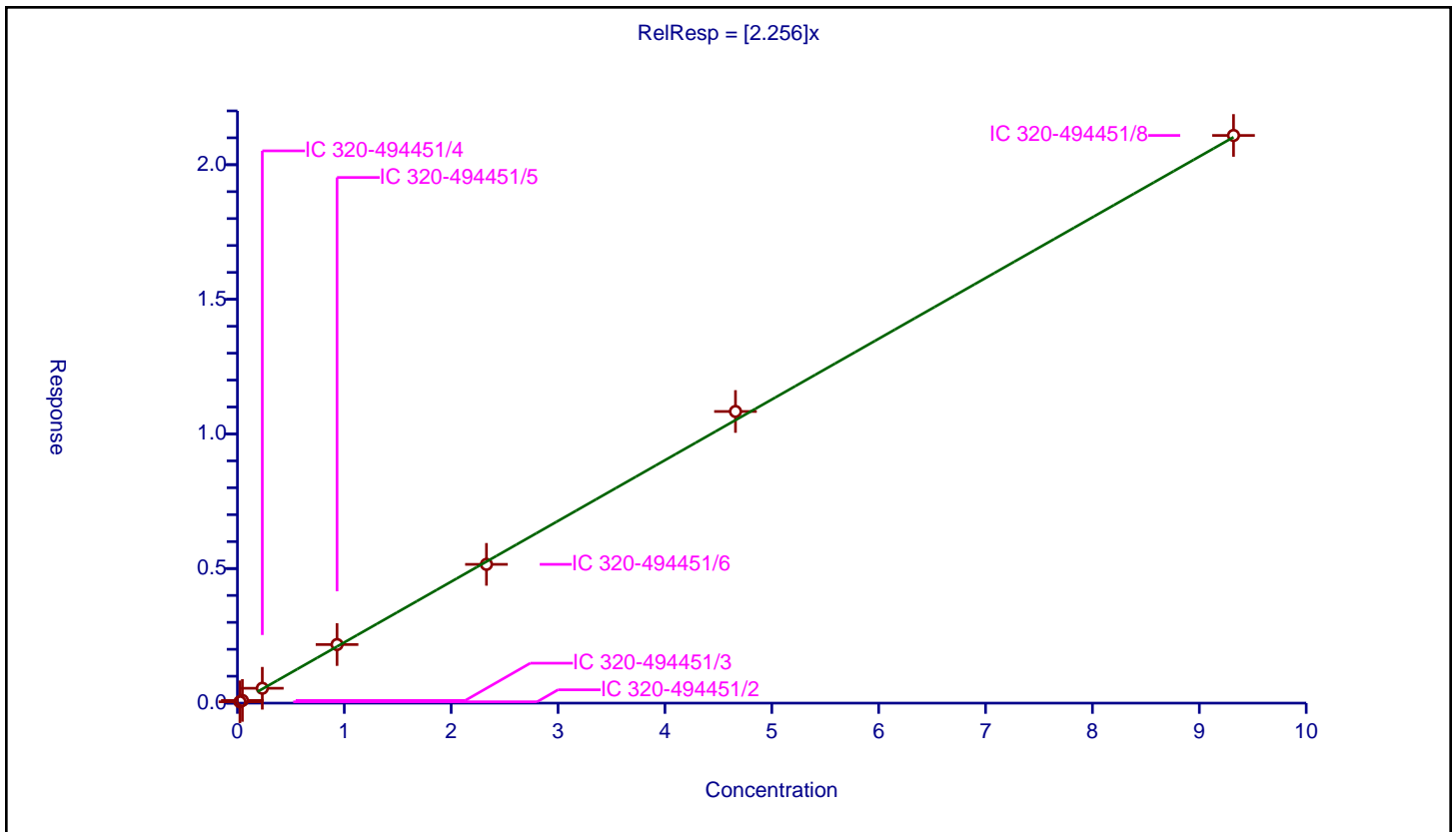
**/ 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	2.256

Error Coefficients	
<b>Standard Error:</b>	19400000
<b>Relative Standard Error:</b>	4.1
<b>Correlation Coefficient:</b>	0.999
<b>Coefficient of Determination (Adjusted):</b>	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0233	0.049784	1.195	2467646.0	2.136658	Y
2	IC 320-494451/3	0.0466	0.100142	1.195	2616029.0	2.148966	Y
3	IC 320-494451/4	0.233	0.552351	1.195	2463485.0	2.370605	Y
4	IC 320-494451/5	0.932	2.176164	1.195	2495449.0	2.33494	Y
5	IC 320-494451/6	2.33	5.154592	1.195	2504282.0	2.212271	Y
6	IC 320-494451/7	4.66	10.833729	1.195	2411706.0	2.324835	Y
7	IC 320-494451/8	9.32	21.087535	1.195	2298584.0	2.262611	Y



**Calibration**

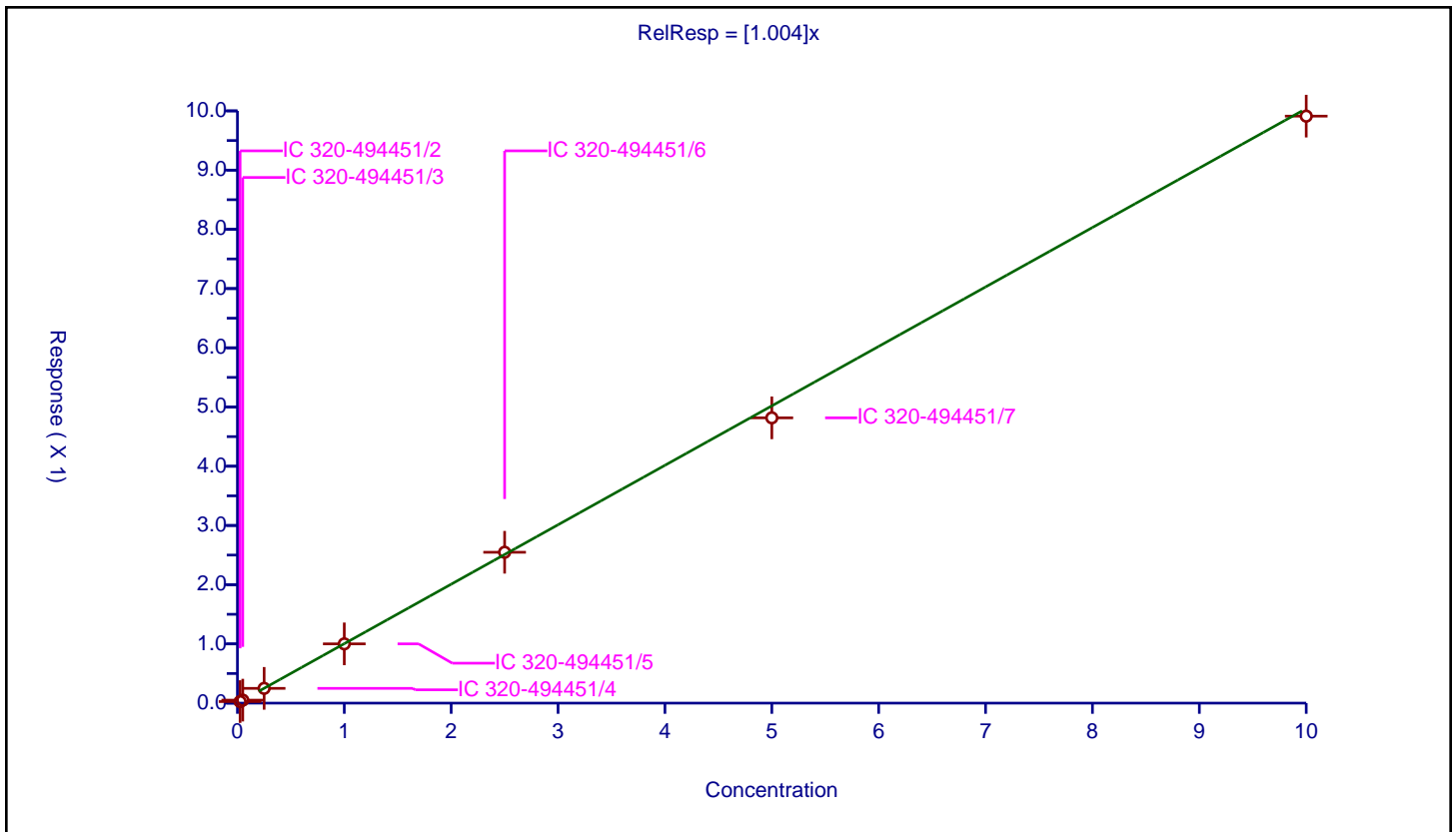
**/ Perfluorooctanesulfonamide**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	1.004

Error Coefficients	
<b>Standard Error:</b>	15300000
<b>Relative Standard Error:</b>	2.6
<b>Correlation Coefficient:</b>	0.999
<b>Coefficient of Determination (Adjusted):</b>	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.026209	1.25	4361031.0	1.048342	Y
2	IC 320-494451/3	0.05	0.050394	1.25	4594347.0	1.00788	Y
3	IC 320-494451/4	0.25	0.249203	1.25	4385738.0	0.996814	Y
4	IC 320-494451/5	1.0	1.000631	1.25	4356194.0	1.000631	Y
5	IC 320-494451/6	2.5	2.547406	1.25	4235443.0	1.018962	Y
6	IC 320-494451/7	5.0	4.817177	1.25	4460298.0	0.963435	Y
7	IC 320-494451/8	10.0	9.911225	1.25	4029476.0	0.991123	Y





**Calibration**

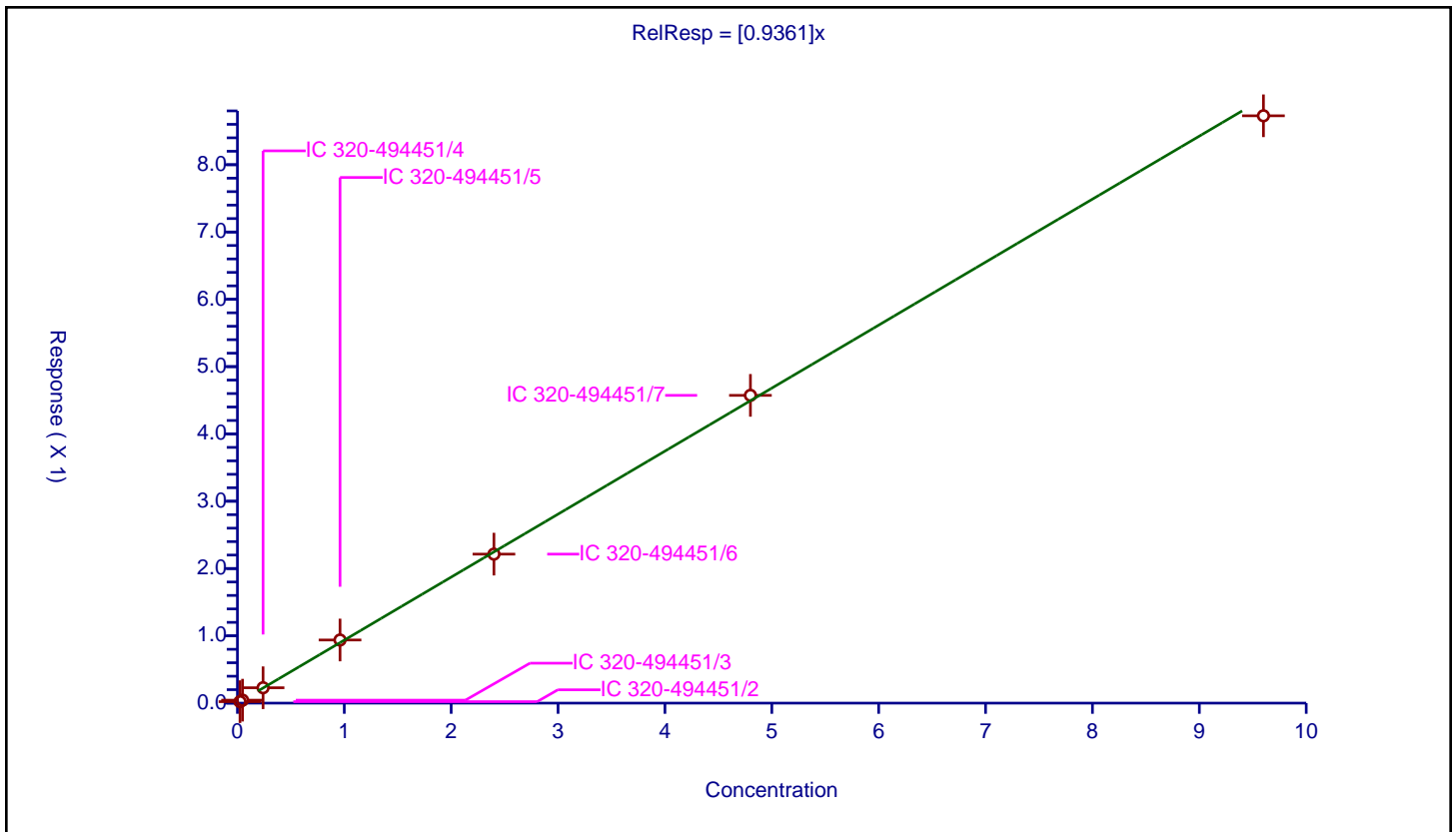
**/ Perfluorononanesulfonic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9361

Error Coefficients	
Standard Error:	8090000
Relative Standard Error:	2.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.024	0.022076	1.195	2467646.0	0.919845	Y
2	IC 320-494451/3	0.048	0.044142	1.195	2616029.0	0.919632	Y
3	IC 320-494451/4	0.24	0.228456	1.195	2463485.0	0.951899	Y
4	IC 320-494451/5	0.96	0.93799	1.195	2495449.0	0.977072	Y
5	IC 320-494451/6	2.4	2.213843	1.195	2504282.0	0.922434	Y
6	IC 320-494451/7	4.8	4.573228	1.195	2411706.0	0.952756	Y
7	IC 320-494451/8	9.6	8.727301	1.195	2298584.0	0.909094	Y



**Calibration**

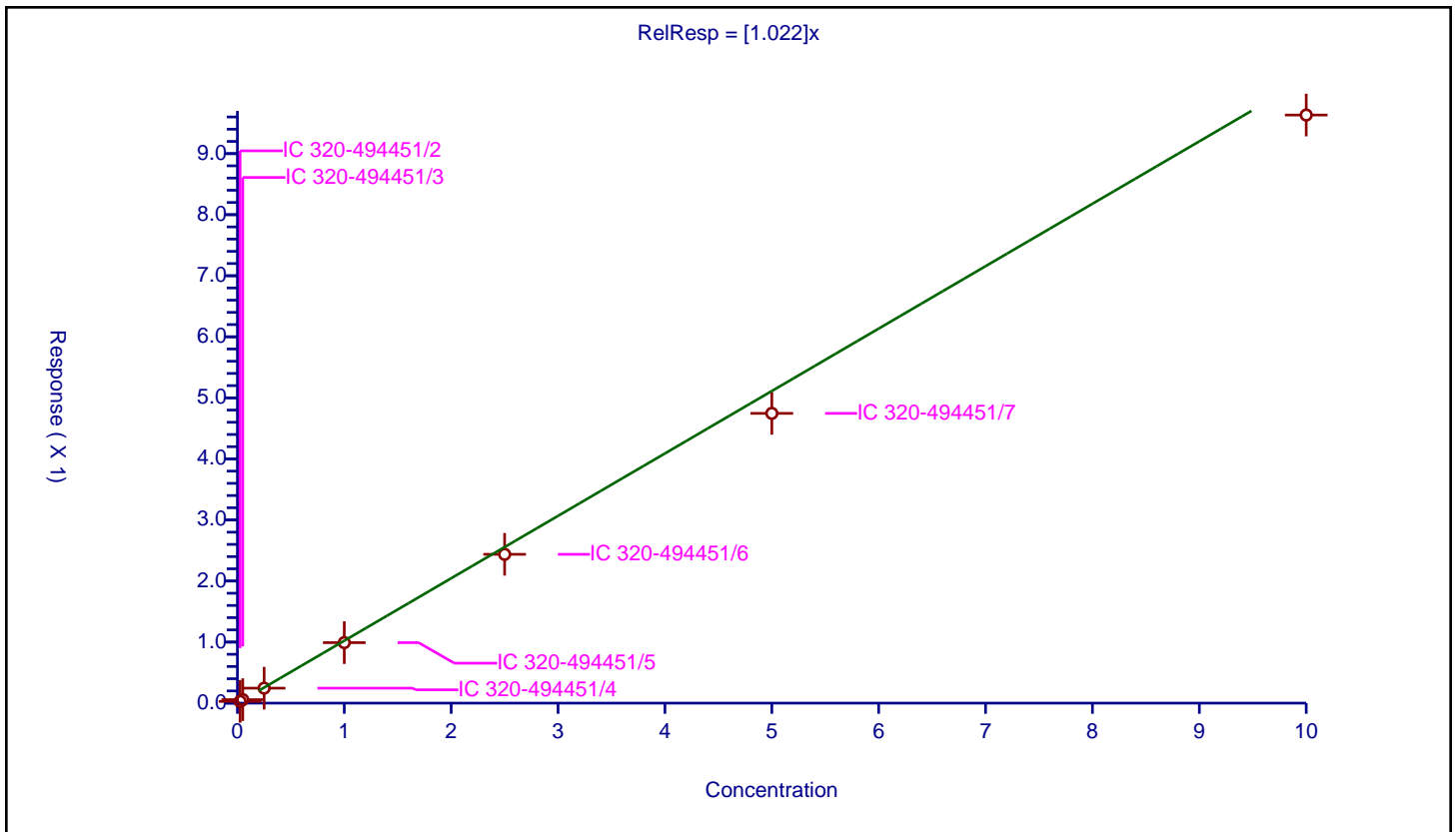
/ Perfluorodecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.022

Error Coefficients	
Standard Error:	22500000
Relative Standard Error:	8.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.028653	1.25	7299378.0	1.146132	Y
2	IC 320-494451/3	0.05	0.057525	1.25	7462899.0	1.150498	Y
3	IC 320-494451/4	0.25	0.245446	1.25	7743280.0	0.981785	Y
4	IC 320-494451/5	1.0	0.990748	1.25	7018140.0	0.990748	Y
5	IC 320-494451/6	2.5	2.437178	1.25	6865528.0	0.974871	Y
6	IC 320-494451/7	5.0	4.745799	1.25	6928661.0	0.94916	Y
7	IC 320-494451/8	10.0	9.632013	1.25	5988554.0	0.963201	Y



**Calibration**

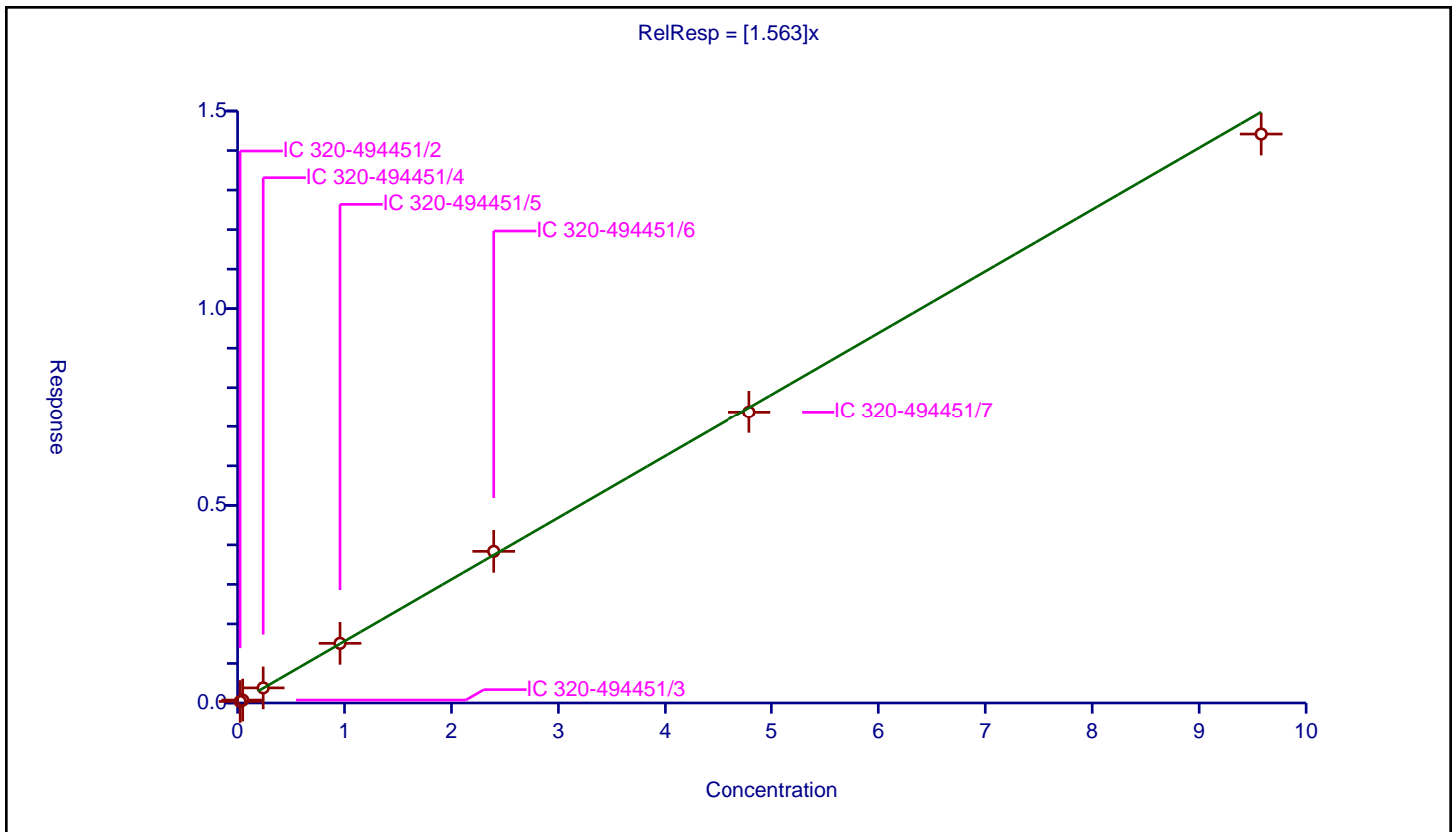
**/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.563

Error Coefficients	
Standard Error:	9480000
Relative Standard Error:	2.3
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02395	0.038018	1.1975	2617868.0	1.587399	Y
2	IC 320-494451/3	0.0479	0.073615	1.1975	2615181.0	1.536844	Y
3	IC 320-494451/4	0.2395	0.382158	1.1975	2486771.0	1.595648	Y
4	IC 320-494451/5	0.958	1.509219	1.1975	2436481.0	1.575385	Y
5	IC 320-494451/6	2.395	3.836085	1.1975	2122669.0	1.601705	Y
6	IC 320-494451/7	4.79	7.377104	1.1975	1903089.0	1.540105	Y
7	IC 320-494451/8	9.58	14.417466	1.1975	1543724.0	1.504955	Y



**Calibration**

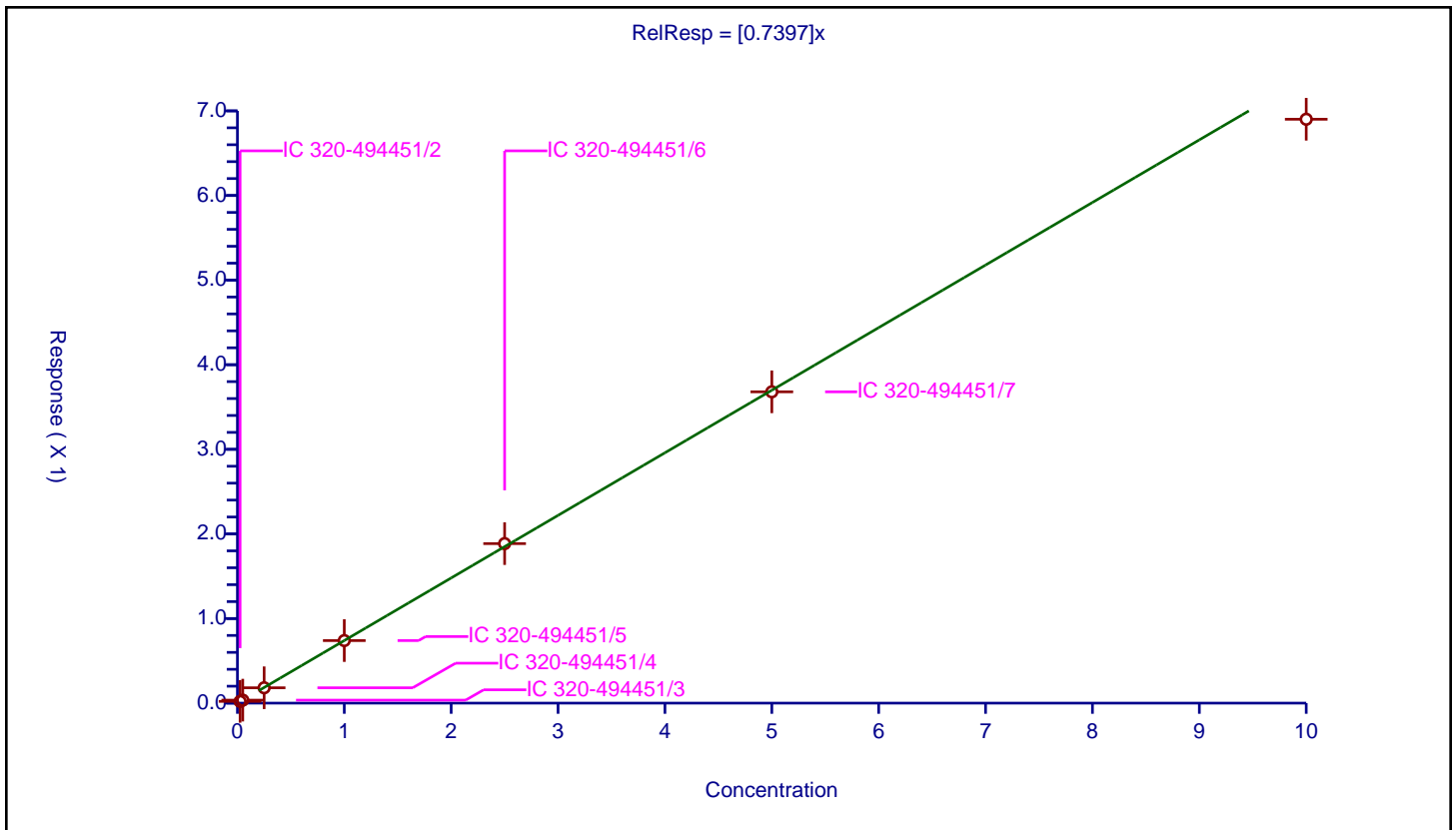
**/ N-methylperfluorooctanesulfonamidoacetic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7397

Error Coefficients	
Standard Error:	7350000
Relative Standard Error:	5.8
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.020626	1.25	3192372.0	0.825045	Y
2	IC 320-494451/3	0.05	0.035373	1.25	3068297.0	0.707453	Y
3	IC 320-494451/4	0.25	0.181482	1.25	3014224.0	0.725926	Y
4	IC 320-494451/5	1.0	0.739372	1.25	2941738.0	0.739372	Y
5	IC 320-494451/6	2.5	1.885384	1.25	2886800.0	0.754154	Y
6	IC 320-494451/7	5.0	3.679434	1.25	2951899.0	0.735887	Y
7	IC 320-494451/8	10.0	6.901088	1.25	2724566.0	0.690109	Y



**Calibration**

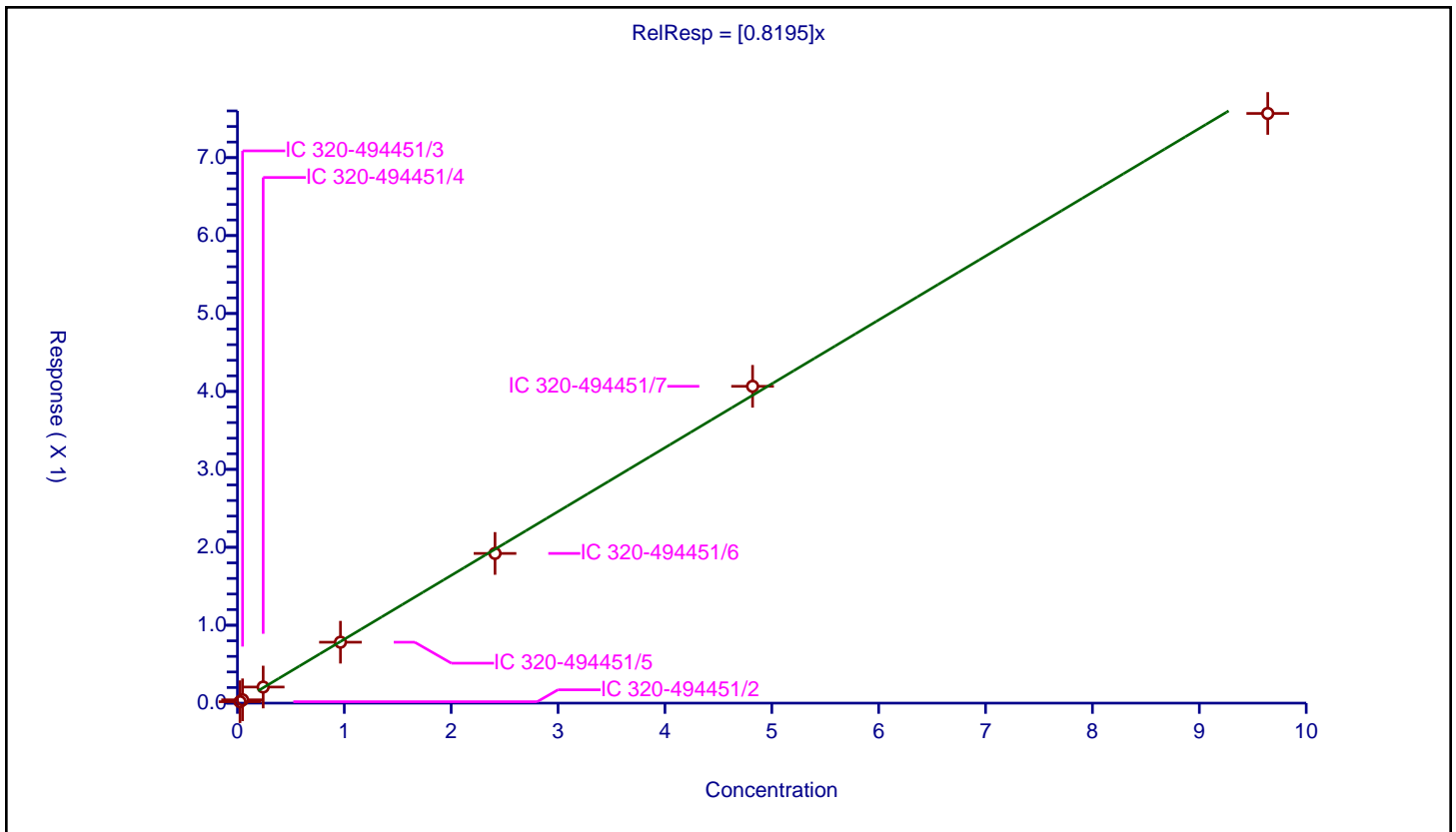
**/ Perfluorodecanesulfonic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8195

Error Coefficients	
Standard Error:	7050000
Relative Standard Error:	5.4
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0241	0.018258	1.195	2467646.0	0.757587	Y
2	IC 320-494451/3	0.0482	0.042639	1.195	2616029.0	0.884636	Y
3	IC 320-494451/4	0.241	0.20664	1.195	2463485.0	0.857429	Y
4	IC 320-494451/5	0.964	0.781869	1.195	2495449.0	0.811067	Y
5	IC 320-494451/6	2.41	1.920999	1.195	2504282.0	0.797095	Y
6	IC 320-494451/7	4.82	4.065698	1.195	2411706.0	0.843506	Y
7	IC 320-494451/8	9.64	7.56734	1.195	2298584.0	0.784994	Y



**Calibration**

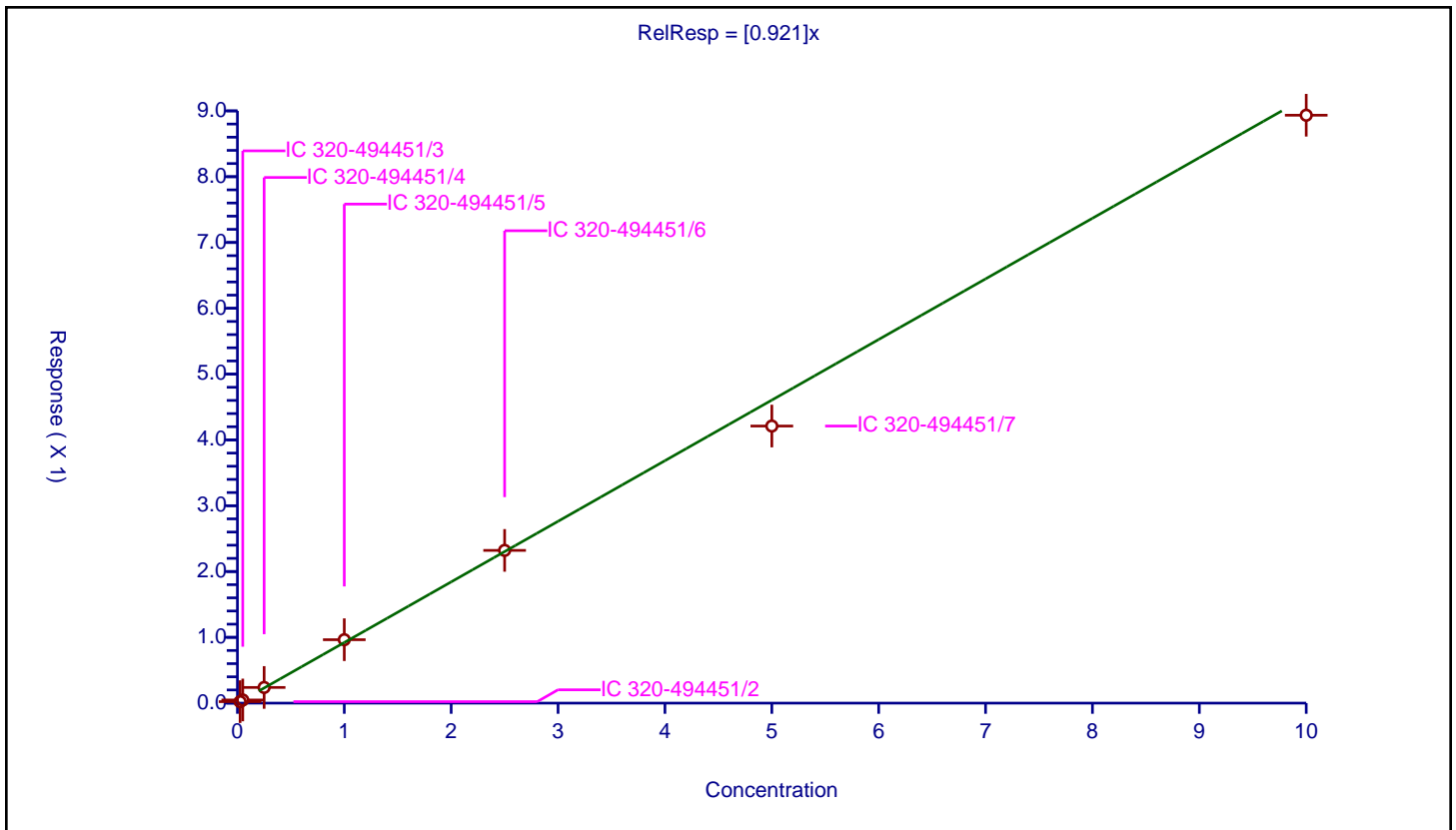
/ Perfluoroundecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.921

Error Coefficients	
Standard Error:	20500000
Relative Standard Error:	4.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.022589	1.25	6987862.0	0.903574	Y
2	IC 320-494451/3	0.05	0.048115	1.25	7230977.0	0.962294	Y
3	IC 320-494451/4	0.25	0.238364	1.25	7180240.0	0.953458	Y
4	IC 320-494451/5	1.0	0.963772	1.25	6750524.0	0.963772	Y
5	IC 320-494451/6	2.5	2.321156	1.25	6436464.0	0.928462	Y
6	IC 320-494451/7	5.0	4.210619	1.25	6979534.0	0.842124	Y
7	IC 320-494451/8	10.0	8.933865	1.25	5938460.0	0.893387	Y



**Calibration**

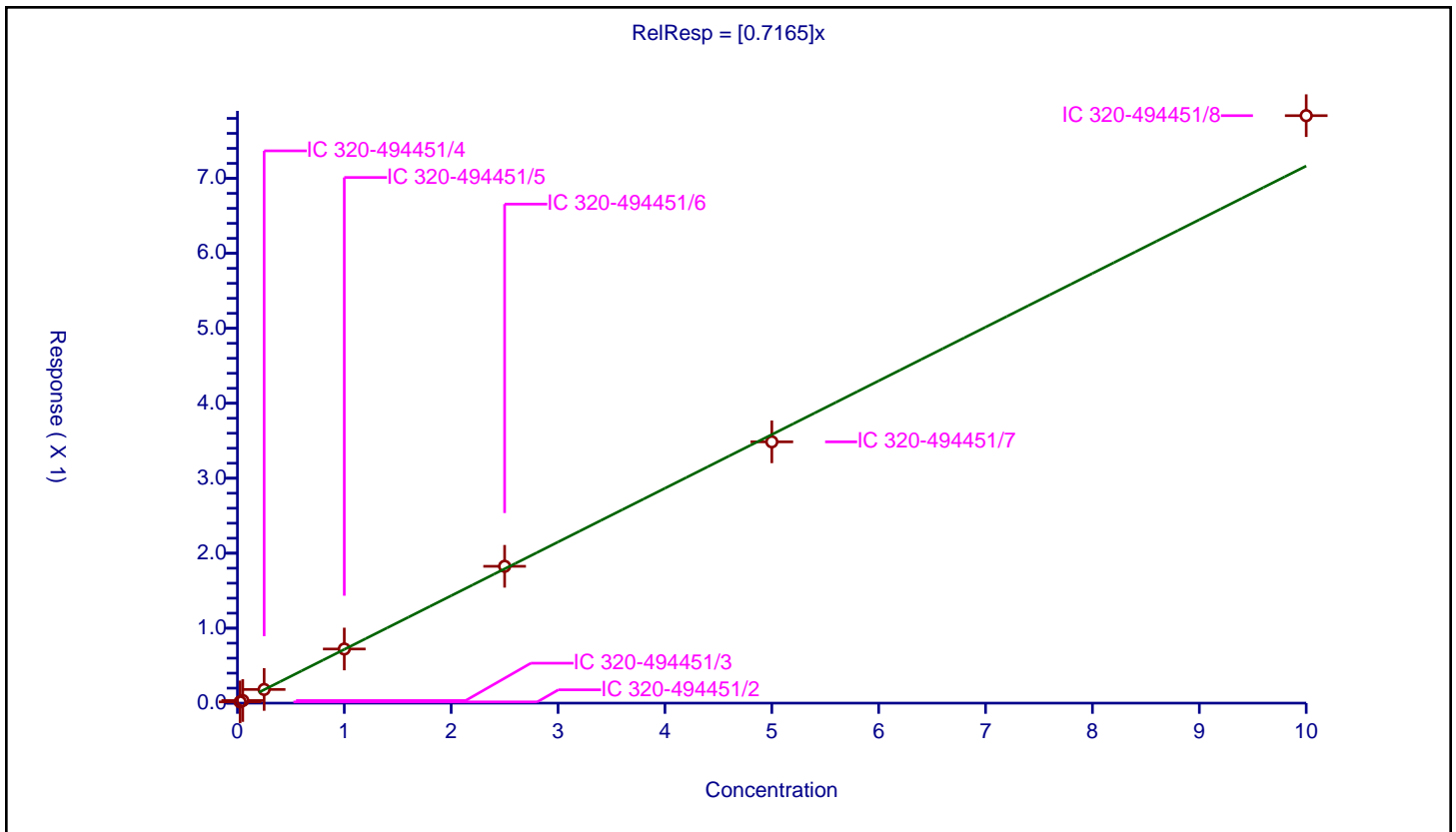
**/ N-ethylperfluorooctanesulfonamidoacetic acid**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7165

Error Coefficients	
Standard Error:	6760000
Relative Standard Error:	5.4
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.016576	1.25	3347575.0	0.663047	Y
2	IC 320-494451/3	0.05	0.034507	1.25	3404057.0	0.690132	Y
3	IC 320-494451/4	0.25	0.182315	1.25	3117654.0	0.729261	Y
4	IC 320-494451/5	1.0	0.722199	1.25	2992785.0	0.722199	Y
5	IC 320-494451/6	2.5	1.825346	1.25	2826822.0	0.730138	Y
6	IC 320-494451/7	5.0	3.485527	1.25	2861614.0	0.697105	Y
7	IC 320-494451/8	10.0	7.836314	1.25	2200301.0	0.783631	Y



**Calibration**

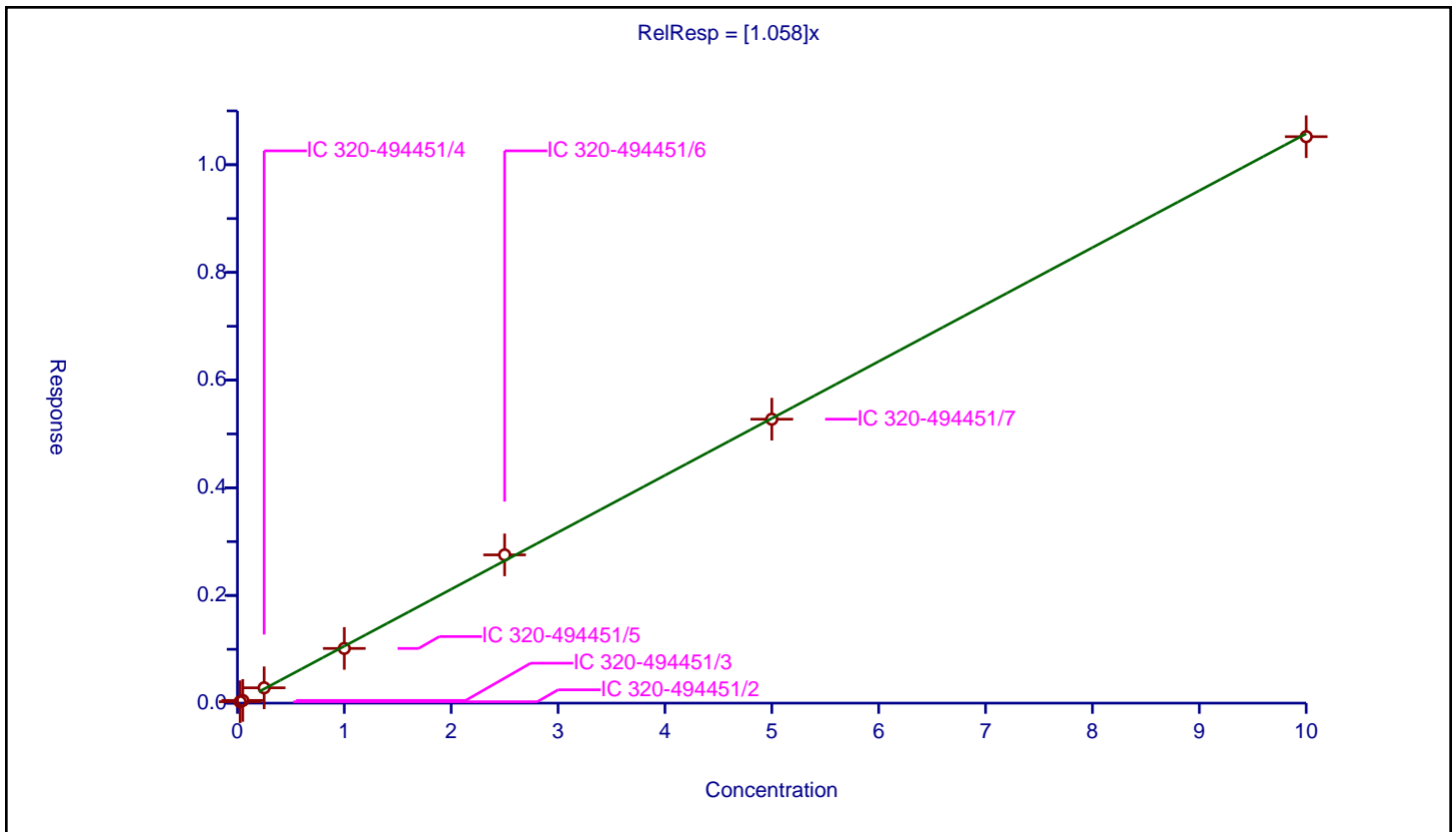
**/ 2-(N-methylperfluoro-1-octanesulfonamido) ethanol**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.058

Error Coefficients	
Standard Error:	6950000
Relative Standard Error:	4.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.026006	1.25	1717598.0	1.040232	Y
2	IC 320-494451/3	0.05	0.050035	1.25	1919903.0	1.000702	Y
3	IC 320-494451/4	0.25	0.284589	1.25	1762540.0	1.138357	Y
4	IC 320-494451/5	1.0	1.015947	1.25	1776739.0	1.015947	Y
5	IC 320-494451/6	2.5	2.753706	1.25	1697476.0	1.101482	Y
6	IC 320-494451/7	5.0	5.273498	1.25	1789694.0	1.0547	Y
7	IC 320-494451/8	10.0	10.521092	1.25	1746929.0	1.052109	Y





Calibration

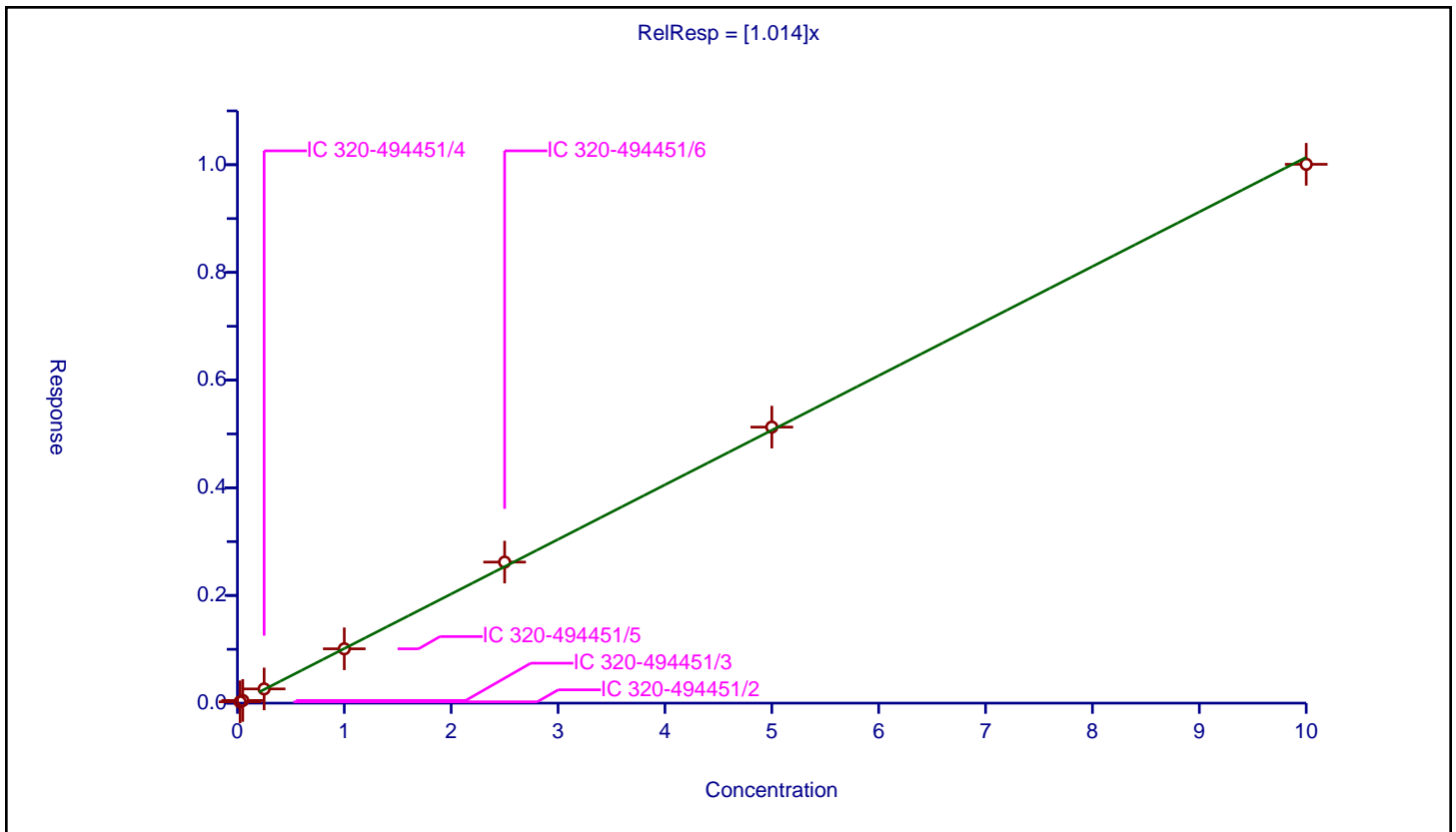
/ NMeFOSA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.014

Error Coefficients	
Standard Error:	4890000
Relative Standard Error:	3.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.0243	1.25	1311777.0	0.972002	Y
2	IC 320-494451/3	0.05	0.049278	1.25	1301735.0	0.985569	Y
3	IC 320-494451/4	0.25	0.263975	1.25	1314618.0	1.0559	Y
4	IC 320-494451/5	1.0	1.008849	1.25	1287448.0	1.008849	Y
5	IC 320-494451/6	2.5	2.619602	1.25	1278029.0	1.047841	Y
6	IC 320-494451/7	5.0	5.126758	1.25	1333882.0	1.025352	Y
7	IC 320-494451/8	10.0	10.007946	1.25	1281760.0	1.000795	Y



Calibration

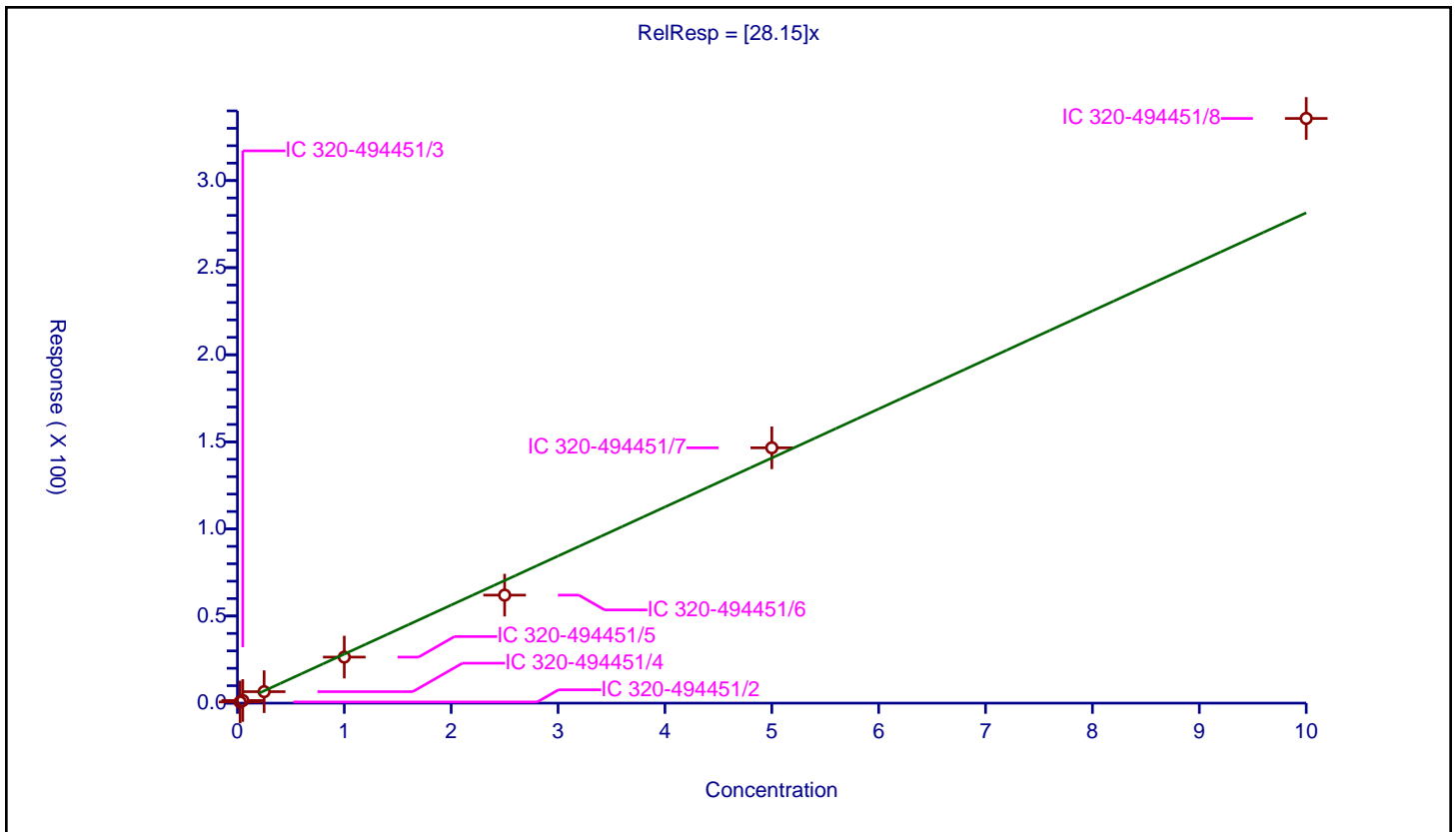
/ 10:2 FTUCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	28.15

Error Coefficients	
Standard Error:	21500000
Relative Standard Error:	10.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.661541	1.25	258051.0	26.46163	Y
2	IC 320-494451/3	0.05	1.508113	1.25	244123.0	30.162254	Y
3	IC 320-494451/4	0.25	6.577824	1.25	280783.0	26.311297	Y
4	IC 320-494451/5	1.0	26.435818	1.25	264722.0	26.435818	Y
5	IC 320-494451/6	2.5	62.004639	1.25	263217.0	24.801856	Y
6	IC 320-494451/7	5.0	146.572871	1.25	203030.0	29.314574	Y
7	IC 320-494451/8	10.0	335.664907	1.25	166608.0	33.566491	Y



Calibration

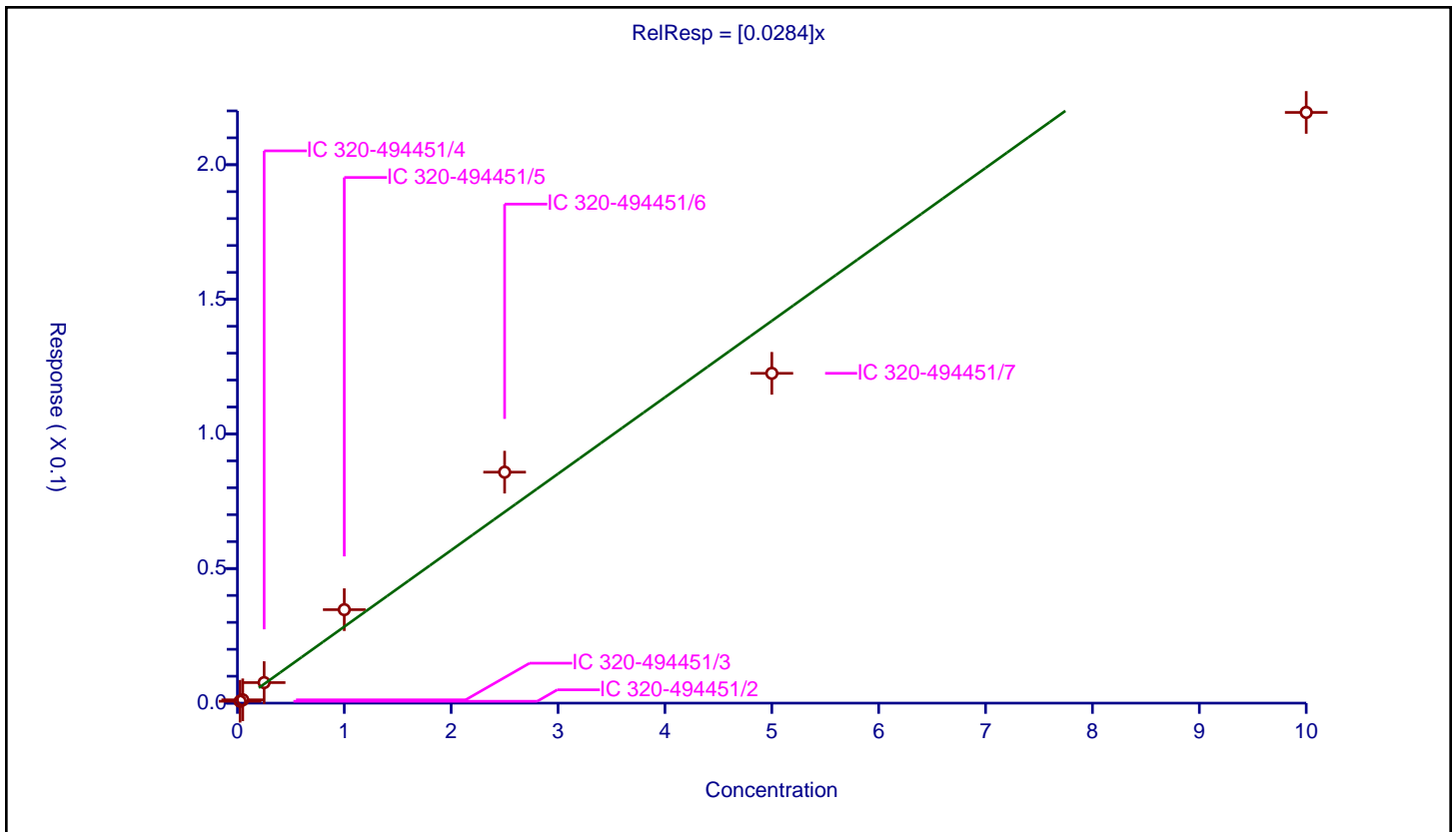
/ 10:2 FTCA

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.0284

Error Coefficients	
Standard Error:	615000
Relative Standard Error:	17.6
Correlation Coefficient:	0.943
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.000701	1.25	8962809.0	0.028044	Y
2	IC 320-494451/3	0.05	0.001236	1.25	9014871.0	0.024726	Y
3	IC 320-494451/4	0.25	0.007634	1.25	8815348.0	0.030535	Y
4	IC 320-494451/5	1.0	0.034724	1.25	8316033.0	0.034724	Y
5	IC 320-494451/6	2.5	0.085805	1.25	7785957.0	0.034322	Y
6	IC 320-494451/7	5.0	0.122513	1.25	8004420.0	0.024503	Y
7	IC 320-494451/8	10.0	0.219428	1.25	6532684.0	0.021943	Y



**Calibration**

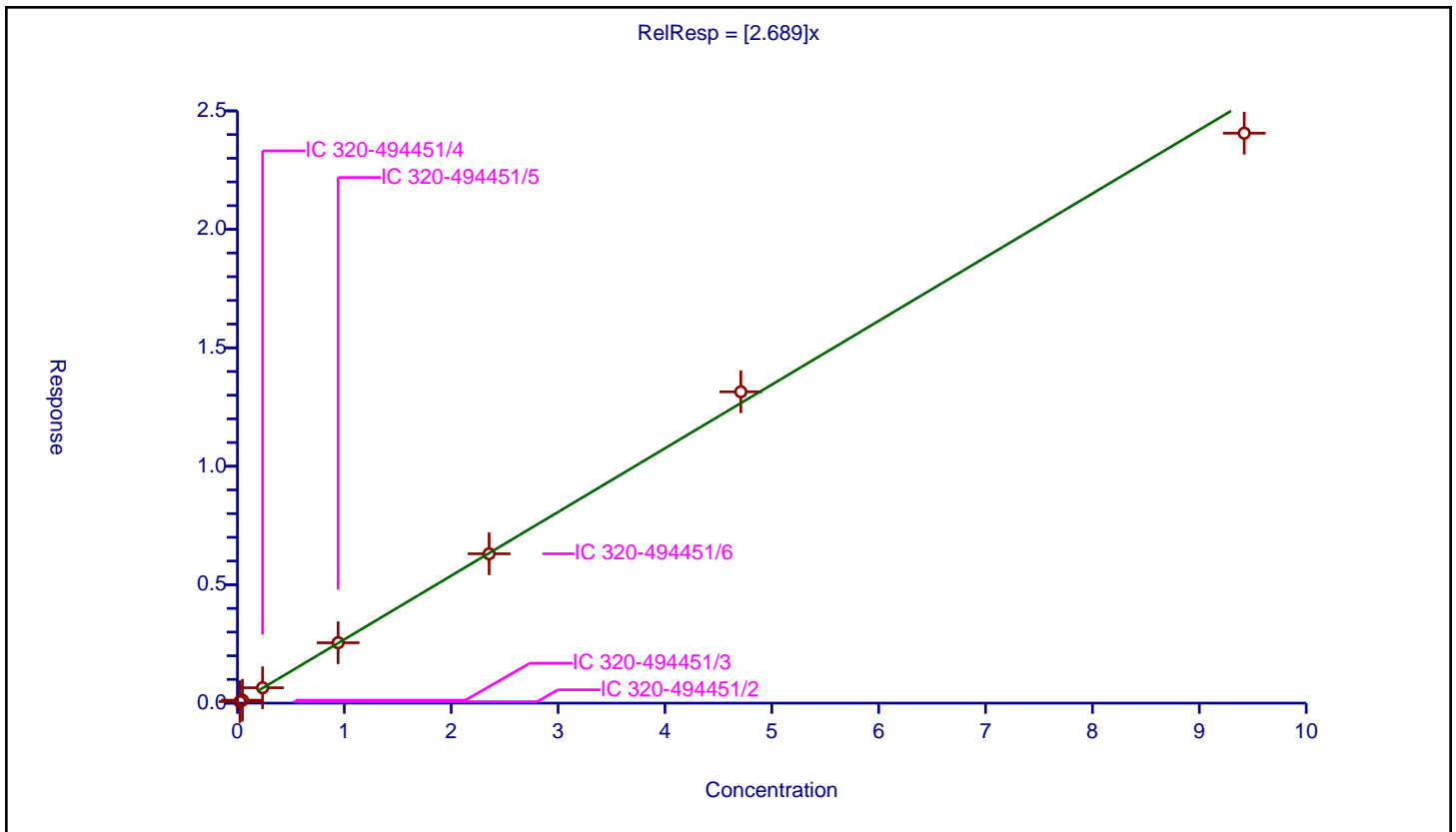
**/ 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	2.689

Error Coefficients	
Standard Error:	22500000
Relative Standard Error:	2.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.02355	0.063251	1.195	2467646.0	2.685801	Y
2	IC 320-494451/3	0.0471	0.124879	1.195	2616029.0	2.651365	Y
3	IC 320-494451/4	0.2355	0.649493	1.195	2463485.0	2.757933	Y
4	IC 320-494451/5	0.942	2.54875	1.195	2495449.0	2.705679	Y
5	IC 320-494451/6	2.355	6.304853	1.195	2504282.0	2.67722	Y
6	IC 320-494451/7	4.71	13.142504	1.195	2411706.0	2.79034	Y
7	IC 320-494451/8	9.42	24.058386	1.195	2298584.0	2.553969	Y



**Calibration**

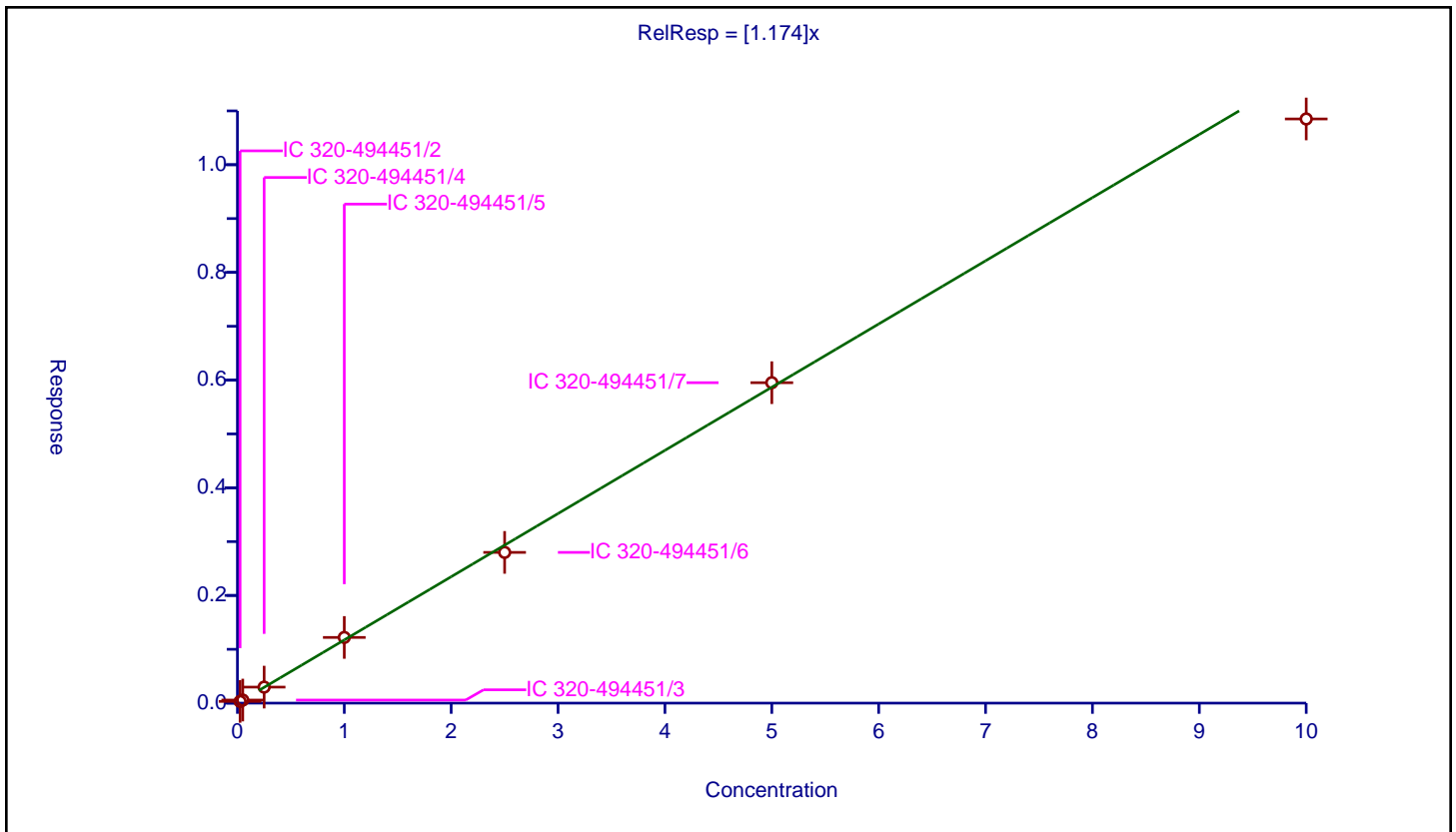
**/ 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.174

Error Coefficients	
Standard Error:	8330000
Relative Standard Error:	5.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.031774	1.25	1881007.0	1.270942	Y
2	IC 320-494451/3	0.05	0.056965	1.25	2042625.0	1.139306	Y
3	IC 320-494451/4	0.25	0.297452	1.25	2035494.0	1.189809	Y
4	IC 320-494451/5	1.0	1.220271	1.25	1872612.0	1.220271	Y
5	IC 320-494451/6	2.5	2.799812	1.25	1952148.0	1.119925	Y
6	IC 320-494451/7	5.0	5.951548	1.25	2042373.0	1.19031	Y
7	IC 320-494451/8	10.0	10.850037	1.25	1993060.0	1.085004	Y



**Calibration**

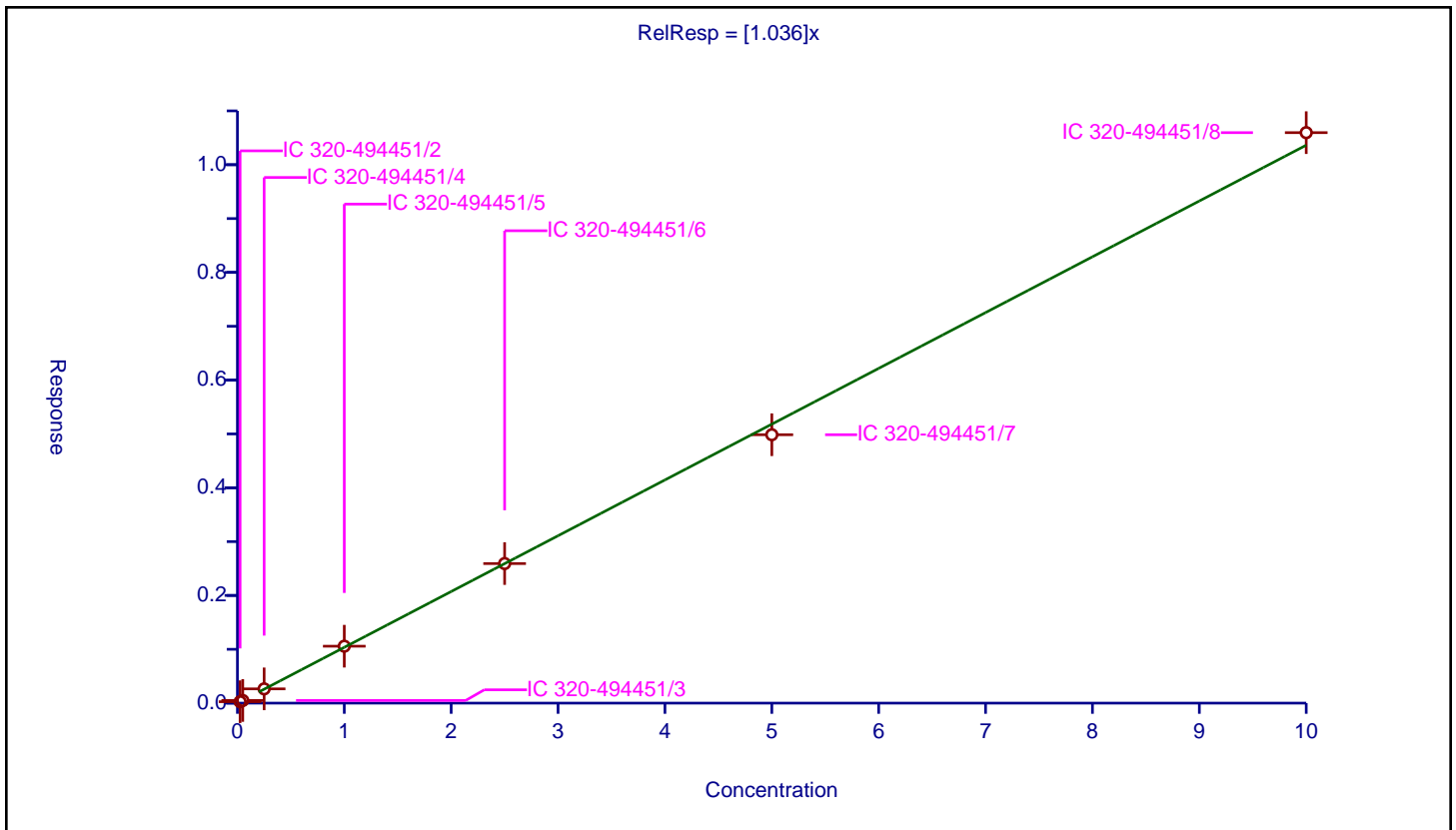
**/ N-ethylperfluoro-1-octanesulfonamide**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	1.036

Error Coefficients	
<b>Standard Error:</b>	4960000
<b>Relative Standard Error:</b>	3.2
<b>Correlation Coefficient:</b>	1.000
<b>Coefficient of Determination (Adjusted):</b>	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.026521	1.25	1229937.0	1.060827	Y
2	IC 320-494451/3	0.05	0.04913	1.25	1331675.0	0.982597	Y
3	IC 320-494451/4	0.25	0.264833	1.25	1271228.0	1.05933	Y
4	IC 320-494451/5	1.0	1.057609	1.25	1263849.0	1.057609	Y
5	IC 320-494451/6	2.5	2.592219	1.25	1247523.0	1.036887	Y
6	IC 320-494451/7	5.0	4.985184	1.25	1370026.0	0.997037	Y
7	IC 320-494451/8	10.0	10.595867	1.25	1236372.0	1.059587	Y



**Calibration**

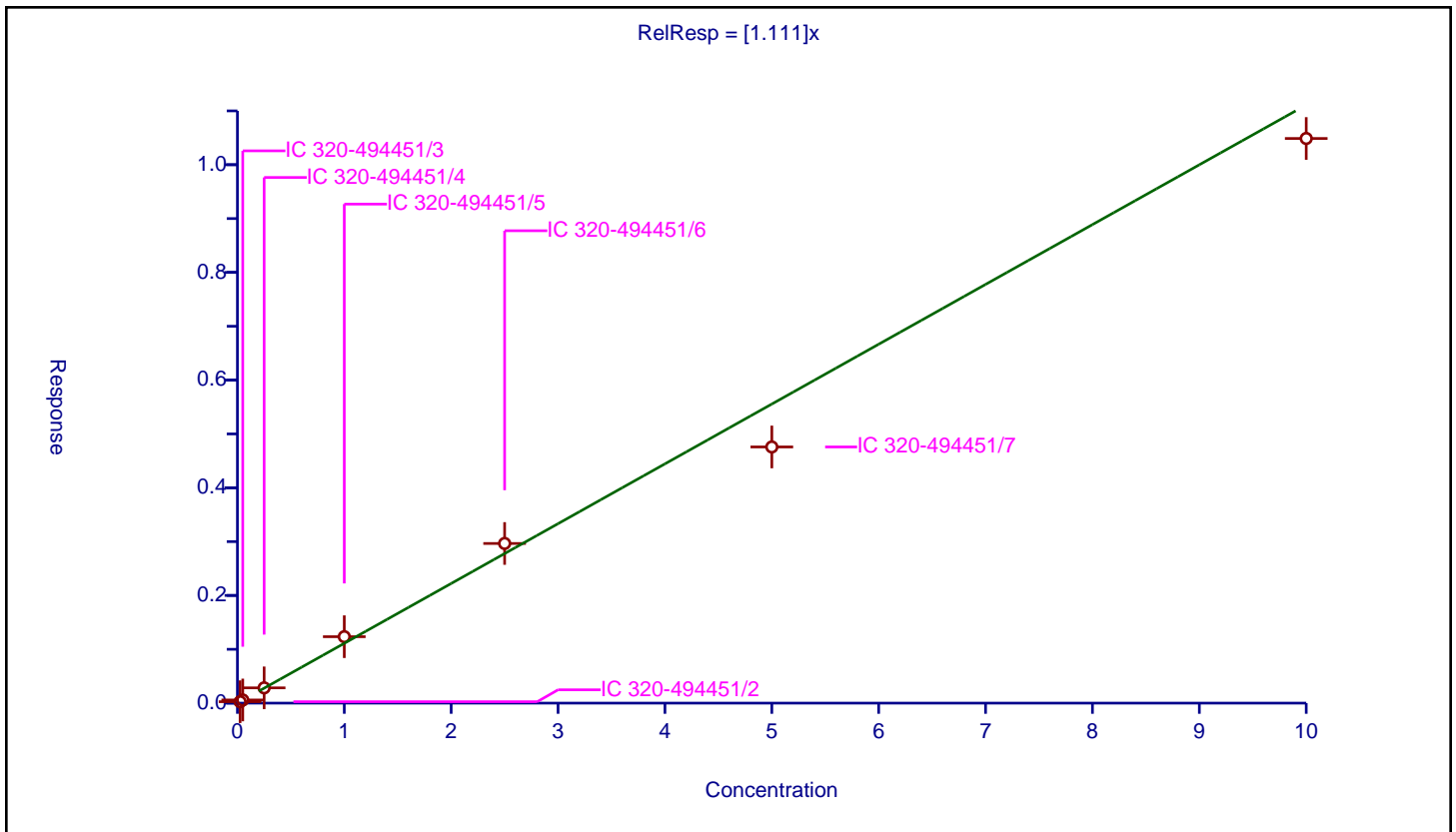
**/ Perfluorododecanoic acid**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	1.111

Error Coefficients	
<b>Standard Error:</b>	25600000
<b>Relative Standard Error:</b>	8.8
<b>Correlation Coefficient:</b>	0.995
<b>Coefficient of Determination (Adjusted):</b>	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.02632	1.25	8256018.0	1.05279	Y
2	IC 320-494451/3	0.05	0.058421	1.25	7861576.0	1.168411	Y
3	IC 320-494451/4	0.25	0.283873	1.25	8225765.0	1.135493	Y
4	IC 320-494451/5	1.0	1.233778	1.25	6326589.0	1.233778	Y
5	IC 320-494451/6	2.5	2.965532	1.25	7152063.0	1.186213	Y
6	IC 320-494451/7	5.0	4.757862	1.25	7354983.0	0.951572	Y
7	IC 320-494451/8	10.0	10.487503	1.25	6314922.0	1.04875	Y



**Calibration**

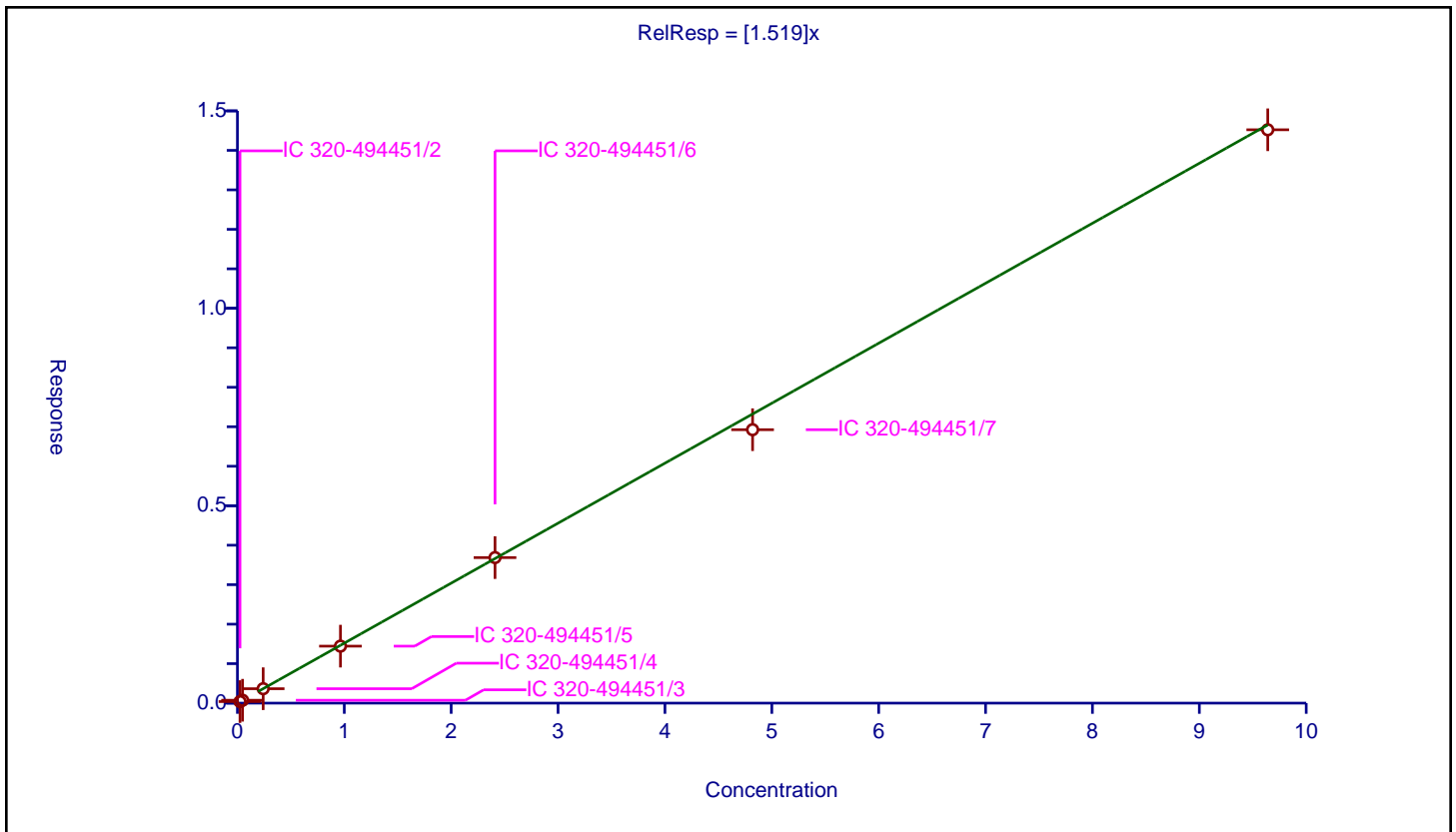
/ 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.519

Error Coefficients	
Standard Error:	7630000
Relative Standard Error:	3.9
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0241	0.039428	1.20625	2130083.0	1.636021	Y
2	IC 320-494451/3	0.0482	0.072899	1.20625	2113619.0	1.512424	Y
3	IC 320-494451/4	0.241	0.365333	1.20625	2034729.0	1.515903	Y
4	IC 320-494451/5	0.964	1.443504	1.20625	1896761.0	1.497411	Y
5	IC 320-494451/6	2.41	3.686048	1.20625	1687459.0	1.52948	Y
6	IC 320-494451/7	4.82	6.925684	1.20625	1569420.0	1.436864	Y
7	IC 320-494451/8	9.64	14.521662	1.20625	1276564.0	1.506396	Y





**Calibration**

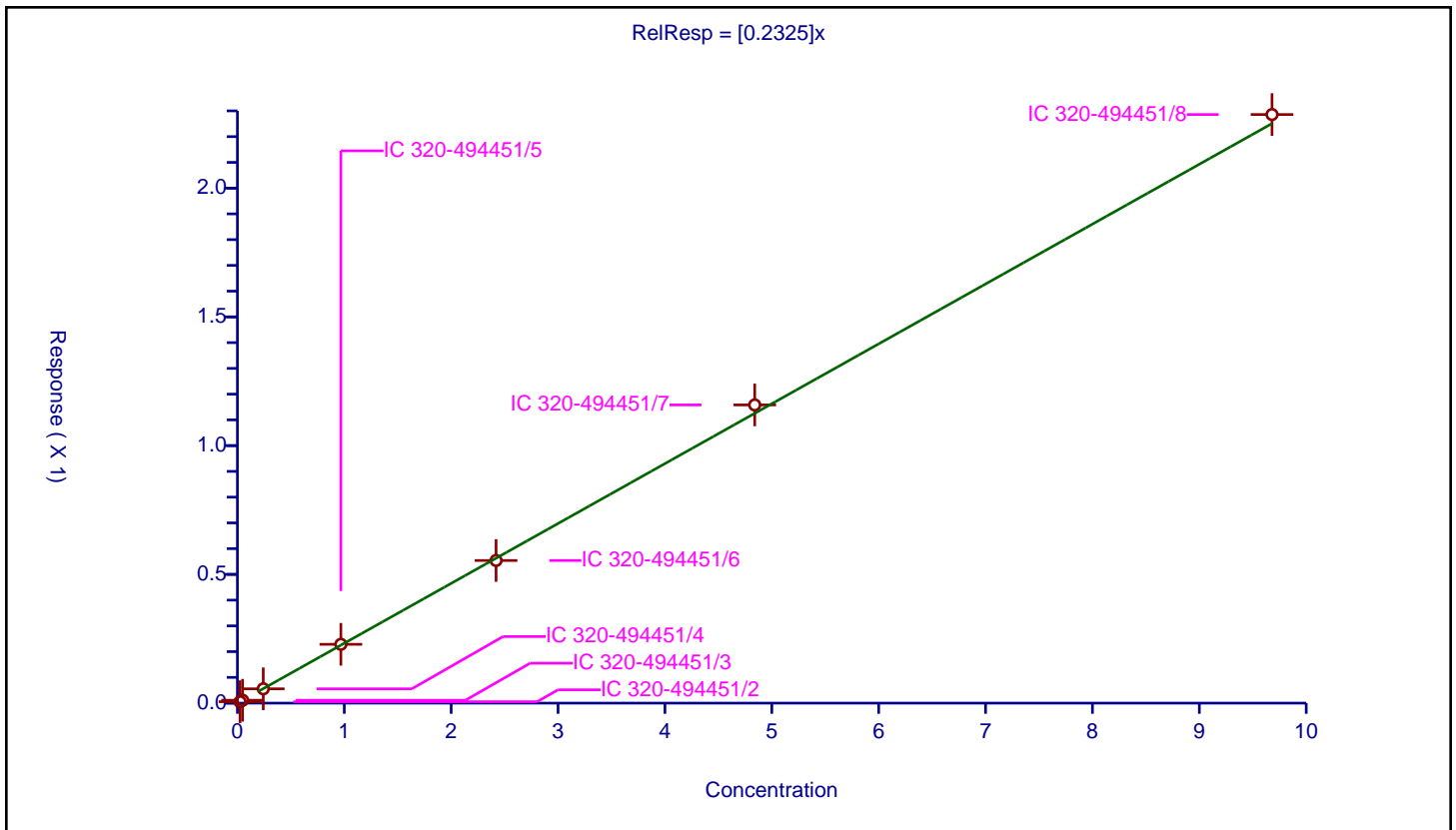
**/ Perfluorododecanesulfonic acid (PFDoS)**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	0.2325

Error Coefficients	
<b>Standard Error:</b>	2100000
<b>Relative Standard Error:</b>	2.0
<b>Correlation Coefficient:</b>	0.999
<b>Coefficient of Determination (Adjusted):</b>	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.0242	0.00549	1.195	2467646.0	0.226865	Y
2	IC 320-494451/3	0.0484	0.011179	1.195	2616029.0	0.230967	Y
3	IC 320-494451/4	0.242	0.055562	1.195	2463485.0	0.229594	Y
4	IC 320-494451/5	0.968	0.228426	1.195	2495449.0	0.235977	Y
5	IC 320-494451/6	2.42	0.553972	1.195	2504282.0	0.228914	Y
6	IC 320-494451/7	4.84	1.158073	1.195	2411706.0	0.239271	Y
7	IC 320-494451/8	9.68	2.285797	1.195	2298584.0	0.236136	Y



**Calibration**

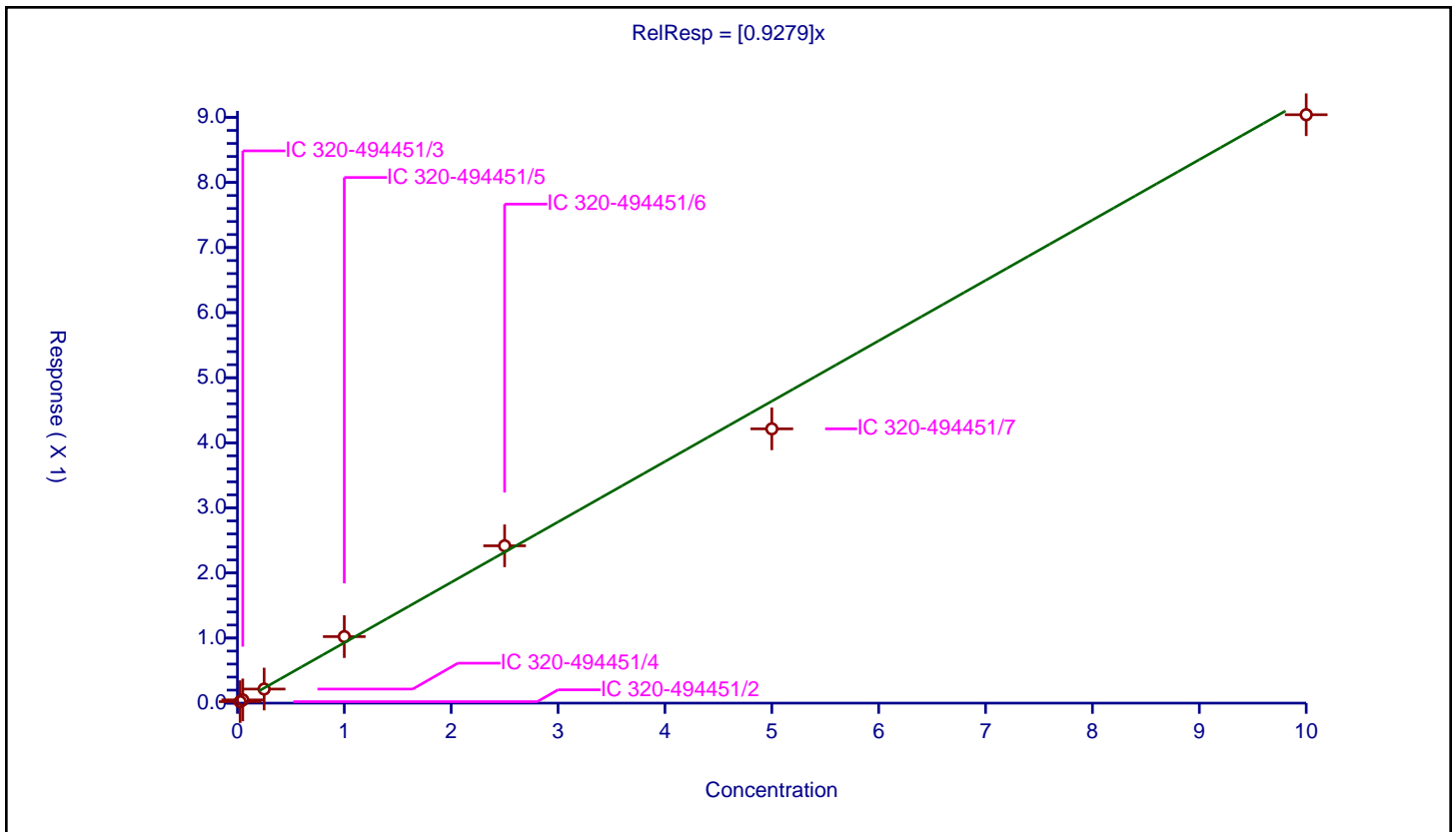
/ Perfluorotridecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9279

Error Coefficients	
Standard Error:	22100000
Relative Standard Error:	7.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.022519	1.25	8256018.0	0.900749	Y
2	IC 320-494451/3	0.05	0.049649	1.25	7861576.0	0.992972	Y
3	IC 320-494451/4	0.25	0.216382	1.25	8225765.0	0.865528	Y
4	IC 320-494451/5	1.0	1.02198	1.25	6326589.0	1.02198	Y
5	IC 320-494451/6	2.5	2.417379	1.25	7152063.0	0.966952	Y
6	IC 320-494451/7	5.0	4.214649	1.25	7354983.0	0.84293	Y
7	IC 320-494451/8	10.0	9.041259	1.25	6314922.0	0.904126	Y



**Calibration**

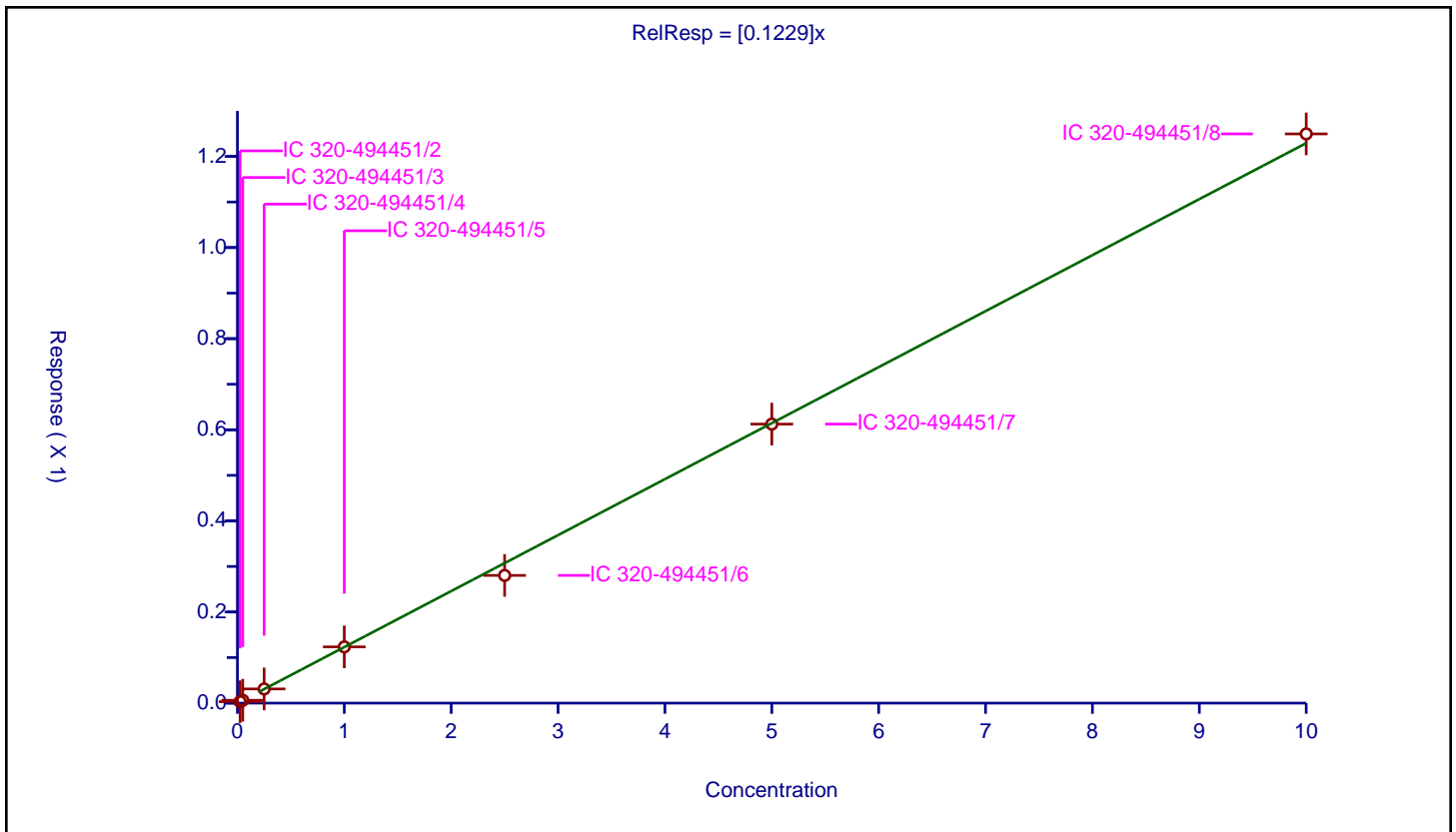
/ Perfluorotetradecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1229

Error Coefficients	
Standard Error:	2900000
Relative Standard Error:	4.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.003171	1.25	7123151.0	0.126854	Y
2	IC 320-494451/3	0.05	0.006305	1.25	7039524.0	0.126092	Y
3	IC 320-494451/4	0.25	0.031116	1.25	6697651.0	0.124464	Y
4	IC 320-494451/5	1.0	0.123449	1.25	6544791.0	0.123449	Y
5	IC 320-494451/6	2.5	0.280357	1.25	6993758.0	0.112143	Y
6	IC 320-494451/7	5.0	0.612473	1.25	6874886.0	0.122495	Y
7	IC 320-494451/8	10.0	1.249503	1.25	6030561.0	0.12495	Y



**Calibration**

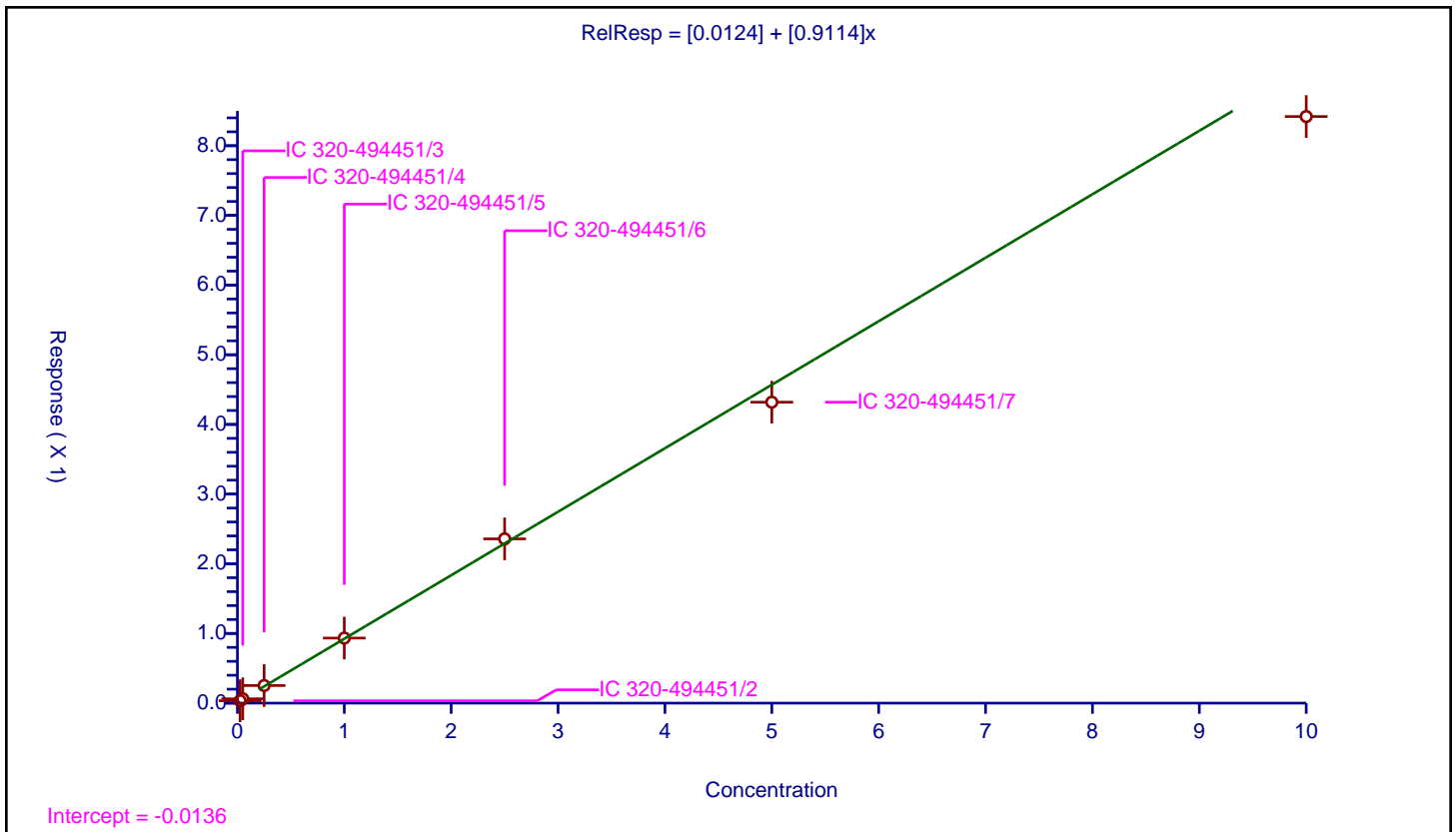
/ Perfluorohexadecanoic acid

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.0124
Slope:	0.9114

Error Coefficients	
Standard Error:	17700000
Relative Standard Error:	6.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.034062	1.25	5547657.0	1.362485	Y
2	IC 320-494451/3	0.05	0.061939	1.25	4904544.0	1.238775	Y
3	IC 320-494451/4	0.25	0.252551	1.25	5490919.0	1.010205	Y
4	IC 320-494451/5	1.0	0.933737	1.25	5298257.0	0.933737	Y
5	IC 320-494451/6	2.5	2.357455	1.25	4619724.0	0.942982	Y
6	IC 320-494451/7	5.0	4.319456	1.25	5221297.0	0.863891	Y
7	IC 320-494451/8	10.0	8.418829	1.25	5029597.0	0.841883	Y



**Calibration**

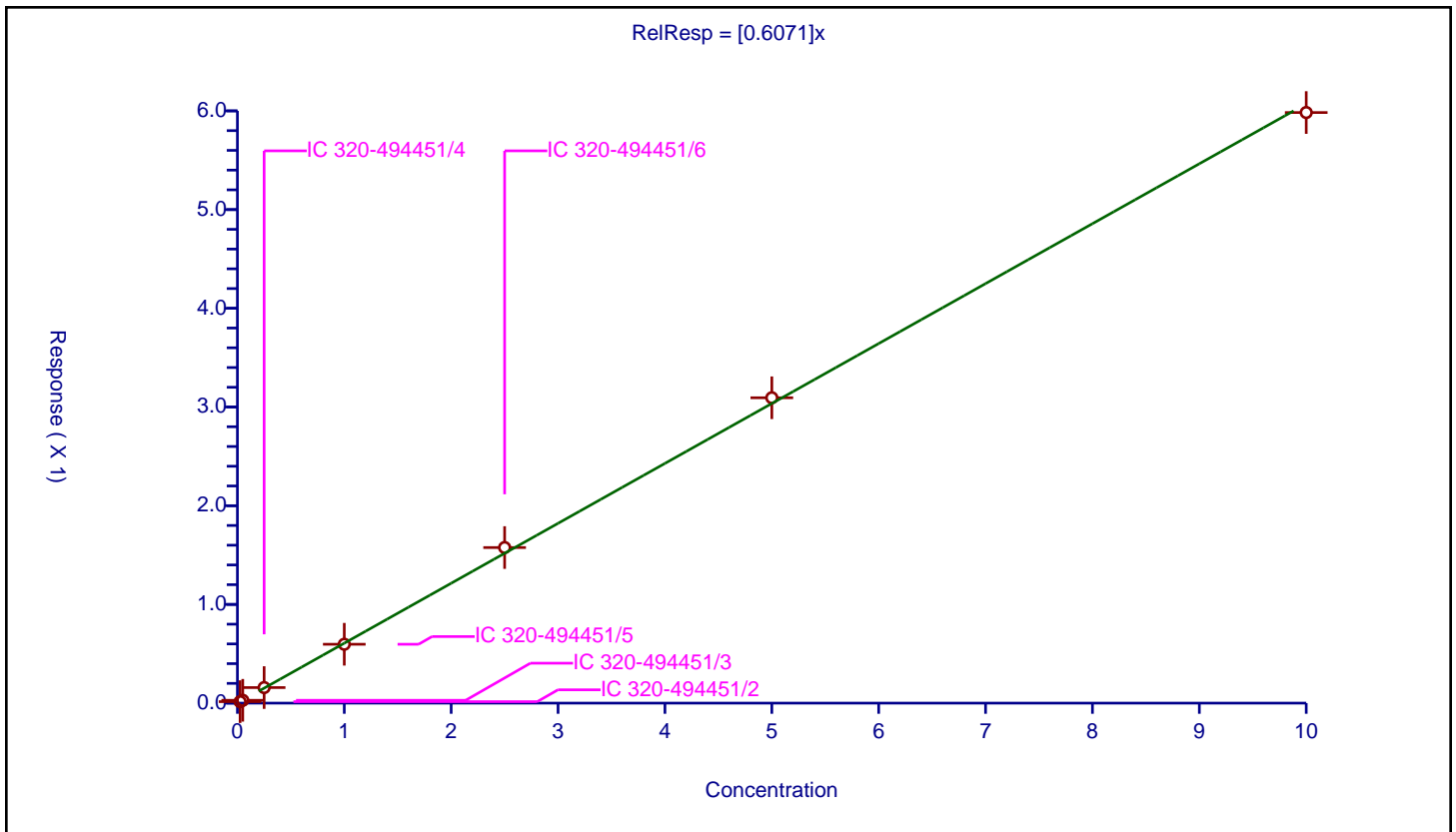
/ Perfluorooctadecanoic acid

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6071

Error Coefficients	
Standard Error:	11500000
Relative Standard Error:	3.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-494451/2	0.025	0.015021	1.25	5547657.0	0.600848	Y
2	IC 320-494451/3	0.05	0.028725	1.25	4904544.0	0.574493	Y
3	IC 320-494451/4	0.25	0.157668	1.25	5490919.0	0.630672	Y
4	IC 320-494451/5	1.0	0.596547	1.25	5298257.0	0.596547	Y
5	IC 320-494451/6	2.5	1.576088	1.25	4619724.0	0.630435	Y
6	IC 320-494451/7	5.0	3.093573	1.25	5221297.0	0.618715	Y
7	IC 320-494451/8	10.0	5.983336	1.25	5029597.0	0.598334	Y



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 320-494451/10 Calibration Date: 06/01/2021 15:20  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.01\_A15\_PFC+\_ICAL\_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0279			4.50	-24.4	40.0
MMF	AveID	0.0724	0.0633			4.50	-12.6	40.0
MTP	AveID	0.0896	0.0919			4.50	2.6	40.0
PFPrA	AveID	0.6311	0.6775			4.37	7.4	40.0
PFMOAA	AveID	0.3080	0.3085			4.50	0.1	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4350			4.50	-0.9	40.0
R-EVE	AveID	0.3326	0.3250			4.50	-2.3	40.0
R-PSDA	AveID	0.1112	0.1123			4.50	1.0	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	1.047		4.50	4.06	10.7	40.0
PMPA	AveID	0.2182	0.2211			4.50	1.3	40.0
PFPrS	AveID	1.161	1.228			4.12	5.8	40.0
NVHOS	AveID	0.0186	0.0175			4.50	-5.8	40.0
PFMPA	AveID	0.6521	0.6758			4.50	3.6	40.0
PFO2HxA	AveID	0.0727	0.0718			4.50	-1.3	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.050		4.15	4.14	0.2	40.0
3:3 FTCA	AveID	0.0982	0.1039			4.50	5.8	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.187		4.72	4.50	5.0	50.0
PEPA	AveID	0.1649	0.1610			4.50	-2.3	40.0
PFMBA	AveID	1.195	1.235			4.50	3.4	40.0
PFEEESA	AveID	3.845	4.047			4.01	5.2	40.0
NFDHA	AveID	0.1332	0.1314			4.50	-1.4	40.0
4:2 FTS	AveID	2.393	2.225		3.91	4.20	-7.0	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.085		4.36	4.50	-3.1	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.8712		3.69	4.22	-12.5	50.0
PFO3OA	AveID	0.0345	0.0334			4.50	-3.2	40.0
HFPO-DA (GenX)	AveID	1.018	1.027		4.54	4.50	0.9	40.0
R-PSDCA	AveID	0.0667	0.0606			4.50	-9.2	40.0
Hydro-EVE Acid	AveID	1.539	1.565			4.50	1.7	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	0.9929		4.23	4.50	-6.0	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	1.170		4.76	4.50	5.8	40.0
Hydro-PS Acid	AveID	1.580	1.651			4.50	4.5	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.690		4.55	4.50	1.2	50.0
PFPE-1	AveID	0.1620	0.1613			4.50	-0.4	40.0
5:3 FTCA	AveID	0.2969	0.3120			4.50	5.1	40.0
6:2 FTUCA	AveID	17.67	16.03			4.50	-9.3	40.0
6:2 FTCA	AveID	0.0160	0.0185			4.50	15.1	40.0
PFO4DA	AveID	0.0394	0.0385			4.50	-2.4	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 320-494451/10 Calibration Date: 06/01/2021 15:20  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.01\_A15\_PFC+\_ICAL\_012.d Conc. Units: ng/mL

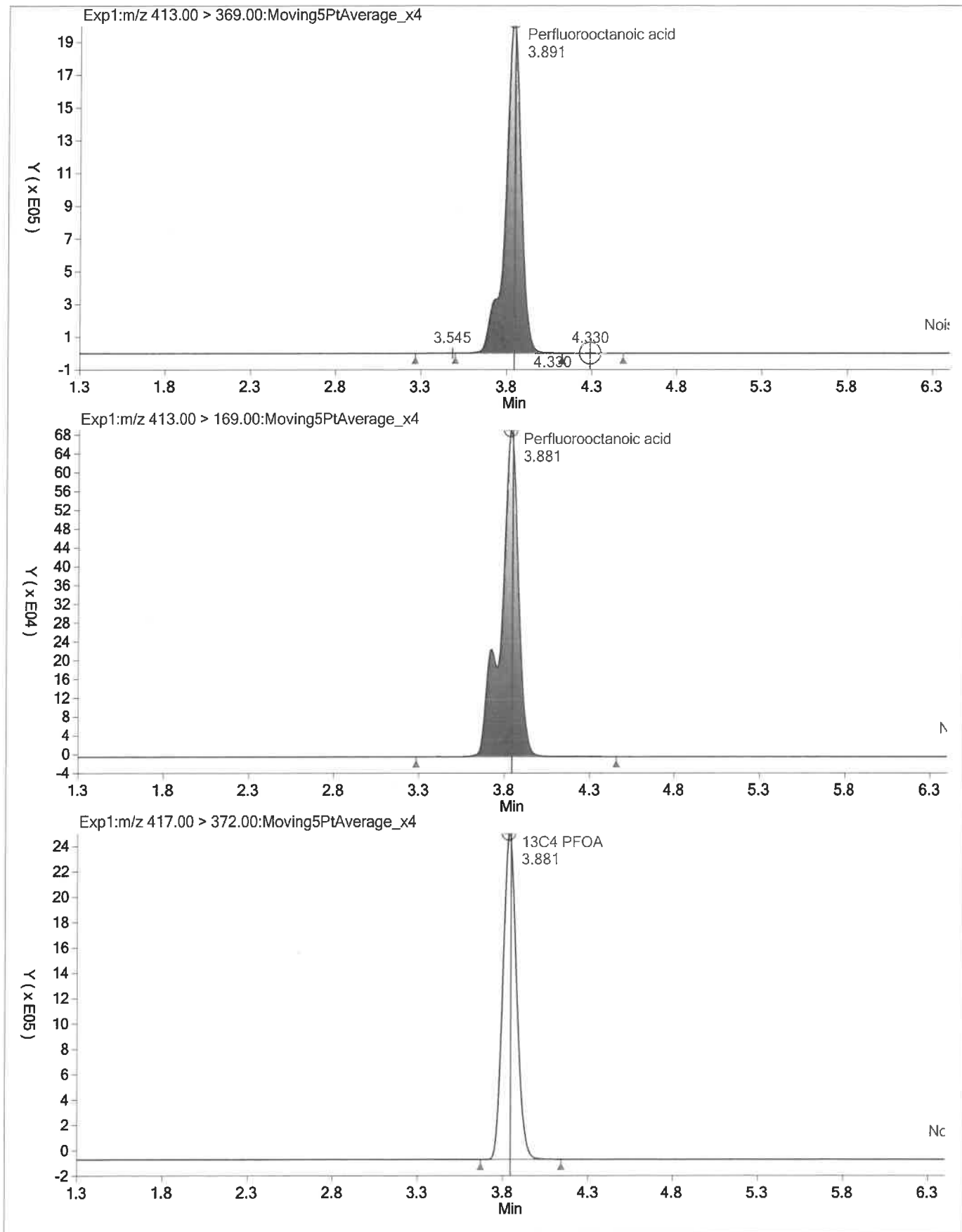
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PS Acid	AveID	0.6583	0.6628			4.50	0.7	40.0
EVE Acid	AveID	1.047	1.048			4.50	0.0	40.0
PFECHS	AveID	1.196	1.188			4.15	-0.6	40.0
6:2 FTS	AveID	2.060	2.051		4.25	4.27	-0.5	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.177		4.42	4.28	3.1	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	0.9392		4.25	4.73	-10.1	40.0
PFO5DA	AveID	0.0155	0.0128			4.50	-17.1	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.150		4.60	4.50	2.2	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.001		4.78	4.73	1.1	40.0
7:3 FTCA	AveID	7.703	8.627			4.50	12.0	40.0
8:2 FTUCA	AveID	0.9749	1.029			4.50	5.6	40.0
8:2 FTCA	AveID	1.157	1.265			4.50	9.3	40.0
9Cl-PF3ONS	AveID	2.256	2.325		4.64	4.50	3.1	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	1.063		4.76	4.50	5.9	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.9529		4.40	4.32	1.8	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.999		4.40	4.50	-2.3	40.0
8:2 FTS	AveID	1.563	1.550		4.40	4.44	-0.8	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.7134		4.34	4.50	-3.6	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8870		4.70	4.34	8.2	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8788		4.51	4.73	-4.6	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.7406		4.65	4.50	3.4	40.0
NMeFOSE	AveID	1.058	1.186		5.05	4.50	12.1	40.0
NMeFOSA	AveID	1.014	1.063			4.50	4.8	50.0
10:2 FTUCA	AveID	28.15	40.05			4.50	42.3*	40.0
10:2 FTCA	AveID	0.0284	0.0321			4.50	12.9	40.0
11Cl-PF3OUdS	AveID	2.689	2.858		4.78	4.50	6.3	50.0
NEtFOSE	AveID	1.174	1.248		4.78	4.50	6.3	40.0
NEtFOSA	AveID	1.036	1.129			4.50	9.0	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.002		4.26	4.73	-9.8	40.0
10:2 FTS	AveID	1.519	1.410		4.03	4.34	-7.2	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2565		4.80	4.36	10.3	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.8152		3.95	4.50	-12.1	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1344		4.92	4.50	9.3	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8858		4.36	4.50	-3.1	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 320-494451/10 Calibration Date: 06/01/2021 15:20  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.01\_A15\_PFC+\_ICAL\_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6073		4.50	4.50	0.0	50.0
13C4 PFBA	Ave	0.998	1.041		1.30	1.25	4.3	50.0
13C5 PFPeA	Ave	0.9416	0.9941		1.32	1.25	5.6	50.0
13C3 PFBS	Ave	0.6563	0.6682		1.18	1.16	1.8	50.0
M2-4:2 FTS	Ave	0.1753	0.1611		1.07	1.17	-8.1	50.0
13C2 PFHxA	Ave	0.9319	0.9546		1.28	1.25	2.4	50.0
13C3 HFPO-DA	Ave	0.1655	0.1734		1.31	1.25	4.8	50.0
13C4 PFHpA	Ave	0.9175	0.9315		1.27	1.25	1.5	50.0
18O2 PFHxS	Ave	0.4664	0.4706		1.19	1.18	0.9	50.0
13C-6:2 FTCA	Ave	0.7974	0.7815		1.23	1.25	-2.0	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0544		1.39	1.25	11.1	50.0
M2-6:2 FTS	Ave	0.2119	0.1781		0.998	1.19	-16.0	50.0
13C4 PFOA	Ave	1.043	1.075		1.29	1.25	3.1	50.0
13C4 PFOS	Ave	0.3656	0.3586		1.17	1.20	-1.9	50.0
13C5 PFNA	Ave	0.997	1.031		1.29	1.25	3.5	50.0
13C-8:2 FTUCA	Ave	0.9872	0.9732		1.23	1.25	-1.4	50.0
13C-8:2 FTCA	Ave	0.0451	0.0413		1.14	1.25	-8.5	50.0
13C8 FOSA	Ave	0.6160	0.6080		1.23	1.25	-1.3	50.0
13C2 PFDA	Ave	0.997	1.077		1.35	1.25	8.0	50.0
M2-8:2 FTS	Ave	0.3308	0.2731		0.988	1.20	-17.5	50.0
d3-NMeFOSAA	Ave	0.4207	0.4210		1.25	1.25	0.0	50.0
13C2 PFUnA	Ave	0.9607	0.9383		1.22	1.25	-2.3	50.0
d5-NEtFOSAA	Ave	0.4186	0.3864		1.15	1.25	-7.7	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2481		1.23	1.25	-1.3	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1967		1.33	1.25	6.5	50.0
13C-10:2 FTCA	Ave	1.160	1.110		1.20	1.25	-4.3	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0242		0.893	1.25	-28.6	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.2889		1.29	1.25	3.2	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1868		1.29	1.25	3.0	50.0
13C2 PFDaA	Ave	1.039	1.002		1.20	1.25	-3.6	50.0
13C2 10:2 FTS	Ave	0.2654	0.2424		1.10	1.21	-8.6	50.0
13C2 PFTeDA	Ave	0.9575	0.9864		1.29	1.25	3.0	50.0
13C2 PFHxDA	Ave	0.7323	0.8087		1.38	1.25	10.4	50.0
13C8 PFOA	Ave	1.167	1.128		1.21	1.25	-3.3	50.0
13C8 PFOS	Ave	0.1093	0.1037		1.13	1.20	-5.1	50.0





Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
 Lims ID: ICV  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 01-Jun-2021 15:20:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: ICV (8)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist:

Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:57:47 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d

Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:16:45

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.771	0.764	0.007	0.330	716771	3.40		842	
2 MMF	139.00 > 51.00	0.778	0.764	0.014	0.333	1625490	3.93		881	M
3 MTP	175.00 > 97.00	1.190	1.229	-0.039	0.509	2359690	4.62		392	M
4 PPF Acid	162.95 > 119.00	1.610	1.633	-0.023	0.688	16877638	4.69		1676	M
5 PFMOAA	179.00 > 84.90	2.071	2.084	-0.013	0.885	7921592	4.51		2129	M
6 R-PSDA	441.00 > 241.00	2.218	2.209	0.009	0.948	2885237	4.55		74118	
7 R-EVE	405.00 > 217.00	2.218	2.217	0.001	0.948	8346788	4.40		281350	
8 Hydrolyzed PSDA	439.10 > 342.90	2.218	2.217	0.001	0.948	11171531	4.46		552712	
D 9 13C4 PFBA	217.00 > 172.00	2.339	2.338	0.001	0.601	7133773	1.30	104	112229	
10 Perfluorobutanoic acid	212.90 > 169.00	2.339	2.338	0.001	1.000	24275362	4.50		24021	
11 PMPA	229.00 > 185.00	2.401	2.400	0.001	1.027	5677036	4.56		8340	
12 PFPrS	249.10 > 80.00	2.410	2.409	0.001	0.887	18551627	4.36		84744	
13 NVHOS	297.00 > 135.00	2.419	2.418	0.001	1.034	449385	4.24		17553	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.463	2.462	0.001	0.918	16579259	4.66			152261	
16 PFO2HxA										
245.00 > 85.00	2.596	2.606	-0.010	0.968	1760700	4.44			11247	
D 17 13C5 PFPeA										
267.90 > 223.00	2.683	2.682	0.001	0.690	6814428	1.32		106	60016	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.683	2.682	0.001	1.000	23697526	4.15			76969	
19 3:3 FTCA										
241.00 > 177.10	2.694	2.693	0.001	0.992	1713518	4.76	Target=1.28		23584	
241.00 > 116.90	2.694	2.693	0.001	0.992	1275364		1.34(0.64-1.92)		6793	
D 21 13C3 PFBS										
301.90 > 80.00	2.717	2.716	0.001	0.698	4259510	1.18		102	24715	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.717	2.716	0.001	1.000	19573446	4.72	Target=2.36		38562	
298.90 > 99.00	2.717	2.716	0.001	1.000	7942256		2.46(1.18-3.53)		28243	
22 PEPA										
278.90 > 234.90	2.771	2.780	-0.009	1.033	3950301	4.40			5909	
23 PFECA A										
278.95 > 84.90	2.791	2.790	0.001	1.040	30293631	4.65			333211	
24 PES										
314.80 > 135.00	2.870	2.869	0.001	1.056	59391472	4.22			778676	
25 PFECA B										
295.20 > 201.00	2.992	2.991	0.001	0.979	3095278	4.44			57073	
D 27 M2-4:2 FTS										
329.00 > 81.00	3.018	3.018	0.0	0.776	1031399	1.07		91.9	10672	
26 4:2 FTS										
327.00 > 307.00	3.018	3.018	0.0	1.000	8266222	3.91	Target=2.17		167389	
327.00 > 79.96	3.018	3.018	0.0	1.000	4030299		2.05(1.09-3.26)		44154	
D 28 13C2 PFHxA										
315.00 > 270.00	3.057	3.056	0.001	0.786	6543727	1.28		102	68795	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.057	3.056	0.001	1.000	25566981	4.36	Target=13.89		53444	
313.00 > 119.00	3.057	3.056	0.001	1.000	1893769		13.50(6.95-20.84)		21117	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.077	3.076	0.001	1.132	13477244	3.69	Target=3.10		140674	
349.00 > 99.00	3.077	3.076	0.001	1.132	4453302		3.03(1.55-4.65)		71989	
31 PFO3OA										
311.10 > 85.20	3.126	3.126	0.0	1.023	786463	4.36			8793	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.197	3.197	0.0	0.822	1188543	1.31		105	26720	
33 HFPO-DA										
285.00 > 169.00	3.197	3.197	0.0	1.000	4395082	4.54	Target=1.03		79029	
285.00 > 185.00	3.197	3.197	0.0	1.000	4089075		1.07(0.52-1.55)		35031	
34 R-PSDCA										
397.00 > 217.00	3.433	3.432	0.001	0.986	1392300	4.09			37005	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.461	3.471	-0.010	0.994	35979937	4.58			19976	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.481	3.480	0.001	1.000	22822237	4.23	Target=3.81		115834	
363.00 > 169.00	3.481	3.480	0.001	1.000	5803890		3.93(1.91-5.72)		15682	
D 38 18O2 PFHxS										
403.00 > 84.00	3.481	3.480	0.001	0.895	3051730	1.19		101	94072	
D 37 13C4 PFHpA										
367.00 > 322.00	3.481	3.480	0.001	0.895	6385035	1.27		102	117123	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.481	3.480	0.001	1.000	13583787	4.76	Target=3.50		196346	
399.00 > 99.00	3.481	3.480	0.001	1.000	3655792		3.72(1.75-5.25)		51015	
40 Hydro-PS Acid										
463.00 > 263.00	3.490	3.490	0.0	1.003	37945665	4.70			8020	
41 DONA										
377.00 > 251.00	3.536	3.536	0.0	0.830	50350831	4.55	Target=2.07		796028	
377.00 > 85.00	3.536	3.536	0.0	0.830	23839419		2.11(1.03-3.10)		9203	
44 PFECA G										
378.90 > 184.90	3.553	3.561	-0.008	0.991	3110629	4.48			61376	
43 5:3 FTCA										
340.88 > 236.90	3.562	3.561	0.001	0.993	6017455	4.73	Target=1.08		105406	
340.88 > 216.90	3.553	3.561	-0.008	0.991	5663238		1.06(0.54-1.62)		99341	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.587	3.595	-0.008	0.922	5356954	1.23		98.0	215530	
46 6:2 FTUCA										
356.86 > 292.90	3.587	3.595	-0.008	0.994	21505214	4.08	Target=14.03		305613	
356.86 > 243.00	3.587	3.595	-0.008	0.994	1564570		13.75(7.02-21.05)		39358	
48 6:2 FTCA										
377.10 > 313.10	3.610	3.610	0.0	1.007	356223	5.18	Target=0.54		1447	
377.10 > 63.00	3.610	3.610	0.0	1.007	510767		0.70(0.27-0.81)		17095	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.610	3.618	-0.008	0.928	372601	1.39		111	5393	
42 PFO4DA										
376.90 > 85.00	3.670	3.670	0.0	1.054	884613	4.39		4.7	a	a
49 PS Acid										
442.80 > 146.80	3.735	3.735	0.0	0.960	17586077	4.53			222343	
50 EVE Acid										
407.00 > 262.90	3.749	3.756	-0.007	0.964	27795858	4.50			970338	
51 PFECHS										
460.80 > 380.90	3.824	3.833	-0.009	0.983	29062990	4.12	Target=1.90		1328547	
460.80 > 98.90	3.824	3.833	-0.009	0.983	15602166		1.86(0.95-2.85)		406339	
53 6:2 FTS										
427.00 > 407.00	3.872	3.871	0.001	1.000	8550244	4.25	Target=2.11		36925	
427.00 > 79.96	3.872	3.871	0.001	1.000	3860273		2.21(1.06-3.17)		18483	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.872	3.871	0.001	0.995	1159454	1.00		84.0	17116	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.881	3.881	0.0	0.911	9914457	4.42	Target=4.82		60511	
449.00 > 99.00	3.881	3.881	0.0	0.911	2038946		4.86(2.41-7.24)		33961	
* 57 13C2 PFOA										
415.00 > 370.00	3.891	3.891	0.001		6854587	1.25			74198	
D 56 13C4 PFOA										
417.00 > 372.00	3.891	3.891	0.001	1.000	7370782	1.29		103	75708	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.891	3.891	0.001	1.000	7731344	1.21		96.7	56599	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.891	3.891	0.001	1.000	26167358	4.25	Target=2.87		143215	
413.00 > 169.00	3.891	3.891	0.001	1.000	9676097		2.70(1.43-4.30)		570041	
59 TAF										
442.90 > 85.00	4.177	4.177	0.0	1.074	340470	3.73			459	
D 61 13C4 PFOS										
503.00 > 80.00	4.262	4.262	0.0	1.095	2350093	1.17		98.1	22982	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.255	4.262	-0.007	1.094	679798	1.13		94.9	10417	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.262	4.262	0.0	1.000	10178475	4.60	Target=5.95		86384	M
499.00 > 99.00	4.255	4.262	-0.007	0.998	1659201		6.13(2.97-8.92)		27058	M
D 63 13C5 PFNA										
468.00 > 423.00	4.277	4.276	0.001	1.099	7069143	1.29		103	116874	
64 Perfluorononanoic acid										
463.00 > 419.00	4.277	4.276	0.001	1.000	26757695	4.78	Target=7.58		55633	
463.00 > 169.00	4.277	4.276	0.001	1.000	3613562		7.40(3.79-11.37)		38938	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.377	0.0	0.991	8785523	5.04	Target=1.21		140824	
441.00 > 317.00	4.377	4.377	0.0	0.991	7372579		1.19(0.60-1.81)		138259	
67 8:2 FTUCA										
456.86 > 392.90	4.402	4.402	0.0	1.000	24712465	4.75	Target=35.28		520702	
456.86 > 343.00	4.402	4.402	0.0	1.000	683379		36.16(17.64-52.92)		36073	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.402	4.402	0.0	1.131	6670572	1.23		98.6	278244	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.416	4.416	0.0	1.135	282871	1.14		91.5	8484	
69 8:2 FTCA										
477.00 > 393.10	4.416	4.416	0.0	1.000	1287878	4.92	Target=3.24		24795	
477.00 > 63.20	4.416	4.416	0.0	1.000	462161		2.79(1.62-4.86)		24784	
70 9C1FOS										
531.00 > 351.00	4.465	4.465	0.0	1.048	20578845	4.64			246209	
D 71 13C8 FOSA										
506.00 > 78.00	4.558	4.558	0.0	1.172	4167249	1.23		98.7	71568	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.558	4.558	0.0	1.000	15945348	4.76			225697	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.605	4.605	0.0	1.081	8094157	4.40	Target=3.28		62993	
549.00 > 99.00	4.605	4.605	0.0	1.081	2364279		3.42(1.64-4.92)		33760	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.625	4.634	-0.009	1.000	26540791	4.40	Target=9.70		179503	
513.00 > 169.00	4.625	4.634	-0.009	1.000	2683966		9.89(4.85-14.54)		2969	
D 74 13C2 PFDA										
515.00 > 470.00	4.625	4.634	-0.009	1.189	7379757	1.35		108	103448	
77 8:2 FTS										
527.00 > 507.00	4.634	4.634	0.0	1.000	10309229	4.40	Target=2.33		130304	
527.00 > 79.96	4.634	4.634	0.0	1.000	4429422		2.33(1.17-3.50)		35317	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.634	4.644	-0.010	1.191	1793101	0.9884		82.5	21075	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.793	4.793	0.0	1.232	2885686	1.25		100	26650	
79 NMeFOSAA										
570.00 > 419.00	4.793	4.803	-0.010	1.000	7410816	4.34	Target=0.83		40890	
570.00 > 483.00	4.793	4.803	-0.010	1.000	9101894		0.81(0.42-1.25)		260275	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.918	4.918	0.0	1.154	7567232	4.70	Target=3.22		102830	
599.00 > 99.00	4.918	4.918	0.0	1.154	2296688		3.29(1.61-4.83)		62455	
D 82 13C2 PFUnA										
565.00 > 520.00	4.947	4.956	-0.009	1.271	6431851	1.22		97.7	120014	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.947	4.956	-0.009	1.000	21366939	4.51	Target=9.27		136834	
563.00 > 169.00	4.947	4.956	-0.009	1.000	2407069		8.88(4.63-13.90)		31313	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.956	4.956	0.0	1.274	2648890	1.15		92.3	28503	
84 NEtFOSAA										
584.00 > 419.00	4.966	4.966	0.0	1.002	7062682	4.65	Target=0.77		183714	
584.00 > 526.10	4.966	4.966	0.0	1.002	7623215		0.93(0.39-1.16)		412	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.994	4.994	0.0	1.283	1700764	1.23		98.7	7814	
86 N-MeFOSE-M										
616.00 > 59.00	5.003	5.003	0.0	1.002	7261274	5.05			166285	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.013	5.013	0.0	1.288	1348412	1.33		107	371	
90 NMeFOSA										
512.00 > 169.00	5.023	5.013	0.010	1.002	5158283	4.72	Target=1.61		4445	
512.00 > 218.99	5.023	5.013	0.010	1.002	3031997		1.70(0.80-2.41)		5135	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.076	0.0	1.304	7611818	1.20		95.7	168051	
89 10:2 FTUCA										
556.86 > 492.90	5.076	5.076	0.0	0.998	23945736	6.40			384630	
92 10:2 FTCA										
576.80 > 493.00	5.086	5.086	0.0	1.002	878706	5.08	Target=2.56		3264	
576.80 > 63.10	5.086	5.086	0.0	1.002	376247		2.34(1.28-3.83)		10750	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
93 11CIFOS										
631.00 > 451.00	5.086	5.086	0.0	1.193	25288961	4.78			241358	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.086	5.096	-0.010	1.307	166101	0.8930		71.4	2752	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.164	5.155	0.009	1.327	1980540	1.29		103	12997	
95 N-EtFOSE-M										
630.00 > 59.00	5.172	5.172	0.0	1.002	8897623	4.78			101920	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.181	0.0	1.332	1280538	1.29		103	1425	
99 N-EtFOSA-M										
526.00 > 169.00	5.190	5.190	0.0	1.002	5205347	4.90	Target=1.61		3235	
526.00 > 218.99	5.190	5.190	0.0	1.002	3123934		1.67(0.80-2.41)		3108	
D 97 13C2 PFDaA										
615.00 > 570.00	5.242	5.242	0.0	1.347	6866924	1.20		96.4	88928	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.233	5.242	-0.009	0.998	26010957	4.26	Target=7.93		163532	
613.00 > 169.00	5.242	5.242	0.0	1.000	3405551		7.64(3.97-11.90)		80487	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.259	5.259	0.0	1.352	1603619	1.10		91.4	59876	
101 10:2 FTS										
627.00 > 607.00	5.259	5.268	-0.009	1.000	8135857	4.03	Target=1.46		115294	
627.00 > 79.96	5.259	5.268	-0.009	1.000	5545487		1.47(0.73-2.19)		64188	
102 PFDoS										
699.00 > 80.00	5.467	5.467	0.0	1.283	2197085	4.80	Target=0.54		46024	
699.00 > 99.00	5.467	5.467	0.0	1.283	4006370		0.55(0.27-0.81)		83629	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.505	5.505	0.0	1.050	20153124	3.95	Target=5.84		52921	
663.00 > 169.00	5.505	5.505	0.0	1.050	3442510		5.85(2.92-8.75)		45550	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.751	5.751	0.0	1.478	6761675	1.29		103	95268	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.751	5.751	0.0	1.000	3270383	4.92	Target=1.07		110767	
713.00 > 219.00	5.751	5.751	0.0	1.000	3166509		1.03(0.53-1.60)		127880	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.210	6.210	0.0	1.596	5543194	1.38		110	36989	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.210	6.210	0.0	1.000	17676258	4.36	Target=7.49		29017	
813.00 > 169.00	6.210	6.210	0.0	1.000	2001854		8.83(3.75-11.24)		25284	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.685	6.693	-0.008	1.076	12119278	4.50	Target=9.70		13910	
913.00 > 169.00	6.685	6.693	-0.008	1.076	1246128		9.73(4.85-14.55)		8514	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

LCPFCIC2\_FULL\_00008

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d

Injection Date: 01-Jun-2021 15:20:30

Instrument ID: A15

Lims ID: ICV

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 9

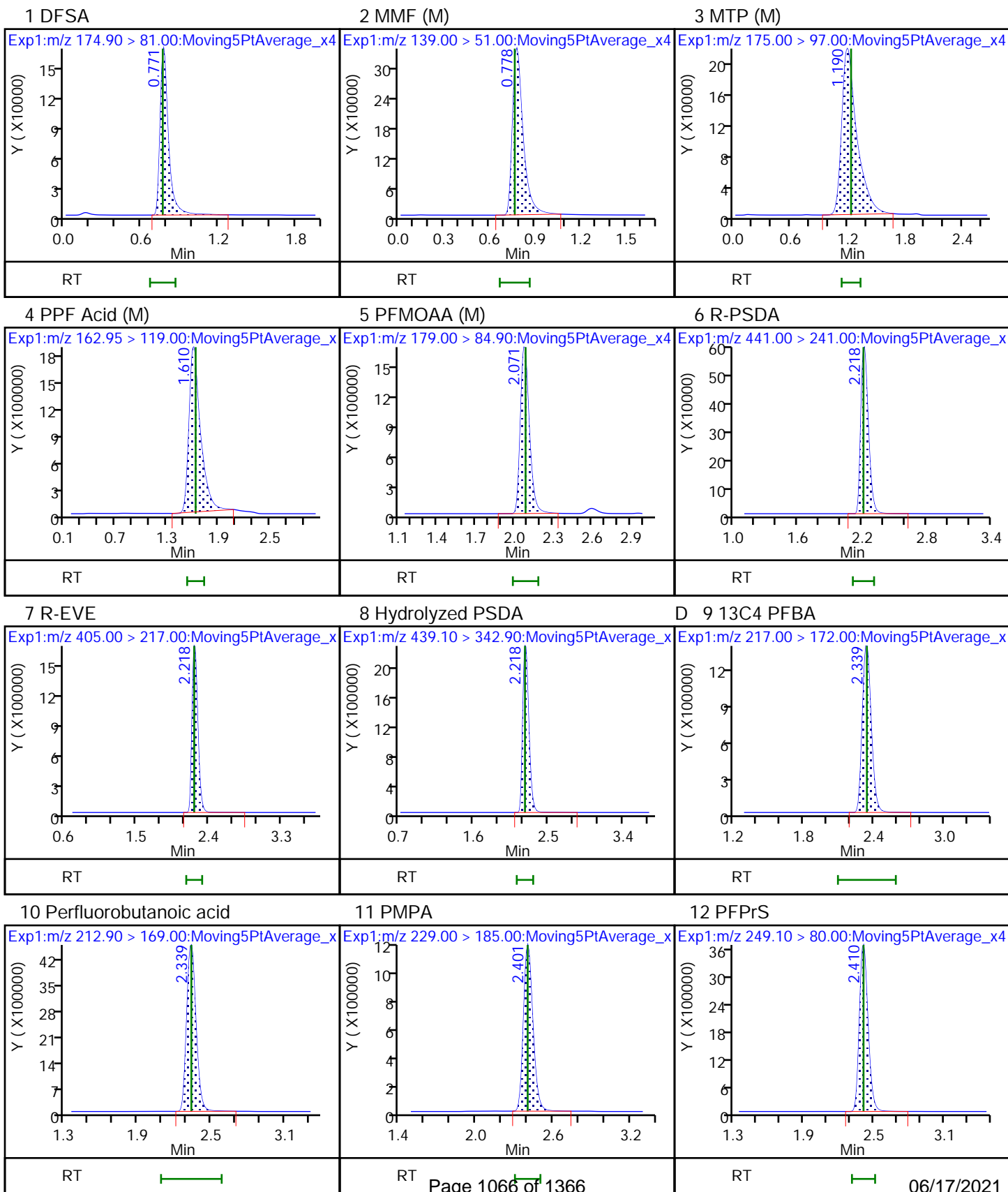
Worklist Smp#: 10

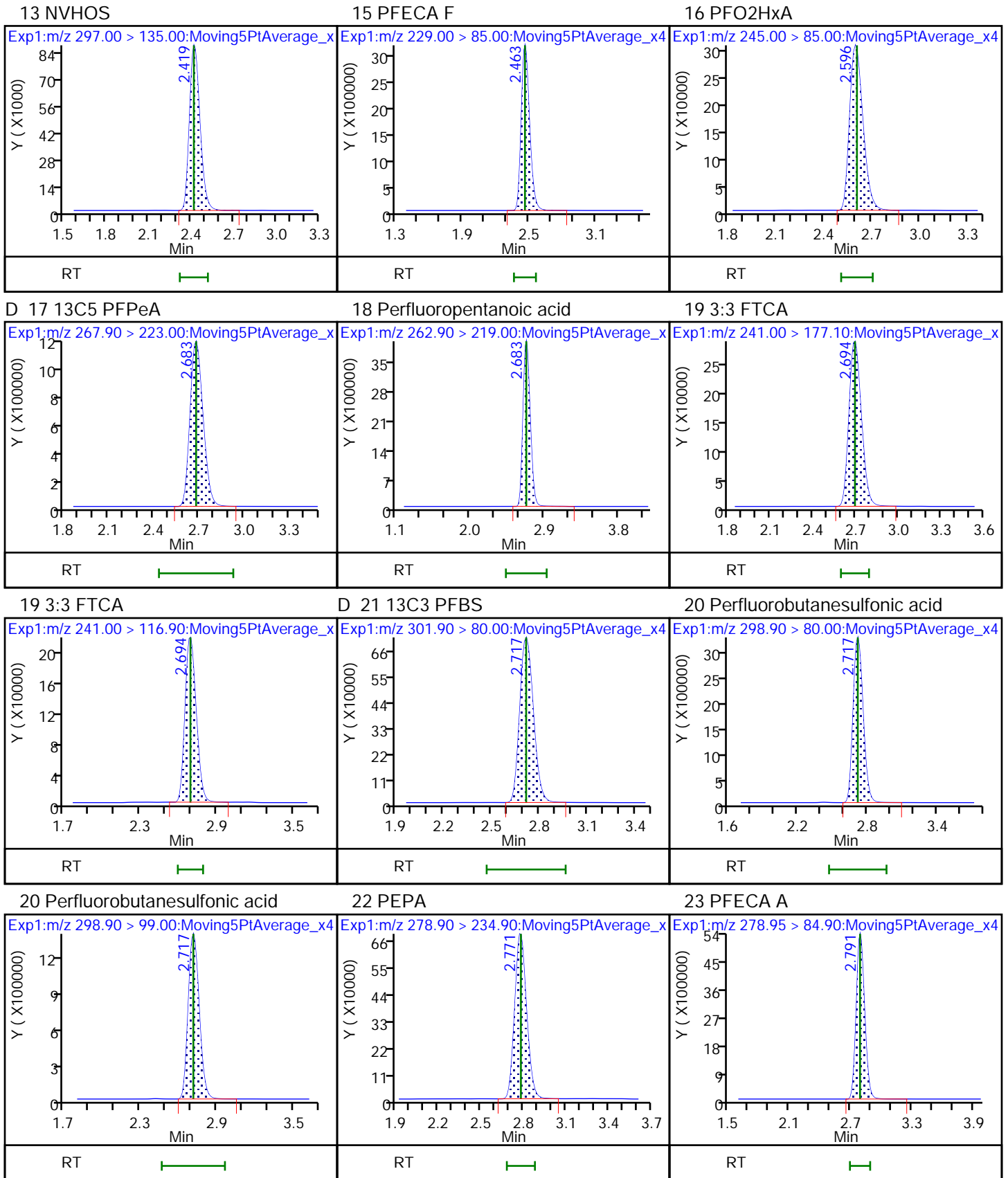
Injection Vol: 20.0 ul

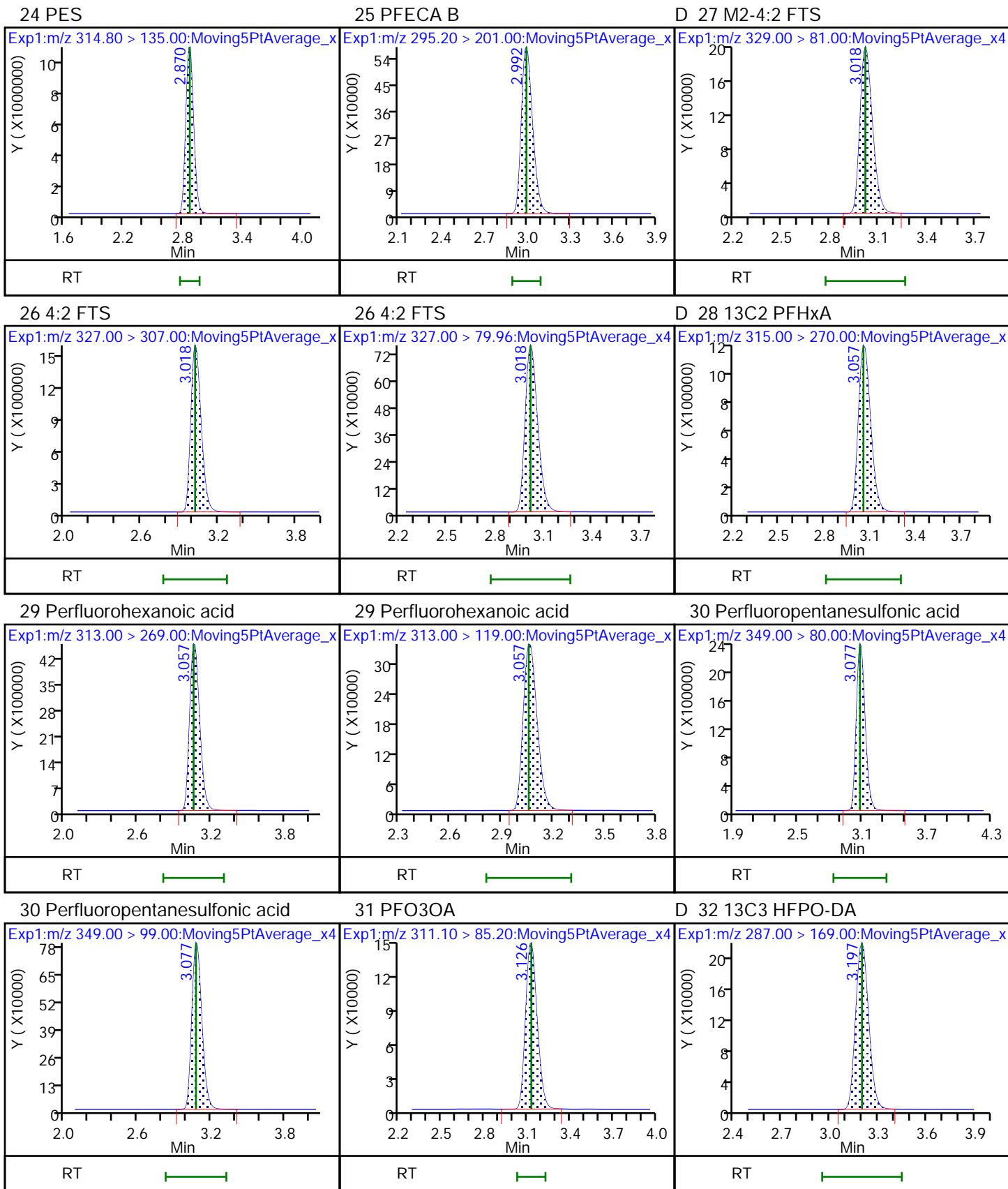
Dil. Factor: 1.0000

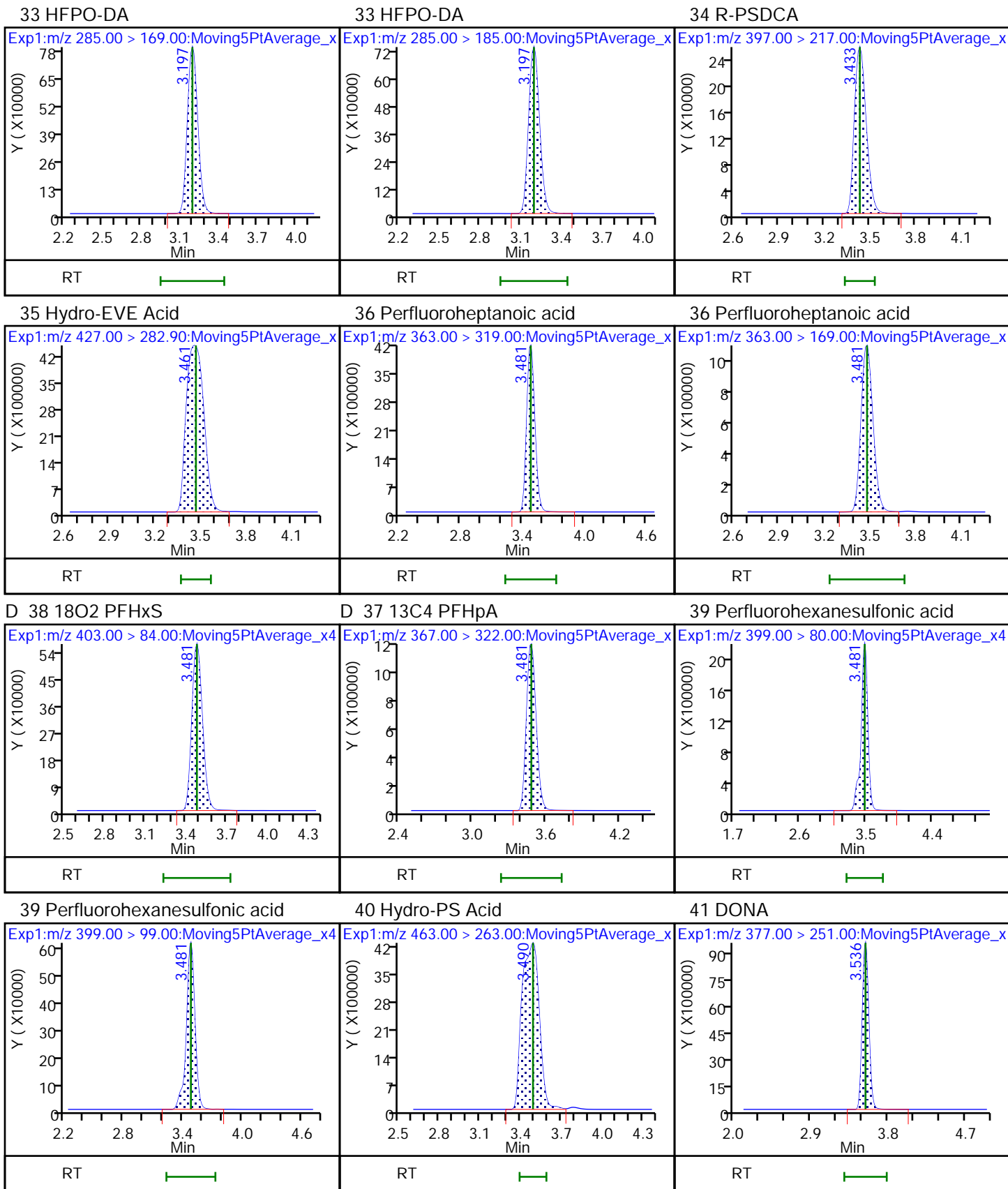
Method: PFAS+\_A15

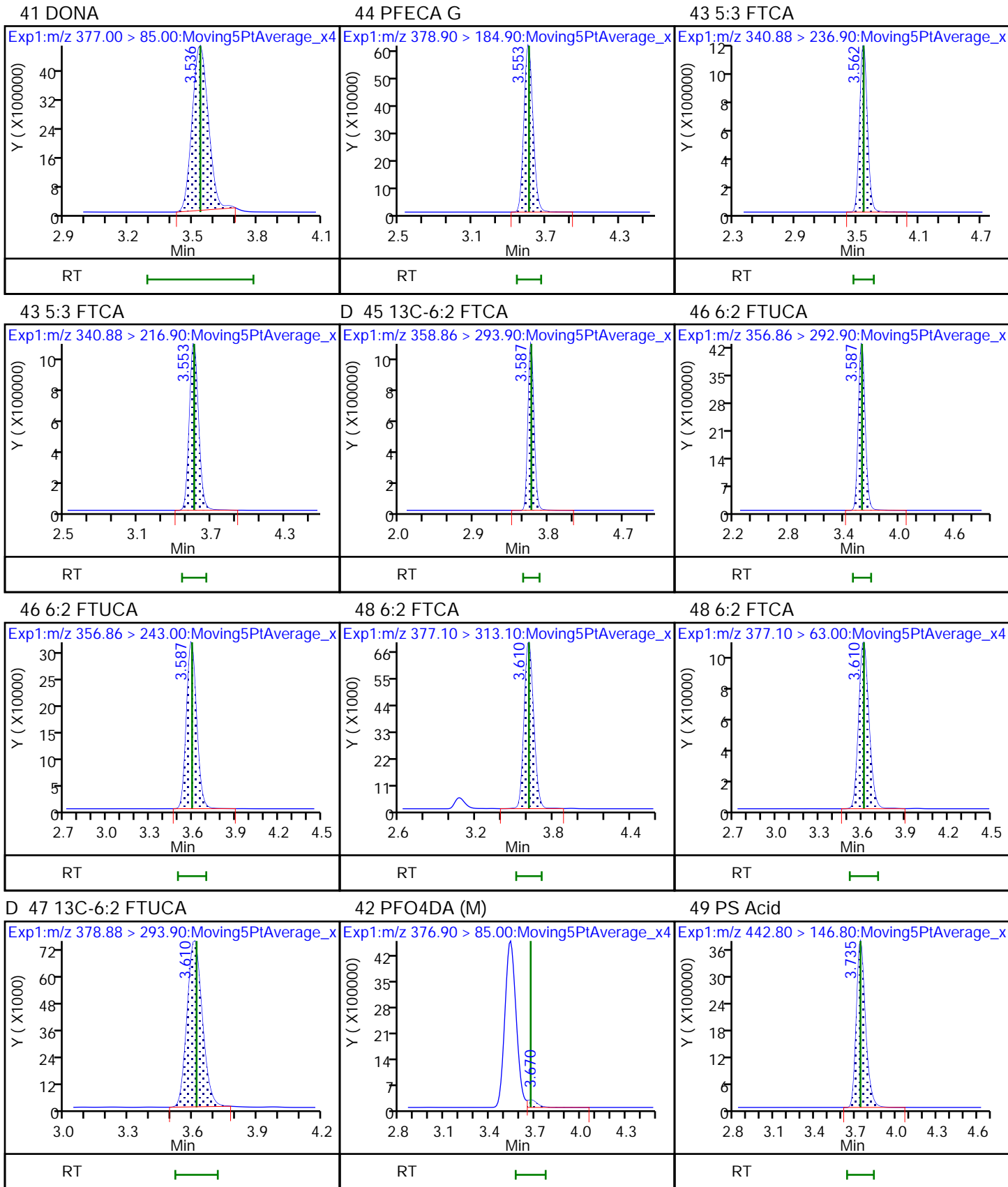
Limit Group: LC PFC ICAL

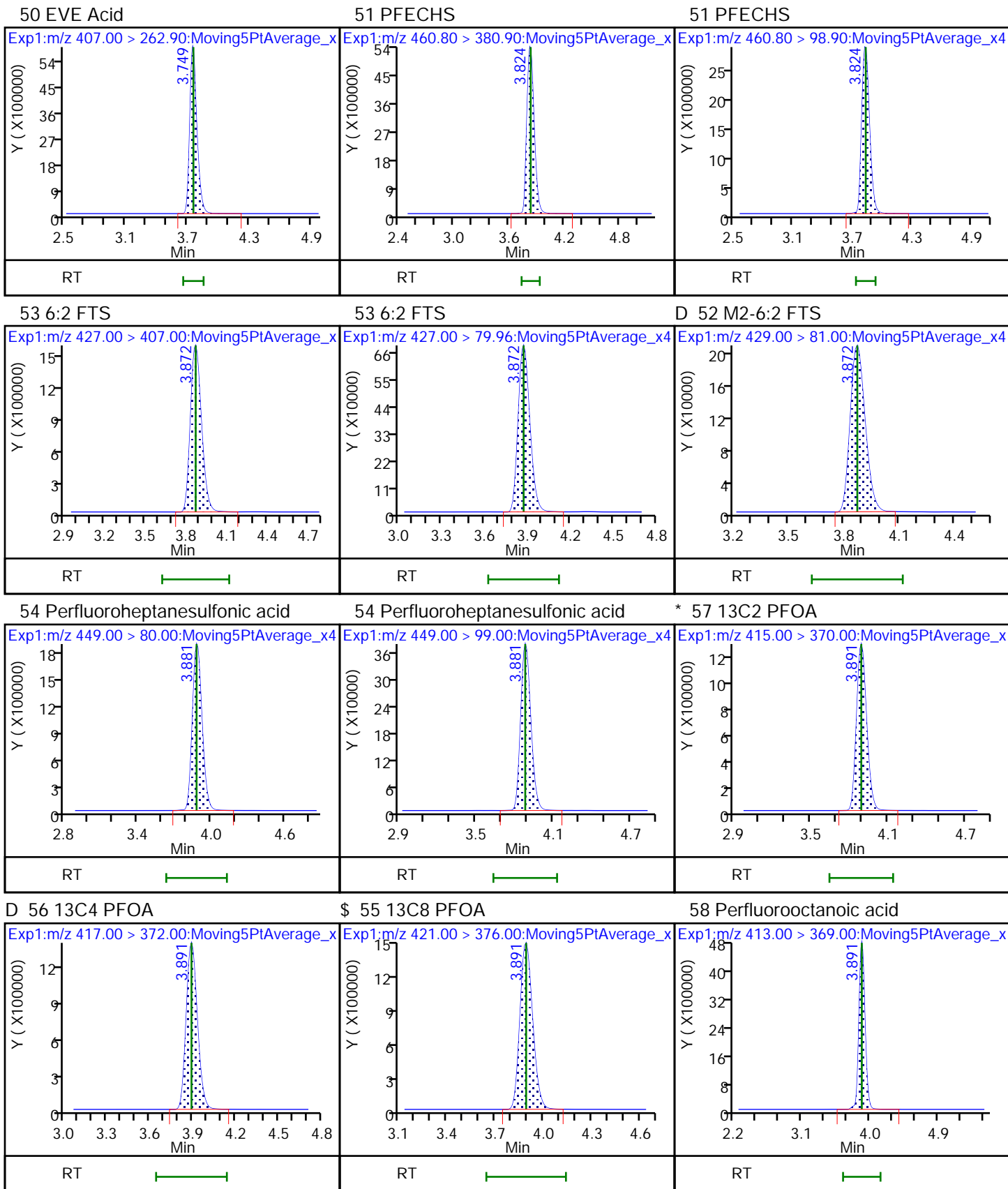


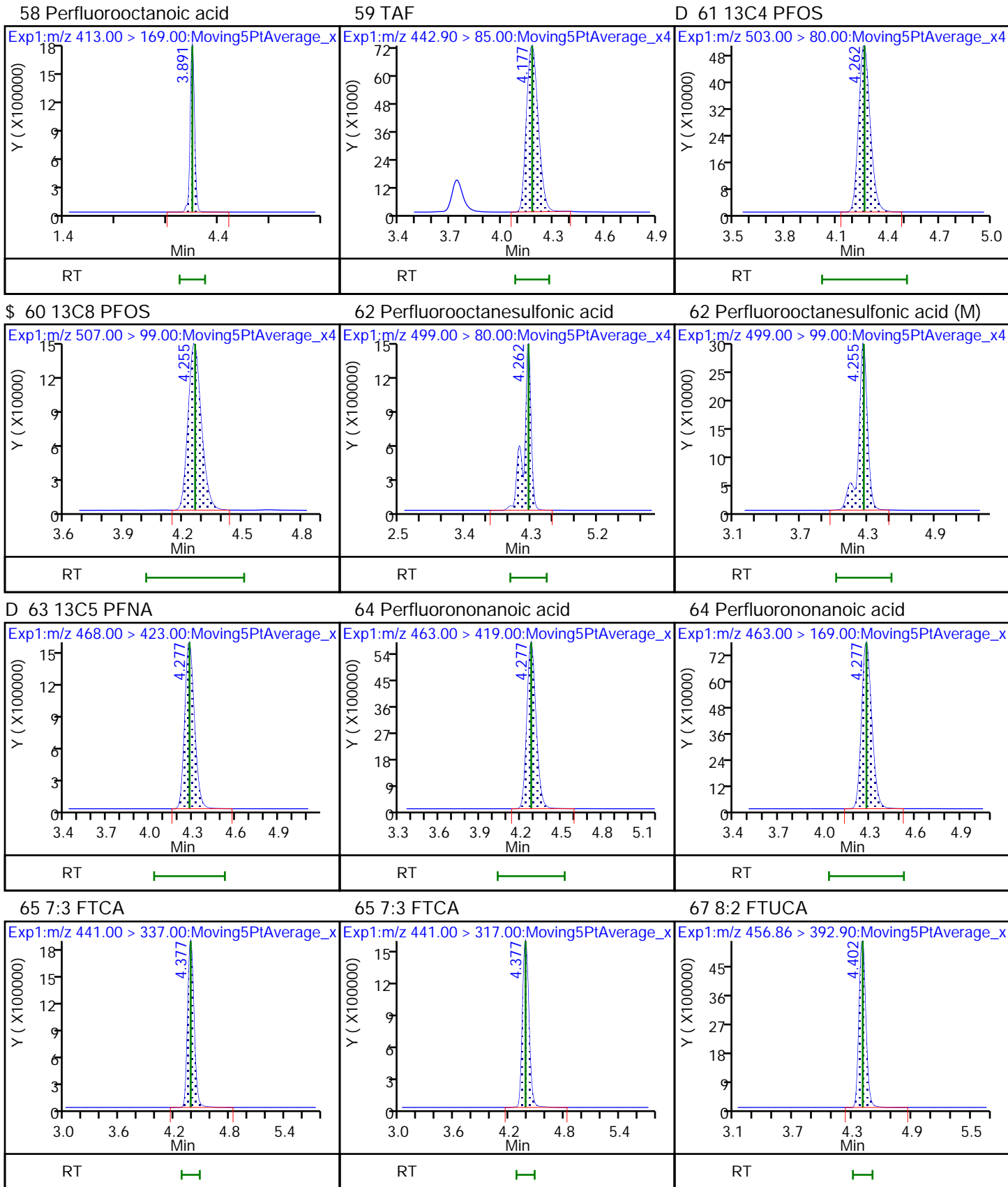


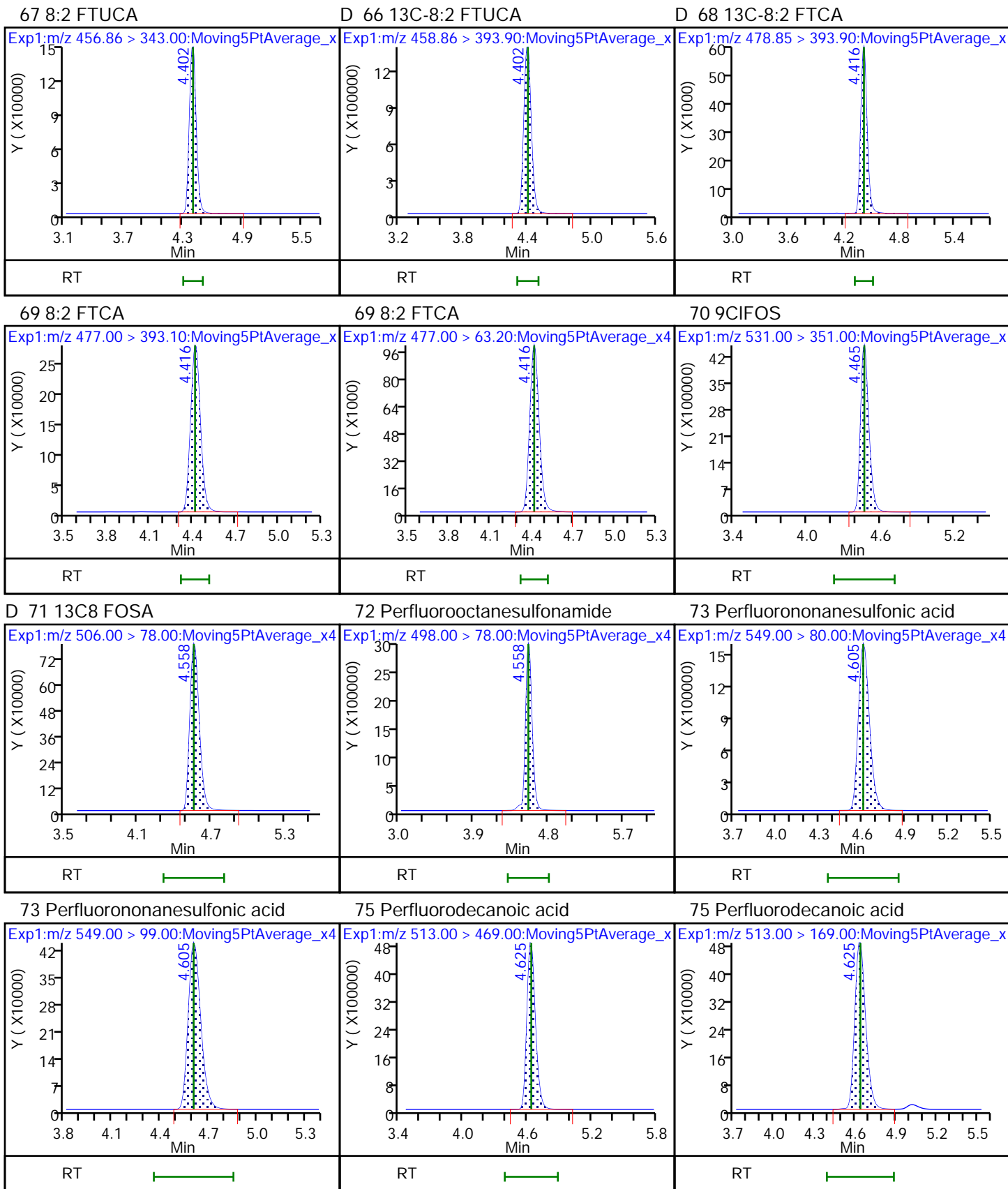










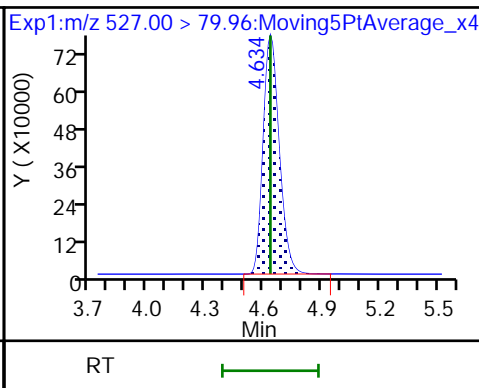
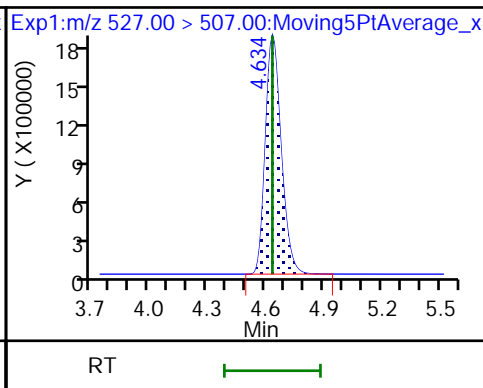
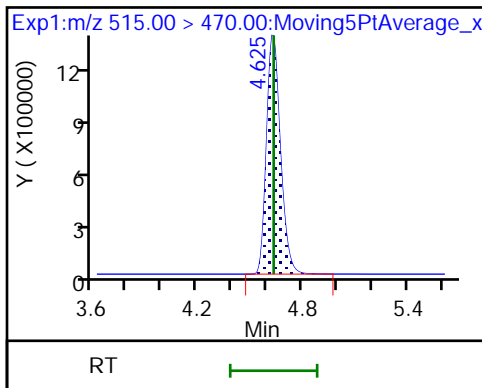




D 74 13C2 PFDA

77 8:2 FTS

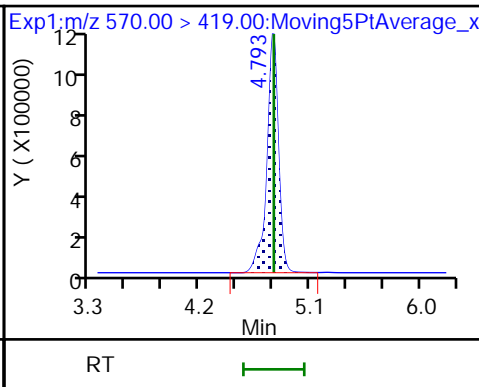
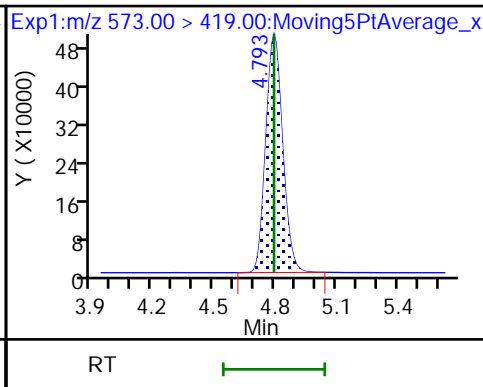
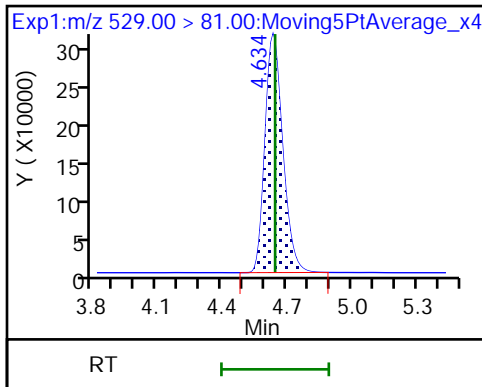
77 8:2 FTS



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

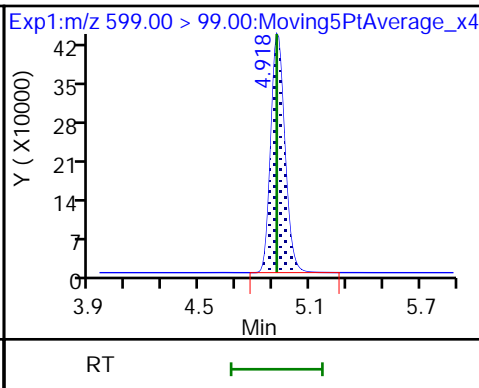
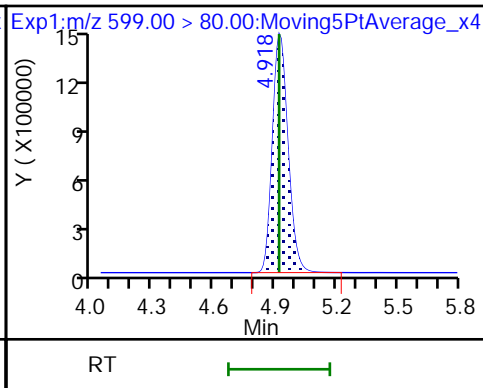
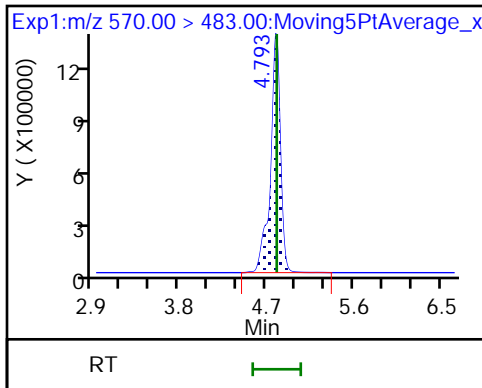
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

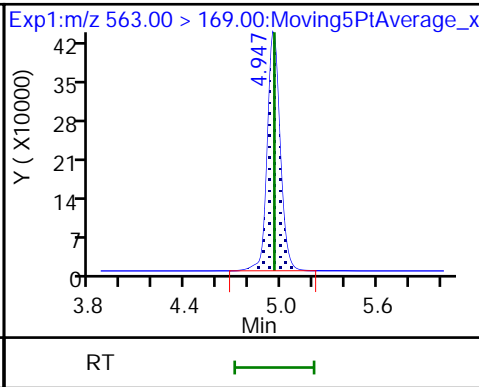
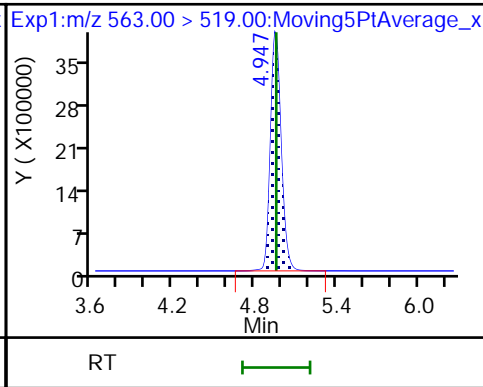
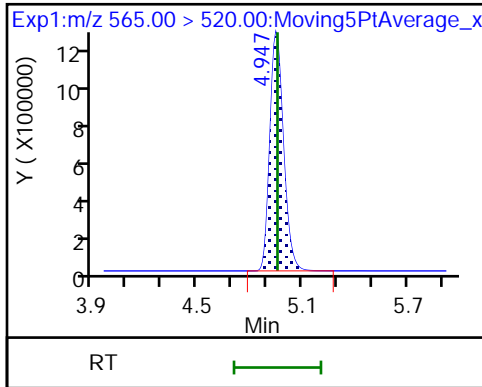
80 Perfluorodecanesulfonic acid



D 82 13C2 PFUnA

81 Perfluoroundecanoic acid

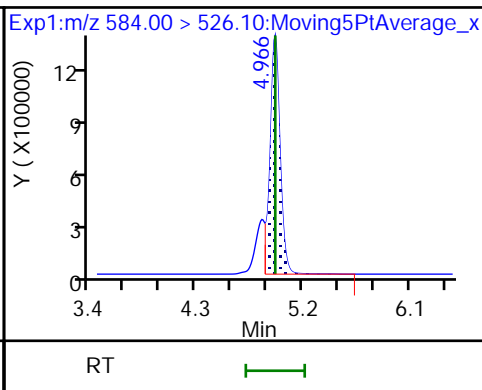
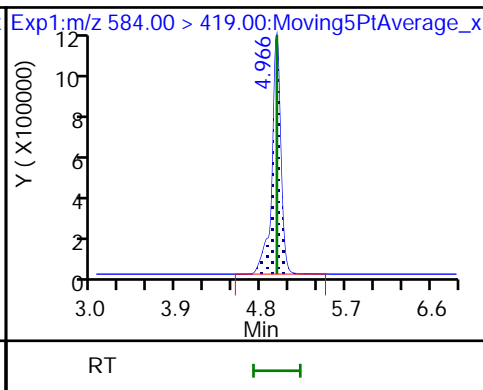
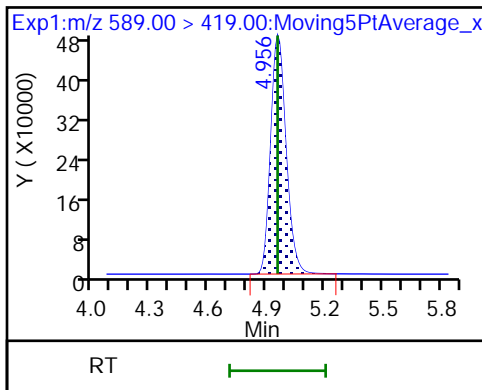
81 Perfluoroundecanoic acid



D 83 d5-NEtFOSAA

84 NEtFOSAA

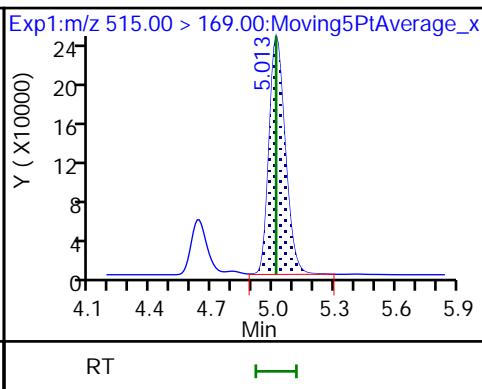
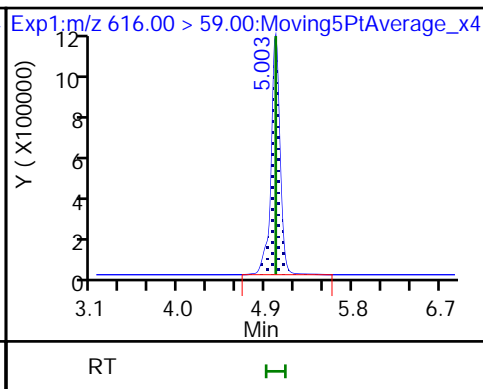
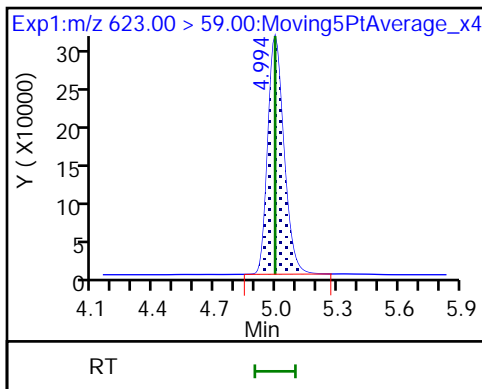
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

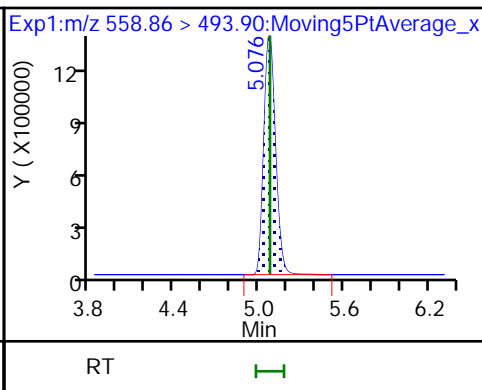
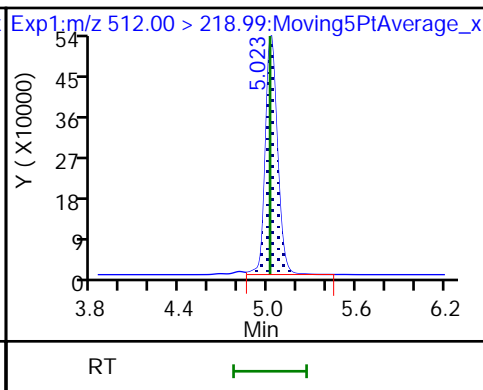
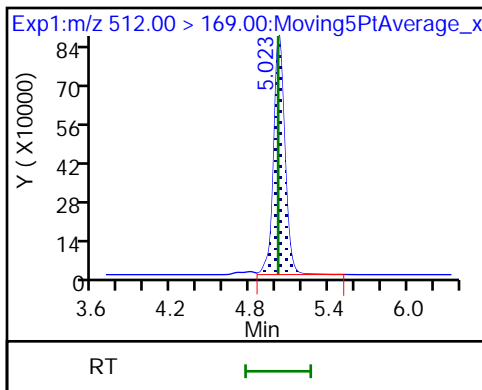
D 87 d-N-MeFOSA-M



90 NMeFOSA

90 NMeFOSA

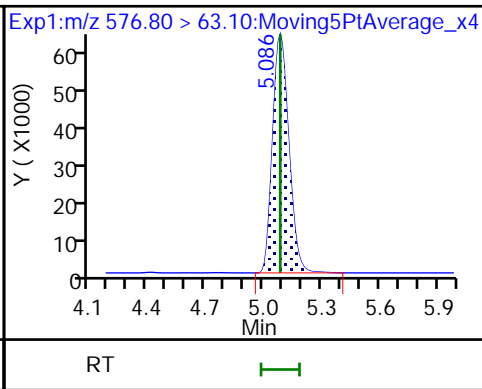
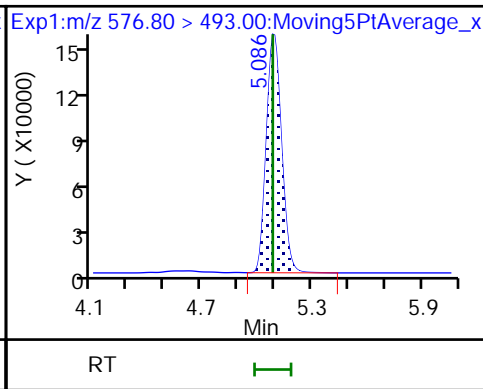
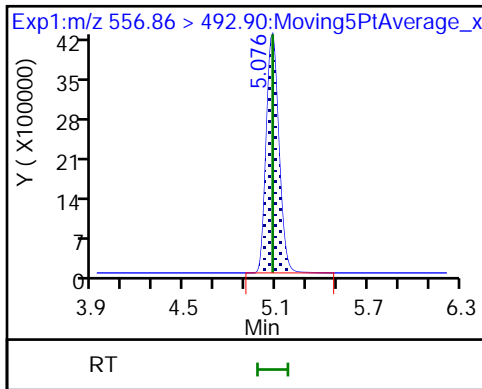
D 88 13C-10:2 FTCA

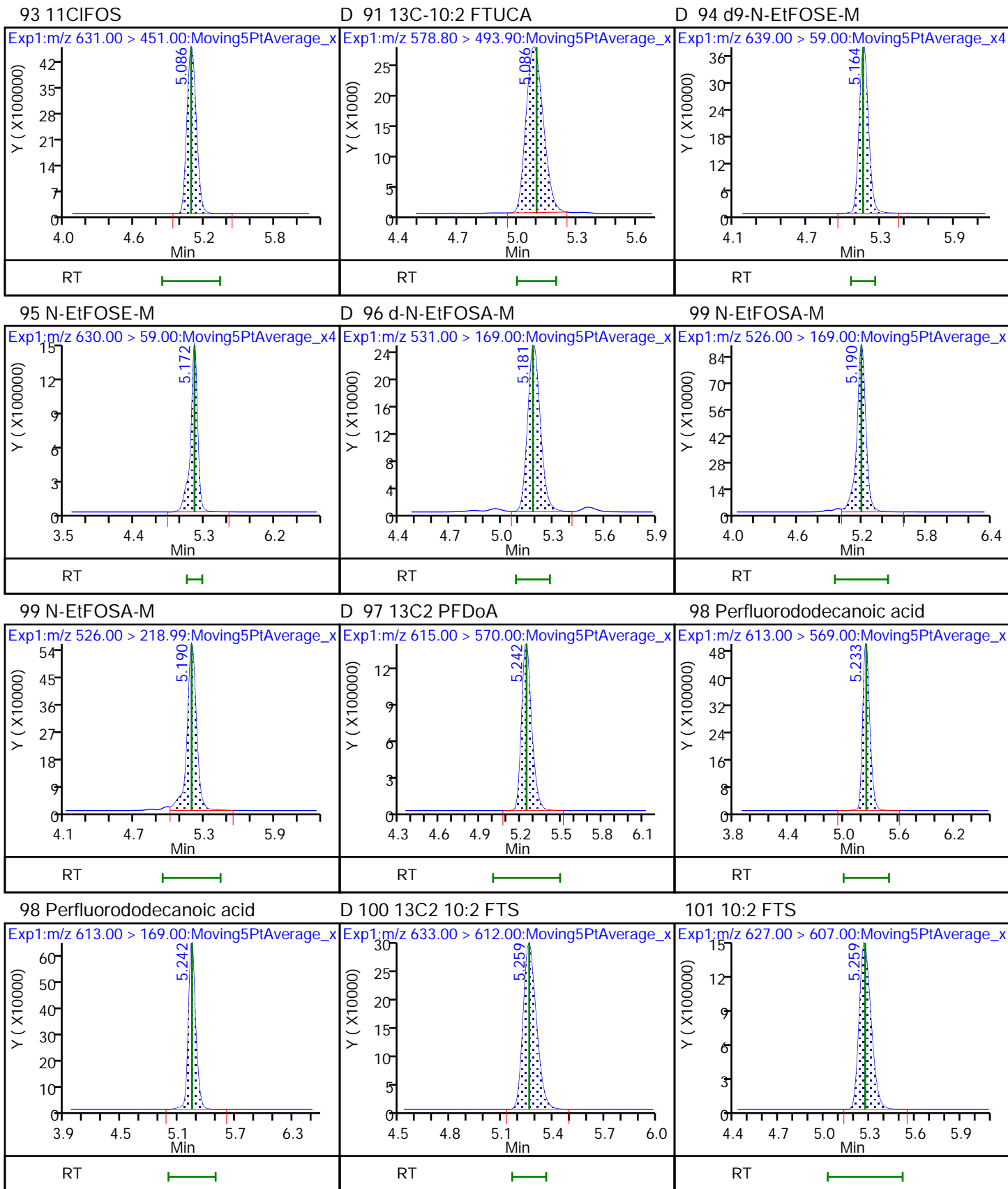


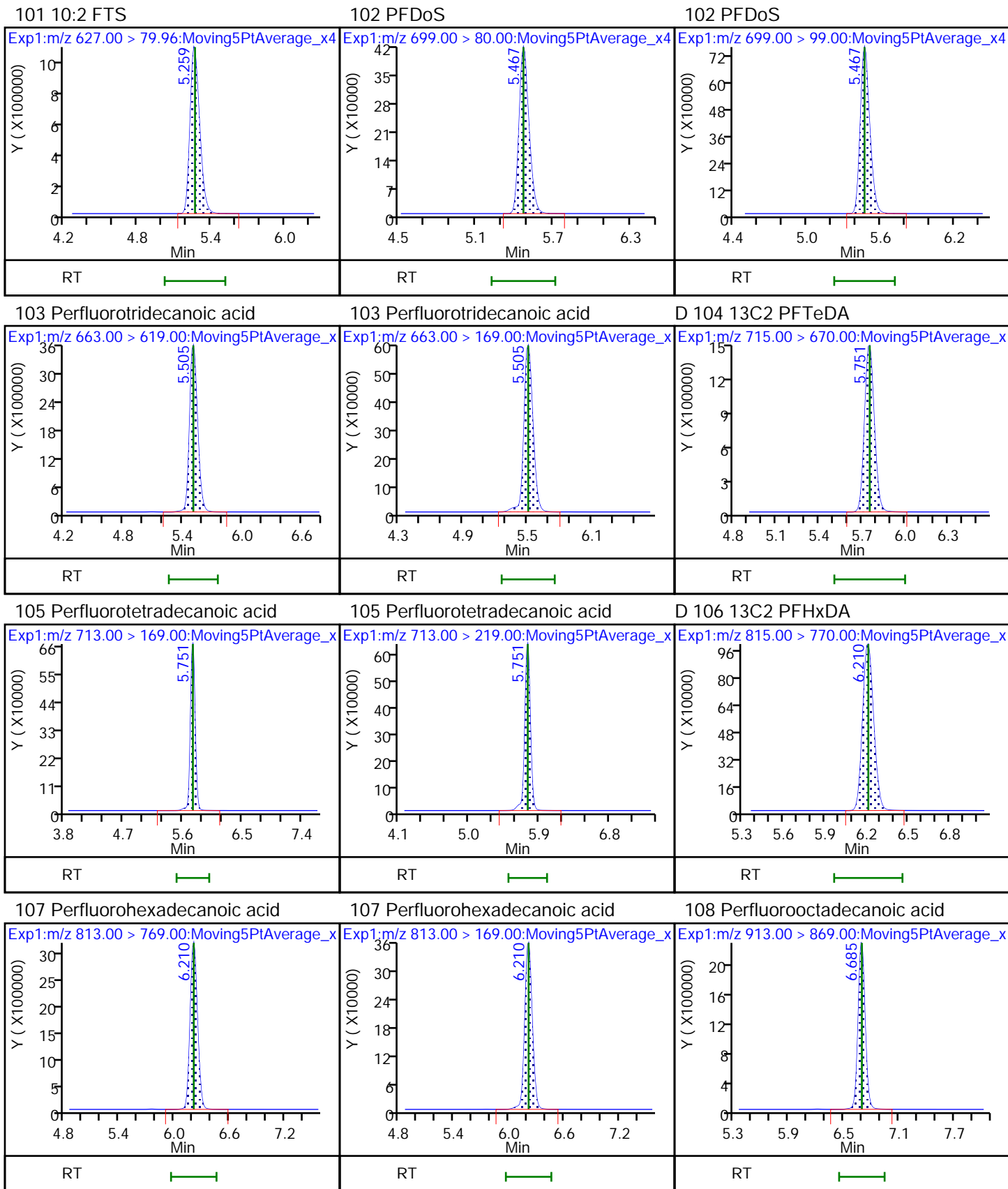
89 10:2 FTUCA

92 10:2 FTCA

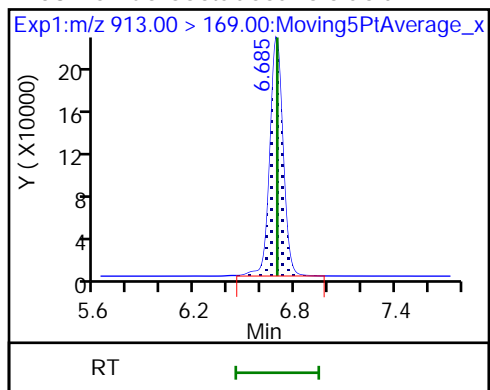
92 10:2 FTCA







108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

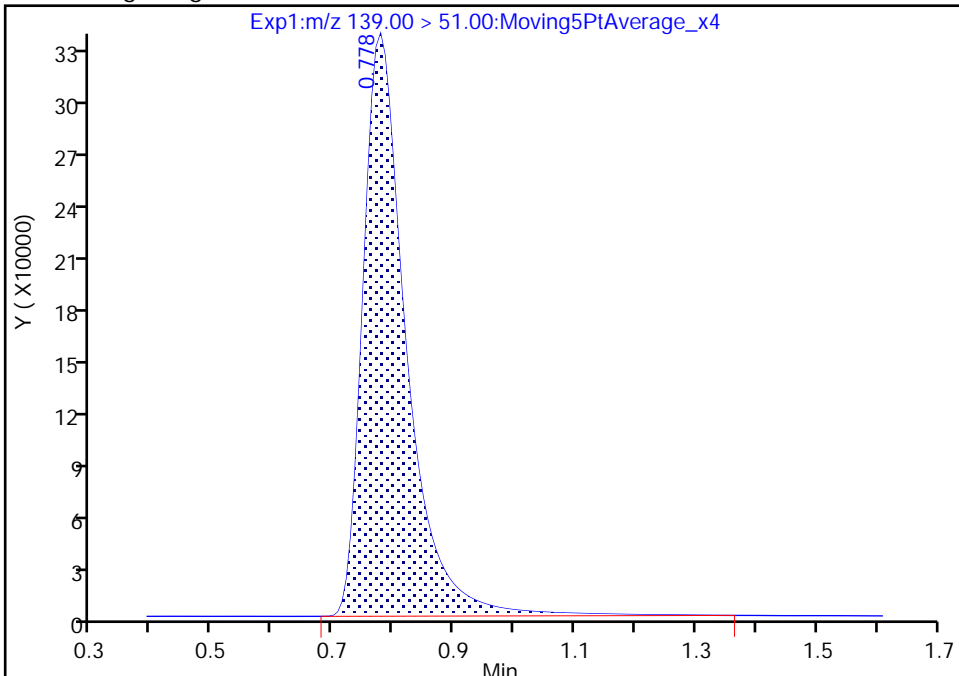
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Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

2 MMF, CAS: 1514-85-8

Signal: 1

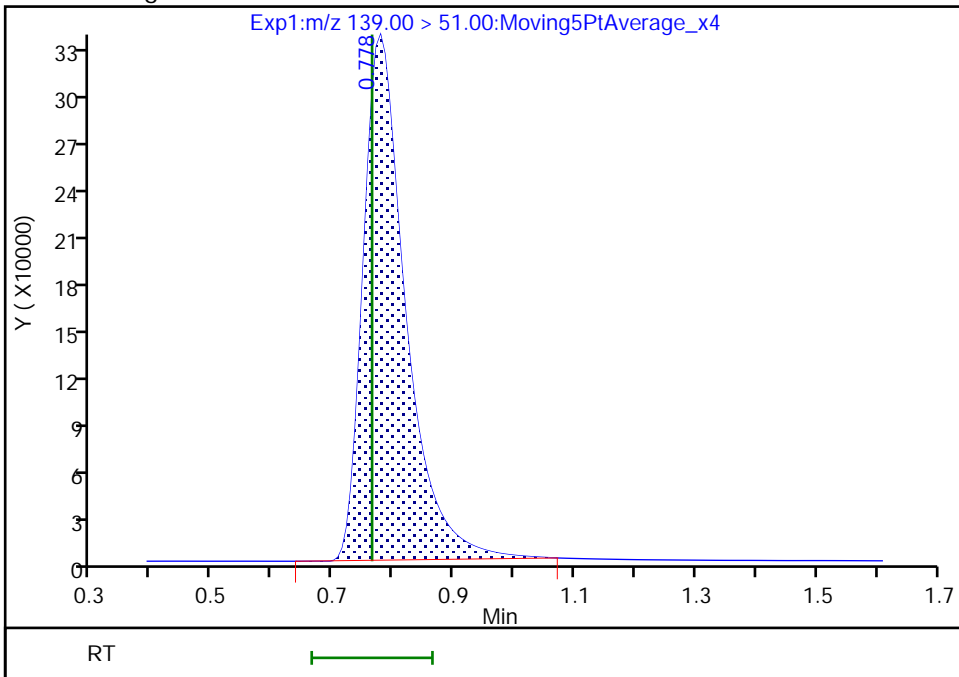
RT: 0.78  
Area: 1660121  
Amount: 4.018624  
Amount Units: ng/ml

Processing Integration Results



RT: 0.78  
Area: 1625490  
Amount: 3.934793  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:53:49  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

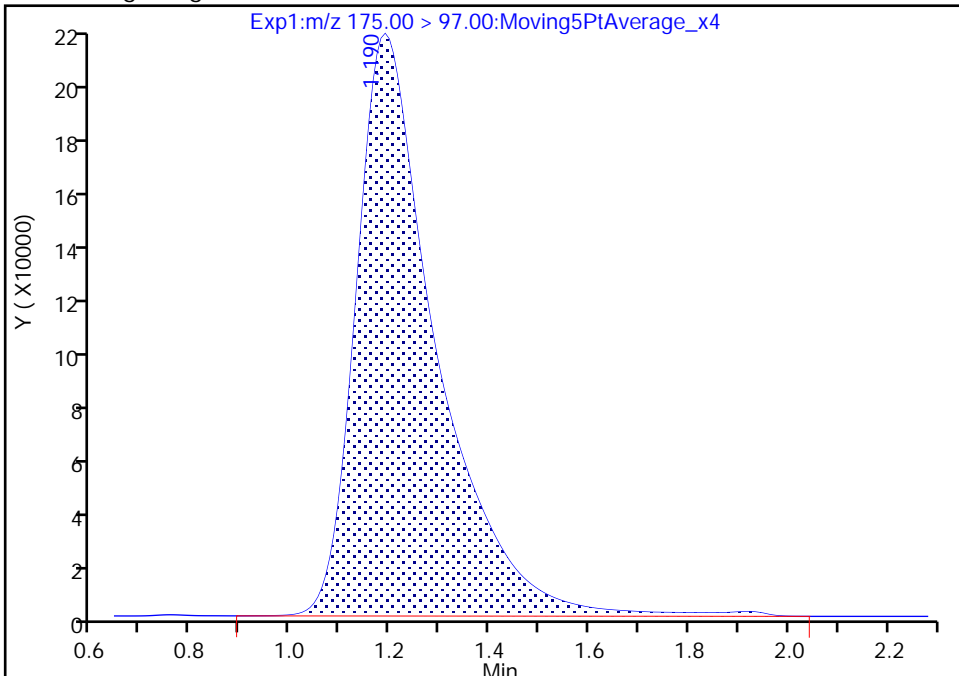
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

3 MTP, CAS: 93449-21-9

Signal: 1

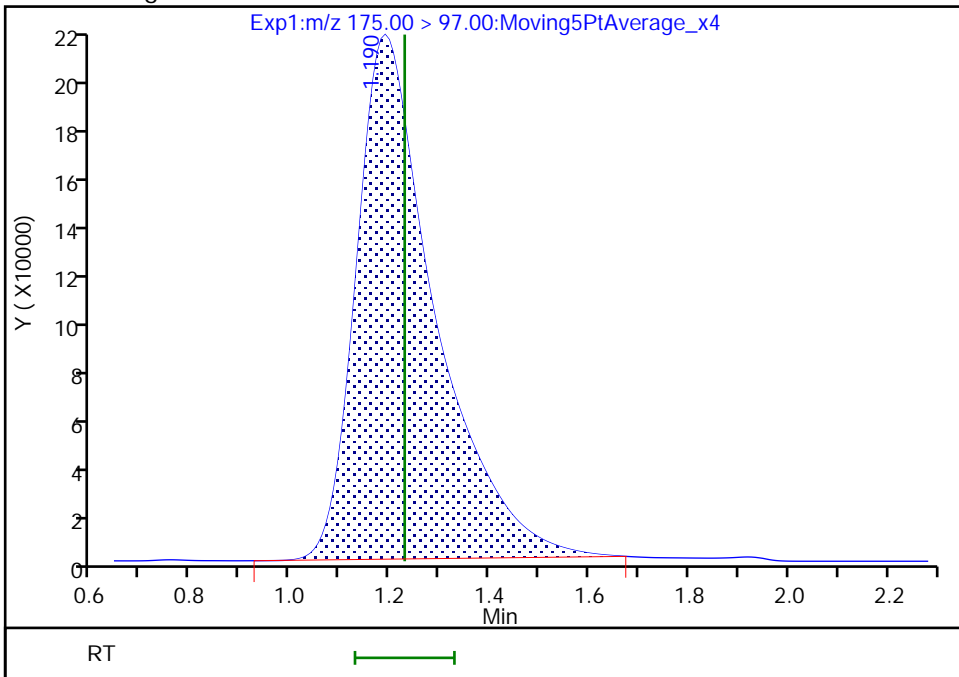
RT: 1.19  
Area: 2428942  
Amount: 4.751489  
Amount Units: ng/ml

Processing Integration Results



RT: 1.19  
Area: 2359690  
Amount: 4.616018  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:53:54  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

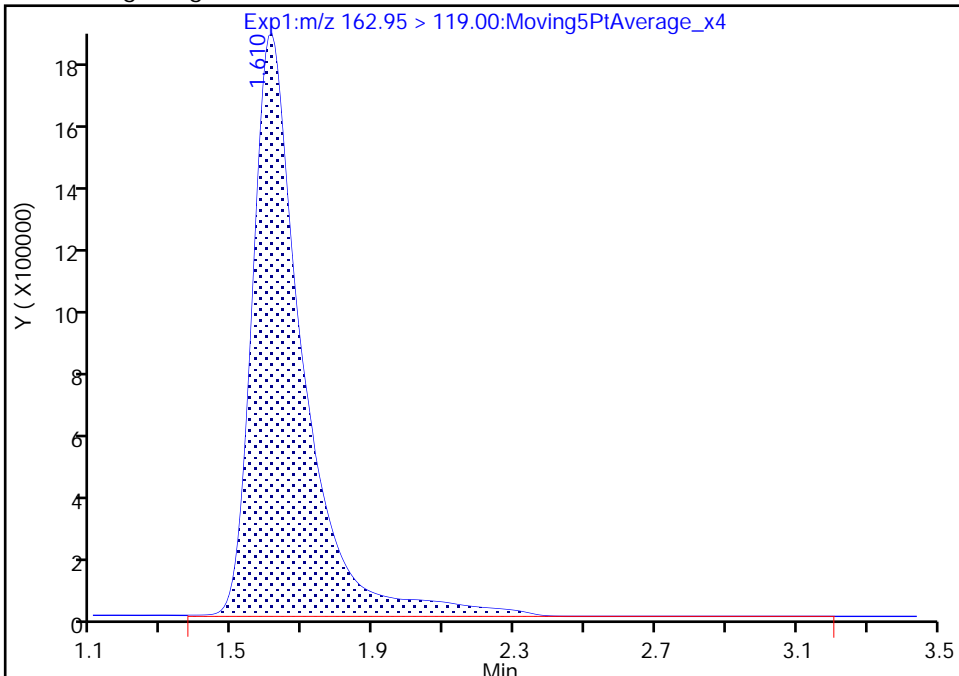
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

4 PPF Acid, CAS: 422-64-0

Signal: 1

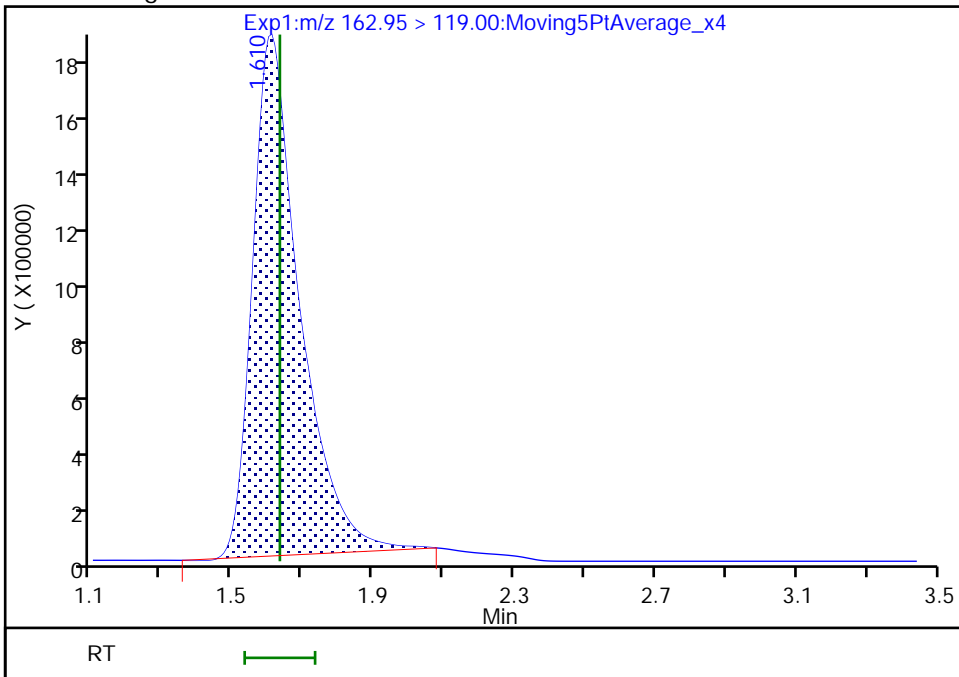
RT: 1.61  
Area: 18422222  
Amount: 5.115012  
Amount Units: ng/ml

Processing Integration Results



RT: 1.61  
Area: 16877638  
Amount: 4.686151  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:54:00  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

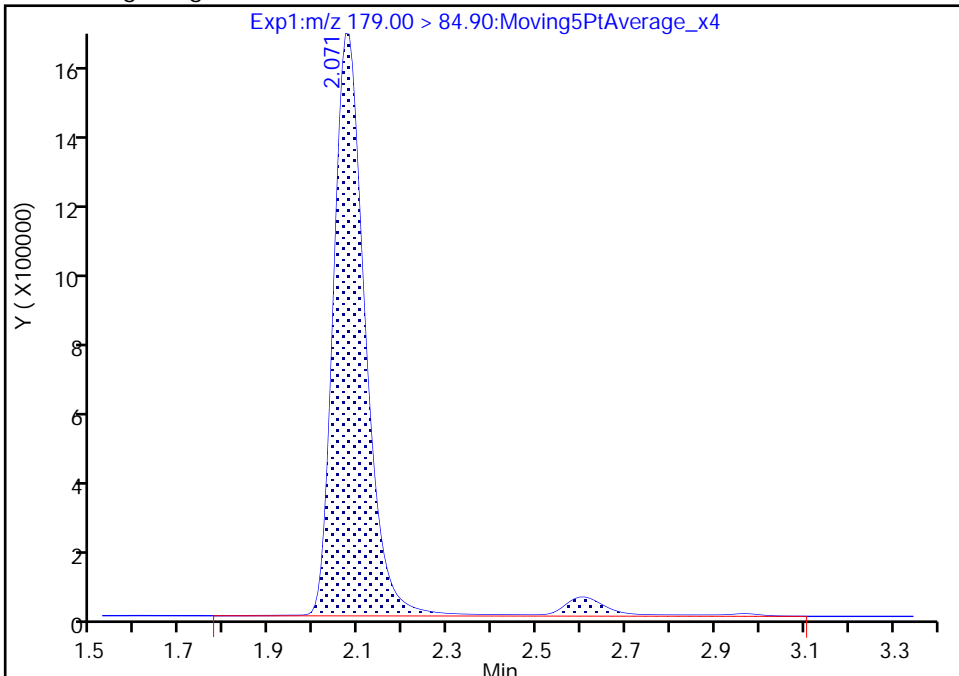
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

5 PFMOAA, CAS: 674-13-5

Signal: 1

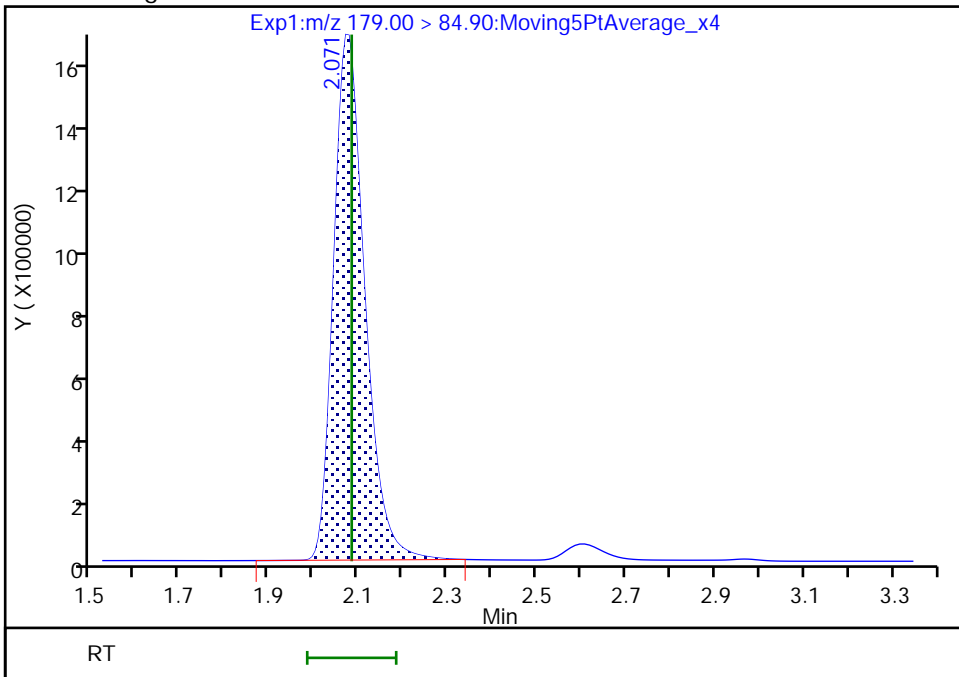
RT: 2.07  
Area: 8422519  
Amount: 4.791614  
Amount Units: ng/ml

Processing Integration Results



RT: 2.07  
Area: 7921592  
Amount: 4.506634  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:54:05  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

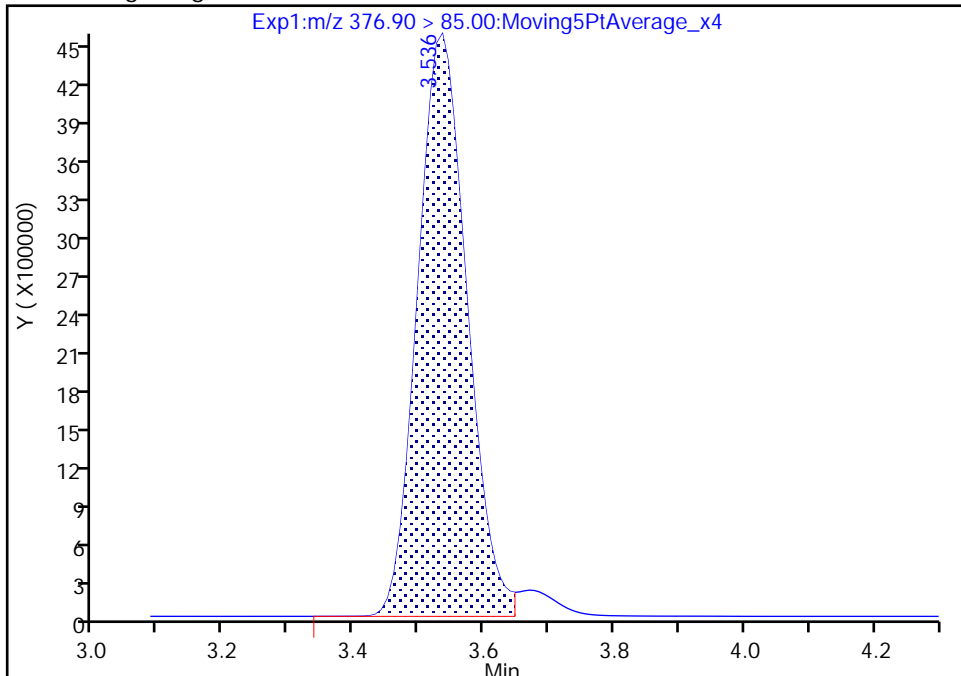
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

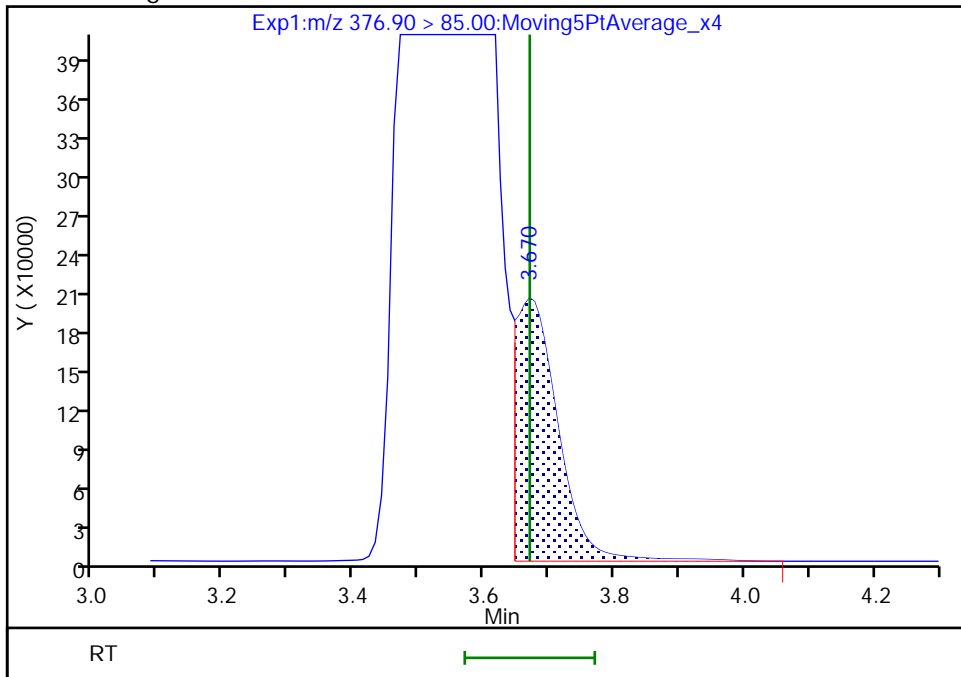
RT: 3.54  
Area: 23729148  
Amount: 110.8565  
Amount Units: ng/ml

Processing Integration Results



RT: 3.67  
Area: 884613  
Amount: 4.390303  
Amount Units: ng/ml

Manual Integration Results



Reviewer: onishim, 02-Jun-2021 14:43:06  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Sacramento

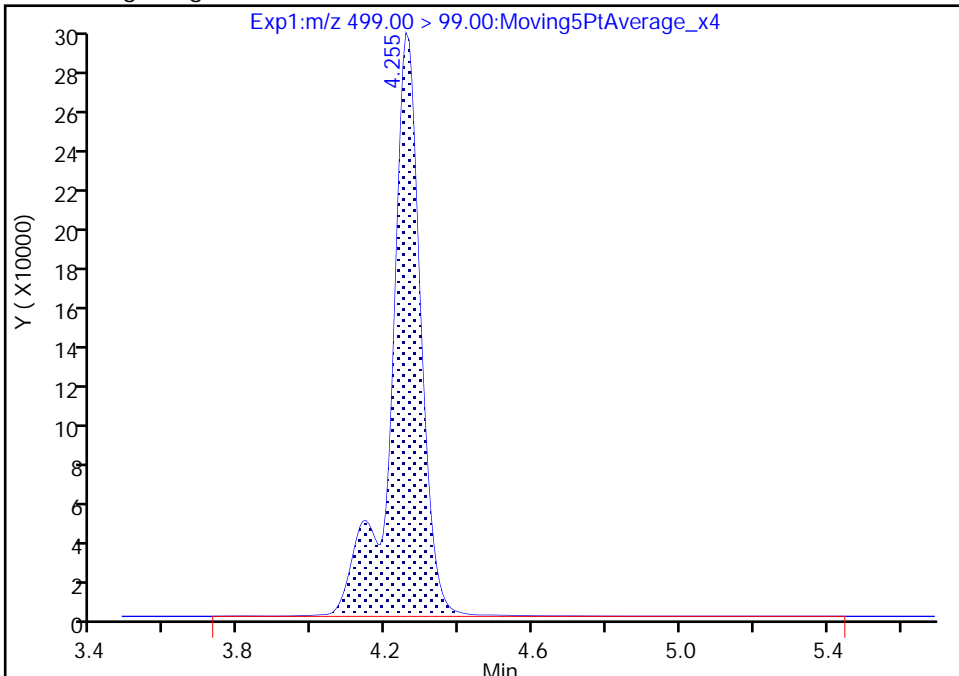
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_012.d  
Injection Date: 01-Jun-2021 15:20:30 Instrument ID: A15  
Lims ID: ICV  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 9 Worklist Smp#: 10  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

62 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

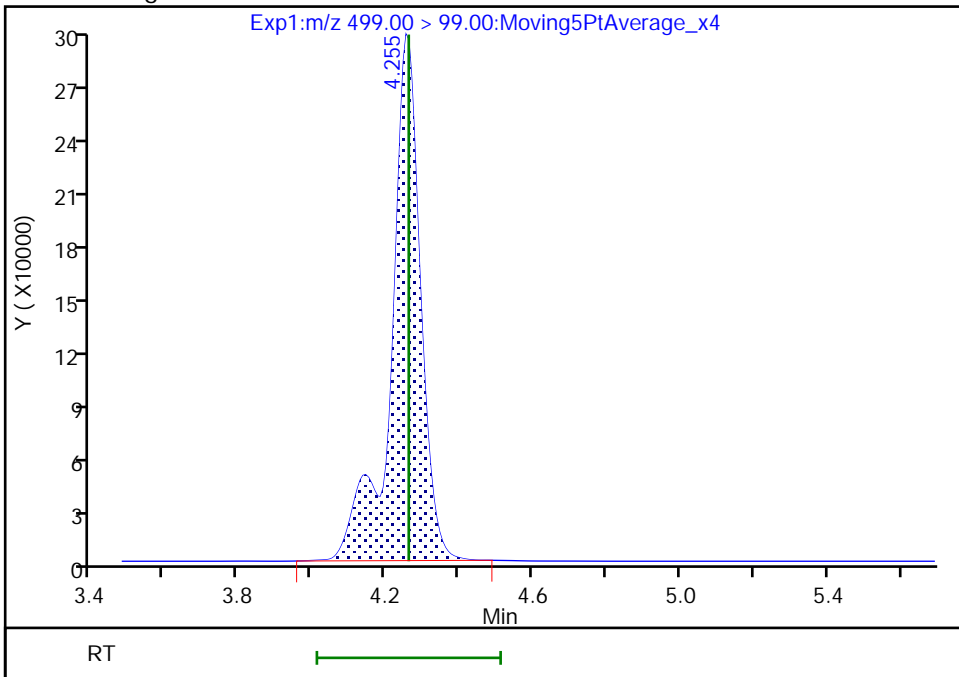
RT: 4.25  
Area: 1673962  
Amount: 4.600239  
Amount Units: ng/ml

Processing Integration Results



RT: 4.25  
Area: 1659201  
Amount: 4.600239  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:54:44  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVL 320-497061/2 Calibration Date: 06/10/2021 04:29  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0772		0.103	0.0500	106.9*	50.0
MMF	AveID	0.0724	0.0752		0.0520	0.0500	4.0	50.0
MTP	AveID	0.0896	0.0895		0.0499	0.0500	-0.1	50.0
PFPrA	AveID	0.6311	0.6592		0.0507	0.0485	4.5	50.0
PFMOAA	AveID	0.3080	0.6878		0.112	0.0500	123.3*	50.0
R-PSDA	AveID	0.1112	0.0944		0.0425	0.0500	-15.1	50.0
Hydrolyzed PSDA	AveID	0.4388	0.3918		0.0446	0.0500	-10.7	50.0
R-EVE	AveID	0.3326	0.2766		0.0416	0.0500	-16.8	50.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	0.9356		0.0495	0.0500	-1.1	50.0
PMPA	AveID	0.2182	0.2344		0.0537	0.0500	7.4	50.0
PFPrS	AveID	1.161	1.064		0.0420	0.0458	-8.4	50.0
NVHOS	AveID	0.0186	0.0208		0.0561	0.0500	12.3	50.0
PFMPA	AveID	0.6521	0.6008		0.0461	0.0500	-7.9	50.0
PFO2HxA	AveID	0.0727	0.0823		0.0566	0.0500	13.2	50.0
3:3 FTCA	AveID	0.0982	0.0865		0.0441	0.0500	-11.9	50.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.016		0.0485	0.0500	-3.0	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.162		0.0454	0.0442	2.7	50.0
PEPA	AveID	0.1649	0.1449		0.0440	0.0500	-12.1	50.0
PFMBA	AveID	1.195	1.065		0.0446	0.0500	-10.8	50.0
PFEEESA	AveID	3.845	3.490		0.0404	0.0445	-9.2	50.0
NFDHA	AveID	0.1332	0.1193		0.0448	0.0500	-10.4	50.0
4:2 FTS	AveID	2.393	2.213			0.0467	-7.5	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.259		0.0562	0.0500	12.4	50.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	1.021		0.0481	0.0469	2.5	50.0
PFO3OA	AveID	0.0345	0.0379		0.0549	0.0500	9.8	50.0
HFPO-DA (GenX)	AveID	1.018	0.9593		0.0471	0.0500	-5.8	50.0
R-PSDCA	AveID	0.0667	0.0784		0.0587	0.0500	17.5	50.0
Hydro-EVE Acid	AveID	1.539	1.472		0.0478	0.0500	-4.4	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.063		0.0503	0.0500	0.6	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	0.998		0.0411	0.0455	-9.7	50.0
Hydro-PS Acid	AveID	1.580	1.514		0.0479	0.0500	-4.2	50.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.520		0.0462	0.0471	-1.8	50.0
5:3 FTCA	AveID	0.2969	0.2916		0.0491	0.0500	-1.8	50.0
PFPE-1	AveID	0.1620	0.2282		0.0704	0.0500	40.9	50.0
6:2 FTUCA	AveID	17.67	14.72		0.0417	0.0500	-16.7	50.0
6:2 FTCA	AveID	0.0160	0.0163		0.0508	0.0500	1.5	50.0
PS Acid	AveID	0.6583	0.6110		0.0464	0.0500	-7.2	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVL 320-497061/2 Calibration Date: 06/10/2021 04:29  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.047	1.045		0.0499	0.0500	-0.2	50.0
PFECHS	AveID	1.196	1.288		0.0497	0.0461	7.8	50.0
6:2 FTS	AveID	2.060	1.994			0.0474	-3.2	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.170		0.0488	0.0476	2.5	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.192		0.0570	0.0500	14.1	50.0
PFO5DA	AveID	0.0155	0.0188		0.0606	0.0500	21.2	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.190		0.0491	0.0464	5.8	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.033		0.0522	0.0500	4.4	50.0
7:3 FTCA	AveID	7.703	5.700		0.0370	0.0500	-26.0	50.0
8:2 FTUCA	AveID	0.9749	0.9824		0.0504	0.0500	0.8	50.0
8:2 FTCA	AveID	1.157	0.8963		0.0387	0.0500	-22.5	50.0
9Cl-PF3ONS	AveID	2.256	2.234		0.0462	0.0466	-1.0	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	0.9545		0.0475	0.0500	-4.9	50.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.8880		0.0455	0.0480	-5.1	50.0
8:2 FTS	AveID	1.563	1.537			0.0479	-1.6	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.9204		0.0450	0.0500	-10.0	50.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.7486			0.0500	1.2	50.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8011		0.0471	0.0482	-2.2	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8666		0.0470	0.0500	-5.9	50.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6538			0.0500	-8.8	50.0
NMeFOSE	AveID	1.058	0.9891		0.0468	0.0500	-6.5	50.0
10:2 FTUCA	AveID	28.15	18.44		0.0328	0.0500	-34.5	50.0
10:2 FTCA	AveID	0.0284	0.0298		0.0525	0.0500	5.0	50.0
NMeFOSA	AveID	1.014	1.015			0.0500	0.2	50.0
11Cl-PF3OUdS	AveID	2.689	2.643		0.0463	0.0471	-1.7	50.0
NEtFOSE	AveID	1.174	1.113		0.0474	0.0500	-5.2	50.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.106		0.0498	0.0500	-0.5	50.0
NEtFOSA	AveID	1.036	1.150			0.0500	11.0	50.0
10:2 FTS	AveID	1.519	1.499		0.0476	0.0482	-1.3	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2191		0.0456	0.0484	-5.8	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.9485		0.0511	0.0500	2.2	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1242		0.0505	0.0500	1.0	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.150		0.0495	0.0500	-1.0	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6040		0.0497	0.0500	-0.5	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVL 320-497061/2 Calibration Date: 06/10/2021 04:29  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PFO4DA	AveID	0.0394				0.0500		
13C4 PFBA	Ave	0.998	1.027		1.29	1.25	2.9	50.0
13C5 PFPeA	Ave	0.9416	0.9480		1.26	1.25	0.7	50.0
13C3 PFBS	Ave	0.6563	0.6732		1.19	1.16	2.6	50.0
M2-4:2 FTS	Ave	0.1753	0.2101		1.40	1.17	19.9	50.0
13C2 PFHxA	Ave	0.9319	0.9466		1.27	1.25	1.6	50.0
13C3 HFPO-DA	Ave	0.1655	0.1668		1.26	1.25	0.8	50.0
13C4 PFHpA	Ave	0.9175	0.9462		1.29	1.25	3.1	50.0
18O2 PFHxS	Ave	0.4664	0.4865		1.23	1.18	4.3	50.0
13C-6:2 FTCA	Ave	0.7974	0.8870		1.39	1.25	11.2	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0618		1.58	1.25	26.3	50.0
M2-6:2 FTS	Ave	0.2119	0.2366		1.33	1.19	11.7	50.0
13C4 PFOA	Ave	1.043	1.050		1.26	1.25	0.7	50.0
13C4 PFOS	Ave	0.3656	0.3759		1.23	1.20	2.8	50.0
13C5 PFNA	Ave	0.997	1.015		1.27	1.25	1.8	50.0
13C-8:2 FTUCA	Ave	0.9872	1.092		1.38	1.25	10.6	50.0
13C-8:2 FTCA	Ave	0.0451	0.0568		1.58	1.25	26.1	50.0
13C8 FOSA	Ave	0.6160	0.6651		1.35	1.25	8.0	50.0
13C2 PFDA	Ave	0.997	1.012		1.27	1.25	1.5	50.0
M2-8:2 FTS	Ave	0.3308	0.3634		1.32	1.20	9.8	50.0
d3-NMeFOSAA	Ave	0.4207	0.4589		1.36	1.25	9.1	50.0
13C2 PFUnA	Ave	0.9607	1.041		1.35	1.25	8.4	50.0
d5-NEtFOSAA	Ave	0.4186	0.4741		1.42	1.25	13.3	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2520		1.25	1.25	0.2	50.0
13C-10:2 FTCA	Ave	1.160	1.434		1.55	1.25	23.6	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1853		1.25	1.25	0.3	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0613		2.26	1.25	80.7*	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.2994		1.34	1.25	6.9	50.0
13C2 PFDoA	Ave	1.039	1.130		1.36	1.25	8.7	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1794		1.24	1.25	-1.1	50.0
13C2 10:2 FTS	Ave	0.2654	0.3108		1.41	1.21	17.1	50.0
13C2 PFTeDA	Ave	0.9575	0.9491		1.24	1.25	-0.9	50.0
13C2 PFHxDA	Ave	0.7323	0.7819		1.33	1.25	6.8	50.0
13C8 PFOA	Ave	1.167	1.197		1.28	1.25	2.6	50.0
13C8 PFOS	Ave	0.1093	0.1141		1.25	1.20	4.4	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_005.d  
 Lims ID: CCVL  
 Client ID:  
 Sample Type: CCVL  
 Inject. Date: 10-Jun-2021 04:29:37 ALS Bottle#: 51 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCVL (03)  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:20:41 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:20:41

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.772	0.765	0.007	0.332	21526	0.1034		207	61.1	
2 MMF										
139.00 > 51.00	0.772	0.772	0.0	0.332	20987	0.0520		104	20.8	
3 MTP										
175.00 > 97.00	1.135	1.159	-0.024	0.489	24950	0.0499		99.9	19.9	
4 PPF Acid										
162.95 > 119.00	1.564	1.571	-0.007	0.674	178336	0.0507		104	36.8	
5 PFMOAA										
179.00 > 84.90	2.051	2.056	-0.005	0.884	191834	0.1117		223	267	
6 R-PSDA										
441.00 > 241.00	2.203	2.201	0.002	0.949	26335	0.0425		84.9	670	
7 R-EVE										
405.00 > 217.00	2.211	2.209	0.002	0.953	77149	0.0416		83.2	2241	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.211	2.209	0.002	0.953	109267	0.0446		89.3	4296	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.321	2.319	0.002	1.000	260945	0.0495		98.9	322	
D 9 13C4 PFBA										
217.00 > 172.00	2.321	2.319	0.002	0.605	6972532	1.29		103	93440	
11 PMPA										
229.00 > 185.00	2.383	2.383	0.0	1.027	65376	0.0537		107	128	
12 PFPrS										
249.10 > 80.00	2.392	2.392	0.0	0.888	178122	0.0420		91.6	648	
13 NVHOS										
297.00 > 135.00	2.401	2.400	0.001	1.034	5815	0.0561		112	195	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.445	2.444	0.001	0.919	154667	0.0461		92.1	4225	
16 PFO2HxA										
245.00 > 85.00	2.576	2.575	0.001	0.968	21183	0.0566		113	280	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.661	2.650	0.011	1.000	261580	0.0485		97.0	313	
D 17 13C5 PFPeA										
267.90 > 223.00	2.661	2.661	0.0	0.694	6436036	1.26		101	65825	
19 3:3 FTCA										
241.00 > 177.10	2.661	2.661	0.0	0.988	15822	0.0441	Target=1.28	88.1	296	
241.00 > 116.90	2.672	2.661	0.011	0.992	11432		1.38(0.64-1.92)		57.7	
D 21 13C3 PFBS										
301.90 > 80.00	2.694	2.682	0.012	0.703	4250579	1.19		103	23116	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.694	2.693	0.001	1.000	187719	0.0454	Target=2.36	103	1561	
298.90 > 99.00	2.694	2.693	0.001	1.000	76682		2.45(1.18-3.53)		658	
22 PEPA										
278.90 > 234.90	2.751	2.751	0.001	1.034	37305	0.0440		87.9	48.1	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.038	274233	0.0446		89.2	5775	
24 PES										
314.80 > 135.00	2.842	2.831	0.011	1.055	567894	0.0404		90.8	3840	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.977	30672	0.0448		89.6	820	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	117930	0.0432	Target=2.17	92.5	5415	
327.00 > 79.96	2.984	2.984	0.0	1.000	56017		2.11(1.09-3.26)		697	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.778	1332241	1.40		120	13890	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.028	3.019	0.009	1.000	323788	0.0562	Target=13.89	112	680	
313.00 > 119.00	3.019	3.019	0.0	0.997	26028		12.44(6.95-20.84)		92.8	
D 28 13C2 PFHxA										
315.00 > 270.00	3.028	3.019	0.009	0.790	6427041	1.27		102	55463	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.047	3.037	0.010	1.131	175036	0.0481	Target=3.10	103	1954	
349.00 > 99.00	3.047	3.037	0.010	1.131	58452		2.99(1.55-4.65)		1481	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.019	9740	0.0549		110	146	
33 HFPO-DA										
285.00 > 169.00	3.156	3.156	0.0	1.000	43449	0.0471	Target=1.03	94.2	1534	
285.00 > 185.00	3.156	3.156	0.0	1.000	48061		0.90(0.52-1.55)		578	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.156	3.156	0.0	0.823	1132313	1.26		101	39508	
34 R-PSDCA										
397.00 > 217.00	3.387	3.379	0.008	0.986	20141	0.0587		117	621	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.414	3.404	0.010	0.994	378214	0.0478		95.6	2689	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	273074	0.0503	Target=3.81	101	692	
363.00 > 169.00	3.433	3.433	0.0	1.000	65751		4.15(1.91-5.72)		917	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	120032	0.0411	Target=3.50	90.3	1387	
399.00 > 99.00	3.433	3.433	0.0	1.000	39350		3.05(1.75-5.25)		633	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.896	3124840	1.23		104	40810	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.896	6424219	1.29		103	69206	
40 Hydro-PS Acid										
463.00 > 263.00	3.443	3.443	0.0	1.003	389081	0.0479		95.8	1708	
41 DONA										
377.00 > 251.00	3.482	3.481	0.001	0.829	530817	0.0462	Target=2.07	98.2	6558	
377.00 > 85.00	3.491	3.481	0.010	0.831	230927		2.30(1.03-3.10)		1963	
44 PFECA G										
378.90 > 184.90	3.510	3.500	0.010	0.990	54966	0.0704		141	1263	
43 5:3 FTCA										
340.88 > 236.90	3.510	3.509	0.001	0.990	70241	0.0491	Target=1.08	98.2	820	
340.88 > 216.90	3.510	3.509	0.001	0.990	68088		1.03(0.54-1.62)		915	
46 6:2 FTUCA										
356.86 > 292.90	3.545	3.536	0.009	0.995	247126	0.0417	Target=14.03	83.3	3688	
356.86 > 243.00	3.545	3.536	0.009	0.995	19731		12.52(7.02-21.05)		720	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.545	3.536	0.009	0.925	6022037	1.39		111	286748	
48 6:2 FTCA										
377.10 > 313.10	3.554	3.562	-0.008	1.002	3924	0.0508	Target=0.54	102	202	
377.10 > 63.00	3.562	3.562	0.0	1.005	8055		0.49(0.27-0.81)		439	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.562	3.562	0.0	0.929	419628	1.58		126	7427	
49 PS Acid										
442.80 > 146.80	3.686	3.685	0.001	0.961	174210	0.0464		92.8	3350	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	297920	0.0499		99.8	12619	
51 PFECHS										
460.80 > 380.90	3.771	3.771	0.001	0.984	338683	0.0497	Target=1.90	108	7603	
460.80 > 98.90	3.771	3.771	0.001	0.984	168390		2.01(0.95-2.85)		3740	
53 6:2 FTS										
427.00 > 407.00	3.815	3.814	0.001	1.000	121484	0.0459	Target=2.11	96.8	550	
427.00 > 79.96	3.815	3.814	0.001	1.000	60958		1.99(1.06-3.17)		267	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1526218	1.33		112	21778	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	7128549	1.26		101	87744	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		4789336	1.25			73746	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.834	3.834	0.0	0.913	113687	0.0488	Target=4.82	103	1067	
449.00 > 99.00	3.834	3.834	0.0	0.913	22241		5.11(2.41-7.24)		370	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.834	3.834	0.0	1.000	8126169	1.28		103	55477	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.843	3.834	0.009	1.002	339859	0.0570	Target=2.87	114	426	
413.00 > 169.00	3.834	3.834	0.0	1.000	102340		3.32(1.43-4.30)		1251	
59 TAF										
442.90 > 85.00	4.116	4.116	0.0	1.074	5349	0.0606		121	78.9	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.201	4.201	0.0	1.096	740511	1.25		104	14329	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.000	112753	0.0491	Target=5.95	106	861	
499.00 > 99.00	4.201	4.201	0.0	1.000	18909		5.96(2.97-8.92)		415	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2439619	1.23		103	27134	
D 63 13C5 PFNA										
468.00 > 423.00	4.217	4.217	0.0	1.100	6889837	1.27		102	80932	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.000	284802	0.0522	Target=7.58	104	540	
463.00 > 169.00	4.217	4.217	0.0	1.000	35798		7.96(3.79-11.37)		674	
65 7:3 FTCA										
441.00 > 337.00	4.315	4.315	0.0	0.991	87971	0.0370	Target=1.21	74.0	735	
441.00 > 317.00	4.315	4.315	0.0	0.991	79304		1.11(0.60-1.81)		977	
67 8:2 FTUCA										
456.86 > 392.90	4.339	4.331	0.008	1.000	291321	0.0504	Target=35.28	101	6114	
456.86 > 343.00	4.331	4.331	0.0	0.998	7183		40.56(17.64-52.92)		365	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.339	4.331	0.008	1.132	7413165	1.38		111	173070	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.354	4.347	0.008	1.136	385814	1.58		126	10618	
69 8:2 FTCA										
477.00 > 393.10	4.354	4.354	0.0	1.000	13832	0.0387	Target=3.24	77.5	601	
477.00 > 63.20	4.354	4.354	0.0	1.000	5710		2.42(1.62-4.86)		302	
70 9CIFOS										
531.00 > 351.00	4.403	4.403	0.0	1.048	212542	0.0462		99.0	5701	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	4515636	1.35		108	72473	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	172408	0.0475		95.1	4147	
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.541	4.541	0.0	1.081	87019	0.0455	Target=3.28	94.9	1056	
549.00 > 99.00	4.541	4.541	0.0	1.081	28882		3.01(1.64-4.92)		571	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.569	4.559	0.010	1.002	252863	0.0450	Target=9.70	90.0	1021	
513.00 > 169.00	4.559	4.559	0.0	1.000	29595		8.54(4.85-14.54)		363	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6868272	1.27		102	116791	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.569	0.0	1.192	2363685	1.32		110	29635	
77 8:2 FTS										
527.00 > 507.00	4.569	4.569	0.0	1.000	145356	0.0471	Target=2.33	98.4	6720	
527.00 > 79.96	4.569	4.569	0.0	1.000	56464		2.57(1.17-3.50)		583	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.729	4.718	0.011	1.233	3115559	1.36		109	16515	
79 NMeFOSAA										
570.00 > 419.00	4.729	4.729	0.0	1.000	93287	0.0506	Target=0.83	101	1369	
570.00 > 483.00	4.729	4.729	0.0	1.000	97356		0.96(0.42-1.25)		2251	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.853	4.843	0.010	1.155	78833	0.0471	Target=3.22	97.8	926	
599.00 > 99.00	4.853	4.843	0.010	1.155	22884		3.44(1.61-4.83)		714	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.882	4.872	0.010	1.000	245031	0.0470	Target=9.27	94.1	1350	
563.00 > 169.00	4.882	4.872	0.010	1.000	26168		9.36(4.63-13.90)		623	
D 82 13C2 PFUnA										
565.00 > 520.00	4.882	4.872	0.010	1.273	7068927	1.35		108	83265	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	3219063	1.42		113	26884	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.891	0.0	1.002	84183	0.0456	Target=0.77	91.2	2278	
584.00 > 526.10	4.891	4.891	0.0	1.002	116768		0.72(0.39-1.16)		1294	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.976	4.967	0.009	1.298	1710846	1.25		100	7655	
86 N-MeFOSE-M										
616.00 > 59.00	4.986	4.986	0.0	1.002	67688	0.0468		93.5	650	
89 10:2 FTUCA										
556.86 > 492.90	4.995	4.995	0.0	0.998	306907	0.0328		65.5	7138	
90 NMeFOSA										
512.00 > 169.00	5.005	4.995	0.010	1.002	51085	0.0501	Target=1.61	100	656	
512.00 > 218.99	5.005	4.995	0.010	1.002	32312		1.58(0.80-2.41)		816	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.995	4.995	0.0	1.303	1257777	1.25		100	375	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.995	4.995	0.0	1.303	9734891	1.55		124	445932	
93 11CIFOS										
631.00 > 451.00	5.015	5.005	0.010	1.194	254164	0.0463		98.3	6701	
92 10:2 FTCA										
576.80 > 493.00	5.005	5.005	0.0	1.002	11614	0.0525	Target=2.56	105	453	
576.80 > 63.10	5.005	5.005	0.0	1.002	5850		1.99(1.28-3.83)		274	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.005	5.005	0.0	1.305	416078	2.26		181	7129	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.146	5.137	0.009	1.342	2032844	1.34		107	9258	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 97 13C2 PFDaA										
615.00 > 570.00	5.165	5.156	0.009	1.347	7674619	1.36		109	92564	
95 N-EtFOSE-M										
630.00 > 59.00	5.156	5.156	0.0	1.002	90514	0.0474		94.8	643	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.165	5.156	0.009	1.000	339426	0.0498	Target=7.93	99.5	1259	
613.00 > 169.00	5.165	5.156	0.009	1.000	37104		9.15(3.97-11.90)		699	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.165	5.165	0.0	1.347	1217978	1.24		98.9	2669	
99 N-EtFOSA-M										
526.00 > 169.00	5.174	5.174	0.0	1.002	56019	0.0555	Target=1.61	111	843	
526.00 > 218.99	5.174	5.174	0.0	1.002	27686		2.02(0.80-2.41)		542	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.174	5.174	0.0	1.350	2036309	1.41		117	65308	
101 10:2 FTS										
627.00 > 607.00	5.182	5.183	-0.001	1.002	121999	0.0476	Target=1.46	98.7	4807	
627.00 > 79.96	5.182	5.183	-0.001	1.002	85100		1.43(0.73-2.19)		919	
102 PFDoS										
699.00 > 80.00	5.383	5.383	0.0	1.281	21647	0.0456	Target=0.54	94.2	558	
699.00 > 99.00	5.383	5.383	0.0	1.281	37728		0.57(0.27-0.81)		1138	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.422	5.422	0.0	1.050	291173	0.0511	Target=5.84	102	1458	
663.00 > 169.00	5.422	5.422	0.0	1.050	44033		6.61(2.92-8.75)		933	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.658	0.0	1.476	6444055	1.24		99.1	68728	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.658	0.0	1.000	32005	0.0505	Target=1.07	101	766	
713.00 > 219.00	5.658	5.658	0.0	1.000	28632		1.12(0.53-1.60)		1116	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.095	6.085	0.010	1.590	5308680	1.33		107	32361	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.095	6.095	0.0	1.000	244239	0.0495	Target=7.49	99.0	504	
813.00 > 169.00	6.095	6.095	0.0	1.000	28524		8.56(3.75-11.24)		581	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.517	6.510	0.007	1.069	128259	0.0497	Target=9.70	99.5	396	
913.00 > 169.00	6.510	6.510	0.0	1.068	12948		9.91(4.85-14.55)		431	

## QC Flag Legend

Processing Flags

## Reagents:

LCPFC+\_LL2\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_005.d

Injection Date: 10-Jun-2021 04:29:37

Instrument ID: A15

Lims ID: CCVL

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 51

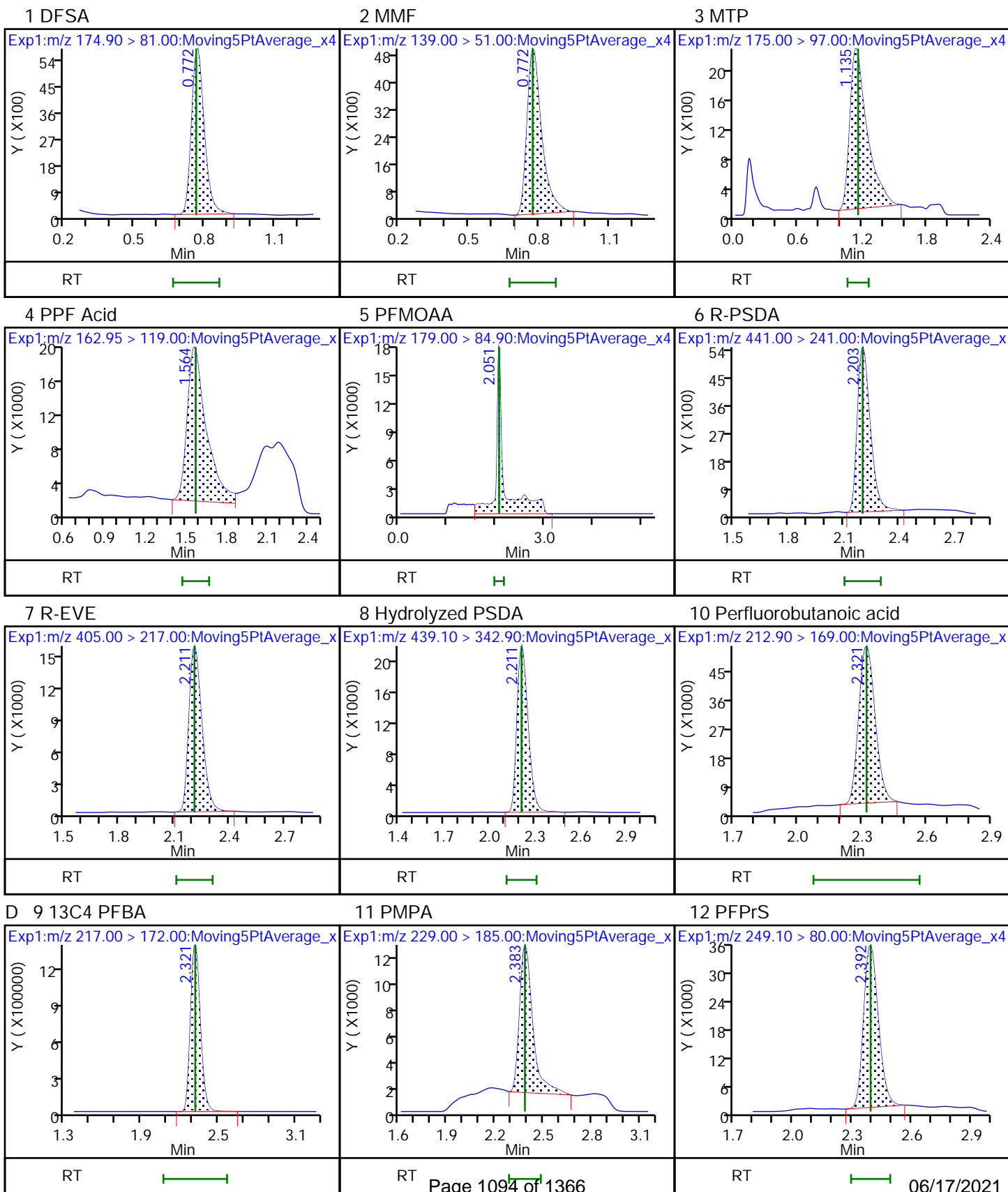
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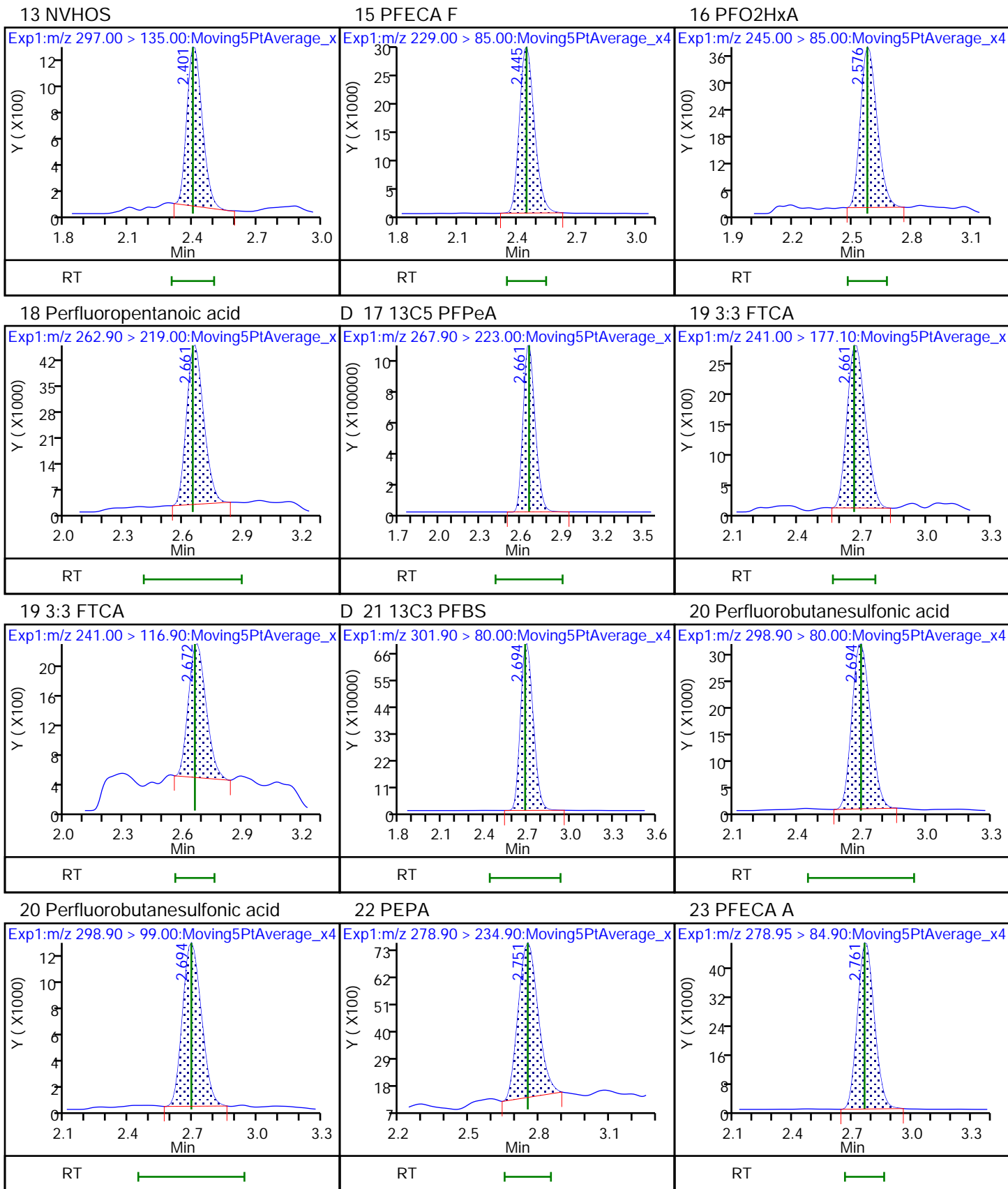
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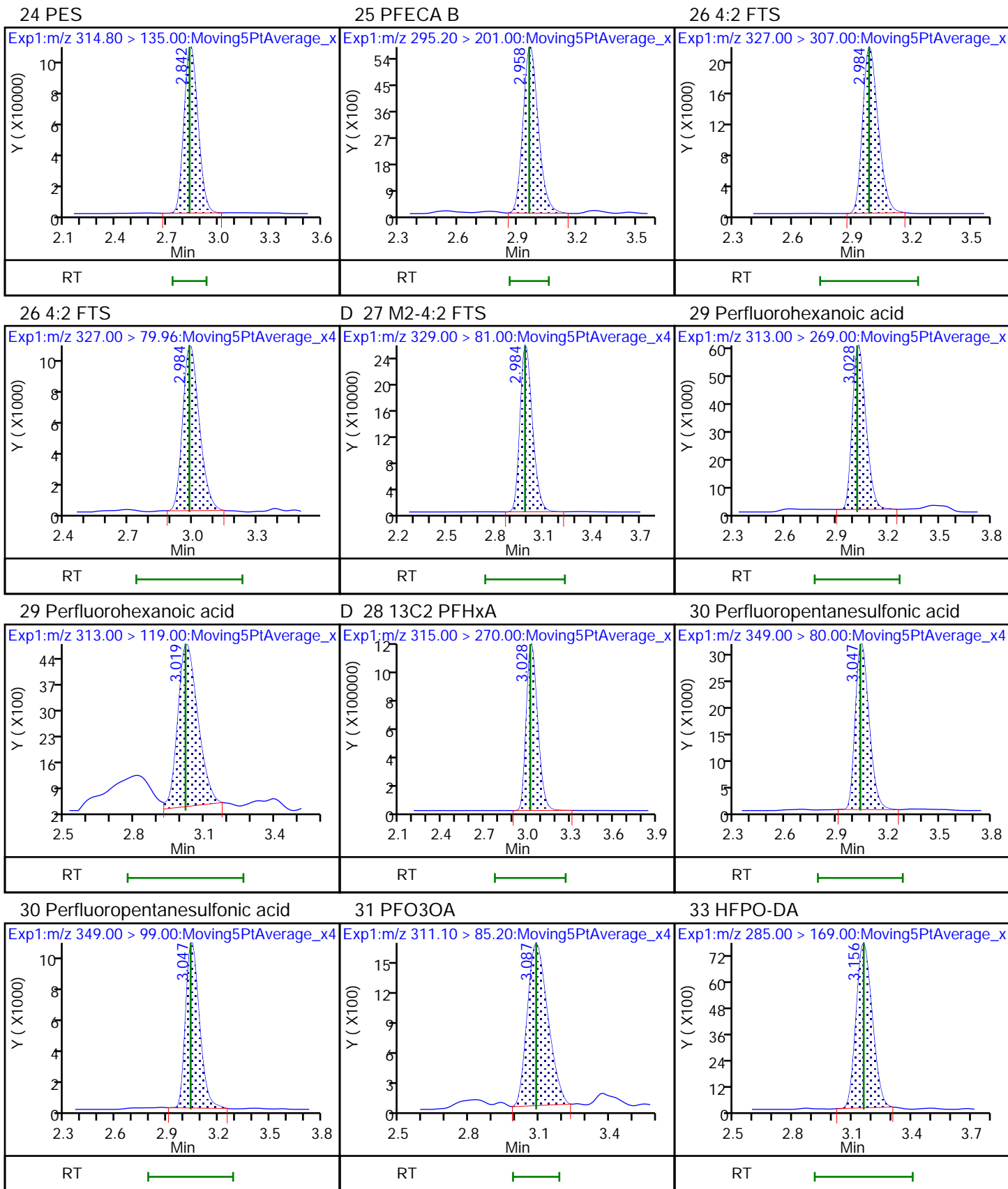
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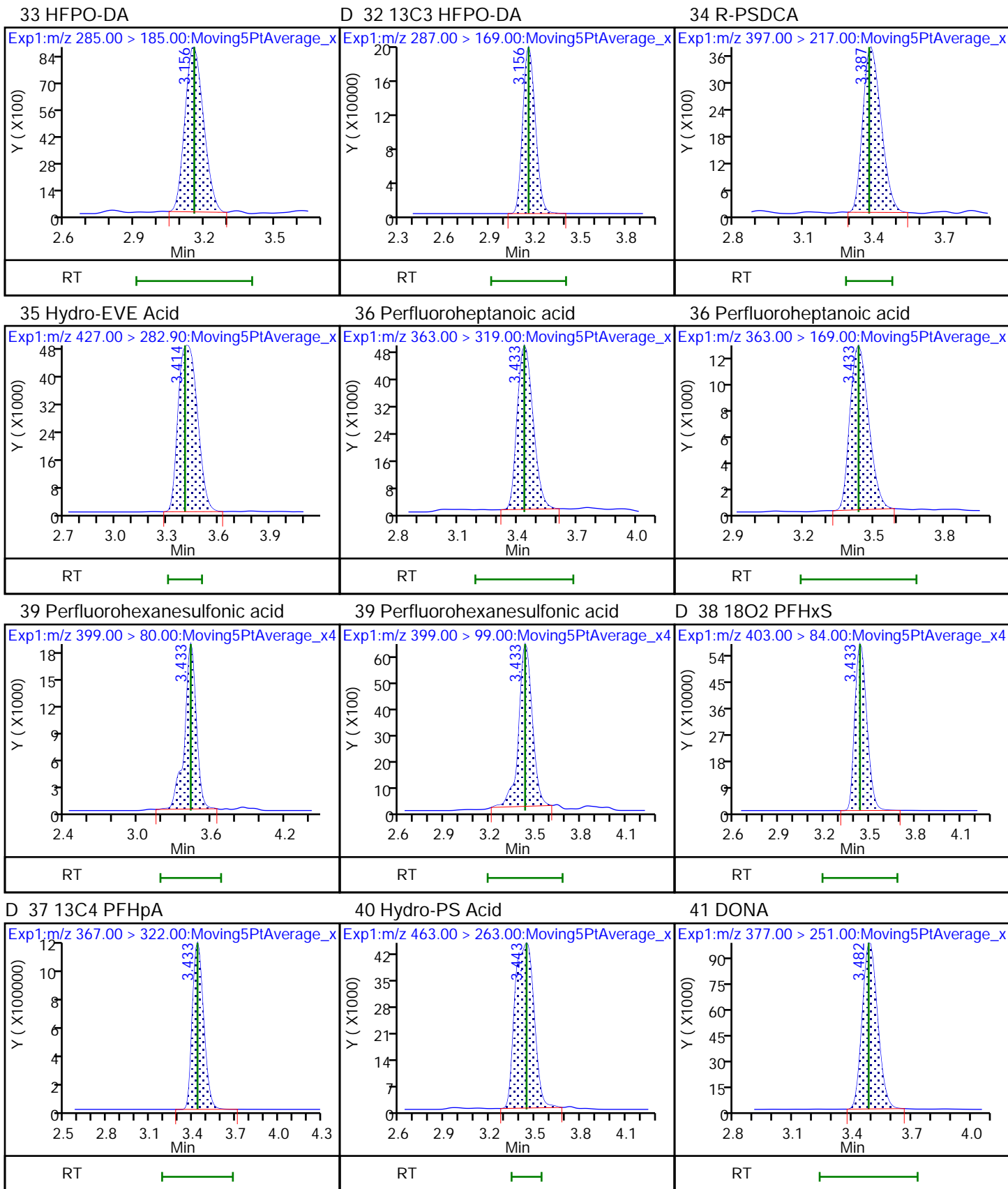
Method: PFAS+\_A15

Limit Group: LC PFC ICAL

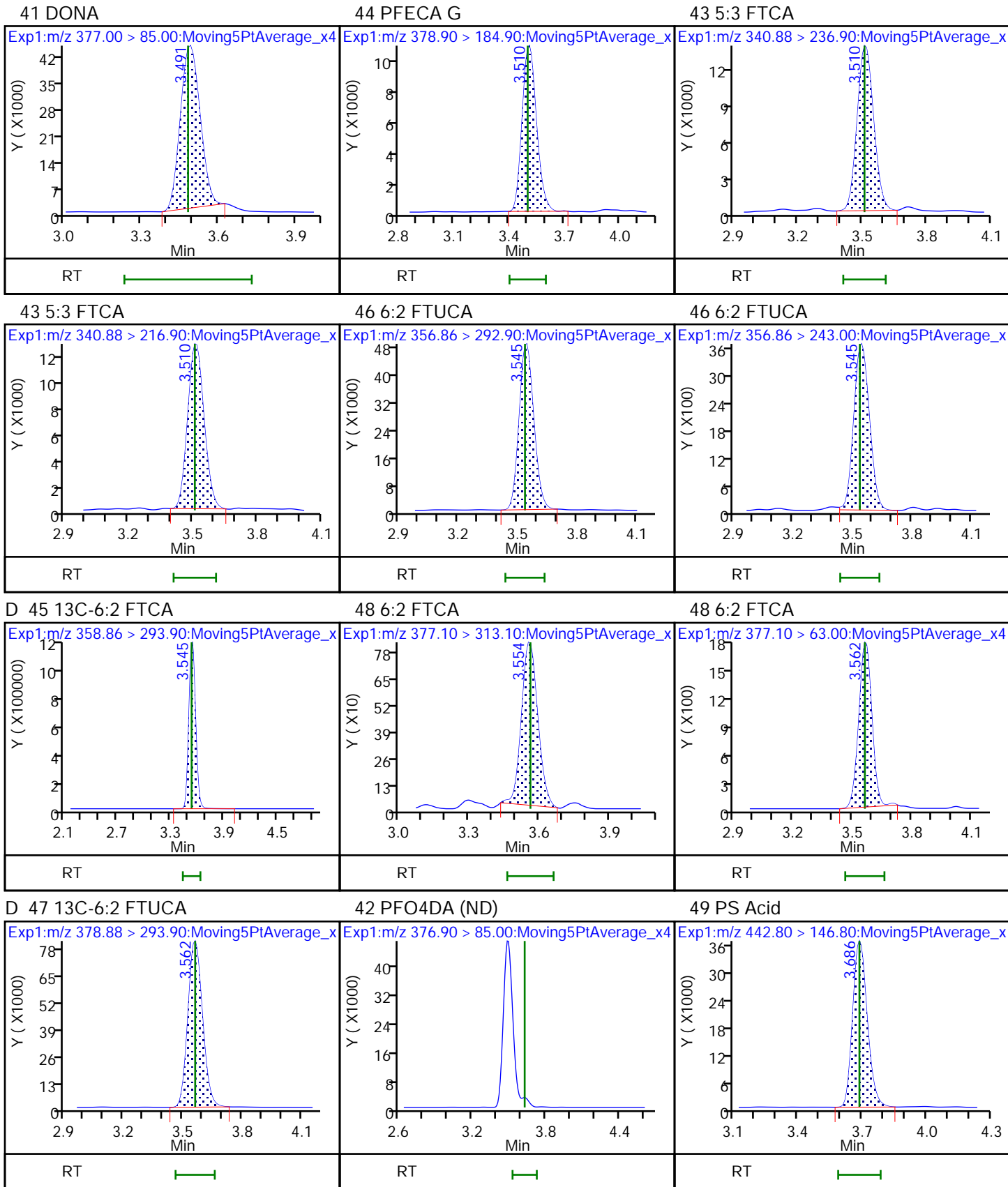


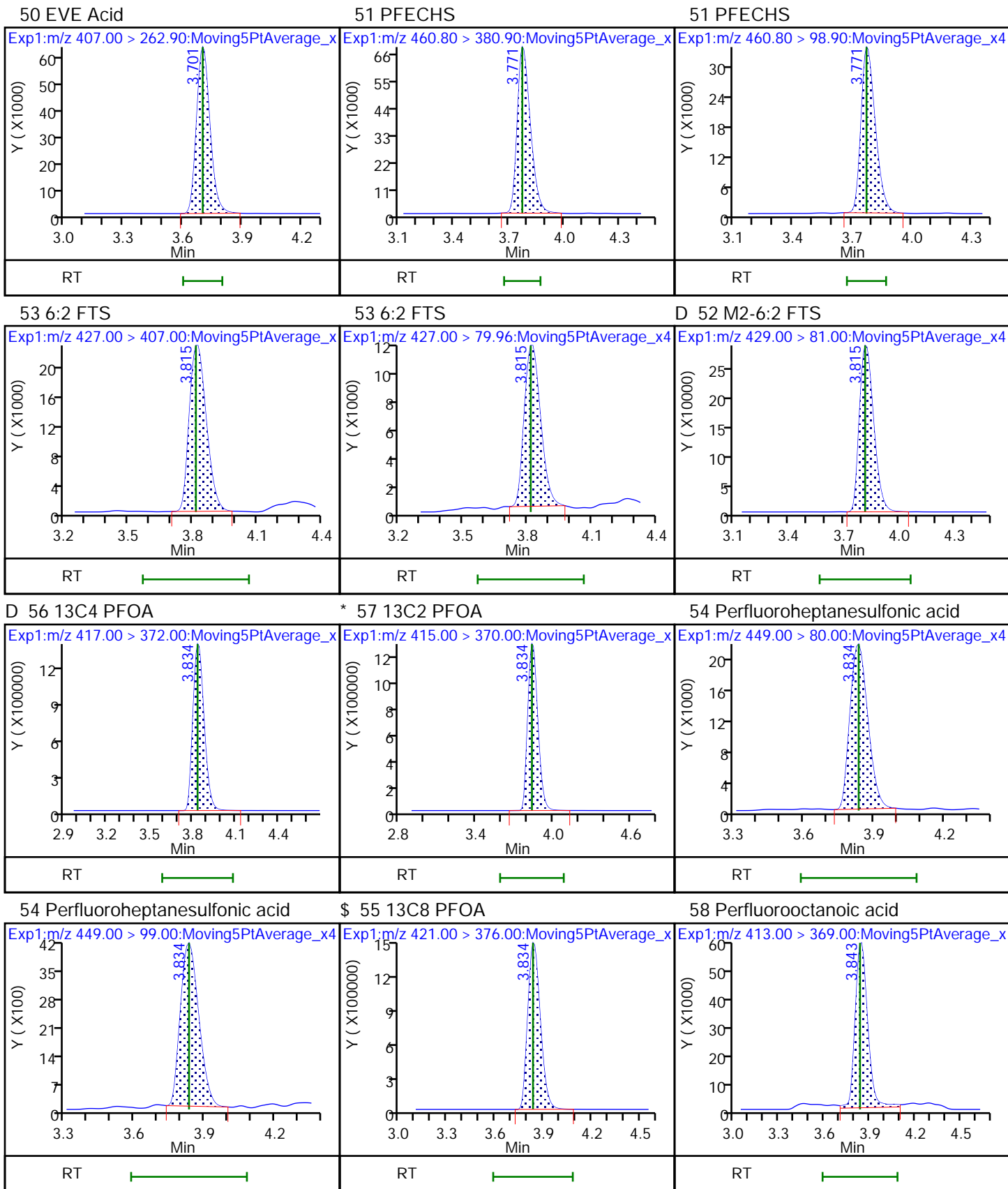


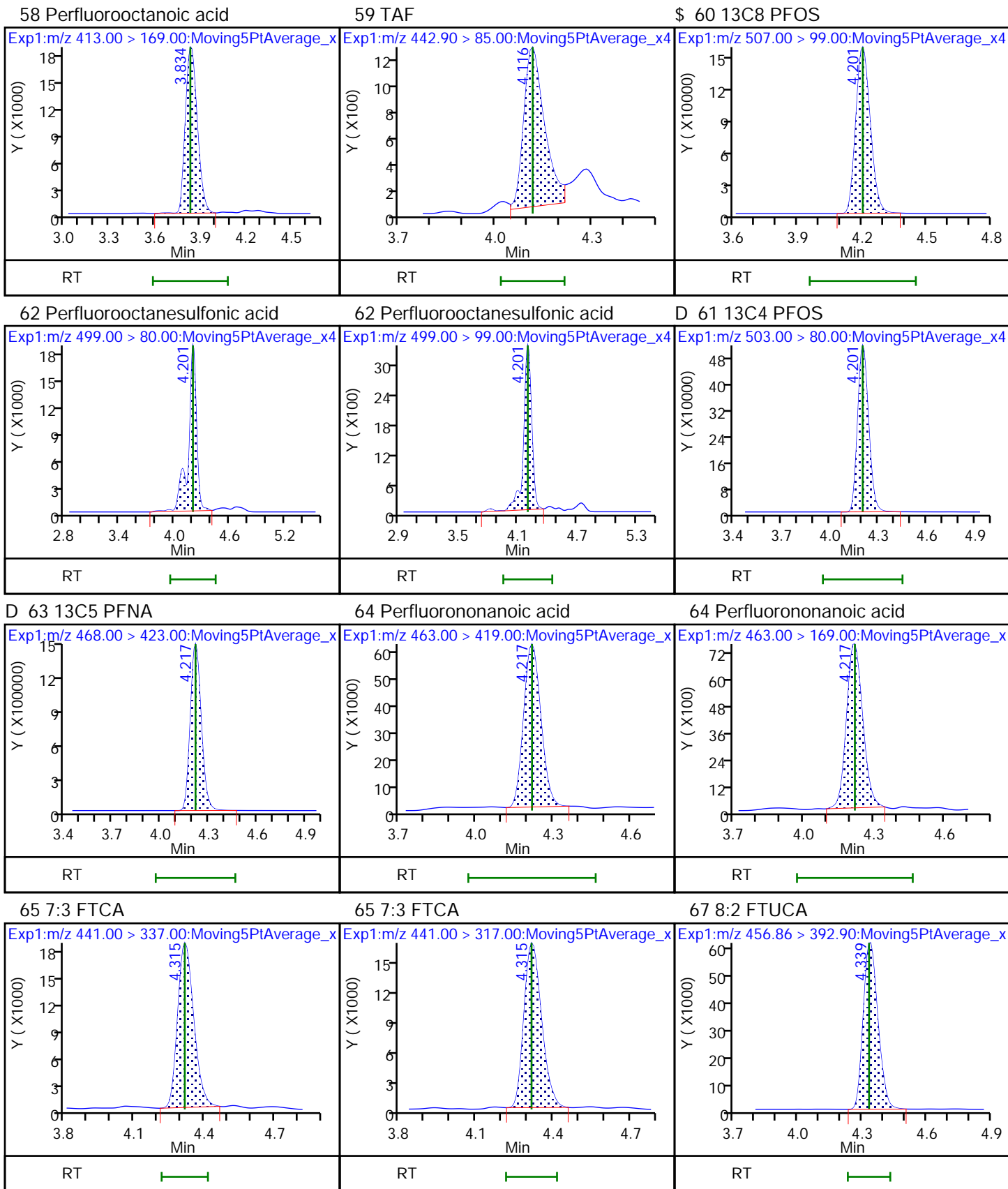


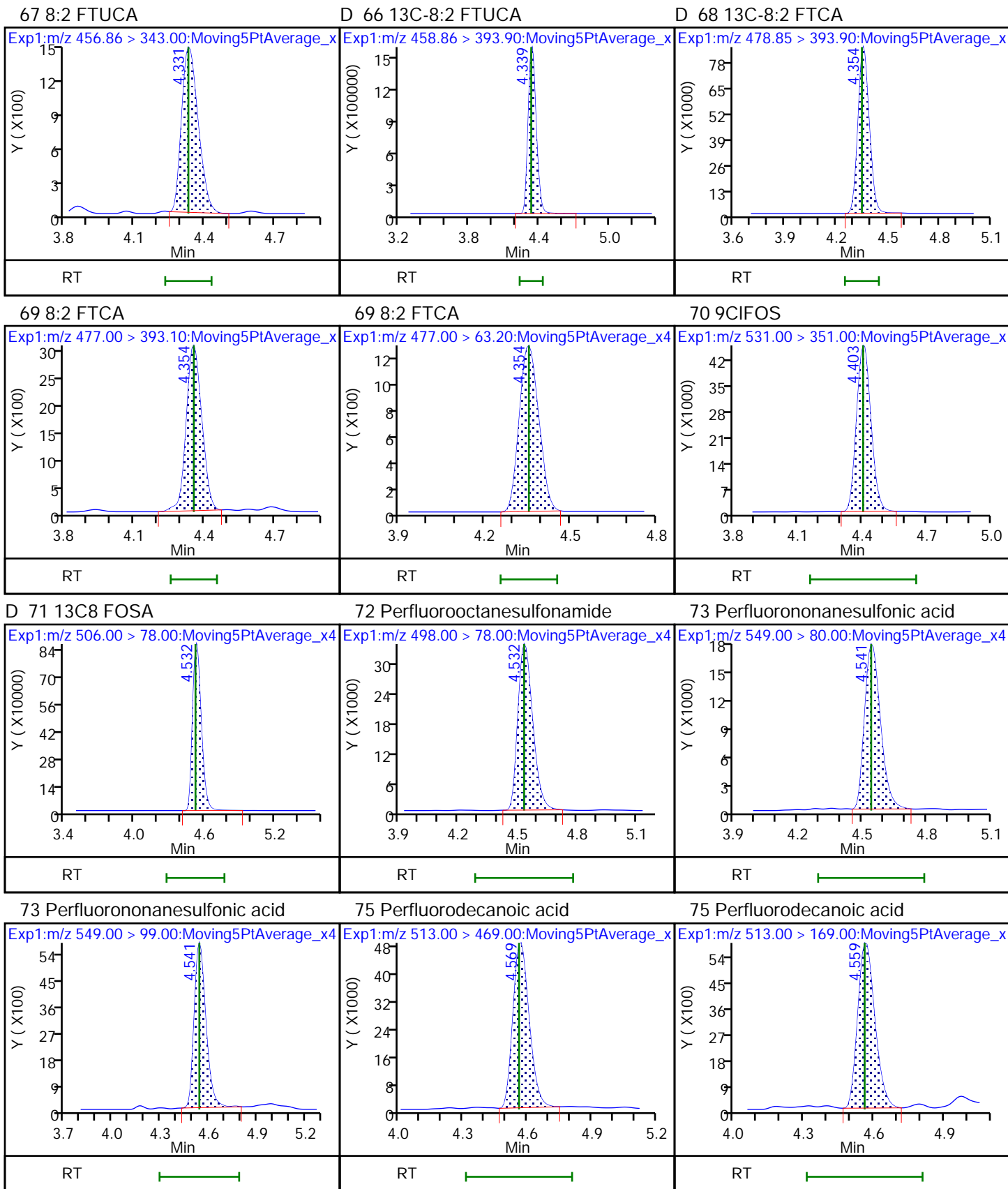








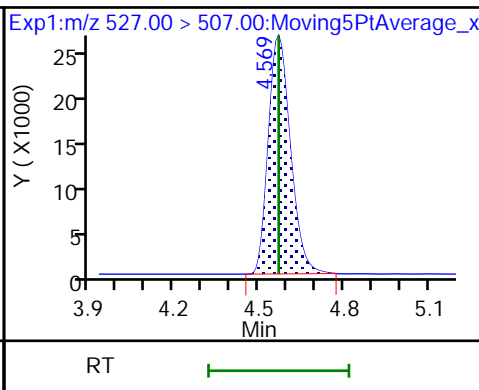
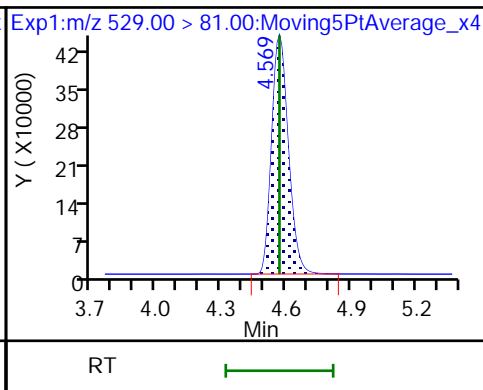
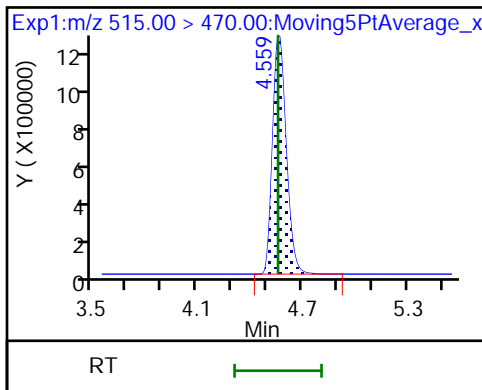




D 74 13C2 PFDA

D 76 M2-8:2 FTS

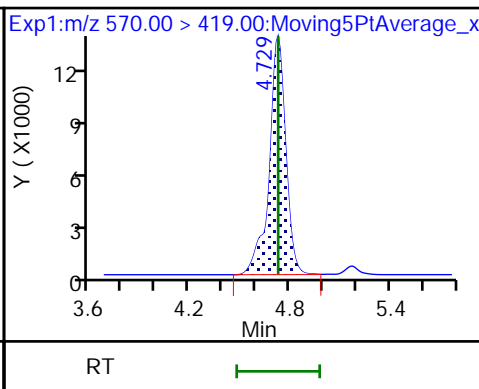
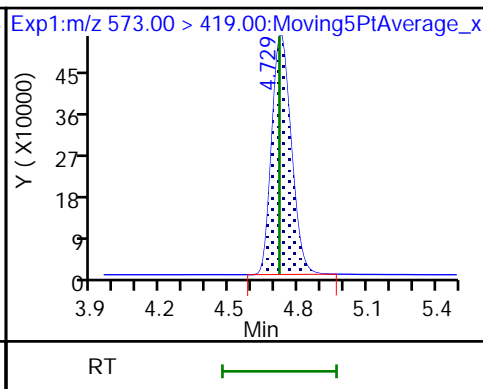
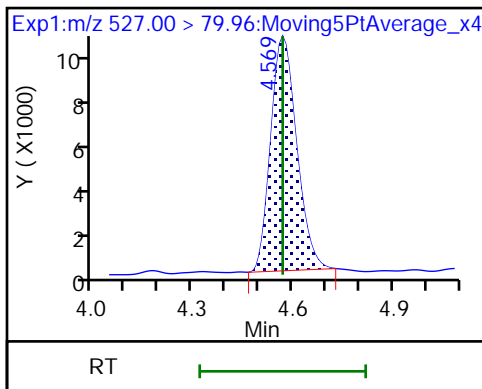
77 8:2 FTS



77 8:2 FTS

D 78 d3-NMeFOSAA

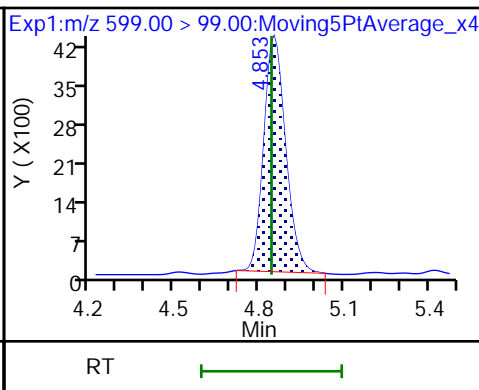
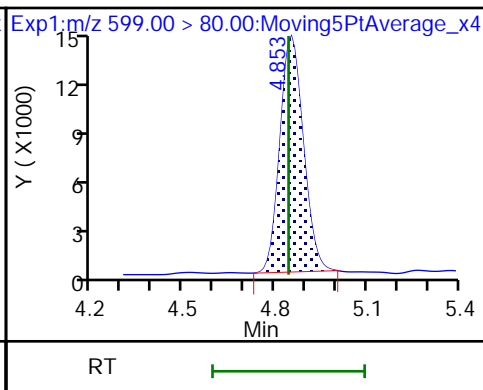
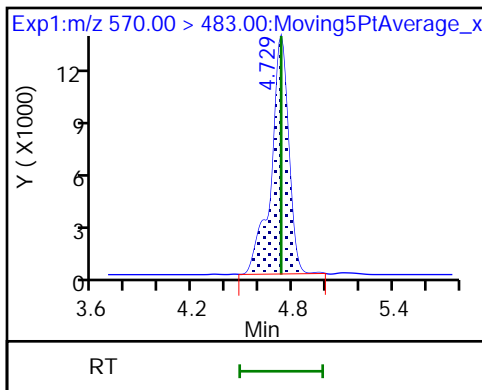
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

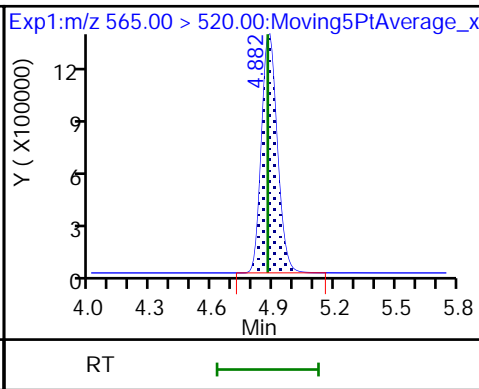
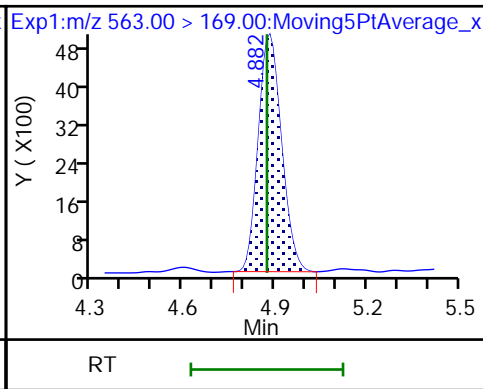
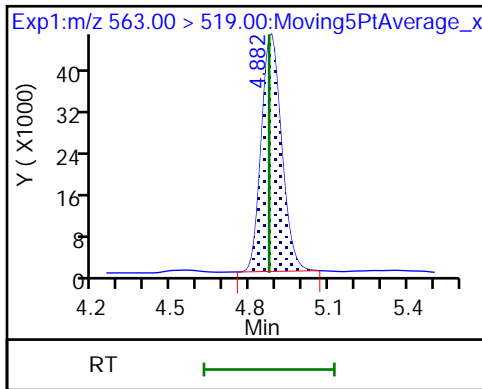
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

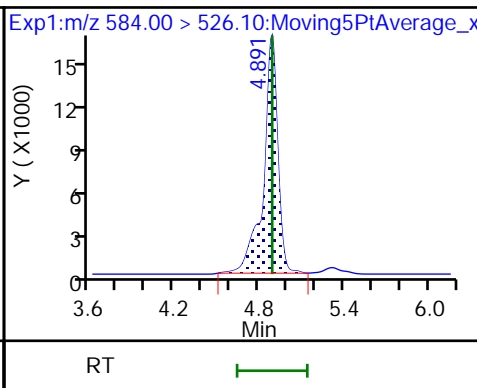
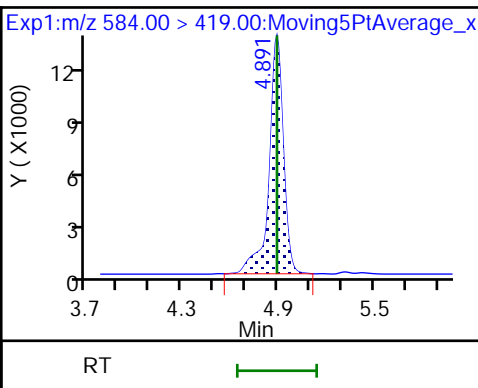
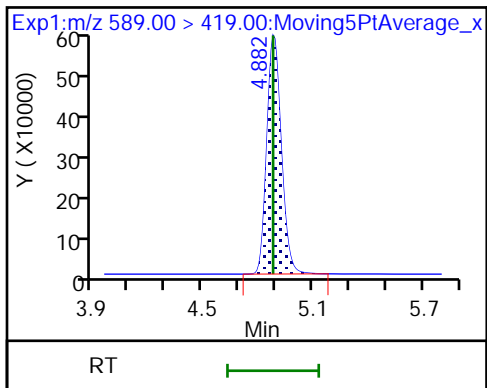
D 82 13C2 PFCUnA



D 83 d5-NEtFOSAA

84 NEtFOSAA

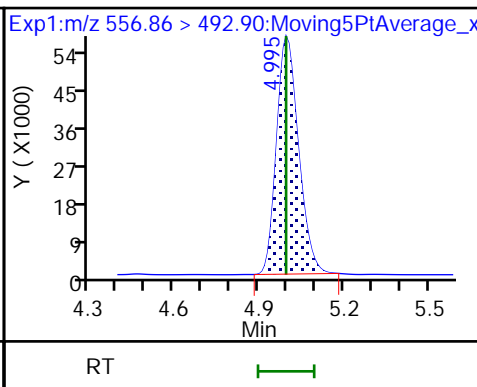
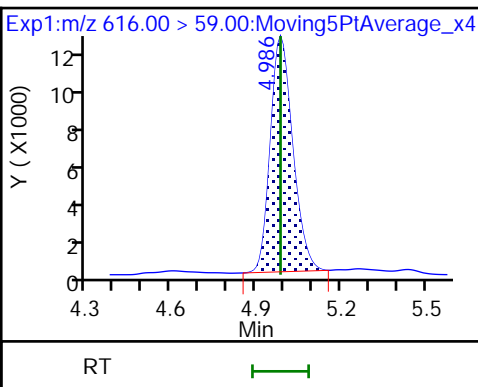
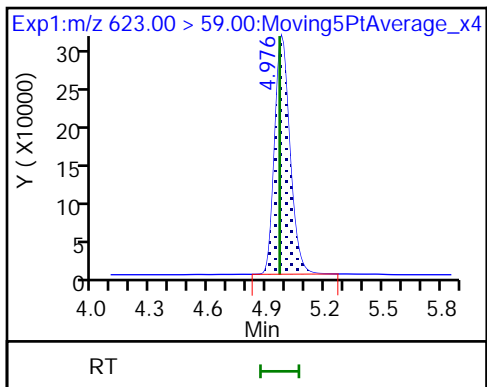
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

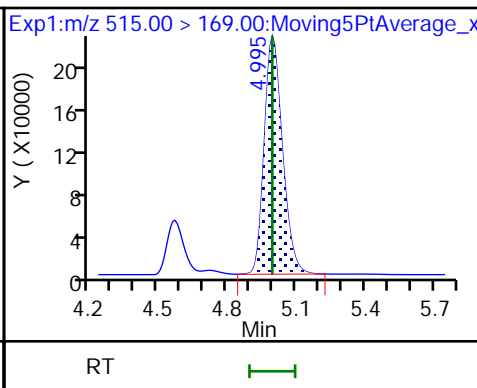
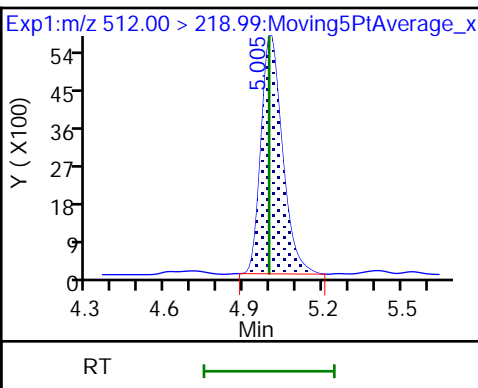
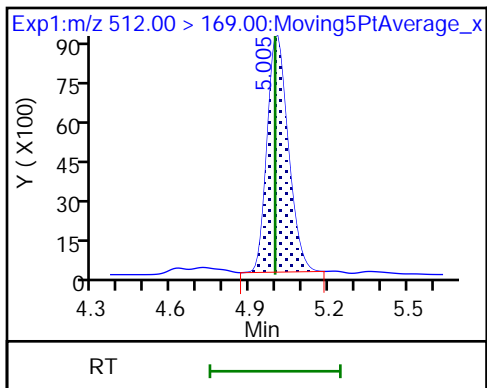
89 10:2 FTUCA



90 NMeFOSA

90 NMeFOSA

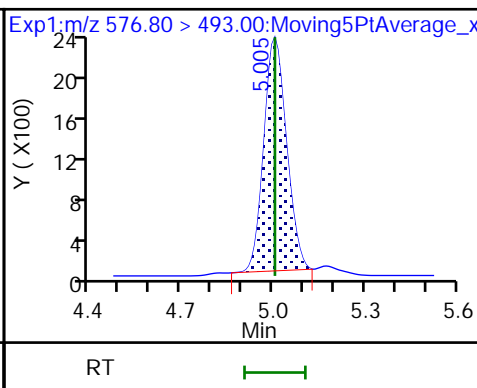
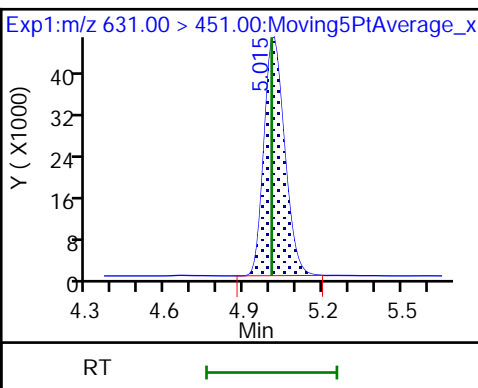
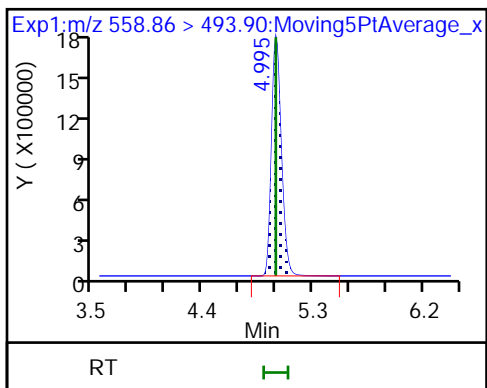
D 87 d-N-MeFOSA-M



D 88 13C-10:2 FTCA

93 11CIFOS

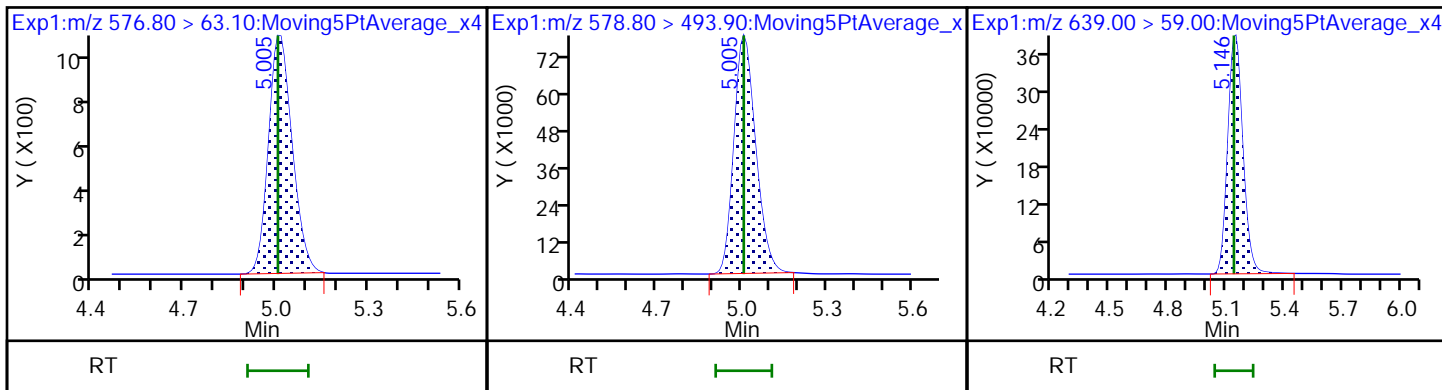
92 10:2 FTCA



92 10:2 FTCA

D 91 13C-10:2 FTUCA

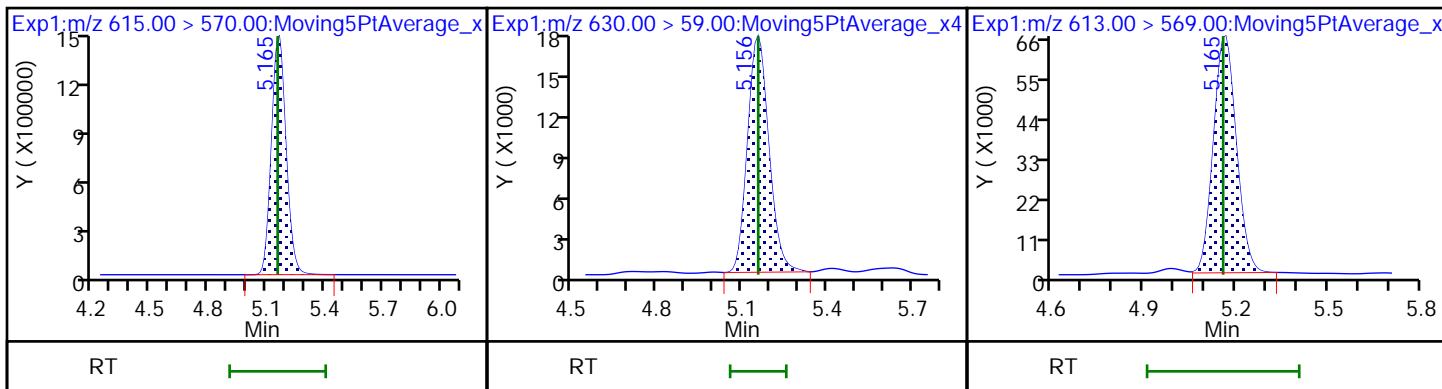
D 94 d9-N-EtFOSE-M



D 97 13C2 PFDaA

95 N-EtFOSE-M

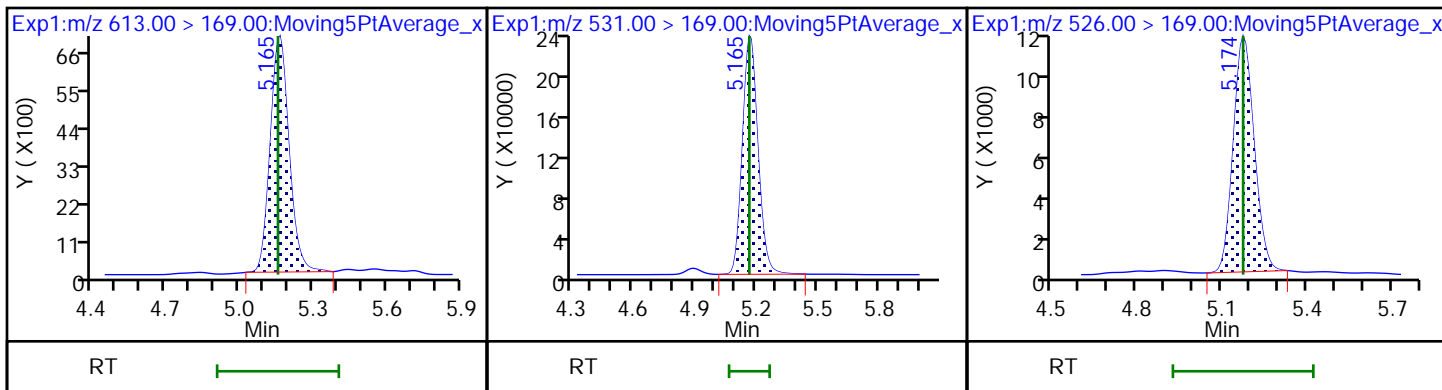
98 Perfluorododecanoic acid



98 Perfluorododecanoic acid

D 96 d-N-EtFOSA-M

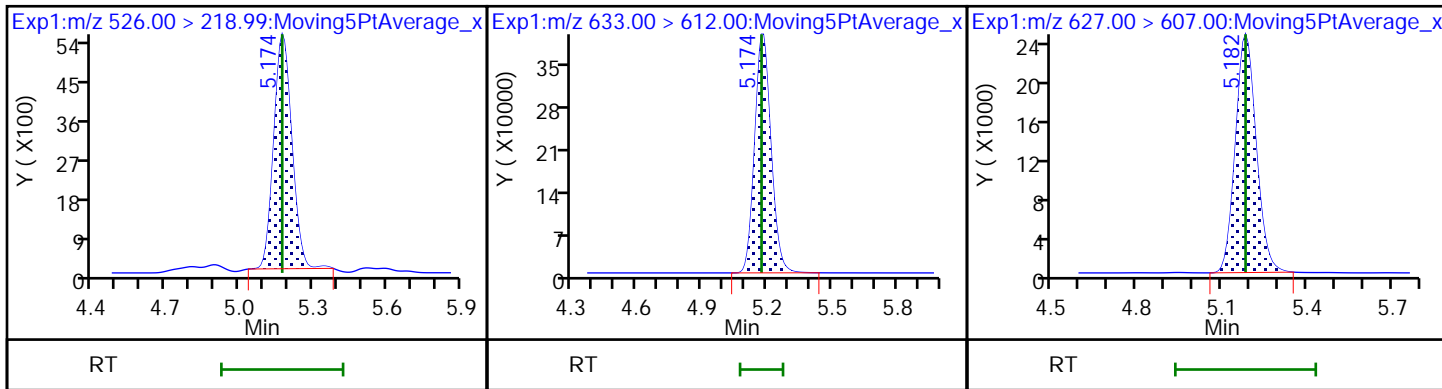
99 N-EtFOSA-M



99 N-EtFOSA-M

D 100 13C2 10:2 FTS

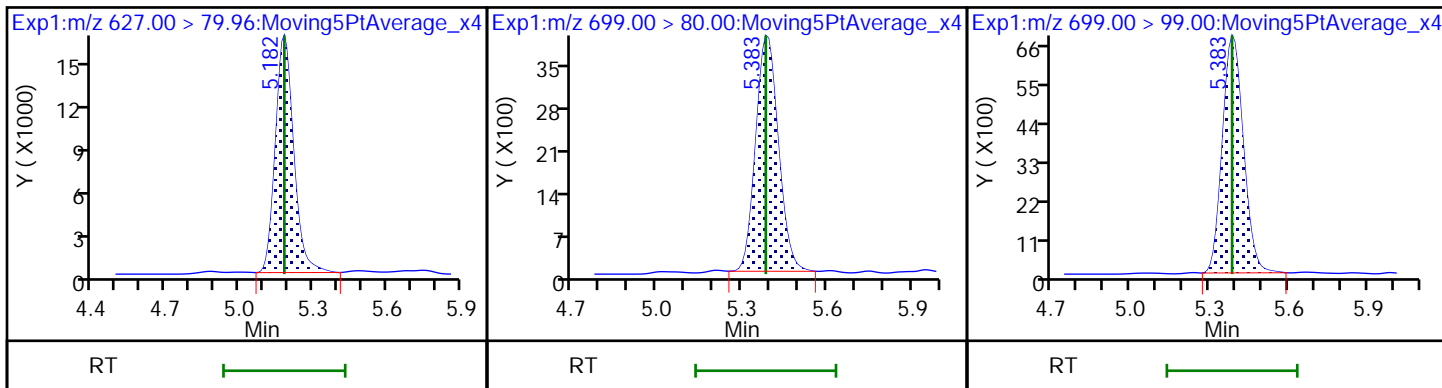
101 10:2 FTS



101 10:2 FTS

102 PFDoS

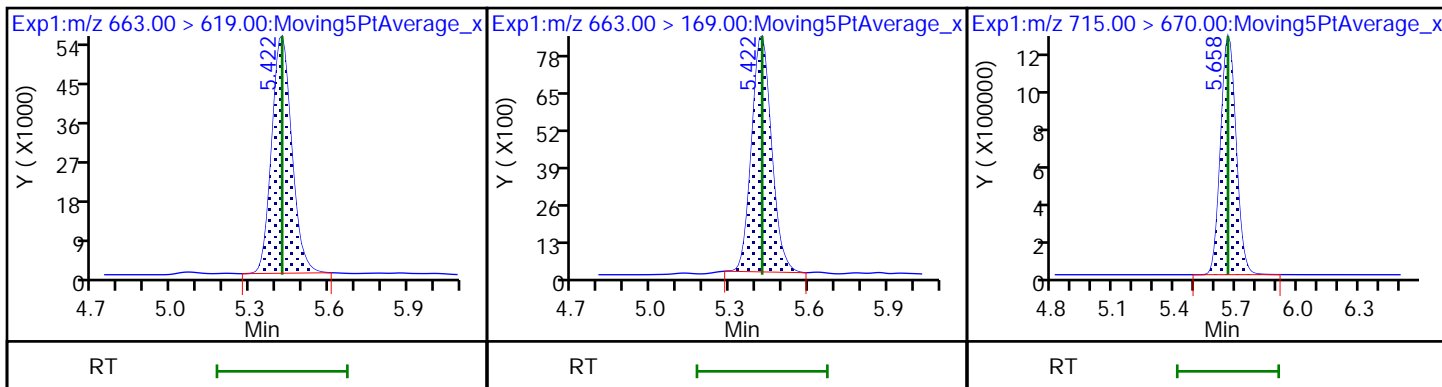
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

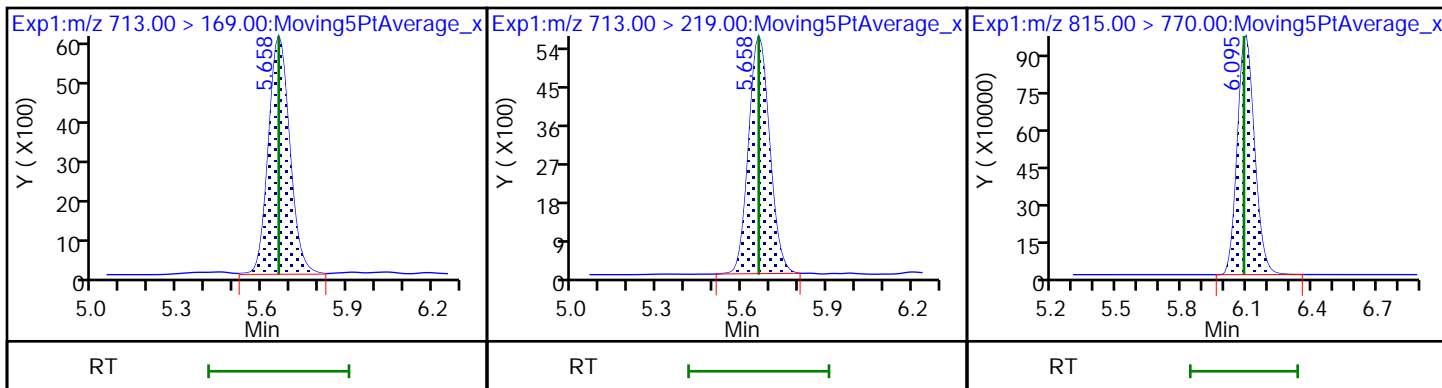
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

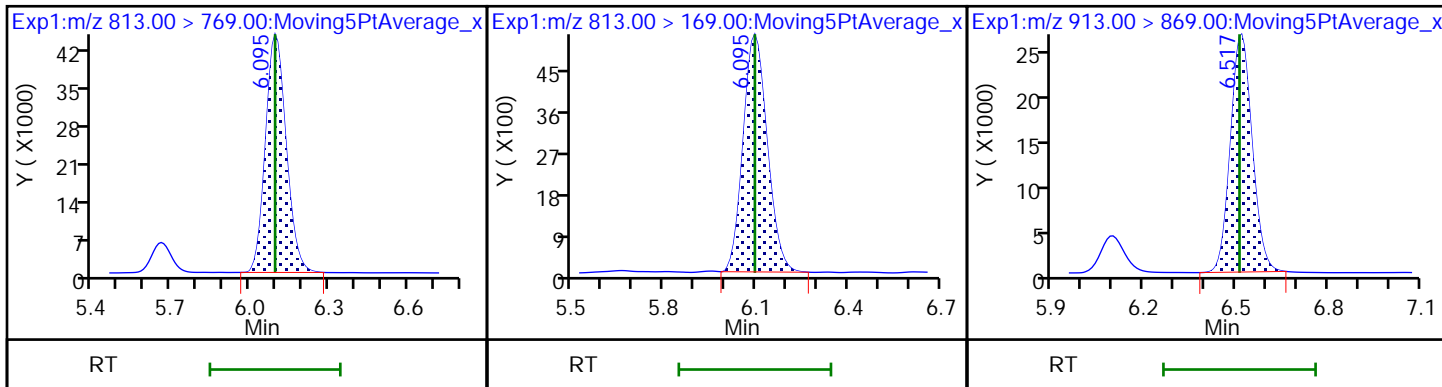
D 106 13C2 PFHxDA



107 Perfluorohexadecanoic acid

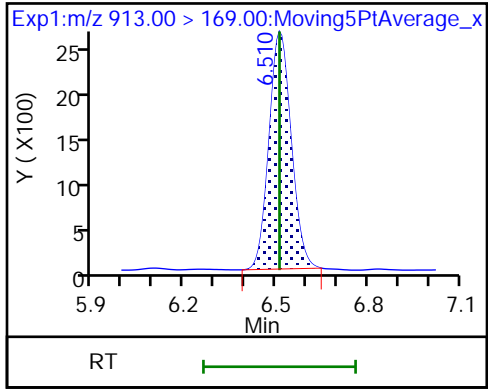
107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid





108 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/3 Calibration Date: 06/10/2021 04:38  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0298			1.00	-19.3	40.0
MMF	AveID	0.0724	0.0656			1.00	-9.4	40.0
MTP	AveID	0.0896	0.0997			1.00	11.3	40.0
PFPrA	AveID	0.6311	0.7246			0.970	14.8	40.0
PFMOAA	AveID	0.3080	0.3321			1.00	7.8	40.0
R-PSDA	AveID	0.1112	0.1010			1.00	-9.2	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4218			1.00	-3.9	40.0
R-EVE	AveID	0.3326	0.2841			1.00	-14.6	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	0.998		1.05	1.00	5.5	40.0
PMPA	AveID	0.2182	0.2311			1.00	5.9	40.0
PFPrS	AveID	1.161	1.160			0.916	-0.0	40.0
NVHOS	AveID	0.0186	0.0208			1.00	11.8	40.0
PFMPA	AveID	0.6521	0.6465			1.00	-0.9	40.0
PFO2HxA	AveID	0.0727	0.0891			1.00	22.6	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.035		0.988	1.00	-1.2	40.0
3:3 FTCA	AveID	0.0982	0.1078			1.00	9.8	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.171		0.915	0.884	3.5	50.0
PEPA	AveID	0.1649	0.1787			1.00	8.4	40.0
PFMBA	AveID	1.195	1.188			1.00	-0.5	40.0
PFEEESA	AveID	3.845	3.774			0.890	-1.9	40.0
NFDHA	AveID	0.1332	0.1239			1.00	-7.0	40.0
4:2 FTS	AveID	2.393	2.304		0.899	0.934	-3.7	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.079		0.963	1.00	-3.7	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.9853		0.928	0.938	-1.0	50.0
PFO3OA	AveID	0.0345	0.0291			1.00	-15.6	40.0
HFPO-DA (GenX)	AveID	1.018	1.064			1.00	4.5	40.0
R-PSDCA	AveID	0.0667	0.0940			1.00	40.9*	40.0
Hydro-EVE Acid	AveID	1.539	1.631			1.00	6.0	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.140		1.08	1.00	7.9	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	0.9784		0.805	0.910	-11.5	40.0
Hydro-PS Acid	AveID	1.580	1.716			1.00	8.6	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.594			0.942	-0.5	50.0
PFPE-1	AveID	0.1620	0.2137			1.00	32.0	40.0
5:3 FTCA	AveID	0.2969	0.2932			1.00	-1.3	40.0
6:2 FTUCA	AveID	17.67	15.27			1.00	-13.6	40.0
6:2 FTCA	AveID	0.0160	0.0197			1.00	22.9	40.0
PFO4DA	AveID	0.0394	0.0436			1.00	10.5	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/3 Calibration Date: 06/10/2021 04:38  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PS Acid	AveID	0.6583	0.6220			1.00	-5.5	40.0
EVE Acid	AveID	1.047	1.034			1.00	-1.3	40.0
PFECHS	AveID	1.196	1.338			0.922	11.9	40.0
6:2 FTS	AveID	2.060	1.945		0.895	0.948	-5.6	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.105		0.922	0.952	-3.1	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.086		1.04	1.00	3.9	40.0
PFO5DA	AveID	0.0155	0.0164			1.00	5.8	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.138		0.939	0.928	1.2	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.043		1.05	1.00	5.3	40.0
7:3 FTCA	AveID	7.703	6.248			1.00	-18.9	40.0
8:2 FTUCA	AveID	0.9749	1.058			1.00	8.5	40.0
8:2 FTCA	AveID	1.157	1.014			1.00	-12.4	40.0
9Cl-PF3ONS	AveID	2.256	2.272			0.932	0.7	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	0.9766		0.973	1.00	-2.7	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.9545		0.979	0.960	2.0	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8850		0.866	1.00	-13.4	40.0
8:2 FTS	AveID	1.563	1.644		1.01	0.958	5.2	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.7165		0.969	1.00	-3.1	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8461		0.995	0.964	3.2	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.7458		0.810	1.00	-19.0	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6763		0.944	1.00	-5.6	40.0
NMeFOSE	AveID	1.058	1.061			1.00	0.3	40.0
10:2 FTUCA	AveID	28.15	21.19			1.00	-24.7	40.0
NMeFOSA	AveID	1.014	1.023			1.00	0.9	50.0
10:2 FTCA	AveID	0.0284	0.0415			1.00	46.2*	40.0
11Cl-PF3OUdS	AveID	2.689	2.718			0.942	1.1	50.0
NEtFOSE	AveID	1.174	1.211			1.00	3.2	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.060		0.954	1.00	-4.6	40.0
NEtFOSA	AveID	1.036	1.053			1.00	1.6	40.0
10:2 FTS	AveID	1.519	1.460			0.964	-3.9	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2185			0.968	-6.1	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.996		1.07	1.00	7.4	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1113		0.906	1.00	-9.4	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9595		1.04	1.00	3.9	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/3 Calibration Date: 06/10/2021 04:38  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6343		1.04	1.00	4.5	50.0
13C4 PFBA	Ave	0.998	0.998		1.25	1.25	0.0	50.0
13C5 PFPeA	Ave	0.9416	0.9300		1.23	1.25	-1.2	50.0
13C3 PFBS	Ave	0.6563	0.6688		1.18	1.16	1.9	50.0
M2-4:2 FTS	Ave	0.1753	0.2005		1.34	1.17	14.4	50.0
13C2 PFHxA	Ave	0.9319	0.9557		1.28	1.25	2.6	50.0
13C3 HFPO-DA	Ave	0.1655	0.1595		1.20	1.25	-3.6	50.0
13C4 PFHpA	Ave	0.9175	0.8934		1.22	1.25	-2.6	50.0
18O2 PFHxS	Ave	0.4664	0.4945		1.25	1.18	6.0	50.0
13C-6:2 FTCA	Ave	0.7974	0.8542		1.34	1.25	7.1	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0596		1.52	1.25	21.9	50.0
M2-6:2 FTS	Ave	0.2119	0.2132		1.20	1.19	0.7	50.0
13C4 PFOA	Ave	1.043	1.039		1.25	1.25	-0.4	50.0
13C4 PFOS	Ave	0.3656	0.3678		1.20	1.20	0.6	50.0
13C5 PFNA	Ave	0.997	0.995		1.25	1.25	-0.2	50.0
13C-8:2 FTUCA	Ave	0.9872	1.044		1.32	1.25	5.7	50.0
13C-8:2 FTCA	Ave	0.0451	0.0560		1.55	1.25	24.3	50.0
13C8 FOSA	Ave	0.6160	0.6431		1.30	1.25	4.4	50.0
13C2 PFDA	Ave	0.997	1.026		1.29	1.25	3.0	50.0
M2-8:2 FTS	Ave	0.3308	0.3439		1.24	1.20	4.0	50.0
d3-NMeFOSAA	Ave	0.4207	0.4541		1.35	1.25	7.9	50.0
13C2 PFUnA	Ave	0.9607	1.049		1.37	1.25	9.2	50.0
d5-NEtFOSAA	Ave	0.4186	0.4808		1.44	1.25	14.9	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2683		1.33	1.25	6.7	50.0
13C-10:2 FTCA	Ave	1.160	1.331		1.43	1.25	14.8	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1932		1.31	1.25	4.6	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0553		2.04	1.25	63.0*	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3084		1.38	1.25	10.1	50.0
13C2 PFDoA	Ave	1.039	1.079		1.30	1.25	3.8	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1809		1.25	1.25	-0.3	50.0
13C2 10:2 FTS	Ave	0.2654	0.2960		1.35	1.21	11.6	50.0
13C2 PFTeDA	Ave	0.9575	1.013		1.32	1.25	5.8	50.0
13C2 PFHxDA	Ave	0.7323	0.8480		1.45	1.25	15.8	50.0
13C8 PFOA	Ave	1.167	1.208		1.29	1.25	3.5	50.0
13C8 PFOS	Ave	0.1093	0.1118		1.22	1.20	2.3	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d  
 Lims ID: CCV L4  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 10-Jun-2021 04:38:44 ALS Bottle#: 52 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L4 (02)  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:22:16 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfms\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:22:16

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.765	0.765	0.0	0.330	158939	0.8069	80.7	268	
2 MMF	139.00 > 51.00	0.772	0.772	0.0	0.333	349737	0.9061	90.6	242	
3 MTP	175.00 > 97.00	1.159	1.159	0.0	0.500	531495	1.11	111	275	
4 PPF Acid	162.95 > 119.00	1.571	1.571	0.0	0.678	3747599	1.11	115	1514	
5 PFMOAA	179.00 > 84.90	2.056	2.056	0.0	0.887	1770787	1.08	108	3465	
6 R-PSDA	441.00 > 241.00	2.201	2.201	0.0	0.949	538561	0.9083	90.8	18435	
7 R-EVE	405.00 > 217.00	2.209	2.209	0.0	0.953	1514906	0.8541	85.4	38286	
8 Hydrolyzed PSDA	439.10 > 342.90	2.209	2.209	0.0	0.953	2249169	0.9612	96.1	56359	
10 Perfluorobutanoic acid	212.90 > 169.00	2.319	2.319	0.0	1.000	5320366	1.05	105	7171	
D 9 13C4 PFBA	217.00 > 172.00	2.319	2.319	0.0	0.605	6665246	1.25	100	82976	
11 PMPA	229.00 > 185.00	2.383	2.383	0.0	1.027	1232212	1.06	106	2763	
12 PFPrS	249.10 > 80.00	2.392	2.392	0.0	0.892	3795898	0.9152	99.9	15097	
13 NVHOS	297.00 > 135.00	2.400	2.400	0.0	1.035	110718	1.12	112	4200	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.444	2.444	0.0	0.919	3212112	0.99		99.1	60937	
16 PFO2HxA										
245.00 > 85.00	2.575	2.575	0.0	0.968	442886	1.23		123	5644	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.650	2.650	0.0	0.996	5144516	0.9881		98.8	7689	
D 17 13C5 PFPeA										
267.90 > 223.00	2.661	2.661	0.0	0.694	6210578	1.23		98.8	56375	
19 3:3 FTCA										
241.00 > 177.10	2.661	2.661	0.0	0.992	385356	1.10	Target=1.28	110	6942	
241.00 > 116.90	2.661	2.661	0.0	0.992	288876		1.33(0.64-1.92)		1620	
D 21 13C3 PFBS										
301.90 > 80.00	2.682	2.682	0.0	0.700	4153897	1.18		102	20585	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.693	2.693	0.0	1.004	3698371	0.9153	Target=2.36	104	18292	
298.90 > 99.00	2.682	2.693	-0.011	1.000	1537735		2.41(1.18-3.53)		10484	
22 PEPA										
278.90 > 234.90	2.751	2.751	0.0	1.034	888011	1.08		108	1220	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.038	5904662	0.99		99.5	70964	
24 PES										
314.80 > 135.00	2.831	2.831	0.0	1.055	12001256	0.8734		98.1	61872	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.980	632558	0.9299		93.0	11719	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	2305182	0.8993	Target=2.17	96.3	53194	
327.00 > 79.96	2.984	2.984	0.0	1.000	1099040		2.10(1.09-3.26)		10708	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.778	1250381	1.34		114	12876	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	5506817	0.9628	Target=13.89	96.3	11577	
313.00 > 119.00	3.019	3.019	0.0	1.000	397705		13.85(6.95-20.84)		1818	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	6382300	1.28		103	72156	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.037	3.037	0.0	1.132	3302278	0.9282	Target=3.10	99.0	24560	
349.00 > 99.00	3.037	3.037	0.0	1.132	1082310		3.05(1.55-4.65)		19329	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.023	148602	0.8438		84.4	2391	
33 HFPO-DA										
285.00 > 169.00	3.156	3.156	0.0	1.000	907162	1.05	Target=1.03	105	26440	
285.00 > 185.00	3.156	3.156	0.0	1.000	992200		0.91(0.52-1.55)		11621	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.156	3.156	0.0	0.823	1065429	1.20		96.4	26573	
34 R-PSDCA										
397.00 > 217.00	3.379	3.379	0.0	0.984	448697	1.41		141	10706	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.404	3.404	0.0	0.992	7784884	1.06		106	29252	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	5443378	1.08	Target=3.81	108	14908	
363.00 > 169.00	3.433	3.433	0.0	1.000	1367360		3.98(1.91-5.72)		11460	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	2352326	0.8051	Target=3.50	88.5	19674	
399.00 > 99.00	3.433	3.433	0.0	1.000	706440		3.33(1.75-5.25)		8163	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.896	3124275	1.25		106	47728	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.896	5966023	1.22		97.4	54409	
40 Hydro-PS Acid										
463.00 > 263.00	3.443	3.443	0.0	1.003	8190117	1.09		109	5697	
41 DONA										
377.00 > 251.00	3.481	3.481	0.0	0.829	10353927	0.9371	Target=2.07	99.5	172305	
377.00 > 85.00	3.481	3.481	0.0	0.829	5129099		2.02(1.03-3.10)		69979	
44 PFECA G										
378.90 > 184.90	3.500	3.500	0.0	0.990	975439	1.32		132	20015	
43 5:3 FTCA										
340.88 > 236.90	3.509	3.509	0.0	0.992	1338034	0.9874	Target=1.08	98.7	11321	
340.88 > 216.90	3.509	3.509	0.0	0.992	1273391		1.05(0.54-1.62)		14695	
46 6:2 FTUCA										
356.86 > 292.90	3.536	3.536	0.0	0.993	4863980	0.8637	Target=14.03	86.4	61702	
356.86 > 243.00	3.536	3.536	0.0	0.993	361746		13.45(7.02-21.05)		13701	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.536	3.536	0.0	0.922	5704596	1.34		107	270207	
48 6:2 FTCA										
377.10 > 313.10	3.562	3.562	0.0	1.007	89984	1.23	Target=0.54	123	2879	
377.10 > 63.00	3.562	3.562	0.0	1.007	119565		0.75(0.27-0.81)		5742	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.562	3.562	0.0	0.929	398274	1.52		122	5954	
42 PFO4DA										
376.90 > 85.00	3.625	3.625	0.0	1.056	208020	1.10		110	5.9	
49 PS Acid										
442.80 > 146.80	3.685	3.685	0.0	0.961	3453721	0.9448		94.5	56032	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	5739767	0.9873		98.7	134092	
51 PFECHS										
460.80 > 380.90	3.771	3.771	0.0	0.984	6847645	1.03	Target=1.90	112	47285	
460.80 > 98.90	3.771	3.771	0.0	0.984	3473894		1.97(0.95-2.85)		46148	
53 6:2 FTS										
427.00 > 407.00	3.814	3.814	0.0	1.000	2100509	0.8951	Target=2.11	94.4	8363	
427.00 > 79.96	3.814	3.814	0.0	1.000	984718		2.13(1.06-3.17)		4112	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.814	3.814	0.0	0.995	1352800	1.20		101	20981	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	6030163	1.04	Target=2.87	104	9872	
413.00 > 169.00	3.834	3.834	0.0	1.000	2081664		2.90(1.43-4.30)		95597	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6678235	1.25			58752	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6940879	1.25		99.6	60943	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.834	3.834	0.0	1.000	8067317	1.29		104	70803	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.834	3.834	0.0	0.912	2067443	0.9221	Target=4.82	96.9	12293	
449.00 > 99.00	3.824	3.834	-0.010	0.910	426163		4.85(2.41-7.24)		6575	
59 TAF										
442.90 > 85.00	4.116	4.116	0.0	1.074	90904	1.06		106	445	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.201	4.201	0.0	1.096	713697	1.22		102	10682	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.000	2075780	0.9390	Target=5.95	101	19236	
499.00 > 99.00	4.201	4.201	0.0	1.000	359858		5.77(2.97-8.92)		16193	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2348092	1.20		101	21474	
D 63 13C5 PFNA										
468.00 > 423.00	4.217	4.217	0.0	1.100	6645211	1.25		99.8	86738	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.000	5542513	1.05	Target=7.58	105	13196	
463.00 > 169.00	4.217	4.217	0.0	1.000	672735		8.24(3.79-11.37)		8122	
65 7:3 FTCA										
441.00 > 337.00	4.315	4.315	0.0	0.993	1870607	0.8111	Target=1.21	81.1	14571	
441.00 > 317.00	4.315	4.315	0.0	0.993	1670889		1.12(0.60-1.81)		15212	
67 8:2 FTUCA										
456.86 > 392.90	4.331	4.331	0.0	1.000	5900289	1.09	Target=35.28	109	102990	
456.86 > 343.00	4.331	4.331	0.0	1.000	152464		38.70(17.64-52.92)		8053	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.331	4.331	0.0	1.130	6971381	1.32		106	145811	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.347	4.347	0.0	1.134	374252	1.55		124	13231	
69 8:2 FTCA										
477.00 > 393.10	4.354	4.354	0.0	1.002	303624	0.8764	Target=3.24	87.6	7847	
477.00 > 63.20	4.354	4.354	0.0	1.002	109446		2.77(1.62-4.86)		5788	
70 9CIFOS										
531.00 > 351.00	4.403	4.403	0.0	1.048	4160648	0.9387		101	68715	
D 71 13C8 FOSA										
506.00 > 78.00	4.523	4.523	0.0	1.180	4294750	1.30		104	43227	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.002	3355417	0.9728		97.3	33998	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.541	4.541	0.0	1.081	1800572	0.9789	Target=3.28	102	19508	
549.00 > 99.00	4.541	4.541	0.0	1.081	550202		3.27(1.64-4.92)		9695	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	4851069	0.8657	Target=9.70	86.6	21898	
513.00 > 169.00	4.559	4.559	0.0	1.000	591112		8.21(4.85-14.54)		2580	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6851773	1.29		103	65669	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.569	0.0	1.192	2200240	1.24		104	24062	
77 8:2 FTS										
527.00 > 507.00	4.569	4.569	0.0	1.000	2894149	1.01	Target=2.33	105	49656	
527.00 > 79.96	4.569	4.569	0.0	1.000	1197151		2.42(1.17-3.50)		10624	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	3032679	1.35		108	25820	
79 NMeFOSAA										
570.00 > 419.00	4.729	4.729	0.0	1.002	1738420	0.9687	Target=0.83	96.9	12232	
570.00 > 483.00	4.729	4.729	0.0	1.002	2097574		0.83(0.42-1.25)		36035	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.843	4.843	0.0	1.153	1602677	1.00	Target=3.22	103	17507	
599.00 > 99.00	4.843	4.843	0.0	1.153	499356		3.21(1.61-4.83)		11740	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.872	4.872	0.0	1.000	4181685	0.8098	Target=9.27	81.0	23587	
563.00 > 169.00	4.872	4.872	0.0	1.000	549712		7.61(4.63-13.90)		10320	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	7008467	1.37		109	120423	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	3211113	1.44		115	28211	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.891	0.0	1.002	1737371	0.9439	Target=0.77	94.4	45977	
584.00 > 526.10	4.891	4.891	0.0	1.002	2264159		0.77(0.39-1.16)		20662	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.967	4.967	0.0	1.296	1791993	1.33		107	8017	
86 N-MeFOSE-M										
616.00 > 59.00	4.986	4.986	0.0	1.004	1520700	1.00		100	12064	
89 10:2 FTUCA										
556.86 > 492.90	4.995	4.995	0.0	0.998	6260469	0.7529		75.3	82169	
90 NMeFOSA										
512.00 > 169.00	4.995	4.995	0.0	1.000	1055756	1.01	Target=1.61	101	3021	
512.00 > 218.99	4.995	4.995	0.0	1.000	677041		1.56(0.80-2.41)		4281	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.995	4.995	0.0	1.303	1290080	1.31		105	405	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.995	4.995	0.0	1.303	8888300	1.43		115	321359	
93 11CIFOS										
631.00 > 451.00	5.005	5.005	0.0	1.191	5031495	0.9523		101	76920	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.005	5.005	0.0	1.002	295286	1.46	Target=2.56	146	9406	
576.80 > 63.10	5.015	5.005	0.010	1.004	123629		2.39(1.28-3.83)		4376	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.005	5.005	0.0	1.306	369232	2.04		163	8735	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.137	5.137	0.0	1.340	2059695	1.38		110	8692	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.156	5.156	0.0	1.000	6110337	0.9538	Target=7.93	95.4	23665	
613.00 > 169.00	5.156	5.156	0.0	1.000	785394		7.78(3.97-11.90)		16705	
D 97 13C2 PFDaA										
615.00 > 570.00	5.156	5.156	0.0	1.345	7208047	1.30		104	81408	
95 N-EtFOSE-M										
630.00 > 59.00	5.156	5.156	0.0	1.004	1995190	1.03		103	16359	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.165	5.165	0.0	1.347	1207938	1.25		99.7	2363	
99 N-EtFOSA-M										
526.00 > 169.00	5.174	5.174	0.0	1.002	1017782	1.02	Target=1.61	102	2461	
526.00 > 218.99	5.174	5.174	0.0	1.002	638887		1.59(0.80-2.41)		2477	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.174	5.174	0.0	1.350	1907735	1.35		112	52722	
101 10:2 FTS										
627.00 > 607.00	5.183	5.183	0.0	1.002	2226540	0.9267	Target=1.46	96.1	54136	
627.00 > 79.96	5.183	5.183	0.0	1.002	1504815		1.48(0.73-2.19)		16287	
102 PFDoS										
699.00 > 80.00	5.383	5.383	0.0	1.281	415526	0.9094	Target=0.54	93.9	8575	
699.00 > 99.00	5.383	5.383	0.0	1.281	755682		0.55(0.27-0.81)		19889	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.422	5.422	0.0	1.052	5744359	1.07	Target=5.84	107	27537	
663.00 > 169.00	5.413	5.422	-0.010	1.050	926093		6.20(2.92-8.75)		17407	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.658	0.0	1.476	6761992	1.32		106	68476	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.658	0.0	1.000	602339	0.9058	Target=1.07	90.6	16335	
713.00 > 219.00	5.658	5.658	0.0	1.000	586970		1.03(0.53-1.60)		18722	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.085	6.085	0.0	1.587	5663208	1.45		116	33057	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.095	6.095	0.0	1.002	4347273	1.04	Target=7.49	104	8277	
813.00 > 169.00	6.095	6.095	0.0	1.002	547868		7.93(3.75-11.24)		11138	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.510	6.510	0.0	1.070	2873677	1.04	Target=9.70	104	5473	
913.00 > 169.00	6.510	6.510	0.0	1.070	299084		9.61(4.85-14.55)		6675	

### QC Flag Legend

Processing Flags

Reagents:

LCPFC+\_LL4\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Injection Date: 10-Jun-2021 04:38:44

Instrument ID: A15

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 52

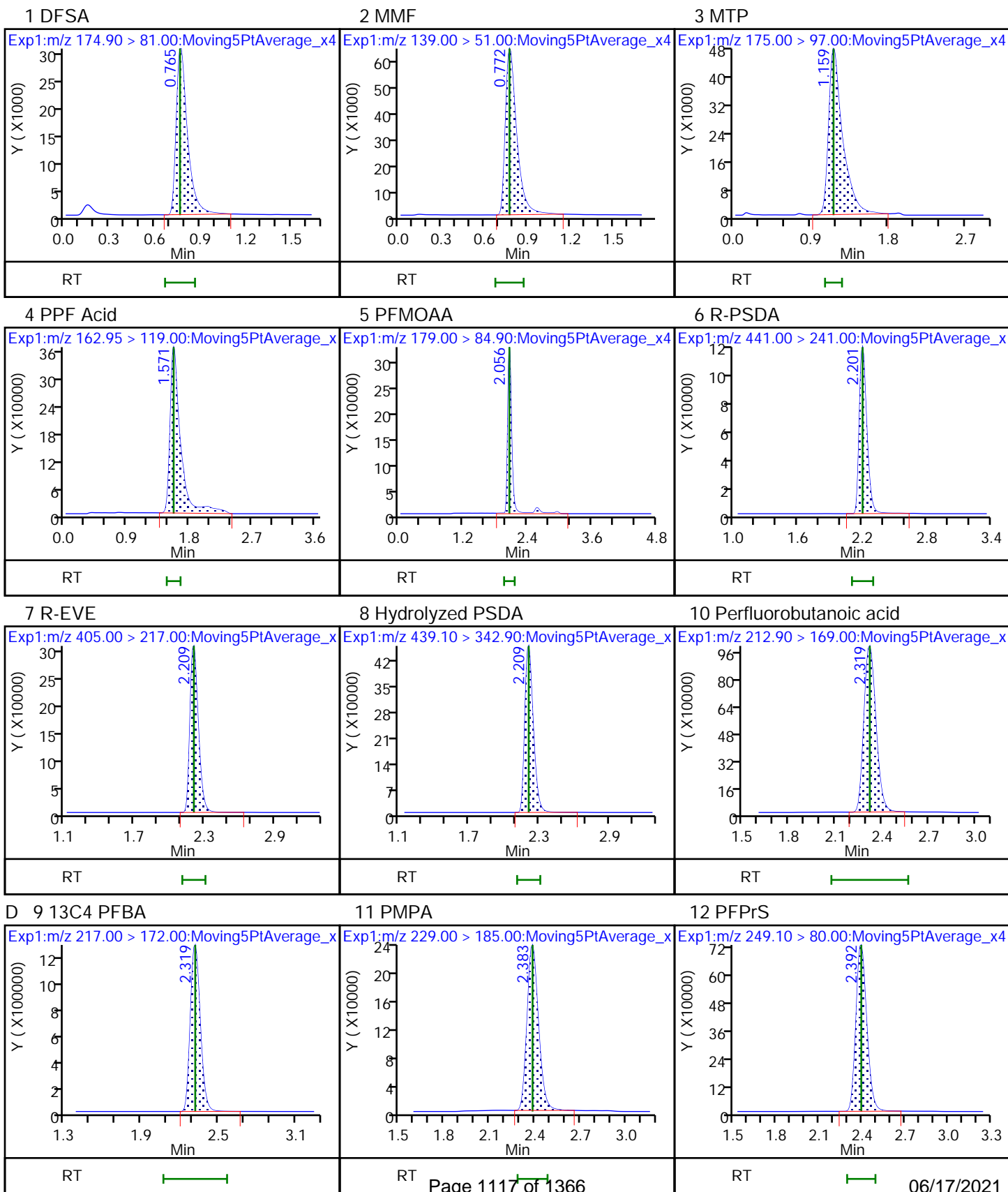
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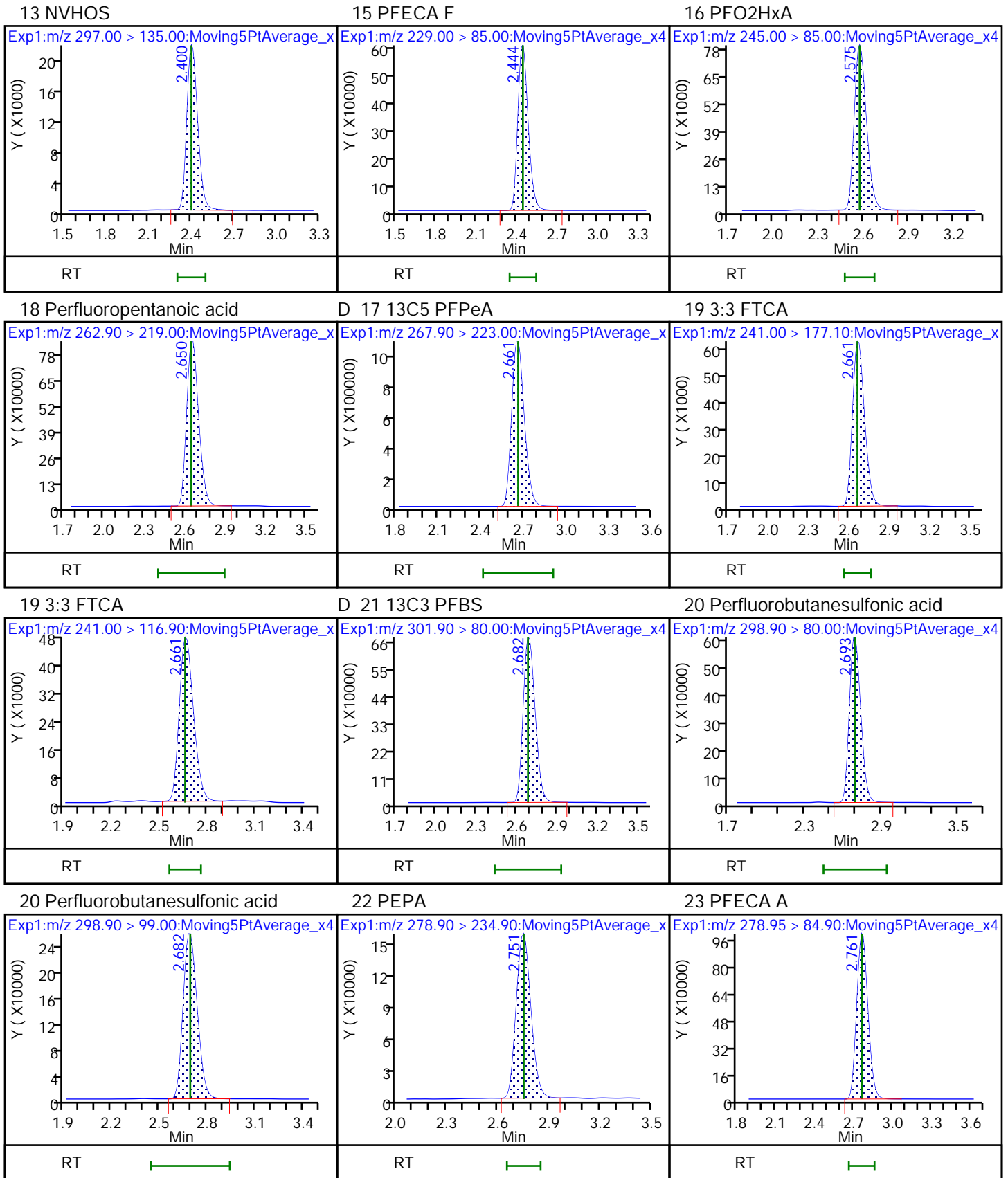
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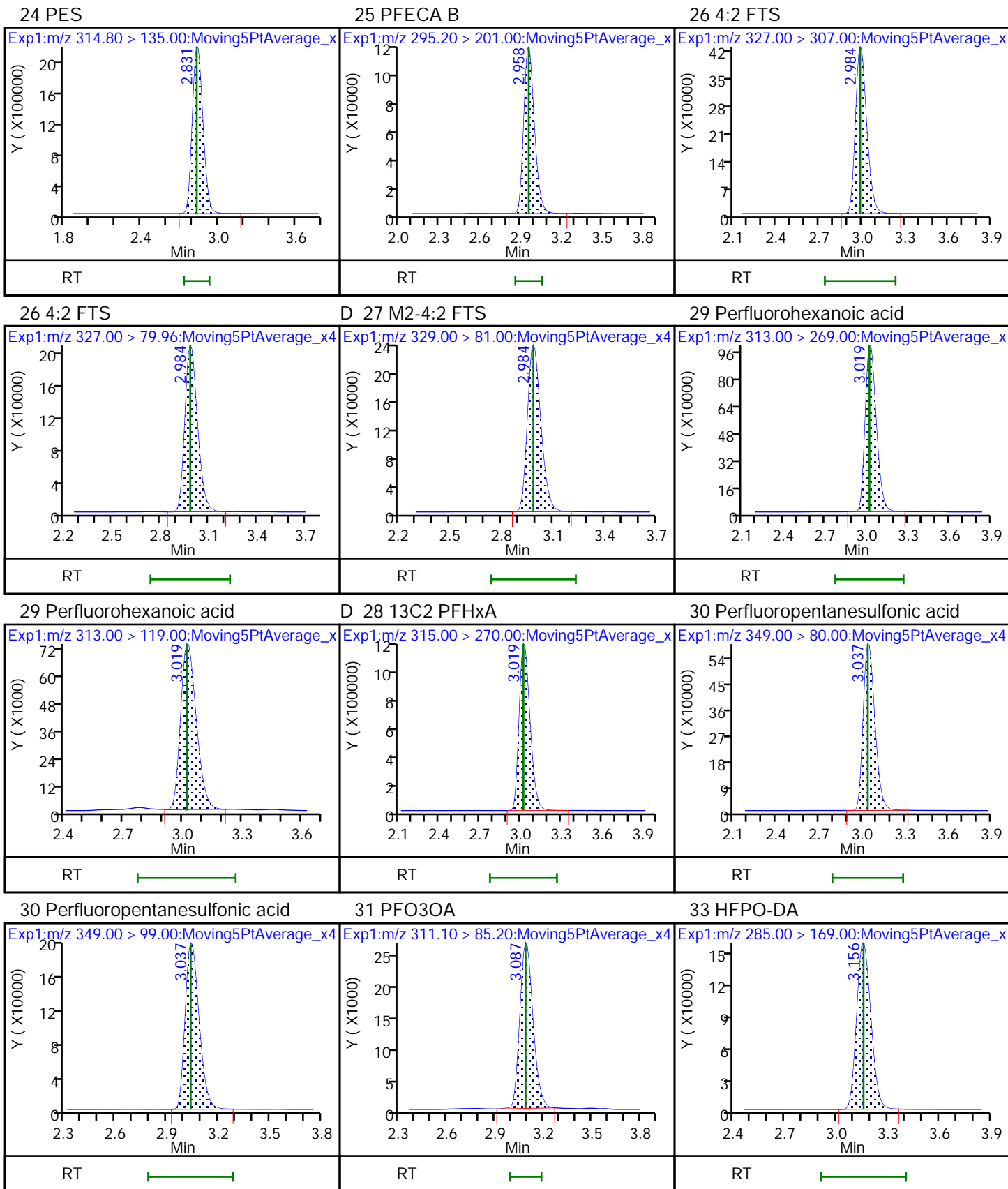
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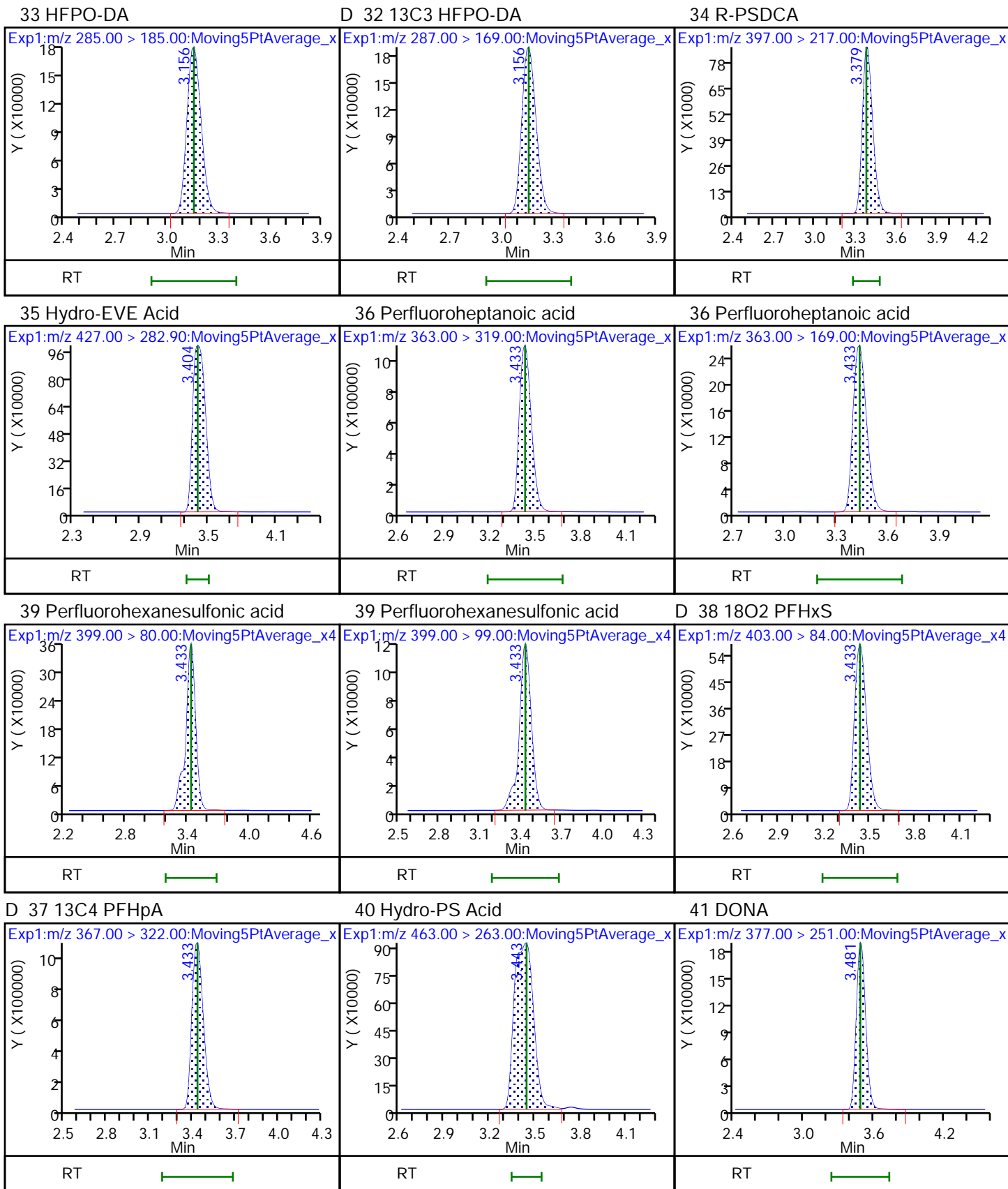
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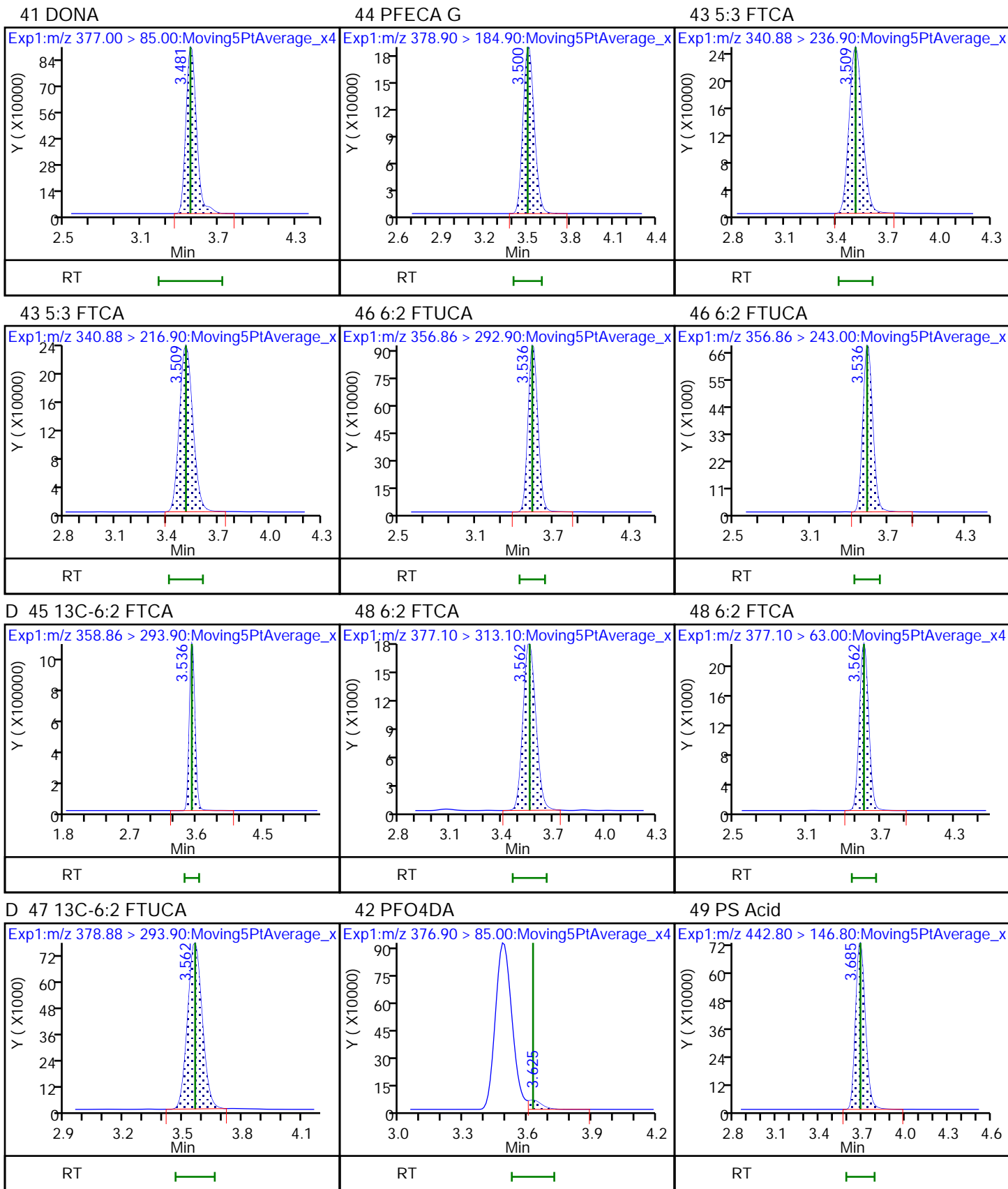
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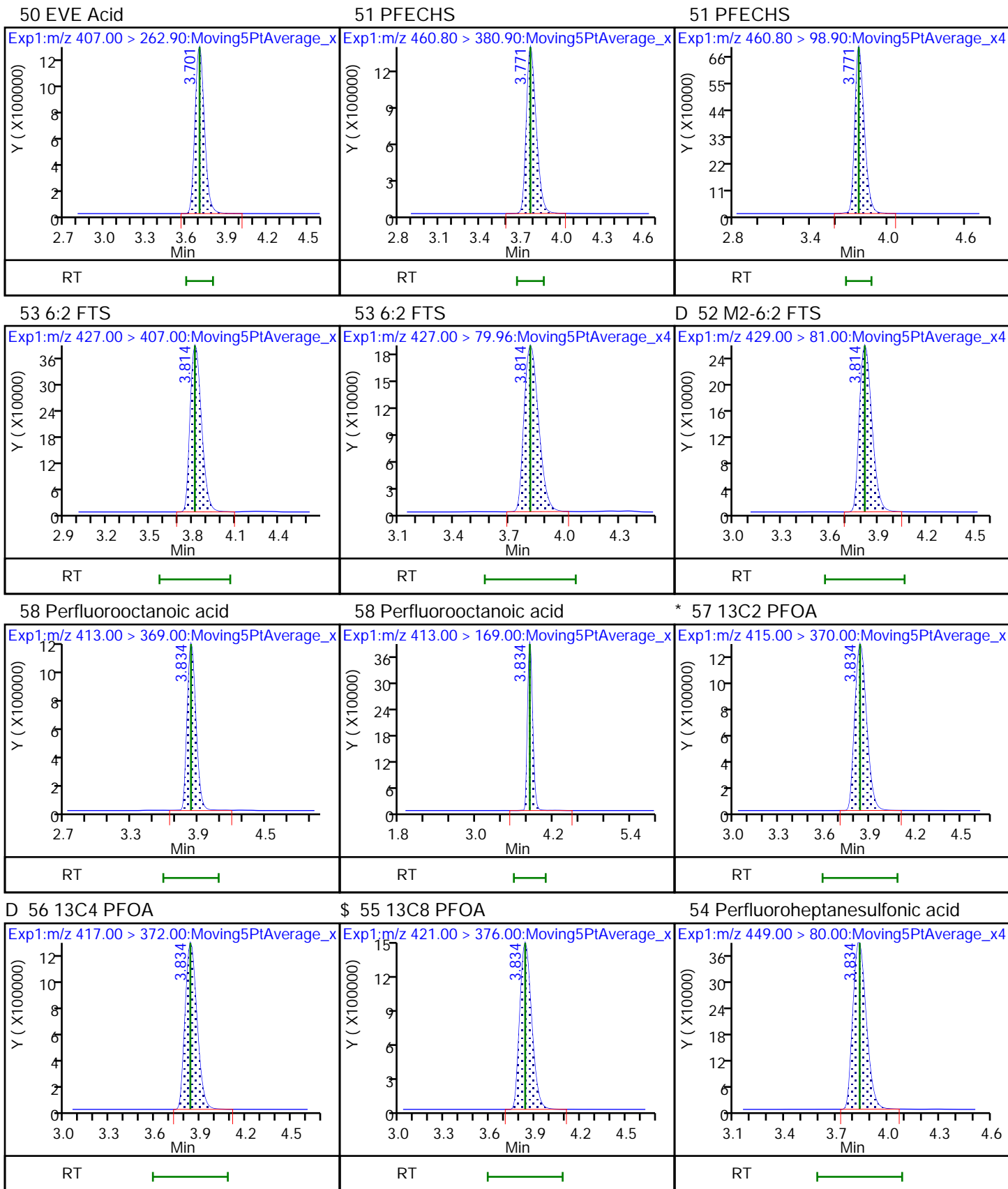


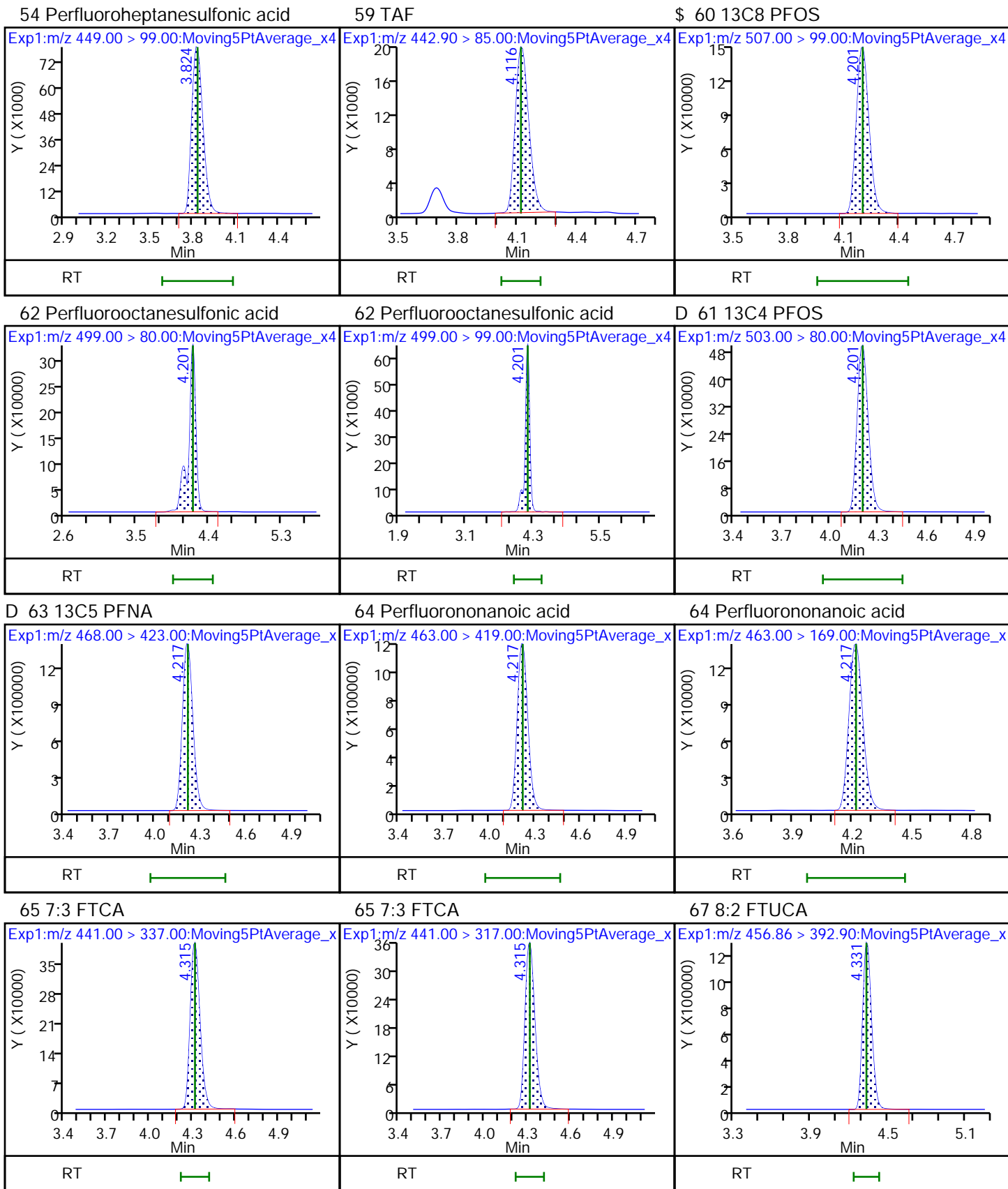


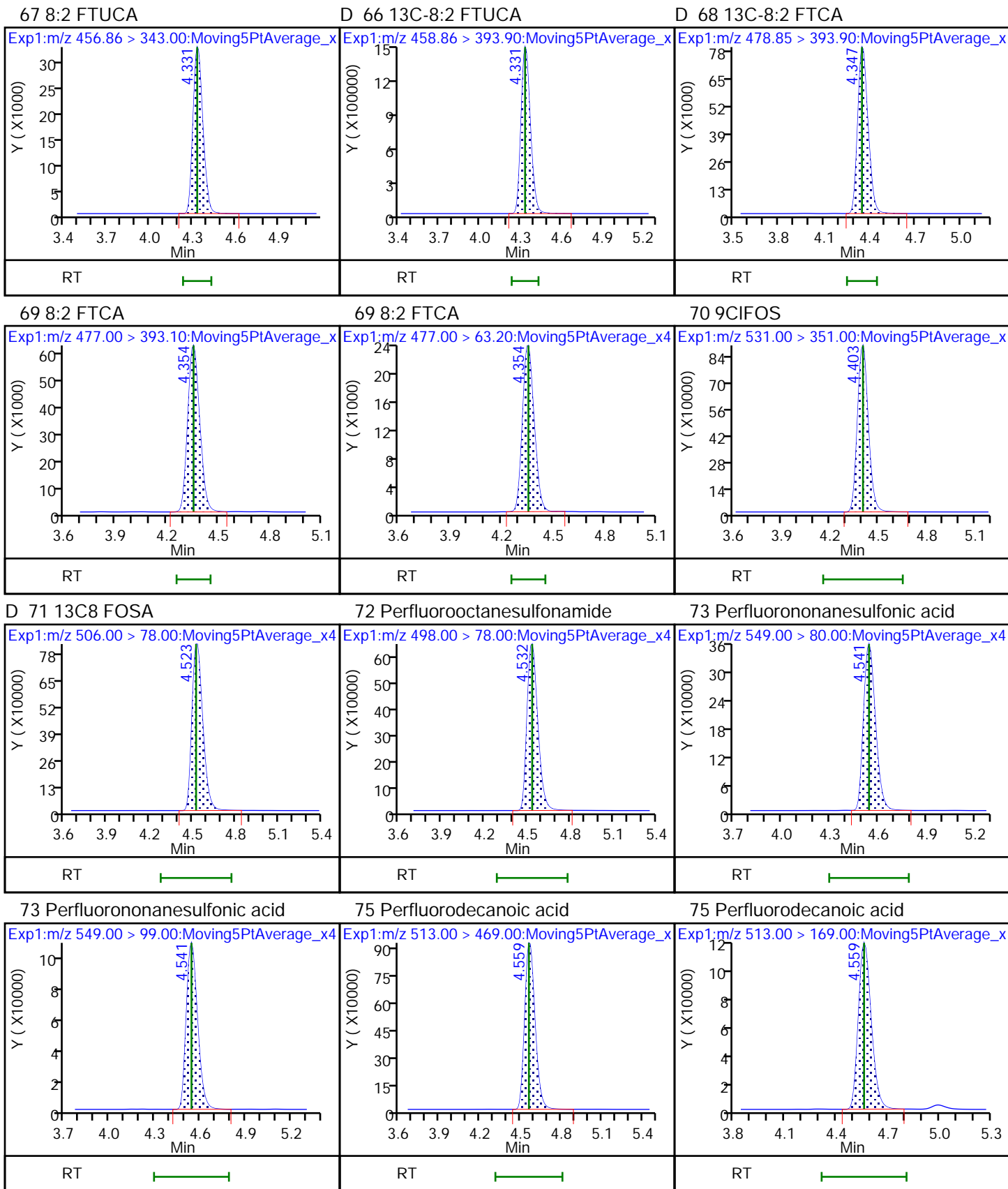








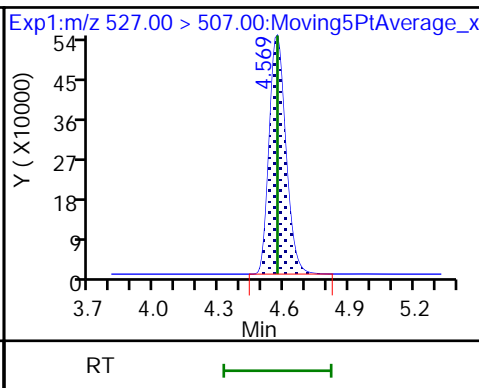
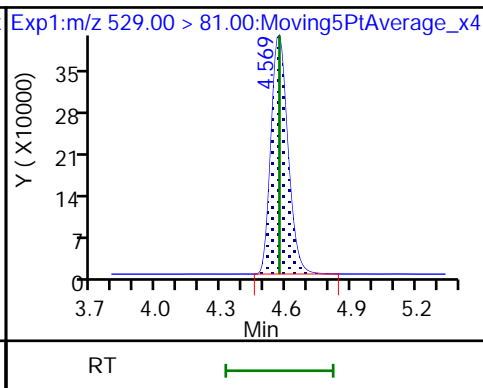
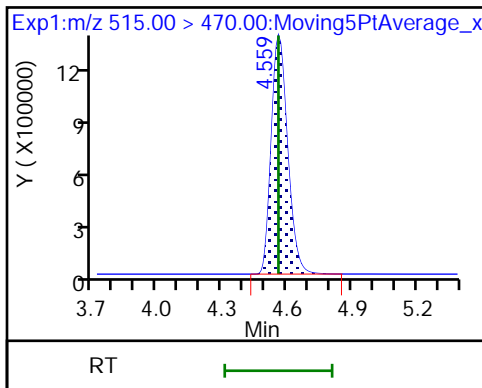




D 74 13C2 PFDA

D 76 M2-8:2 FTS

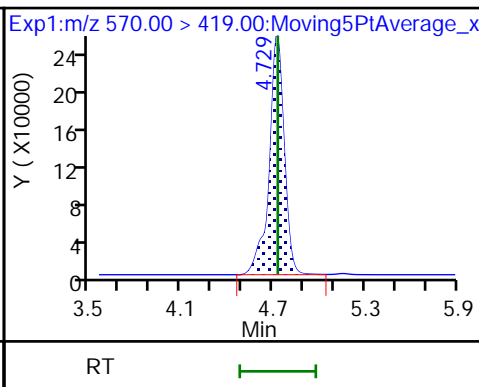
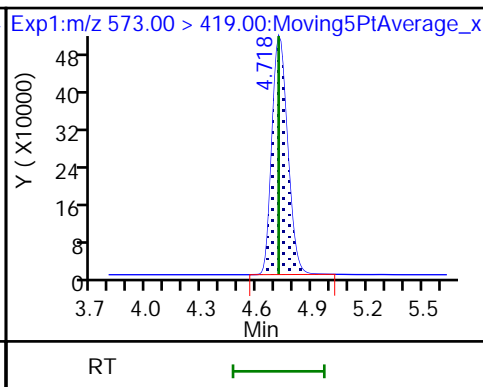
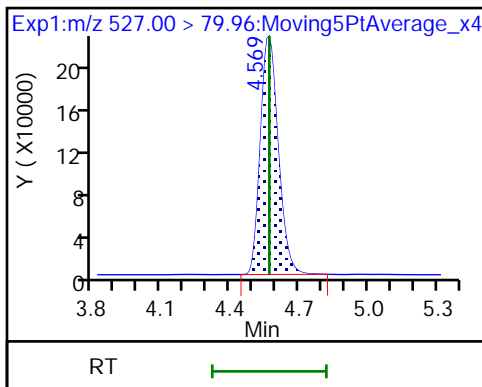
77 8:2 FTS



77 8:2 FTS

D 78 d3-NMeFOSAA

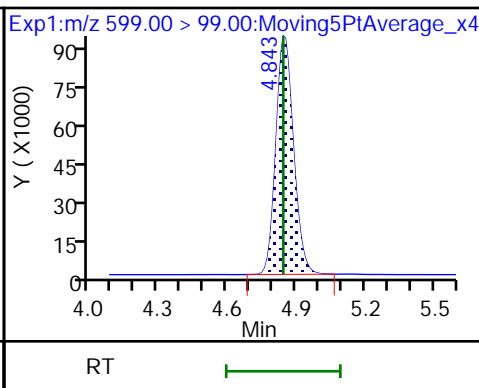
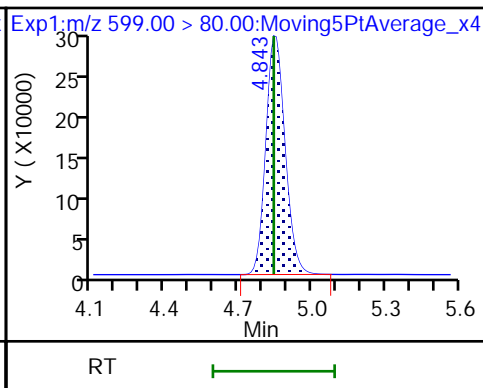
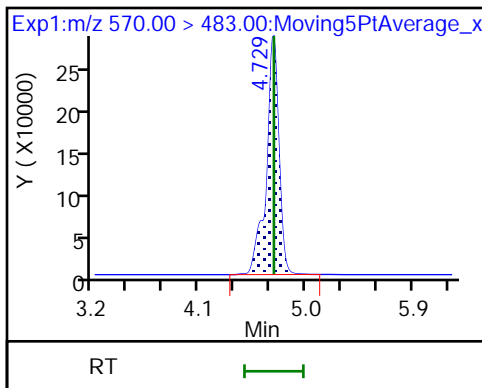
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

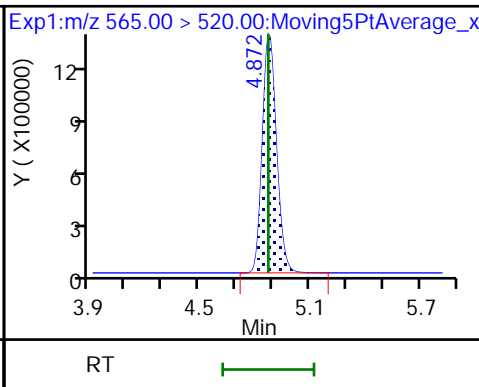
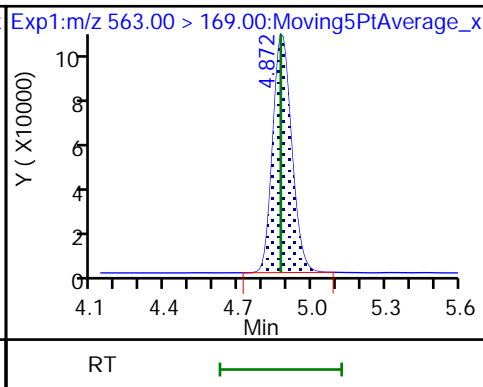
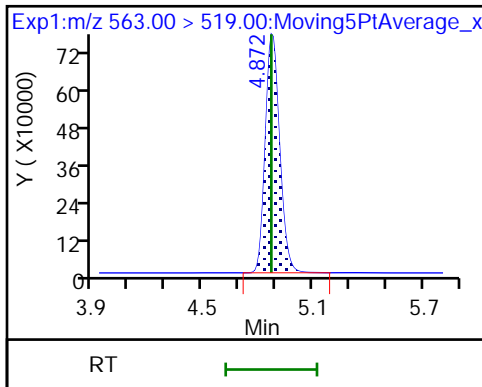
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

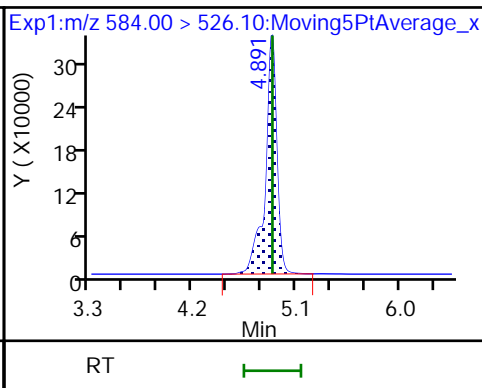
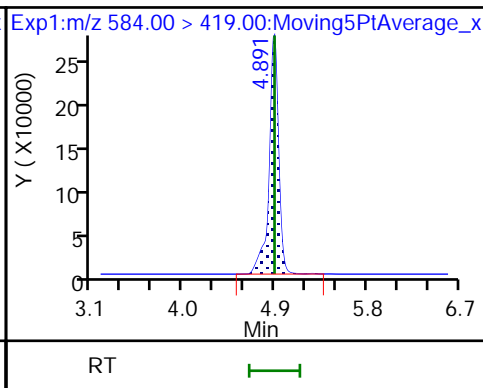
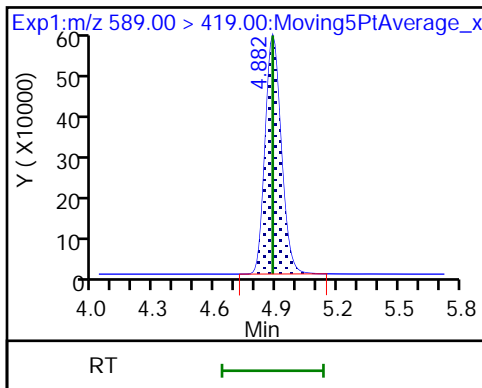
D 82 13C2 PFUnA



D 83 d5-NEtFOSAA

84 NEtFOSAA

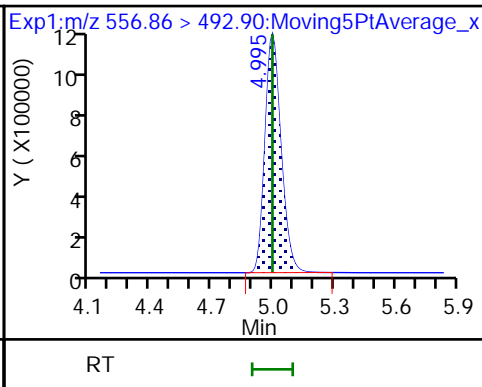
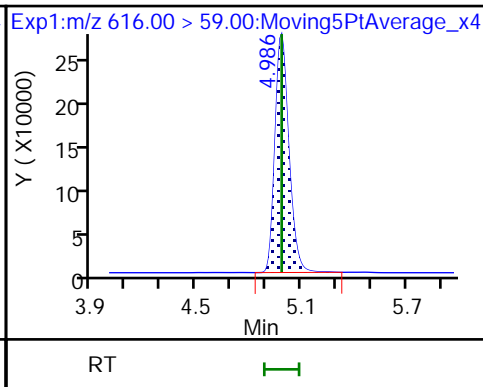
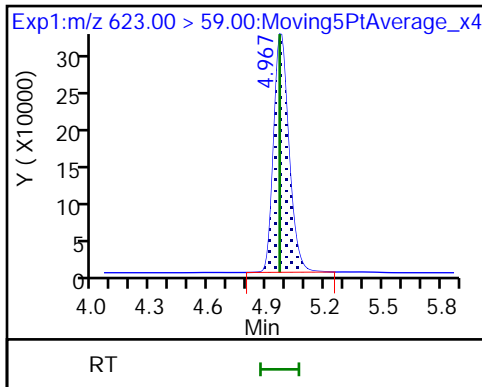
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

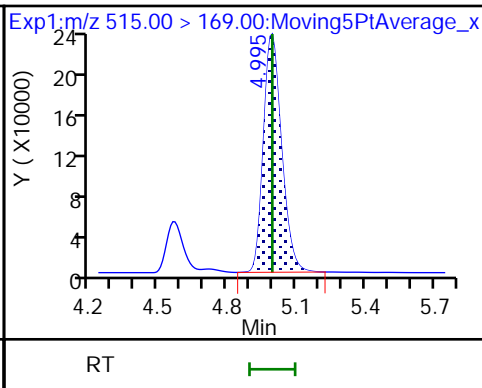
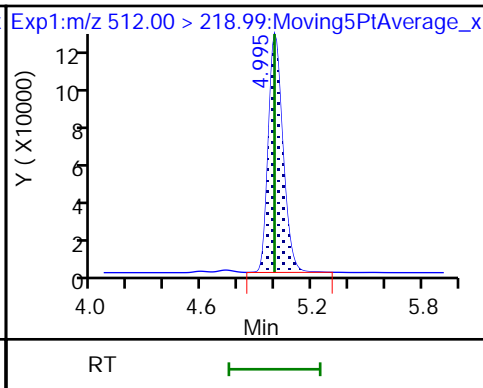
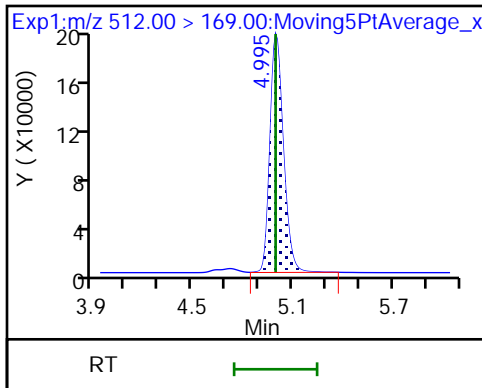
89 10:2 FTUCA



90 NMeFOSA

90 NMeFOSA

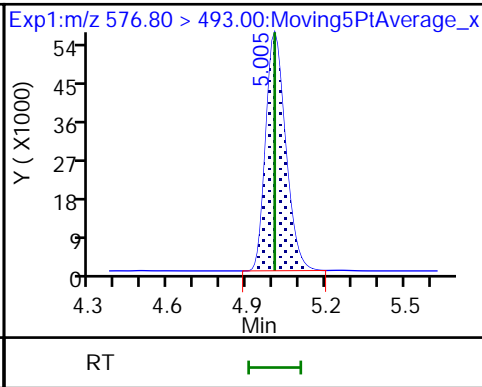
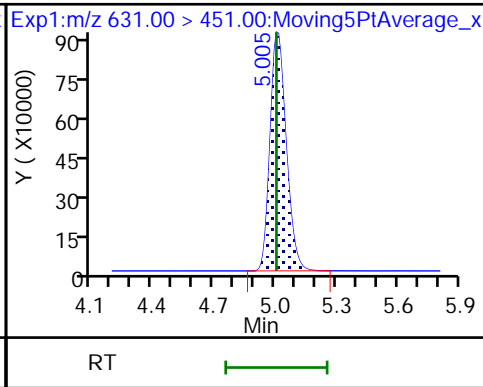
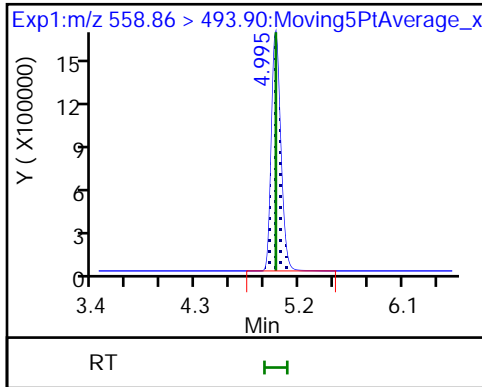
D 87 d-N-MeFOSA-M

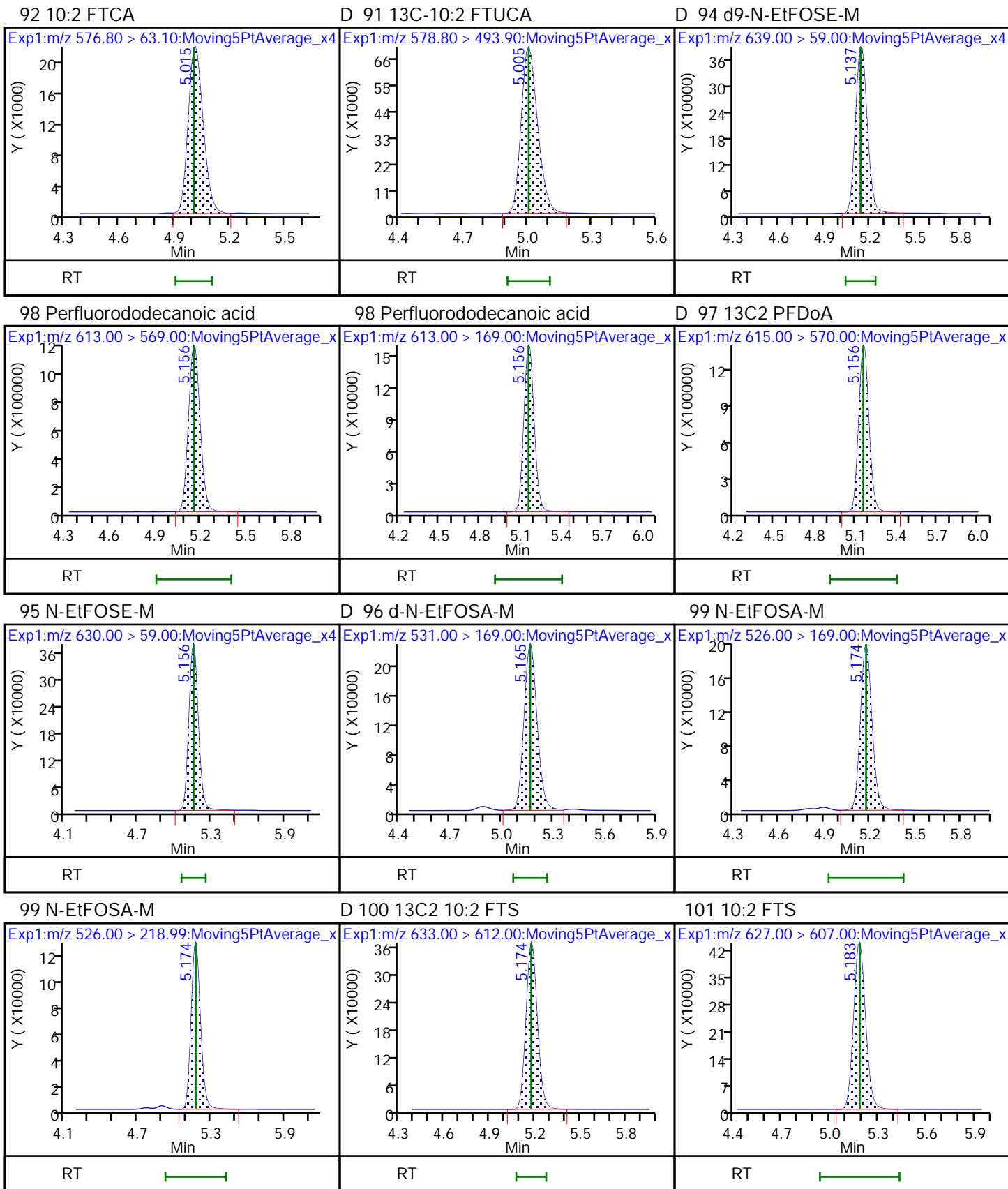


D 88 13C-10:2 FTCA

93 11CIFOS

92 10:2 FTCA

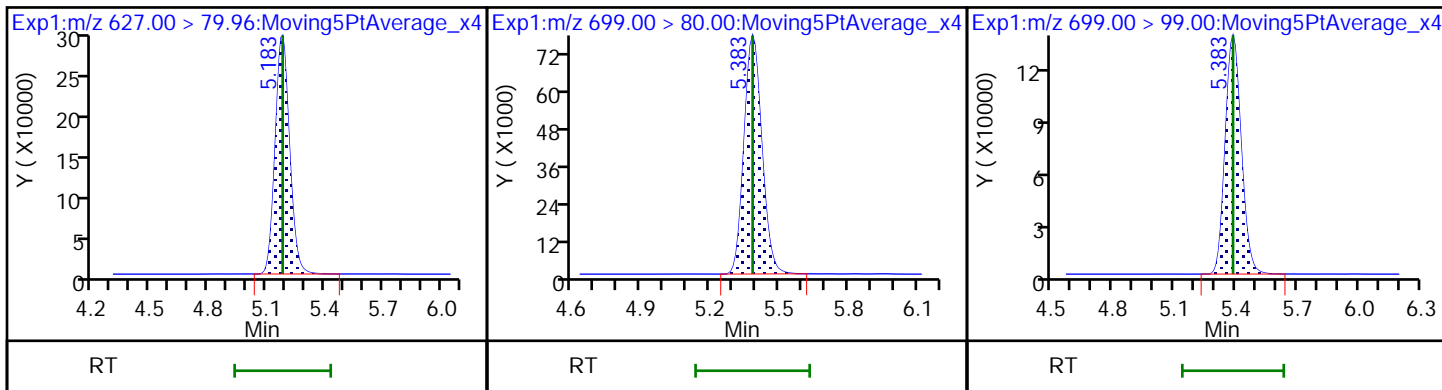




101 10:2 FTS

102 PFDoS

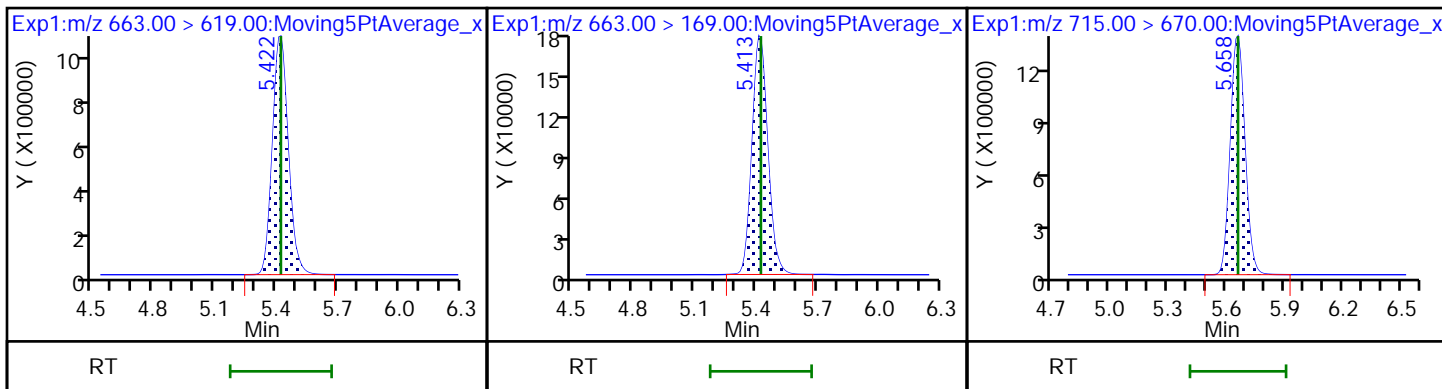
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

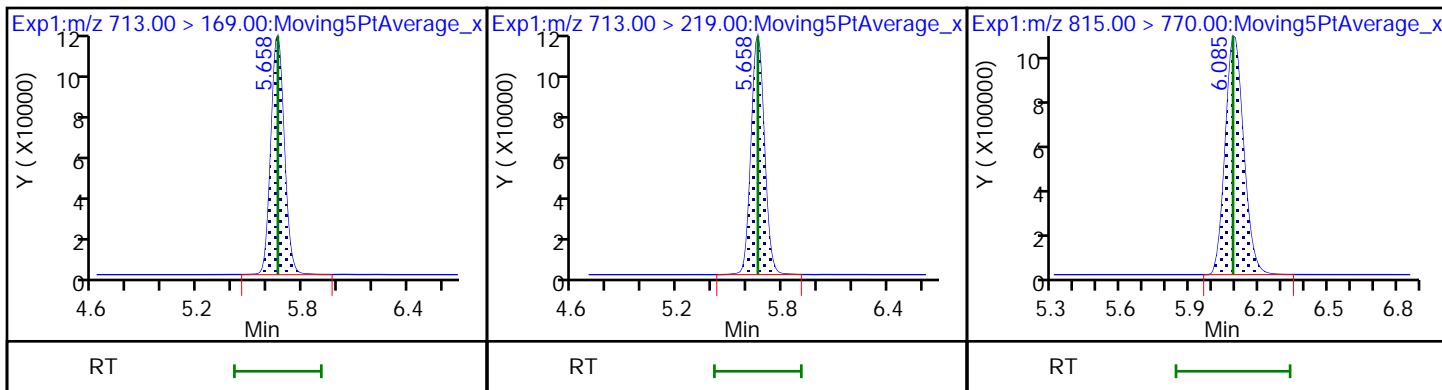
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

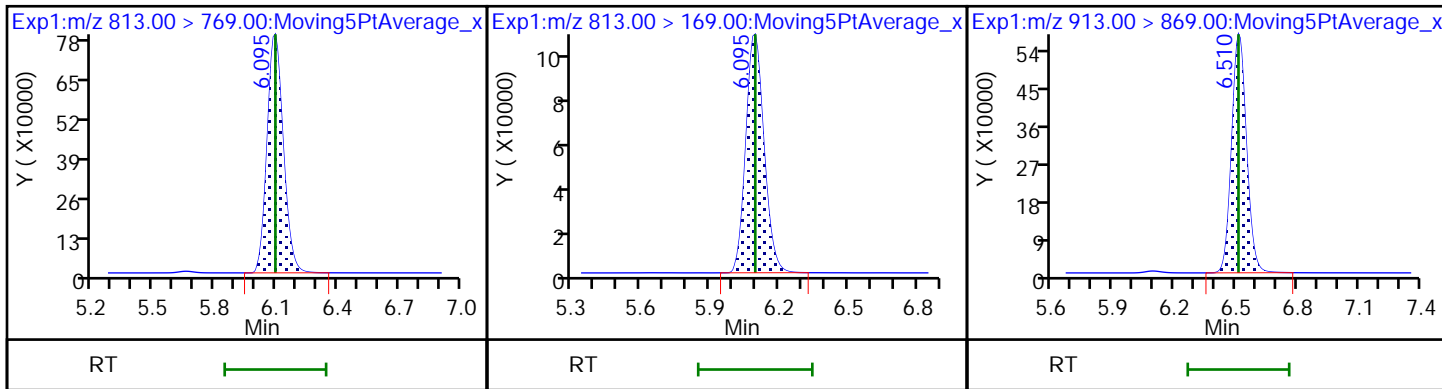
D 106 13C2 PFHxDA



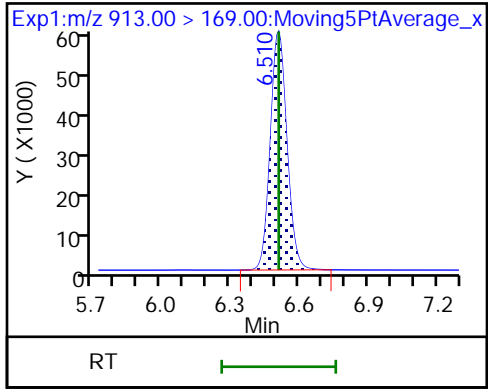
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid





FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/15 Calibration Date: 06/10/2021 06:28  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0353			2.50	-4.2	40.0
MMF	AveID	0.0724	0.0695			2.50	-3.9	40.0
MTP	AveID	0.0896	0.0981			2.50	9.5	40.0
PFPrA	AveID	0.6311	0.7696			2.43	22.0	40.0
PFMOAA	AveID	0.3080	0.3299			2.50	7.1	40.0
R-PSDA	AveID	0.1112	0.1095			2.50	-1.5	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4446			2.50	1.3	40.0
R-EVE	AveID	0.3326	0.3018			2.50	-9.3	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	0.995		2.63	2.50	5.2	40.0
PMPA	AveID	0.2182	0.2319			2.50	6.3	40.0
PFPrS	AveID	1.161	1.195			2.29	3.0	40.0
NVHOS	AveID	0.0186	0.0225			2.50	20.9	40.0
PFMPA	AveID	0.6521	0.6734			2.50	3.3	40.0
PFO2HxA	AveID	0.0727	0.0866			2.50	19.1	40.0
3:3 FTCA	AveID	0.0982	0.1052			2.50	7.1	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.061		2.53	2.50	1.2	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.212		2.37	2.21	7.1	50.0
PEPA	AveID	0.1649	0.1775			2.50	7.7	40.0
PFMBA	AveID	1.195	1.240			2.50	3.8	40.0
PFEEESA	AveID	3.845	3.943			2.23	2.5	40.0
NFDHA	AveID	0.1332	0.1409			2.50	5.8	40.0
4:2 FTS	AveID	2.393	2.238		2.18	2.34	-6.5	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.072		2.39	2.50	-4.3	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	1.043		2.46	2.35	4.7	50.0
PFO3OA	AveID	0.0345	0.0297			2.50	-14.0	40.0
HFPO-DA (GenX)	AveID	1.018	1.058		2.60	2.50	3.9	40.0
R-PSDCA	AveID	0.0667	0.1079			2.50	61.7*	40.0
Hydro-EVE Acid	AveID	1.539	1.636			2.50	6.3	40.0
Hydro-PS Acid	AveID	1.580	1.735			2.50	9.8	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.067		2.52	2.50	0.9	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	1.058		2.18	2.28	-4.3	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.692		2.38	2.36	1.2	50.0
5:3 FTCA	AveID	0.2969	0.3005			2.50	1.2	40.0
PFPE-1	AveID	0.1620	0.2212			2.50	36.6	40.0
6:2 FTUCA	AveID	17.67	17.41			2.50	-1.5	40.0
6:2 FTCA	AveID	0.0160	0.0196			2.50	22.1	40.0
PFO4DA	AveID	0.0394	0.0406			2.50	3.0	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/15 Calibration Date: 06/10/2021 06:28  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PS Acid	AveID	0.6583	0.6880			2.50	4.5	40.0
EVE Acid	AveID	1.047	1.060			2.50	1.3	40.0
PFECHS	AveID	1.196	1.438			2.31	20.2	40.0
6:2 FTS	AveID	2.060	1.965		2.26	2.37	-4.6	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.172		2.44	2.38	2.7	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.097		2.62	2.50	5.0	40.0
PFO5DA	AveID	0.0155	0.0185			2.50	19.4	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.175		2.42	2.32	4.4	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	0.9706		2.45	2.50	-2.0	40.0
7:3 FTCA	AveID	7.703	8.415			2.50	9.2	40.0
8:2 FTUCA	AveID	0.9749	1.099			2.50	12.7	40.0
8:2 FTCA	AveID	1.157	1.343			2.50	16.1	40.0
9Cl-PF3ONS	AveID	2.256	2.328		2.40	2.33	3.2	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	1.022		2.55	2.50	1.8	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.995		2.55	2.40	6.3	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8960		2.19	2.50	-12.4	40.0
8:2 FTS	AveID	1.563	1.462		2.24	2.40	-6.5	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.7021		2.37	2.50	-5.1	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8463		2.49	2.41	3.3	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8441		2.29	2.50	-8.4	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6802		2.37	2.50	-5.1	40.0
NMeFOSE	AveID	1.058	1.032		2.44	2.50	-2.4	40.0
10:2 FTUCA	AveID	28.15	24.50			2.50	-13.0	40.0
NMeFOSA	AveID	1.014	1.057			2.50	4.3	50.0
10:2 FTCA	AveID	0.0284	0.0327			2.50	15.3	40.0
11Cl-PF3OUdS	AveID	2.689	2.802		2.45	2.36	4.2	50.0
NEtFOSE	AveID	1.174	1.173		2.50	2.50	-0.0	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.168		2.63	2.50	5.2	40.0
10:2 FTS	AveID	1.519	1.439		2.28	2.41	-5.3	50.0
NEtFOSA	AveID	1.036	1.064			2.50	2.6	40.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2341		2.44	2.42	0.7	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.8994		2.42	2.50	-3.1	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1154		2.35	2.50	-6.1	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9367		2.56	2.50	2.2	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/15 Calibration Date: 06/10/2021 06:28  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.5993		2.47	2.50	-1.3	50.0
13C4 PFBA	Ave	0.998	1.026		1.29	1.25	2.8	50.0
13C5 PFPeA	Ave	0.9416	0.9530		1.27	1.25	1.2	50.0
13C3 PFBS	Ave	0.6563	0.6967		1.23	1.16	6.1	50.0
M2-4:2 FTS	Ave	0.1753	0.1605		1.07	1.17	-8.4	50.0
13C2 PFHxA	Ave	0.9319	0.9660		1.30	1.25	3.7	50.0
13C3 HFPO-DA	Ave	0.1655	0.1649		1.25	1.25	-0.4	50.0
13C4 PFHpA	Ave	0.9175	0.9425		1.28	1.25	2.7	50.0
18O2 PFHxS	Ave	0.4664	0.5134		1.30	1.18	10.1	50.0
13C-6:2 FTCA	Ave	0.7974	0.8623		1.35	1.25	8.1	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0540		1.38	1.25	10.4	50.0
M2-6:2 FTS	Ave	0.2119	0.1789		1.00	1.19	-15.6	50.0
13C4 PFOA	Ave	1.043	1.038		1.24	1.25	-0.5	50.0
13C4 PFOS	Ave	0.3656	0.3829		1.25	1.20	4.7	50.0
13C5 PFNA	Ave	0.997	1.022		1.28	1.25	2.5	50.0
13C-8:2 FTUCA	Ave	0.9872	1.033		1.31	1.25	4.6	50.0
13C-8:2 FTCA	Ave	0.0451	0.0438		1.22	1.25	-2.8	50.0
13C8 FOSA	Ave	0.6160	0.6601		1.34	1.25	7.2	50.0
13C2 PFDA	Ave	0.997	1.043		1.31	1.25	4.7	50.0
M2-8:2 FTS	Ave	0.3308	0.2898		1.05	1.20	-12.4	50.0
d3-NMeFOSAA	Ave	0.4207	0.4415		1.31	1.25	4.9	50.0
13C2 PFUnA	Ave	0.9607	1.051		1.37	1.25	9.4	50.0
d5-NEtFOSAA	Ave	0.4186	0.4607		1.38	1.25	10.1	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2737		1.36	1.25	8.9	50.0
13C-10:2 FTCA	Ave	1.160	1.295		1.40	1.25	11.7	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1925		1.30	1.25	4.2	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0426		1.57	1.25	25.7	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3138		1.40	1.25	12.1	50.0
13C2 PFDoA	Ave	1.039	1.070		1.29	1.25	2.9	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1904		1.31	1.25	5.0	50.0
13C2 10:2 FTS	Ave	0.2654	0.2623		1.19	1.21	-1.1	50.0
13C2 PFTeDA	Ave	0.9575	1.025		1.34	1.25	7.0	50.0
13C2 PFHxDA	Ave	0.7323	0.9266		1.58	1.25	26.5	50.0
13C8 PFOA	Ave	1.167	1.172		1.26	1.25	0.5	50.0
13C8 PFOS	Ave	0.1093	0.1218		1.33	1.20	11.4	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_018.d  
 Lims ID: CCV L5  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 06:28:19 ALS Bottle#: 53 Worklist Smp#: 15  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L5 (02)  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 09:44:12 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfms\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656  
 First Level Reviewer: mongkols Date: 11-Jun-2021 09:44:12  
 Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.757	0.765	-0.008	0.327	467418	2.39		95.8	847	
2 MMF										
139.00 > 51.00	0.765	0.772	-0.008	0.330	919816	2.40		96.1	559	
3 MTP										
175.00 > 97.00	1.191	1.159	0.032	0.513	1297570	2.74		110	1091	
4 PPF Acid										
162.95 > 119.00	1.595	1.571	0.024	0.688	9874725	2.96		122	3474	
5 PFMOAA										
179.00 > 84.90	2.063	2.056	0.007	0.889	4364395	2.68		107	8923	
6 R-PSDA										
441.00 > 241.00	2.201	2.201	0.0	0.949	1448957	2.46		98.5	49501	
7 R-EVE										
405.00 > 217.00	2.209	2.209	0.0	0.953	3991713	2.27		90.7	80999	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.209	2.209	0.0	0.953	5880301	2.53		101	290113	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.320	2.319	0.001	1.000	13167586	2.63		105	18178	
D 9 13C4 PFBA										
217.00 > 172.00	2.320	2.319	0.001	0.605	6613755	1.29		103	65267	
11 PMPA										
229.00 > 185.00	2.383	2.383	0.0	1.027	3067209	2.66		106	7626	
12 PFPrS										
249.10 > 80.00	2.392	2.392	0.0	0.888	9837481	2.36		103	51356	
13 NVHOS										
297.00 > 135.00	2.401	2.400	0.001	1.035	296977	3.02		121	9435	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.445	2.444	0.001	0.919	8276411	2.58		103	120938	
16 PFO2HxA										
245.00 > 85.00	2.576	2.575	0.001	0.968	1064179	2.98		119	13352	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.662	2.650	0.012	1.000	13034389	2.53		101	29158	
D 17 13C5 PFPeA										
267.90 > 223.00	2.662	2.661	0.001	0.694	6145328	1.27		101	41867	
19 3:3 FTCA										
241.00 > 177.10	2.662	2.661	0.001	0.988	944820	2.68	Target=1.28	107	15399	
241.00 > 116.90	2.662	2.661	0.001	0.988	702141		1.35(0.64-1.92)		4071	
D 21 13C3 PFBS										
301.90 > 80.00	2.694	2.682	0.012	0.703	4177763	1.23		106	27172	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.694	2.693	0.001	1.000	9622429	2.37	Target=2.36	107	29153	
298.90 > 99.00	2.694	2.693	0.001	1.000	3985785		2.41(1.18-3.53)		20335	
22 PEPA										
278.90 > 234.90	2.751	2.751	0.001	1.034	2181688	2.69		108	3930	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.038	15240960	2.59		104	160315	
24 PES										
314.80 > 135.00	2.832	2.831	0.001	1.051	31527746	2.28		103	196658	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.980	1755614	2.64		106	36714	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	4326534	2.18	Target=2.17	93.5	89646	
327.00 > 79.96	2.984	2.984	0.0	1.000	2072909		2.09(1.09-3.26)		27712	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.778	966641	1.07		91.6	9383	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	13355203	2.39	Target=13.89	95.7	29382	
313.00 > 119.00	3.019	3.019	0.0	1.000	974669		13.70(6.95-20.84)		8384	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	6229246	1.30		104	62775	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.037	3.037	0.0	1.127	8786877	2.46	Target=3.10	105	86903	
349.00 > 99.00	3.037	3.037	0.0	1.127	2876062		3.06(1.55-4.65)		36681	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.023	369410	2.15		86.0	6400	
33 HFPO-DA										
285.00 > 169.00	3.156	3.156	0.0	1.000	2249506	2.60	Target=1.03	104	43758	
285.00 > 185.00	3.156	3.156	0.0	1.000	2556109		0.88(0.52-1.55)		24845	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.156	3.156	0.0	0.823	1063382	1.25		99.6	20569	
34 R-PSDCA										
397.00 > 217.00	3.379	3.379	0.0	0.984	1311598	4.04		162	35826	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.414	3.404	0.010	0.994	19889608	2.66		106	54846	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	12964778	2.52	Target=3.81	101	42200	
363.00 > 169.00	3.433	3.433	0.0	1.000	3312566		3.91(1.91-5.72)		14110	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	6376831	2.18	Target=3.50	95.7	74121	
399.00 > 99.00	3.433	3.433	0.0	1.000	1815327		3.51(1.75-5.25)		18295	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	3131444	1.30		110	52397	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.895	6077294	1.28		103	64938	
40 Hydro-PS Acid										
463.00 > 263.00	3.433	3.443	-0.010	1.000	21094200	2.75		110	6525	
41 DONA										
377.00 > 251.00	3.481	3.481	0.0	0.829	26476218	2.38	Target=2.07	101	219019	
377.00 > 85.00	3.481	3.481	0.0	0.829	13466444		1.97(1.03-3.10)		140579	
44 PFECA G										
378.90 > 184.90	3.510	3.500	0.010	0.992	2459808	3.41		137	41143	
43 5:3 FTCA										
340.88 > 236.90	3.510	3.509	0.001	0.992	3342193	2.53	Target=1.08	101	38563	
340.88 > 216.90	3.510	3.509	0.001	0.992	3156970		1.06(0.54-1.62)		21591	
46 6:2 FTUCA										
356.86 > 292.90	3.537	3.536	0.001	0.995	12126209	2.46	Target=14.03	98.5	95533	
356.86 > 243.00	3.537	3.536	0.001	0.995	913205		13.28(7.02-21.05)		43214	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.537	3.536	0.001	0.922	5560229	1.35		108	209949	
48 6:2 FTCA										
377.10 > 313.10	3.562	3.562	0.0	1.007	217809	3.05	Target=0.54	122	3588	
377.10 > 63.00	3.554	3.562	-0.008	1.005	319682		0.68(0.27-0.81)		15607	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.554	3.562	-0.008	0.927	348158	1.38		110	3781	
42 PFO4DA										
376.90 > 85.00	3.618	3.625	-0.007	1.054	493760	2.57		103	5.7	
49 PS Acid										
442.80 > 146.80	3.686	3.685	0.001	0.961	9212453	2.61		105	103355	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	14198735	2.53		101	200007	
51 PFECHS										
460.80 > 380.90	3.771	3.771	0.001	0.984	17748243	2.77	Target=1.90	120	293318	
460.80 > 98.90	3.771	3.771	0.001	0.984	9206758		1.93(0.95-2.85)		113502	
53 6:2 FTS										
427.00 > 407.00	3.815	3.814	0.001	1.000	4296637	2.26	Target=2.11	95.4	19143	
427.00 > 79.96	3.815	3.814	0.001	1.000	2079232		2.07(1.06-3.17)		12293	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1095675	1.00		84.4	13353	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	14689091	2.62	Target=2.87	105	28912	
413.00 > 169.00	3.834	3.834	0.0	1.000	5108848		2.88(1.43-4.30)		156111	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6448181	1.25			59173	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6695216	1.24		99.5	47745	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.834	3.834	0.0	1.000	7560311	1.26		100	87496	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.824	3.834	-0.010	0.910	5509173	2.44	Target=4.82	103	35360	
449.00 > 99.00	3.824	3.834	-0.010	0.910	1176702		4.68(2.41-7.24)		27161	
59 TAF										
442.90 > 85.00	4.116	4.116	0.0	1.074	247474	2.99		119	586	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.194	4.201	-0.007	1.094	750546	1.33		111	11223	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.000	5384170	2.42	Target=5.95	104	53015	
499.00 > 99.00	4.194	4.201	-0.007	0.998	934327		5.76(2.97-8.92)		33940	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2360400	1.25		105	28780	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.217	-0.008	1.098	6589519	1.28		103	85145	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.002	12791181	2.45	Target=7.58	98.0	41939	
463.00 > 169.00	4.209	4.217	-0.008	1.000	1726348		7.41(3.79-11.37)		17956	
65 7:3 FTCA										
441.00 > 337.00	4.315	4.315	0.0	0.993	4756103	2.73	Target=1.21	109	57885	
441.00 > 317.00	4.315	4.315	0.0	0.993	4185431		1.14(0.60-1.81)		51164	
67 8:2 FTUCA										
456.86 > 392.90	4.331	4.331	0.0	1.000	14634719	2.82	Target=35.28	113	435299	
456.86 > 343.00	4.331	4.331	0.0	1.000	379623		38.55(17.64-52.92)		19904	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.331	4.331	0.0	1.130	6659643	1.31		105	73485	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.347	4.347	0.001	1.134	282594	1.22		97.2	7533	
69 8:2 FTCA										
477.00 > 393.10	4.347	4.354	-0.007	1.000	759156	2.90	Target=3.24	116	20519	
477.00 > 63.20	4.347	4.354	-0.007	1.000	247795		3.06(1.62-4.86)		10433	
70 9CIFOS										
531.00 > 351.00	4.403	4.403	0.0	1.048	10713733	2.40		103	209737	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	4256749	1.34		107	50966	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	8703802	2.55		102	129217	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.541	4.541	0.0	1.081	4718122	2.55	Target=3.28	106	61188	
549.00 > 99.00	4.541	4.541	0.0	1.081	1432569		3.29(1.64-4.92)		25489	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	12056194	2.19	Target=9.70	87.6	69254	
513.00 > 169.00	4.559	4.559	0.0	1.000	1372572		8.78(4.85-14.54)		2870	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6727439	1.31		105	79370	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.569	-0.010	1.189	1790428	1.05		87.6	20753	
77 8:2 FTS										
527.00 > 507.00	4.569	4.569	0.0	1.002	5234480	2.24	Target=2.33	93.5	87519	
527.00 > 79.96	4.559	4.569	-0.010	1.000	2442316		2.14(1.17-3.50)		19637	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2846741	1.31		105	21987	
79 NMeFOSAA										
570.00 > 419.00	4.718	4.729	-0.011	1.000	3997358	2.37	Target=0.83	94.9	97813	
570.00 > 483.00	4.718	4.729	-0.011	1.000	4787281		0.83(0.42-1.25)		43123	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.843	4.843	0.0	1.153	4028675	2.49	Target=3.22	103	53608	
599.00 > 99.00	4.843	4.843	0.0	1.153	1337164		3.01(1.61-4.83)		24877	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.872	4.872	0.0	1.000	11442060	2.29	Target=9.27	91.6	65523	
563.00 > 169.00	4.872	4.872	0.0	1.000	1412115		8.10(4.63-13.90)		22351	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	6777648	1.37		109	63384	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2970776	1.38		110	22775	
84 NEtFOSAA										
584.00 > 419.00	4.882	4.891	-0.009	1.000	4041661	2.37	Target=0.77	94.9	91428	
584.00 > 526.10	4.882	4.891	-0.009	1.000	5145112		0.79(0.39-1.16)		67025	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.977	4.967	0.010	1.298	1765139	1.36		109	7888	
86 N-MeFOSE-M										
616.00 > 59.00	4.986	4.986	0.0	1.002	3643393	2.44		97.6	30956	
89 10:2 FTUCA										
556.86 > 492.90	4.995	4.995	0.0	0.996	13470372	2.18		87.0	606816	
90 NMeFOSA										
512.00 > 169.00	4.995	4.995	0.0	1.000	2625020	2.61	Target=1.61	104	3012	
512.00 > 218.99	4.995	4.995	0.0	1.000	1669372		1.57(0.80-2.41)		4734	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.995	4.995	0.0	1.303	1241286	1.30		104	395	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.995	4.995	0.0	1.303	8352114	1.40		112	301282	
93 11CIFOS										
631.00 > 451.00	5.005	5.005	0.0	1.191	13034915	2.45		104	149959	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.005	5.005	0.0	1.002	547013	2.88	Target=2.56	115	24693	
576.80 > 63.10	5.005	5.005	0.0	1.002	235185		2.33(1.28-3.83)		8486	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.015	5.005	0.010	1.308	274956	1.57		126	3675	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.137	5.137	0.0	1.340	2023482	1.40		112	10076	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.157	5.156	0.001	1.000	16120096	2.63	Target=7.93	105	99783	
613.00 > 169.00	5.157	5.156	0.001	1.000	1825249		8.83(3.97-11.90)		29218	
D 97 13C2 PFDaA										
615.00 > 570.00	5.157	5.156	0.001	1.345	6898697	1.29		103	60337	
95 N-EtFOSE-M										
630.00 > 59.00	5.157	5.156	0.001	1.004	4745274	2.50		99.9	34483	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.165	5.165	0.0	1.347	1227909	1.31		105	1933	
99 N-EtFOSA-M										
526.00 > 169.00	5.174	5.174	0.0	1.002	2611861	2.57	Target=1.61	103	2801	
526.00 > 218.99	5.174	5.174	0.0	1.002	1631032		1.60(0.80-2.41)		2918	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.174	5.174	0.0	1.350	1632269	1.19		98.9	52233	
101 10:2 FTS										
627.00 > 607.00	5.174	5.183	-0.009	1.000	4693130	2.28	Target=1.46	94.7	112001	
627.00 > 79.96	5.174	5.183	-0.009	1.000	3391625		1.38(0.73-2.19)		38170	
102 PFDoS										
699.00 > 80.00	5.383	5.383	0.0	1.281	1118979	2.44	Target=0.54	101	20681	
699.00 > 99.00	5.383	5.383	0.0	1.281	2071964		0.54(0.27-0.81)		38219	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.412	5.422	-0.010	1.050	12409412	2.42	Target=5.84	96.9	59784	
663.00 > 169.00	5.412	5.422	-0.010	1.050	2131521		5.82(2.92-8.75)		33019	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.658	-0.009	1.473	6607564	1.34		107	64004	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.658	0.0	1.002	1525584	2.35	Target=1.07	93.9	32036	
713.00 > 219.00	5.658	5.658	0.0	1.002	1529921		1.00(0.53-1.60)		36469	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.085	6.085	0.0	1.587	5974829	1.58		127	35444	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.085	6.095	-0.010	1.000	11193433	2.56	Target=7.49	102	21349	
813.00 > 169.00	6.085	6.095	-0.010	1.000	1364588		8.20(3.75-11.24)		22533	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.509	6.510	-0.001	1.070	7160957	2.47	Target=9.70	98.7	11160	
913.00 > 169.00	6.502	6.510	-0.008	1.069	698384		10.25(4.85-14.55)		10706	

### QC Flag Legend

Processing Flags

Reagents:

LCPFC+\_LL5\_00002

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_018.d

Injection Date: 10-Jun-2021 06:28:19

Instrument ID: A15

Lims ID: CCV L5

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 53

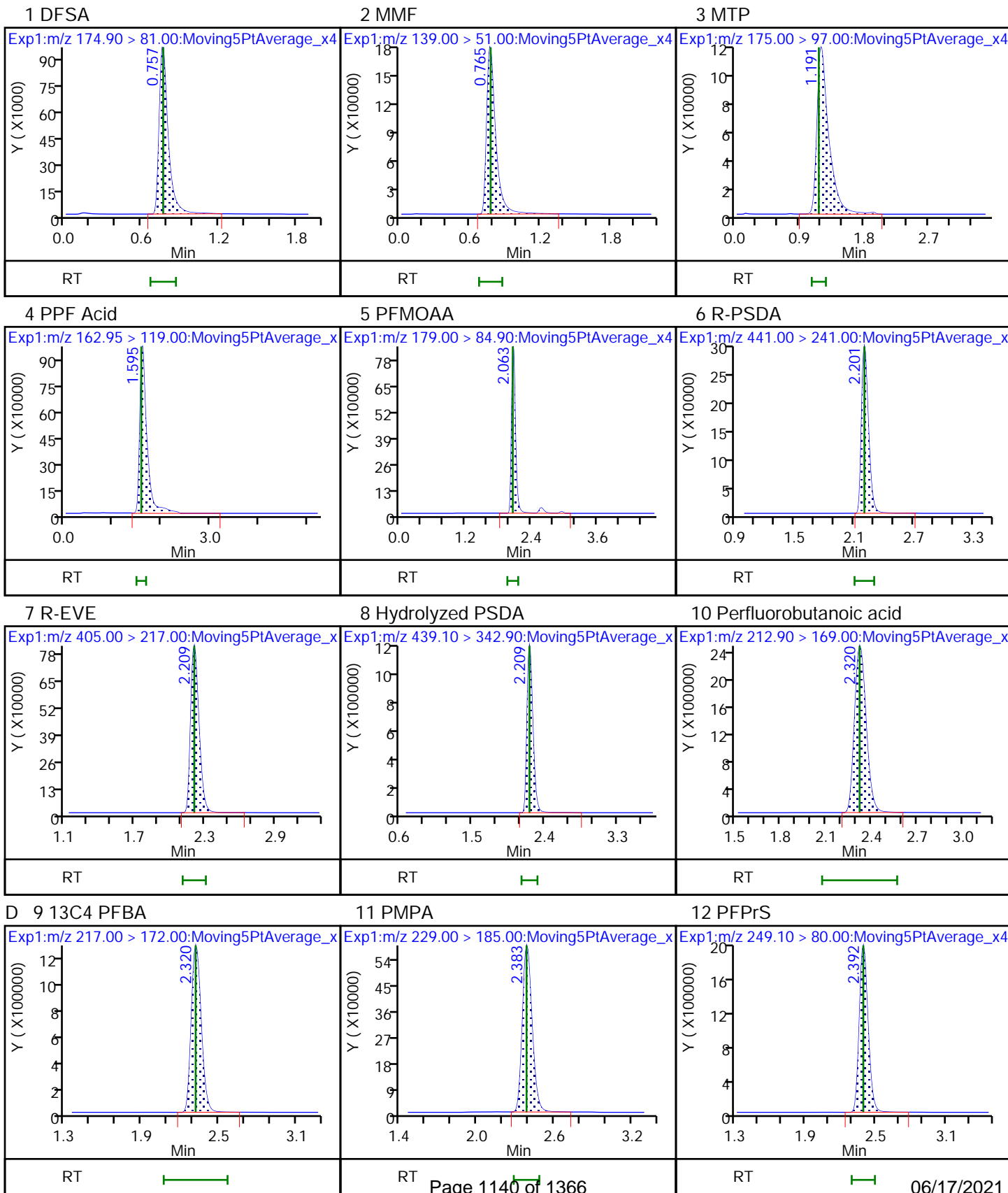
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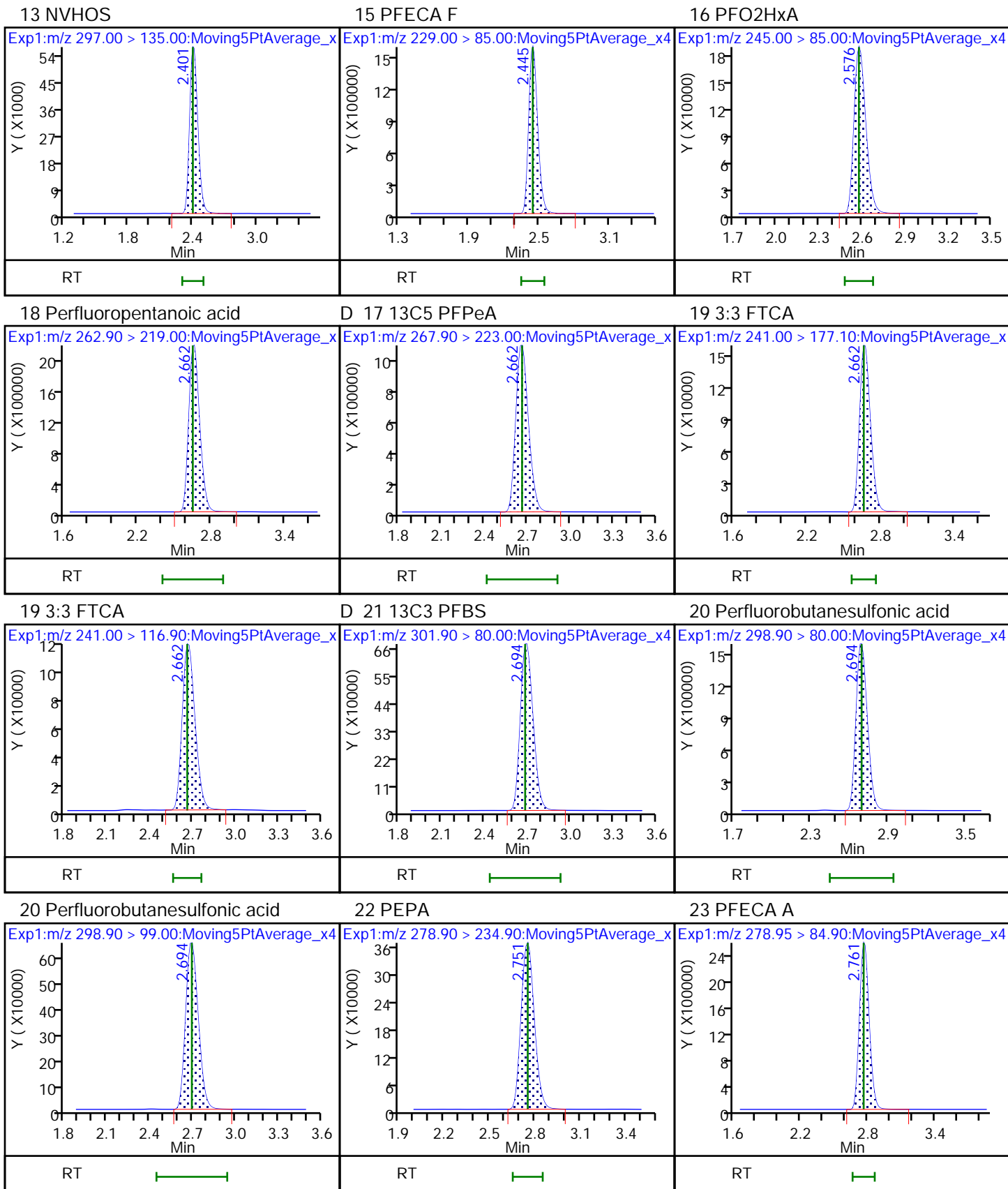
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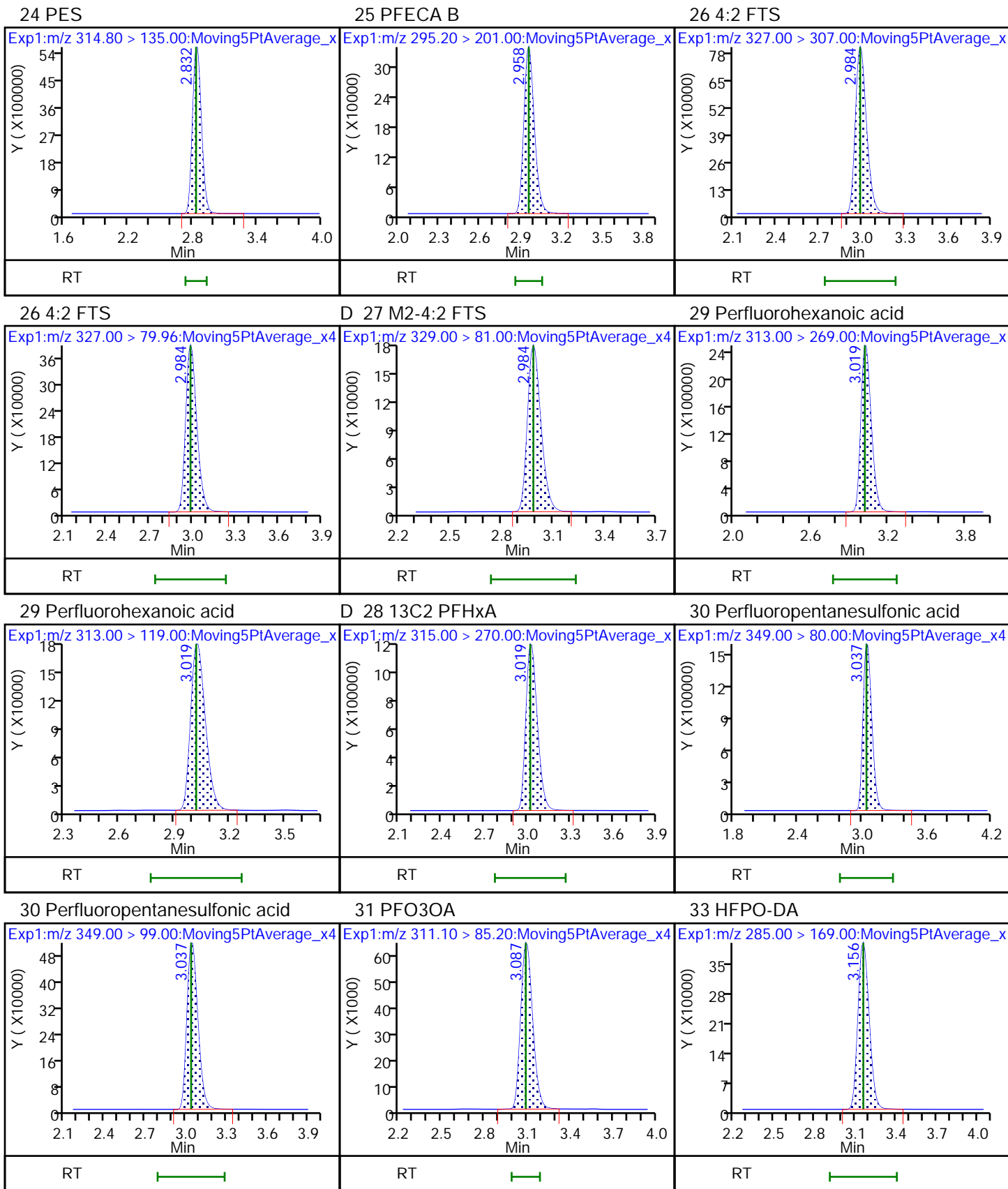
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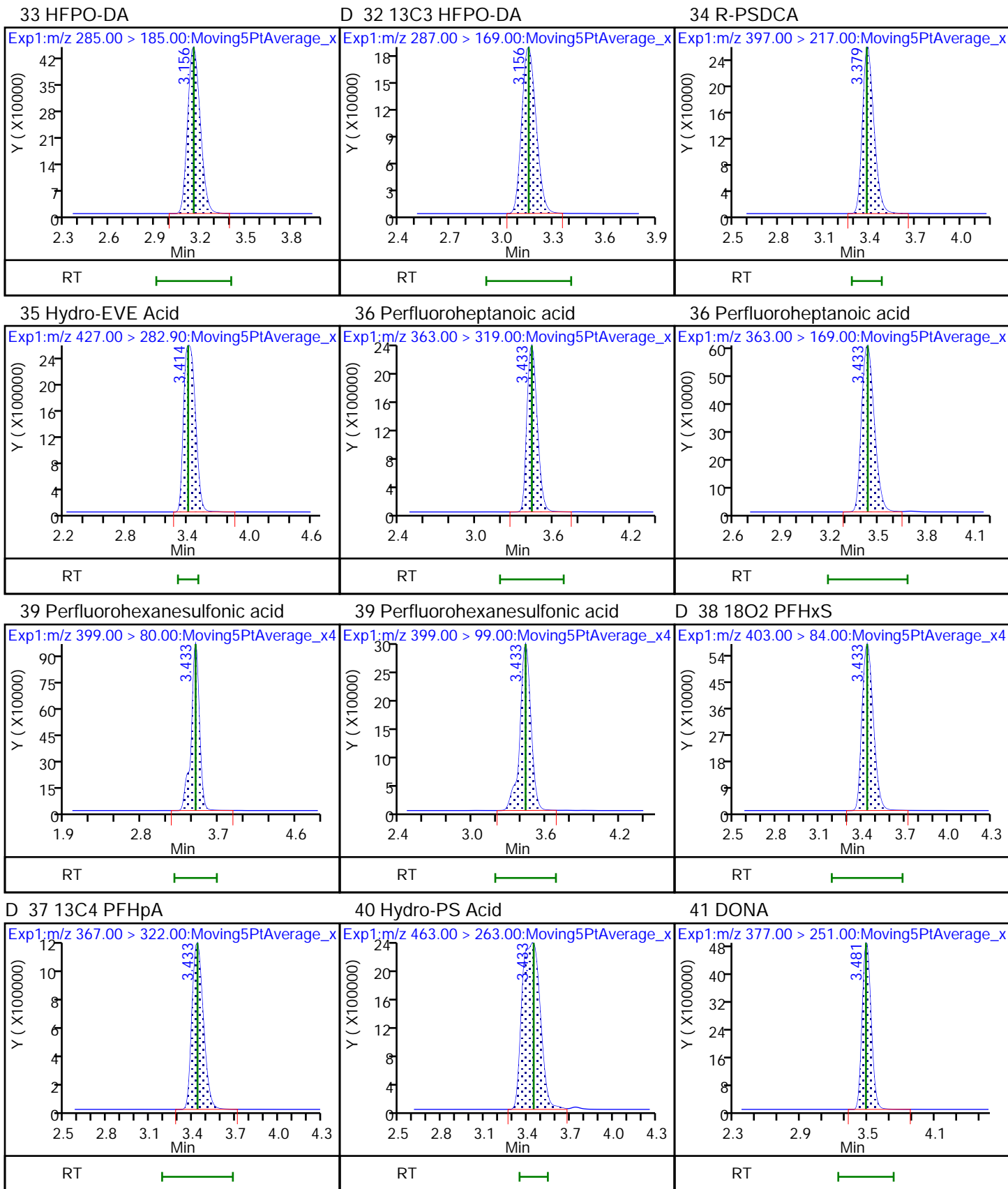
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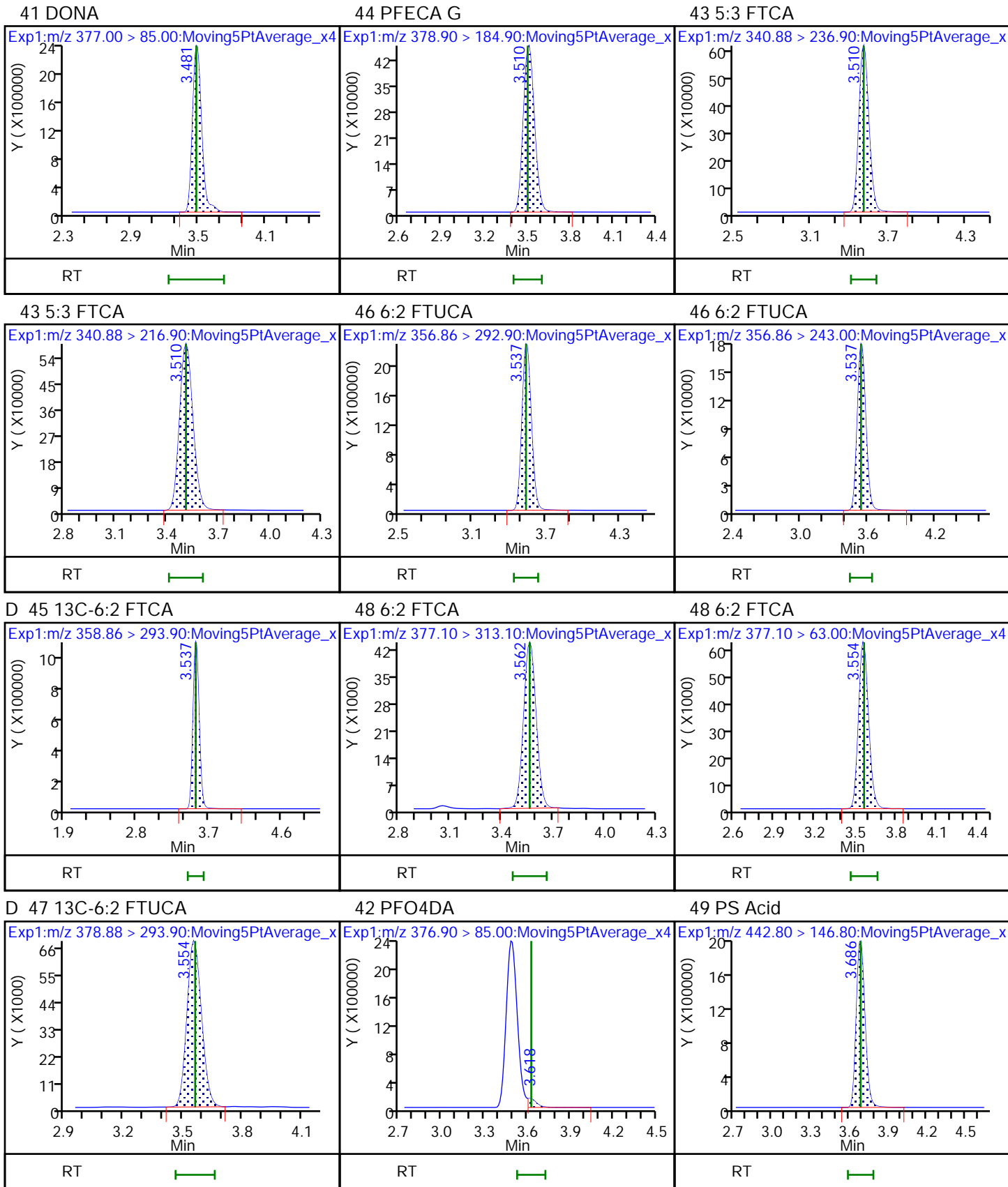
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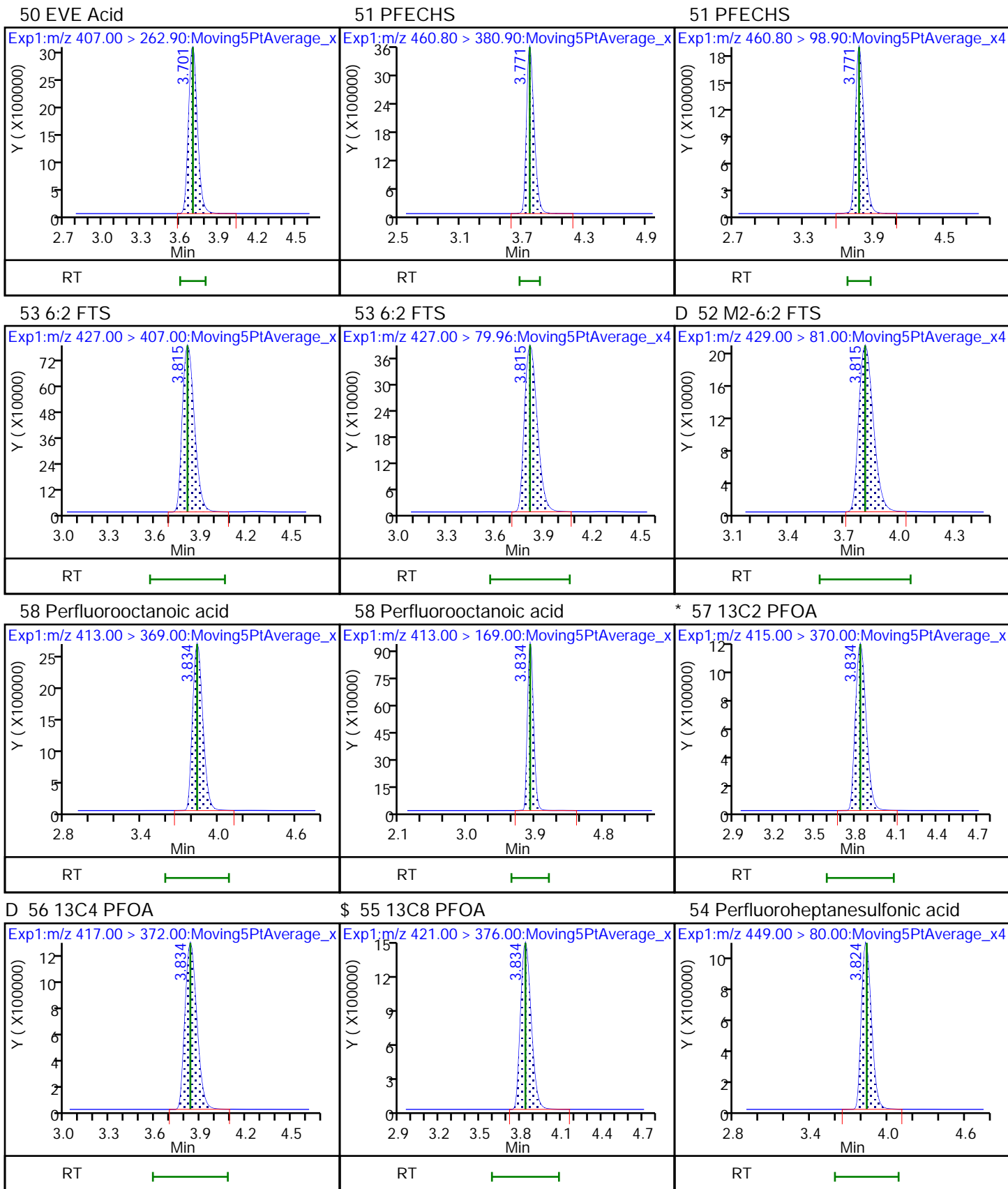










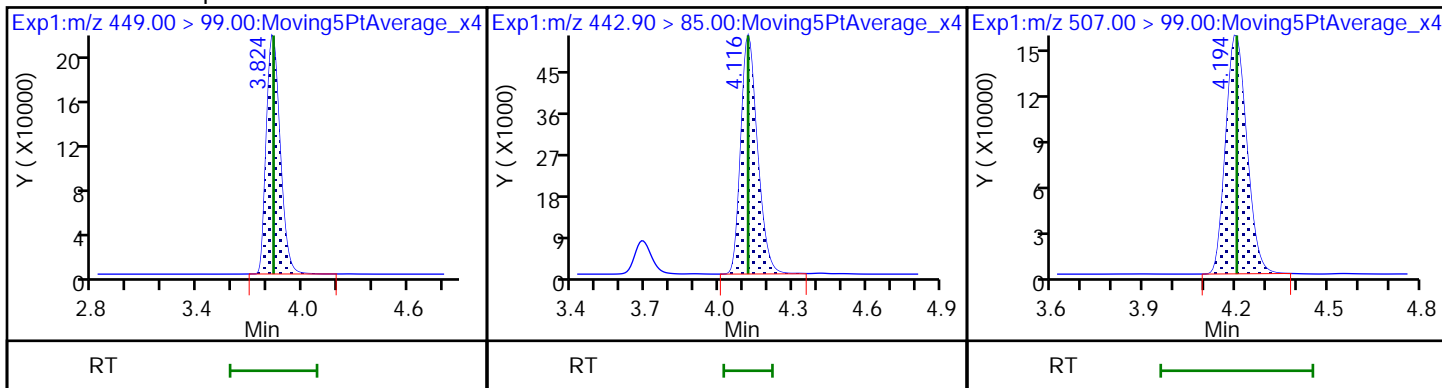




54 Perfluoroheptanesulfonic acid

59 TAF

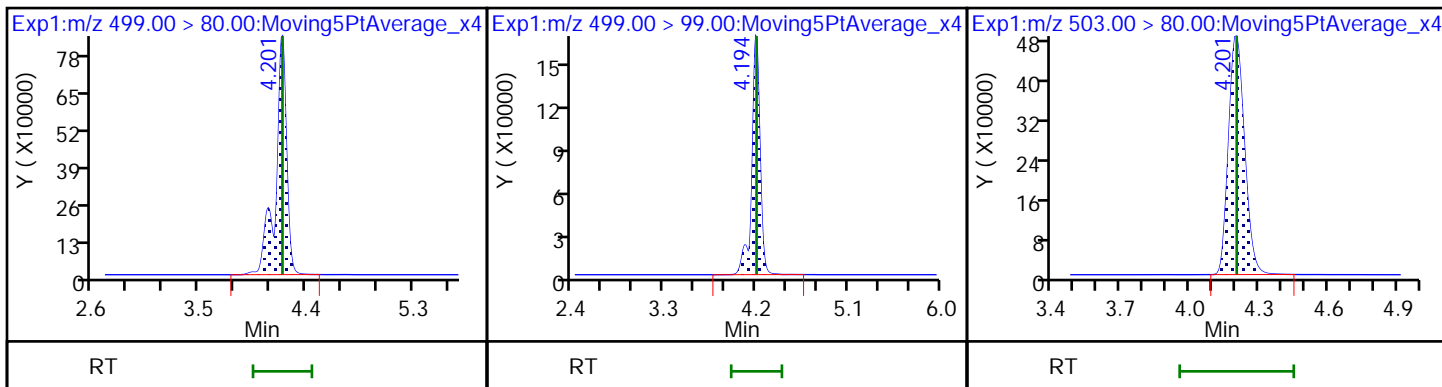
\$ 60 13C8 PFOS



62 Perfluorooctanesulfonic acid

62 Perfluorooctanesulfonic acid

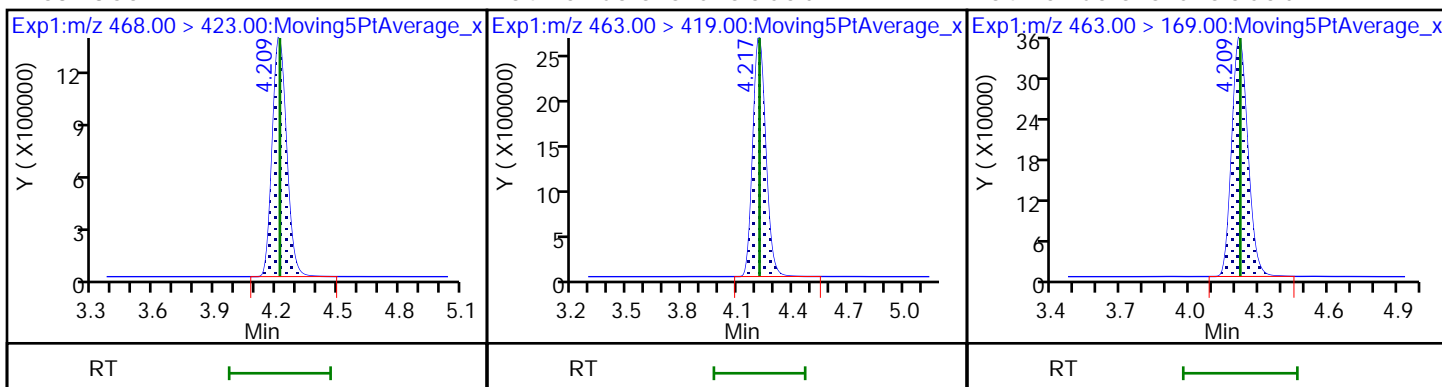
D 61 13C4 PFOS



D 63 13C5 PFNA

64 Perfluorononanoic acid

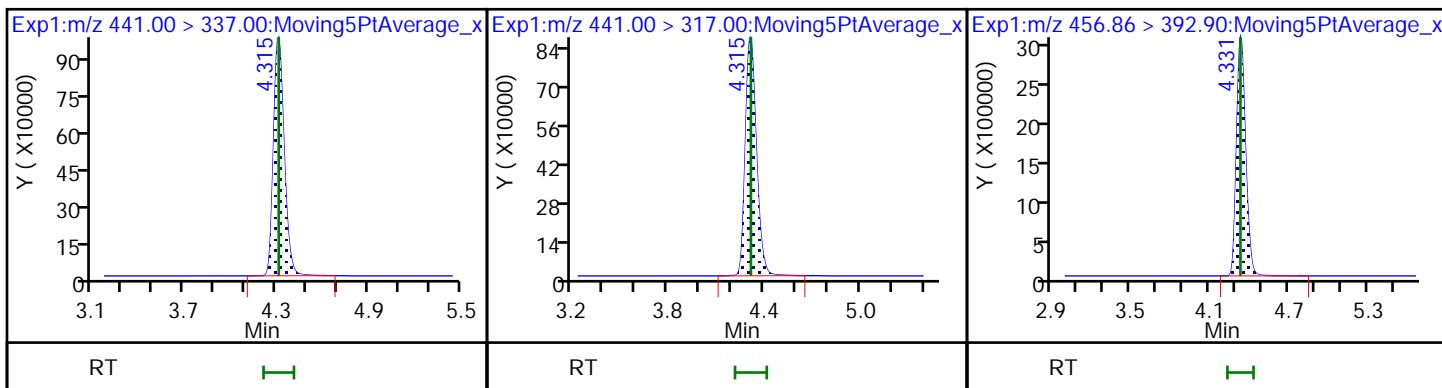
64 Perfluorononanoic acid

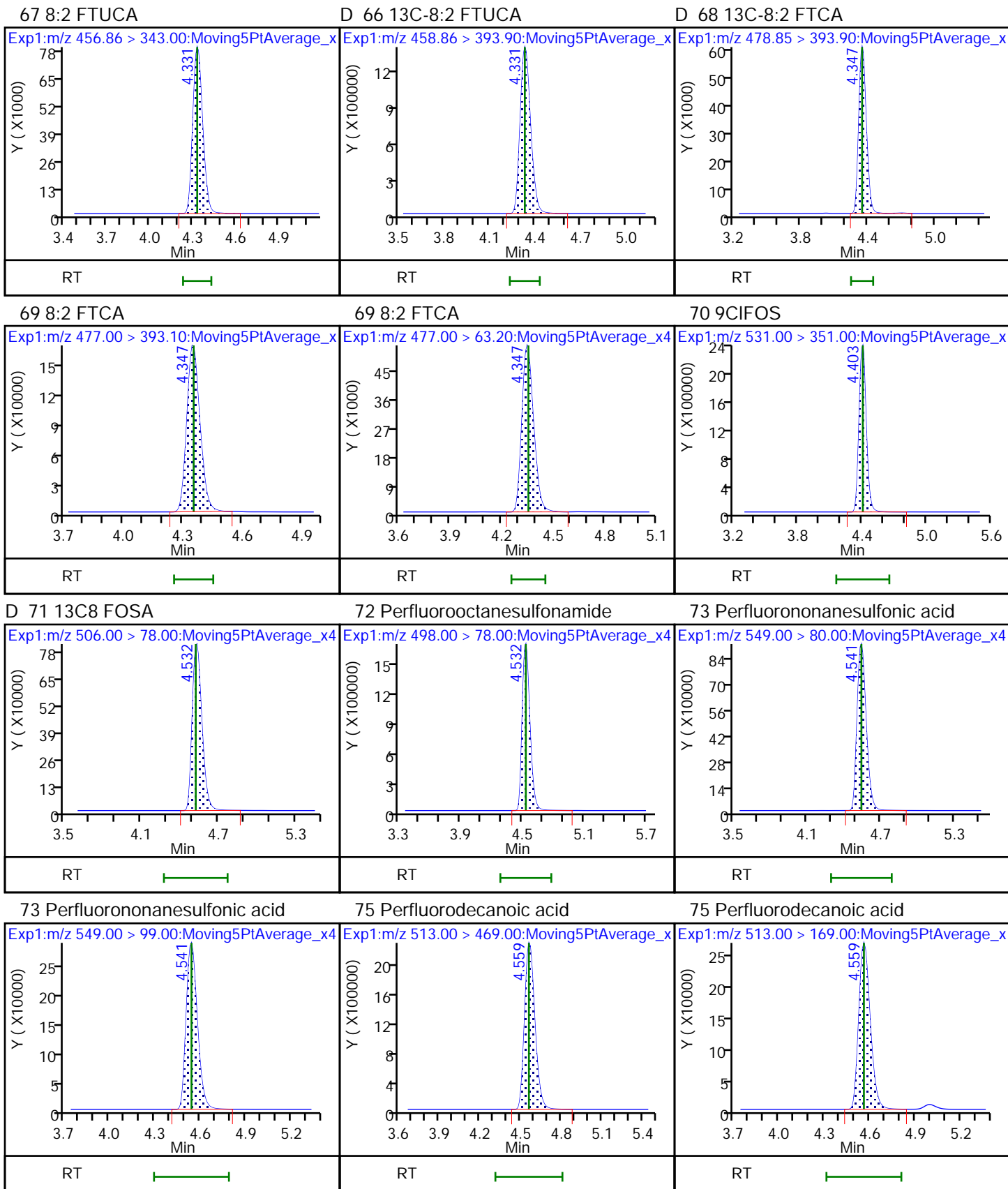


65 7:3 FTCA

65 7:3 FTCA

67 8:2 FTUCA

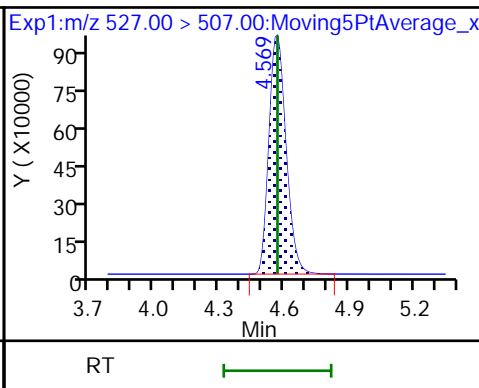
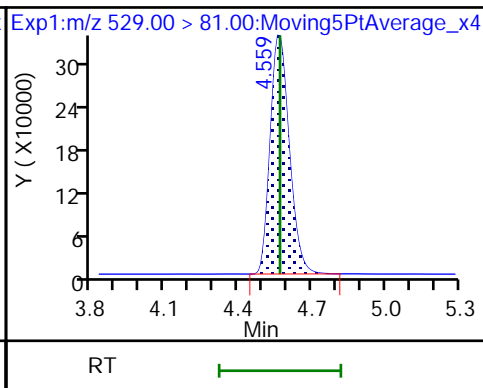
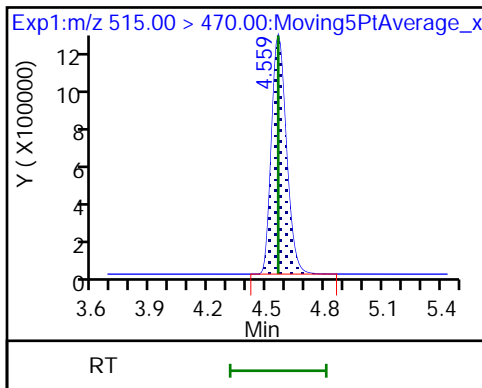




D 74 13C2 PFDA

D 76 M2-8:2 FTS

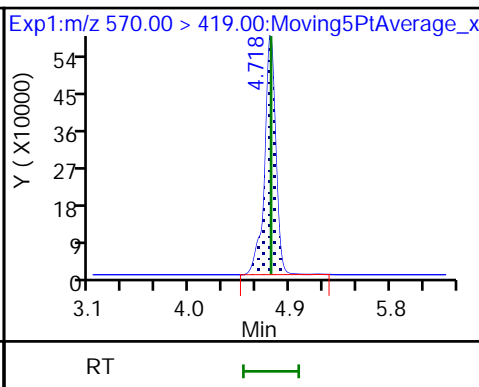
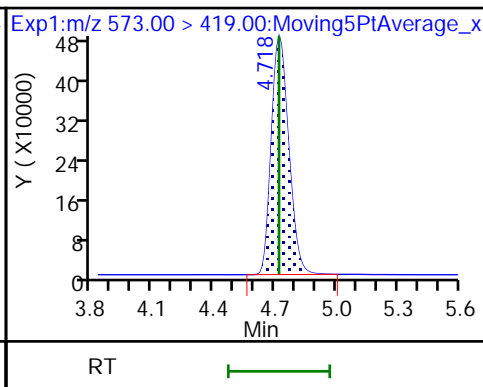
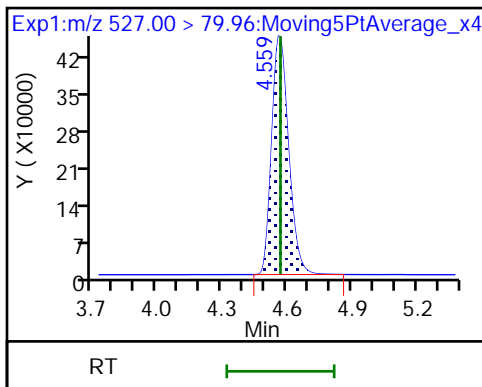
77 8:2 FTS



77 8:2 FTS

D 78 d3-NMeFOSAA

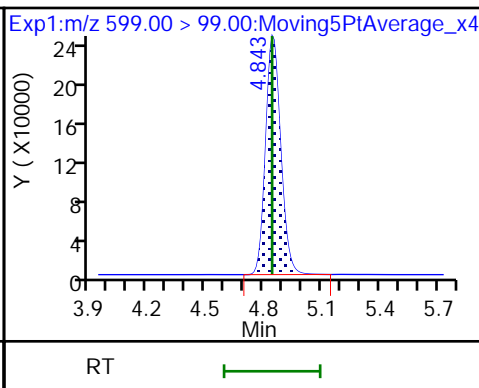
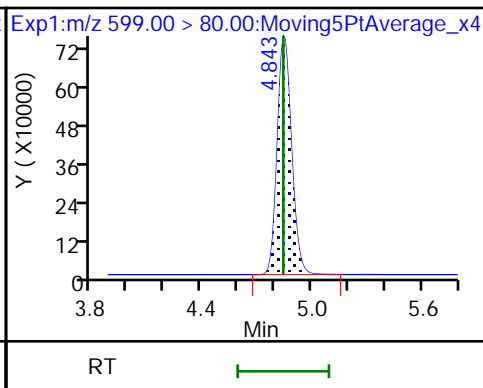
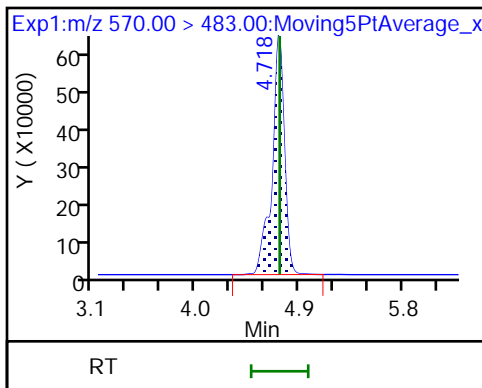
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

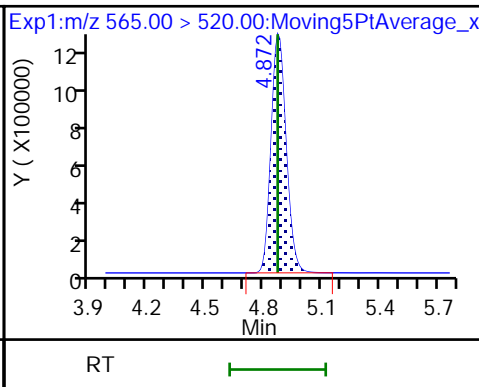
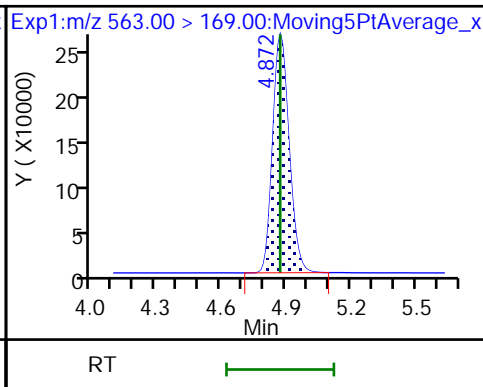
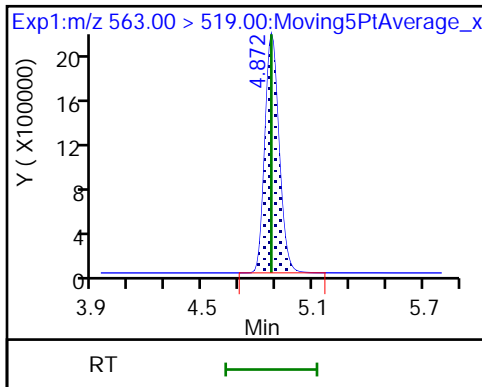
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

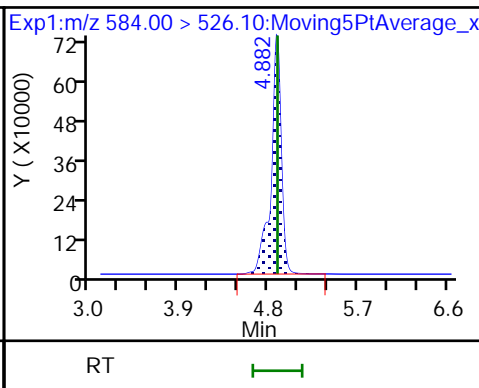
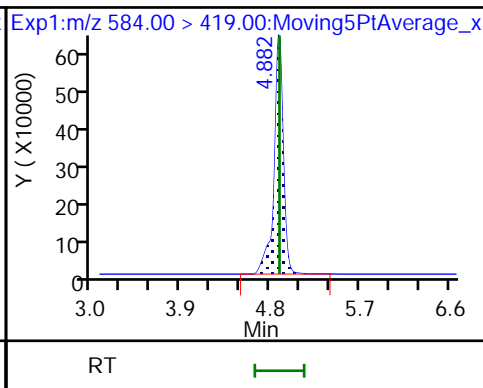
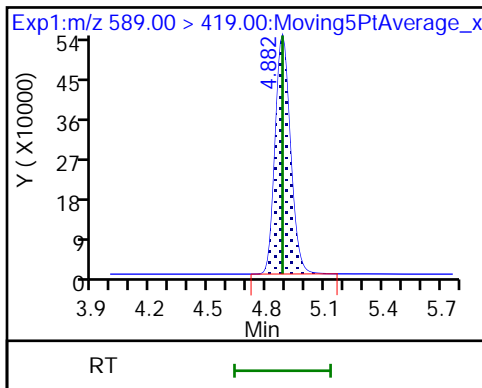
D 82 13C2 PUnA



D 83 d5-NEtFOSAA

84 NEtFOSAA

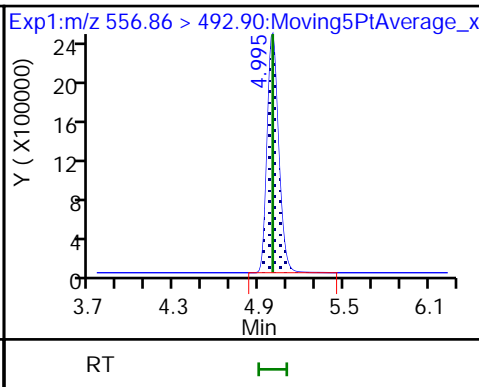
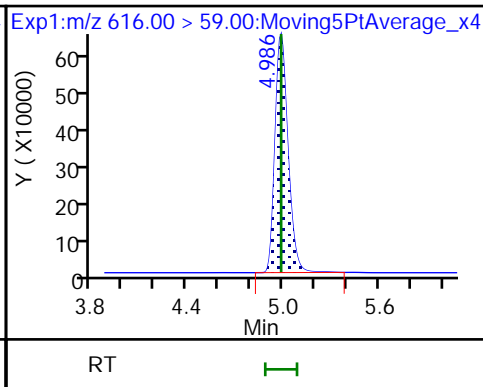
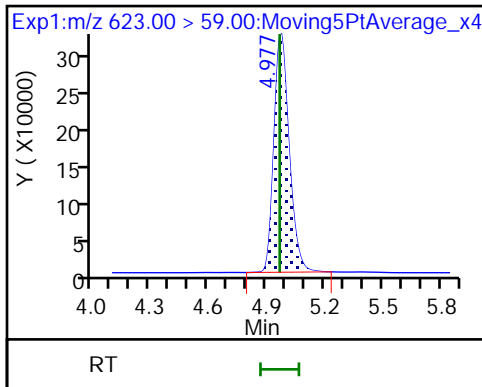
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

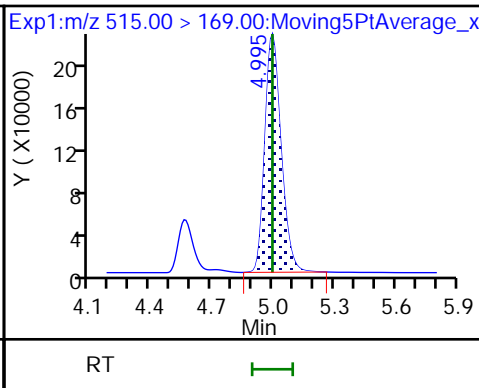
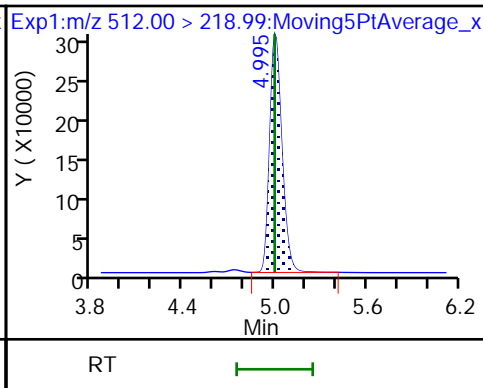
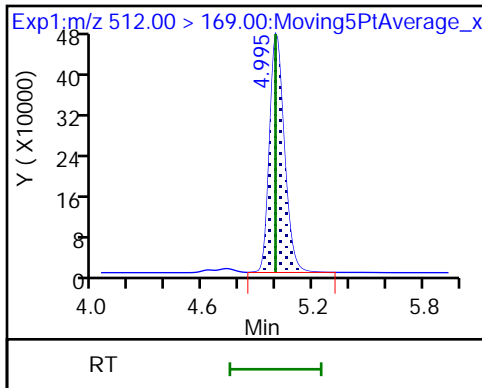
89 10:2 FTUCA



90 NMeFOSA

90 NMeFOSA

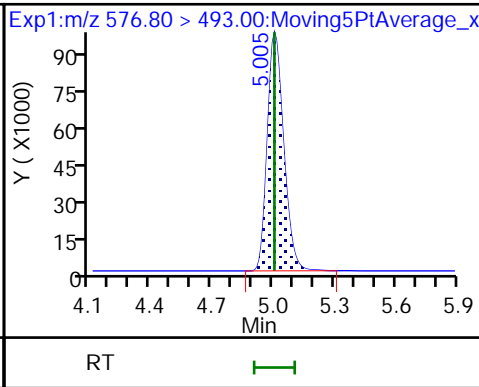
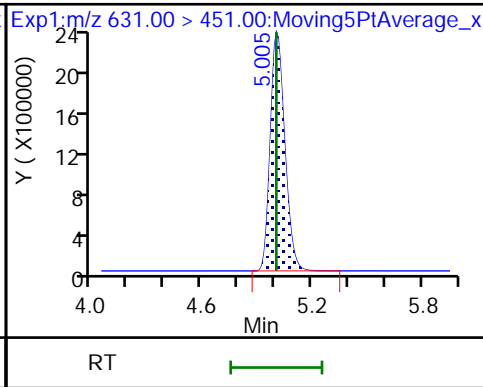
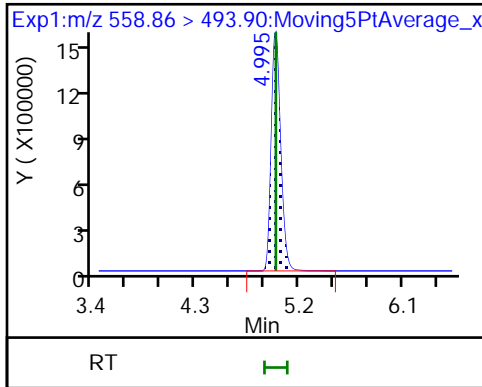
D 87 d-N-MeFOSA-M



D 88 13C-10:2 FTCA

93 11CIFOS

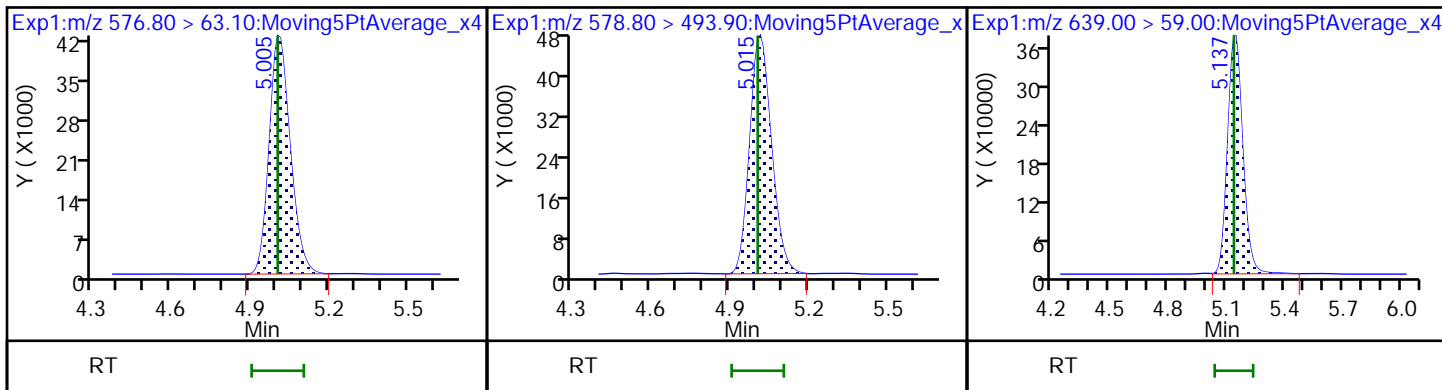
92 10:2 FTCA



92 10:2 FTCA

D 91 13C-10:2 FTUCA

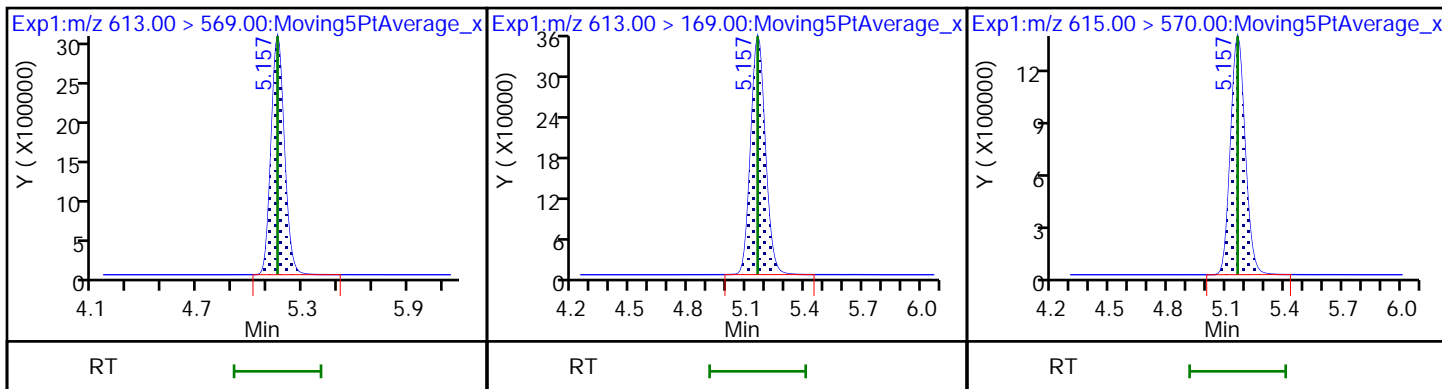
D 94 d9-N-EtFOSE-M



98 Perfluorododecanoic acid

98 Perfluorododecanoic acid

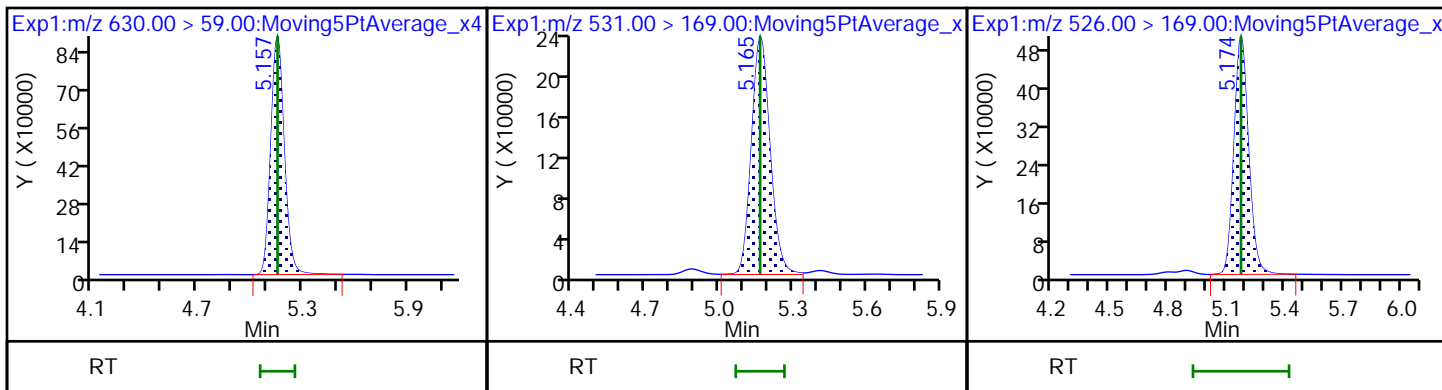
D 97 13C2 PFDaA



95 N-EtFOSE-M

D 96 d-N-EtFOSA-M

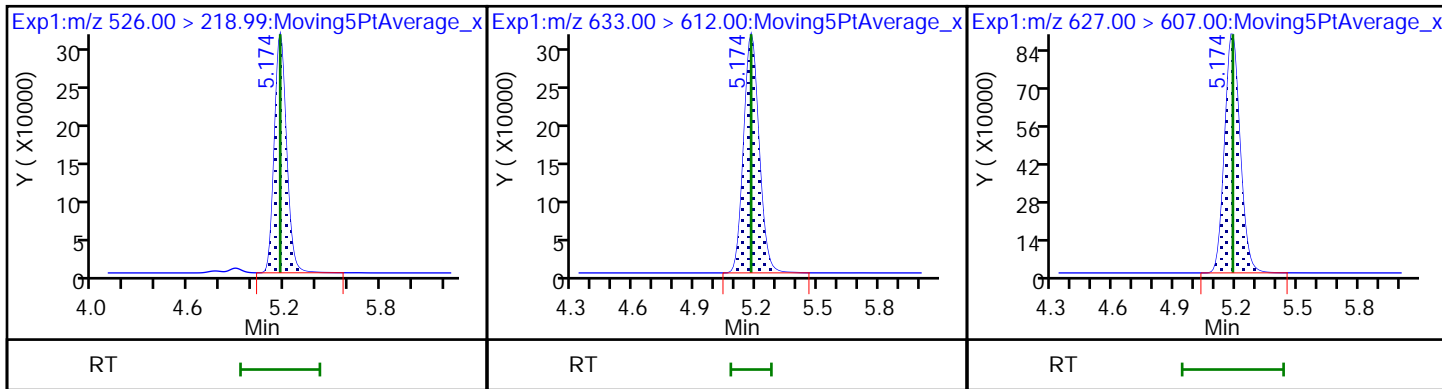
99 N-EtFOSA-M



99 N-EtFOSA-M

D 100 13C2 10:2 FTS

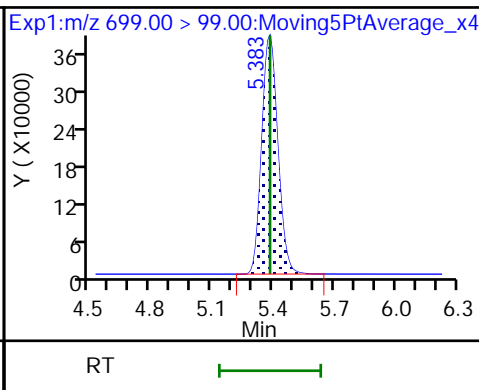
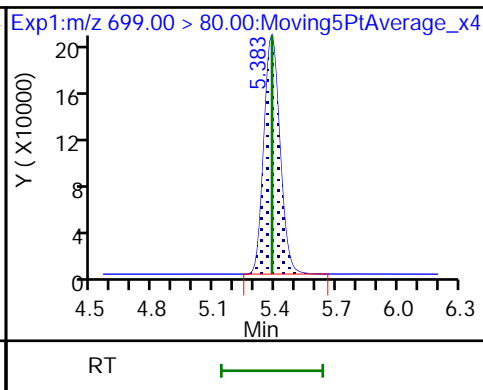
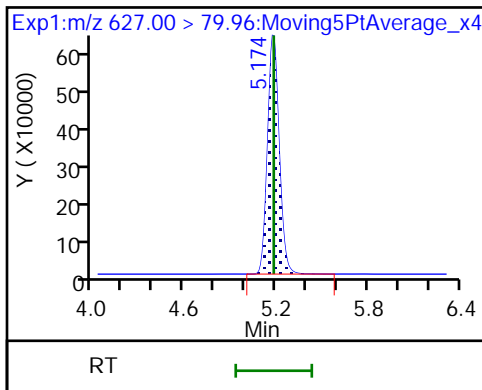
101 10:2 FTS



101 10:2 FTS

102 PFDoS

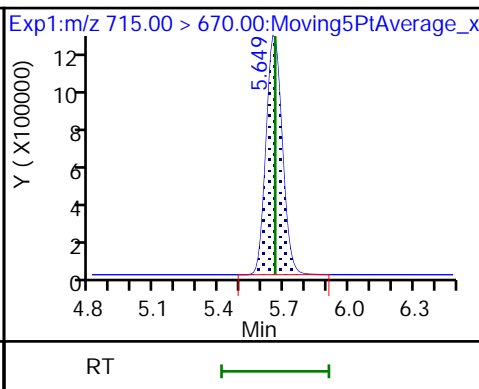
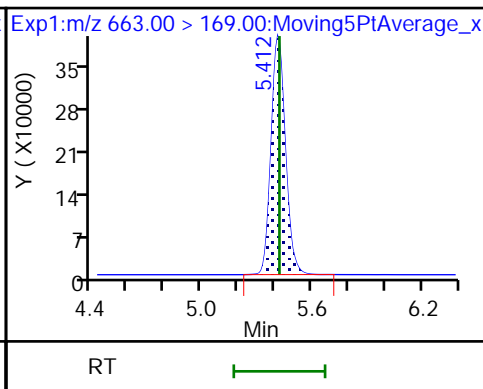
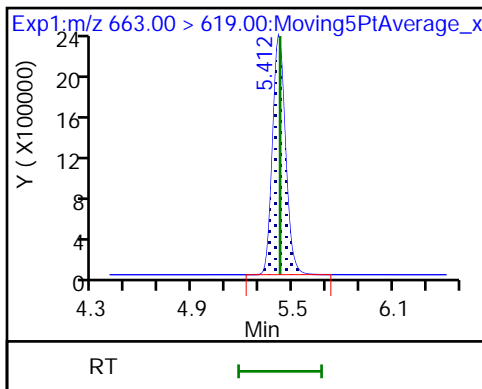
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

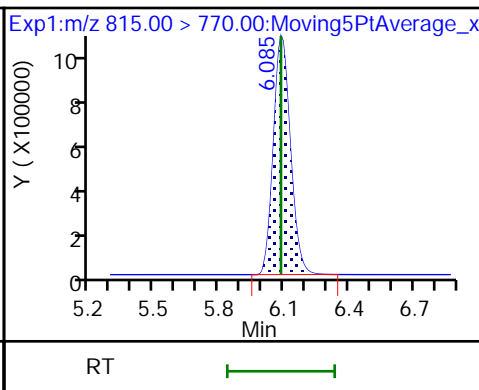
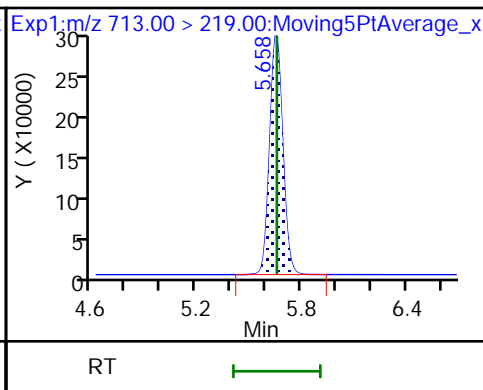
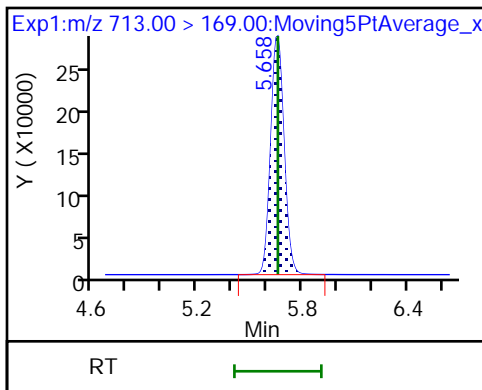
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

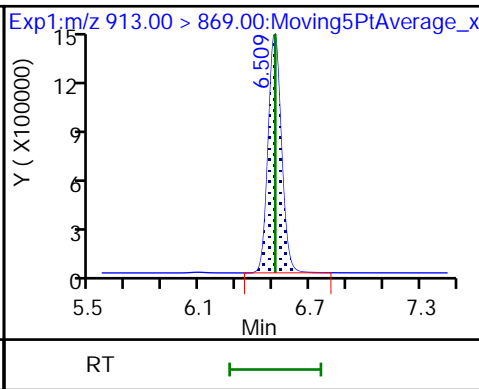
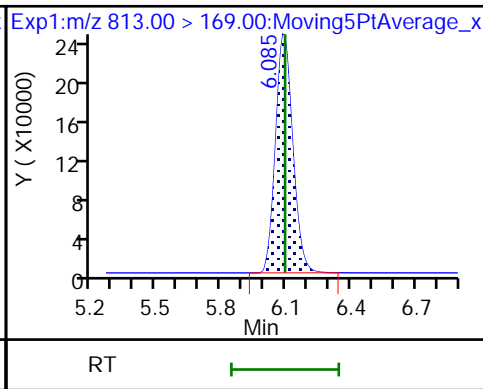
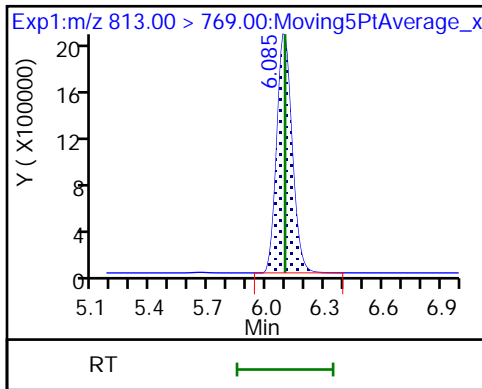
D 106 13C2 PFHxDA



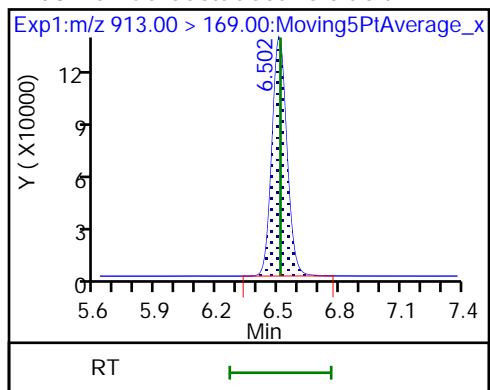
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/20 Calibration Date: 06/10/2021 07:14  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_023.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	LlID		0.0343			1.00	-7.0	40.0
MMF	AveID	0.0724	0.0701			1.00	-3.2	40.0
MTP	AveID	0.0896	0.0955			1.00	6.6	40.0
PFPrA	AveID	0.6311	0.7410			0.970	17.4	40.0
PFMOAA	AveID	0.3080	0.3390			1.00	10.1	40.0
R-PSDA	AveID	0.1112	0.1068			1.00	-3.9	40.0
R-EVE	AveID	0.3326	0.3140			1.00	-5.6	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4484			1.00	2.2	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	1.018		1.08	1.00	7.7	40.0
PFPrS	AveID	1.161	1.147			0.916	-1.2	40.0
PMPA	AveID	0.2182	0.2391			1.00	9.5	40.0
NVHOS	AveID	0.0186	0.0235			1.00	26.8	40.0
PFMPA	AveID	0.6521	0.6454			1.00	-1.0	40.0
PFO2HxA	AveID	0.0727	0.0701			1.00	-3.6	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.029		0.982	1.00	-1.8	40.0
3:3 FTCA	AveID	0.0982	0.1016			1.00	3.4	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.131		0.884	0.884	-0.0	50.0
PEPA	AveID	0.1649	0.1704			1.00	3.4	40.0
PFMBA	AveID	1.195	1.200			1.00	0.4	40.0
PFEEESA	AveID	3.845	3.674			0.890	-4.4	40.0
NFDHA	AveID	0.1332	0.1319			1.00	-1.0	40.0
4:2 FTS	AveID	2.393	2.400		0.937	0.934	0.3	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.046		0.934	1.00	-6.6	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.9777		0.921	0.938	-1.8	50.0
PFO3OA	AveID	0.0345	0.0396			1.00	14.7	40.0
HFPO-DA (GenX)	AveID	1.018	1.062			1.00	4.3	40.0
R-PSDCA	AveID	0.0667	0.1118			1.00	67.5*	40.0
Hydro-EVE Acid	AveID	1.539	1.605			1.00	4.3	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.119		1.06	1.00	5.9	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	0.998		0.822	0.910	-9.7	40.0
Hydro-PS Acid	AveID	1.580	1.672			1.00	5.8	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.382			0.942	-4.3	50.0
5:3 FTCA	AveID	0.2969	0.2950			1.00	-0.7	40.0
PFPE-1	AveID	0.1620	0.2252			1.00	39.0	40.0
6:2 FTUCA	AveID	17.67	14.96			1.00	-15.3	40.0
6:2 FTCA	AveID	0.0160	0.0189			1.00	17.7	40.0
PFO4DA	AveID	0.0394	0.0373			1.00	-5.5	40.0



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
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 Lab Sample ID: CCV 320-497061/20 Calibration Date: 06/10/2021 07:14  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_023.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PS Acid	AveID	0.6583	0.6376			1.00	-3.2	40.0
EVE Acid	AveID	1.047	1.059			1.00	1.1	40.0
PFECHS	AveID	1.196	1.338			0.922	11.9	40.0
6:2 FTS	AveID	2.060	2.094		0.964	0.948	1.7	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.178		0.983	0.952	3.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.098		1.05	1.00	5.1	40.0
PFO5DA	AveID	0.0155	0.0190			1.00	23.0	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.183		0.976	0.928	5.1	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.020		1.03	1.00	3.0	40.0
7:3 FTCA	AveID	7.703	7.210			1.00	-6.4	40.0
8:2 FTUCA	AveID	0.9749	1.015			1.00	4.1	40.0
8:2 FTCA	AveID	1.157	0.8599			1.00	-25.7	40.0
9Cl-PF3ONS	AveID	2.256	2.298			0.932	1.9	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	1.023		1.02	1.00	1.9	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.9872		1.01	0.960	5.5	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8702		0.851	1.00	-14.9	40.0
8:2 FTS	AveID	1.563	1.593		0.976	0.958	1.9	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.6937		0.938	1.00	-6.2	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8582		1.01	0.964	4.7	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8823		0.958	1.00	-4.2	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6514		0.909	1.00	-9.1	40.0
NMeFOSE	AveID	1.058	1.085			1.00	2.6	40.0
10:2 FTUCA	AveID	28.15	22.98			1.00	-18.4	40.0
NMeFOSA	AveID	1.014	1.062			1.00	4.7	50.0
11Cl-PF3OUdS	AveID	2.689	2.731			0.942	1.5	50.0
10:2 FTCA	AveID	0.0284	0.0292			1.00	2.8	40.0
NEtFOSE	AveID	1.174	1.209			1.00	3.0	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.074		0.967	1.00	-3.3	40.0
10:2 FTS	AveID	1.519	1.453			0.964	-4.4	50.0
NEtFOSA	AveID	1.036	1.048			1.00	1.2	40.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2241			0.968	-3.6	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.9793		1.06	1.00	5.5	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1292		1.05	1.00	5.1	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9056		0.980	1.00	-2.0	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497061/20 Calibration Date: 06/10/2021 07:14  
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 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_023.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6172		1.02	1.00	1.7	50.0
13C4 PFBA	Ave	0.998	0.9546		1.20	1.25	-4.3	50.0
13C5 PFPeA	Ave	0.9416	0.9097		1.21	1.25	-3.4	50.0
13C3 PFBS	Ave	0.6563	0.6896		1.22	1.16	5.1	50.0
M2-4:2 FTS	Ave	0.1753	0.1601		1.07	1.17	-8.7	50.0
13C2 PFHxA	Ave	0.9319	0.9354		1.25	1.25	0.4	50.0
13C3 HFPO-DA	Ave	0.1655	0.1544		1.17	1.25	-6.7	50.0
13C4 PFHpA	Ave	0.9175	0.8875		1.21	1.25	-3.3	50.0
18O2 PFHxS	Ave	0.4664	0.5050		1.28	1.18	8.3	50.0
13C-6:2 FTCA	Ave	0.7974	0.8306		1.30	1.25	4.2	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0601		1.54	1.25	22.9	50.0
M2-6:2 FTS	Ave	0.2119	0.1834		1.03	1.19	-13.4	50.0
13C4 PFOA	Ave	1.043	1.025		1.23	1.25	-1.7	50.0
13C4 PFOS	Ave	0.3656	0.3638		1.19	1.20	-0.5	50.0
13C5 PFNA	Ave	0.997	0.9620		1.21	1.25	-3.5	50.0
13C-8:2 FTUCA	Ave	0.9872	0.996		1.26	1.25	0.9	50.0
13C-8:2 FTCA	Ave	0.0451	0.0493		1.37	1.25	9.3	50.0
13C8 FOSA	Ave	0.6160	0.6317		1.28	1.25	2.6	50.0
13C2 PFDA	Ave	0.997	0.9914		1.24	1.25	-0.5	50.0
M2-8:2 FTS	Ave	0.3308	0.2934		1.06	1.20	-11.3	50.0
d3-NMeFOSAA	Ave	0.4207	0.4366		1.30	1.25	3.8	50.0
13C2 PFUnA	Ave	0.9607	0.9567		1.24	1.25	-0.4	50.0
d5-NEtFOSAA	Ave	0.4186	0.4643		1.39	1.25	10.9	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2441		1.21	1.25	-2.9	50.0
13C-10:2 FTCA	Ave	1.160	1.371		1.48	1.25	18.2	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1904		1.29	1.25	3.1	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0485		1.79	1.25	42.9	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3009		1.34	1.25	7.5	50.0
13C2 PFDoA	Ave	1.039	1.097		1.32	1.25	5.5	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1792		1.23	1.25	-1.2	50.0
13C2 10:2 FTS	Ave	0.2654	0.2848		1.29	1.21	7.3	50.0
13C2 PFTeDA	Ave	0.9575	0.9122		1.19	1.25	-4.7	50.0
13C2 PFHxDA	Ave	0.7323	0.8789		1.50	1.25	20.0	50.0
13C8 PFOA	Ave	1.167	1.186		1.27	1.25	1.6	50.0
13C8 PFOS	Ave	0.1093	0.1135		1.24	1.20	3.9	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_023.d  
 Lims ID: CCV L4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 07:14:05 ALS Bottle#: 52 Worklist Smp#: 20  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L4  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfms\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 10:16:11 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfms\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 10:16:11

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.765	0.765	0.0	0.329	173745	0.9297		93.0	373	
2 MMF										
139.00 > 51.00	0.765	0.765	0.0	0.329	354504	0.9679		96.8	240	
3 MTP										
175.00 > 97.00	1.191	1.191	0.0	0.513	483297	1.07		107	260	
4 PPF Acid										
162.95 > 119.00	1.596	1.596	0.0	0.688	3636893	1.14		117	1451	
5 PFMOAA										
179.00 > 84.90	2.064	2.064	0.0	0.890	1715529	1.10		110	4044	
6 R-PSDA										
441.00 > 241.00	2.194	2.194	0.0	0.945	540651	0.9608		96.1	22100	
7 R-EVE										
405.00 > 217.00	2.202	2.202	0.0	0.949	1588760	0.9439		94.4	35907	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.211	2.211	0.0	0.953	2268888	1.02		102	89954	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.321	2.321	0.0	1.000	5152740	1.08		108	7011	
D 9 13C4 PFBA										
217.00 > 172.00	2.321	2.321	0.0	0.605	6324952	1.20		95.7	62282	
11 PMPA										
229.00 > 185.00	2.384	2.384	0.0	1.027	1209592	1.10		110	2822	
12 PFPrS										
249.10 > 80.00	2.384	2.384	0.0	0.888	3839283	0.9048		98.8	17107	
13 NVHOS										
297.00 > 135.00	2.402	2.402	0.0	1.035	119133	1.27		127	3819	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.446	2.446	0.0	0.922	3112478	0.9899		99.0	49130	
16 PFO2HxA										
245.00 > 85.00	2.577	2.577	0.0	0.972	338080	0.9643		96.4	4135	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.652	2.652	0.0	1.000	4963751	0.9823		98.2	10817	
D 17 13C5 PFPeA										
267.90 > 223.00	2.652	2.652	0.0	0.691	6027766	1.21		96.6	49173	
19 3:3 FTCA										
241.00 > 177.10	2.663	2.663	0.0	0.992	371339	1.03	Target=1.28	103	6096	
241.00 > 116.90	2.663	2.663	0.0	0.992	279433		1.33(0.64-1.92)		1834	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.684	0.0	0.700	4249524	1.22		105	28059	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.684	0.0	1.000	3653469	0.8839	Target=2.36	100.0	19369	
298.90 > 99.00	2.684	2.684	0.0	1.000	1520840		2.40(1.18-3.53)		9677	
22 PEPA										
278.90 > 234.90	2.751	2.751	0.0	1.038	821645	1.03		103	1592	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.041	5785791	1.00		100	49070	
24 PES										
314.80 > 135.00	2.832	2.832	0.0	1.055	11954011	0.8504		95.6	69908	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.980	653748	0.9897		99.0	20032	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	1902271	0.9366	Target=2.17	100	59224	
327.00 > 79.96	2.984	2.984	0.0	1.000	865322		2.20(1.09-3.26)		10852	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.778	990748	1.07		91.3	11600	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	5185968	0.9337	Target=13.89	93.4	13959	
313.00 > 119.00	3.028	3.019	0.009	1.003	385602		13.45(6.95-20.84)		4091	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.787	6197567	1.25		100	59185	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.038	3.038	0.0	1.132	3352368	0.9210	Target=3.10	98.2	26197	
349.00 > 99.00	3.038	3.038	0.0	1.132	1116796		3.00(1.55-4.65)		22216	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.023	196182	1.15		115	4992	
33 HFPO-DA										
285.00 > 169.00	3.157	3.157	0.0	1.000	869382	1.04	Target=1.03	104	16885	
285.00 > 185.00	3.157	3.157	0.0	1.000	912943		0.95(0.52-1.55)		11377	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.157	3.157	0.0	0.823	1023285	1.17		93.3	25568	
34 R-PSDCA										
397.00 > 217.00	3.379	3.379	0.0	0.984	525951	1.68		168	16640	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.404	3.404	0.0	0.992	7550967	1.04		104	18786	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	5264899	1.06	Target=3.81	106	17783	
363.00 > 169.00	3.433	3.433	0.0	1.000	1352782		3.89(1.91-5.72)		10759	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	2432206	0.8217	Target=3.50	90.3	28405	
399.00 > 99.00	3.433	3.433	0.0	1.000	725219		3.35(1.75-5.25)		14727	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	3165329	1.28		108	41899	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.895	5880753	1.21		96.7	59892	
40 Hydro-PS Acid										
463.00 > 263.00	3.443	3.443	0.0	1.003	7865710	1.06		106	66524	M
41 DONA										
377.00 > 251.00	3.491	3.491	0.0	0.831	9777307	0.9016	Target=2.07	95.7	40289	
377.00 > 85.00	3.491	3.491	0.0	0.831	4999113		1.96(1.03-3.10)		62912	
44 PFECA G										
378.90 > 184.90	3.510	3.510	0.0	0.992	991358	1.39		139	18409	
43 5:3 FTCA										
340.88 > 236.90	3.510	3.510	0.0	0.992	1298805	0.99	Target=1.08	99.3	12641	
340.88 > 216.90	3.510	3.510	0.0	0.992	1243003		1.04(0.54-1.62)		13456	
46 6:2 FTUCA										
356.86 > 292.90	3.537	3.537	0.0	0.993	4770548	0.8467	Target=14.03	84.7	41287	
356.86 > 243.00	3.537	3.537	0.0	0.993	352327		13.54(7.02-21.05)		13395	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.537	3.537	0.0	0.922	5503367	1.30		104	80332	
48 6:2 FTCA										
377.10 > 313.10	3.562	3.562	0.0	1.007	83143	1.18	Target=0.54	118	2313	
377.10 > 63.00	3.562	3.562	0.0	1.007	144426		0.58(0.27-0.81)		6760	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.562	3.562	0.0	0.929	398477	1.54		123	6020	
42 PFO4DA										
376.90 > 85.00	3.603	3.603	0.0	1.049	175349	0.9449		94.5	5.0	M
49 PS Acid										
442.80 > 146.80	3.686	3.686	0.0	0.961	3465631	0.9685		96.8	52825	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	5755516	1.01		101	153492	
51 PFECHS										
460.80 > 380.90	3.771	3.771	0.0	0.983	6704492	1.03	Target=1.90	112	50762	
460.80 > 98.90	3.771	3.771	0.0	0.983	3453162		1.94(0.95-2.85)		48954	
53 6:2 FTS										
427.00 > 407.00	3.816	3.816	0.0	1.000	1929605	0.9637	Target=2.11	102	8547	
427.00 > 79.96	3.816	3.816	0.0	1.000	890137		2.17(1.06-3.17)		4525	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.816	0.0	0.995	1154263	1.03		86.6	15344	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.826	3.826	0.0	0.910	2162358	0.9826	Target=4.82	103	16598	
449.00 > 99.00	3.826	3.826	0.0	0.910	461139		4.69(2.41-7.24)		9417	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.835	0.0		6625851	1.25			51238	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.835	0.0	1.000	5969752	1.05	Target=2.87	105	15193	
413.00 > 169.00	3.835	3.835	0.0	1.000	2102634		2.84(1.43-4.30)		96795	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.835	3.835	0.0	1.000	7858390	1.27		102	63307	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.835	0.0	1.000	6794727	1.23		98.3	44901	
59 TAF										
442.90 > 85.00	4.110	4.110	0.0	1.072	103424	1.23		123	522	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.202	4.202	0.0	1.096	719007	1.24		104	13753	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.202	4.202	0.0	1.000	2117127	0.9757	Target=5.95	105	25795	
499.00 > 99.00	4.202	4.202	0.0	1.000	371603		5.70(2.97-8.92)		17029	
D 61 13C4 PFOS										
503.00 > 80.00	4.202	4.202	0.0	1.096	2304723	1.19		99.5	26951	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.210	0.0	1.098	6373797	1.21		96.5	77564	
64 Perfluorononanoic acid										
463.00 > 419.00	4.218	4.218	0.0	1.002	5199563	1.03	Target=7.58	103	12304	
463.00 > 169.00	4.210	4.218	-0.008	1.000	686835		7.57(3.79-11.37)		7942	
65 7:3 FTCA										
441.00 > 337.00	4.316	4.316	0.0	0.993	1883499	0.9360	Target=1.21	93.6	15731	
441.00 > 317.00	4.316	4.316	0.0	0.993	1586396		1.19(0.60-1.81)		22089	
67 8:2 FTUCA										
456.86 > 392.90	4.332	4.332	0.0	1.000	5356651	1.04	Target=35.28	104	111658	
456.86 > 343.00	4.332	4.332	0.0	1.000	156186		34.30(17.64-52.92)		6427	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.332	4.332	0.0	1.130	6599293	1.26		101	153302	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.347	4.347	0.0	1.134	326531	1.37		109	8569	
69 8:2 FTCA										
477.00 > 393.10	4.355	4.355	0.0	1.002	224640	0.7432	Target=3.24	74.3	7602	
477.00 > 63.20	4.347	4.355	-0.008	1.000	94614		2.37(1.62-4.86)		4761	
70 9CIFOS										
531.00 > 351.00	4.404	4.404	0.0	1.048	4130797	0.9495		102	63267	
D 71 13C8 FOSA										
506.00 > 78.00	4.534	4.534	0.0	1.182	4185679	1.28		103	56946	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.534	4.534	0.0	1.000	3426988	1.02		102	33155	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.543	4.543	0.0	1.081	1827718	1.01	Target=3.28	105	22249	
549.00 > 99.00	4.543	4.543	0.0	1.081	570453		3.20(1.64-4.92)		11172	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.561	0.0	1.000	4573071	0.8512	Target=9.70	85.1	28658	
513.00 > 169.00	4.561	4.561	0.0	1.000	505115		9.05(4.85-14.54)		2304	
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.561	0.0	1.189	6568861	1.24		99.5	82215	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.561	0.0	1.189	1862532	1.06		88.7	23080	
77 8:2 FTS										
527.00 > 507.00	4.571	4.571	0.0	1.002	2374018	0.9765	Target=2.33	102	48992	
527.00 > 79.96	4.571	4.571	0.0	1.002	1033254		2.30(1.17-3.50)		9983	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.719	0.0	1.231	2892551	1.30		104	28869	
79 NMeFOSAA										
570.00 > 419.00	4.719	4.719	0.0	1.000	1605365	0.9379	Target=0.83	93.8	13172	
570.00 > 483.00	4.719	4.719	0.0	1.000	1914943		0.84(0.42-1.25)		43686	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.846	4.846	0.0	1.153	1595506	1.01	Target=3.22	105	16601	
599.00 > 99.00	4.846	4.846	0.0	1.153	530282		3.01(1.61-4.83)		16535	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.874	4.874	0.0	1.000	4474657	0.9580	Target=9.27	95.8	36188	
563.00 > 169.00	4.874	4.874	0.0	1.000	544239		8.22(4.63-13.90)		12704	
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.874	0.0	1.271	6339151	1.24		99.6	84356	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.884	0.0	1.274	3076462	1.39		111	22603	
84 NEtFOSAA										
584.00 > 419.00	4.894	4.894	0.0	1.002	1603258	0.9092	Target=0.77	90.9	27973	
584.00 > 526.10	4.884	4.894	-0.010	1.000	2130882		0.75(0.39-1.16)		51746	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.979	4.979	0.0	1.298	1617535	1.21		97.1	5933	
86 N-MeFOSE-M										
616.00 > 59.00	4.988	4.988	0.0	1.002	1404529	1.03		103	21291	
89 10:2 FTUCA										
556.86 > 492.90	4.997	4.997	0.0	0.998	5903303	0.8163		81.6	59666	
90 NMeFOSA										
512.00 > 169.00	4.997	4.997	0.0	1.000	1071376	1.05	Target=1.61	105	2694	
512.00 > 218.99	4.997	4.997	0.0	1.000	657386		1.63(0.80-2.41)		4377	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.997	4.997	0.0	1.303	1261387	1.29		103	398	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.997	4.997	0.0	1.303	9084876	1.48		118	207784	
93 11CIFOS										
631.00 > 451.00	5.007	5.007	0.0	1.192	4960832	0.9566		102	76302	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.017	5.017	0.0	1.004	212262	1.03	Target=2.56	103	7296	
576.80 > 63.10	5.007	5.017	-0.010	1.002	113964		1.86(1.28-3.83)		4989	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.007	5.007	0.0	1.306	321104	1.79		143	6416	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.139	5.139	0.0	1.340	1993736	1.34		107	10821	
95 N-EtFOSE-M										
630.00 > 59.00	5.159	5.159	0.0	1.004	1929015	1.03		103	16495	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.159	5.159	0.0	1.000	6244293	0.9669	Target=7.93	96.7	35097	
613.00 > 169.00	5.159	5.159	0.0	1.000	773048		8.08(3.97-11.90)		16521	
D 97 13C2 PFDaA										
615.00 > 570.00	5.159	5.159	0.0	1.345	7266372	1.32		106	93180	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.167	5.167	0.0	1.347	1187230	1.23		98.8	2256	
99 N-EtFOSA-M										
526.00 > 169.00	5.176	5.176	0.0	1.002	995556	1.01	Target=1.61	101	2582	
526.00 > 218.99	5.176	5.176	0.0	1.002	654588		1.52(0.80-2.41)		2392	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.176	5.176	0.0	1.350	1821296	1.29		107	58830	
101 10:2 FTS										
627.00 > 607.00	5.176	5.176	0.0	1.000	2114774	0.9219	Target=1.46	95.6	51075	
627.00 > 79.96	5.176	5.176	0.0	1.000	1369974		1.54(0.73-2.19)		14729	
102 PFDoS										
699.00 > 80.00	5.387	5.387	0.0	1.282	418426	0.9330	Target=0.54	96.4	9606	
699.00 > 99.00	5.387	5.387	0.0	1.282	785537		0.53(0.27-0.81)		24068	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.416	5.416	0.0	1.050	5692536	1.06	Target=5.84	106	37725	
663.00 > 169.00	5.416	5.416	0.0	1.050	937641		6.07(2.92-8.75)		17572	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.651	0.0	1.473	6044394	1.19		95.3	57224	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.661	5.661	0.0	1.002	624560	1.05	Target=1.07	105	17072	
713.00 > 219.00	5.651	5.661	-0.010	1.000	579760		1.08(0.53-1.60)		18502	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.087	6.087	0.0	1.587	5823137	1.50		120	35738	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.087	6.087	0.0	1.000	4218888	0.9801	Target=7.49	98.0	8956	
813.00 > 169.00	6.087	6.087	0.0	1.000	577554		7.30(3.75-11.24)		10655	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.504	6.504	0.0	1.069	2875230	1.02	Target=9.70	102	6468	
913.00 > 169.00	6.504	6.504	0.0	1.069	296580		9.69(4.85-14.55)		6607	

### QC Flag Legend

Processing Flags



Review Flags

M - Manually Integrated

**Reagents:**

LCPFC+\_LL4\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_023.d

Injection Date: 10-Jun-2021 07:14:05

Instrument ID: A15

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 52

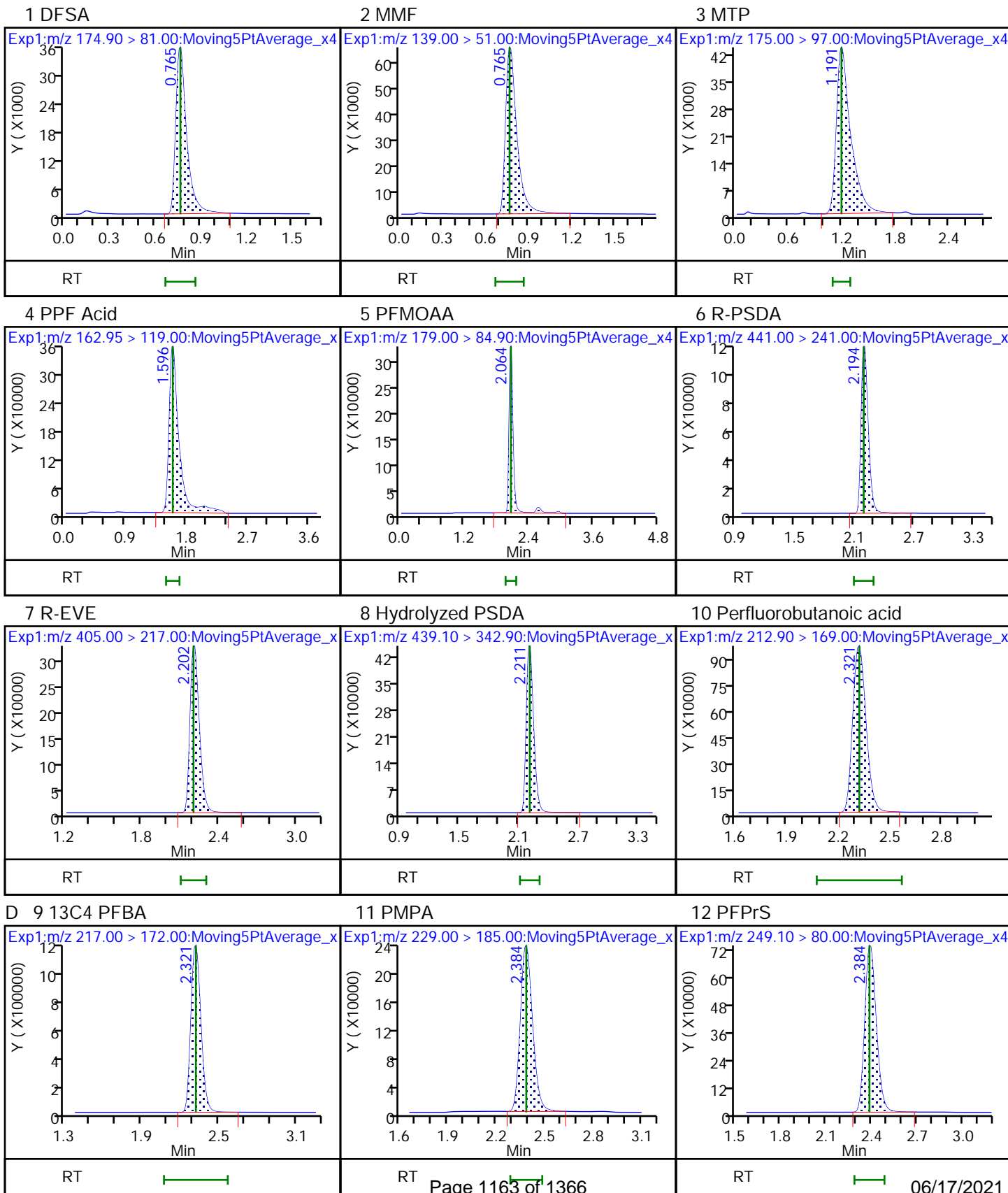
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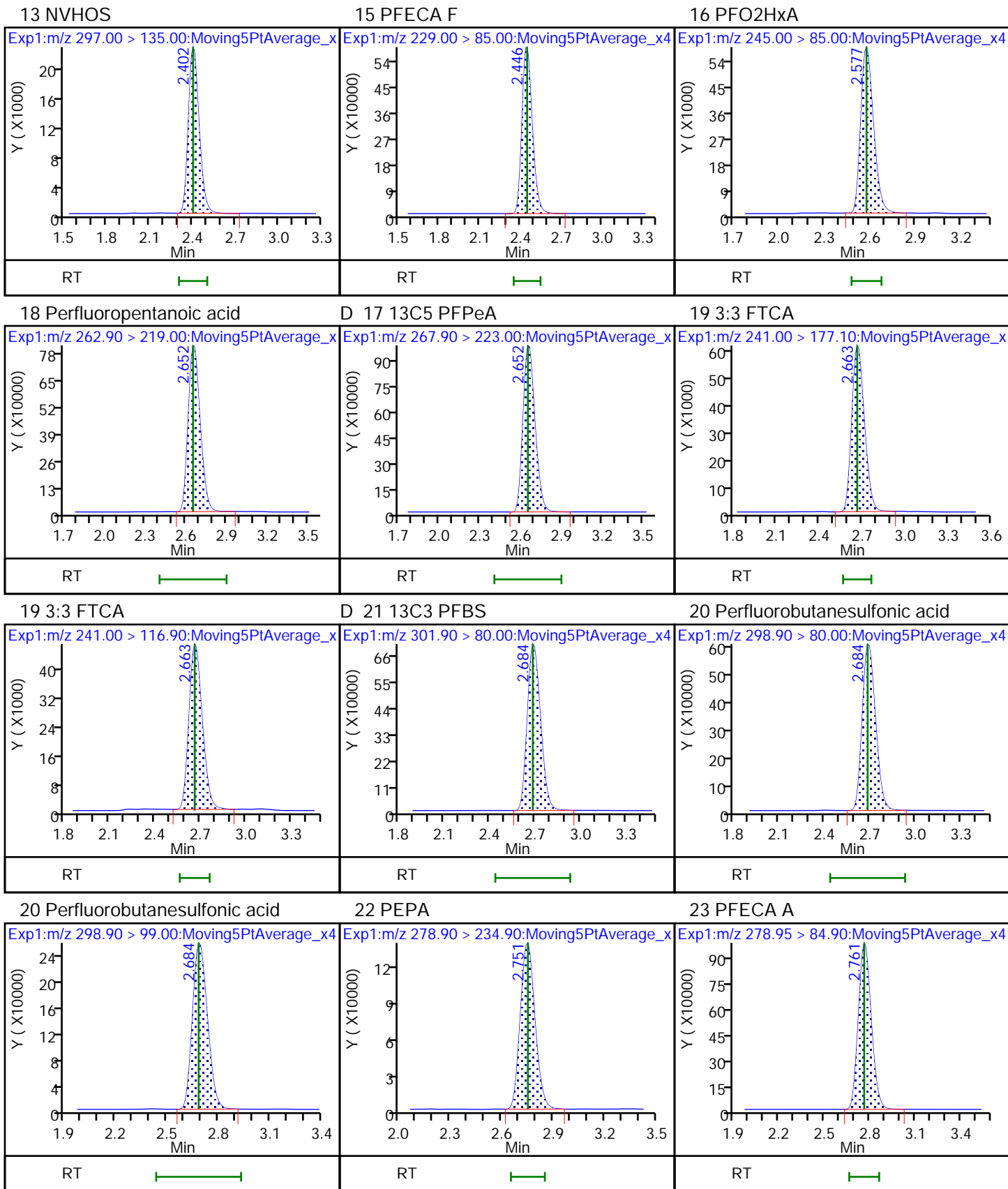
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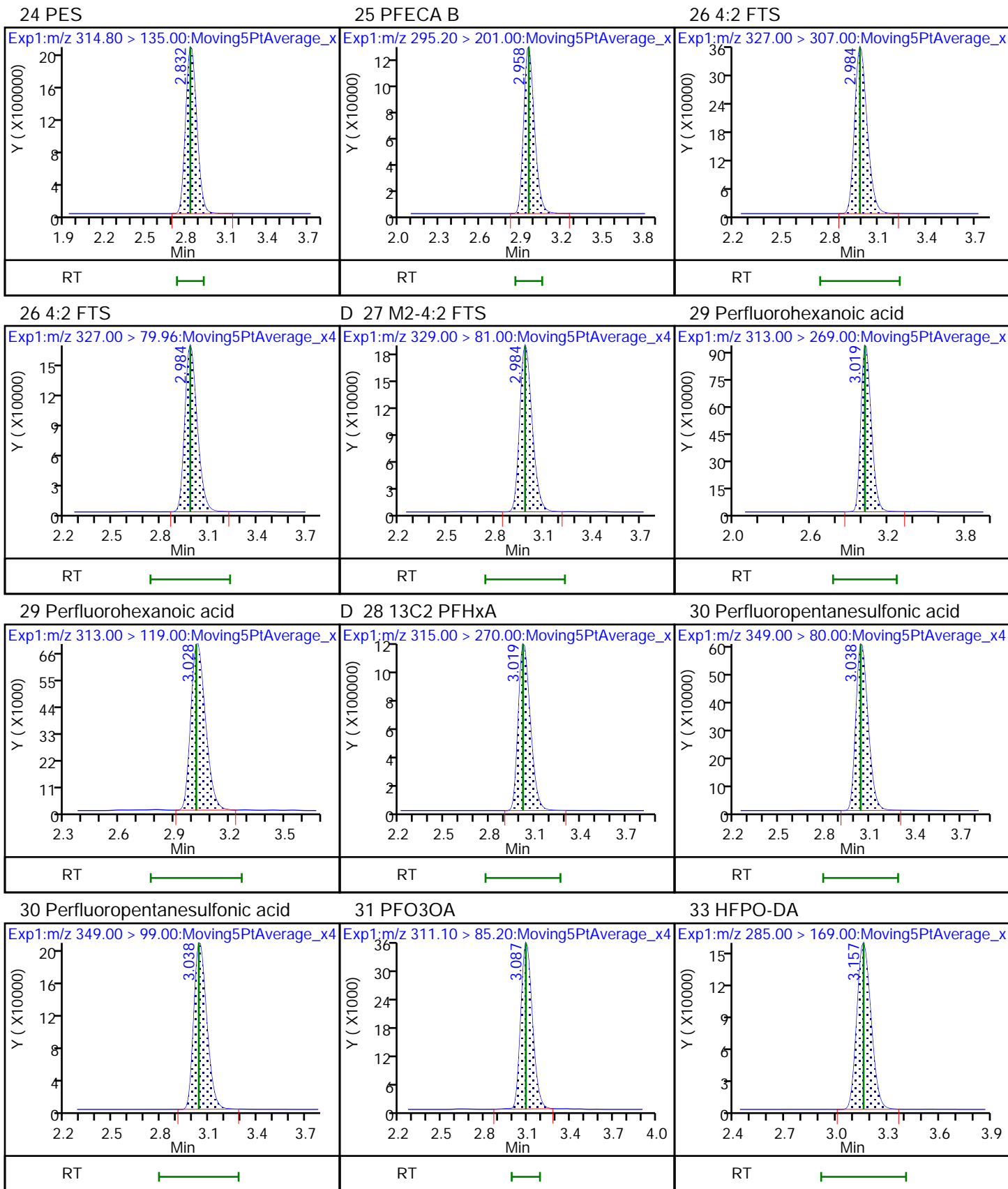
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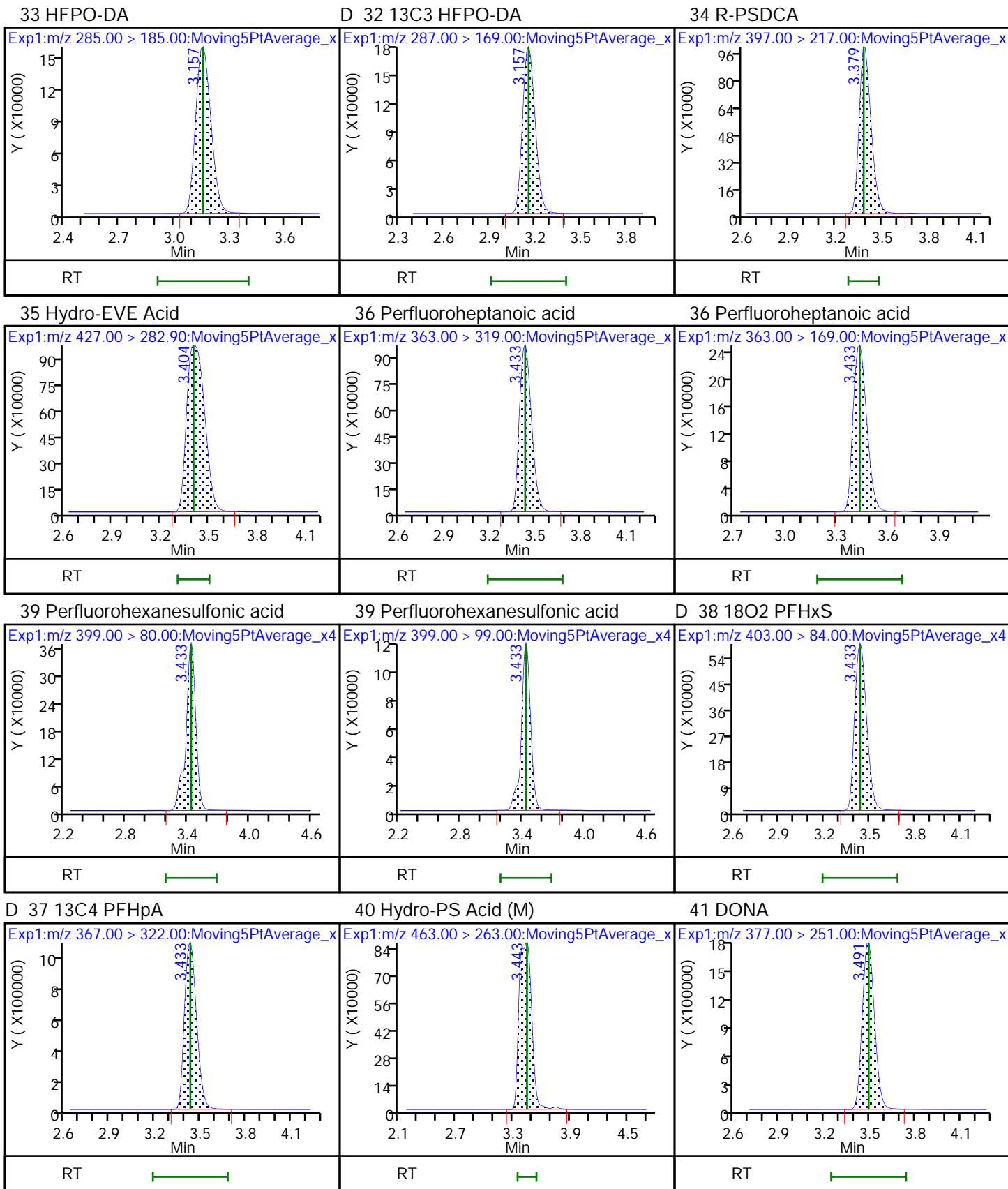
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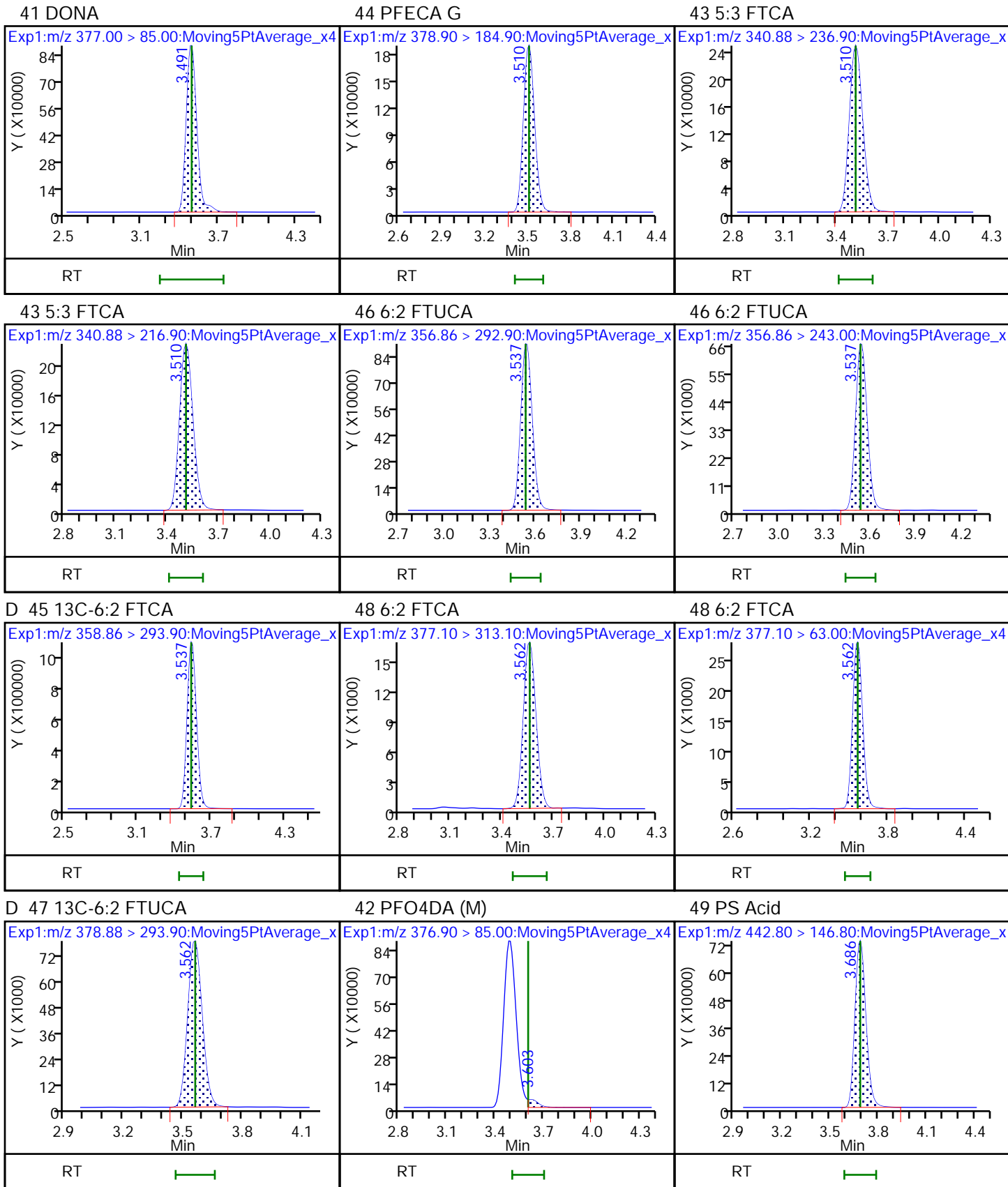
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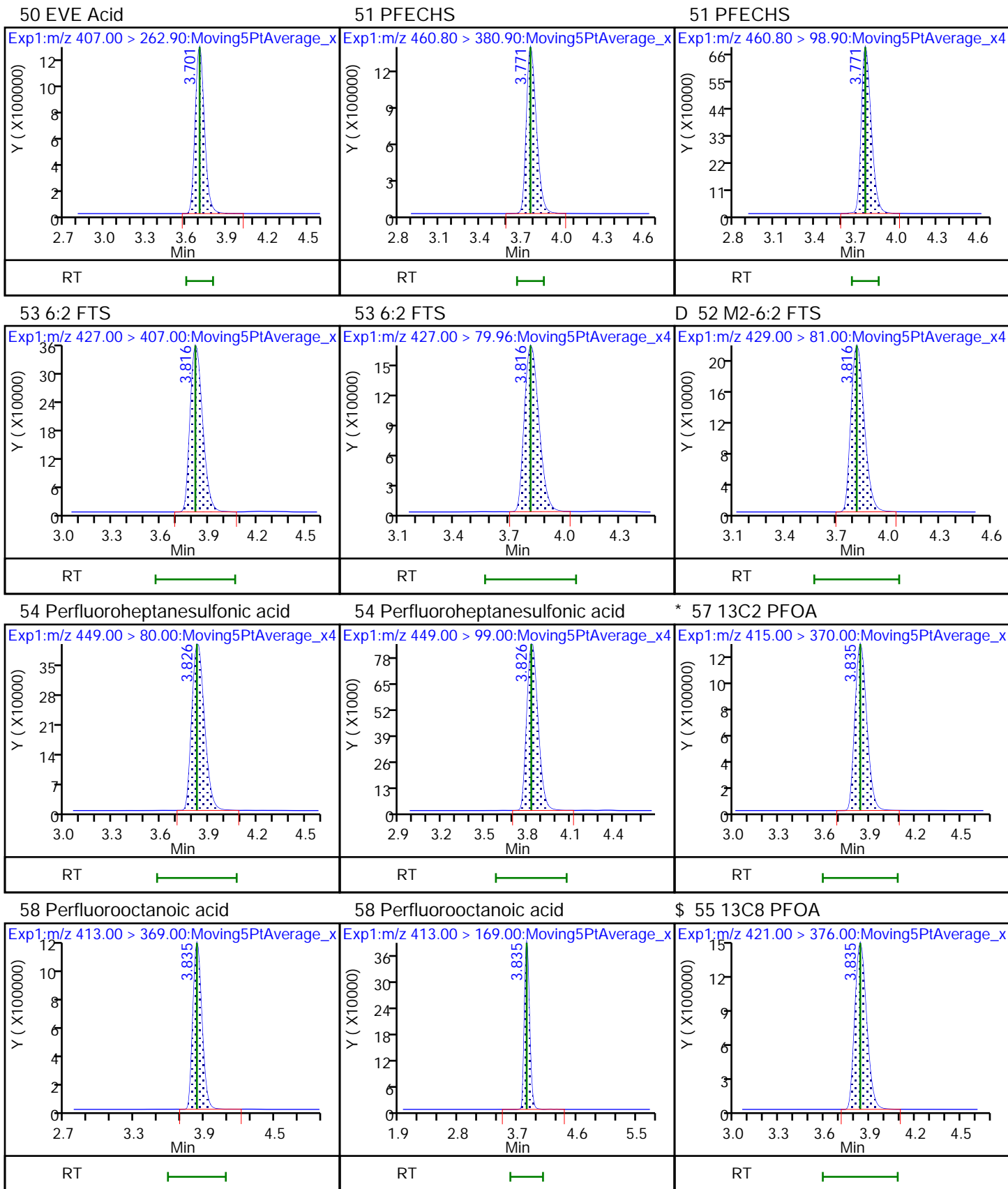








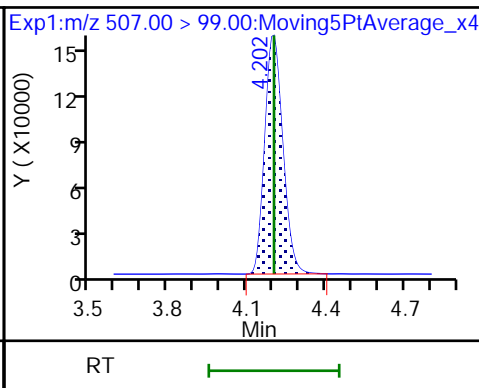
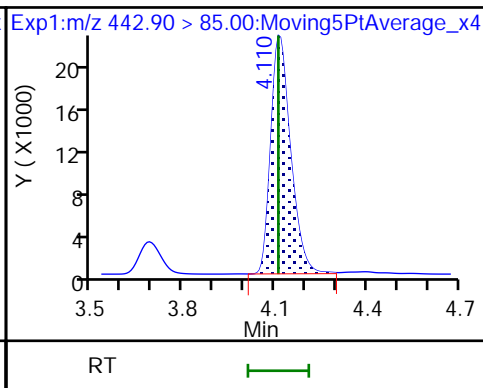
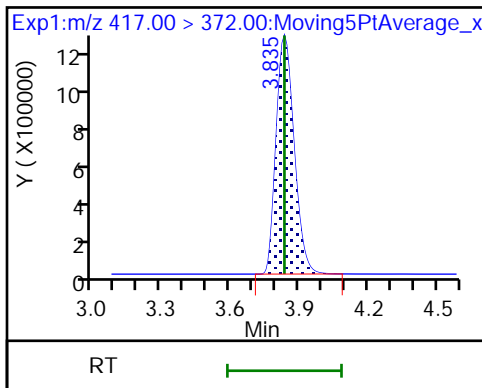




D 56 13C4 PFOA

59 TAF

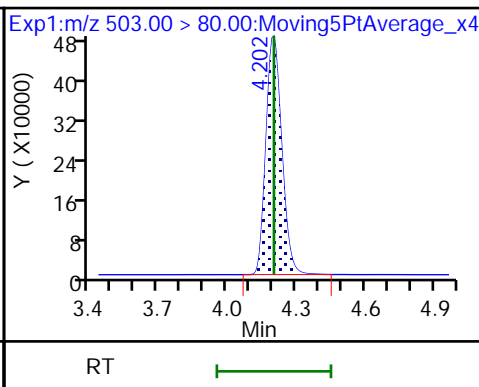
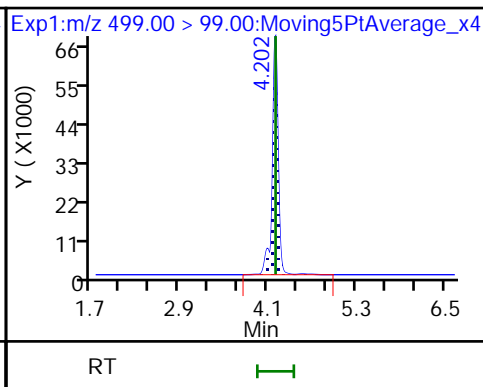
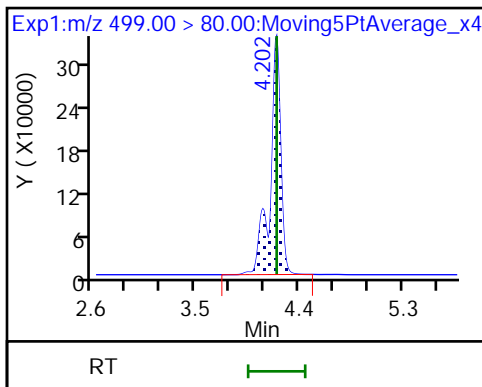
\$ 60 13C8 PFOS



62 Perfluorooctanesulfonic acid

62 Perfluorooctanesulfonic acid

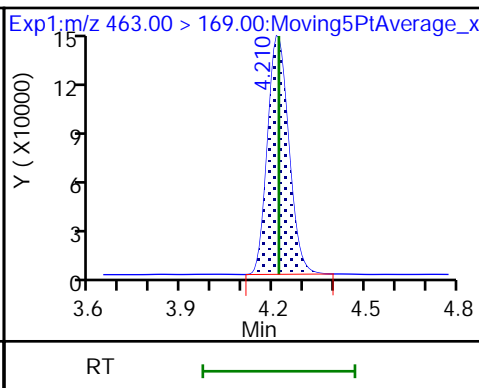
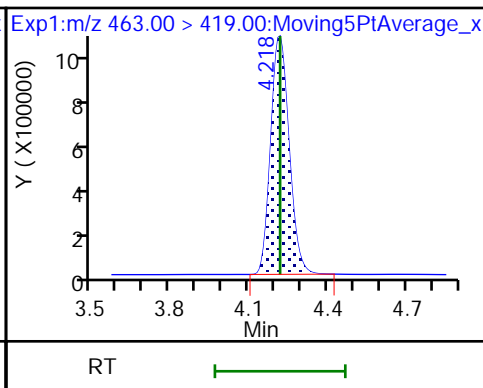
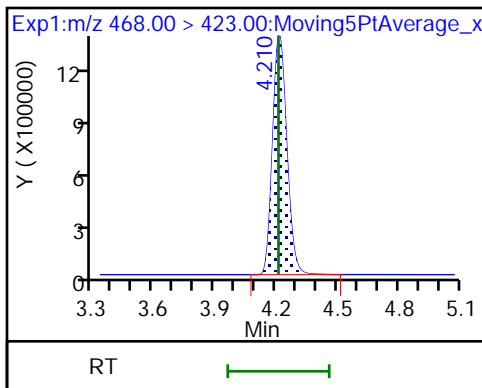
D 61 13C4 PFOS



D 63 13C5 PFNA

64 Perfluorononanoic acid

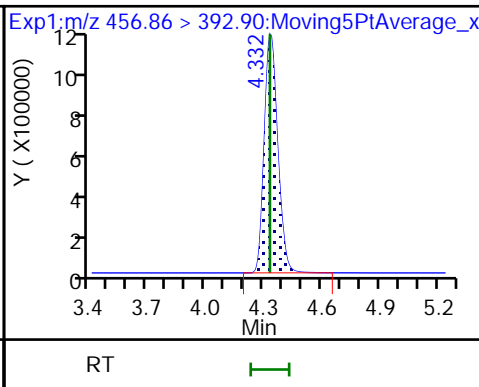
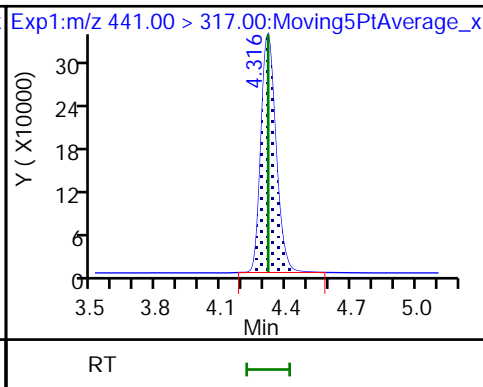
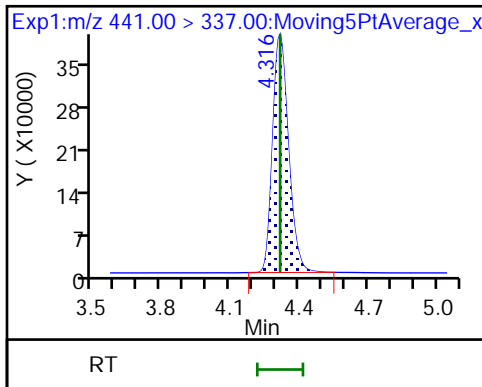
64 Perfluorononanoic acid



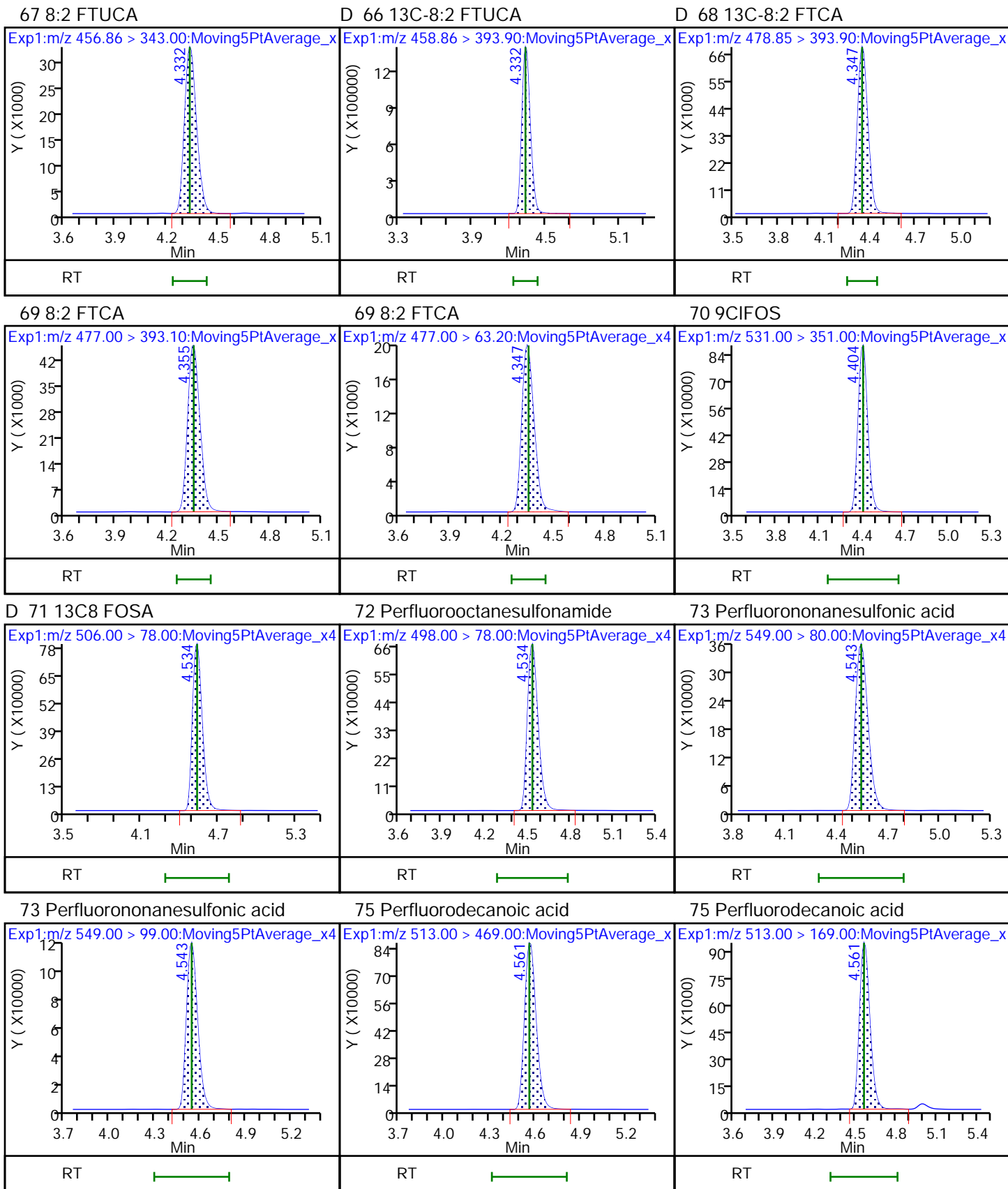
65 7:3 FTCA

65 7:3 FTCA

67 8:2 FTUCA



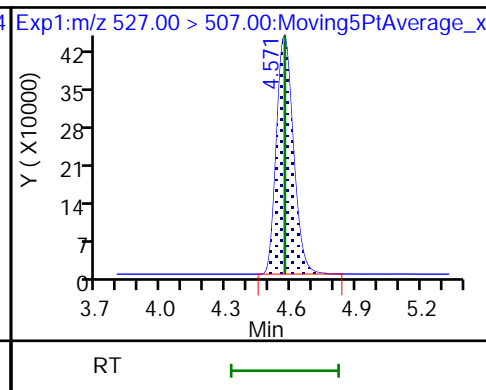
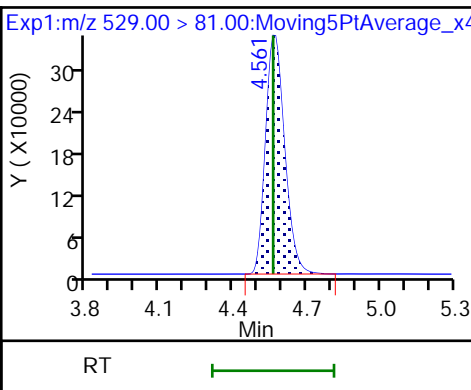
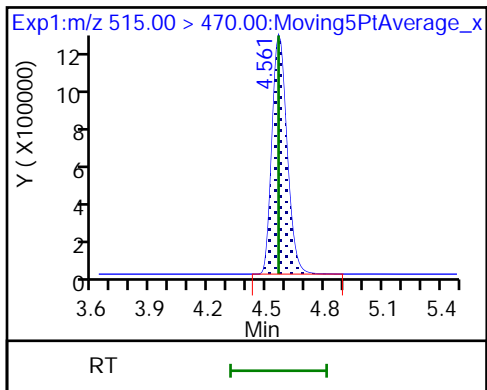




D 74 13C2 PFDA

D 76 M2-8:2 FTS

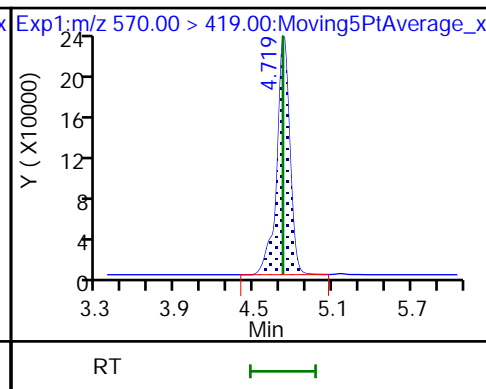
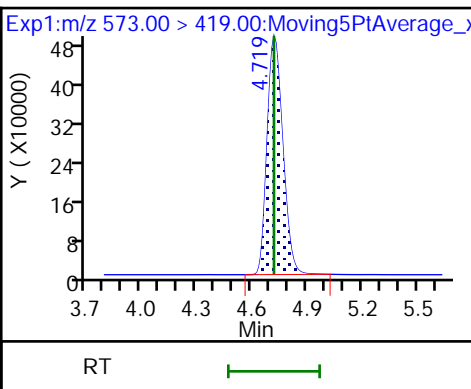
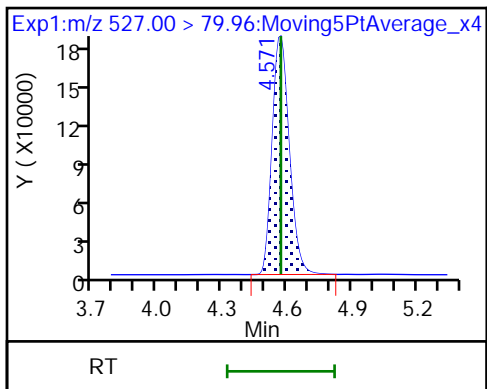
77 8:2 FTS



77 8:2 FTS

D 78 d3-NMeFOSAA

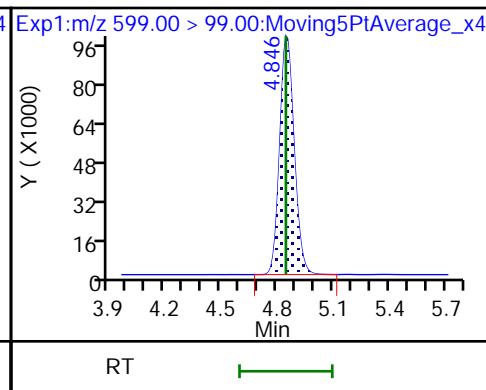
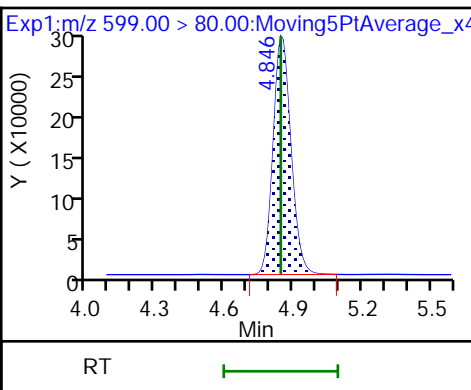
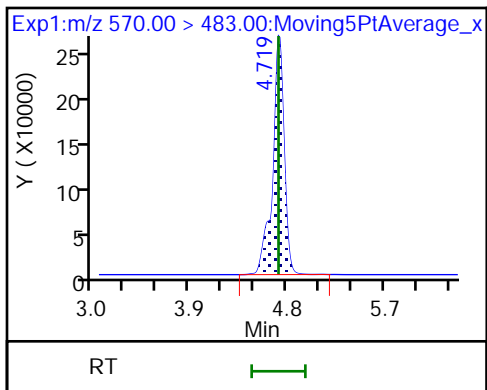
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid

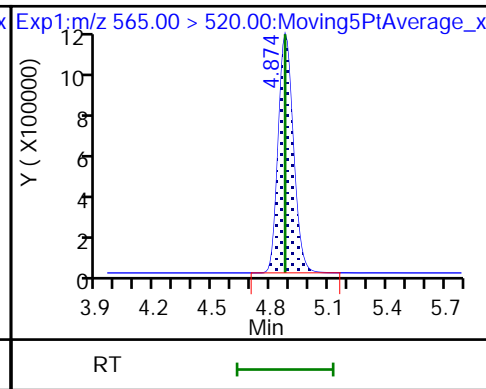
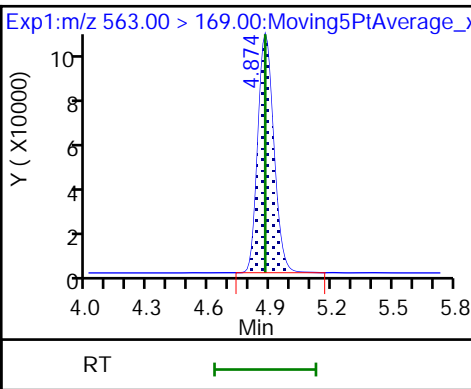
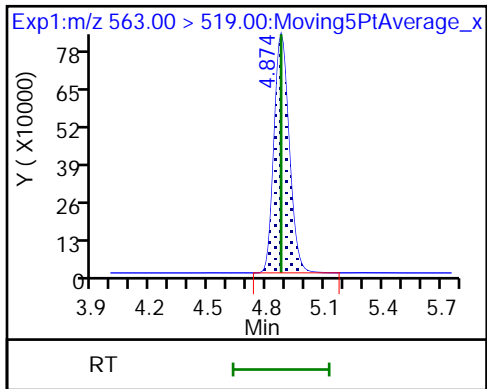
80 Perfluorodecanesulfonic acid



81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

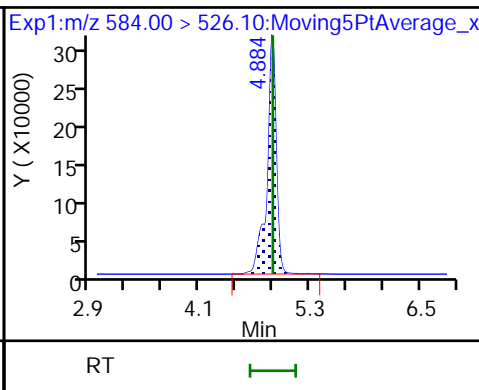
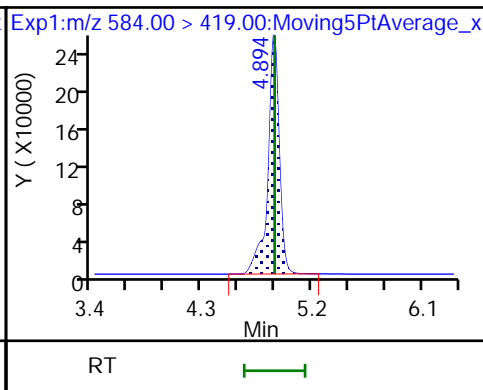
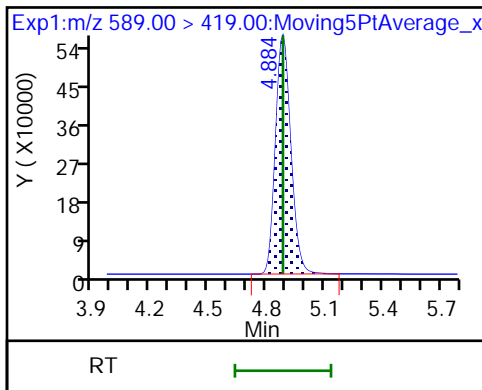
D 82 13C2 PFCUnA



D 83 d5-NEtFOSAA

84 NEtFOSAA

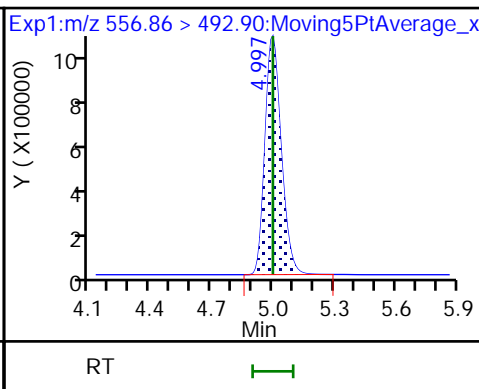
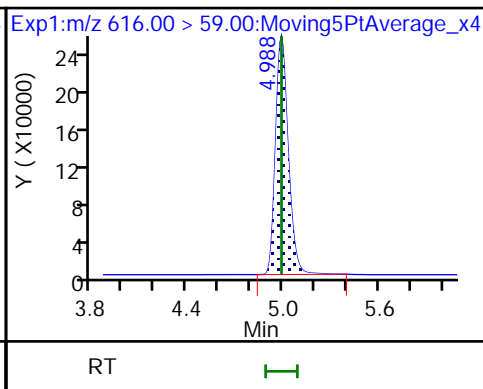
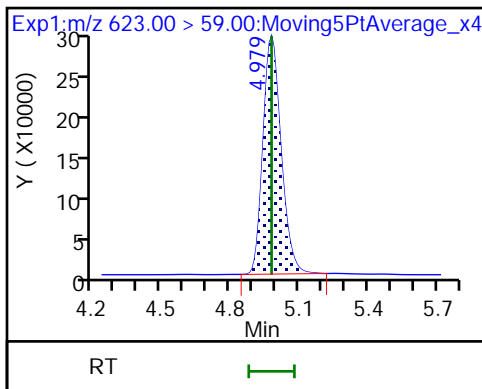
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

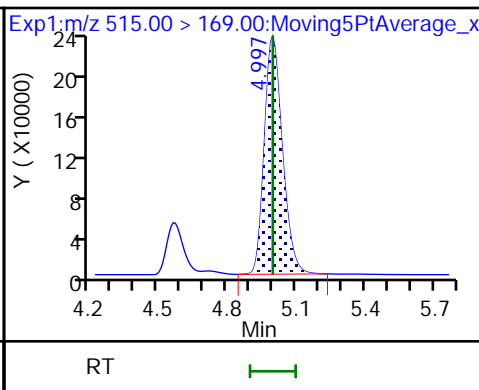
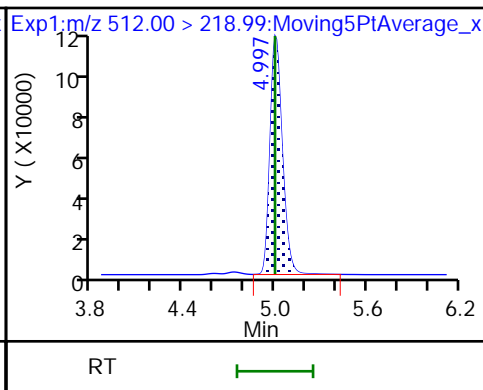
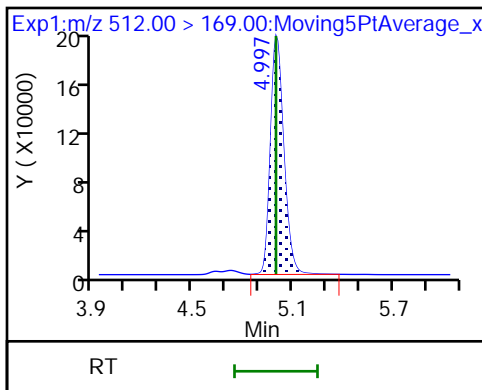
89 10:2 FTUCA



90 NMeFOSA

90 NMeFOSA

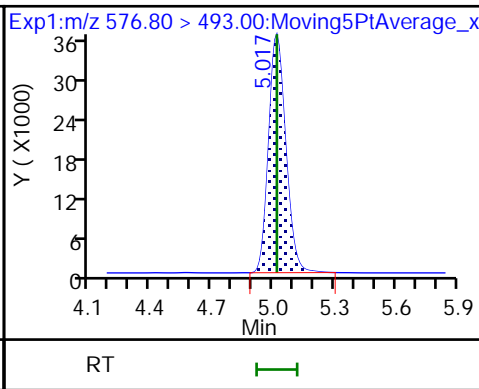
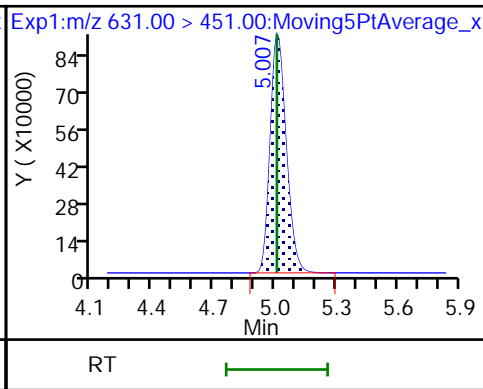
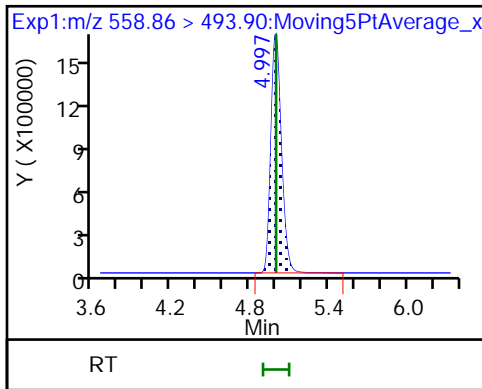
D 87 d-N-MeFOSA-M

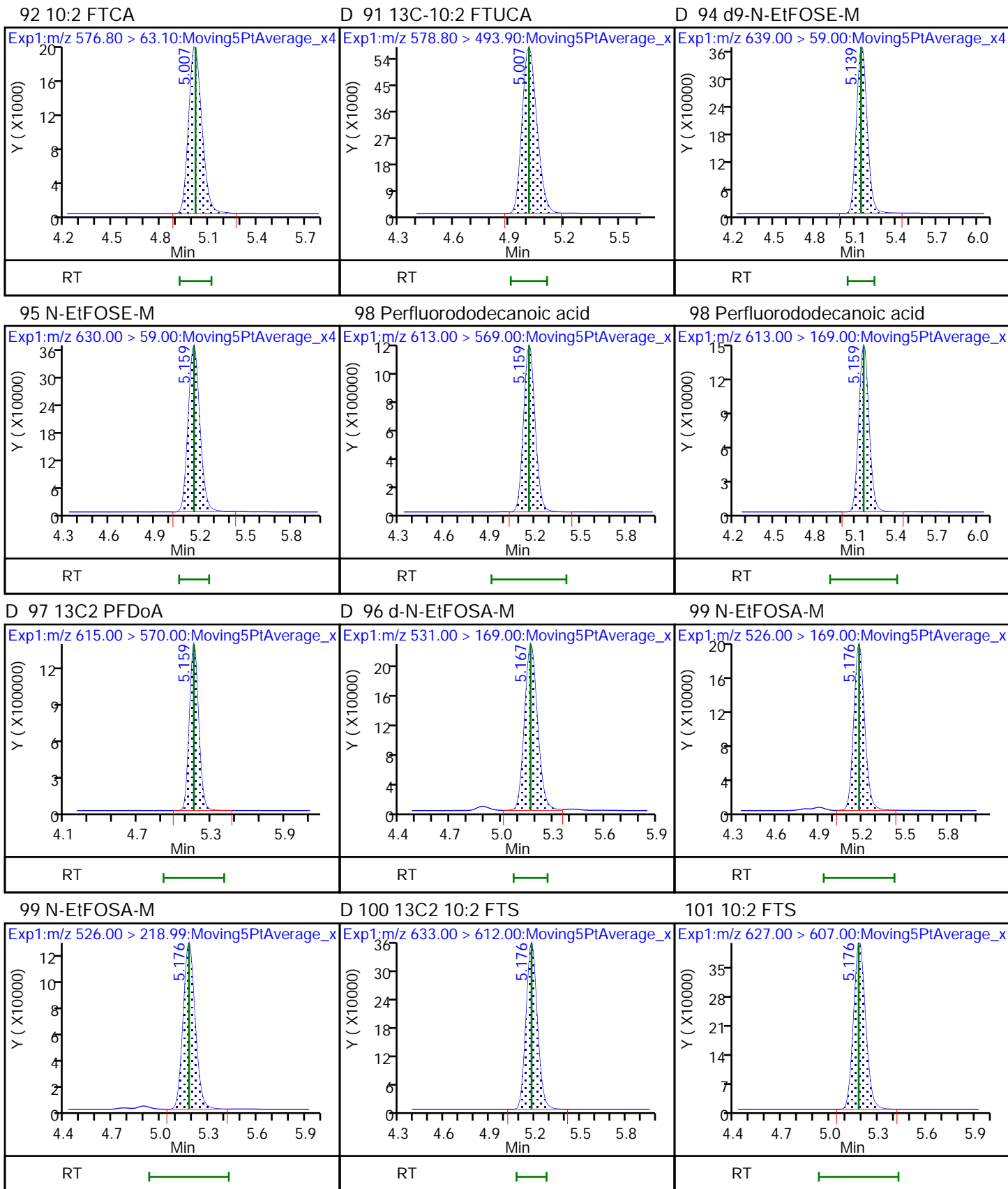


D 88 13C-10:2 FTCA

93 11CIFOS

92 10:2 FTCA

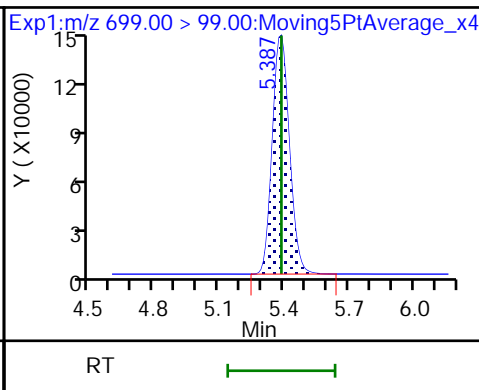
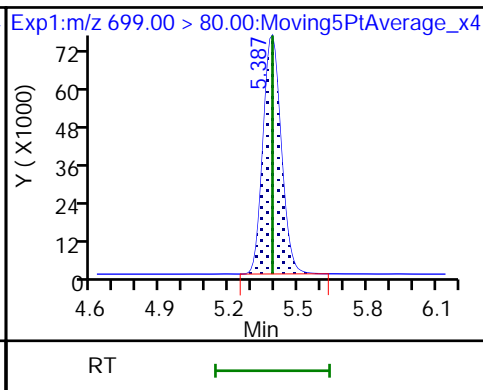
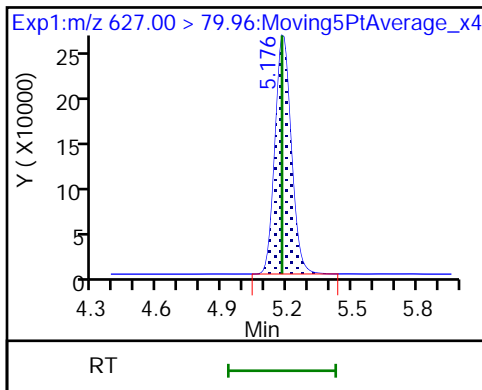




101 10:2 FTS

102 PFDoS

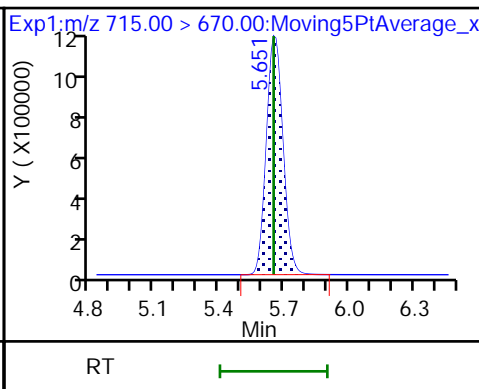
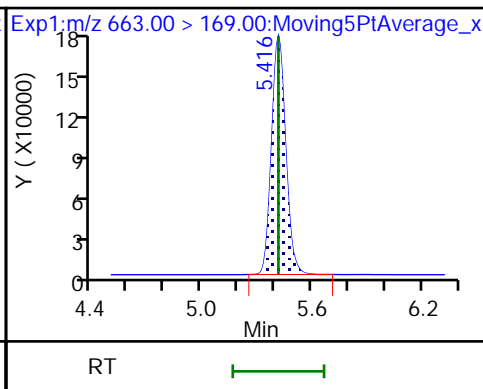
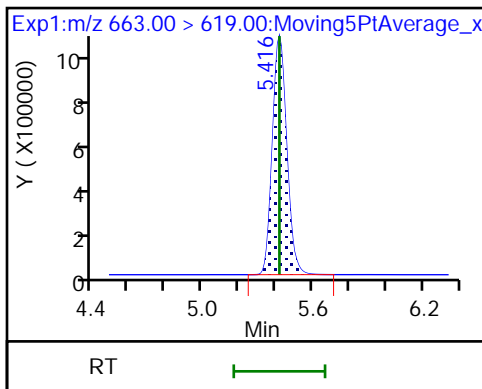
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

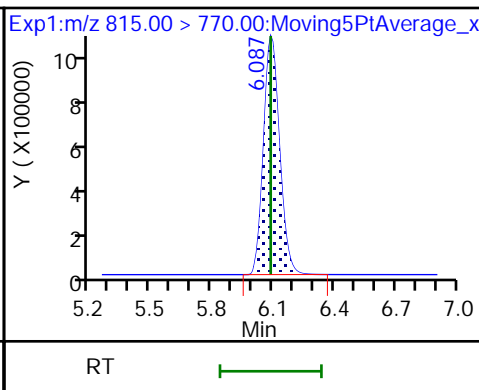
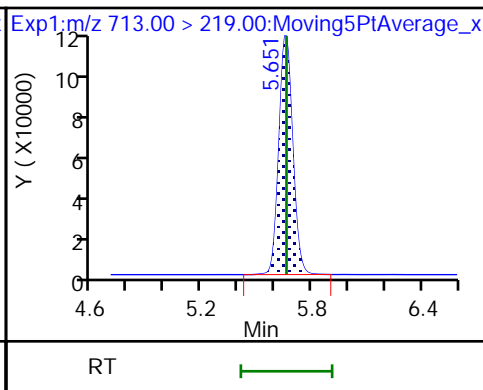
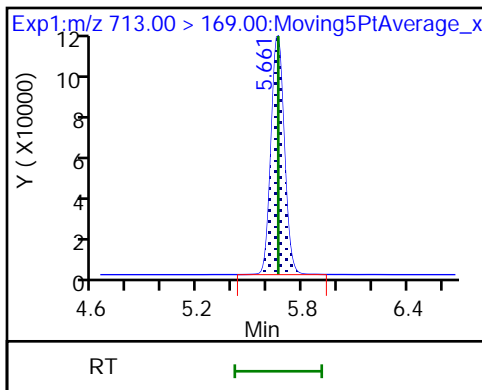
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

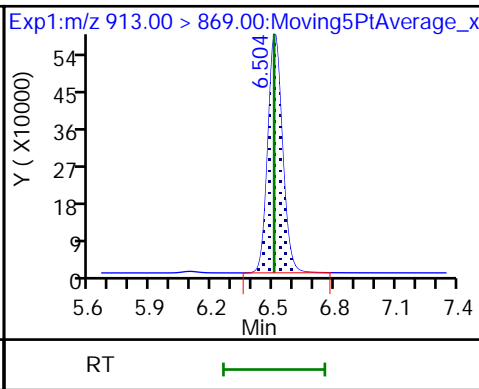
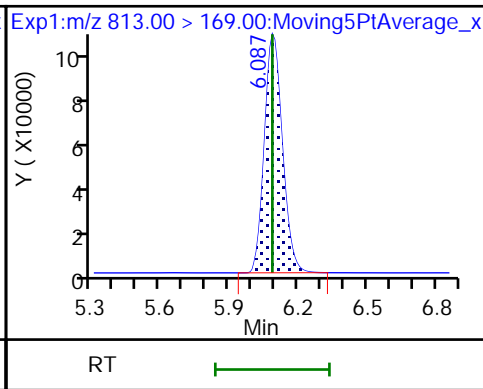
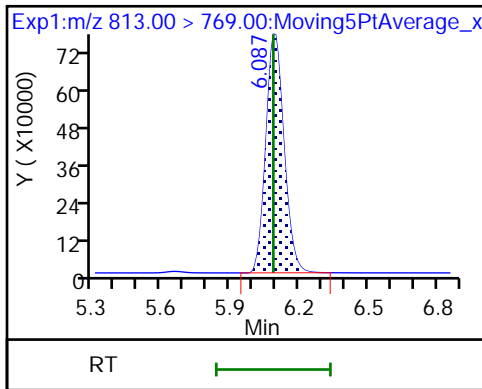
D 106 13C2 PFHxDA



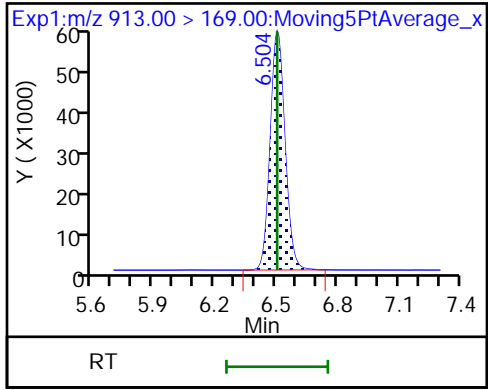
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

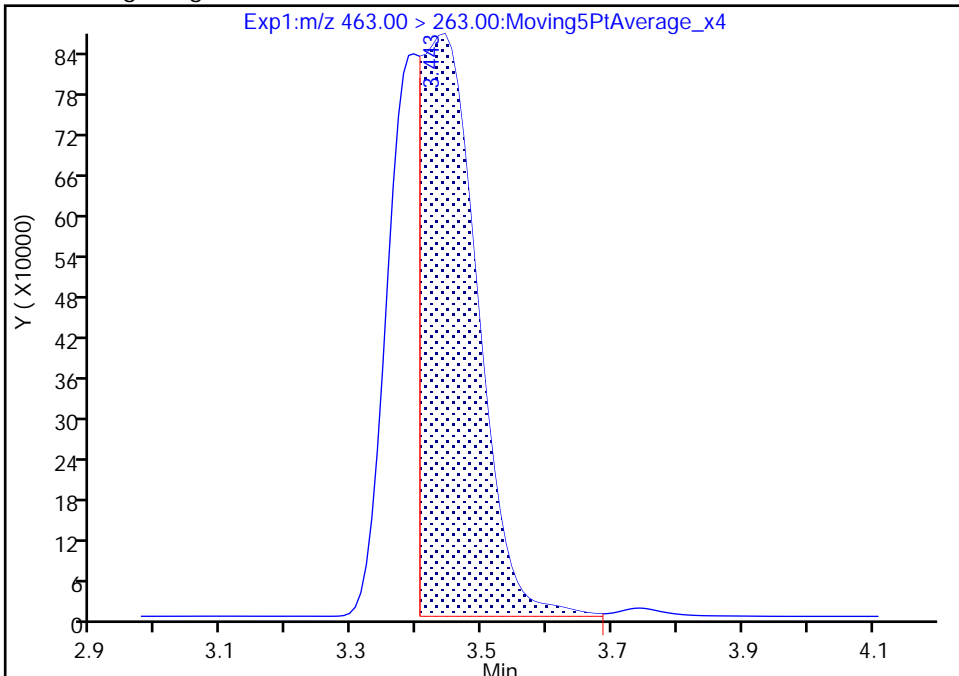
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_023.d  
 Injection Date: 10-Jun-2021 07:14:05 Instrument ID: A15  
 Lims ID: CCV L4  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 52 Worklist Smp#: 20  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

40 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

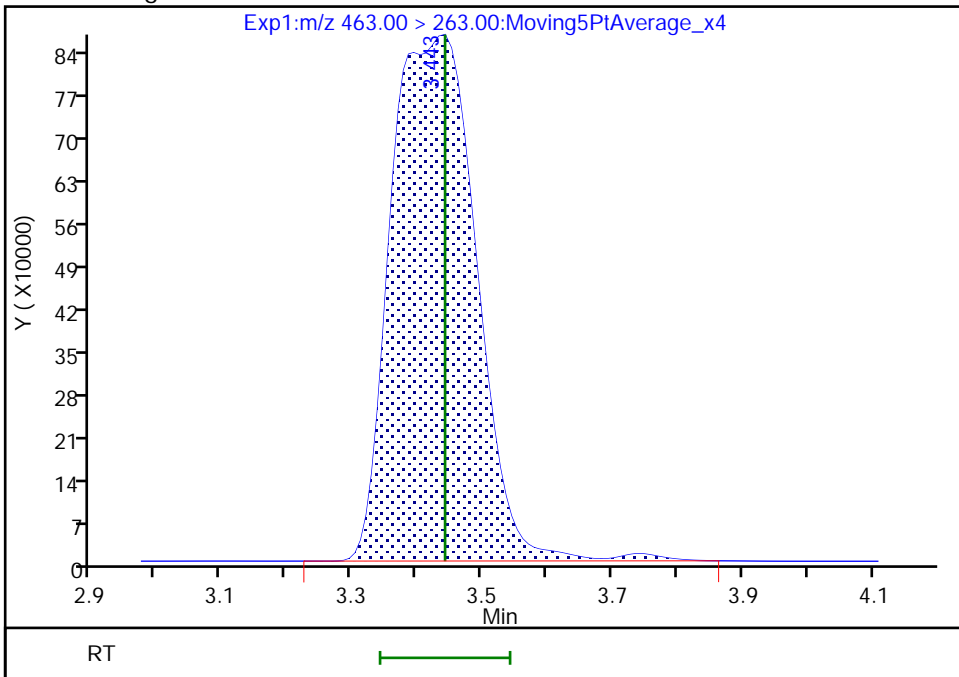
RT: 3.44  
 Area: 5019783  
 Amount: 0.675256  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.44  
 Area: 7865710  
 Amount: 1.058087  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 10:12:52  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

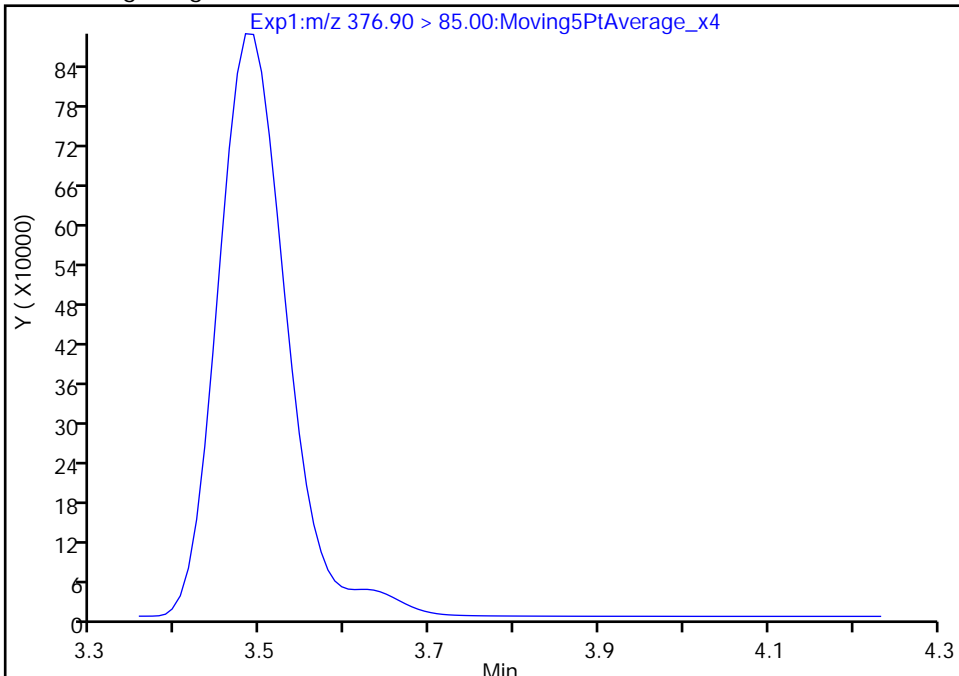
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_023.d  
Injection Date: 10-Jun-2021 07:14:05 Instrument ID: A15  
Lims ID: CCV L4  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 52 Worklist Smp#: 20  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

42 PFO4DA, CAS: 39492-90-5

Signal: 1

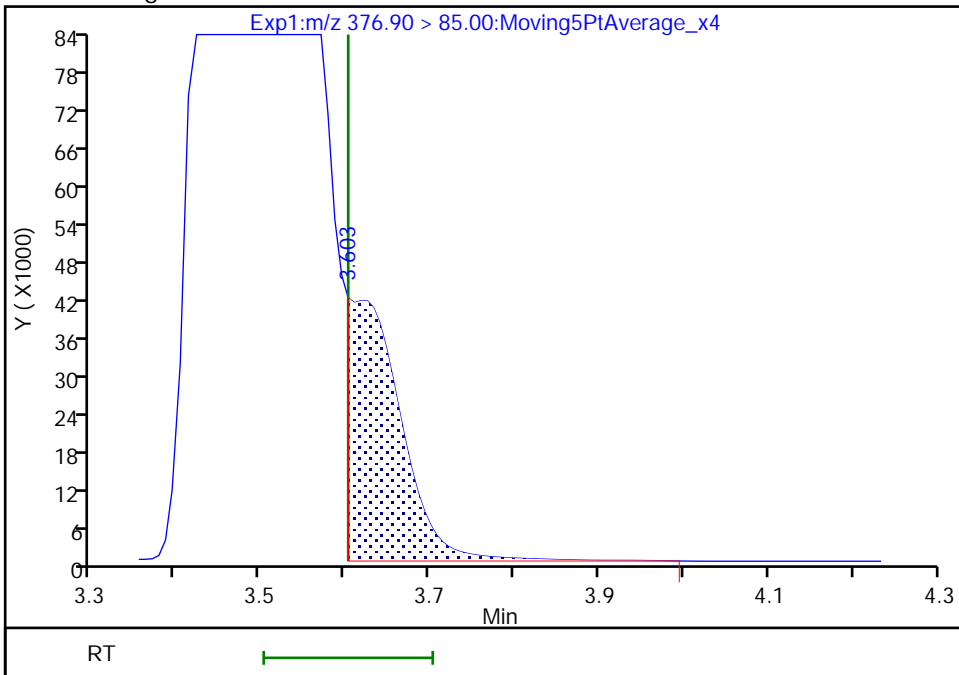
Not Detected  
Expected RT: 3.60

Processing Integration Results



Manual Integration Results

RT: 3.60  
Area: 175349  
Amount: 0.944876  
Amount Units: ng/ml



Reviewer: mongkols, 11-Jun-2021 10:13:07  
Audit Action: Manually Integrated

Audit Reason: Baseline



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/1 Calibration Date: 06/10/2021 07:23  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0333			1.00	-9.8	40.0
MMF	AveID	0.0724	0.0686			1.00	-5.3	40.0
MTP	AveID	0.0896	0.0933			1.00	4.2	40.0
PFPrA	AveID	0.6311	0.7289			0.970	15.5	40.0
PFMOAA	AveID	0.3080	0.3233			1.00	5.0	40.0
R-PSDA	AveID	0.1112	0.1010			1.00	-9.2	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4259			1.00	-2.9	40.0
R-EVE	AveID	0.3326	0.2991			1.00	-10.1	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	0.9647		1.02	1.00	2.0	40.0
PFPrS	AveID	1.161	1.157			0.916	-0.3	40.0
PMPA	AveID	0.2182	0.2280			1.00	4.5	40.0
NVHOS	AveID	0.0186	0.0207			1.00	11.6	40.0
PFMPA	AveID	0.6521	0.6608			1.00	1.3	40.0
PFO2HxA	AveID	0.0727	0.0754			1.00	3.7	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.036		0.989	1.00	-1.1	40.0
3:3 FTCA	AveID	0.0982	0.1045			1.00	6.4	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.135		0.888	0.884	0.4	50.0
PEPA	AveID	0.1649	0.1679			1.00	1.8	40.0
PFMBA	AveID	1.195	1.154			1.00	-3.4	40.0
PFEEA	AveID	3.845	3.809			0.890	-1.0	40.0
NFDHA	AveID	0.1332	0.1399			1.00	5.0	40.0
4:2 FTS	AveID	2.393	2.369		0.925	0.934	-1.0	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.101		0.983	1.00	-1.7	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.9796		0.923	0.938	-1.6	50.0
PFO3OA	AveID	0.0345	0.0286			1.00	-17.1	40.0
HFPO-DA (GenX)	AveID	1.018	1.042			1.00	2.3	40.0
R-PSDCA	AveID	0.0667	0.0957			1.00	43.4*	40.0
Hydro-EVE Acid	AveID	1.539	1.593			1.00	3.5	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.092		1.03	1.00	3.3	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	1.064		0.876	0.910	-3.7	40.0
Hydro-PS Acid	AveID	1.580	1.627			1.00	2.9	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.806			0.942	3.3	50.0
5:3 FTCA	AveID	0.2969	0.2956			1.00	-0.4	40.0
PFPE-1	AveID	0.1620	0.2194			1.00	35.5	40.0
6:2 FTUCA	AveID	17.67	15.41			1.00	-12.8	40.0
6:2 FTCA	AveID	0.0160	0.0170			1.00	6.0	40.0
PS Acid	AveID	0.6583	0.6630			1.00	0.7	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/1 Calibration Date: 06/10/2021 07:23  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.047	1.100			1.00	5.1	40.0
PFECHS	AveID	1.196	1.416			0.922	18.4	40.0
6:2 FTS	AveID	2.060	1.972		0.907	0.948	-4.3	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.166		0.973	0.952	2.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.124		1.08	1.00	7.5	40.0
PFO5DA	AveID	0.0155	0.0169			1.00	9.5	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.149		0.948	0.928	2.1	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.013		1.02	1.00	2.3	40.0
7:3 FTCA	AveID	7.703	7.740			1.00	0.5	40.0
8:2 FTUCA	AveID	0.9749	1.123			1.00	15.1	40.0
8:2 FTCA	AveID	1.157	0.9363			1.00	-19.1	40.0
9Cl-PF3ONS	AveID	2.256	2.288			0.932	1.4	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	0.998		0.994	1.00	-0.6	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.9376		0.962	0.960	0.2	50.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8929		0.873	1.00	-12.7	40.0
8:2 FTS	AveID	1.563	1.625		0.996	0.958	4.0	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.6967		0.942	1.00	-5.8	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8246		0.970	0.964	0.6	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8677		0.942	1.00	-5.8	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6724		0.938	1.00	-6.2	40.0
10:2 FTUCA	AveID	28.15	26.13			1.00	-7.2	40.0
NMeFOSE	AveID	1.058	1.159			1.00	9.6	40.0
NMeFOSA	AveID	1.014	1.038			1.00	2.4	50.0
10:2 FTCA	AveID	0.0284	0.0255			1.00	-10.2	40.0
11Cl-PF3OUdS	AveID	2.689	2.754			0.942	2.4	50.0
NEtFOSE	AveID	1.174	1.139			1.00	-2.9	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.115		1.00	1.00	0.4	40.0
10:2 FTS	AveID	1.519	1.435			0.964	-5.5	50.0
NEtFOSA	AveID	1.036	1.070			1.00	3.2	40.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2224			0.968	-4.4	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.9710		1.05	1.00	4.6	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1188		0.966	1.00	-3.4	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9210		0.997	1.00	-0.3	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.5993		0.987	1.00	-1.3	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/1 Calibration Date: 06/10/2021 07:23  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PFO4DA	AveID	0.0394				1.00		
13C4 PFBA	Ave	0.998	1.036		1.30	1.25	3.8	50.0
13C5 PFPeA	Ave	0.9416	0.9618		1.28	1.25	2.1	50.0
13C3 PFBS	Ave	0.6563	0.6950		1.23	1.16	5.9	50.0
M2-4:2 FTS	Ave	0.1753	0.1628		1.08	1.17	-7.1	50.0
13C2 PFHxA	Ave	0.9319	0.9631		1.29	1.25	3.4	50.0
13C3 HFPO-DA	Ave	0.1655	0.1670		1.26	1.25	0.9	50.0
13C4 PFHpA	Ave	0.9175	0.9545		1.30	1.25	4.0	50.0
18O2 PFHxS	Ave	0.4664	0.4891		1.24	1.18	4.9	50.0
13C-6:2 FTCA	Ave	0.7974	0.8721		1.37	1.25	9.4	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0613		1.57	1.25	25.2	50.0
M2-6:2 FTS	Ave	0.2119	0.1905		1.07	1.19	-10.1	50.0
13C4 PFOA	Ave	1.043	1.032		1.24	1.25	-1.1	50.0
13C4 PFOS	Ave	0.3656	0.3794		1.24	1.20	3.8	50.0
13C5 PFNA	Ave	0.997	1.031		1.29	1.25	3.5	50.0
13C-8:2 FTUCA	Ave	0.9872	1.012		1.28	1.25	2.5	50.0
13C-8:2 FTCA	Ave	0.0451	0.0466		1.29	1.25	3.4	50.0
13C8 FOSA	Ave	0.6160	0.6465		1.31	1.25	5.0	50.0
13C2 PFDA	Ave	0.997	1.055		1.32	1.25	5.8	50.0
M2-8:2 FTS	Ave	0.3308	0.3006		1.09	1.20	-9.1	50.0
d3-NMeFOSAA	Ave	0.4207	0.4511		1.34	1.25	7.2	50.0
13C2 PFUnA	Ave	0.9607	1.063		1.38	1.25	10.6	50.0
d5-NEtFOSAA	Ave	0.4186	0.4759		1.42	1.25	13.7	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2540		1.26	1.25	1.0	50.0
13C-10:2 FTCA	Ave	1.160	1.348		1.45	1.25	16.3	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1950		1.32	1.25	5.6	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0429		1.58	1.25	26.4	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3013		1.34	1.25	7.6	50.0
13C2 PFDoA	Ave	1.039	1.099		1.32	1.25	5.7	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1883		1.30	1.25	3.8	50.0
13C2 10:2 FTS	Ave	0.2654	0.2878		1.31	1.21	8.5	50.0
13C2 PFTeDA	Ave	0.9575	1.014		1.32	1.25	5.9	50.0
13C2 PFHxDA	Ave	0.7323	0.9352		1.60	1.25	27.7	50.0
13C8 PFOA	Ave	1.167	1.183		1.27	1.25	1.4	50.0
13C8 PFOS	Ave	0.1093	0.1195		1.31	1.20	9.4	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfms\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d  
 Lims ID: CCV L4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 07:23:14 ALS Bottle#: 52 Worklist Smp#: 1  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L4  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfms\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:47:19 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfms\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682  
 First Level Reviewer: sorndeek Date: 11-Jun-2021 07:47:19  
 Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.772	0.772	0.0	0.333	177626	0.9016		90.2	337	
2 MMF										
139.00 > 51.00	0.772	0.772	0.0	0.333	365802	0.9475		94.7	237	
3 MTP										
175.00 > 97.00	1.159	1.159	0.0	0.500	497658	1.04		104	258	
4 PPF Acid										
162.95 > 119.00	1.572	1.572	0.0	0.678	3771070	1.12		115	1395	
5 PFMOAA										
179.00 > 84.90	2.056	2.056	0.0	0.886	1724359	1.05		105	3283	
6 R-PSDA										
441.00 > 241.00	2.201	2.201	0.0	0.949	538484	0.9078		90.8	15799	
7 R-EVE										
405.00 > 217.00	2.209	2.209	0.0	0.953	1595256	0.8991		89.9	36144	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.209	2.209	0.0	0.953	2271879	0.9706		97.1	111868	
D 9 13C4 PFBA										
217.00 > 172.00	2.319	2.319	0.0	0.605	6667239	1.30		104	65291	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.319	2.319	0.0	1.000	5145638	1.02		102	6770	
11 PMPA										
229.00 > 185.00	2.383	2.383	0.0	1.027	1215847	1.04		104	2958	
12 PFPrS										
249.10 > 80.00	2.383	2.383	0.0	0.888	3793128	0.9129		99.7	18080	
13 NVHOS										
297.00 > 135.00	2.401	2.401	0.0	1.035	110495	1.12		112	3048	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.436	2.436	0.0	0.919	3273653	1.01		101	52106	
16 PFO2HxA										
245.00 > 85.00	2.575	2.575	0.0	0.972	373326	1.04		104	4934	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.650	2.650	0.0	1.000	5132910	0.9888		98.9	9028	
D 17 13C5 PFPeA										
267.90 > 223.00	2.650	2.650	0.0	0.691	6192214	1.28		102	48610	
19 3:3 FTCA										
241.00 > 177.10	2.661	2.661	0.0	0.992	374198	1.06	Target=1.28	106	6134	
241.00 > 116.90	2.661	2.661	0.0	0.992	270801		1.38(0.64-1.92)		1832	
D 21 13C3 PFBS										
301.90 > 80.00	2.683	2.683	0.0	0.700	4161305	1.23		106	33966	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.683	2.683	0.0	1.000	3592588	0.8876	Target=2.36	100	16803	
298.90 > 99.00	2.683	2.683	0.0	1.000	1555969		2.31(1.18-3.53)		10227	
22 PEPA										
278.90 > 234.90	2.751	2.751	0.0	1.038	831547	1.02		102	1444	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.042	5717631	0.9661		96.6	87273	
24 PES										
314.80 > 135.00	2.831	2.831	0.0	1.055	12133489	0.8815		99.0	73518	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.980	694037	1.05		105	16396	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.778	978880	1.08		92.9	12106	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	1855482	0.9246	Target=2.17	99.0	48864	
327.00 > 79.96	2.984	2.984	0.0	1.000	845649		2.19(1.09-3.26)		12092	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.018	0.0	1.000	5459818	0.9826	Target=13.89	98.3	12137	
313.00 > 119.00	3.018	3.018	0.0	1.000	394092		13.85(6.95-20.84)		4489	
D 28 13C2 PFHxA										
315.00 > 270.00	3.018	3.018	0.0	0.787	6200441	1.29		103	62608	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.037	3.037	0.0	1.132	3289322	0.9229	Target=3.10	98.4	27749	
349.00 > 99.00	3.037	3.037	0.0	1.132	1117574		2.94(1.55-4.65)		22061	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.023	141873	0.8292		82.9	2520	
33 HFPO-DA										
285.00 > 169.00	3.156	3.156	0.0	1.000	896543	1.02	Target=1.03	102	19458	
285.00 > 185.00	3.156	3.156	0.0	1.000	964376		0.93(0.52-1.55)		13072	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.156	3.156	0.0	0.823	1075407	1.26		101	18758	
34 R-PSDCA										
397.00 > 217.00	3.379	3.379	0.0	0.984	470375	1.43		143	14882	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.404	3.404	0.0	0.992	7832794	1.04		104	27243	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	5366709	1.03	Target=3.81	103	22354	
363.00 > 169.00	3.433	3.433	0.0	1.000	1342412		4.00(1.91-5.72)		10229	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.895	6145022	1.30		104	65713	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	2440072	0.8760	Target=3.50	96.3	61567	
399.00 > 99.00	3.433	3.433	0.0	1.000	703832		3.47(1.75-5.25)		12454	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2978734	1.24		105	49590	
40 Hydro-PS Acid										
463.00 > 263.00	3.443	3.443	0.0	1.003	7996130	1.03		103	6372	
41 DONA										
377.00 > 251.00	3.481	3.481	0.0	0.829	10688556	0.9727	Target=2.07	103	65592	
377.00 > 85.00	3.481	3.481	0.0	0.829	4972079		2.15(1.03-3.10)		2552	
43 5:3 FTCA										
340.88 > 236.90	3.510	3.510	0.0	0.992	1327756	1.00	Target=1.08	99.6	15165	
340.88 > 216.90	3.510	3.510	0.0	0.992	1264546		1.05(0.54-1.62)		10640	
44 PFECA G										
378.90 > 184.90	3.510	3.510	0.0	0.992	985599	1.35		135	15137	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.536	3.536	0.0	0.922	5614454	1.37		109	265459	
46 6:2 FTUCA										
356.86 > 292.90	3.536	3.536	0.0	0.995	4861482	0.8719	Target=14.03	87.2	84114	
356.86 > 243.00	3.536	3.536	0.0	0.995	356577		13.63(7.02-21.05)		11197	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.553	3.553	0.0	0.927	394331	1.57		125	6498	
48 6:2 FTCA										
377.10 > 313.10	3.553	3.553	0.0	1.005	76355	1.06	Target=0.54	106	2139	
377.10 > 63.00	3.553	3.553	0.0	1.005	126799		0.60(0.27-0.81)		4920	
49 PS Acid										
442.80 > 146.80	3.686	3.686	0.0	0.961	3522773	1.01		101	46333	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	5844264	1.05		105	103057	
51 PFECHS										
460.80 > 380.90	3.771	3.771	0.0	0.984	6934675	1.09	Target=1.90	118	59805	
460.80 > 98.90	3.771	3.771	0.0	0.984	3636786		1.91(0.95-2.85)		42681	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.815	0.0	0.995	1164986	1.07		89.9	14354	
53 6:2 FTS										
427.00 > 407.00	3.815	3.815	0.0	1.000	1833574	0.9073	Target=2.11	95.7	8486	
427.00 > 79.96	3.815	3.815	0.0	1.000	939754		1.95(1.06-3.17)		4272	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6641642	1.24		98.9	71923	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0	1.000	4431977	1.25		96.6	51905	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
\$ 55 13C8 PFOA										
421.00 > 376.00	3.834	3.834	0.0	1.000	7617527	1.27		101	107796	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	5971140	1.08	Target=2.87	108	36694	
413.00 > 169.00	3.834	3.834	0.0	1.000	1957122		3.05(1.43-4.30)		89545	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.824	3.824	0.0	0.910	2169765	0.9730	Target=4.82	102	19289	
449.00 > 99.00	3.824	3.824	0.0	0.910	442790		4.90(2.41-7.24)		7494	
59 TAF										
442.90 > 85.00	4.116	4.116	0.0	1.074	90001	1.09		109	436	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.193	4.193	0.0	1.094	735714	1.31		109	11938	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2335394	1.24		104	28715	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.000	2084079	0.9478	Target=5.95	102	18358	
499.00 > 99.00	4.201	4.201	0.0	1.000	364301		5.72(2.97-8.92)		10982	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.209	0.0	1.098	6638782	1.29		103	99918	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.002	5379229	1.02	Target=7.58	102	17993	
463.00 > 169.00	4.209	4.217	-0.008	1.000	705016		7.63(3.79-11.37)		8649	
65 7:3 FTCA										
441.00 > 337.00	4.315	4.315	0.0	0.991	1858257	1.00	Target=1.21	100	18401	
441.00 > 317.00	4.315	4.315	0.0	0.991	1653000		1.12(0.60-1.81)		21431	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.331	4.331	0.0	1.130	6513078	1.28		102	122132	
67 8:2 FTUCA										
456.86 > 392.90	4.331	4.331	0.0	1.000	5849014	1.15	Target=35.28	115	110587	
456.86 > 343.00	4.331	4.331	0.0	1.000	155728		37.56(17.64-52.92)		8117	
69 8:2 FTCA										
477.00 > 393.10	4.354	4.354	0.0	1.000	224777	0.8092	Target=3.24	80.9	6324	
477.00 > 63.20	4.354	4.354	0.0	1.000	92458		2.43(1.62-4.86)		4648	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.354	4.354	0.0	1.136	300095	1.29		103	6525	
70 9CIFOS										
531.00 > 351.00	4.403	4.403	0.0	1.048	4168030	0.9454		101	80956	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	4162398	1.31		105	72684	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	3322104	0.99		99.4	35285	
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.541	4.541	0.0	1.081	1759048	0.9615	Target=3.28	100	24381	
549.00 > 99.00	4.541	4.541	0.0	1.081	539465		3.26(1.64-4.92)		13159	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	6790059	1.32		106	85990	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	4850270	0.8734	Target=9.70	87.3	27963	
513.00 > 169.00	4.559	4.559	0.0	1.000	551435		8.80(4.85-14.54)		2283	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.559	0.0	1.189	1853959	1.09		90.9	22667	
77 8:2 FTS										
527.00 > 507.00	4.569	4.569	0.0	1.002	2410583	1.00	Target=2.33	104	74857	
527.00 > 79.96	4.569	4.569	0.0	1.002	1046828		2.30(1.17-3.50)		11462	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2904298	1.34		107	26128	
79 NMeFOSAA										
570.00 > 419.00	4.718	4.718	0.0	1.000	1618698	0.9418	Target=0.83	94.2	14907	
570.00 > 483.00	4.718	4.718	0.0	1.000	1973757		0.82(0.42-1.25)		54483	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.843	4.843	0.0	1.153	1553545	0.9701	Target=3.22	101	23928	
599.00 > 99.00	4.843	4.843	0.0	1.153	499586		3.11(1.61-4.83)		15453	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	6843418	1.38		111	106586	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.872	4.872	0.0	1.000	4750468	0.9421	Target=9.27	94.2	42472	
563.00 > 169.00	4.872	4.872	0.0	1.000	551921		8.61(4.63-13.90)		10325	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	3064014	1.42		114	24616	
84 NEtFOSAA										
584.00 > 419.00	4.882	4.882	0.0	1.000	1648176	0.9384	Target=0.77	93.8	21936	
584.00 > 526.10	4.882	4.882	0.0	1.000	2198795		0.75(0.39-1.16)		53509	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.976	4.976	0.0	1.298	1635515	1.26		101	8652	
86 N-MeFOSE-M										
616.00 > 59.00	4.986	4.986	0.0	1.002	1517068	1.10		110	12036	
89 10:2 FTUCA										
556.86 > 492.90	4.986	4.986	0.0	0.996	5770131	0.9283		92.8	58534	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.986	4.986	0.0	1.301	8680397	1.45		116	262555	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.995	4.995	0.0	1.303	1255245	1.32		106	422	
90 NMeFOSA										
512.00 > 169.00	4.995	4.995	0.0	1.000	1042249	1.02	Target=1.61	102	2701	
512.00 > 218.99	4.995	4.995	0.0	1.000	650906		1.60(0.80-2.41)		3032	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.005	5.005	0.0	1.305	275997	1.58		126	4139	
92 10:2 FTCA										
576.80 > 493.00	5.005	5.005	0.0	1.004	177094	0.8980	Target=2.56	89.8	7575	R
576.80 > 63.10	5.005	5.005	0.0	1.004	142752		1.24(1.28-3.83)		6462	R
93 11CIFOS										
631.00 > 451.00	5.005	5.005	0.0	1.191	5069547	0.9647		102	49285	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.147	5.147	0.0	1.342	1039836	1.34		108	9364	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
95 N-EtFOSE-M										
630.00 > 59.00	5.156	5.156	0.0	1.002	1768299	0.9709		97.1	11474	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.156	5.156	0.0	1.000	6308685	1.00	Target=7.93	100	32723	
613.00 > 169.00	5.156	5.156	0.0	1.000	724433		8.71(3.97-11.90)		15584	
D 97 13C2 PFDaA										
615.00 > 570.00	5.156	5.156	0.0	1.345	7073064	1.32		106	75122	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.165	5.165	0.0	1.347	1211956	1.30		104	2277	
99 N-EtFOSA-M										
526.00 > 169.00	5.174	5.174	0.0	1.002	1037217	1.03	Target=1.61	103	2723	
526.00 > 218.99	5.174	5.174	0.0	1.002	632502		1.64(0.80-2.41)		2789	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.174	5.174	0.0	1.350	1788178	1.31		108	49259	
101 10:2 FTS										
627.00 > 607.00	5.174	5.174	0.0	1.000	2051198	0.9108	Target=1.46	94.5	66515	
627.00 > 79.96	5.174	5.174	0.0	1.000	1392689		1.47(0.73-2.19)		19319	
102 PFDoS										
699.00 > 80.00	5.383	5.383	0.0	1.281	420692	0.9257	Target=0.54	95.6	9662	
699.00 > 99.00	5.383	5.383	0.0	1.281	782126		0.54(0.27-0.81)		20420	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.412	5.412	0.0	1.050	5494451	1.05	Target=5.84	105	35287	
663.00 > 169.00	5.412	5.412	0.0	1.050	901536		6.09(2.92-8.75)		15431	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.649	5.649	0.0	1.473	6525266	1.32		106	59074	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.649	5.649	0.0	1.000	620097	0.9664	Target=1.07	96.6	19833	
713.00 > 219.00	5.658	5.649	0.009	1.002	547081		1.13(0.53-1.60)		20540	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.085	6.085	0.0	1.587	6020833	1.60		128	36971	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.085	6.085	0.0	1.000	4436356	1.00	Target=7.49	99.7	9312	
813.00 > 169.00	6.085	6.085	0.0	1.000	584099		7.60(3.75-11.24)		11902	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.502	6.502	0.0	1.069	2886458	0.9870	Target=9.70	98.7	6085	
913.00 > 169.00	6.502	6.502	0.0	1.069	298864		9.66(4.85-14.55)		6691	

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

**Reagents:**

LCPFC+\_LL4\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Injection Date: 10-Jun-2021 07:23:14

Instrument ID: A15

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 52

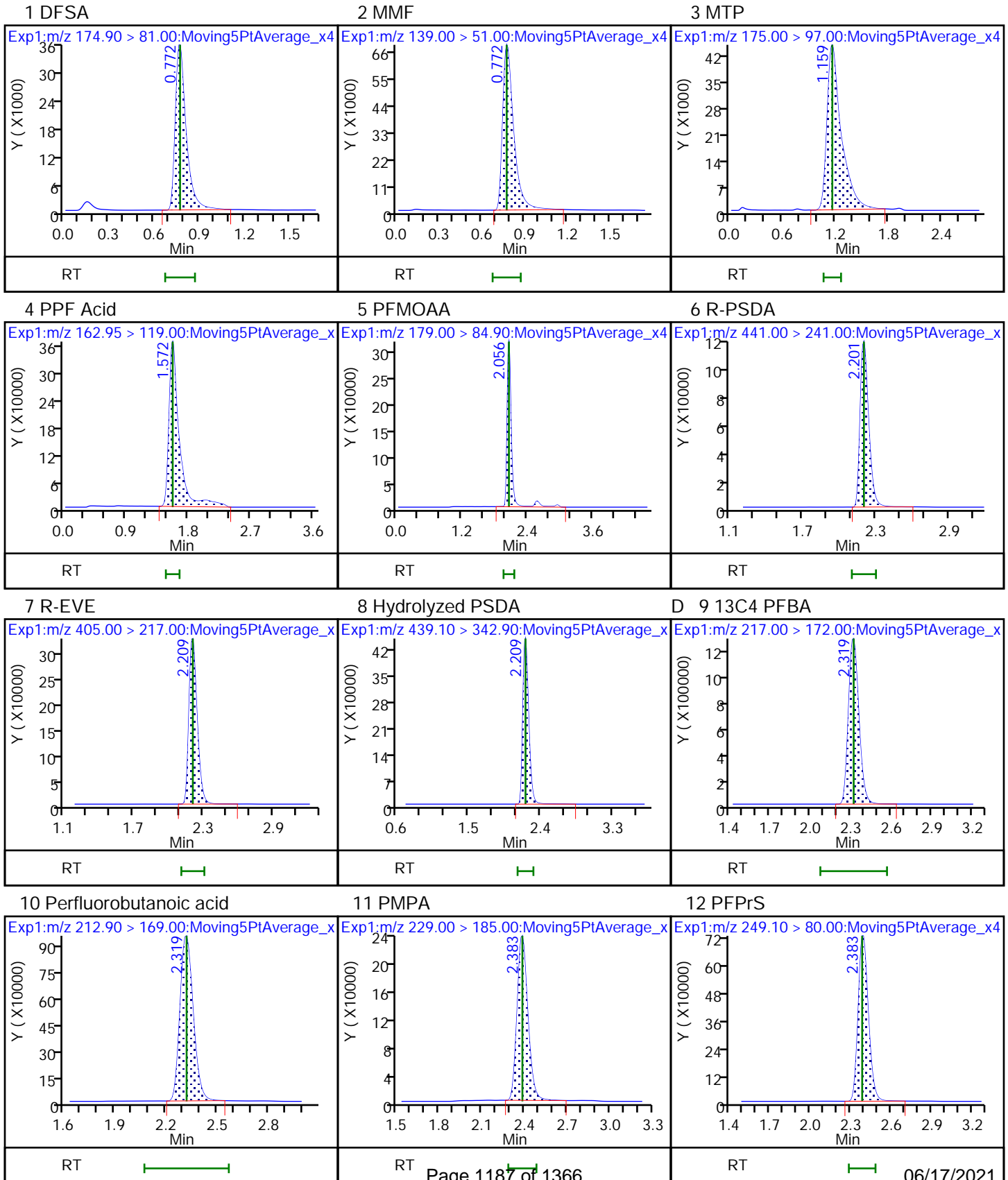
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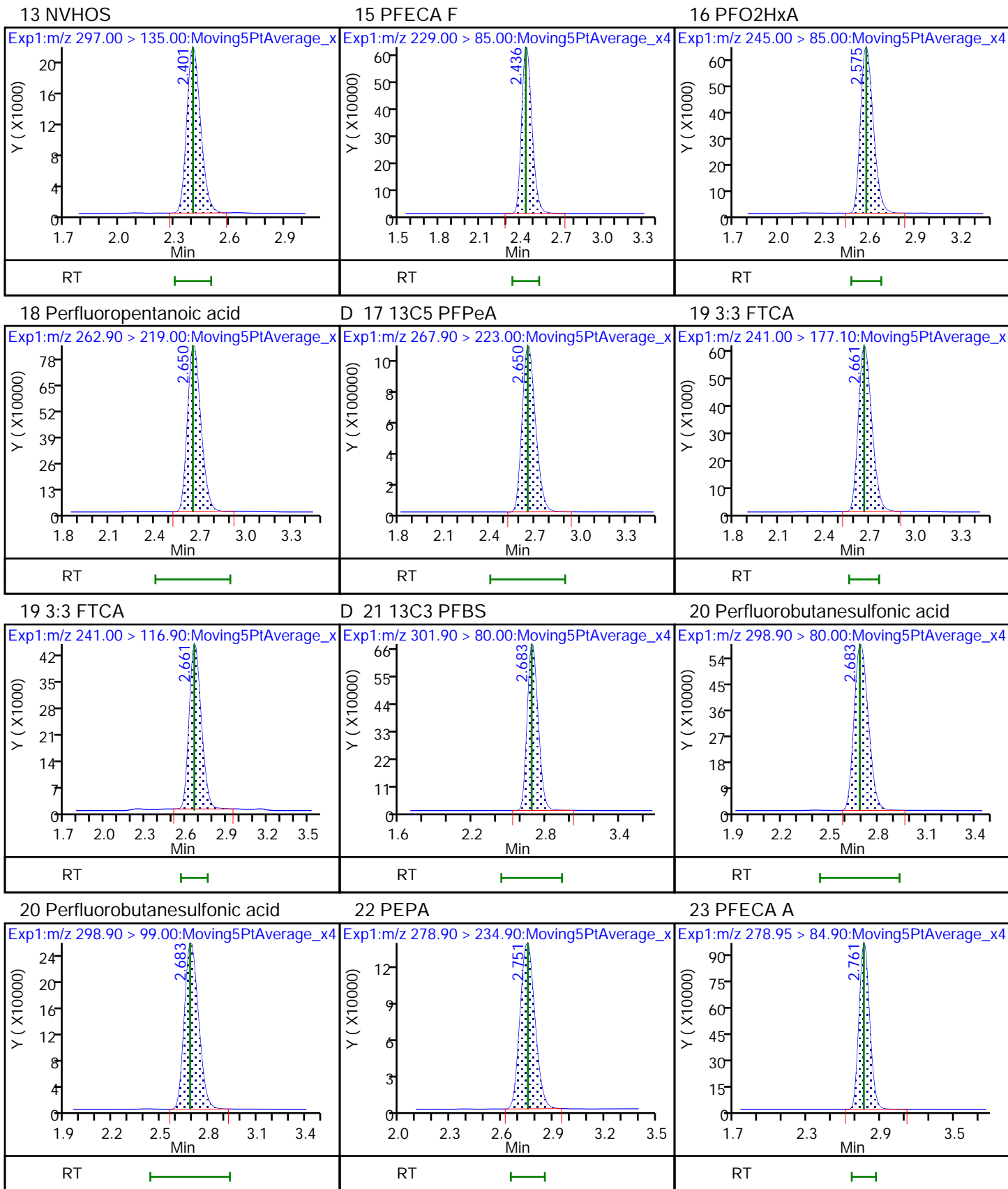
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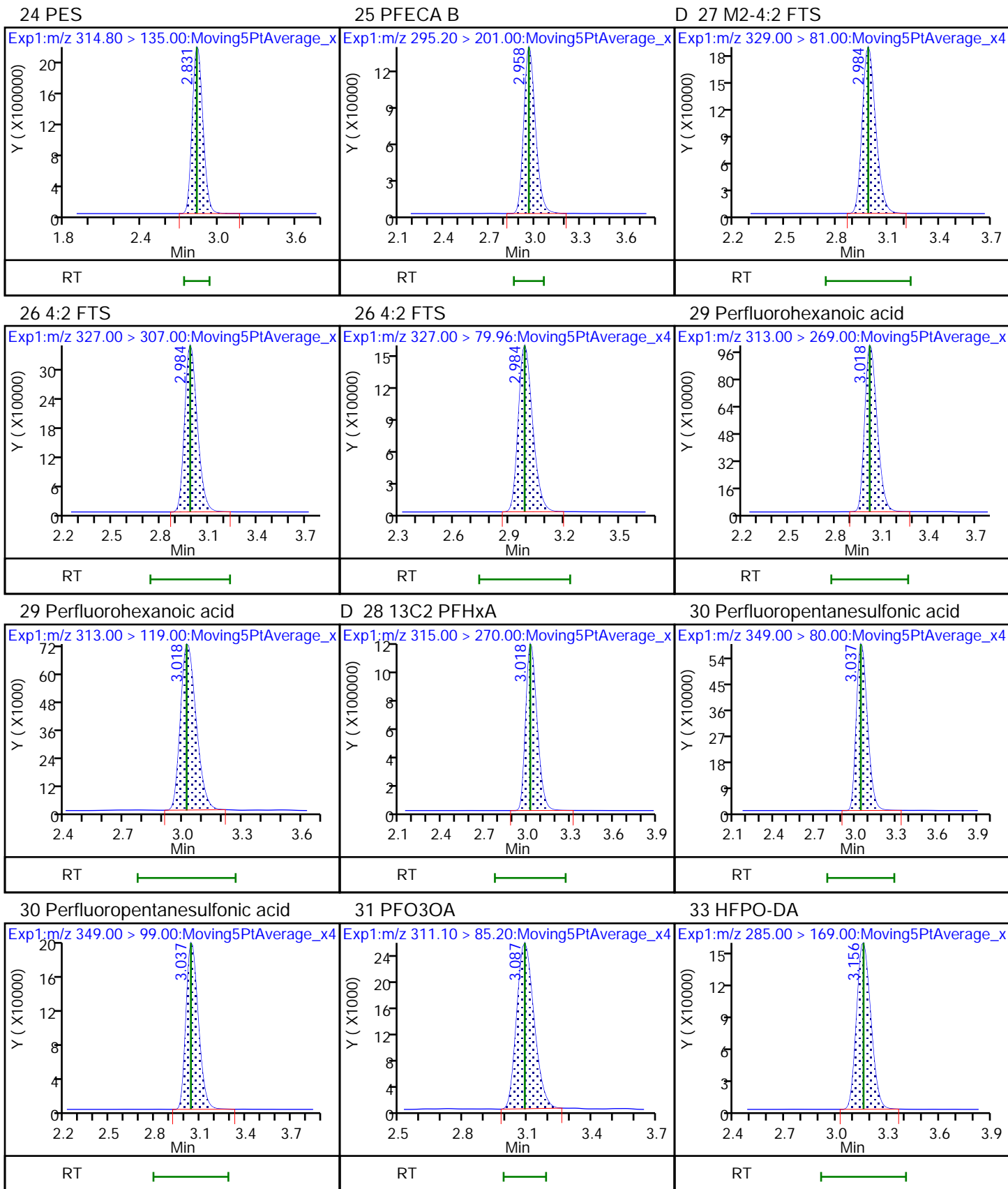
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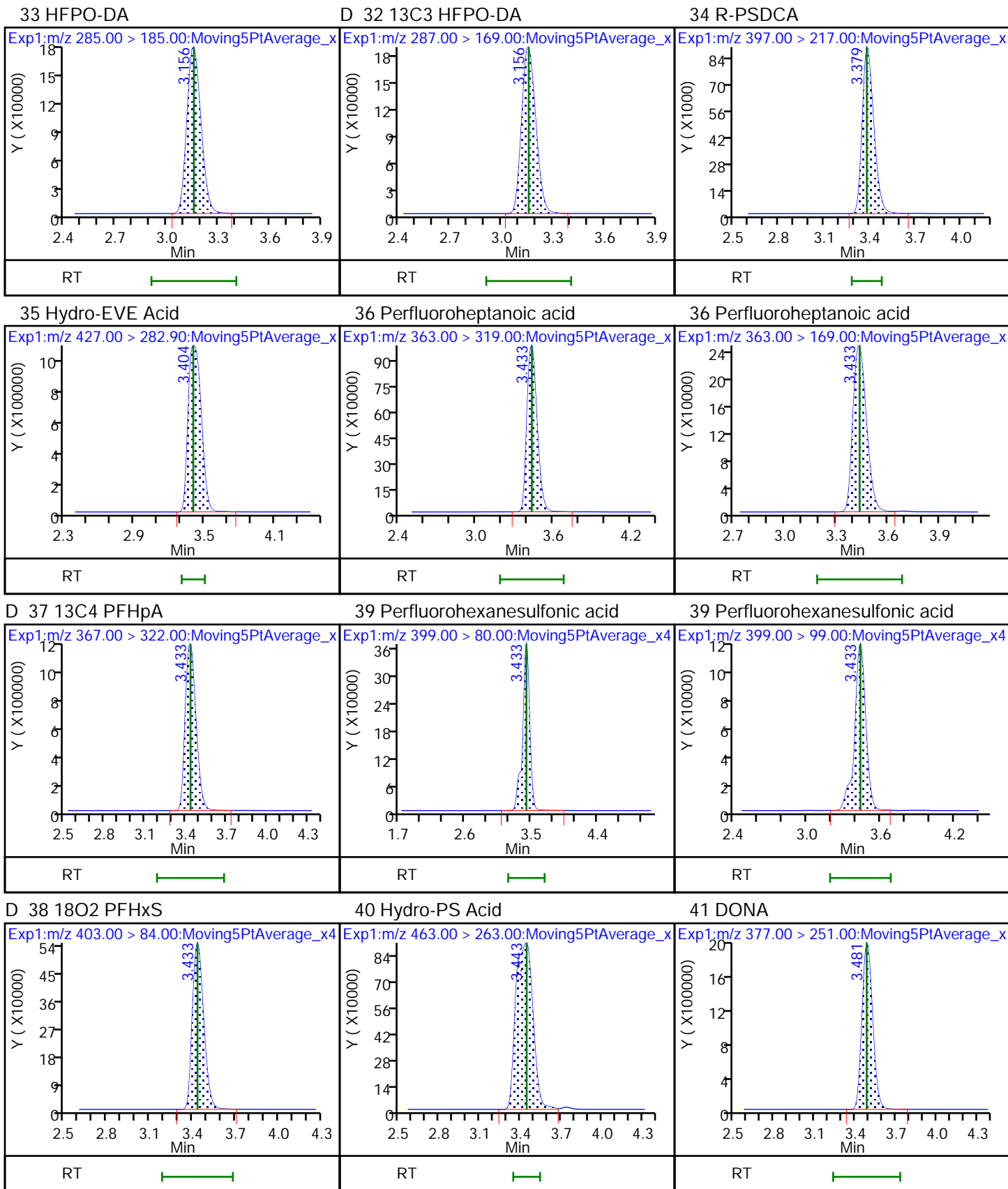
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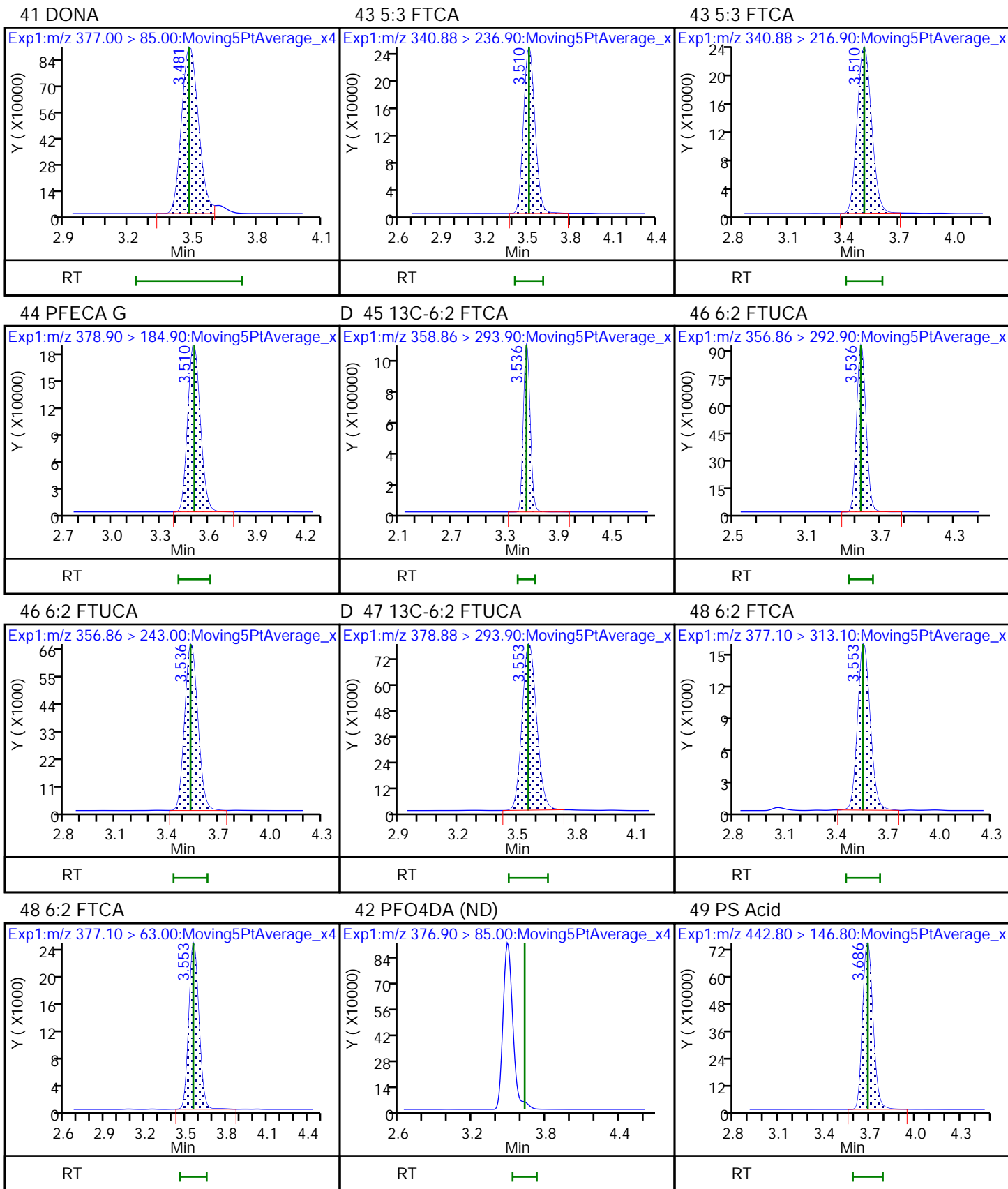
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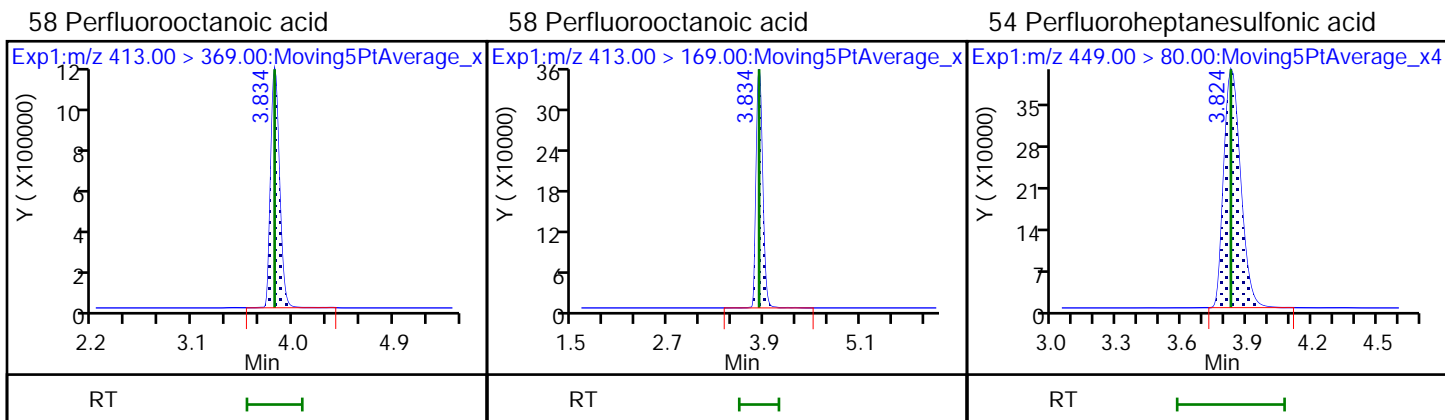
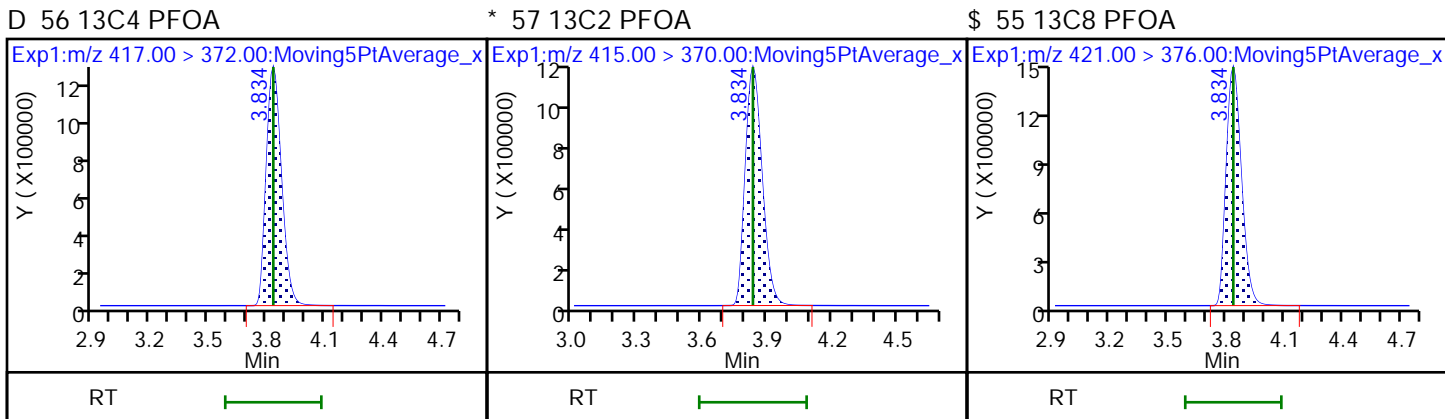
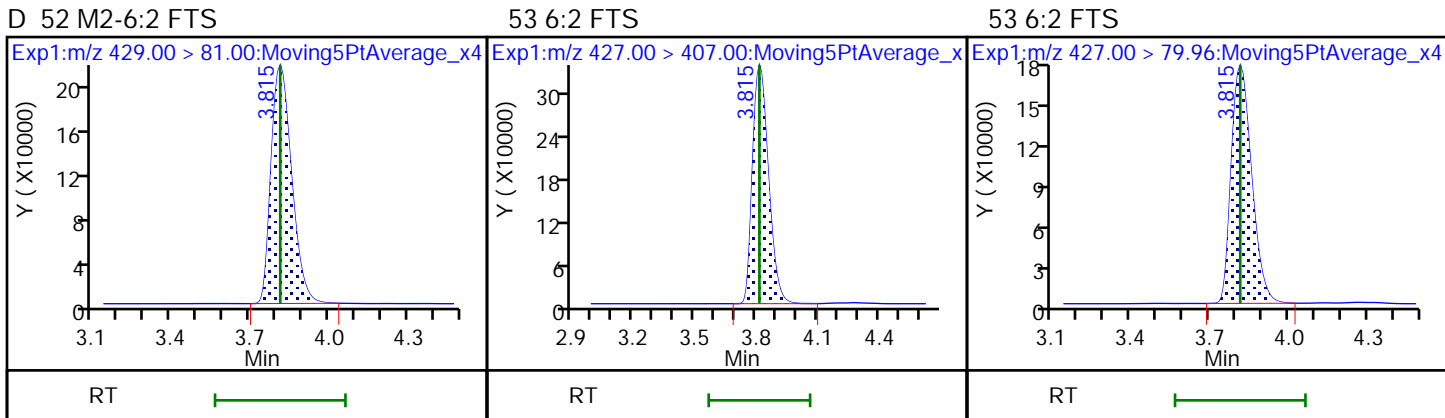
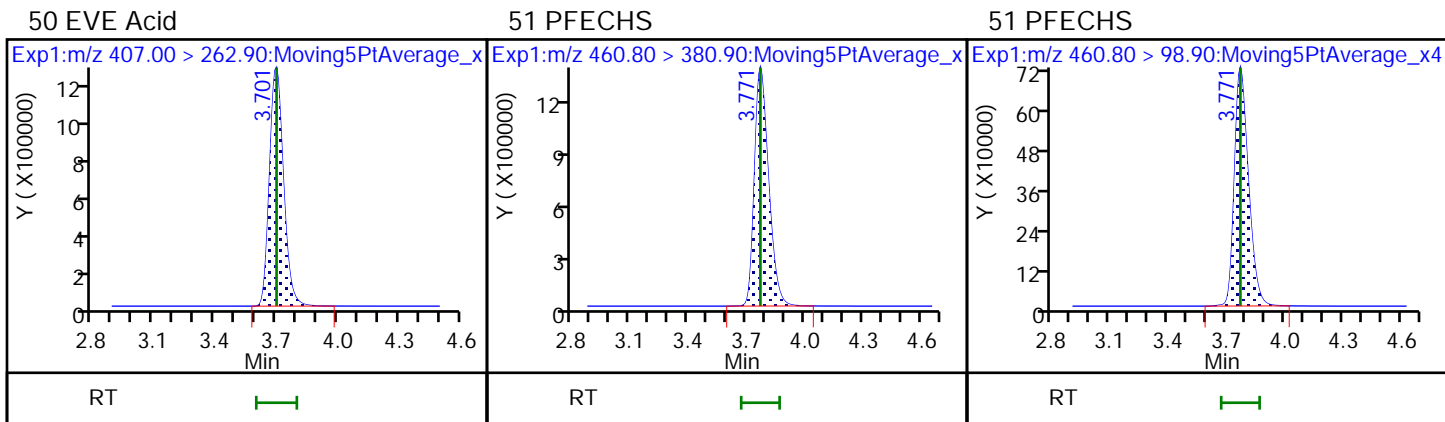








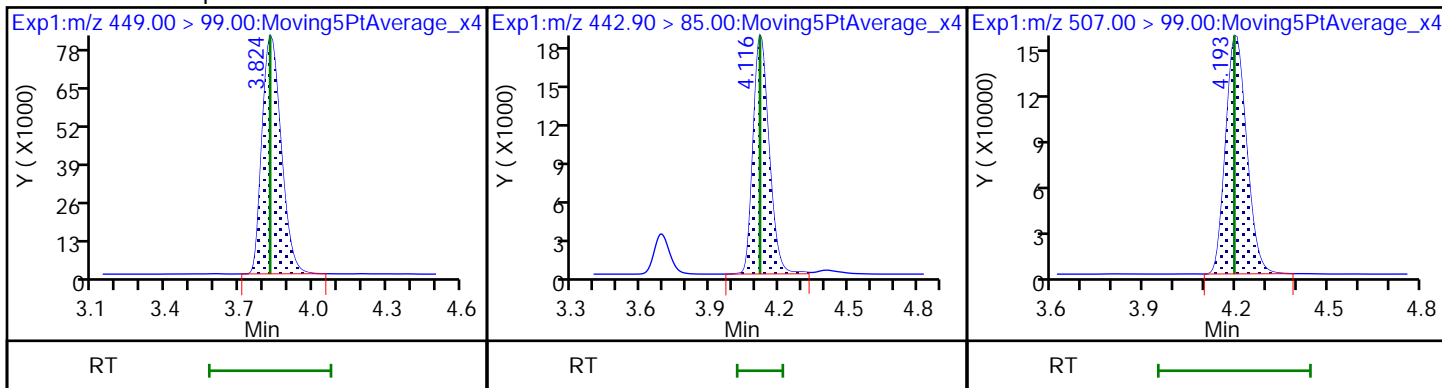




54 Perfluoroheptanesulfonic acid

59 TAF

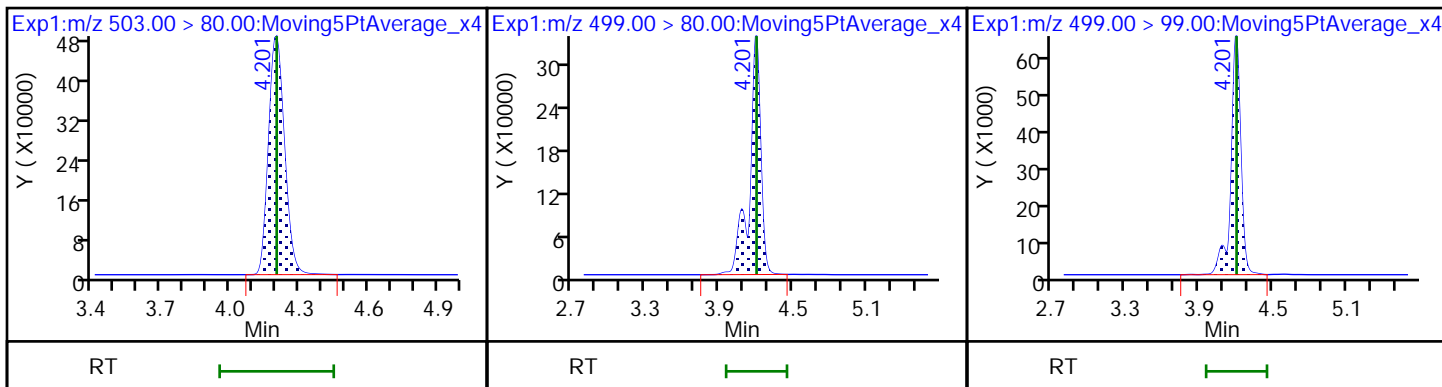
\$ 60 13C8 PFOS



D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid

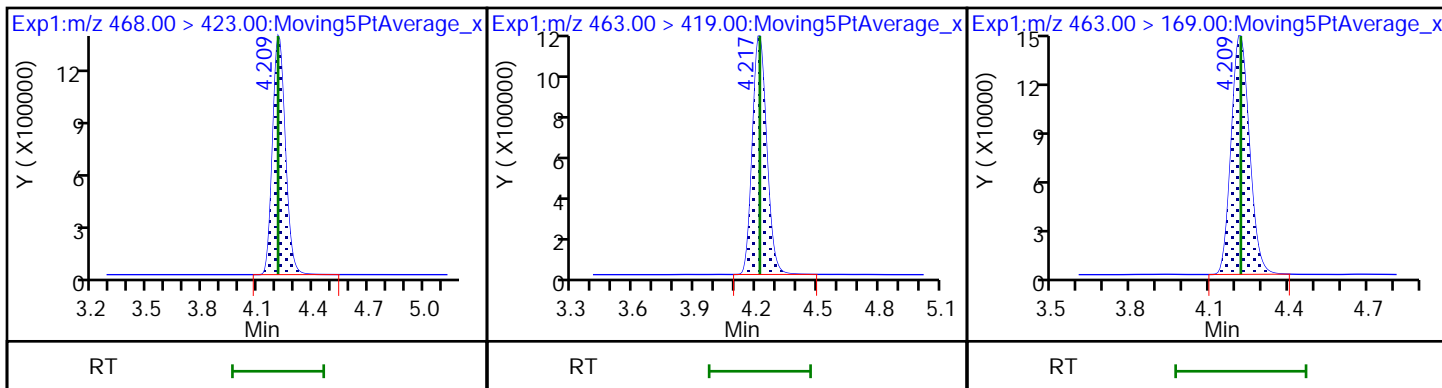
62 Perfluorooctanesulfonic acid



D 63 13C5 PFNA

64 Perfluorononanoic acid

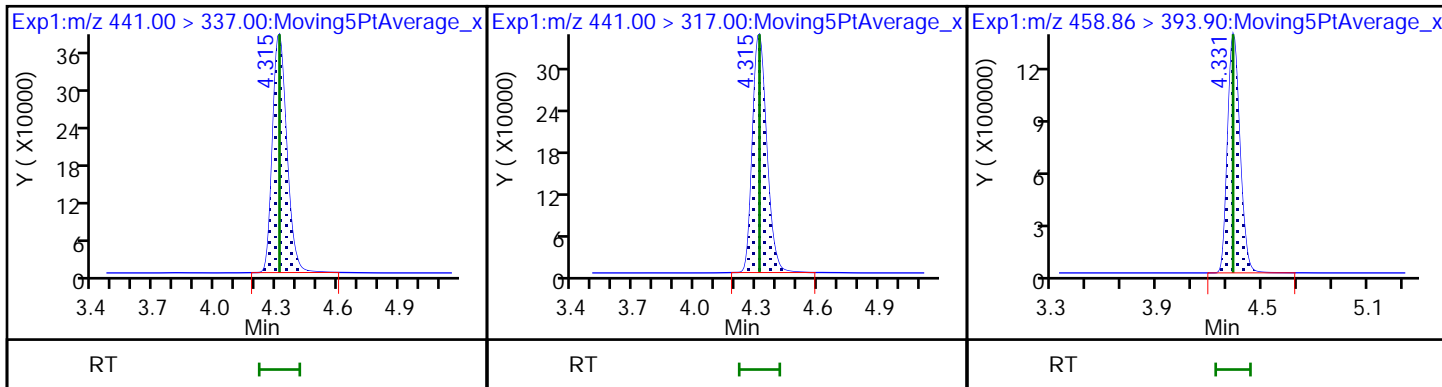
64 Perfluorononanoic acid



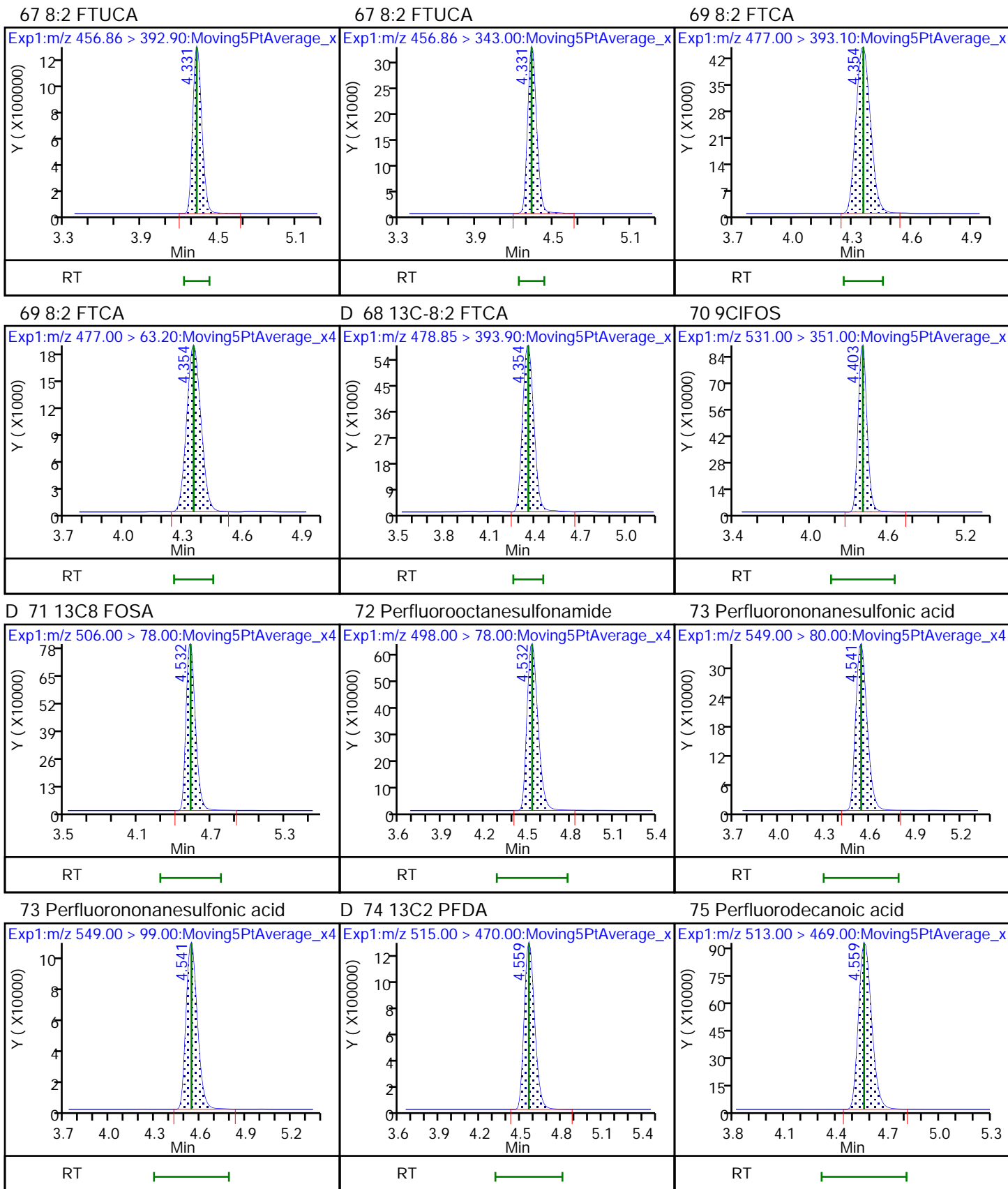
65 7:3 FTCA

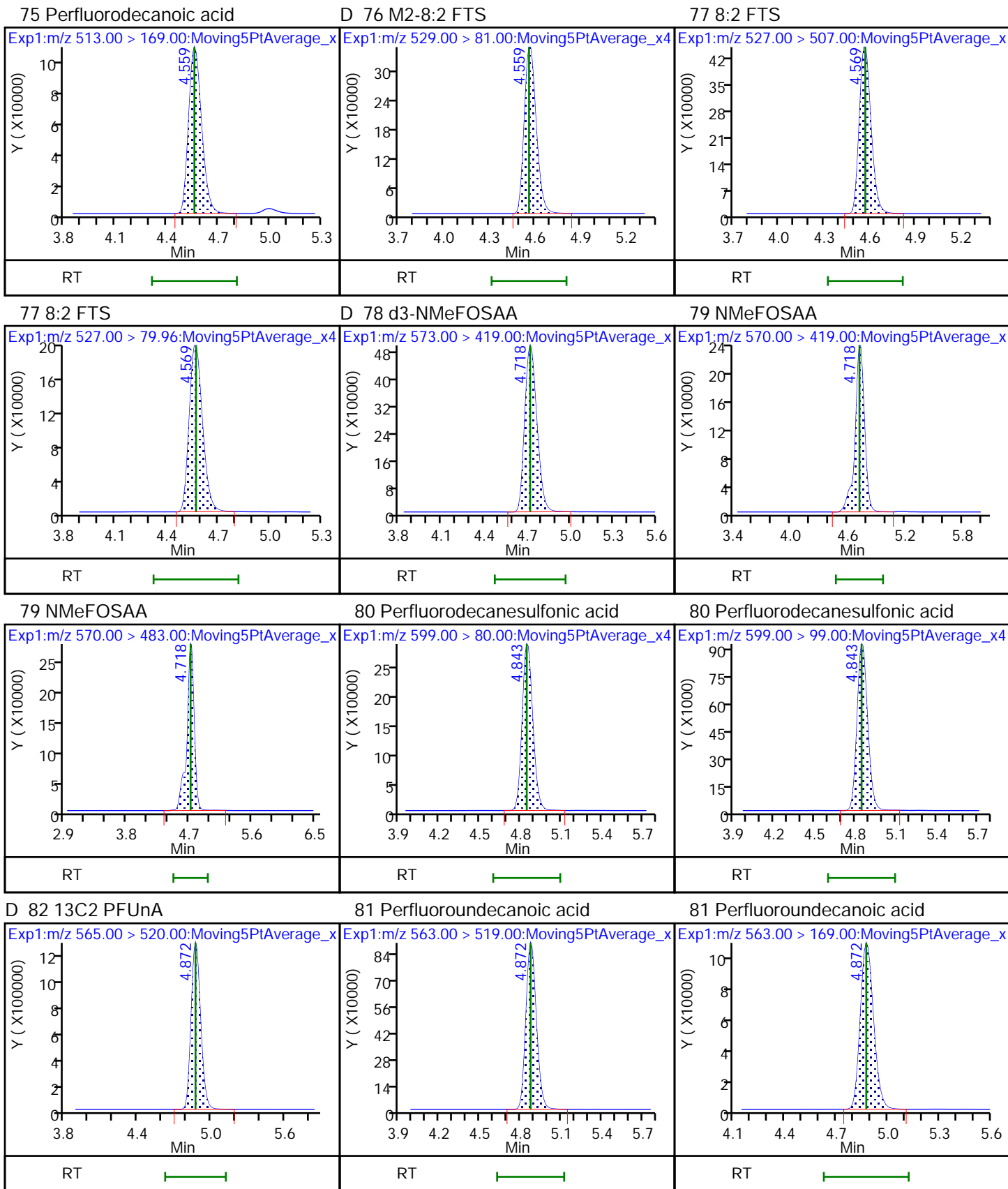
65 7:3 FTCA

D 66 13C-8:2 FTUCA





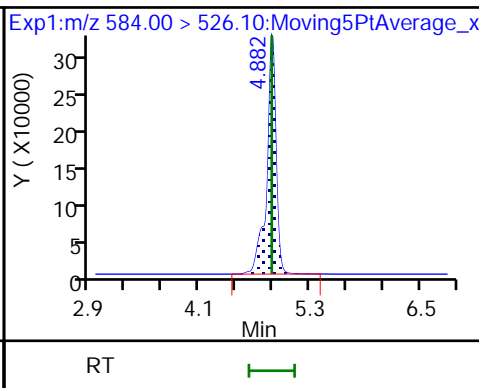
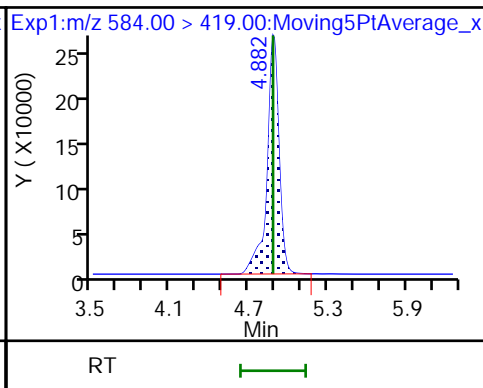
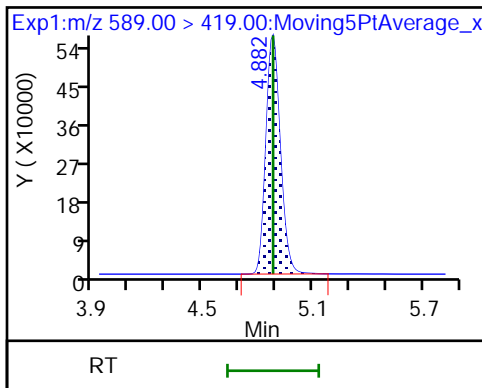




D 83 d5-NEtFOSAA

84 NEtFOSAA

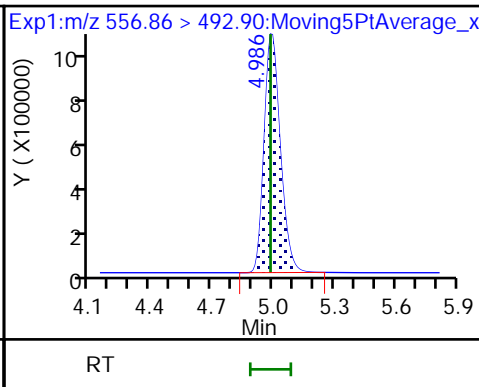
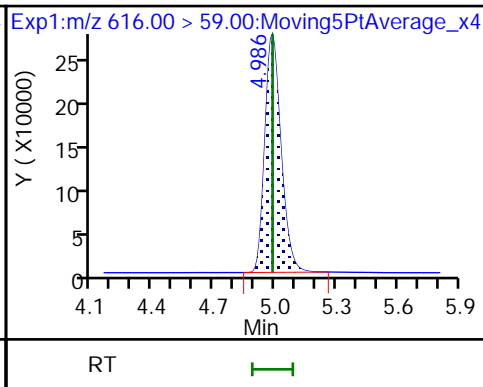
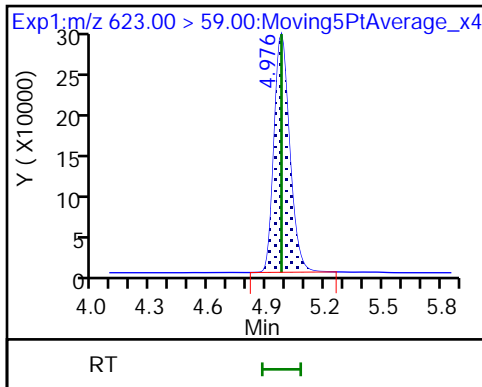
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

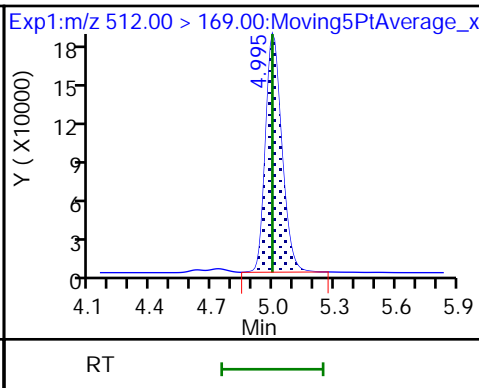
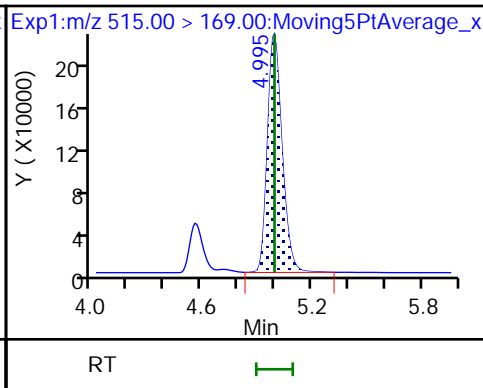
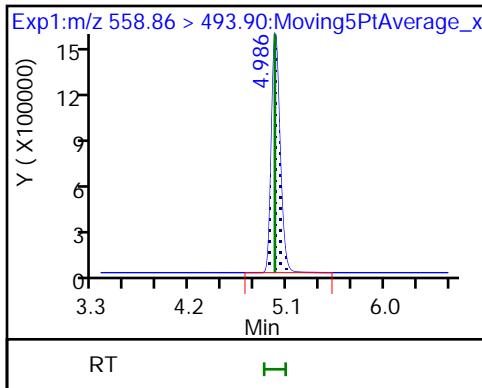
89 10:2 FTUCA



D 88 13C-10:2 FTCA

D 87 d-N-MeFOSA-M

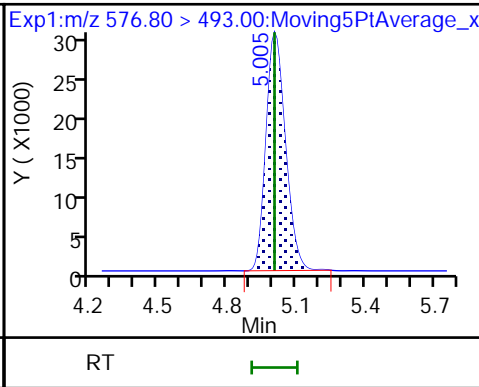
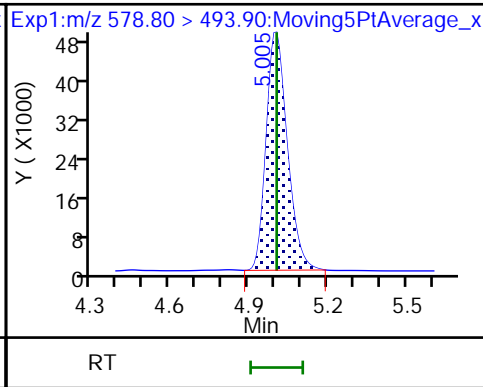
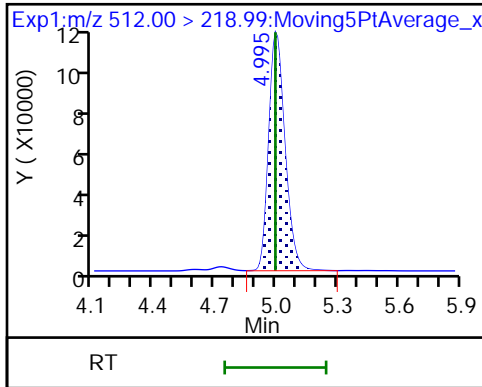
90 NMeFOSA

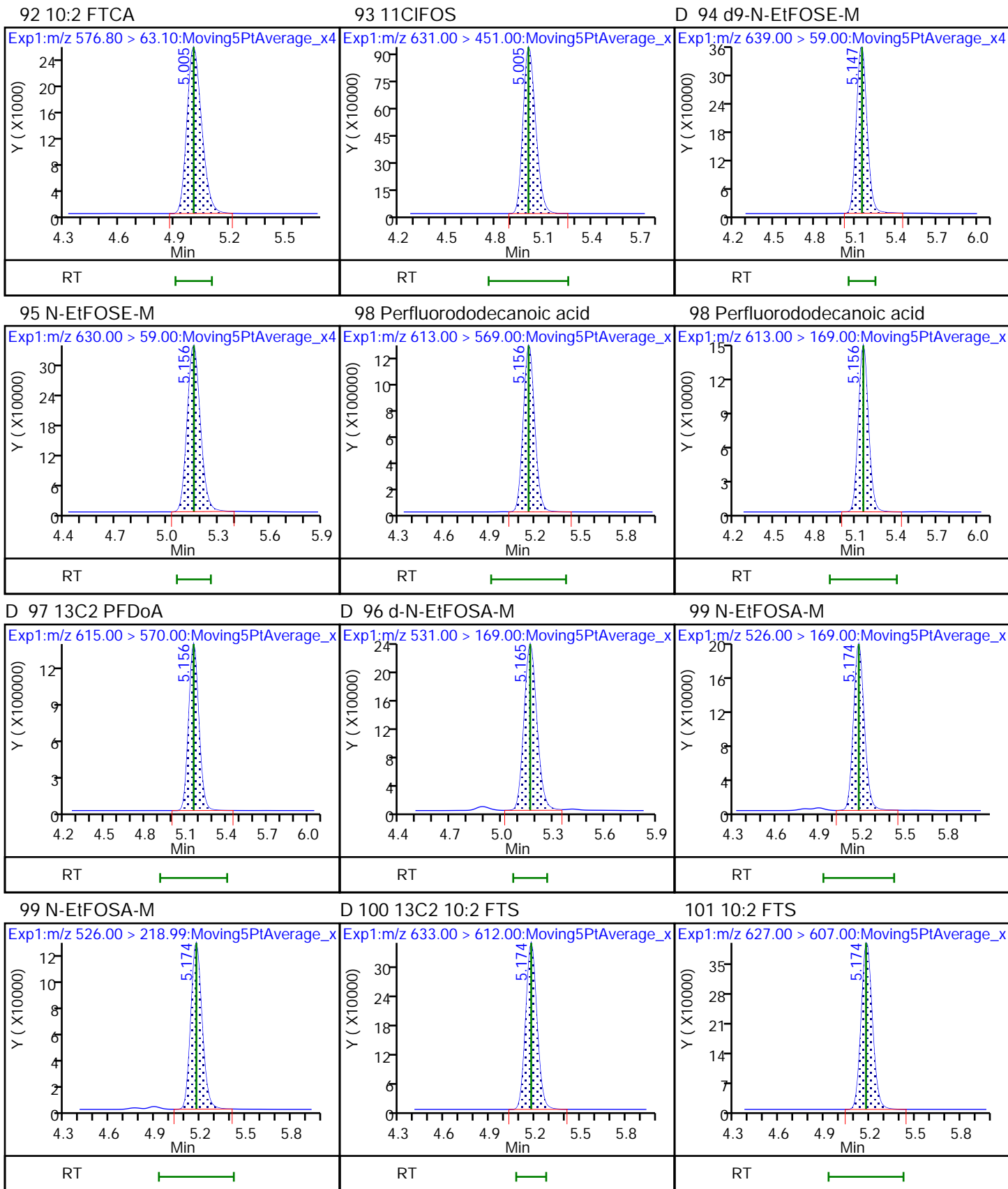


90 NMeFOSA

D 91 13C-10:2 FTUCA

92 10:2 FTCA

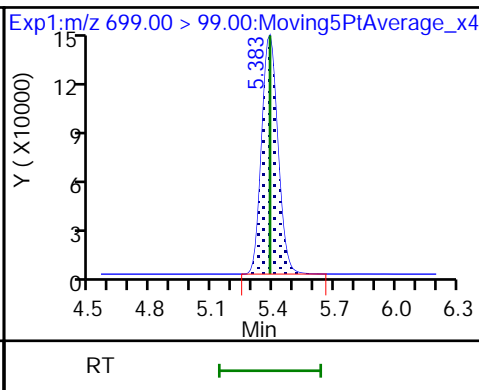
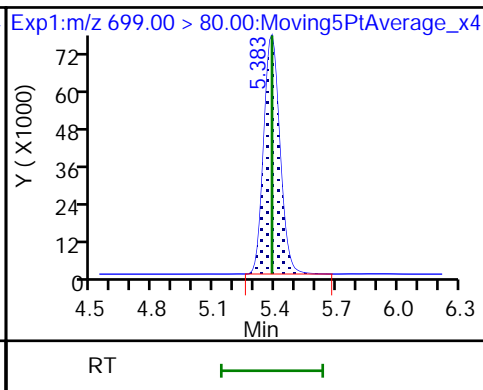
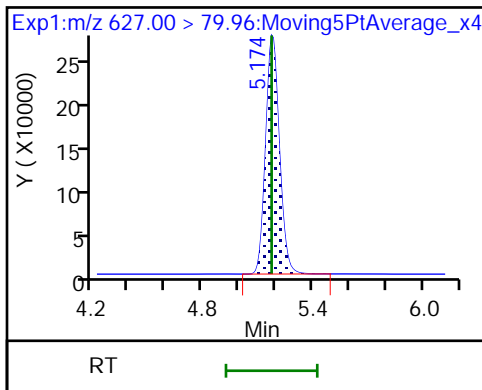




101 10:2 FTS

102 PFDoS

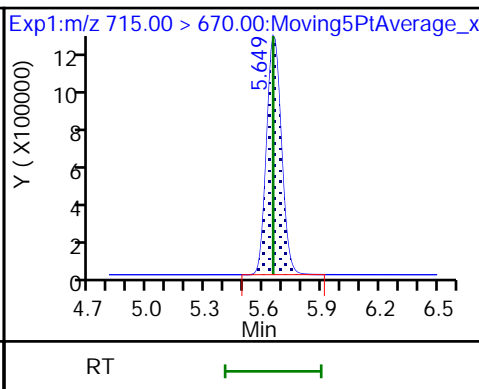
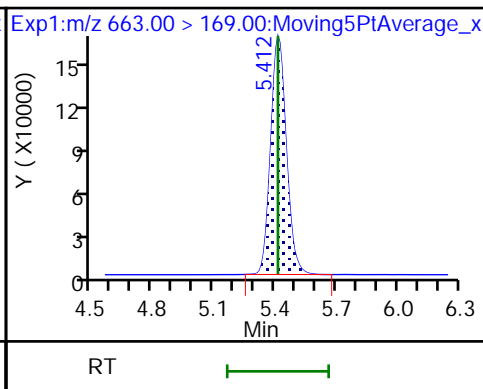
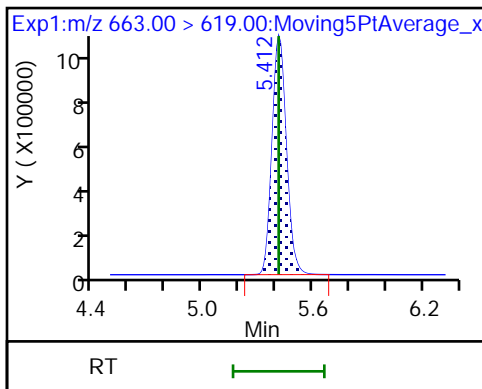
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

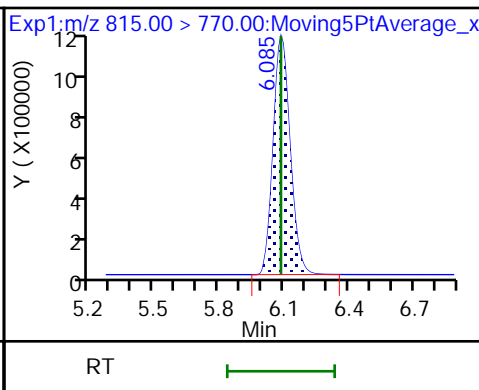
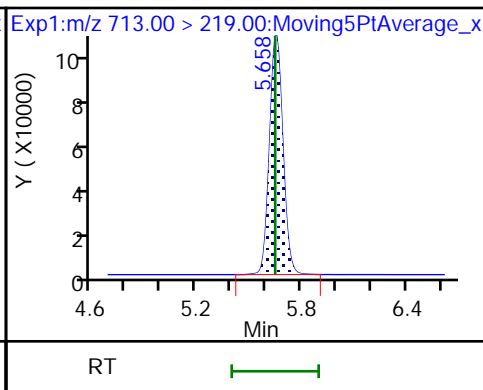
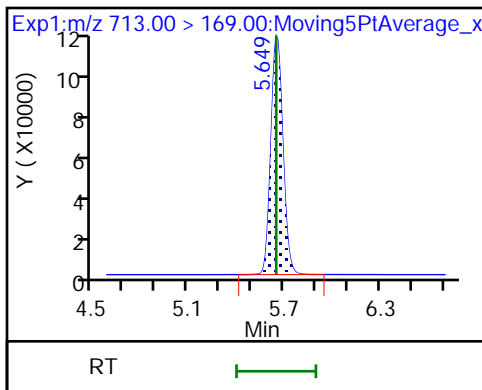
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

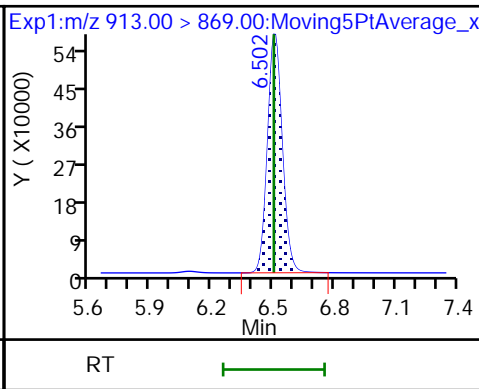
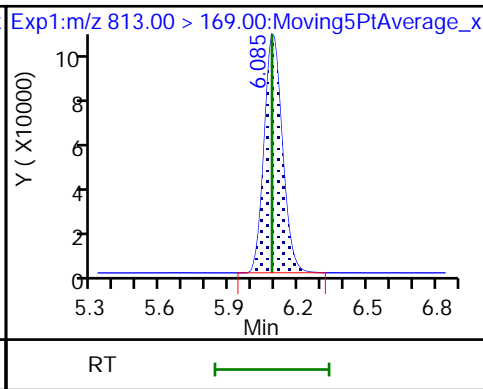
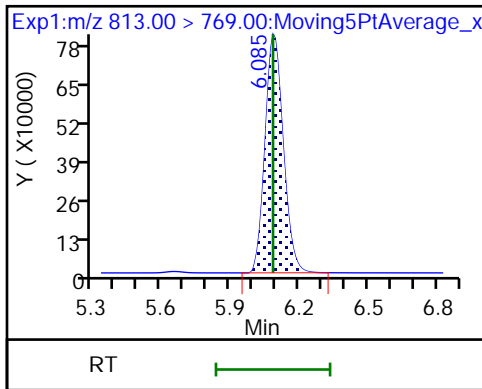
D 106 13C2 PFHxDA



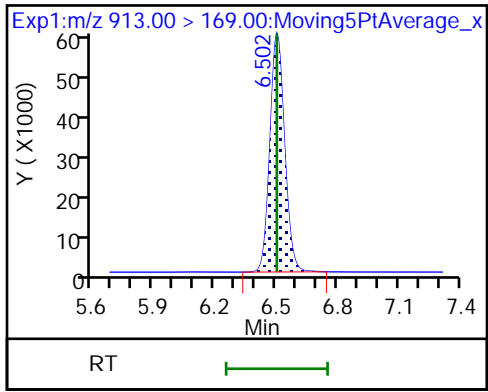
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/13 Calibration Date: 06/10/2021 09:12  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_036.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0407			2.50	10.3	40.0
MMF	AveID	0.0724	0.0726			2.50	0.3	40.0
MTP	AveID	0.0896	0.0959			2.50	7.0	40.0
PFPrA	AveID	0.6311	0.7804			2.43	23.7	40.0
PFMOAA	AveID	0.3080	0.3374			2.50	9.5	40.0
R-PSDA	AveID	0.1112	0.1116			2.50	0.4	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4611			2.50	5.1	40.0
R-EVE	AveID	0.3326	0.3065			2.50	-7.8	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	0.9860		2.61	2.50	4.2	40.0
PMPA	AveID	0.2182	0.2405			2.50	10.2	40.0
PFPrS	AveID	1.161	1.141			2.29	-1.7	40.0
NVHOS	AveID	0.0186	0.0222			2.50	19.5	40.0
PFMPA	AveID	0.6521	0.6702			2.50	2.8	40.0
PFO2HxA	AveID	0.0727	0.0752			2.50	3.4	40.0
3:3 FTCA	AveID	0.0982	0.1028			2.50	4.7	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.039		2.48	2.50	-0.9	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.135		2.22	2.21	0.4	50.0
PEPA	AveID	0.1649	0.1794			2.50	8.8	40.0
PFMBA	AveID	1.195	1.196			2.50	0.1	40.0
PFEEESA	AveID	3.845	3.829			2.23	-0.4	40.0
NFDHA	AveID	0.1332	0.1330			2.50	-0.2	40.0
4:2 FTS	AveID	2.393	2.306		2.25	2.34	-3.7	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.051		2.34	2.50	-6.2	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.9531		2.24	2.35	-4.3	50.0
PFO3OA	AveID	0.0345	0.0427			2.50	23.8	40.0
HFPO-DA (GenX)	AveID	1.018	1.043		2.56	2.50	2.5	40.0
R-PSDCA	AveID	0.0667	0.1103			2.50	65.3*	40.0
Hydro-EVE Acid	AveID	1.539	1.633			2.50	6.1	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.084		2.57	2.50	2.6	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	1.087		2.24	2.28	-1.7	40.0
Hydro-PS Acid	AveID	1.580	1.752			2.50	10.9	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.142		2.15	2.36	-8.6	50.0
PFPE-1	AveID	0.1620	0.2234			2.50	37.9	40.0
5:3 FTCA	AveID	0.2969	0.2985			2.50	0.5	40.0
6:2 FTUCA	AveID	17.67	16.04			2.50	-9.3	40.0
6:2 FTCA	AveID	0.0160	0.0171			2.50	6.6	40.0
PFO4DA	AveID	0.0394	0.0505			2.50	28.0	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/13 Calibration Date: 06/10/2021 09:12  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_036.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PS Acid	AveID	0.6583	0.6437			2.50	-2.2	40.0
EVE Acid	AveID	1.047	1.023			2.50	-2.2	40.0
PFECHS	AveID	1.196	1.347			2.31	12.7	40.0
6:2 FTS	AveID	2.060	2.023		2.33	2.37	-1.8	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.098		2.29	2.38	-3.8	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	0.9888		2.37	2.50	-5.4	40.0
PFO5DA	AveID	0.0155	0.0158			2.50	1.8	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.150		2.37	2.32	2.2	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	1.006		2.54	2.50	1.6	40.0
7:3 FTCA	AveID	7.703	8.298			2.50	7.7	40.0
8:2 FTUCA	AveID	0.9749	1.053			2.50	8.0	40.0
8:2 FTCA	AveID	1.157	1.106			2.50	-4.4	40.0
9Cl-PF3ONS	AveID	2.256	2.226		2.30	2.33	-1.3	50.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	0.9428		2.42	2.40	0.7	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	1.017		2.53	2.50	1.3	40.0
8:2 FTS	AveID	1.563	1.647		2.52	2.40	5.4	40.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8885		2.17	2.50	-13.1	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.7049		2.38	2.50	-4.7	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.8399		2.47	2.41	2.5	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8584		2.33	2.50	-6.8	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.7146		2.49	2.50	-0.3	40.0
10:2 FTUCA	AveID	28.15	22.80			2.50	-19.0	40.0
NMeFOSE	AveID	1.058	1.182		2.79	2.50	11.7	40.0
10:2 FTCA	AveID	0.0284	0.0292			2.50	2.9	40.0
NMeFOSA	AveID	1.014	1.053			2.50	3.9	50.0
11Cl-PF3OUdS	AveID	2.689	2.677		2.34	2.36	-0.5	50.0
NEtFOSE	AveID	1.174	1.113		2.37	2.50	-5.2	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.070		2.41	2.50	-3.7	40.0
10:2 FTS	AveID	1.519	1.502		2.38	2.41	-1.2	50.0
NEtFOSA	AveID	1.036	1.051			2.50	1.5	40.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2217		2.31	2.42	-4.6	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	1.024		2.76	2.50	10.3	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1395		2.84	2.50	13.5	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.003		2.74	2.50	9.5	50.0



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/13 Calibration Date: 06/10/2021 09:12  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_036.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6430		2.65	2.50	5.9	50.0
13C4 PFBA	Ave	0.998	1.013		1.27	1.25	1.6	50.0
13C5 PFPeA	Ave	0.9416	0.9530		1.27	1.25	1.2	50.0
13C3 PFBS	Ave	0.6563	0.7205		1.28	1.16	9.8	50.0
M2-4:2 FTS	Ave	0.1753	0.1390		0.926	1.17	-20.7	50.0
13C2 PFHxA	Ave	0.9319	0.9706		1.30	1.25	4.2	50.0
13C3 HFPO-DA	Ave	0.1655	0.1656		1.25	1.25	0.0	50.0
13C4 PFHpA	Ave	0.9175	0.9272		1.26	1.25	1.1	50.0
18O2 PFHxS	Ave	0.4664	0.5080		1.29	1.18	8.9	50.0
13C-6:2 FTCA	Ave	0.7974	0.8494		1.33	1.25	6.5	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0582		1.49	1.25	19.0	50.0
M2-6:2 FTS	Ave	0.2119	0.1637		0.918	1.19	-22.7	50.0
13C4 PFOA	Ave	1.043	1.102		1.32	1.25	5.6	50.0
13C4 PFOS	Ave	0.3656	0.3982		1.30	1.20	8.9	50.0
13C5 PFNA	Ave	0.997	1.045		1.31	1.25	4.9	50.0
13C-8:2 FTUCA	Ave	0.9872	1.010		1.28	1.25	2.3	50.0
13C-8:2 FTCA	Ave	0.0451	0.0437		1.21	1.25	-3.0	50.0
13C8 FOSA	Ave	0.6160	0.6476		1.31	1.25	5.1	50.0
13C2 PFDA	Ave	0.997	0.9744		1.22	1.25	-2.2	50.0
M2-8:2 FTS	Ave	0.3308	0.2673		0.967	1.20	-19.2	50.0
d3-NMeFOSAA	Ave	0.4207	0.4409		1.31	1.25	4.8	50.0
13C2 PFUnA	Ave	0.9607	1.002		1.30	1.25	4.3	50.0
d5-NEtFOSAA	Ave	0.4186	0.4516		1.35	1.25	7.9	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2587		1.29	1.25	2.9	50.0
13C-10:2 FTCA	Ave	1.160	1.249		1.35	1.25	7.7	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1919		1.30	1.25	3.9	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0473		1.74	1.25	39.5	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3237		1.45	1.25	15.6	50.0
13C2 PFDoA	Ave	1.039	1.130		1.36	1.25	8.7	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1948		1.34	1.25	7.4	50.0
13C2 10:2 FTS	Ave	0.2654	0.2534		1.15	1.21	-4.5	50.0
13C2 PFTeDA	Ave	0.9575	0.8950		1.17	1.25	-6.5	50.0
13C2 PFHxDA	Ave	0.7323	0.8761		1.50	1.25	19.6	50.0
13C8 PFOA	Ave	1.167	1.219		1.31	1.25	4.4	50.0
13C8 PFOS	Ave	0.1093	0.1234		1.35	1.20	12.9	50.0

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfms\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d  
 Lims ID: CCV L5  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 09:12:46 ALS Bottle#: 53 Worklist Smp#: 13  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L5  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfms\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:54:48 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfms\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:54:48

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.758	0.772	-0.014	0.326	531552	2.76		110	966	
2 MMF										
139.00 > 51.00	0.765	0.772	-0.007	0.329	947613	2.51		100	597	
3 MTP										
175.00 > 97.00	1.183	1.159	0.024	0.510	1252034	2.68		107	1013	
4 PPF Acid										
162.95 > 119.00	1.587	1.572	0.015	0.684	9884945	3.00		124	3846	
5 PFMOAA										
179.00 > 84.90	2.064	2.056	0.008	0.889	4405675	2.74		110	10946	
6 R-PSDA										
441.00 > 241.00	2.202	2.201	0.001	0.949	1457508	2.51		100	74577	
7 R-EVE										
405.00 > 217.00	2.210	2.209	0.001	0.952	4002849	2.30		92.2	134249	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.210	2.209	0.001	0.952	6021234	2.63		105	297145	
D 9 13C4 PFBA										
217.00 > 172.00	2.321	2.319	0.002	0.604	6529249	1.27		102	55760	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.321	2.319	0.002	1.000	12875428	2.61		104	17769	
11 PMPA										
229.00 > 185.00	2.385	2.383	0.001	1.027	3140020	2.75		110	7353	
12 PFPrS										
249.10 > 80.00	2.393	2.383	0.010	0.888	9700934	2.25		98.3	51852	
13 NVHOS										
297.00 > 135.00	2.402	2.401	0.001	1.035	289707	2.99		119	9243	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.446	2.436	0.010	0.919	8229855	2.57		103	97982	
16 PFO2HxA										
245.00 > 85.00	2.577	2.575	0.002	0.968	923324	2.59		103	12074	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.663	2.650	0.013	1.000	12754510	2.48		99.1	36696	
D 17 13C5 PFPeA										
267.90 > 223.00	2.663	2.650	0.013	0.693	6140005	1.27		101	50112	
19 3:3 FTCA										
241.00 > 177.10	2.663	2.661	0.002	0.988	954527	2.62	Target=1.28	105	15466	
241.00 > 116.90	2.663	2.661	0.002	0.988	705860		1.35(0.64-1.92)		4573	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.695	2.683	0.012	1.000	9317809	2.22	Target=2.36	100	25844	
298.90 > 99.00	2.695	2.683	0.012	1.000	3914242		2.38(1.18-3.53)		17861	
D 21 13C3 PFBS										
301.90 > 80.00	2.695	2.683	0.012	0.701	4317084	1.28		110	33822	
22 PEPA										
278.90 > 234.90	2.752	2.751	0.001	1.033	2203119	2.72		109	4446	
23 PFECA A										
278.95 > 84.90	2.772	2.761	0.011	1.041	14687138	2.50		100	175578	
24 PES										
314.80 > 135.00	2.842	2.831	0.011	1.054	31640860	2.22		99.6	791255	
25 PFECA B										
295.20 > 201.00	2.958	2.958	0.0	0.977	1662872	2.50		99.8	43883	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.984	2.984	0.0	0.776	836441	0.9258		79.3	8218	
26 4:2 FTS										
327.00 > 307.00	2.984	2.984	0.0	1.000	3857443	2.25	Target=2.17	96.3	88815	
327.00 > 79.96	2.984	2.984	0.0	1.000	1969438		1.96(1.09-3.26)		24631	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.028	3.018	0.010	1.000	13139100	2.34	Target=13.89	93.8	33860	
313.00 > 119.00	3.028	3.018	0.010	1.000	993996		13.22(6.95-20.84)		11298	
D 28 13C2 PFHxA										
315.00 > 270.00	3.028	3.018	0.010	0.788	6253167	1.30		104	66767	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.047	3.037	0.010	1.131	8300333	2.24	Target=3.10	95.7	91923	
349.00 > 99.00	3.047	3.037	0.010	1.131	2845879		2.92(1.55-4.65)		38820	
31 PFO3OA										
311.10 > 85.20	3.087	3.087	0.0	1.019	533884	3.09		124	10459	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.157	3.156	0.001	0.821	1066881	1.25		100	18651	
33 HFPO-DA										
285.00 > 169.00	3.157	3.156	0.001	1.000	2226490	2.56	Target=1.03	102	25914	
285.00 > 185.00	3.157	3.156	0.001	1.000	2535392		0.88(0.52-1.55)		29522	
34 R-PSDCA										
397.00 > 217.00	3.387	3.379	0.008	0.986	1317640	4.13		165	42210	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.414	3.404	0.010	0.994	19506744	2.65		106	48010	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	6477194	2.24	Target=3.50	98.3	197226	
399.00 > 99.00	3.433	3.433	0.0	1.000	1855560		3.49(1.75-5.25)		24885	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.893	3096139	1.29		109	43145	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.893	5973299	1.26		101	72505	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	12953574	2.57	Target=3.81	103	73716	
363.00 > 169.00	3.433	3.433	0.0	1.000	3310049		3.91(1.91-5.72)		13113	
40 Hydro-PS Acid										
463.00 > 263.00	3.443	3.443	0.0	1.003	20929597	2.77		111	6165	
41 DONA										
377.00 > 251.00	3.491	3.481	0.010	0.831	24852709	2.15	Target=2.07	91.4	151163	
377.00 > 85.00	3.491	3.481	0.010	0.831	12471011		1.99(1.03-3.10)		9154	
43 5:3 FTCA										
340.88 > 236.90	3.519	3.510	0.009	0.993	3267003	2.51	Target=1.08	101	37488	
340.88 > 216.90	3.519	3.510	0.009	0.993	3192479		1.02(0.54-1.62)		45047	
44 PFECA G										
378.90 > 184.90	3.510	3.510	0.0	0.990	2445225	3.45		138	41211	
46 6:2 FTUCA										
356.86 > 292.90	3.545	3.536	0.009	0.995	12027130	2.27	Target=14.03	90.7	190931	
356.86 > 243.00	3.545	3.536	0.009	0.995	893829		13.46(7.02-21.05)		33953	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.545	3.536	0.009	0.922	5472538	1.33		107	260351	
48 6:2 FTCA										
377.10 > 313.10	3.562	3.553	0.009	1.005	187127	2.66	Target=0.54	107	2695	
377.10 > 63.00	3.562	3.553	0.009	1.005	353590		0.53(0.27-0.81)		16776	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.562	3.553	0.009	0.927	375009	1.49		119	4849	
42 PFO4DA										
376.90 > 85.00	3.626	3.625	0.001	1.056	603168	3.20		128	6.7	
49 PS Acid										
442.80 > 146.80	3.686	3.686	0.0	0.961	9140128	2.44		97.8	102005	
50 EVE Acid										
407.00 > 262.90	3.701	3.701	0.0	0.965	14531874	2.44		97.8	306784	
51 PFECHS										
460.80 > 380.90	3.779	3.771	0.008	0.985	17632405	2.60	Target=1.90	113	227176	
460.80 > 98.90	3.779	3.771	0.008	0.985	9348702		1.89(0.95-2.85)		100562	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.815	0.001	0.993	1001826	0.9175		77.3	12072	
53 6:2 FTS										
427.00 > 407.00	3.826	3.815	0.011	1.003	4043988	2.33	Target=2.11	98.2	18303	
427.00 > 79.96	3.826	3.815	0.011	1.003	1889578		2.14(1.06-3.17)		8344	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.835	3.824	0.011	0.913	5362172	2.29	Target=4.82	96.2	32021	
449.00 > 99.00	3.835	3.824	0.011	0.913	1165895		4.60(2.41-7.24)		23858	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	0.998	7099306	1.32		106	58647	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.835	3.834	0.001	0.998	7851672	1.31		104	71035	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.845	3.834	0.011	1.002	14040273	2.37	Target=2.87	94.6	105686	
413.00 > 169.00	3.845	3.834	0.011	1.002	4967468		2.83(1.43-4.30)		69732	
* 57 13C2 PFOA										
415.00 > 370.00	3.845	3.834	0.011		6442579	1.25			46988	
59 TAF										
442.90 > 85.00	4.124	4.116	0.008	1.075	223649	2.54		102	498	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.202	4.193	0.009	1.093	759734	1.35		113	12208	
D 61 13C4 PFOS										
503.00 > 80.00	4.202	4.201	0.001	1.093	2452587	1.30		109	24480	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.202	4.201	0.001	1.000	5476339	2.37	Target=5.95	102	215705	
499.00 > 99.00	4.202	4.201	0.001	1.000	962271		5.69(2.97-8.92)		44173	
D 63 13C5 PFNA										
468.00 > 423.00	4.218	4.209	0.009	1.097	6735679	1.31		105	78490	
64 Perfluorononanoic acid										
463.00 > 419.00	4.218	4.217	0.001	1.000	13547678	2.54	Target=7.58	102	69134	
463.00 > 169.00	4.218	4.217	0.001	1.000	1820733		7.44(3.79-11.37)		21357	
65 7:3 FTCA										
441.00 > 337.00	4.316	4.315	0.001	0.991	4675106	2.69	Target=1.21	108	35818	
441.00 > 317.00	4.316	4.315	0.001	0.991	4064525		1.15(0.60-1.81)		44330	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.340	4.331	0.009	1.129	6506008	1.28		102	150728	
67 8:2 FTUCA										
456.86 > 392.90	4.340	4.331	0.009	1.000	13701917	2.70	Target=35.28	108	142383	
456.86 > 343.00	4.340	4.331	0.009	1.000	364371		37.60(17.64-52.92)		15129	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.355	4.354	0.001	1.133	281694	1.21		97.0	7324	
69 8:2 FTCA										
477.00 > 393.10	4.355	4.354	0.001	1.000	622934	2.39	Target=3.24	95.6	32659	
477.00 > 63.20	4.355	4.354	0.001	1.000	178749		3.48(1.62-4.86)		7211	
70 9CIFOS										
531.00 > 351.00	4.411	4.403	0.008	1.050	10647110	2.30		98.7	207632	
D 71 13C8 FOSA										
506.00 > 78.00	4.533	4.532	0.001	1.179	4172237	1.31		105	43780	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.542	4.532	0.010	1.002	8482158	2.53		101	69904	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.542	4.541	0.001	1.081	4644035	2.42	Target=3.28	101	49299	
549.00 > 99.00	4.542	4.541	0.001	1.081	1460306		3.18(1.64-4.92)		28037	
D 74 13C2 PFDA										
515.00 > 470.00	4.571	4.559	0.012	1.189	6277657	1.22		97.8	65231	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.571	4.559	0.012	1.000	11155732	2.17	Target=9.70	86.9	80470	
513.00 > 169.00	4.571	4.559	0.012	1.000	1330746		8.38(4.85-14.54)		2682	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.571	4.559	0.012	1.189	1649471	0.9674		80.8	25320	
77 8:2 FTS										
527.00 > 507.00	4.571	4.569	0.002	1.000	5433287	2.52	Target=2.33	105	125972	
527.00 > 79.96	4.571	4.569	0.002	1.000	2384406		2.28(1.17-3.50)		19362	
79 NMeFOSAA										
570.00 > 419.00	4.730	4.718	0.012	1.000	4004400	2.38	Target=0.83	95.3	22088	
570.00 > 483.00	4.730	4.718	0.012	1.000	4728505		0.85(0.42-1.25)		40093	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.730	4.718	0.012	1.230	2840496	1.31		105	26467	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.855	4.843	0.012	1.155	4154495	2.47	Target=3.22	102	52138	
599.00 > 99.00	4.855	4.843	0.012	1.155	1375945		3.02(1.61-4.83)		36716	
D 82 13C2 PFUnA										
565.00 > 520.00	4.884	4.872	0.012	1.270	6457368	1.30		104	67201	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.884	4.872	0.012	1.000	11086423	2.33	Target=9.27	93.2	71814	
563.00 > 169.00	4.884	4.872	0.012	1.000	1255304		8.83(4.63-13.90)		25884	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.894	4.882	0.012	1.273	2909585	1.35		108	22987	
84 NEtFOSAA										
584.00 > 419.00	4.894	4.882	0.012	1.000	4158361	2.49	Target=0.77	99.7	165467	
584.00 > 526.10	4.894	4.882	0.012	1.000	5246792		0.79(0.39-1.16)		34388	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.979	4.976	0.003	1.295	1666974	1.29		103	5729	
86 N-MeFOSE-M										
616.00 > 59.00	4.997	4.986	0.011	1.004	3939174	2.79		112	41692	
89 10:2 FTUCA										
556.86 > 492.90	4.997	4.986	0.011	0.998	13907394	2.03		81.0	503911	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.997	4.986	0.011	1.300	8049950	1.35		108	291878	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.997	4.995	0.002	1.300	1236451	1.30		104	364	
90 NMeFOSA										
512.00 > 169.00	5.007	4.995	0.012	1.002	2604312	2.60	Target=1.61	104	3040	
512.00 > 218.99	5.007	4.995	0.012	1.002	1615597		1.61(0.80-2.41)		4724	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.007	5.005	0.002	1.302	304941	1.74		140	5612	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 10:2 FTCA										
576.80 > 493.00	5.007	5.005	0.002	1.002	470353	2.57	Target=2.56	103	20552	
576.80 > 63.10	5.007	5.005	0.002	1.002	287761		1.63(1.28-3.83)		13222	
93 11CIFOS										
631.00 > 451.00	5.017	5.005	0.012	1.194	12936715	2.34		99.5	215711	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.149	5.147	0.002	1.339	2085689	1.45		116	8974	
D 97 13C2 PFDaA										
615.00 > 570.00	5.167	5.156	0.011	1.344	7276928	1.36		109	99514	
95 N-EtFOSE-M										
630.00 > 59.00	5.167	5.156	0.011	1.004	4641722	2.37		94.8	32352	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.167	5.156	0.011	1.000	15578923	2.41	Target=7.93	96.3	92411	
613.00 > 169.00	5.167	5.156	0.011	1.000	1920586		8.11(3.97-11.90)		28293	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.176	5.165	0.011	1.346	1255019	1.34		107	2039	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.185	5.174	0.011	1.349	1575345	1.15		95.5	43112	
99 N-EtFOSA-M										
526.00 > 169.00	5.185	5.174	0.011	1.002	2639176	2.54	Target=1.61	101	2723	
526.00 > 218.99	5.185	5.174	0.011	1.002	1666461		1.58(0.80-2.41)		3071	
101 10:2 FTS										
627.00 > 607.00	5.185	5.174	0.011	1.000	4726124	2.38	Target=1.46	98.8	114186	
627.00 > 79.96	5.185	5.174	0.011	1.000	3157572		1.50(0.73-2.19)		33617	
102 PFDoS										
699.00 > 80.00	5.387	5.383	0.004	1.282	1101232	2.31	Target=0.54	95.4	25464	
699.00 > 99.00	5.387	5.383	0.004	1.282	2091859		0.53(0.27-0.81)		48310	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.426	5.412	0.014	1.050	14898410	2.76	Target=5.84	110	71118	
663.00 > 169.00	5.426	5.412	0.014	1.050	2175184		6.85(2.92-8.75)		33908	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.661	5.649	0.012	1.000	1608447	2.84	Target=1.07	113	44384	
713.00 > 219.00	5.661	5.649	0.012	1.000	1442807		1.11(0.53-1.60)		39296	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.661	5.649	0.012	1.472	5766129	1.17		93.5	54926	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.097	6.085	0.012	1.586	5644349	1.50		120	32101	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.097	6.085	0.012	1.000	11325577	2.74	Target=7.49	110	21497	
813.00 > 169.00	6.097	6.085	0.012	1.000	1368539		8.28(3.75-11.24)		20885	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.512	6.502	0.010	1.068	7258081	2.65	Target=9.70	106	11642	
913.00 > 169.00	6.512	6.502	0.010	1.068	763408		9.51(4.85-14.55)		12711	

### QC Flag Legend

Processing Flags

**Reagents:**

LCPFC+\_LL5\_00002

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_036.d

Injection Date: 10-Jun-2021 09:12:46

Instrument ID: A15

Lims ID: CCV L5

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 53

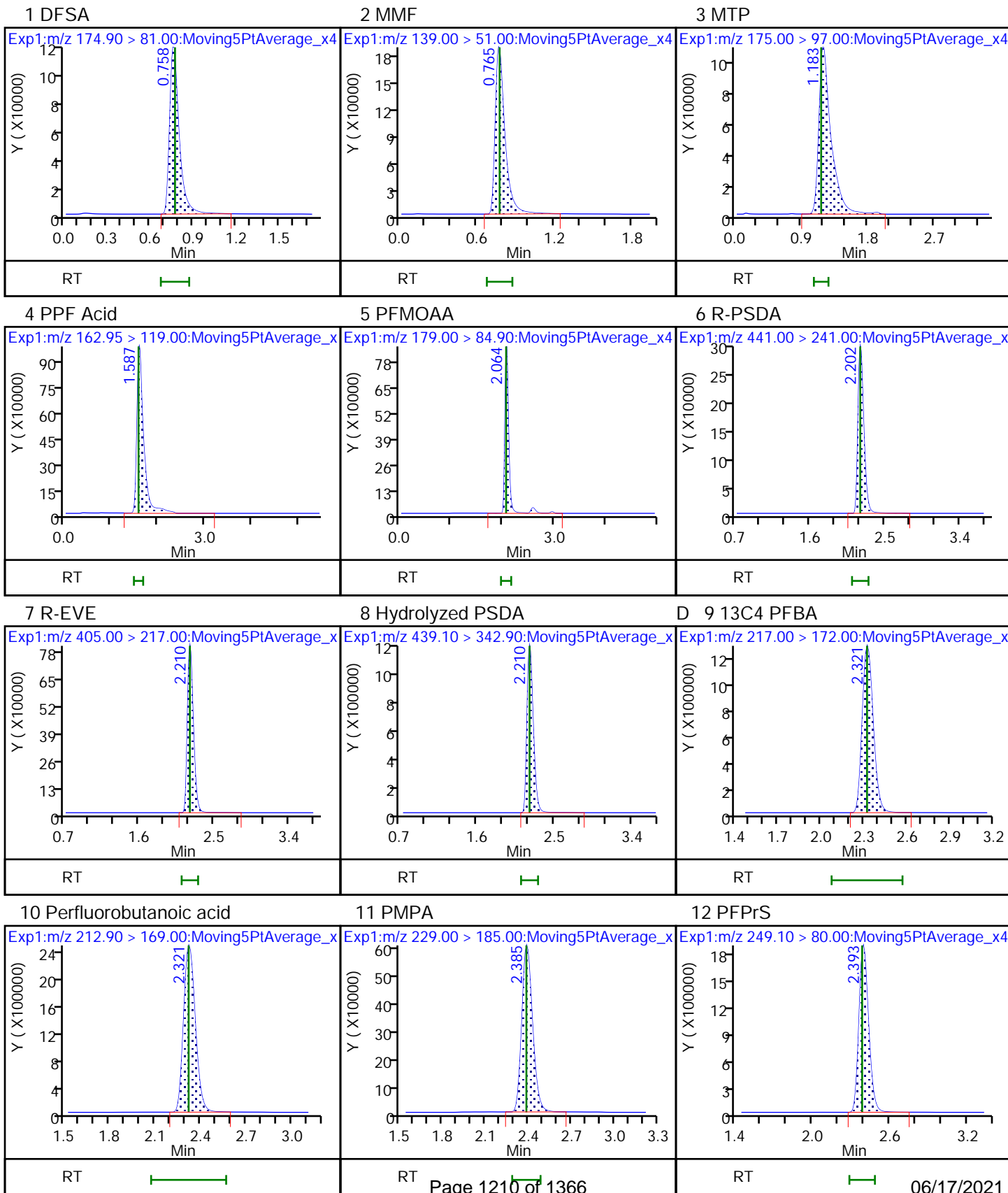
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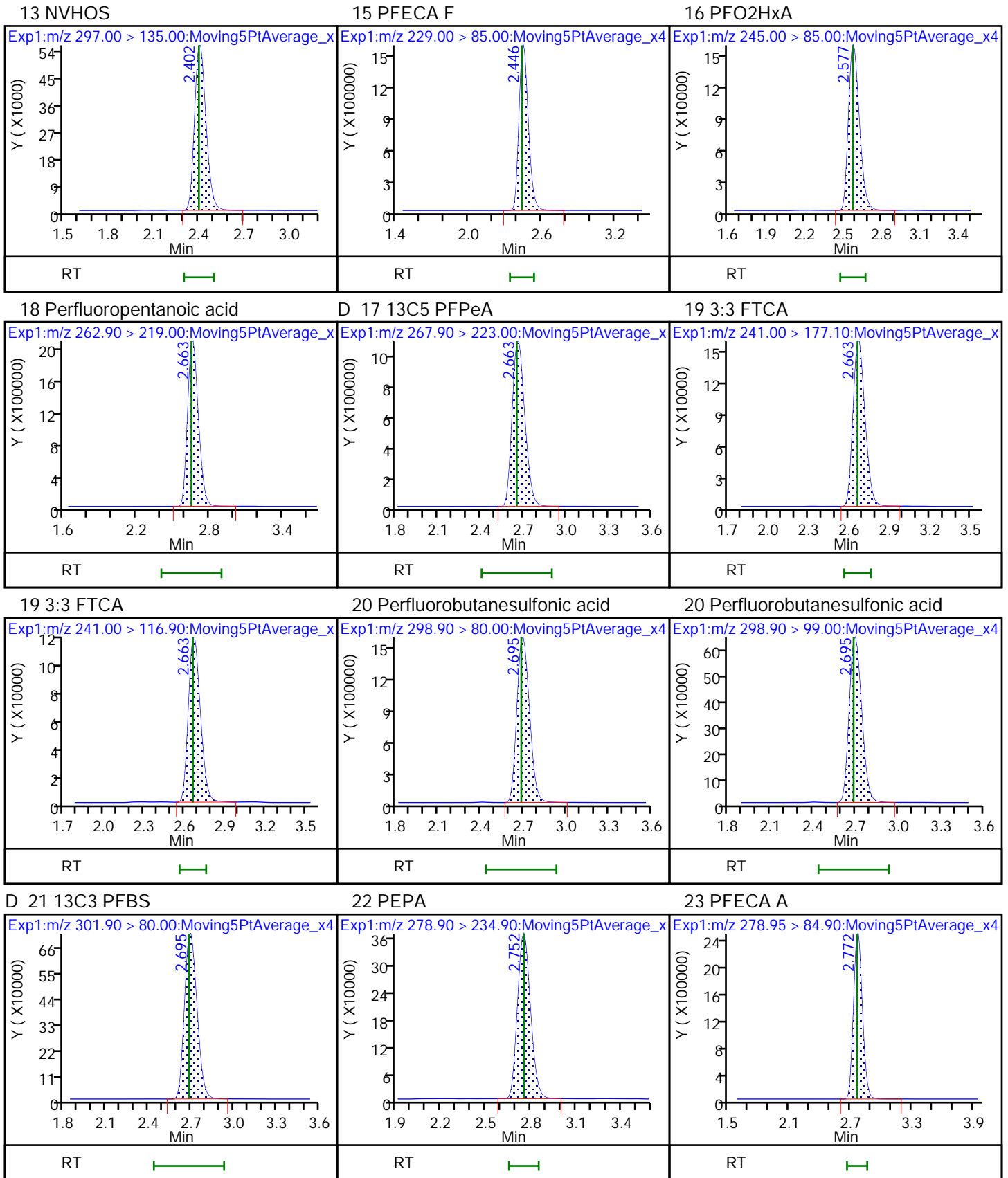
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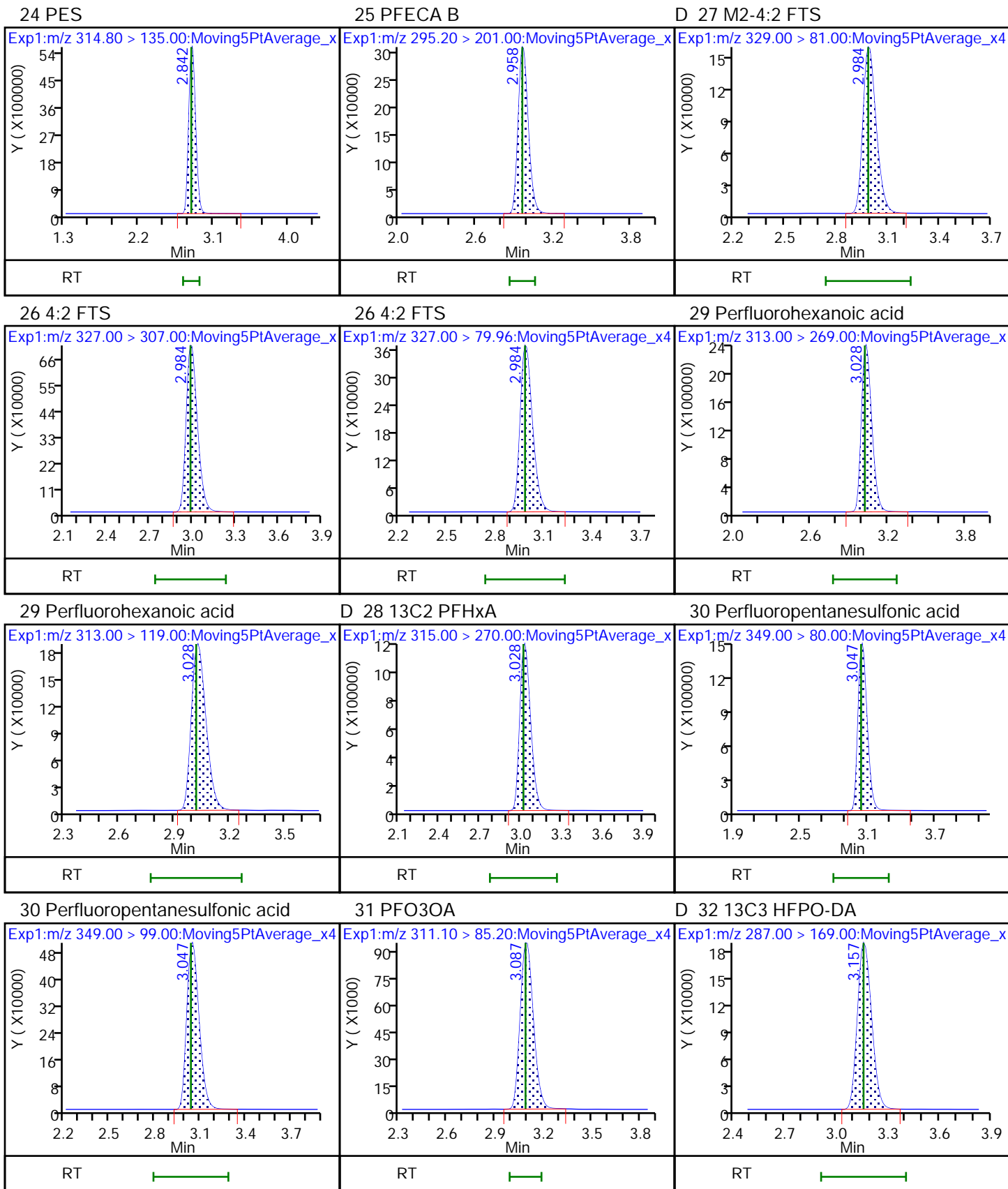
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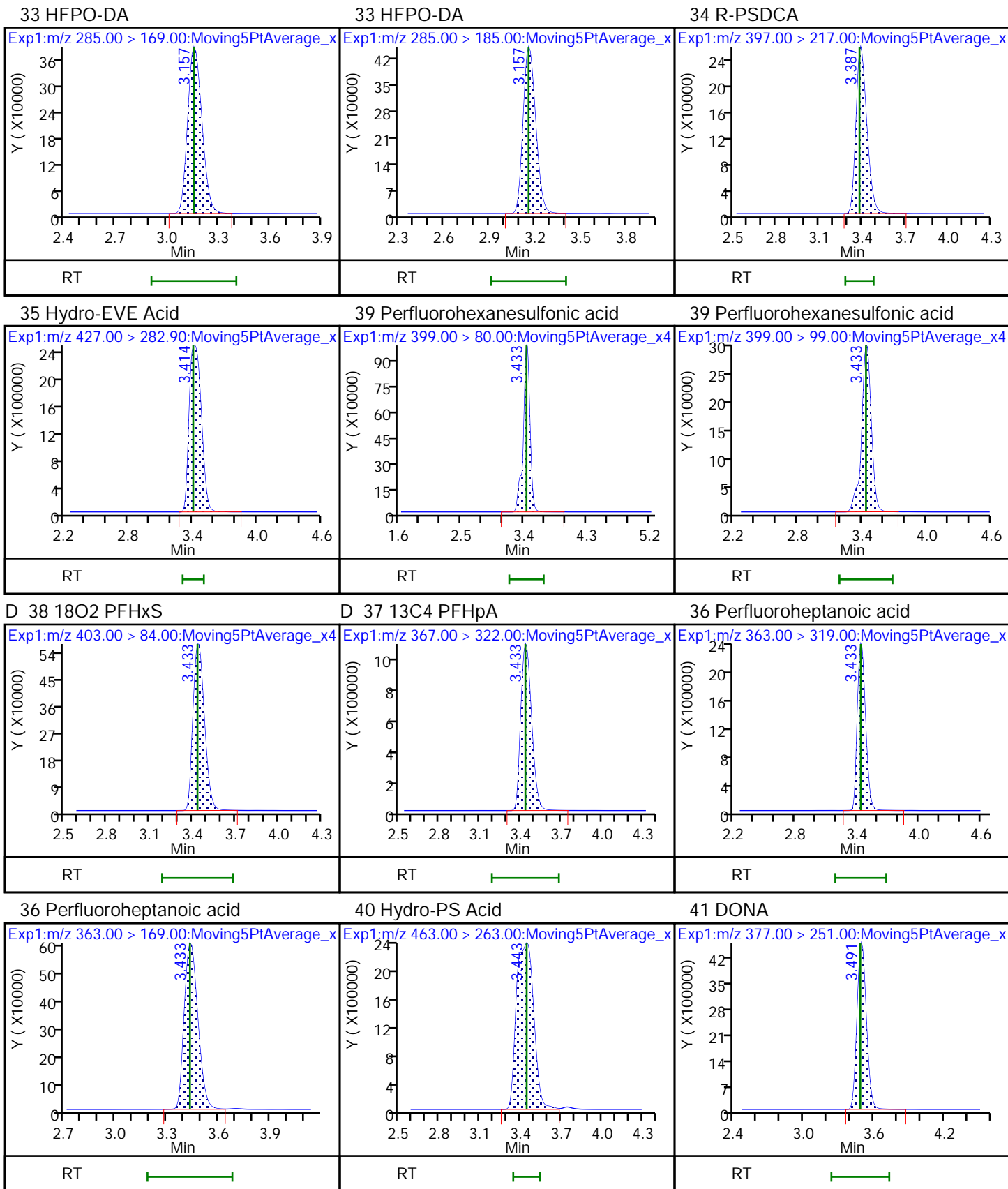
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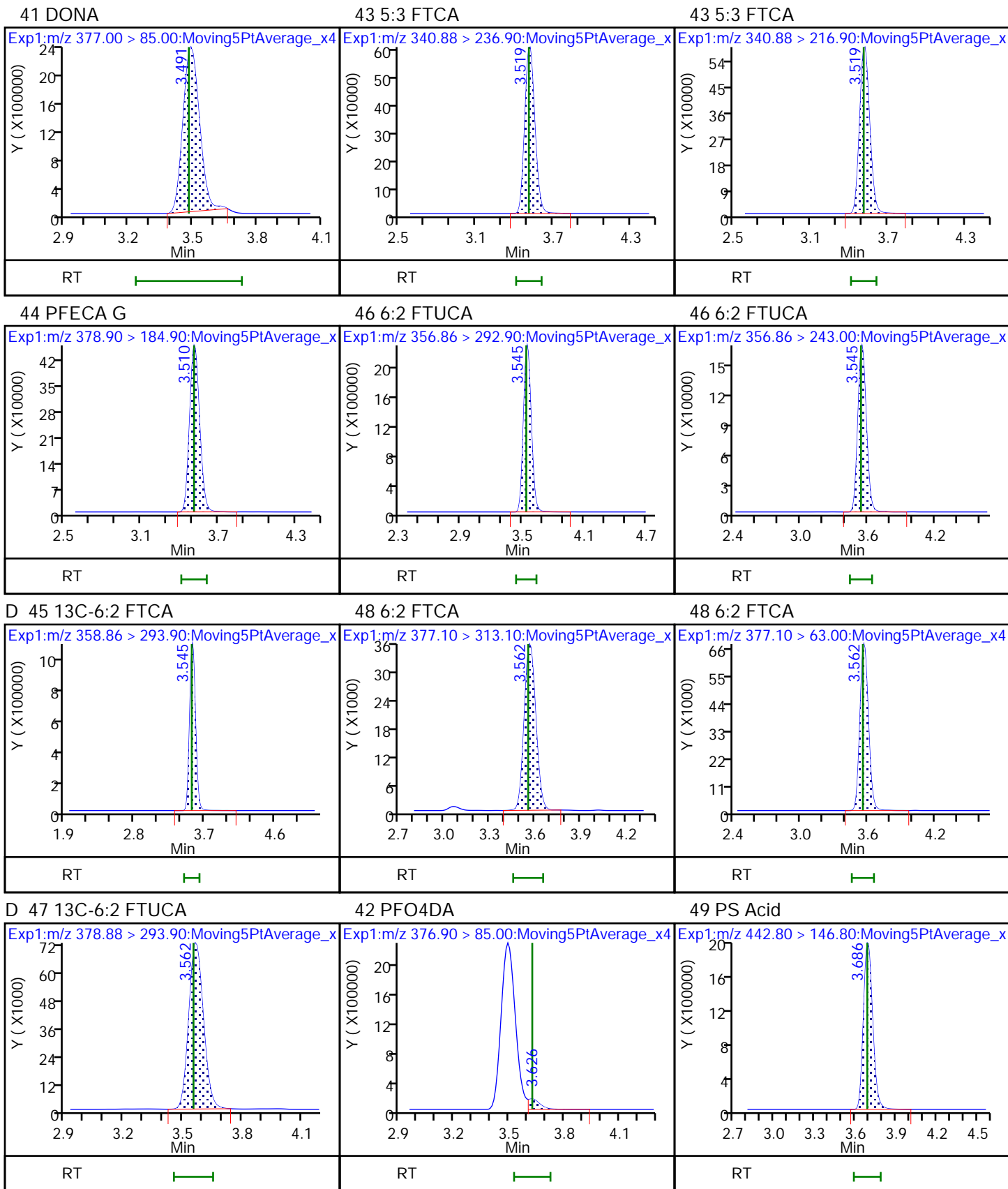
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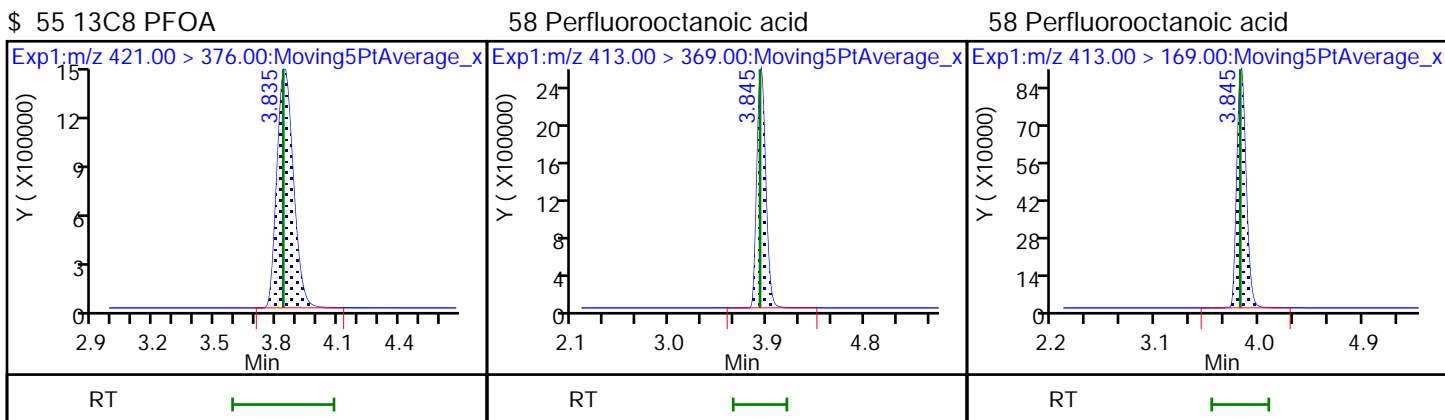
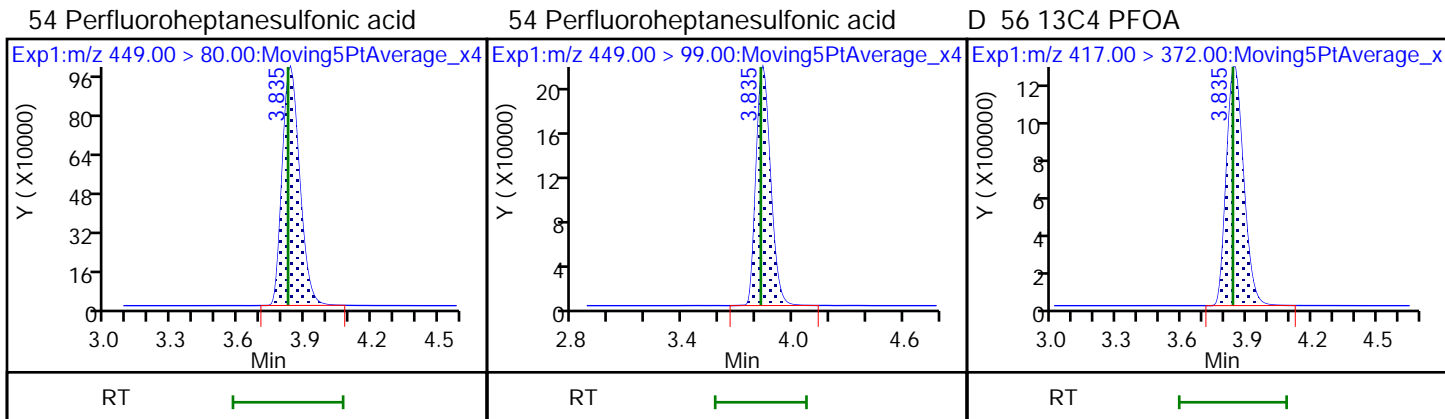
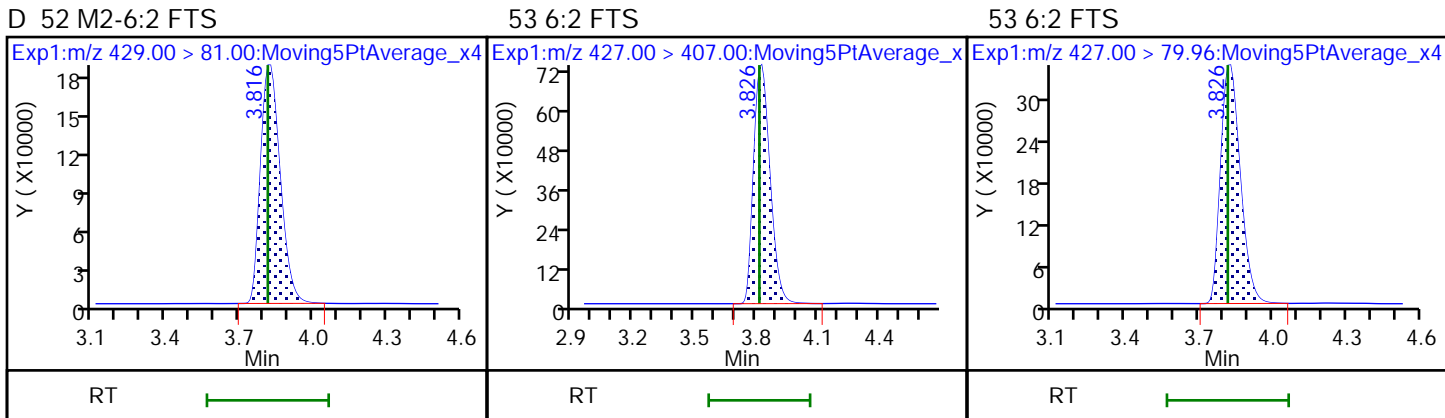
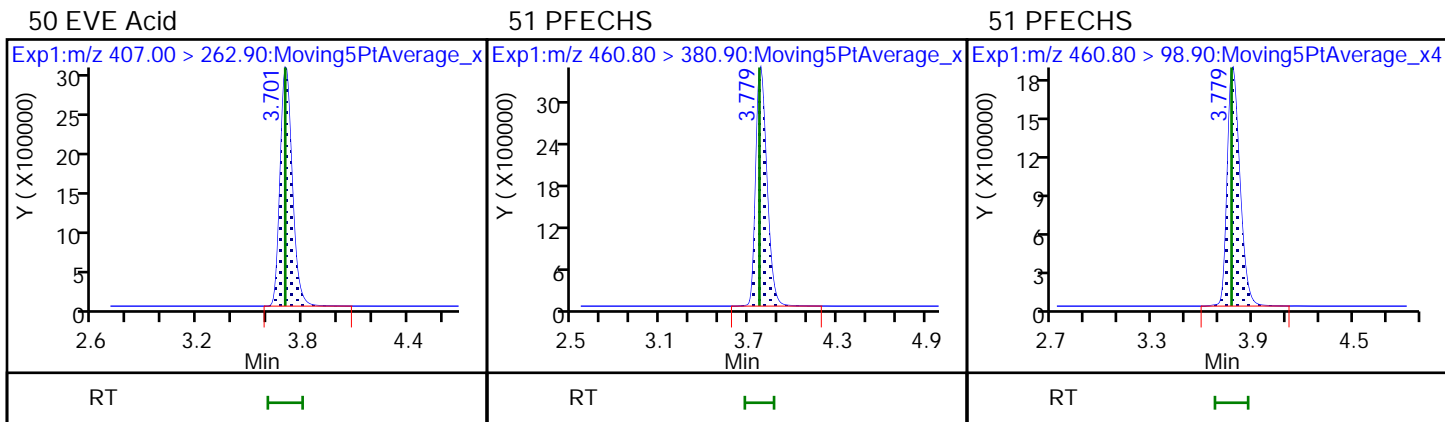








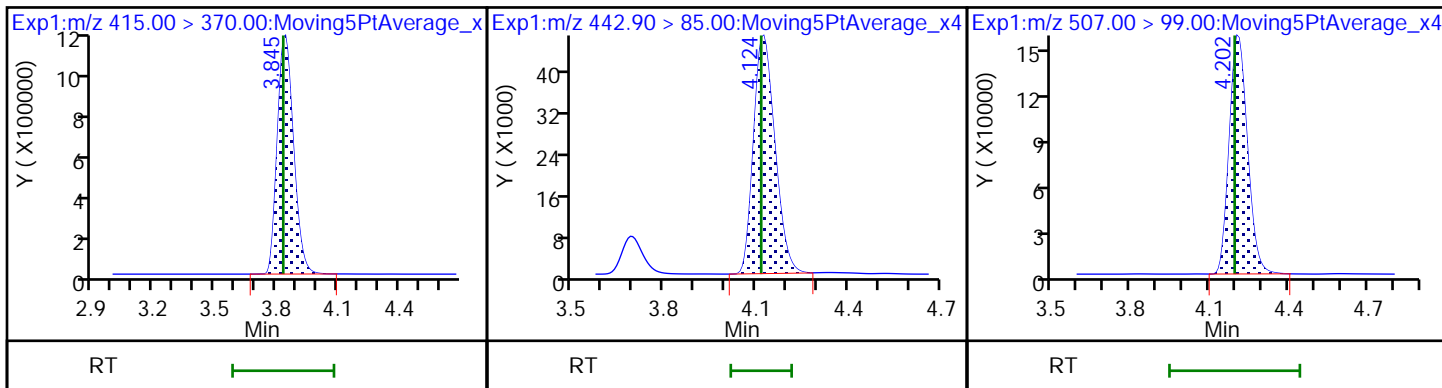




\* 57 13C2 PFOA

59 TAF

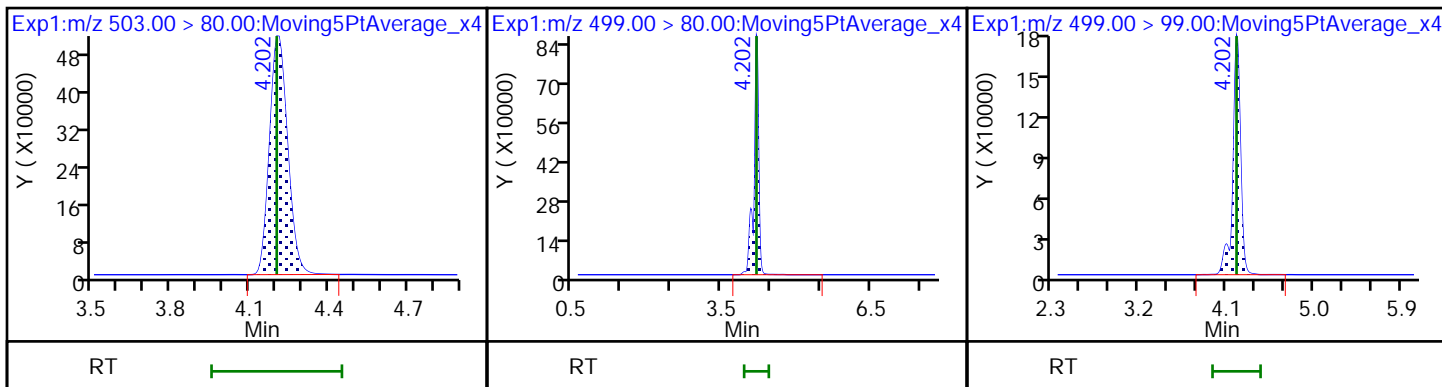
\$ 60 13C8 PFOS



D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid

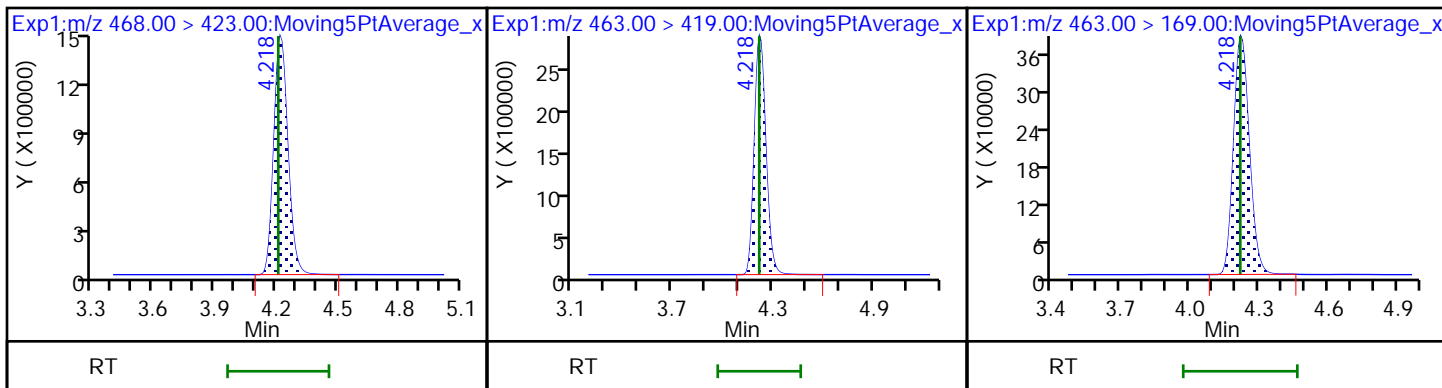
62 Perfluorooctanesulfonic acid



D 63 13C5 PFNA

64 Perfluorononanoic acid

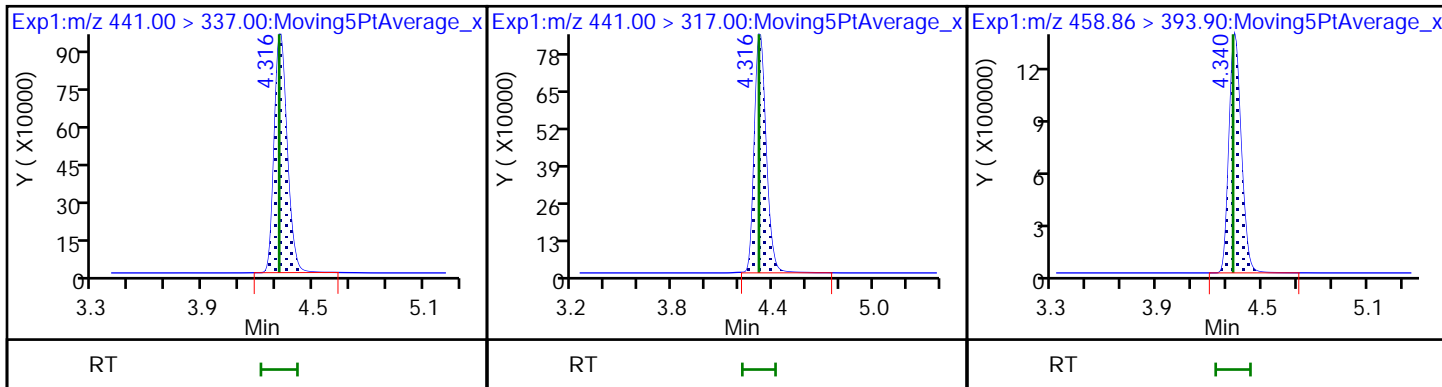
64 Perfluorononanoic acid

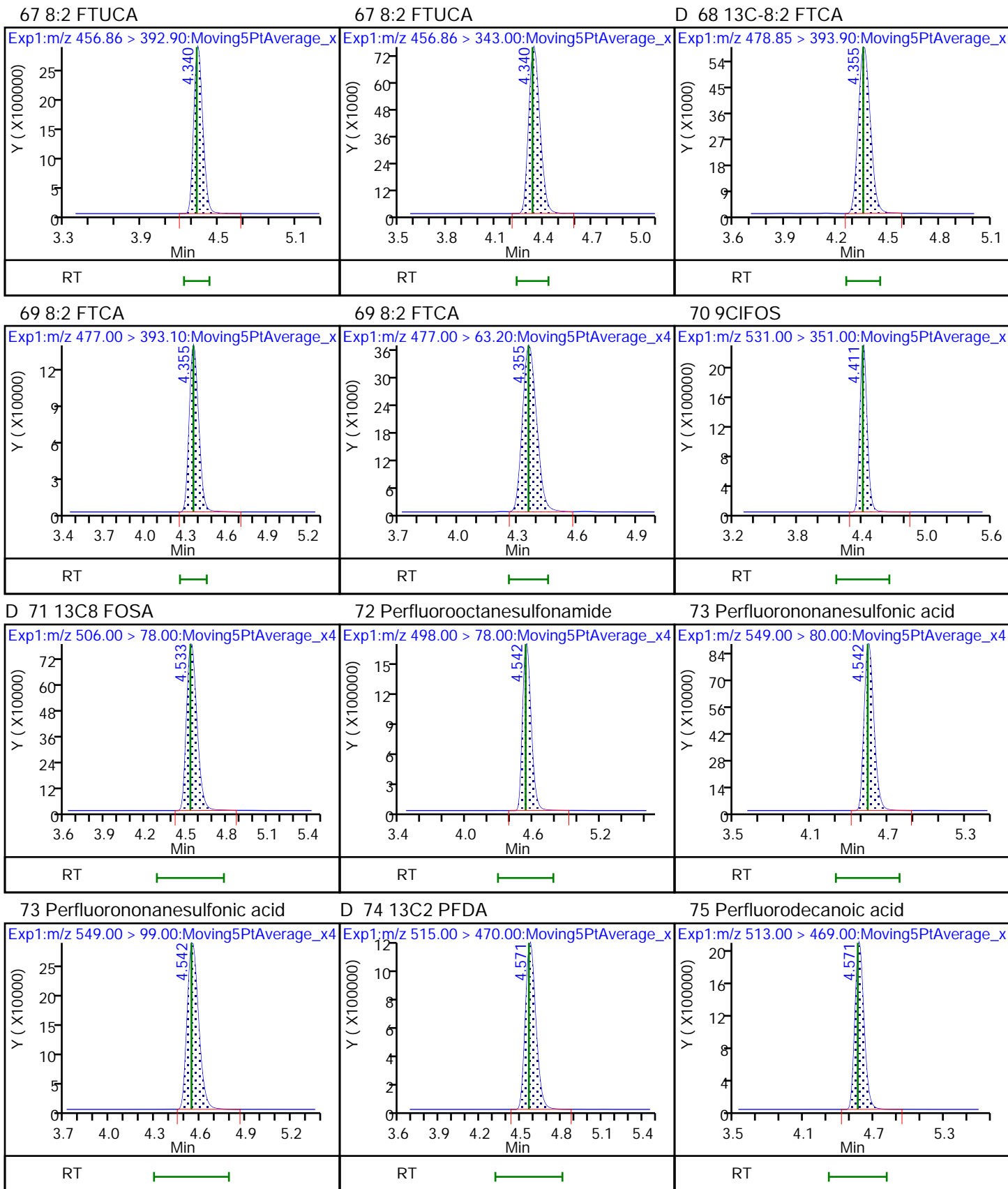


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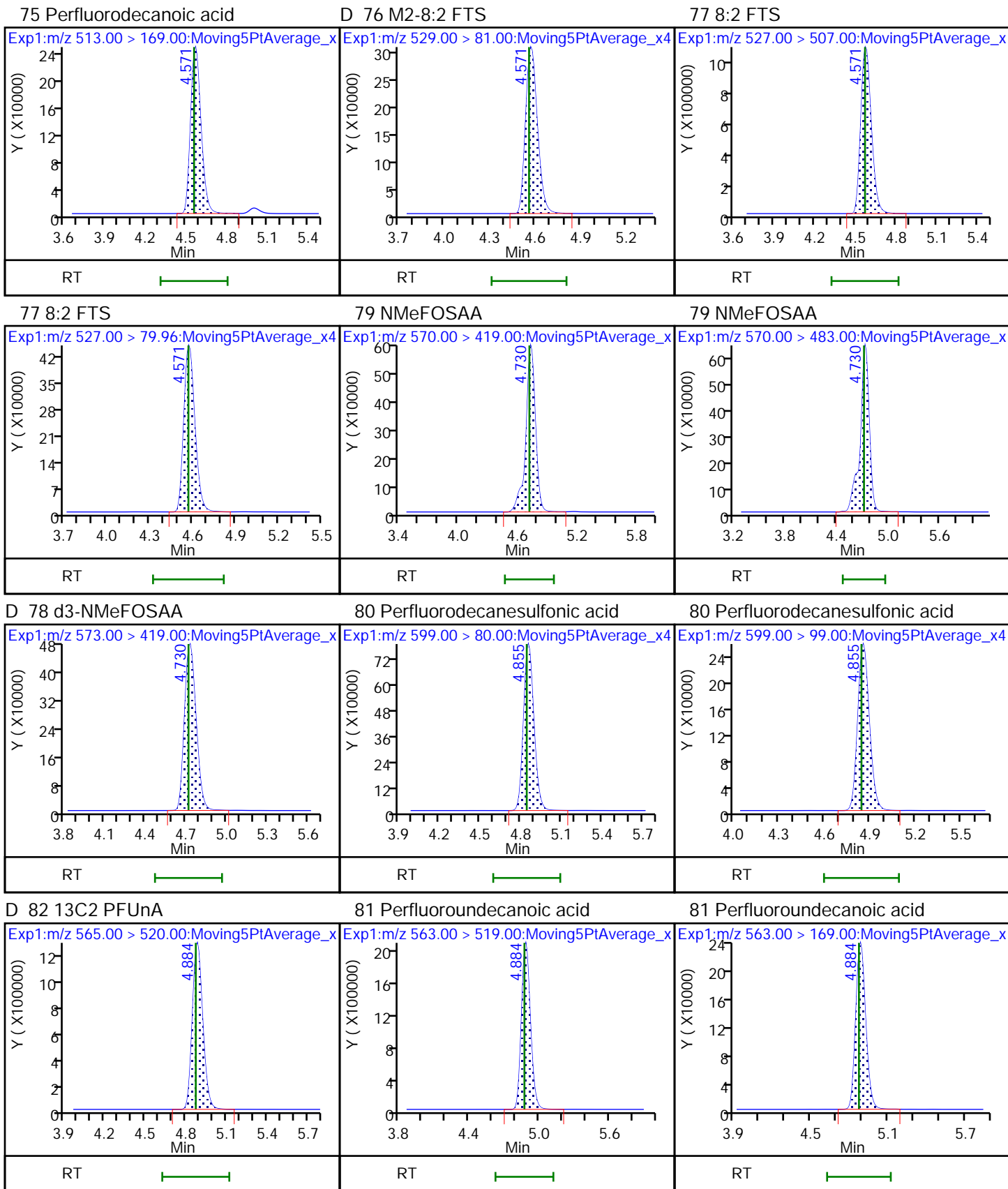
65 7:3 FTCA

D 66 13C-8:2 FTUCA





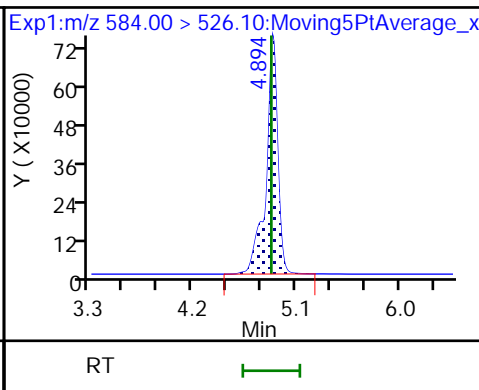
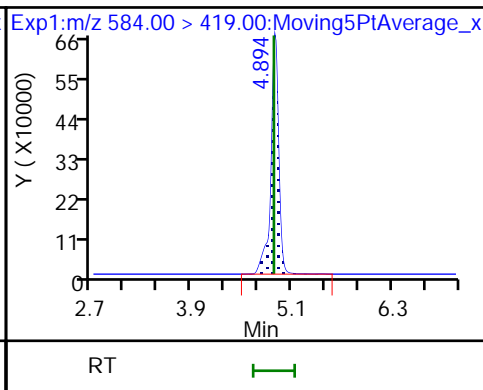
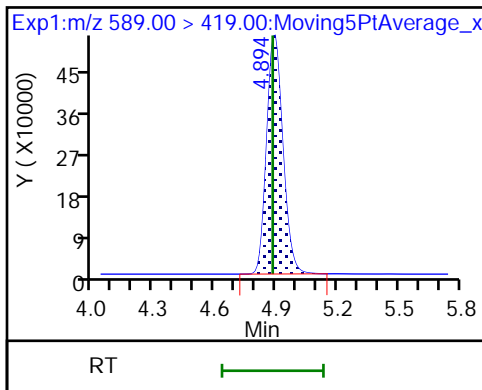




D 83 d5-NEtFOSAA

84 NEtFOSAA

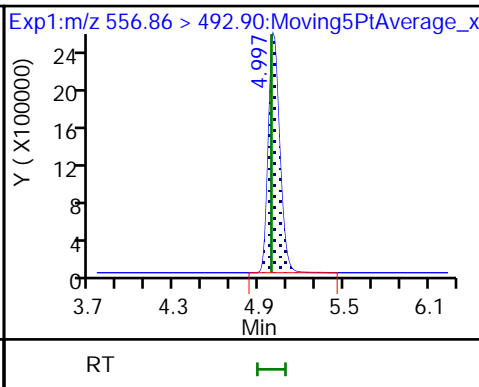
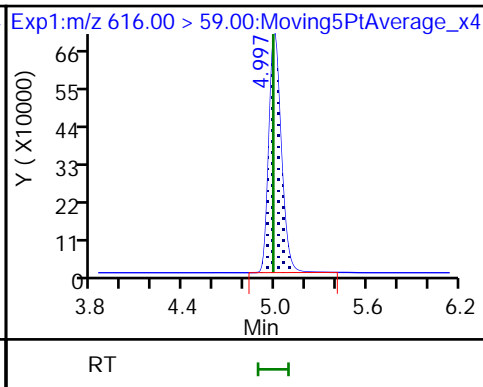
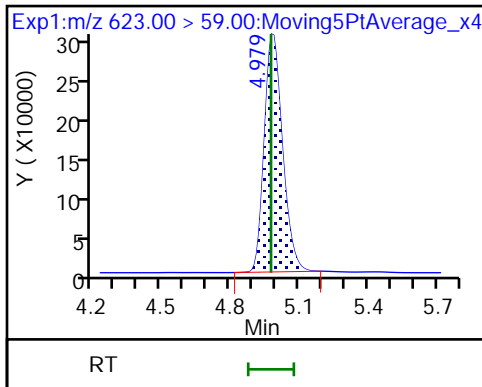
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

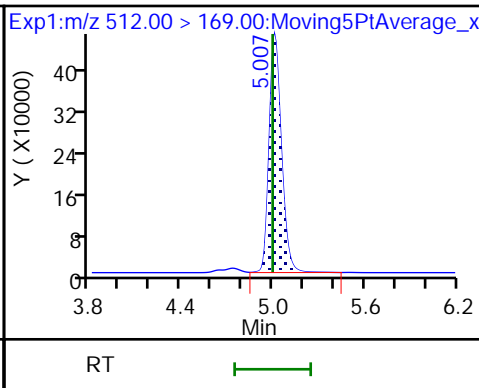
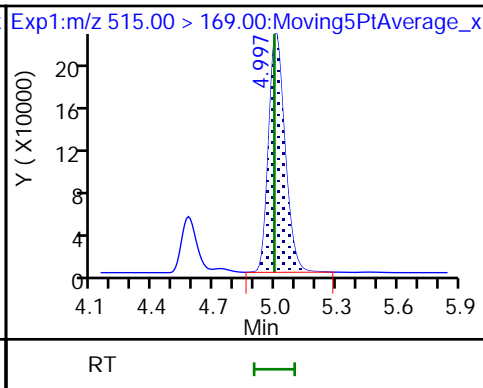
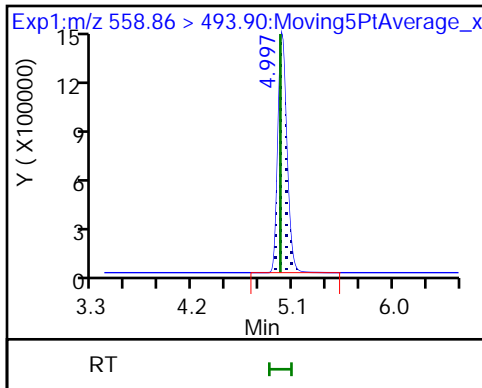
89 10:2 FTUCA



D 88 13C-10:2 FTCA

D 87 d-N-MeFOSA-M

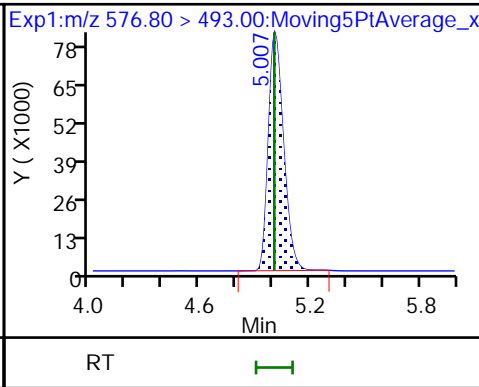
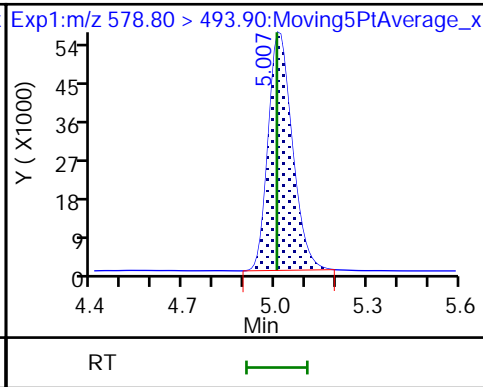
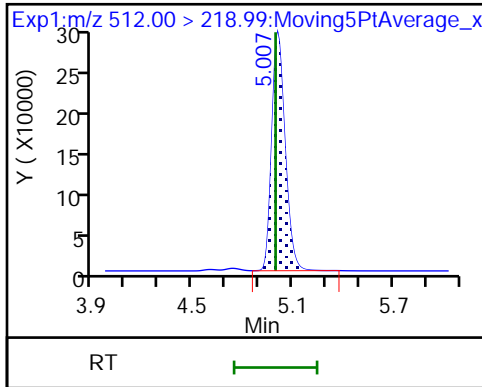
90 NMeFOSA



90 NMeFOSA

D 91 13C-10:2 FTUCA

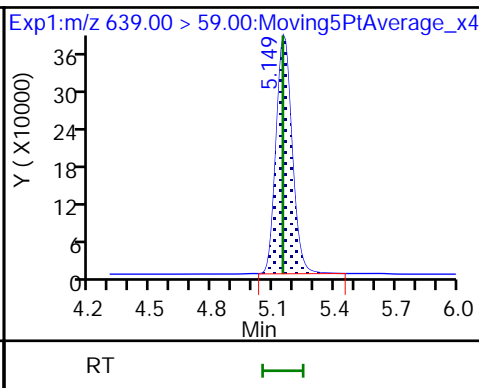
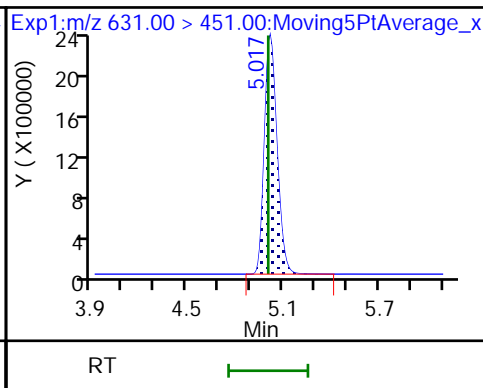
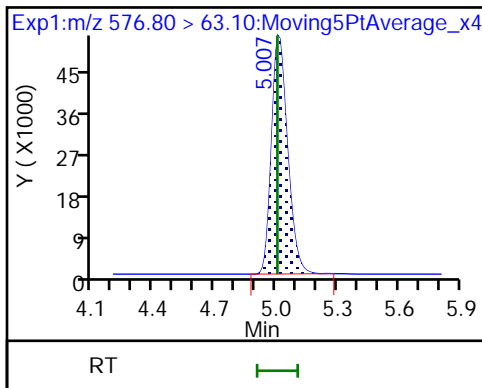
92 10:2 FTCA



92 10:2 FTCA

93 11CIFOS

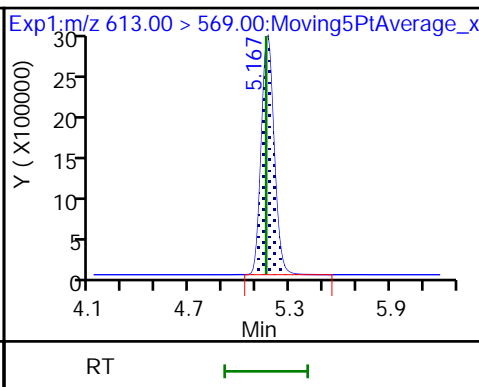
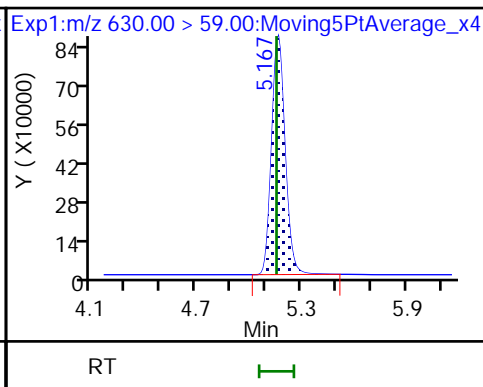
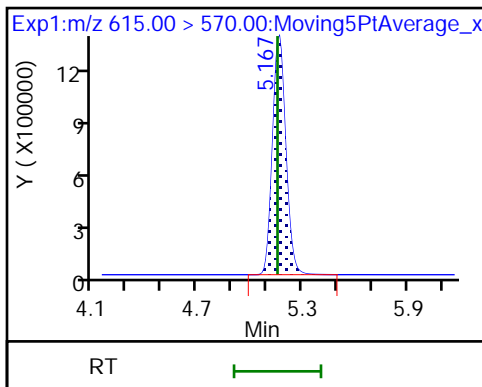
D 94 d9-N-EtFOSE-M



D 97 13C2 PFDoA

95 N-EtFOSE-M

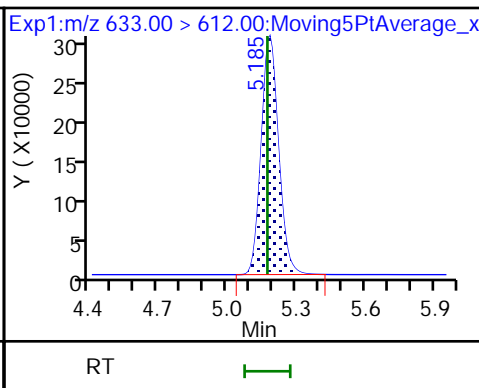
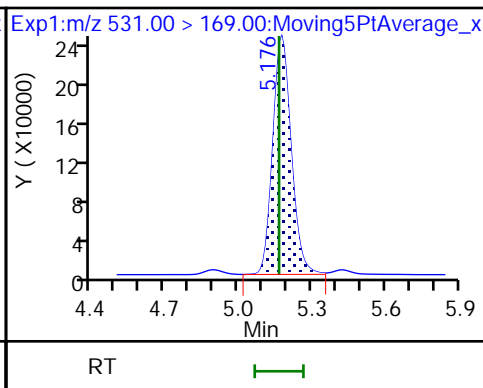
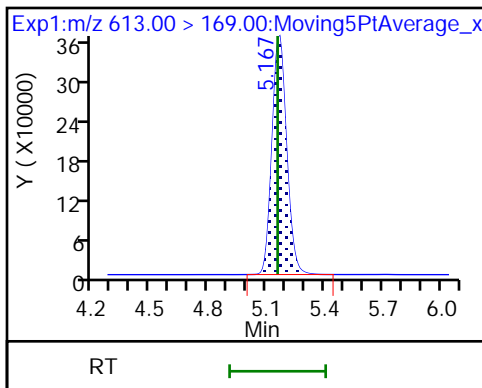
98 Perfluorododecanoic acid



98 Perfluorododecanoic acid

D 96 d-N-EtFOSA-M

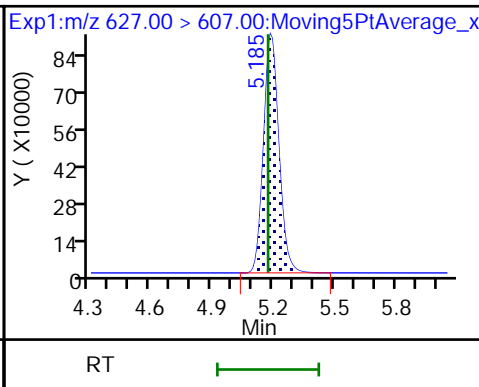
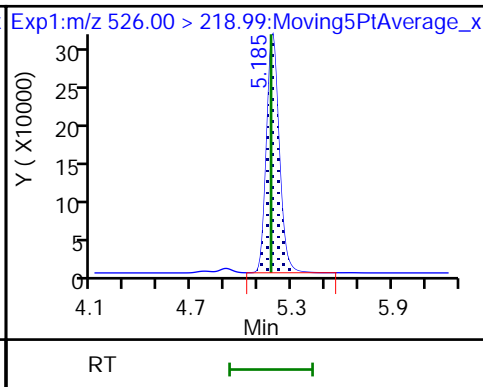
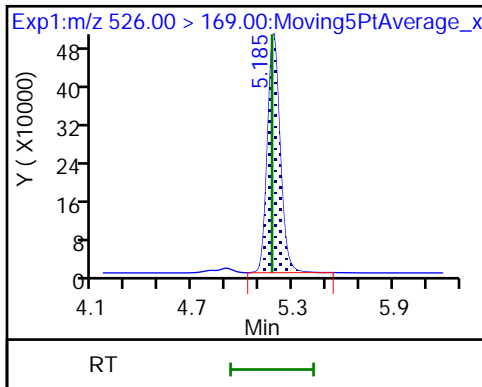
D 100 13C2 10:2 FTS



99 N-EtFOSA-M

99 N-EtFOSA-M

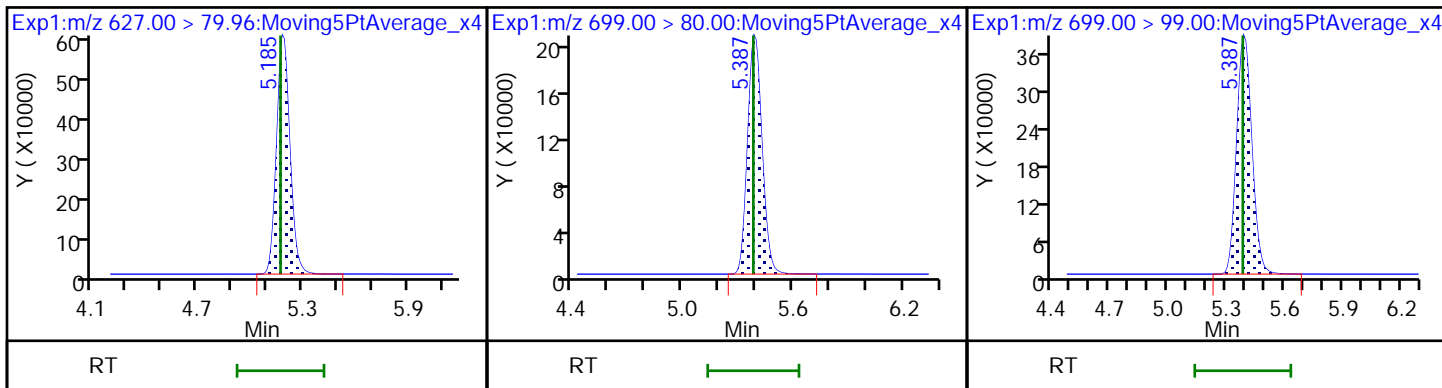
101 10:2 FTS



101 10:2 FTS

102 PFDoS

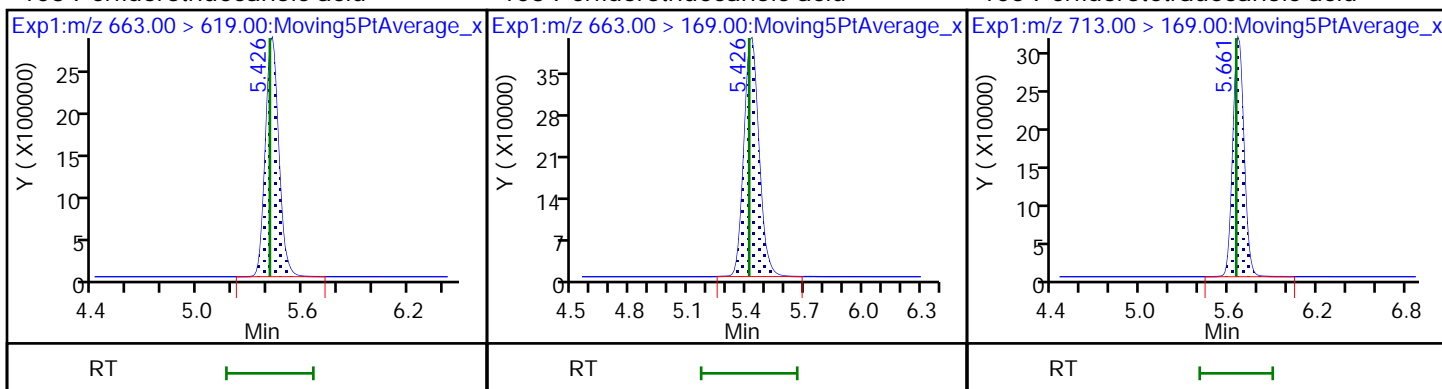
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

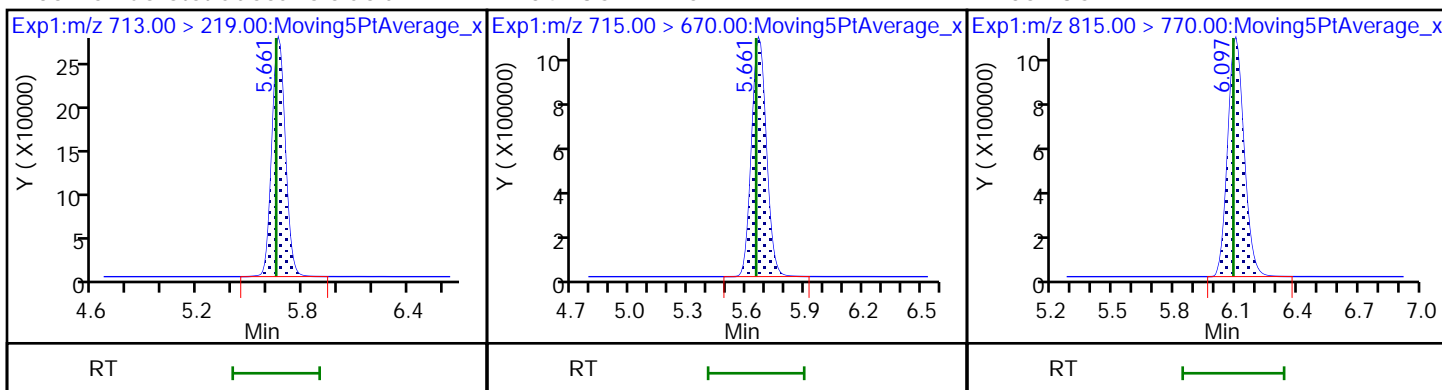
105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid

D 104 13C2 PFTeDA

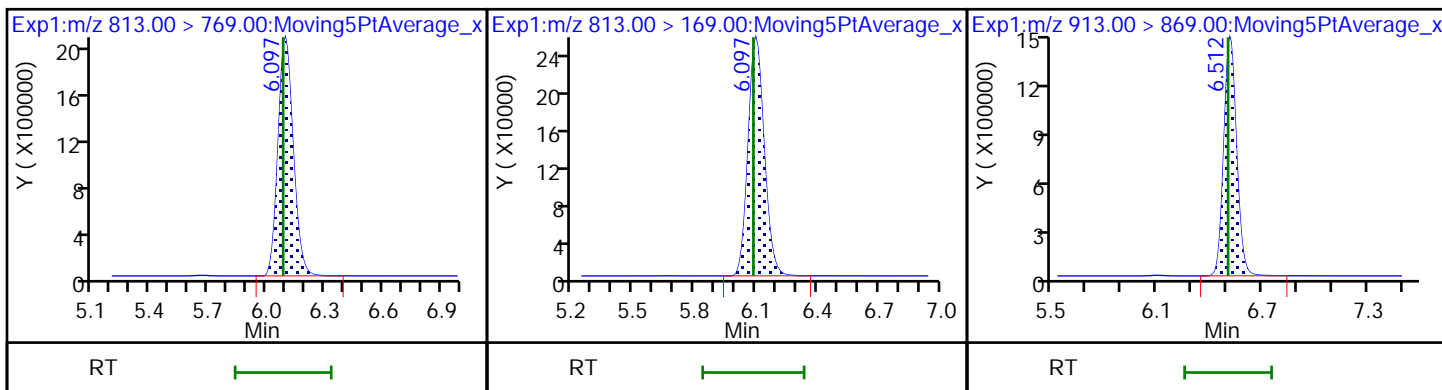
D 106 13C2 PFHxDA



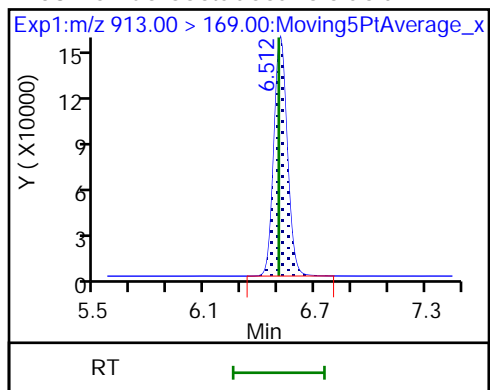
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/19 Calibration Date: 06/10/2021 10:07  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
DFSA	L1ID		0.0384			1.00	4.0	40.0
MMF	AveID	0.0724	0.0739			1.00	2.0	40.0
MTP	AveID	0.0896	0.0932			1.00	4.1	40.0
PFPrA	AveID	0.6311	0.7494			0.970	18.8	40.0
PFMOAA	AveID	0.3080	0.3326			1.00	8.0	40.0
R-PSDA	AveID	0.1112	0.1053			1.00	-5.3	40.0
Hydrolyzed PSDA	AveID	0.4388	0.4640			1.00	5.7	40.0
R-EVE	AveID	0.3326	0.3028			1.00	-9.0	40.0
Perfluorobutanoic acid (PFBA)	AveID	0.9459	1.006		1.06	1.00	6.3	40.0
PMPA	AveID	0.2182	0.2349			1.00	7.6	40.0
PFPrS	AveID	1.161	1.136			0.916	-2.2	40.0
NVHOS	AveID	0.0186	0.0235			1.00	26.5	40.0
PFMPA	AveID	0.6521	0.6530			1.00	0.2	40.0
PFO2HxA	AveID	0.0727	0.0822			1.00	13.1	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.048	1.039		0.992	1.00	-0.8	40.0
3:3 FTCA	AveID	0.0982	0.1032			1.00	5.1	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.131	1.158		0.905	0.884	2.4	50.0
PEPA	AveID	0.1649	0.1640			1.00	-0.5	40.0
PFMBA	AveID	1.195	1.156			1.00	-3.3	40.0
PFEEESA	AveID	3.845	3.721			0.890	-3.2	40.0
NFDHA	AveID	0.1332	0.1322			1.00	-0.8	40.0
4:2 FTS	AveID	2.393	2.288		0.893	0.934	-4.4	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.120	1.095		0.978	1.00	-2.2	40.0
Perfluoropentanesulfonic acid (PFPeS)	AveID	0.996	0.9842		0.927	0.938	-1.2	50.0
PFO3OA	AveID	0.0345	0.0354			1.00	2.6	40.0
HFPO-DA (GenX)	AveID	1.018	1.062			1.00	4.3	40.0
R-PSDCA	AveID	0.0667	0.1058			1.00	58.6*	40.0
Hydro-EVE Acid	AveID	1.539	1.659			1.00	7.8	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.118		1.06	1.00	5.8	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.106	1.077		0.887	0.910	-2.6	40.0
Hydro-PS Acid	AveID	1.580	1.159			1.00	-26.6	40.0
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	AveID	5.623	5.819			0.942	3.5	50.0
5:3 FTCA	AveID	0.2969	0.3026			1.00	1.9	40.0
PFPE-1	AveID	0.1620	0.2241			1.00	38.4	40.0
6:2 FTUCA	AveID	17.67	16.55			1.00	-6.4	40.0
6:2 FTCA	AveID	0.0160	0.0146			1.00	-9.2	40.0
PS Acid	AveID	0.6583	0.6634			1.00	0.8	40.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/19 Calibration Date: 06/10/2021 10:07  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.047	1.059			1.00	1.2	40.0
PFECHS	AveID	1.196	1.391			0.922	16.4	40.0
6:2 FTS	AveID	2.060	2.090		0.962	0.948	1.4	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.141	1.249		1.04	0.952	9.5	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.045	1.044		0.999	1.00	-0.1	40.0
PFO5DA	AveID	0.0155	0.0196			1.00	26.9	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.125	1.211		0.999	0.928	7.7	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9902	0.9712		0.981	1.00	-1.9	40.0
7:3 FTCA	AveID	7.703	6.772			1.00	-12.1	40.0
8:2 FTUCA	AveID	0.9749	1.016			1.00	4.2	40.0
8:2 FTCA	AveID	1.157	1.123			1.00	-2.9	40.0
9Cl-PF3ONS	AveID	2.256	2.236			0.932	-0.9	50.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.004	0.9698		0.966	1.00	-3.4	40.0
Perfluorononanesulfonic acid (PFNS)	AveID	0.9361	1.049		1.08	0.960	12.0	50.0
8:2 FTS	AveID	1.563	1.662		1.02	0.958	6.3	40.0
Perfluorodecanoic acid (PFDA)	AveID	1.022	0.8913		0.872	1.00	-12.8	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.7397	0.6769		0.915	1.00	-8.5	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.8195	0.9158		1.08	0.964	11.8	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9210	0.8917		0.968	1.00	-3.2	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.7165	0.6591		0.920	1.00	-8.0	40.0
NMeFOSE	AveID	1.058	1.092			1.00	3.2	40.0
10:2 FTUCA	AveID	28.15	18.86			1.00	-33.0	40.0
10:2 FTCA	AveID	0.0284	0.0293			1.00	3.3	40.0
NMeFOSA	AveID	1.014	1.133			1.00	11.7	50.0
11Cl-PF3OUdS	AveID	2.689	3.052			0.942	13.5	50.0
NEtFOSE	AveID	1.174	1.235			1.00	5.2	40.0
Perfluorododecanoic acid (PFDoA)	AveID	1.111	1.163		1.05	1.00	4.7	40.0
NEtFOSA	AveID	1.036	1.080			1.00	4.2	40.0
10:2 FTS	AveID	1.519	1.445			0.964	-4.9	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2325	0.2291			0.968	-1.5	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.9279	0.9124		0.983	1.00	-1.7	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1229	0.1145		0.931	1.00	-6.9	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9374		1.01	1.00	1.5	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.6071	0.6375		1.05	1.00	5.0	50.0

FORM VII  
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 320-497065/19 Calibration Date: 06/10/2021 10:07  
 Instrument ID: A15 Calib Start Date: 06/01/2021 14:07  
 GC Column: Gemini C18 3x50 ID: 3.00 (mm) Calib End Date: 06/01/2021 15:02  
 Lab File ID: 2021.06.09\_A15\_PFC+\_E\_042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PFO4DA	AveID	0.0394				1.00		
13C4 PFBA	Ave	0.998	0.9780		1.23	1.25	-2.0	50.0
13C5 PFPeA	Ave	0.9416	0.9263		1.23	1.25	-1.6	50.0
13C3 PFBS	Ave	0.6563	0.6854		1.21	1.16	4.4	50.0
M2-4:2 FTS	Ave	0.1753	0.1422		0.947	1.17	-18.9	50.0
13C2 PFHxA	Ave	0.9319	0.9289		1.25	1.25	-0.3	50.0
13C3 HFPO-DA	Ave	0.1655	0.1641		1.24	1.25	-0.9	50.0
13C4 PFHpA	Ave	0.9175	0.9075		1.24	1.25	-1.1	50.0
18O2 PFHxS	Ave	0.4664	0.4869		1.23	1.18	4.4	50.0
13C-6:2 FTCA	Ave	0.7974	0.8422		1.32	1.25	5.6	50.0
13C-6:2 FTUCA	Ave	0.0489	0.0553		1.41	1.25	13.0	50.0
M2-6:2 FTS	Ave	0.2119	0.1691		0.948	1.19	-20.2	50.0
13C4 PFOA	Ave	1.043	1.021		1.22	1.25	-2.1	50.0
13C4 PFOS	Ave	0.3656	0.3623		1.18	1.20	-0.9	50.0
13C5 PFNA	Ave	0.997	1.011		1.27	1.25	1.5	50.0
13C-8:2 FTUCA	Ave	0.9872	1.026		1.30	1.25	3.9	50.0
13C-8:2 FTCA	Ave	0.0451	0.0495		1.37	1.25	9.8	50.0
13C8 FOSA	Ave	0.6160	0.6536		1.33	1.25	6.1	50.0
13C2 PFDA	Ave	0.997	1.009		1.27	1.25	1.3	50.0
M2-8:2 FTS	Ave	0.3308	0.2807		1.02	1.20	-15.2	50.0
d3-NMeFOSAA	Ave	0.4207	0.4364		1.30	1.25	3.7	50.0
13C2 PFUnA	Ave	0.9607	1.028		1.34	1.25	7.0	50.0
d5-NEtFOSAA	Ave	0.4186	0.4724		1.41	1.25	12.9	50.0
d7-N-MeFOSE-M	Ave	0.2514	0.2548		1.27	1.25	1.3	50.0
13C-10:2 FTCA	Ave	1.160	1.353		1.46	1.25	16.6	50.0
d-N-MeFOSA-M	Ave	0.1847	0.1849		1.25	1.25	0.1	50.0
13C-10:2 FTUCA	Ave	0.0339	0.0557		2.05	1.25	64.1*	50.0
d9-N-EtFOSE-M	Ave	0.2800	0.3071		1.37	1.25	9.7	50.0
13C2 PFDoA	Ave	1.039	1.047		1.26	1.25	0.7	50.0
13C2 10:2 FTS	Ave	0.2654	0.2867		1.30	1.21	8.0	50.0
d-N-EtFOSA-M	Ave	0.1814	0.1845		1.27	1.25	1.7	50.0
13C2 PFTeDA	Ave	0.9575	0.999		1.30	1.25	4.4	50.0
13C2 PFHxDA	Ave	0.7323	0.8306		1.42	1.25	13.4	50.0
13C8 PFOA	Ave	1.167	1.184		1.27	1.25	1.4	50.0
13C8 PFOS	Ave	0.1093	0.1203		1.32	1.20	10.1	50.0



Eurofins TestAmerica, Sacramento  
 Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_042.d  
 Lims ID: CCV L4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 10-Jun-2021 10:07:29 ALS Bottle#: 52 Worklist Smp#: 19  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV L4  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Sublist: chrom-PFAS+\_A15\*sub2  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:57:38 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:57:38

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA										
174.90 > 81.00	0.764	0.764	0.0	0.331	195054	1.04		104	360	
2 MMF										
139.00 > 51.00	0.771	0.771	0.0	0.334	375160	1.02		102	285	
3 MTP										
175.00 > 97.00	1.143	1.143	0.0	0.495	473553	1.04		104	239	
4 PPF Acid										
162.95 > 119.00	1.556	1.556	0.0	0.673	3692358	1.15		119	1336	
5 PFMOAA										
179.00 > 84.90	2.050	2.050	0.0	0.887	1689407	1.08		108	3279	
6 R-PSDA										
441.00 > 241.00	2.194	2.194	0.0	0.949	534972	0.9471		94.7	21793	
7 R-EVE										
405.00 > 217.00	2.202	2.202	0.0	0.953	1538152	0.9104		91.0	34765	
8 Hydrolyzed PSDA										
439.10 > 342.90	2.202	2.202	0.0	0.953	2356962	1.06		106	58856	
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.311	0.0	0.604	6349054	1.23		98.0	62076	
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.311	0.0	1.000	5107722	1.06		106	6984	
11 PMPA										
229.00 > 185.00	2.375	2.375	0.0	1.028	1193080	1.08		108	2665	
12 PFPrS										
249.10 > 80.00	2.384	2.384	0.0	0.888	3703360	0.8962		97.8	20306	
13 NVHOS										
297.00 > 135.00	2.402	2.402	0.0	1.039	119324	1.27		127	4534	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 PFECA F										
229.00 > 85.00	2.437	2.437	0.0	0.919	3141773	1.00		100	54616	
16 PFO2HxA										
245.00 > 85.00	2.566	2.566	0.0	0.968	395409	1.13		113	4870	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.651	0.0	1.000	4999221	0.99		99.2	14885	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.651	0.0	0.693	6013743	1.23		98.4	54984	
19 3:3 FTCA										
241.00 > 177.10	2.662	2.662	0.0	0.992	367429	1.05	Target=1.28	105	6025	
241.00 > 116.90	2.662	2.662	0.0	0.992	265394		1.38(0.64-1.92)		1720	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.684	0.0	1.000	3643601	0.9052	Target=2.36	102	18815	
298.90 > 99.00	2.684	2.684	0.0	1.000	1539020		2.37(1.18-3.53)		12741	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.684	0.0	0.702	4138331	1.21		104	34156	
22 PEPA										
278.90 > 234.90	2.740	2.740	0.0	1.034	788797	0.99		99.5	1840	
23 PFECA A										
278.95 > 84.90	2.761	2.761	0.0	1.041	5560367	0.9674		96.7	62069	
24 PES										
314.80 > 135.00	2.831	2.831	0.0	1.055	11789307	0.8612		96.8	86260	
25 PFECA B										
295.20 > 201.00	2.950	2.950	0.0	0.977	637714	0.99		99.2	19420	
D 27 M2-4:2 FTS										
329.00 > 81.00	2.975	2.975	0.0	0.778	862083	0.9469		81.1	9935	
26 4:2 FTS										
327.00 > 307.00	2.975	2.975	0.0	1.000	1577690	0.8927	Target=2.17	95.6	47865	
327.00 > 79.96	2.984	2.975	0.009	1.003	752078		2.10(1.09-3.26)		11468	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.019	3.019	0.0	1.000	5283729	0.9777	Target=13.89	97.8	14255	
313.00 > 119.00	3.019	3.019	0.0	1.000	389133		13.58(6.95-20.84)		5892	
D 28 13C2 PFHxA										
315.00 > 270.00	3.019	3.019	0.0	0.789	6030197	1.25		99.7	57725	
30 Perfluoropentanesulfonic acid										
349.00 > 80.00	3.038	3.038	0.0	1.132	3286501	0.9272	Target=3.10	98.8	34663	
349.00 > 99.00	3.038	3.038	0.0	1.132	1110914		2.96(1.55-4.65)		19950	
31 PFO3OA										
311.10 > 85.20	3.077	3.077	0.0	1.019	170732	1.03		103	3761	
D 32 13C3 HFPO-DA										
287.00 > 169.00	3.147	3.147	0.0	0.823	1065366	1.24		99.1	15612	
33 HFPO-DA										
285.00 > 169.00	3.147	3.147	0.0	1.000	905427	1.04	Target=1.03	104	11402	
285.00 > 185.00	3.147	3.147	0.0	1.000	975090		0.93(0.52-1.55)		13113	
34 R-PSDCA										
397.00 > 217.00	3.379	3.379	0.0	0.987	498709	1.59		159	19069	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Hydro-EVE Acid										
427.00 > 282.90	3.405	3.405	0.0	0.994	7818263	1.08		108	19804	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.424	3.424	0.0	0.997	2479462	0.8867	Target=3.50	97.4	31581	
399.00 > 99.00	3.424	3.424	0.0	0.997	700989		3.54(1.75-5.25)		11296	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.897	2990312	1.23		104	36340	
D 37 13C4 PFHpA										
367.00 > 322.00	3.424	3.424	0.0	0.895	5891503	1.24		98.9	56433	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.424	3.424	0.0	1.000	5267532	1.06	Target=3.81	106	22440	
363.00 > 169.00	3.424	3.424	0.0	1.000	1309688		4.02(1.91-5.72)		9193	
40 Hydro-PS Acid										
463.00 > 263.00	3.433	3.433	0.0	1.003	5463240	0.7336		73.4	187	
41 DONA										
377.00 > 251.00	3.482	3.482	0.0	0.830	10314253	0.9748	Target=2.07	103	60923	
377.00 > 85.00	3.482	3.482	0.0	0.830	5274754		1.96(1.03-3.10)		84971	
43 5:3 FTCA										
340.88 > 236.90	3.501	3.501	0.0	0.990	1323740	1.02	Target=1.08	102	17474	
340.88 > 216.90	3.501	3.501	0.0	0.990	1224397		1.08(0.54-1.62)		14032	
44 PFECA G										
378.90 > 184.90	3.501	3.501	0.0	0.990	980403	1.38		138	13955	
46 6:2 FTUCA										
356.86 > 292.90	3.537	3.537	0.0	0.995	4751018	0.9363	Target=14.03	93.6	60194	
356.86 > 243.00	3.537	3.537	0.0	0.995	342171		13.88(7.02-21.05)		10762	
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.537	3.537	0.0	0.924	5467749	1.32		106	258041	
48 6:2 FTCA										
377.10 > 313.10	3.554	3.554	0.0	1.005	63748	0.9085	Target=0.54	90.8	1954	
377.10 > 63.00	3.562	3.554	0.008	1.007	120427		0.53(0.27-0.81)		5730	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.554	3.554	0.0	0.929	358881	1.41		113	3902	
49 PS Acid										
442.80 > 146.80	3.678	3.678	0.0	0.961	3518921	1.01		101	49796	
50 EVE Acid										
407.00 > 262.90	3.693	3.693	0.0	0.965	5617024	1.01		101	170173	
51 PFECHS										
460.80 > 380.90	3.764	3.764	0.0	0.984	6802783	1.07	Target=1.90	116	67868	
460.80 > 98.90	3.764	3.764	0.0	0.984	3511587		1.94(0.95-2.85)		49903	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.807	3.807	0.0	0.995	1042697	0.9477		79.8	9071	
53 6:2 FTS										
427.00 > 407.00	3.807	3.807	0.0	1.000	1739341	0.9616	Target=2.11	101	8865	
427.00 > 79.96	3.807	3.807	0.0	1.000	798940		2.18(1.06-3.17)		3746	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.826	3.826	0.0	0.912	2238300	1.04	Target=4.82	109	18302	
449.00 > 99.00	3.826	3.826	0.0	0.912	473148		4.73(2.41-7.24)		9871	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 56 13C4 PFOA										
417.00 > 372.00	3.826	3.826	0.0	1.000	6630223	1.22		97.9	58022	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.826	3.826	0.0	1.000	7684423	1.27		101	67690	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.826	3.826	0.0	1.000	5535417	1.00	Target=2.87	99.9	17466	
413.00 > 169.00	3.826	3.826	0.0	1.000	1965006		2.82(1.43-4.30)		89971	
* 57 13C2 PFOA										
415.00 > 370.00	3.826	3.826	0.0		6491956	1.25			52313	
59 TAF										
442.90 > 85.00	4.110	4.110	0.0	1.074	104177	1.27		127	688	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.195	4.195	0.0	1.096	746921	1.32		110	13216	
D 61 13C4 PFOS										
503.00 > 80.00	4.195	4.195	0.0	1.096	2248715	1.18		99.1	26132	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.195	4.195	0.0	1.000	2115520	1.00	Target=5.95	108	20030	
499.00 > 99.00	4.195	4.195	0.0	1.000	358671		5.90(2.97-8.92)		10894	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.210	0.0	1.100	6565927	1.27		101	72467	
64 Perfluorononanoic acid										
463.00 > 419.00	4.210	4.210	0.0	1.000	5101495	0.9808	Target=7.58	98.1	21627	
463.00 > 169.00	4.210	4.210	0.0	1.000	670326		7.61(3.79-11.37)		7344	
65 7:3 FTCA										
441.00 > 337.00	4.309	4.309	0.0	0.991	1741065	0.8792	Target=1.21	87.9	21376	
441.00 > 317.00	4.309	4.309	0.0	0.991	1566111		1.11(0.60-1.81)		20658	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.324	4.324	0.0	1.130	6661622	1.30		104	173568	
67 8:2 FTUCA										
456.86 > 392.90	4.324	4.324	0.0	1.000	5415050	1.04	Target=35.28	104	75175	
456.86 > 343.00	4.332	4.324	0.008	1.002	149606		36.20(17.64-52.92)		7628	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.348	4.348	0.0	1.136	321359	1.37		110	9627	
69 8:2 FTCA										
477.00 > 393.10	4.340	4.340	0.0	0.998	288767	0.9707	Target=3.24	97.1	12544	
477.00 > 63.20	4.348	4.340	0.008	1.000	103742		2.78(1.62-4.86)		5476	
70 9CIFOS										
531.00 > 351.00	4.396	4.396	0.0	1.048	3920876	0.9237		99.1	69088	
D 71 13C8 FOSA										
506.00 > 78.00	4.525	4.525	0.0	1.183	4243061	1.33		106	63899	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.525	4.525	0.0	1.000	3291895	0.9660		96.6	39750	
73 Perfluorononanesulfonic acid										
549.00 > 80.00	4.534	4.534	0.0	1.081	1894328	1.08	Target=3.28	112	24634	
549.00 > 99.00	4.534	4.534	0.0	1.081	553915		3.42(1.64-4.92)		13514	
D 74 13C2 PFDA										
515.00 > 470.00	4.552	4.552	0.0	1.190	6550754	1.27		101	73665	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.561	0.0	1.002	4671194	0.8719	Target=9.70	87.2	49203	
513.00 > 169.00	4.552	4.561	-0.009	1.000	518355		9.01(4.85-14.54)		2229	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.561	0.0	1.192	1745522	1.02		84.8	18164	
77 8:2 FTS										
527.00 > 507.00	4.561	4.561	0.0	1.000	2320738	1.02	Target=2.33	106	48019	
527.00 > 79.96	4.561	4.561	0.0	1.000	1038072		2.24(1.17-3.50)		8872	
79 NMeFOSAA										
570.00 > 419.00	4.719	4.719	0.0	1.000	1534183	0.9151	Target=0.83	91.5	9492	
570.00 > 483.00	4.719	4.719	0.0	1.000	1862842		0.82(0.42-1.25)		28288	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.719	0.0	1.234	2833166	1.30		104	17135	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.846	4.846	0.0	1.155	1661319	1.08	Target=3.22	112	27998	
599.00 > 99.00	4.846	4.846	0.0	1.155	529014		3.14(1.61-4.83)		12321	
D 82 13C2 PFUnA										
565.00 > 520.00	4.865	4.865	0.0	1.272	6673722	1.34		107	77655	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.865	4.865	0.0	1.000	4760865	0.9682	Target=9.27	96.8	44660	
563.00 > 169.00	4.865	4.865	0.0	1.000	541718		8.79(4.63-13.90)		16750	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.875	4.875	0.0	1.274	3066559	1.41		113	28145	
84 NEtFOSAA										
584.00 > 419.00	4.884	4.884	0.0	1.002	1617019	0.9199	Target=0.77	92.0	37041	
584.00 > 526.10	4.884	4.884	0.0	1.002	2076750		0.78(0.39-1.16)		13744	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.970	4.970	0.0	1.299	1654188	1.27		101	7191	
86 N-MeFOSE-M										
616.00 > 59.00	4.979	4.979	0.0	1.002	1444555	1.03		103	11373	
89 10:2 FTUCA										
556.86 > 492.90	4.988	4.988	0.0	0.998	5450203	0.6699		67.0	77502	
D 88 13C-10:2 FTCA										
558.86 > 493.90	4.988	4.988	0.0	1.304	8781151	1.46		117	200863	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	4.988	4.988	0.0	1.304	1200629	1.25		100	427	
90 NMeFOSA										
512.00 > 169.00	4.998	4.998	0.0	1.002	1087798	1.12	Target=1.61	112	2923	
512.00 > 218.99	4.998	4.998	0.0	1.002	652099		1.67(0.80-2.41)		3508	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	4.998	4.998	0.0	1.306	361279	2.05		164	6113	
92 10:2 FTCA										
576.80 > 493.00	4.998	4.998	0.0	1.002	206047	1.03	Target=2.56	103	9450	
576.80 > 63.10	4.998	4.998	0.0	1.002	118587		1.74(1.28-3.83)		5353	
93 11CIFOS										
631.00 > 451.00	5.007	5.007	0.0	1.194	5409186	1.07		113	66527	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.139	5.139	0.0	1.343	1093650	1.37		110	92446	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
95 N-EtFOSE-M										
630.00 > 59.00	5.149	5.149	0.0	1.002	1969944	1.05		105	13681	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.149	5.149	0.0	1.000	6324116	1.05	Target=7.93	105	37536	
613.00 > 169.00	5.149	5.149	0.0	1.000	736371		8.59(3.97-11.90)		11629	
D 97 13C2 PFDaA										
615.00 > 570.00	5.149	5.149	0.0	1.346	6797283	1.26		101	76063	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.168	5.168	0.0	1.351	1197946	1.27		102	2241	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.168	5.168	0.0	1.351	1796023	1.30		108	57650	
99 N-EtFOSA-M										
526.00 > 169.00	5.168	5.168	0.0	1.000	1034733	1.04	Target=1.61	104	2881	
526.00 > 218.99	5.168	5.168	0.0	1.000	643577		1.61(0.80-2.41)		2682	
101 10:2 FTS										
627.00 > 607.00	5.176	5.176	0.0	1.002	2073741	0.9168	Target=1.46	95.1	50085	
627.00 > 79.96	5.176	5.176	0.0	1.002	1409892		1.47(0.73-2.19)		16048	
102 PFDoS										
699.00 > 80.00	5.377	5.377	0.0	1.282	417407	0.9539	Target=0.54	98.5	8505	
699.00 > 99.00	5.377	5.377	0.0	1.282	780426		0.53(0.27-0.81)		20495	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.407	5.407	0.0	1.050	4961369	0.9833	Target=5.84	98.3	35113	
663.00 > 169.00	5.407	5.407	0.0	1.050	818821		6.06(2.92-8.75)		15198	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.651	5.651	0.0	1.000	594139	0.9313	Target=1.07	93.1	16272	
713.00 > 219.00	5.651	5.651	0.0	1.000	564108		1.05(0.53-1.60)		15196	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.651	0.0	1.477	6487769	1.30		104	62633	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.077	6.077	0.0	1.588	5392462	1.42		113	29959	
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.087	6.087	0.0	1.002	4043855	1.01	Target=7.49	101	8644	
813.00 > 169.00	6.077	6.087	-0.010	1.000	522334		7.74(3.75-11.24)		9584	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.496	6.496	0.0	1.069	2750167	1.05	Target=9.70	105	6140	
913.00 > 169.00	6.496	6.496	0.0	1.069	295385		9.31(4.85-14.55)		6615	

QC Flag Legend

Processing Flags

Reagents:

LCPFC+\_LL4\_00003

Amount Added: 1.00

Units: mL

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_042.d

Injection Date: 10-Jun-2021 10:07:29

Instrument ID: A15

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 52

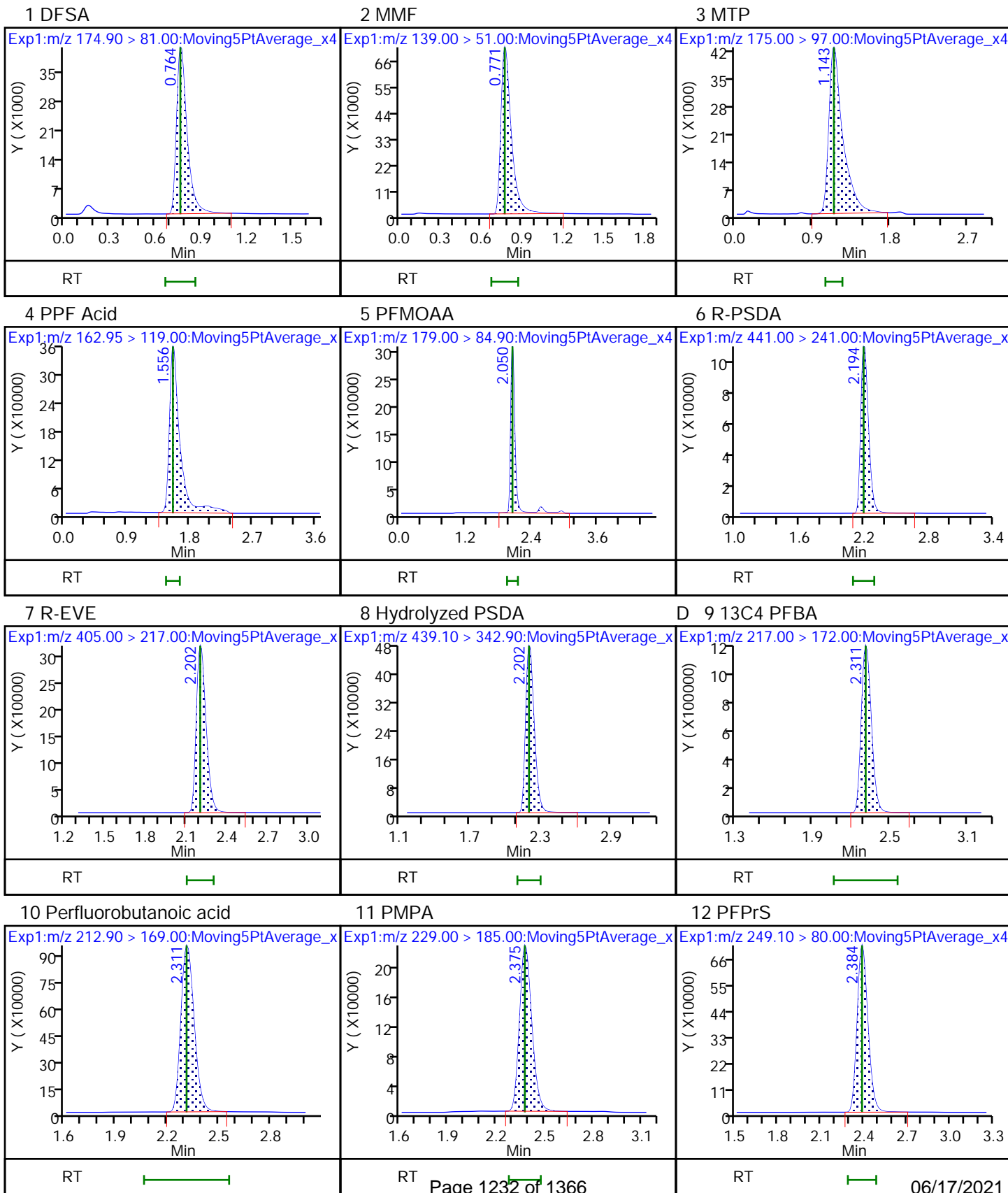
Worklist Smp#: 19

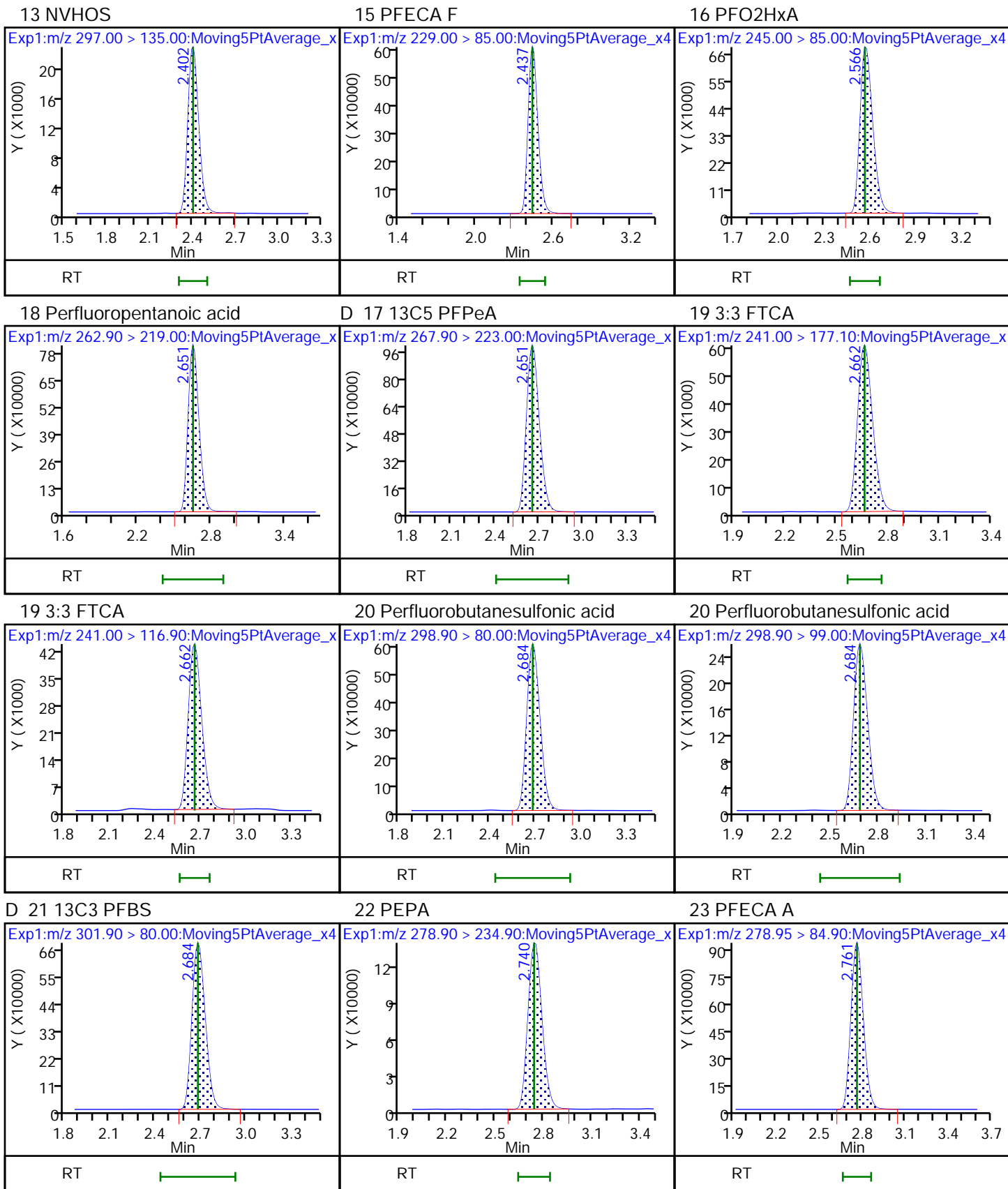
Injection Vol: 20.0 ul

Dil. Factor: 1.0000

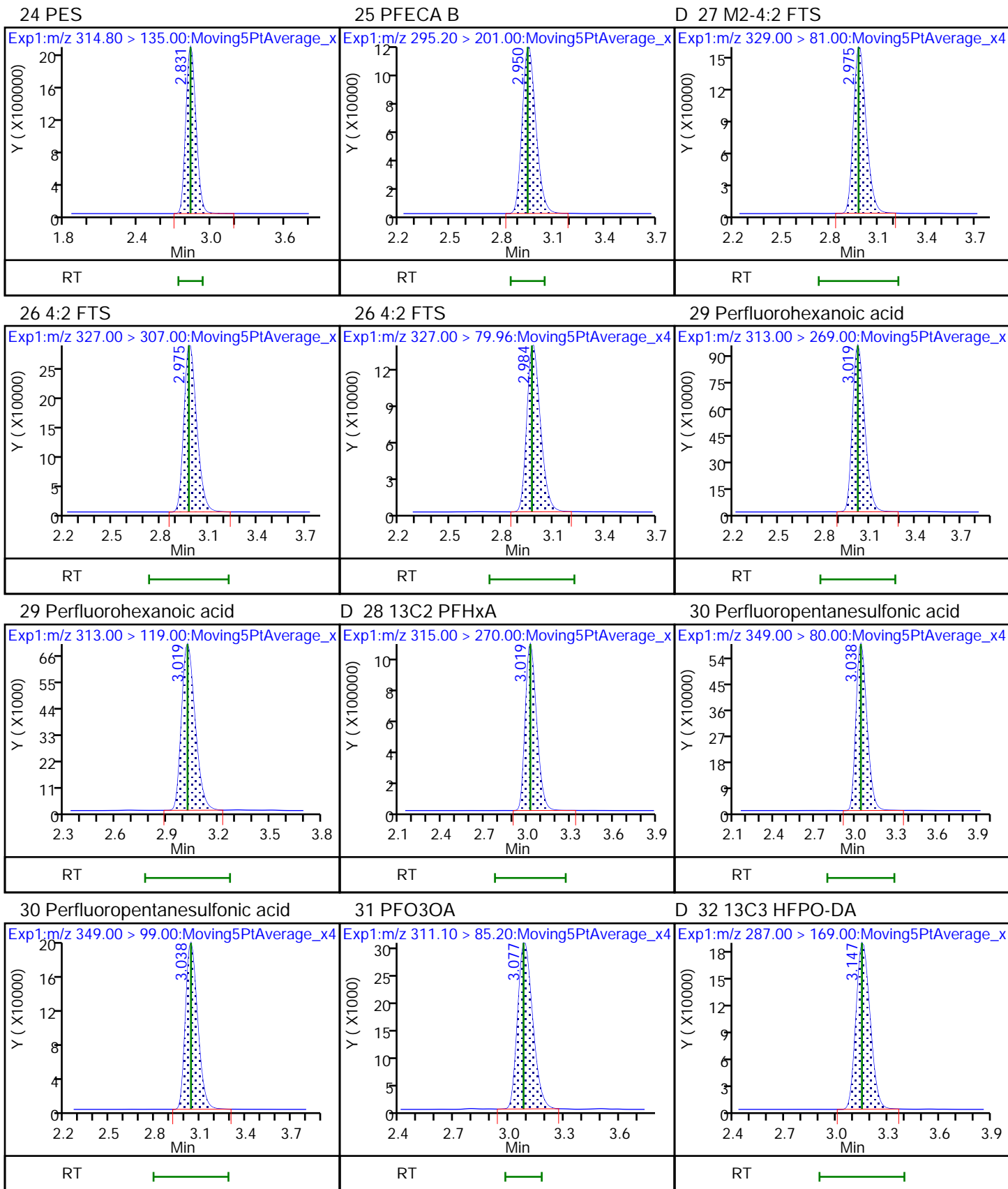
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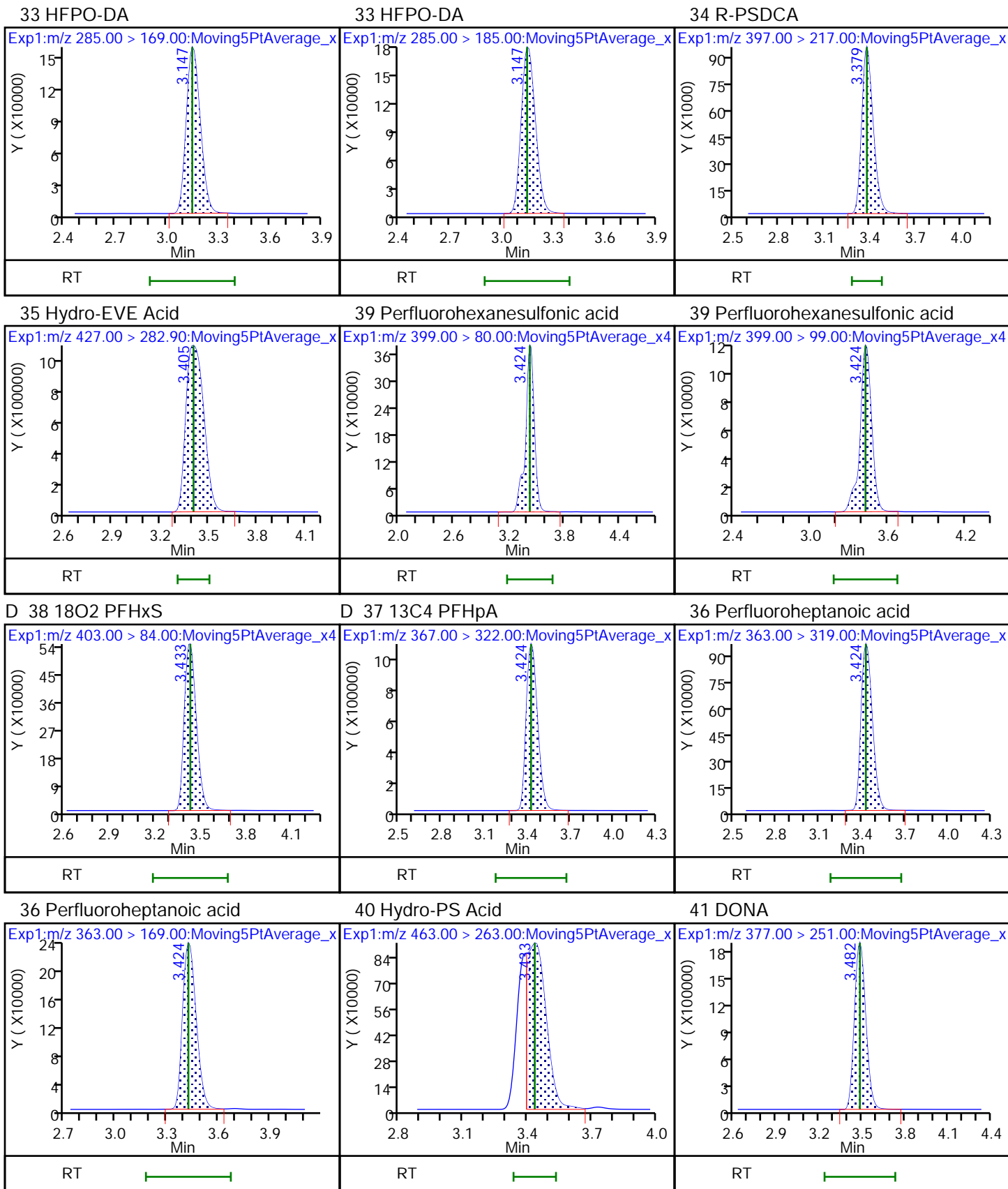
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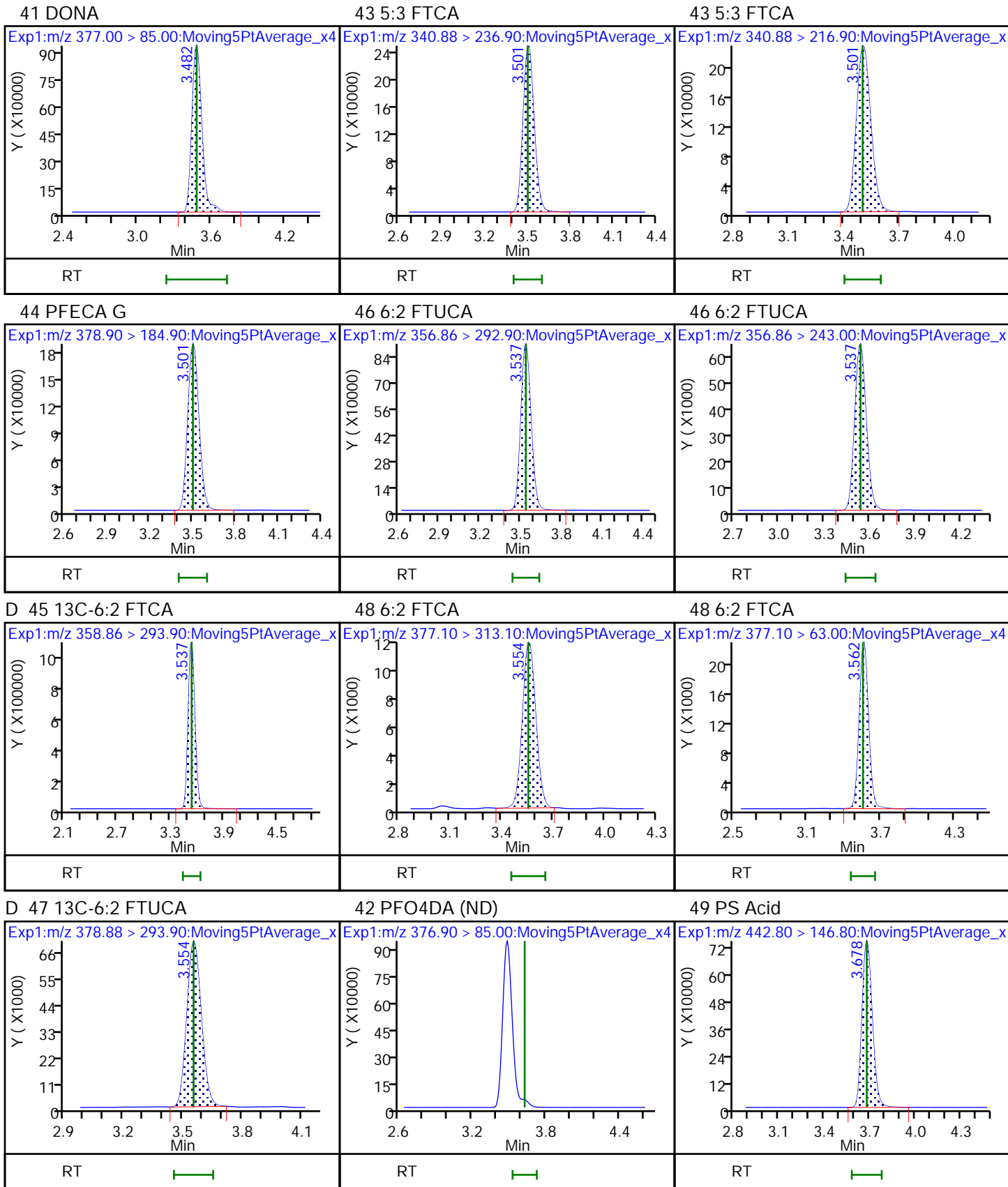


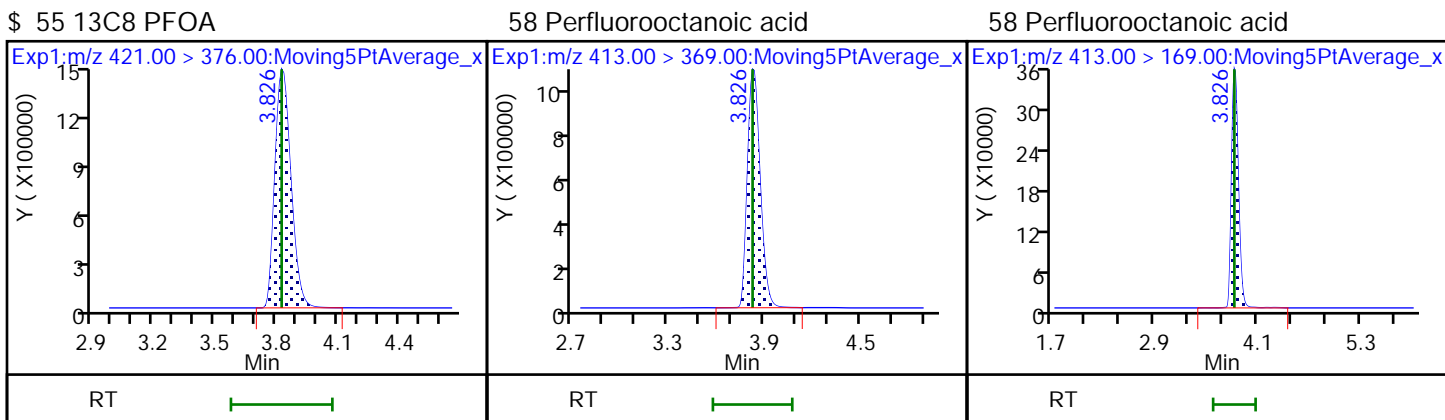
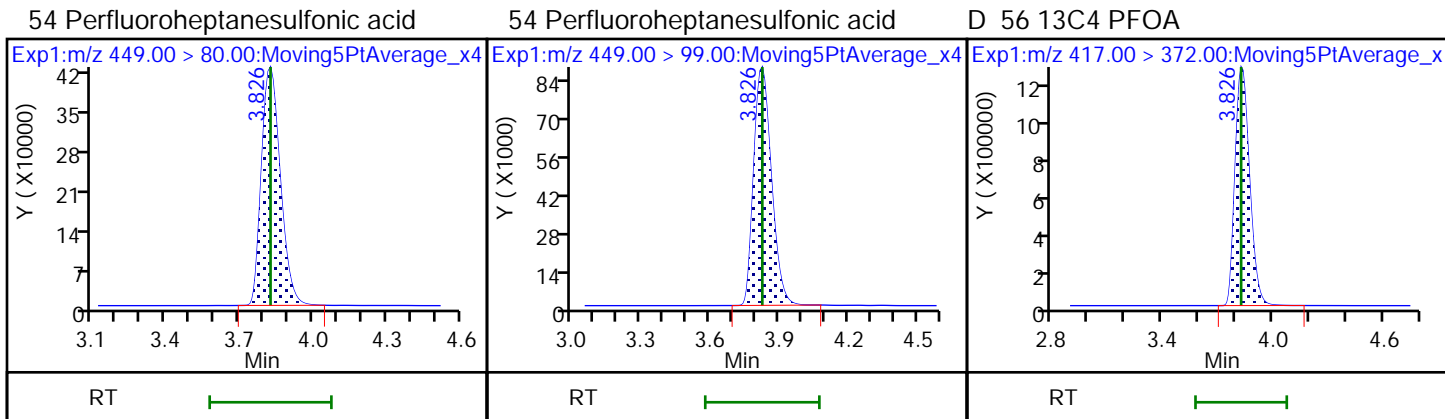
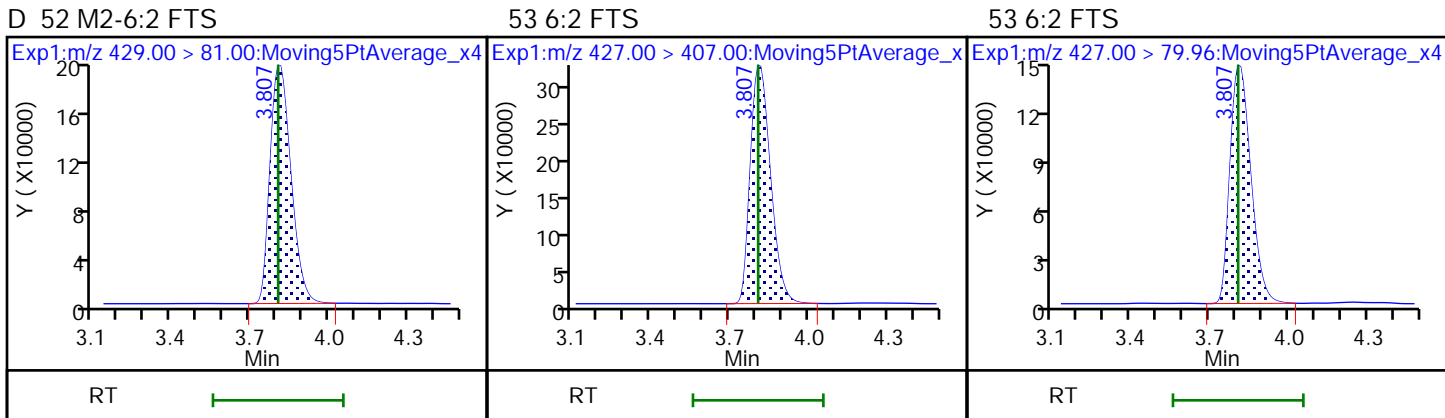
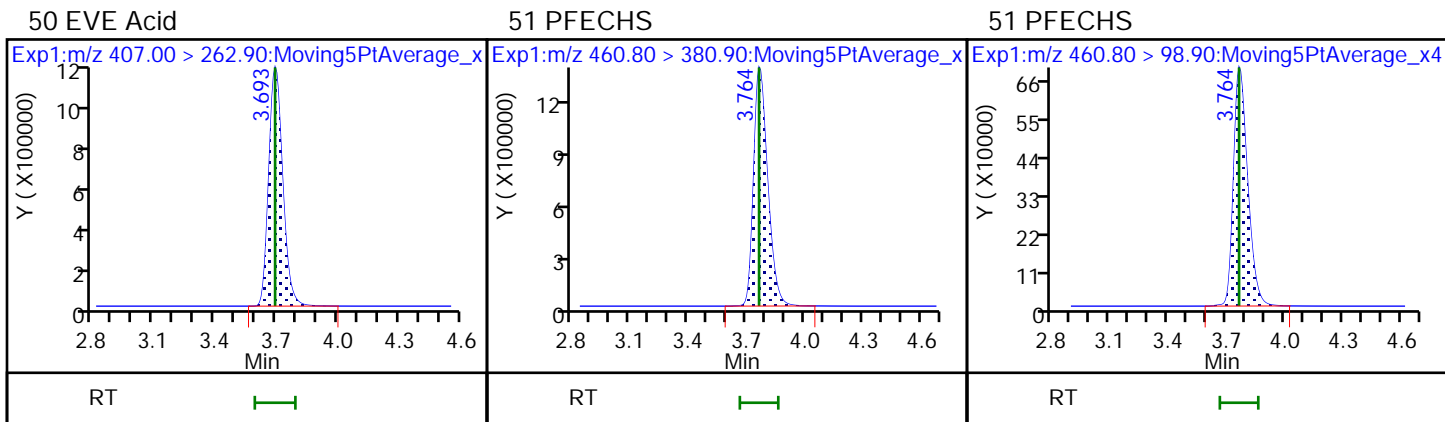








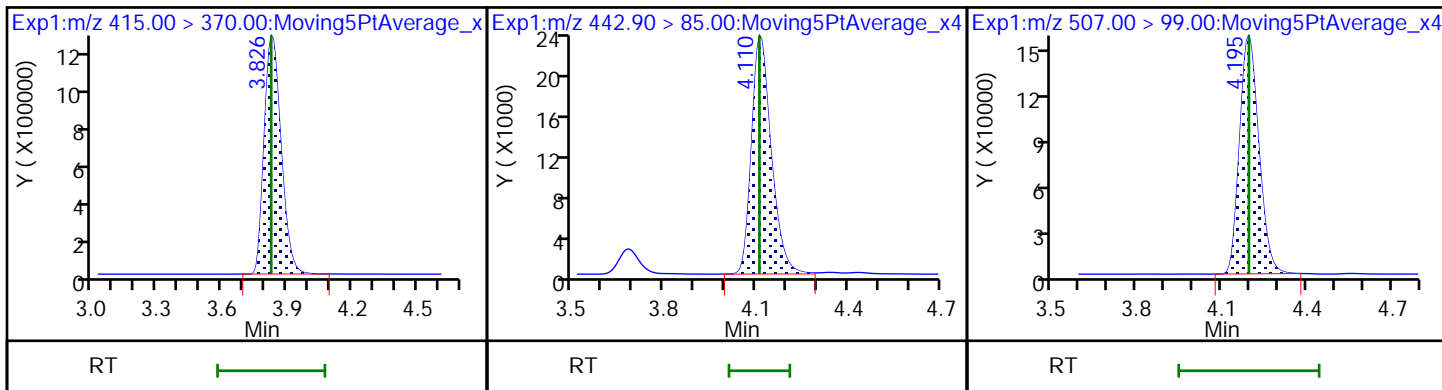




\* 57 13C2 PFOA

59 TAF

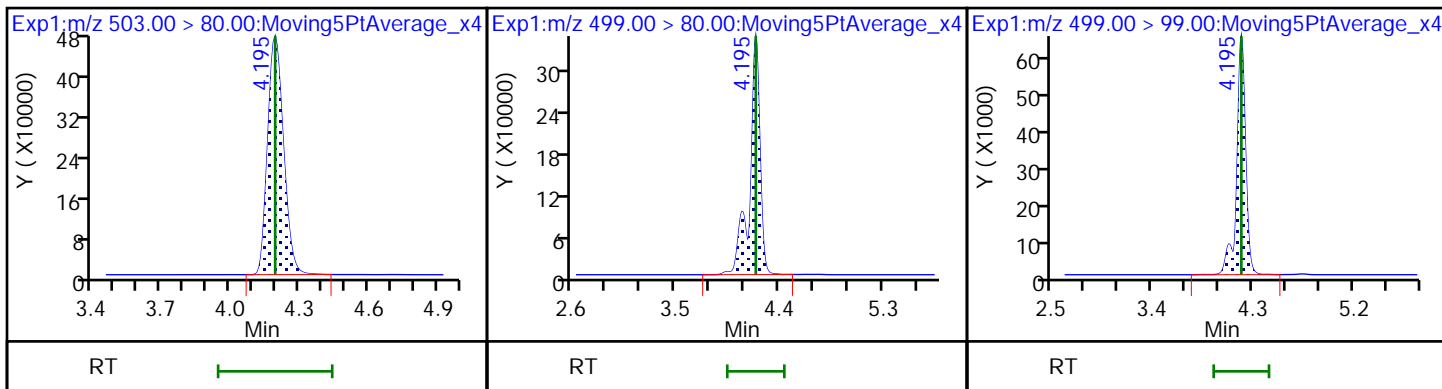
\$ 60 13C8 PFOS



D 61 13C4 PFOS

62 Perfluorooctanesulfonic acid

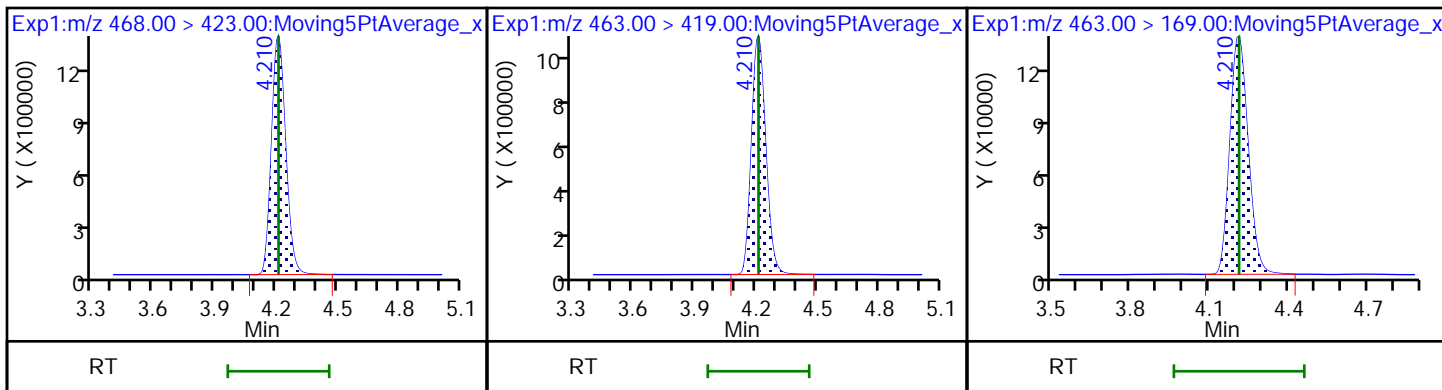
62 Perfluorooctanesulfonic acid



D 63 13C5 PFNA

64 Perfluorononanoic acid

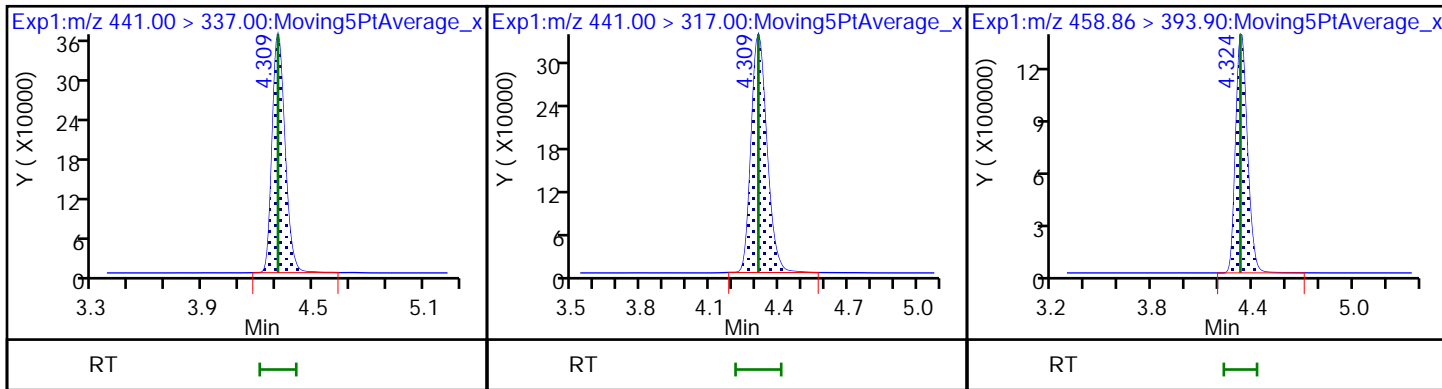
64 Perfluorononanoic acid

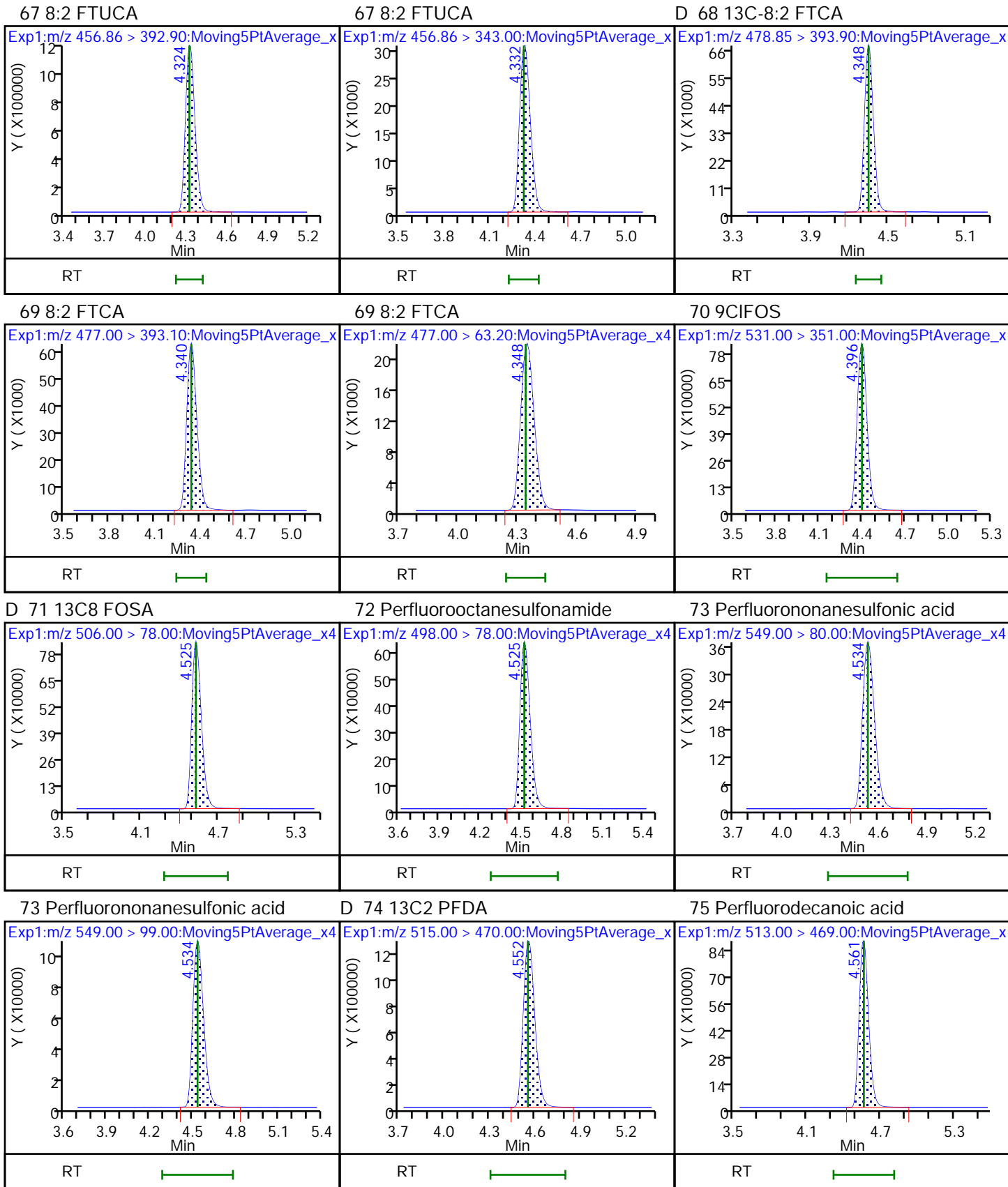


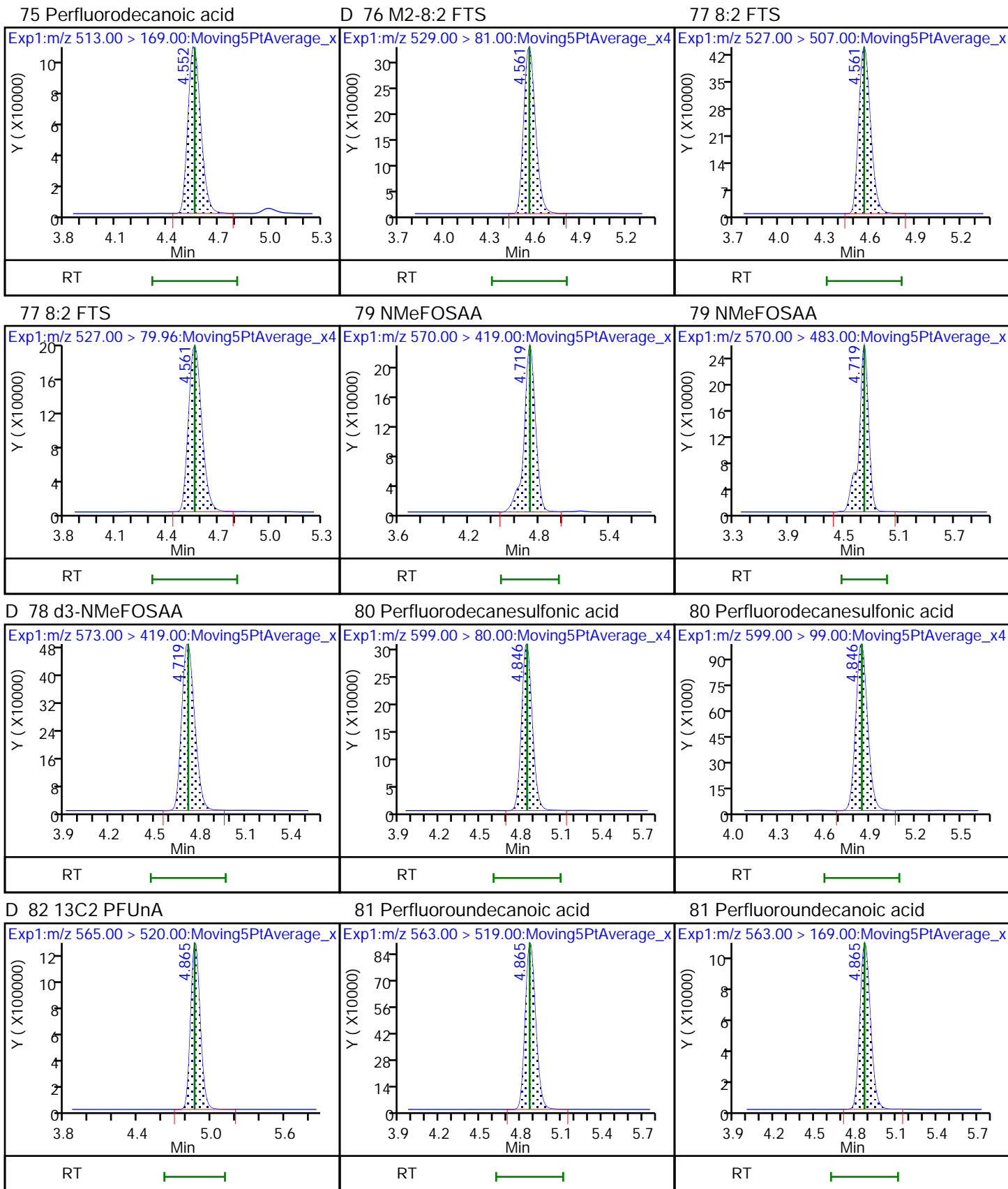
65 7:3 FTCA

65 7:3 FTCA

D 66 13C-8:2 FTUCA



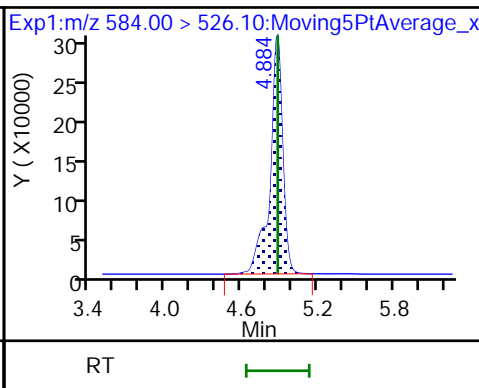
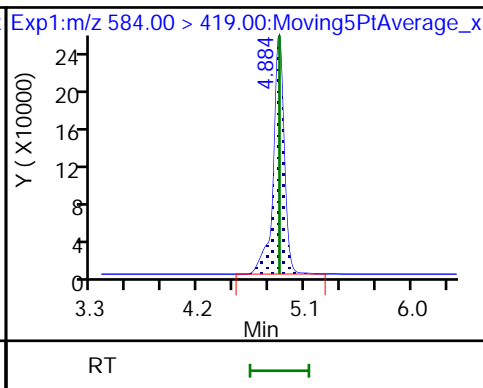
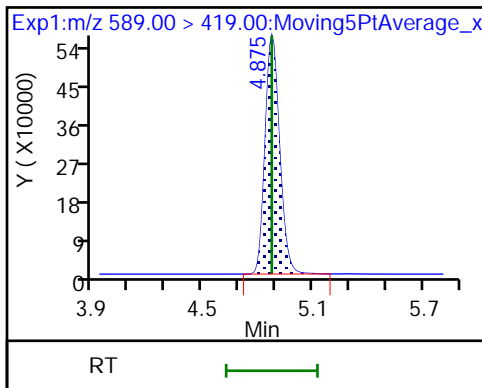




D 83 d5-NEtFOSAA

84 NEtFOSAA

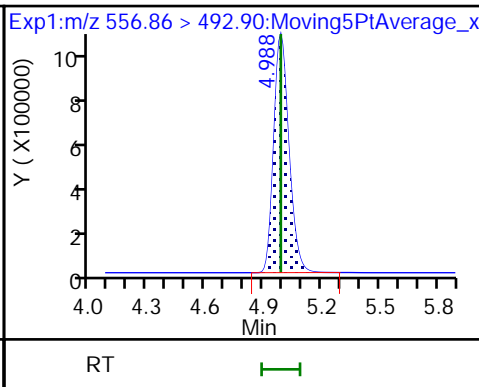
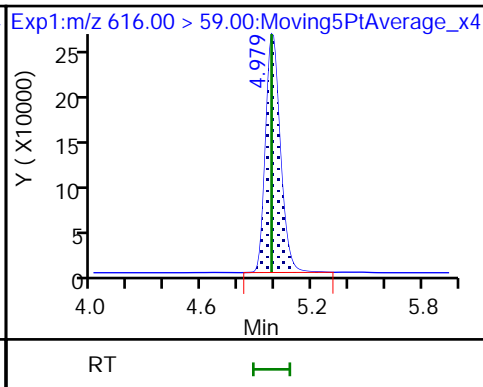
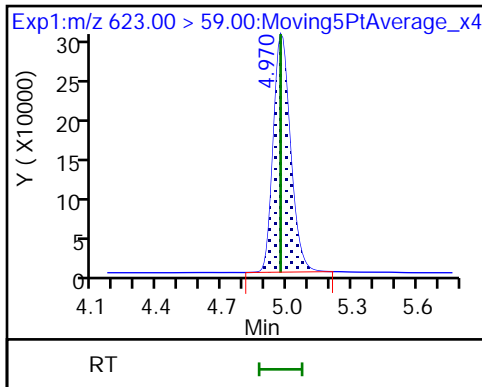
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M

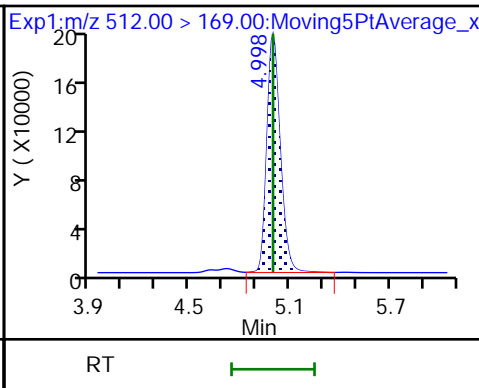
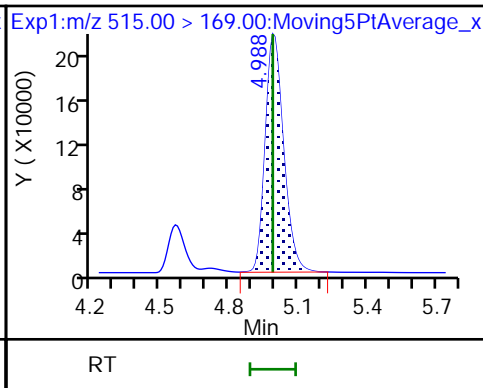
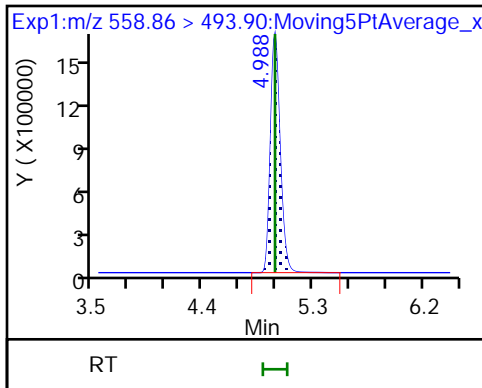
89 10:2 FTUCA



D 88 13C-10:2 FTCA

D 87 d-N-MeFOSA-M

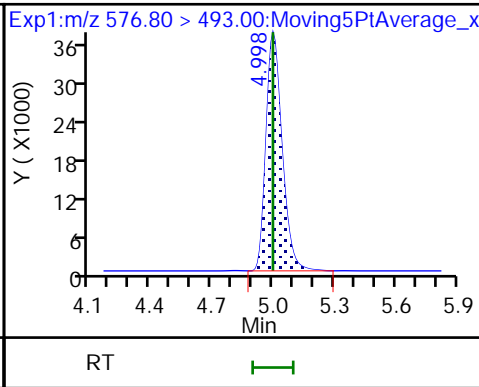
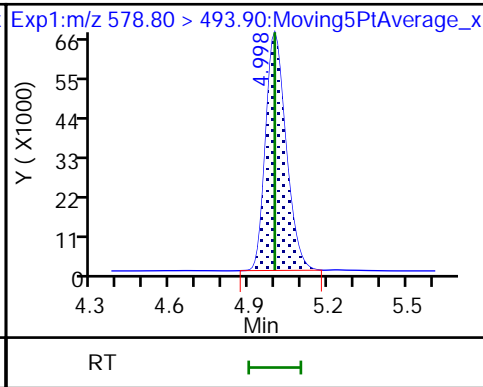
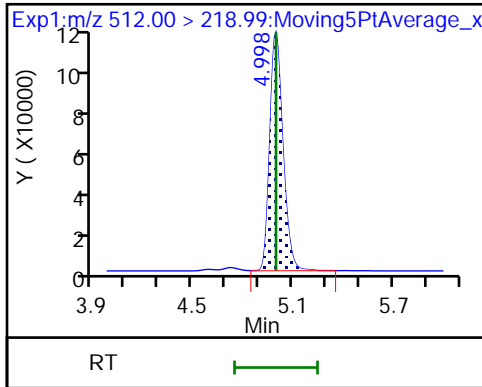
90 NMeFOSA



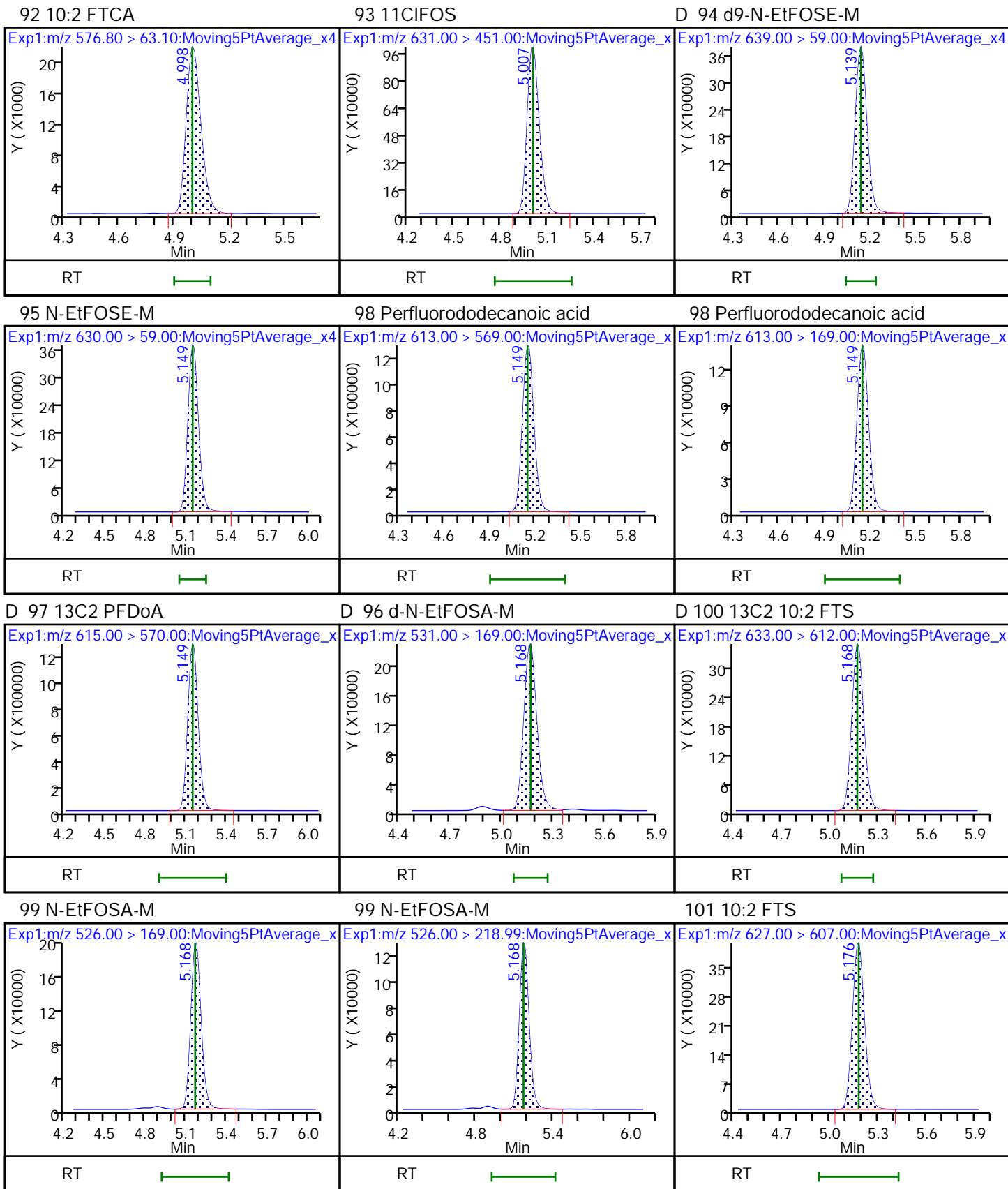
90 NMeFOSA

D 91 13C-10:2 FTUCA

92 10:2 FTCA



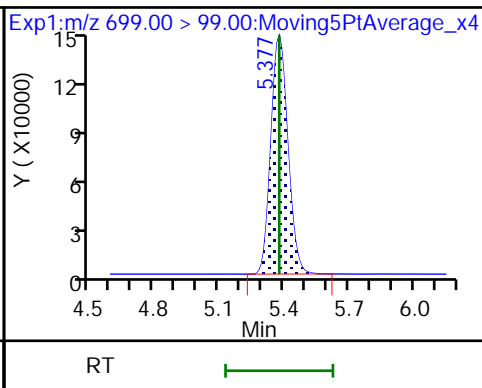
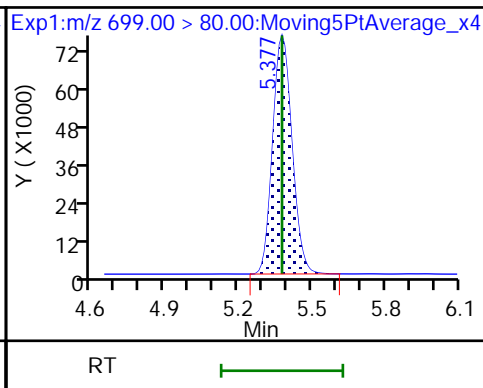
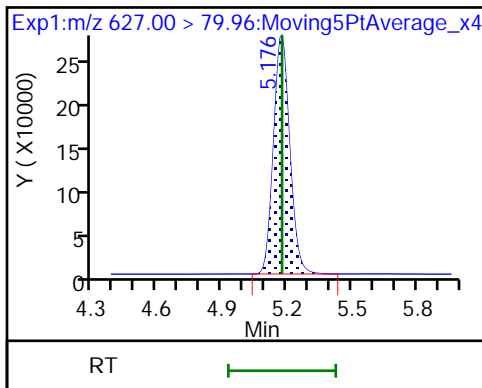




101 10:2 FTS

102 PFDoS

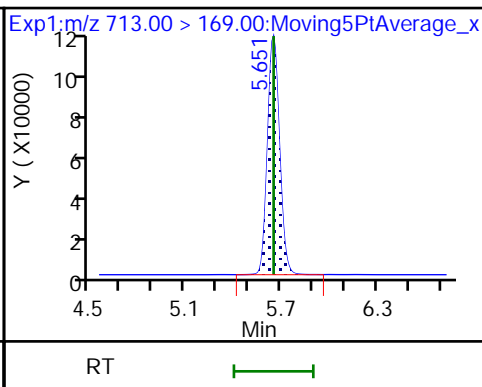
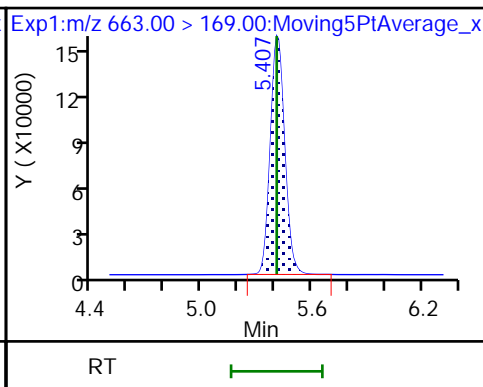
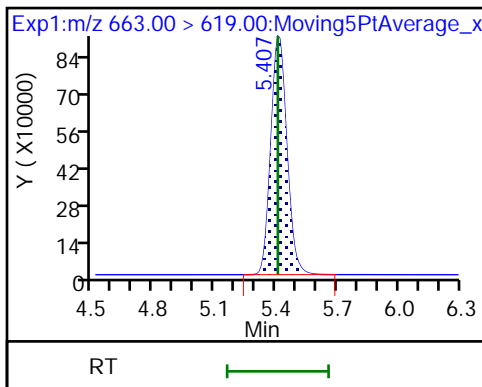
102 PFDoS



103 Perfluorotridecanoic acid

103 Perfluorotridecanoic acid

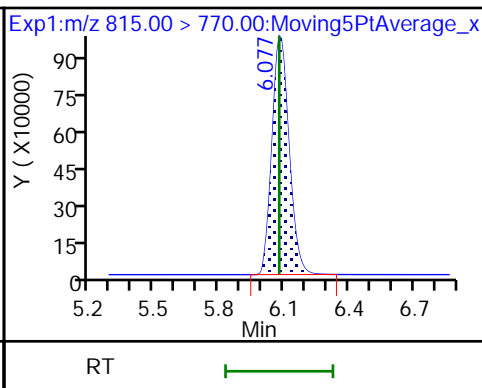
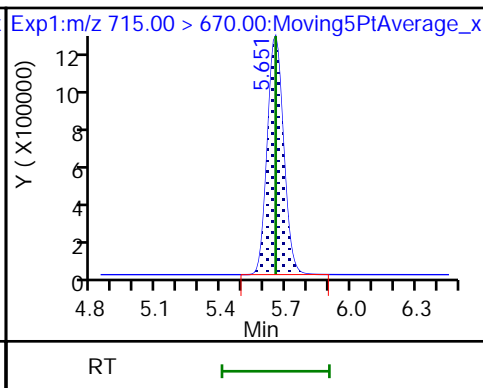
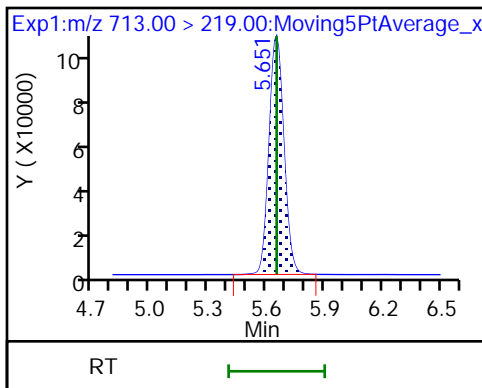
105 Perfluorotetradecanoic acid



105 Perfluorotetradecanoic acid

D 104 13C2 PFTeDA

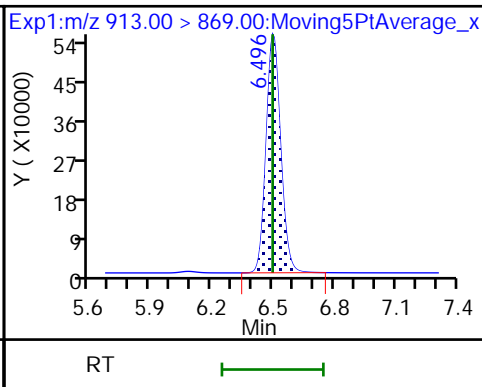
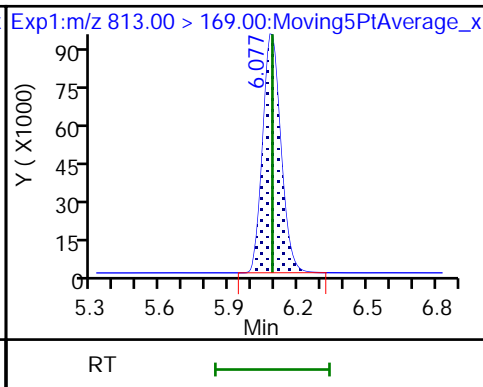
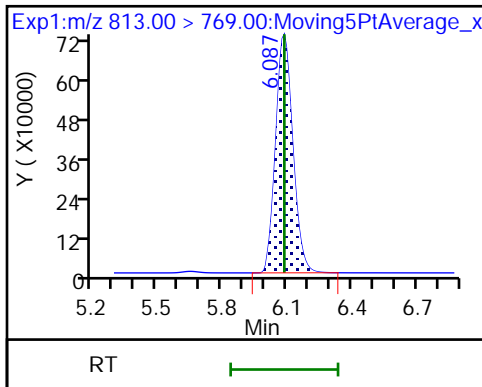
D 106 13C2 PFHxDA



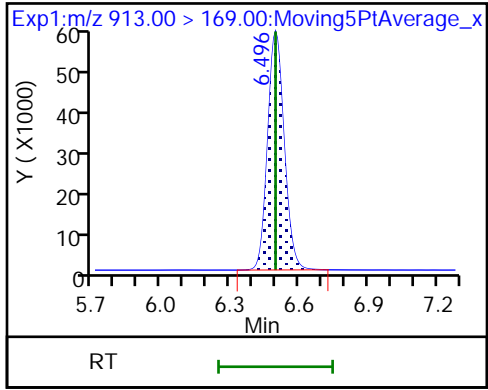
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 320-496405/1-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_007.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 04:47  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	
27619-97-2	6:2 FTS	ND		5.0	
39108-34-4	8:2 FTS	ND		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 320-496405/1-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_007.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 04:47  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	95		25-150
STL01893	13C5 PFPeA	99		25-150
STL00993	13C2 PFHxA	94		25-150
STL01892	13C4 PFHpA	101		25-150
STL00990	13C4 PFOA	96		25-150
STL00995	13C5 PFNA	99		25-150
STL00996	13C2 PFDA	97		25-150
STL00997	13C2 PFUnA	94		25-150
STL00998	13C2 PFDoA	105		25-150
STL02116	13C2 PFTeDA	87		25-150
STL02337	13C3 PFBS	104		25-150
STL00994	18O2 PFHxS	100		25-150
STL00991	13C4 PFOS	98		25-150
STL01056	13C8 FOSA	104		25-150
STL02118	d3-NMeFOSAA	99		25-150
STL02117	d5-NEtFOSAA	113		25-150
STL02279	M2-6:2 FTS	100		25-150
STL02280	M2-8:2 FTS	102		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_007.d  
 Lims ID: MB 320-496405/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 10-Jun-2021 04:47:49 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: mb 320-496405/1-a DUE 6/21 PFC+ WATER  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:24:40 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:24:40  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.312	2.319	-0.007	0.603	5878824	1.19	95.0	51394	
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.661	-0.010	0.691	5799337	1.24	99.3	47721	
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.682	0.001	0.700	3926633	1.21	104	43039	
29 Perfluorohexanoic acid										R
313.00 > 269.00	3.019	3.019	0.0	1.000	41580	0.008559	Target=13.85	89.8		R
313.00 > 119.00	3.010	3.019	-0.009	0.997	1888		22.02(6.92-20.77)	15.3		
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.019	0.0	0.787	5420660	1.17	93.8	61196	
39 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.433	3.433	0.0	1.000	8828	0.003456	Target=3.33	92.8		M
399.00 > 99.00	3.433	3.433	0.0	1.000	2566		3.44(1.66-4.99)	37.1		
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.896	2731760	1.18	99.8	49986	
D 37 13C4 PFHpA	367.00 > 322.00	3.433	3.433	0.0	0.896	5734448	1.26	101	70013	
D 52 M2-6:2 FTS	429.00 > 81.00	3.815	3.814	0.001	0.995	1246751	1.19	99.9	23029	
* 57 13C2 PFOA	415.00 > 370.00	3.834	3.834	0.0		6203314	1.25		60013	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	15107	0.002895	Target=2.90	27.3		
413.00 > 169.00	3.834	3.834	0.0	1.000	4502		3.36(1.45-4.35)	42.8		
D 56 13C4 PFOA	417.00 > 372.00	3.834	3.834	0.0	1.000	6240892	1.21	96.5	71721	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 61 13C4 PFOS	503.00 > 80.00	4.201	4.201	0.0	1.096	2117073	1.17	97.7	22338	
D 63 13C5 PFNA	468.00 > 423.00	4.217	4.217	0.0	1.100	6098224	1.23	98.6	71536	
D 71 13C8 FOSA	506.00 > 78.00	4.532	4.523	0.009	1.182	3963325	1.30	104	58692	
72 Perfluorooctanesulfonamide	498.00 > 78.00	4.532	4.532	0.0	1.000	7663	0.002407	168		M
75 Perfluorodecanoic acid	513.00 > 469.00	4.559	4.559	0.0	1.000	36023	0.007319 Target=8.21	165		
	513.00 > 169.00	4.559	4.559	0.0	1.000	3801	9.48(4.10-12.31)	63.4		
D 74 13C2 PFDA	515.00 > 470.00	4.559	4.559	0.0	1.189	6017460	1.22	97.3	76172	
D 76 M2-8:2 FTS	529.00 > 81.00	4.569	4.569	0.0	1.192	1997827	1.22	102	26961	
D 78 d3-NMeFOSAA	573.00 > 419.00	4.729	4.718	0.011	1.233	2575990	1.23	98.7	19844	
79 NMeFOSAA	570.00 > 419.00	4.707	4.729	-0.022	0.995	3869	0.002538 Target=0.83	30.2		M
	570.00 > 483.00	4.740	4.729	0.011	1.002	3133	1.23(0.41-1.24)	98.0		M
D 82 13C2 PFUnA	565.00 > 520.00	4.882	4.872	0.010	1.273	5624787	1.18	94.4	62116	
D 83 d5-NEtFOSAA	589.00 > 419.00	4.882	4.882	0.0	1.273	2937812	1.41	113	49488	
84 NEtFOSAA	584.00 > 419.00	4.891	4.891	0.0	1.002	2664	0.001582 Target=0.77	71.3		M
	584.00 > 526.10	4.891	4.891	0.0	1.002	2322	1.15(0.38-1.15)	21.8		M
D 97 13C2 PFDaA	615.00 > 570.00	5.156	5.156	0.0	1.345	6776109	1.31	105	108734	
D 104 13C2 PFTeDA	715.00 > 670.00	5.658	5.658	0.0	1.476	5171776	1.09	87.1	55478	
105 Perfluorotetradecanoic acid	713.00 > 169.00	5.658	5.658	0.0	1.000	1124	0.002210 Target=1.03	32.0		R
	713.00 > 219.00	5.668	5.658	0.010	1.002	603	1.86(0.51-1.54)	22.2		M

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_007.d

Injection Date: 10-Jun-2021 04:47:49

Instrument ID: A15

Lims ID: MB 320-496405/1-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 1

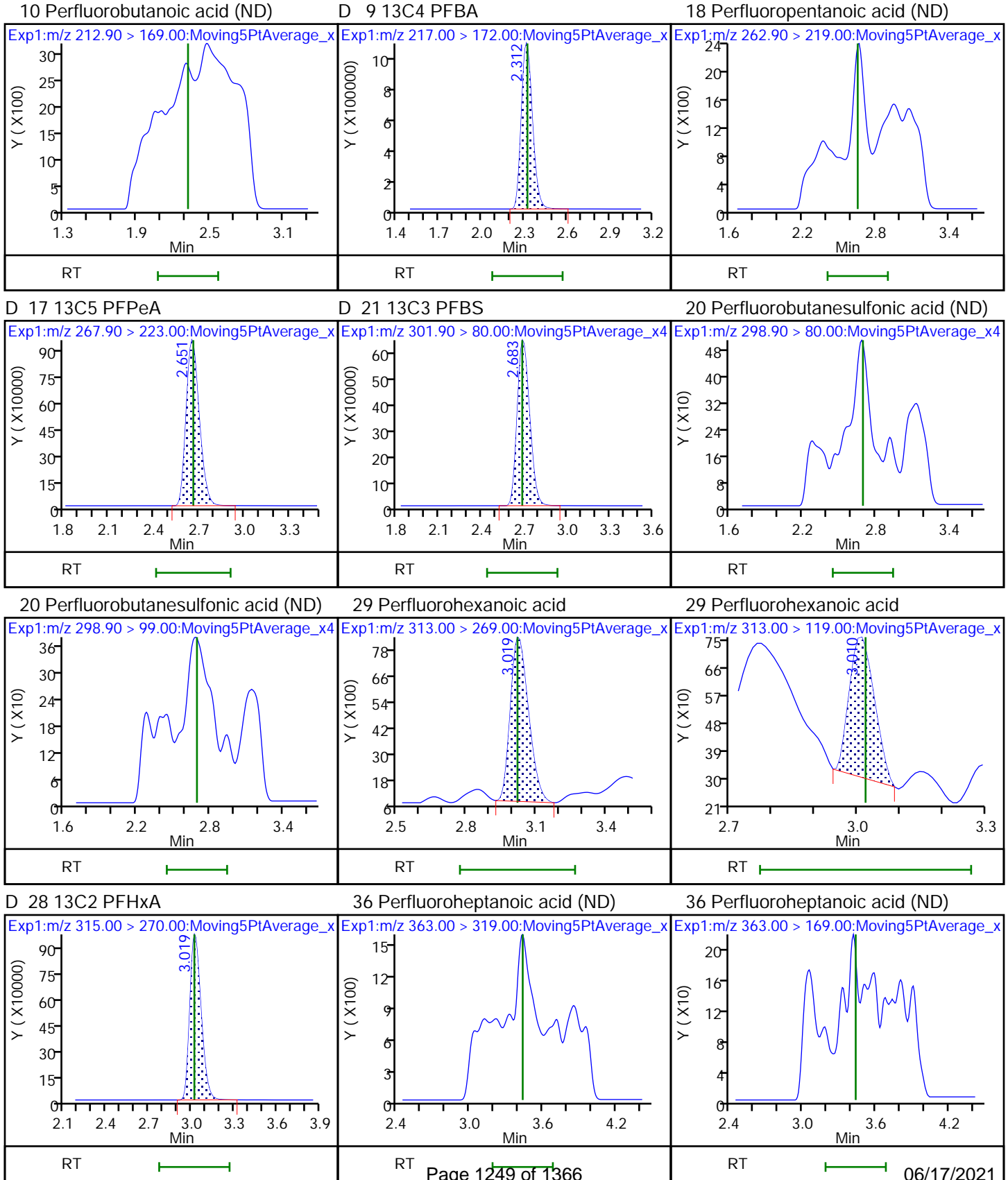
Worklist Smp#: 4

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFAS+\_A15

Limit Group: LC PFC ICAL

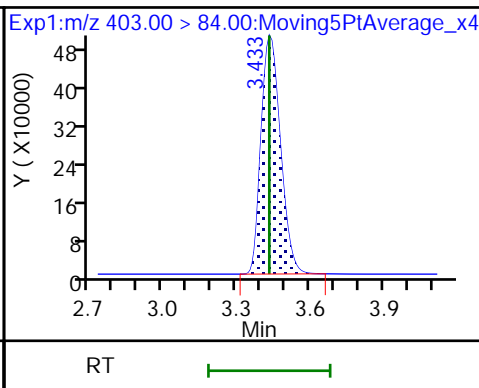
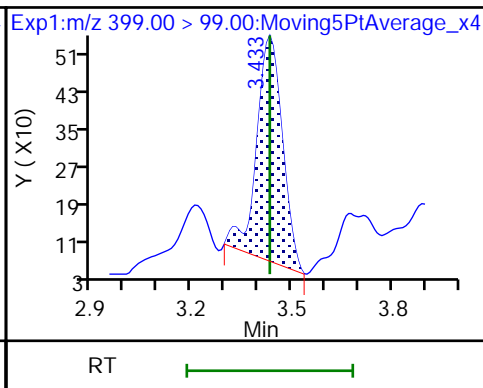
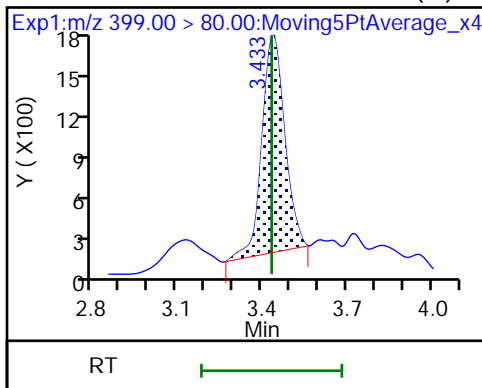




39 Perfluorohexanesulfonic acid (M)

39 Perfluorohexanesulfonic acid

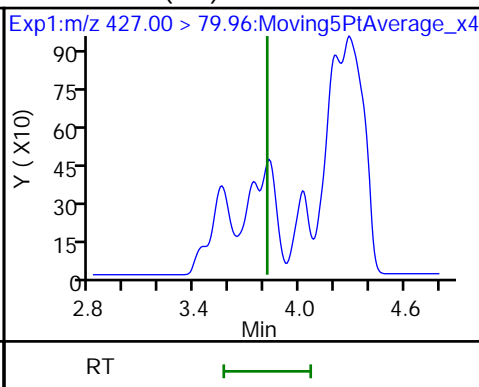
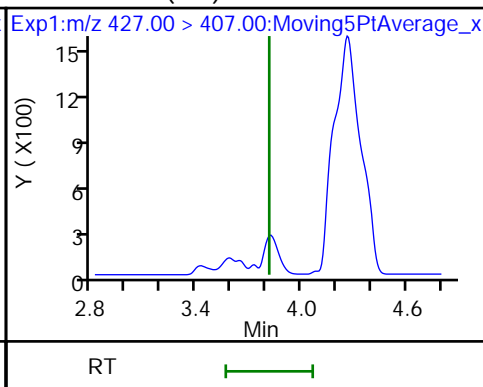
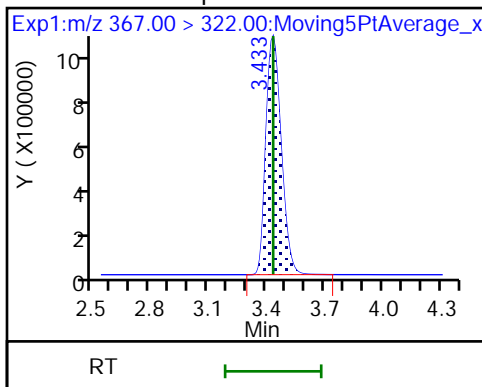
D 38 18O2 PFHxS



D 37 13C4 PFHpA

53 6:2 FTS (ND)

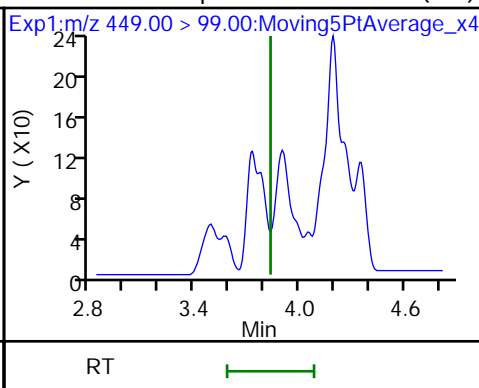
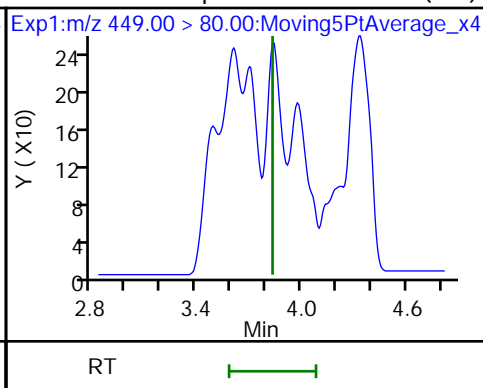
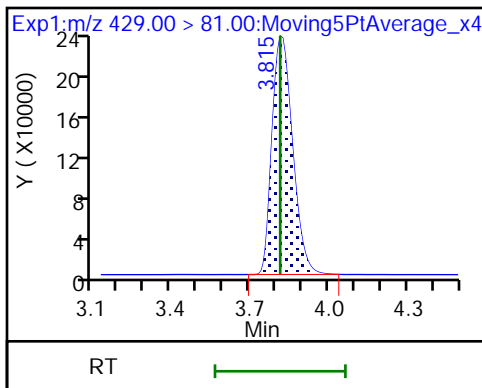
53 6:2 FTS (ND)



D 52 M2-6:2 FTS

54 Perfluoroheptanesulfonic acid (ND)

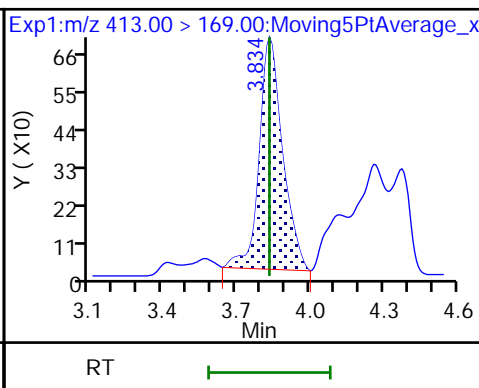
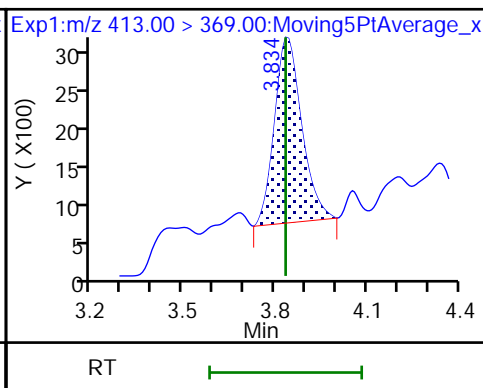
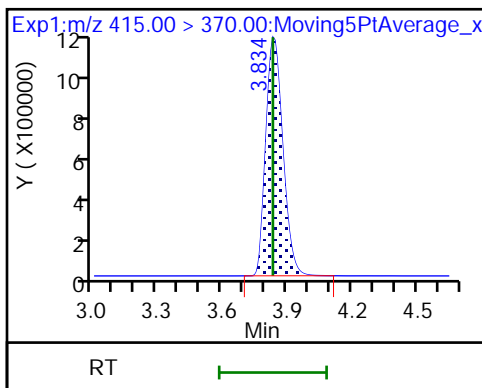
54 Perfluoroheptanesulfonic acid (ND)



\* 57 13C2 PFOA

58 Perfluorooctanoic acid

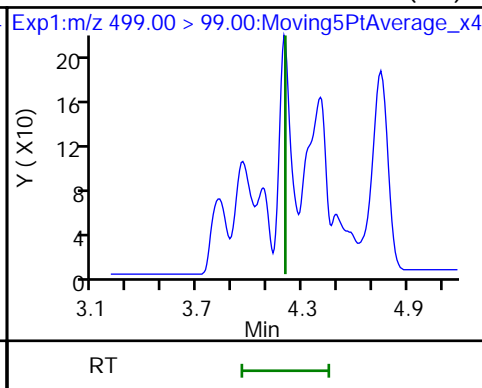
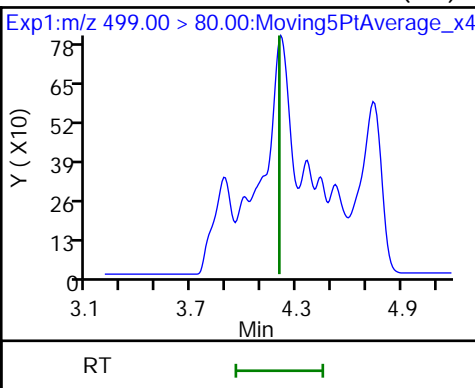
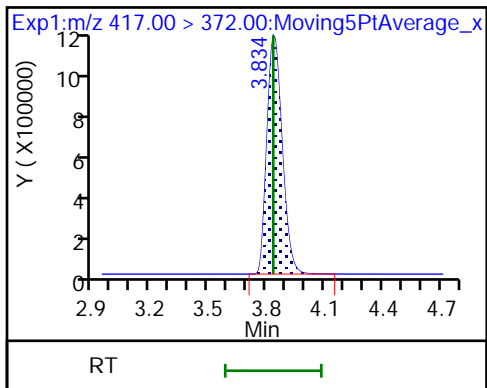
58 Perfluorooctanoic acid



D 56 13C4 PFOA

62 Perfluorooctanesulfonic acid (ND)

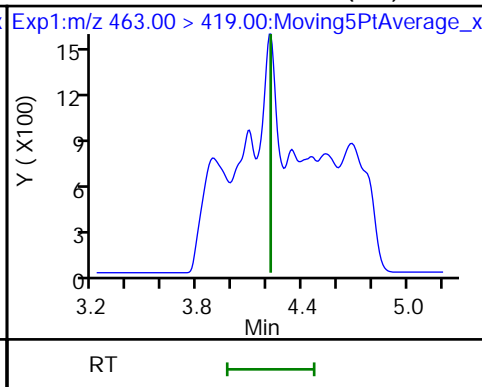
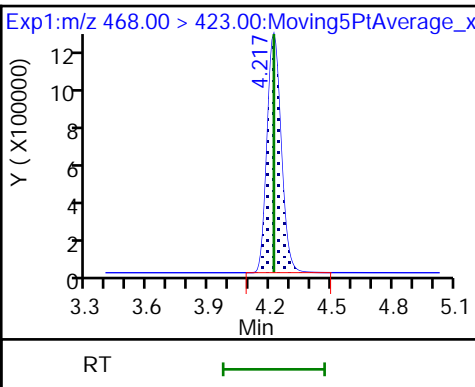
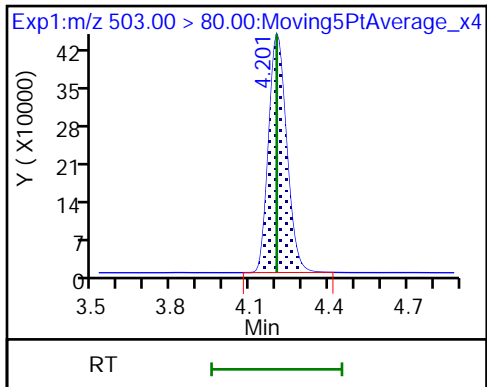
62 Perfluorooctanesulfonic acid (ND)



D 61 13C4 PFOS

D 63 13C5 PFNA

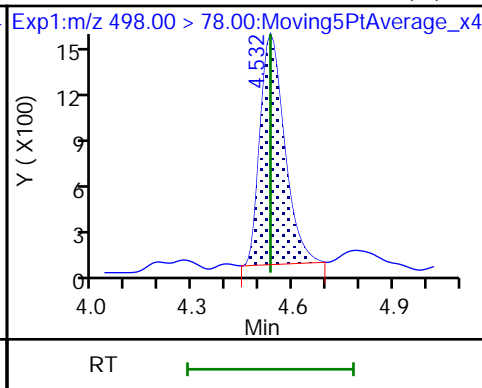
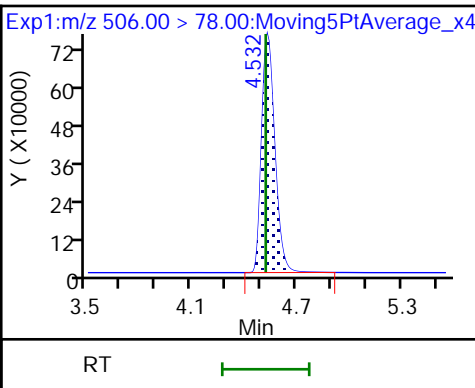
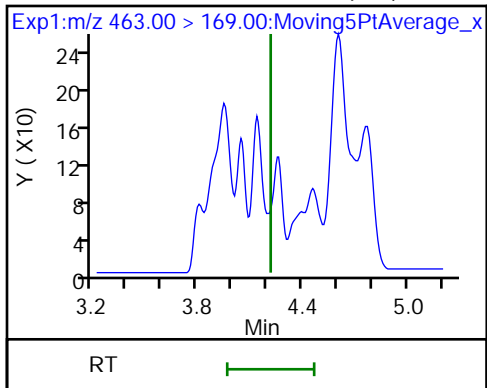
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

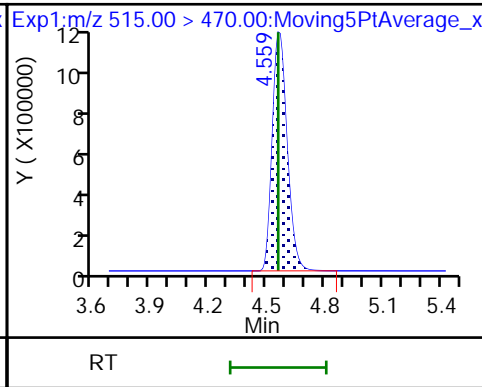
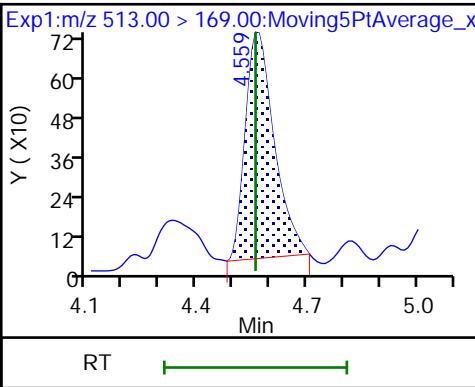
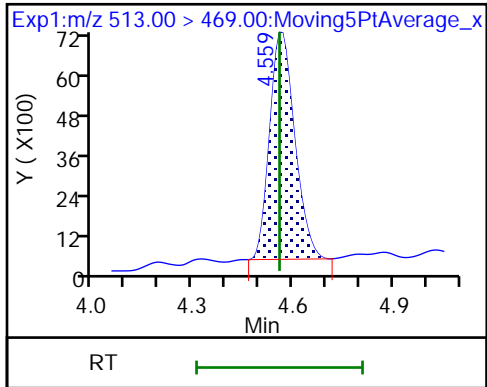
72 Perfluorooctanesulfonamide (M)



75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

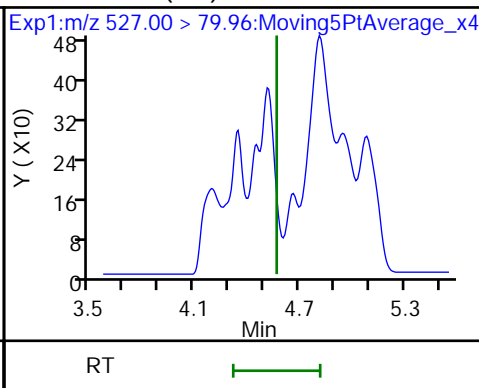
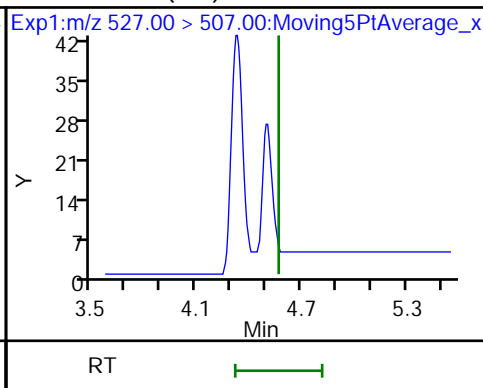
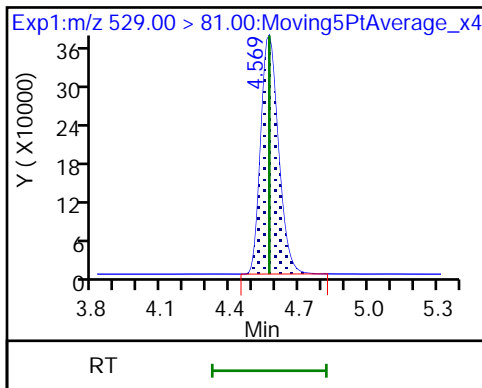
D 74 13C2 PFDA



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

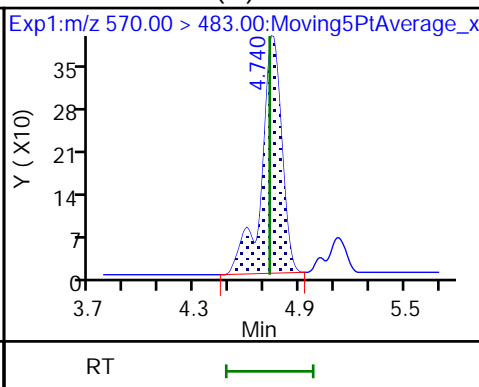
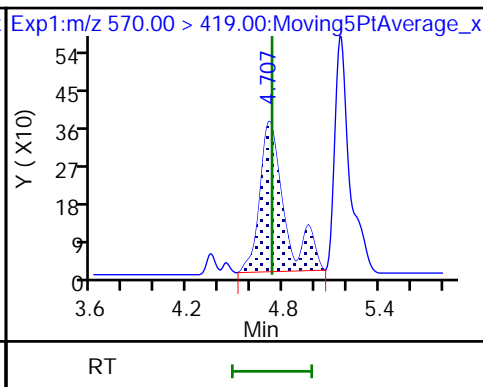
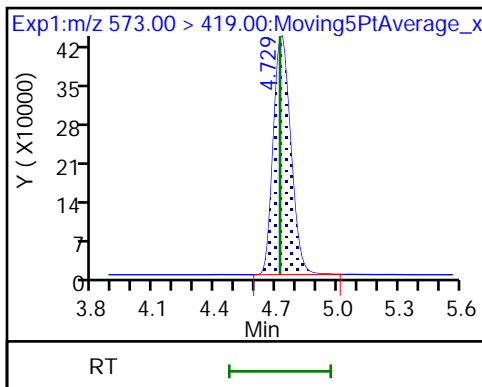
77 8:2 FTS (ND)



D 78 d3-NMeFOSAA

79 NMeFOSAA

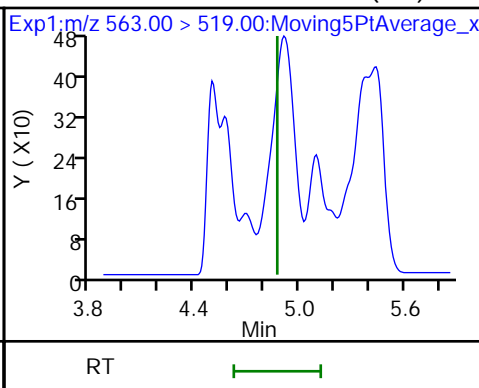
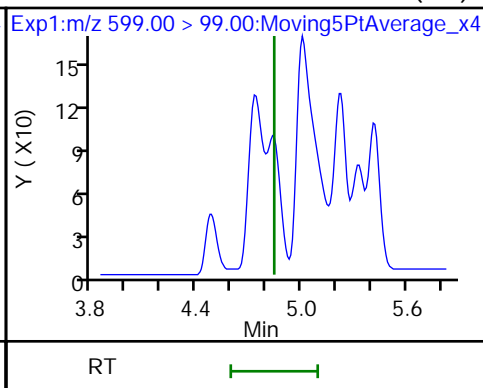
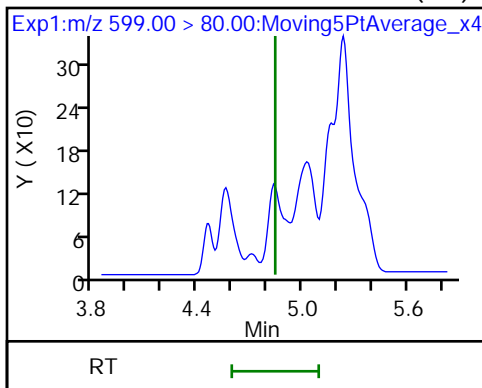
79 NMeFOSAA (M)



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

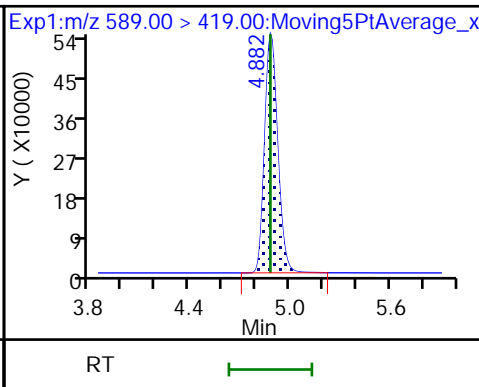
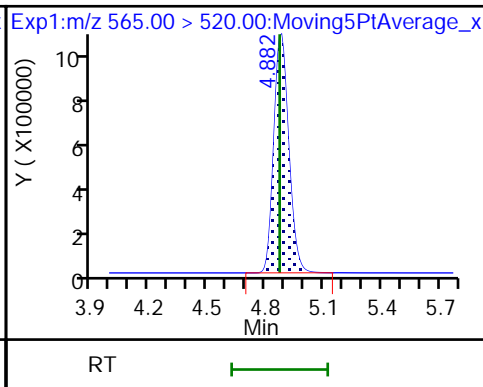
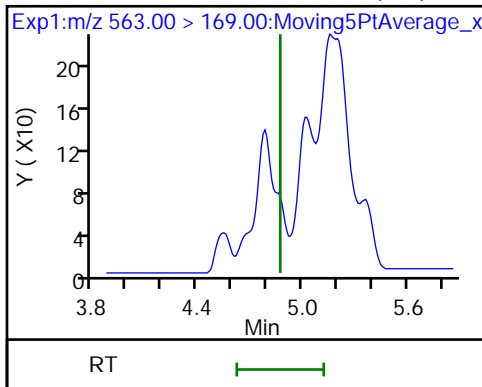
81 Perfluoroundecanoic acid (ND)

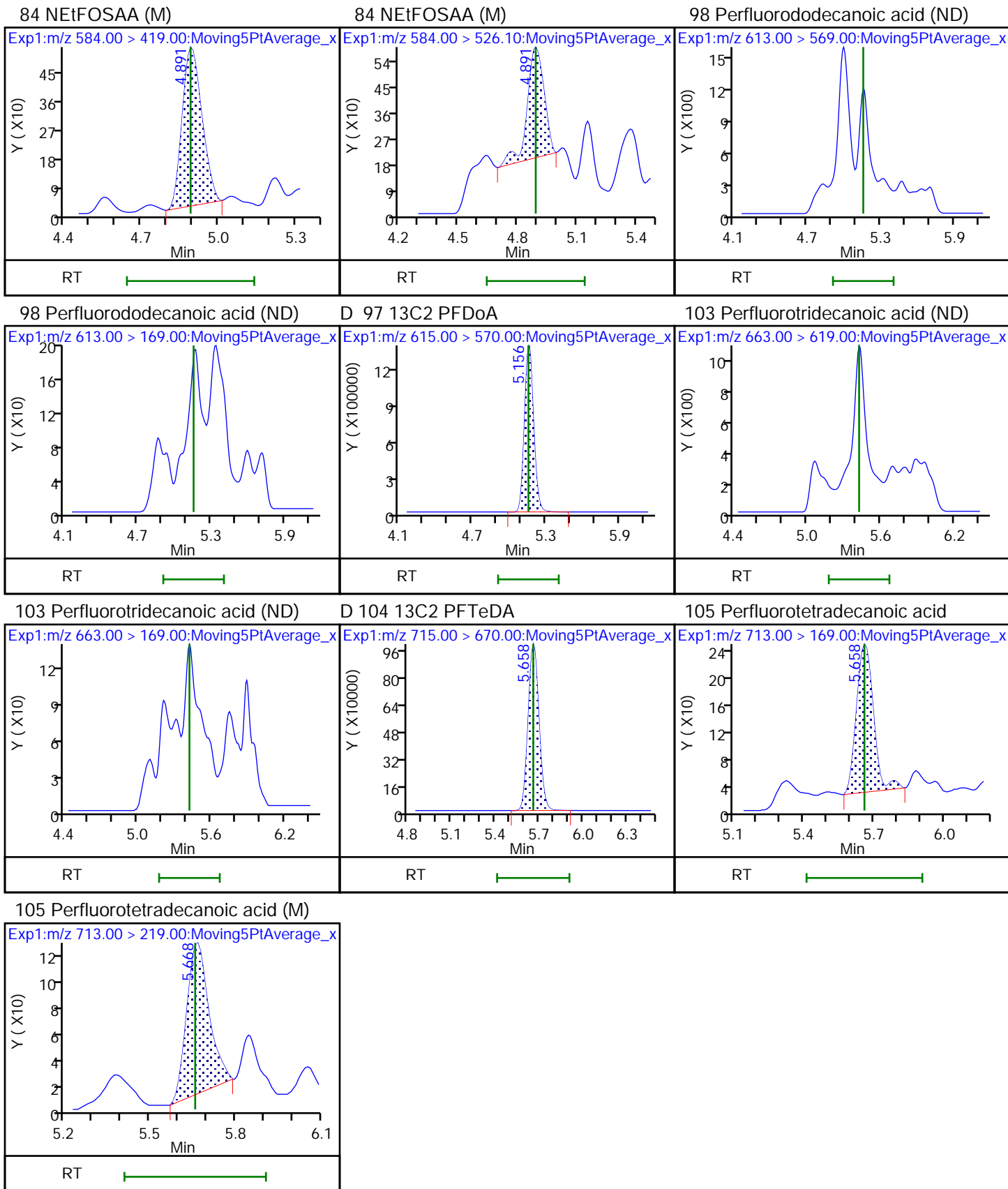


81 Perfluoroundecanoic acid (ND)

D 82 13C2 PUnA

D 83 d5-NEtFOSAA





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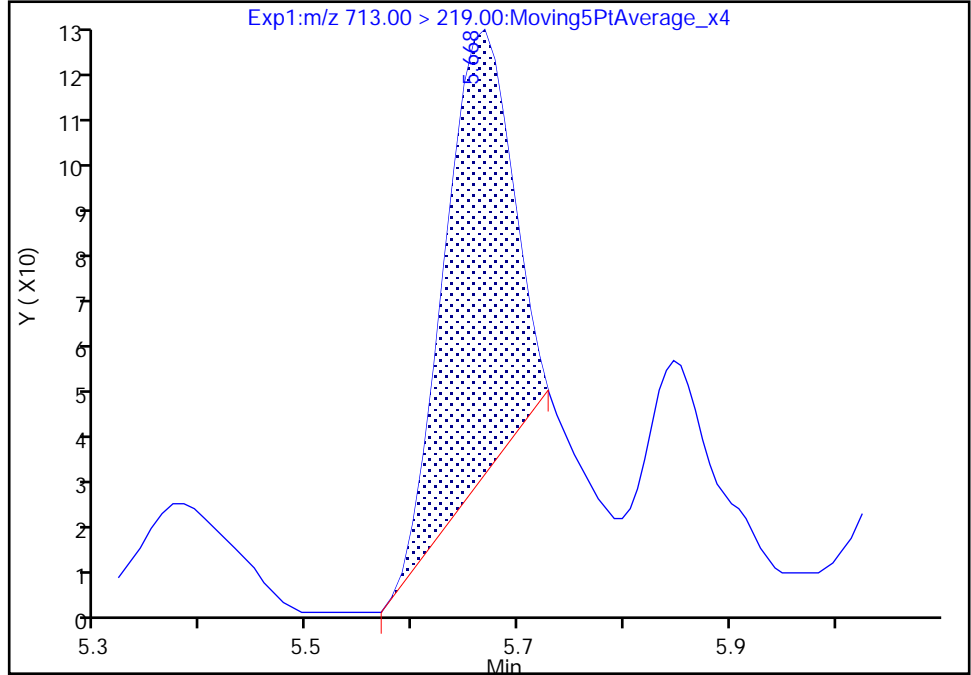
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_007.d  
Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
Lims ID: MB 320-496405/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

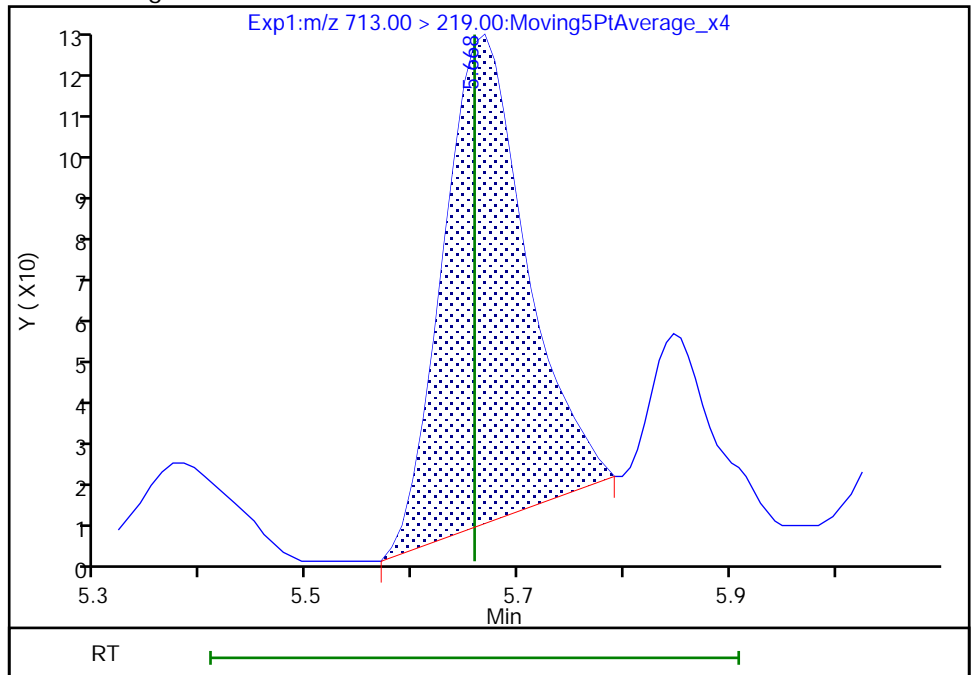
RT: 5.67  
Area: 402  
Amount: 0.002210  
Amount Units: ng/ml

Processing Integration Results



RT: 5.67  
Area: 603  
Amount: 0.002210  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:24:18  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

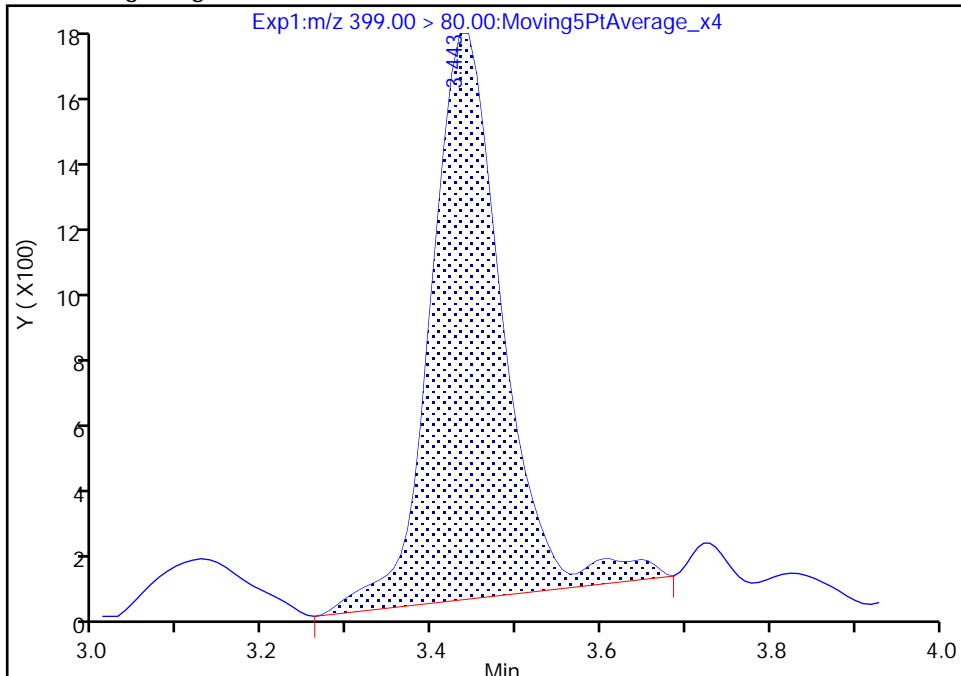
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Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
Lims ID: MB 320-496405/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

39 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

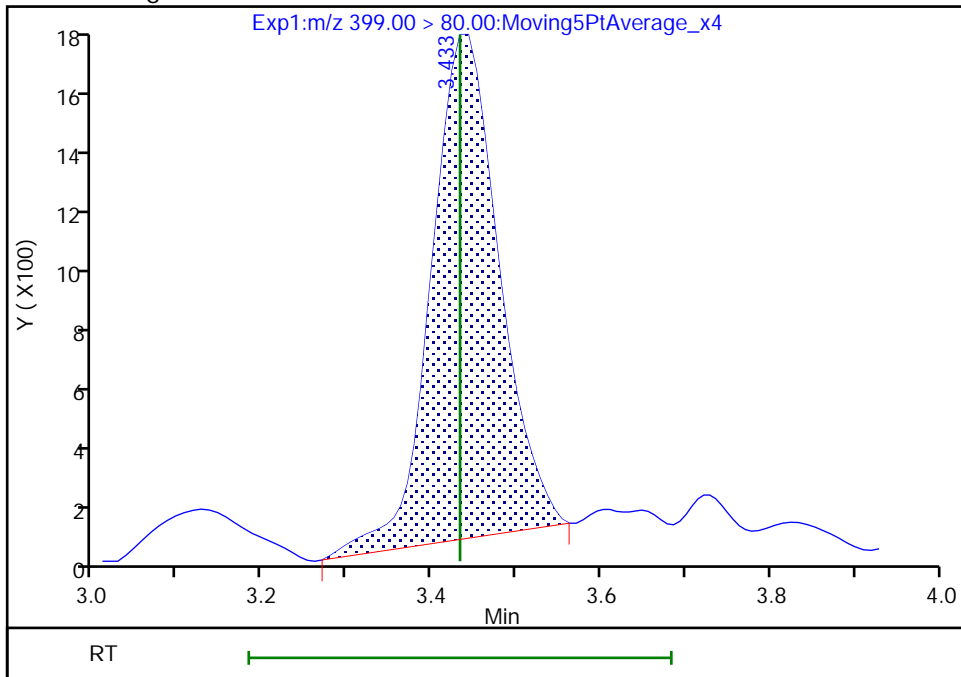
RT: 3.44  
Area: 9528  
Amount: 0.003730  
Amount Units: ng/ml

Processing Integration Results



RT: 3.43  
Area: 8828  
Amount: 0.003456  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:23:41  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

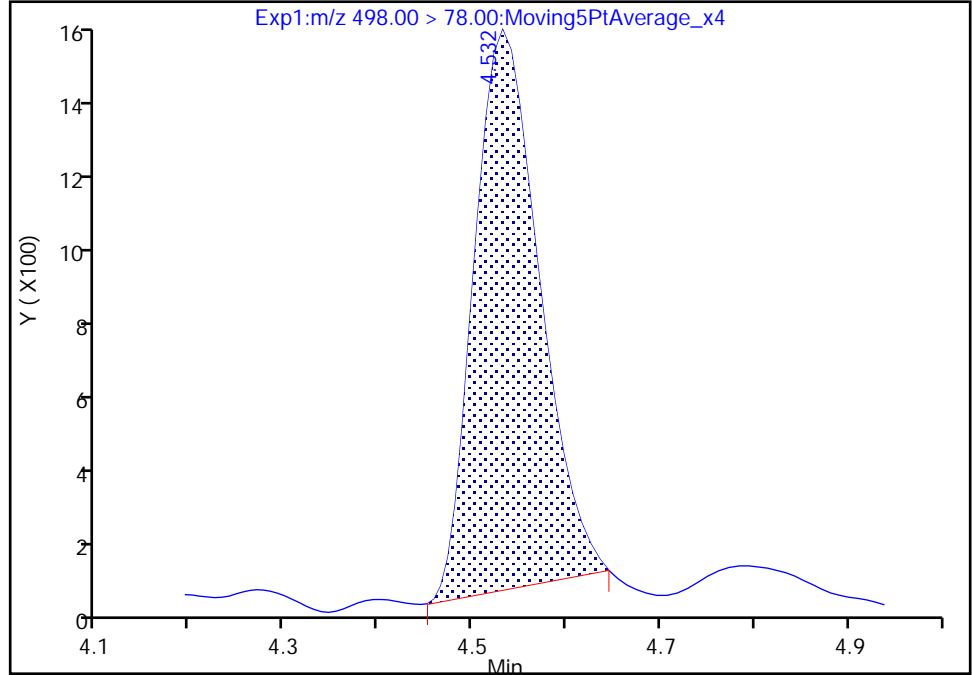
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 Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
 Lims ID: MB 320-496405/1-A  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

72 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

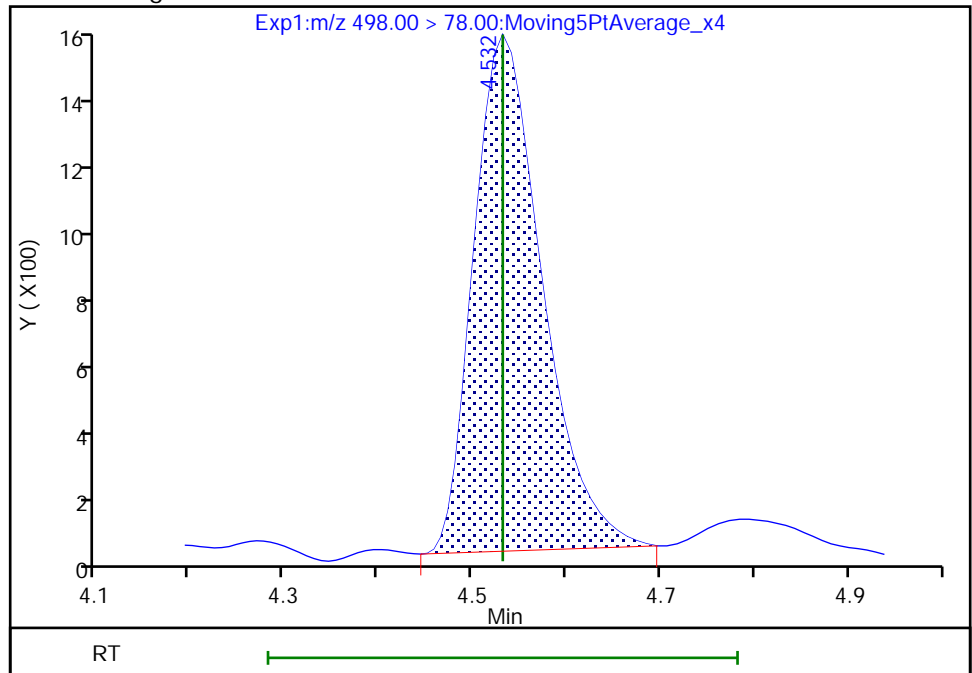
RT: 4.53  
 Area: 7174  
 Amount: 0.002254  
 Amount Units: ng/ml

Processing Integration Results



RT: 4.53  
 Area: 7663  
 Amount: 0.002407  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:23:56  
 Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

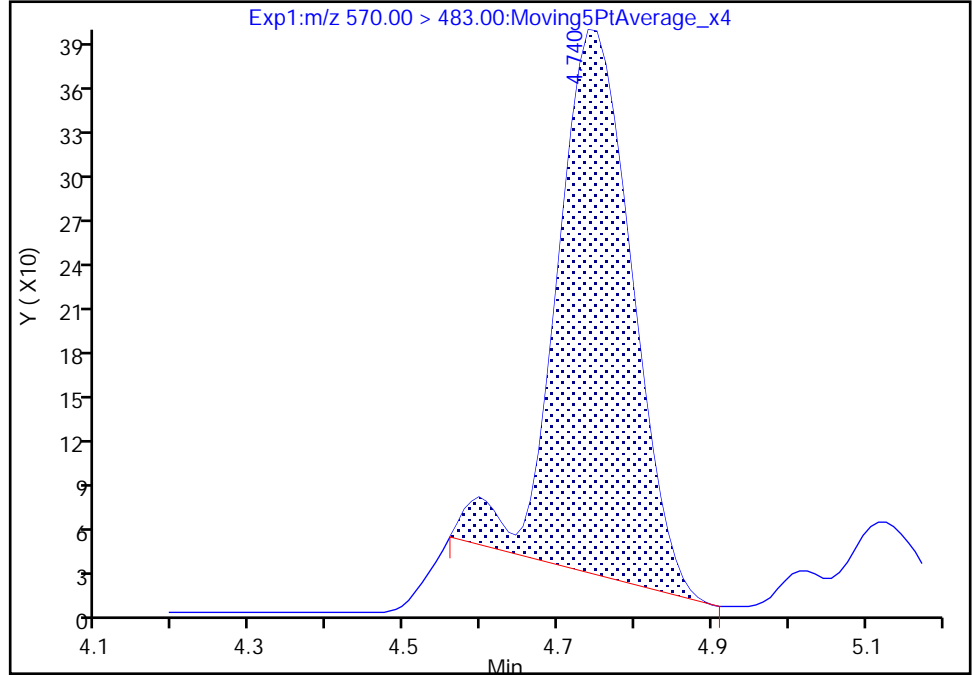
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_007.d  
Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
Lims ID: MB 320-496405/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

79 NMeFOSAA, CAS: 2355-31-9

Signal: 2

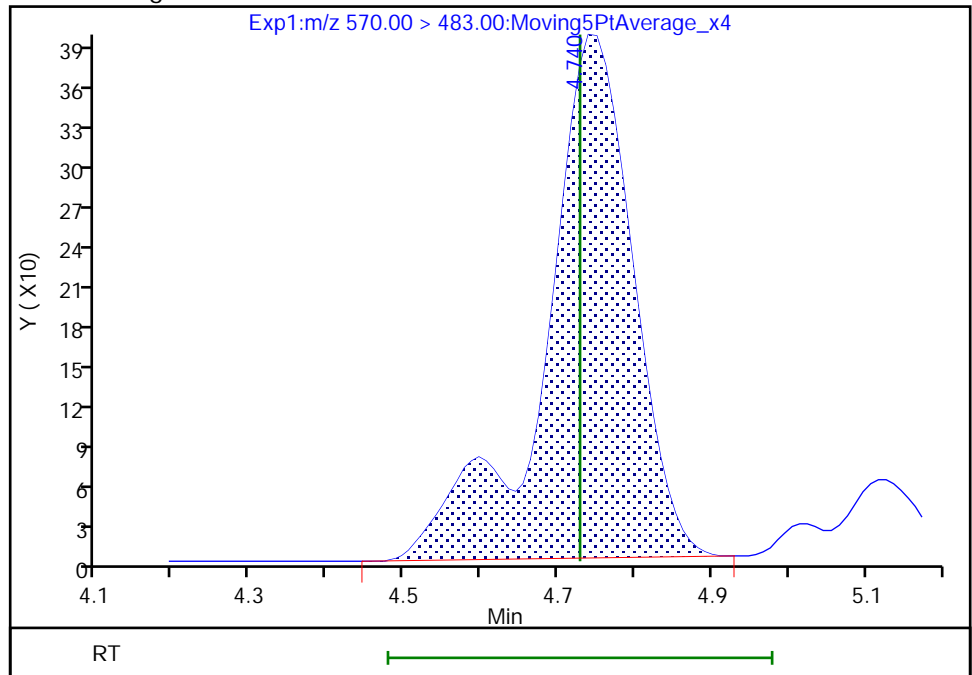
RT: 4.74  
Area: 2512  
Amount: 0.002538  
Amount Units: ng/ml

Processing Integration Results



RT: 4.74  
Area: 3133  
Amount: 0.002538  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:24:02  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

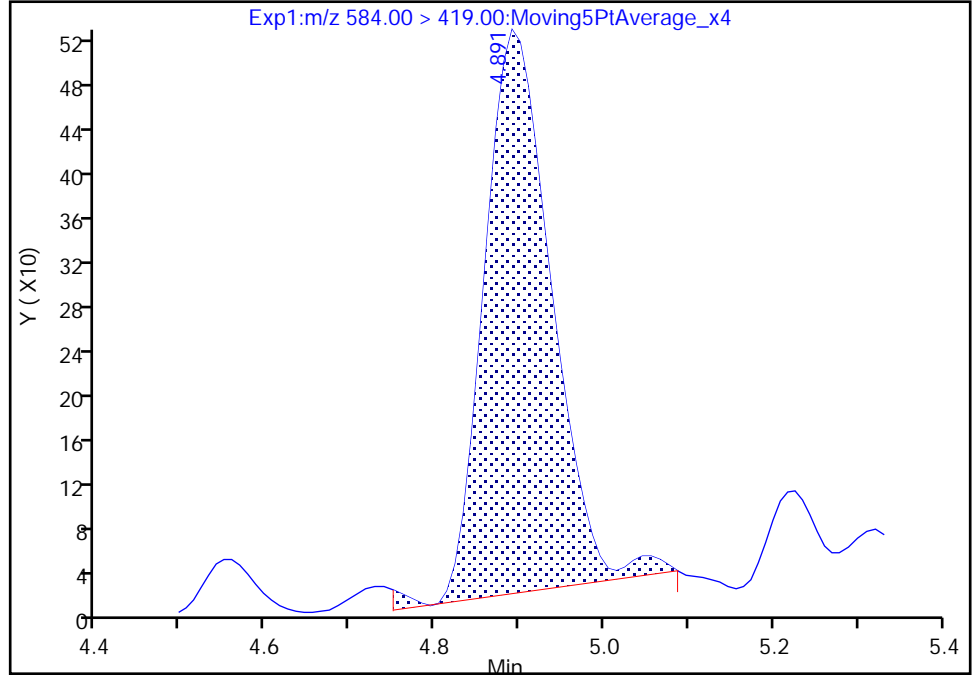
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Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
Lims ID: MB 320-496405/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

84 NEtFOSAA, CAS: 2991-50-6

Signal: 1

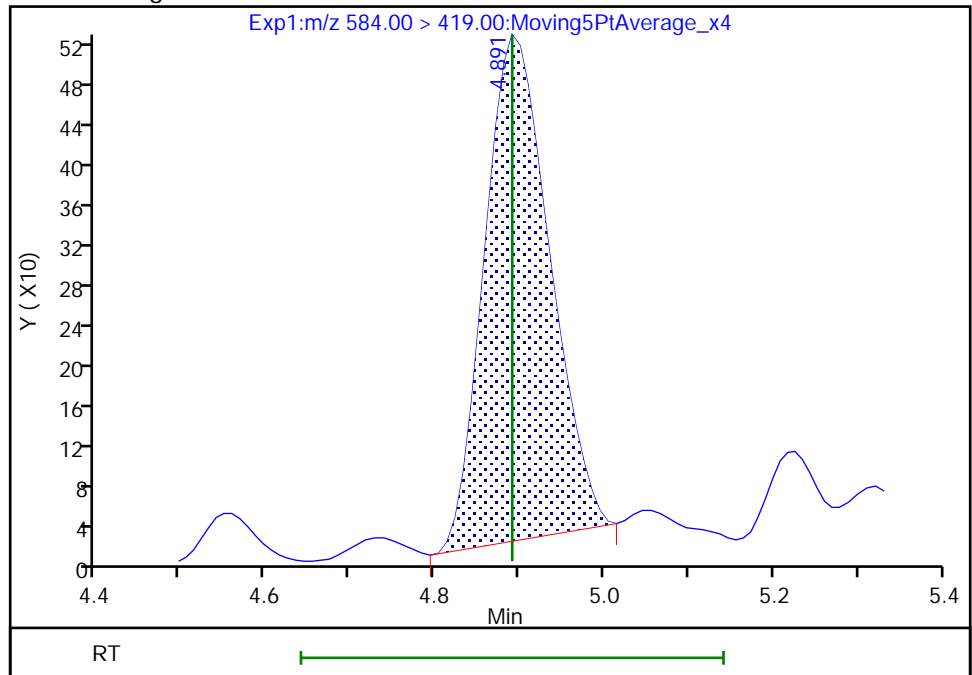
RT: 4.89  
Area: 2781  
Amount: 0.001651  
Amount Units: ng/ml

Processing Integration Results



RT: 4.89  
Area: 2664  
Amount: 0.001582  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:24:08  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

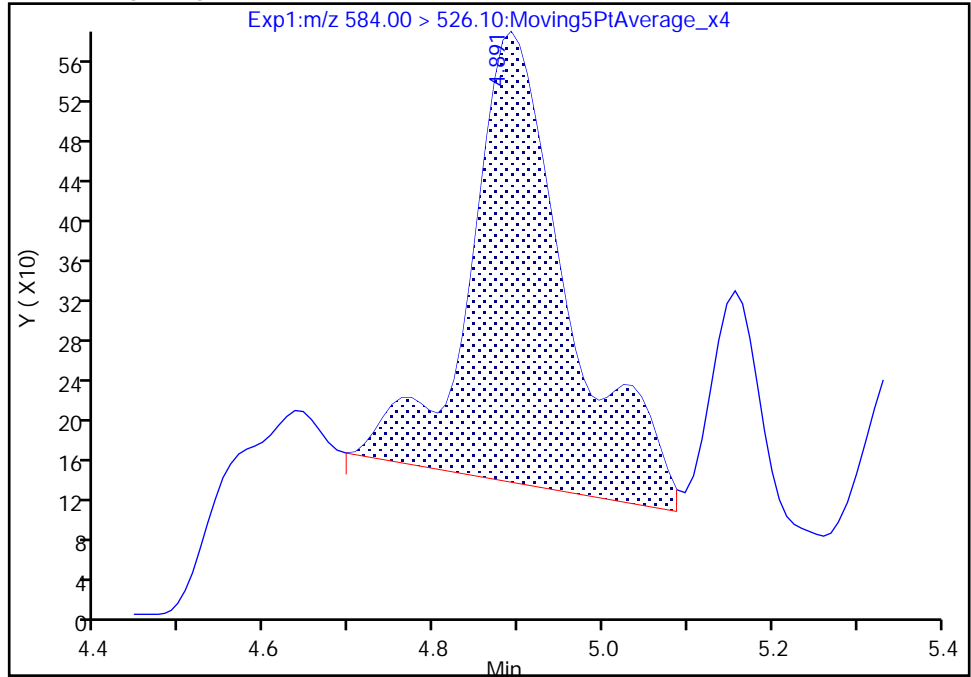
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_007.d  
Injection Date: 10-Jun-2021 04:47:49 Instrument ID: A15  
Lims ID: MB 320-496405/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 1 Worklist Smp#: 4  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

84 NEFOSAA, CAS: 2991-50-6

Signal: 2

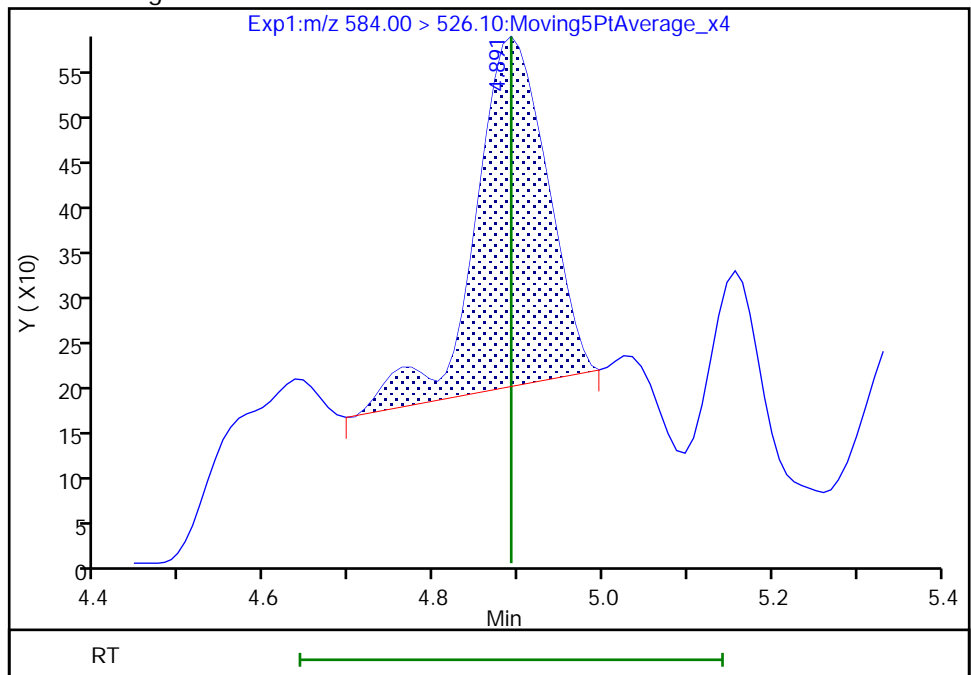
RT: 4.89  
Area: 3702  
Amount: 0.001651  
Amount Units: ng/ml

Processing Integration Results



RT: 4.89  
Area: 2322  
Amount: 0.001582  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 08:24:12

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 320-496408/1-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_025.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:32  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	
27619-97-2	6:2 FTS	ND		5.0	
39108-34-4	8:2 FTS	ND		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 320-496408/1-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_025.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:32  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	103		25-150
STL01893	13C5 PFPeA	101		25-150
STL00993	13C2 PFHxA	92		25-150
STL01892	13C4 PFHpA	104		25-150
STL00990	13C4 PFOA	99		25-150
STL00995	13C5 PFNA	101		25-150
STL00996	13C2 PFDA	100		25-150
STL00997	13C2 PFUnA	102		25-150
STL00998	13C2 PFDoA	104		25-150
STL02116	13C2 PFTeDA	88		25-150
STL02337	13C3 PFBS	101		25-150
STL00994	18O2 PFHxS	109		25-150
STL00991	13C4 PFOS	100		25-150
STL01056	13C8 FOSA	113		25-150
STL02118	d3-NMeFOSAA	104		25-150
STL02117	d5-NEtFOSAA	108		25-150
STL02279	M2-6:2 FTS	86		25-150
STL02280	M2-8:2 FTS	95		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_025.d  
 Lims ID: MB 320-496408/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 10-Jun-2021 07:32:20 ALS Bottle#: 14 Worklist Smp#: 2  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: mb 320-496408/1-a DUE 6/21 PFC+ WATER  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:47:52 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:47:52  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.310	2.319	-0.009	0.603	6225287	1.29	103	51939	
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.650	0.001	0.691	5750662	1.26	101	37611	
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.683	0.0	0.700	3748335	1.18	101	43484	
29 Perfluorohexanoic acid	313.00 > 269.00	3.019	3.018	0.001	1.000	43928	0.009413 Target=13.85	109		
	313.00 > 119.00	3.028	3.018	0.010	1.003	2678	16.40(6.93-20.78)	36.7		
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.018	0.001	0.787	5207478	1.15	92.3	52017	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.443	3.433	0.010	1.003	9336	0.003441 Target=3.47	130		
	399.00 > 99.00	3.443	3.433	0.010	1.003	2961	3.15(1.73-5.20)	64.9		
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.896	2901448	1.28	109	59938	
D 37 13C4 PFHpA	367.00 > 322.00	3.433	3.433	0.0	0.896	5800484	1.30	104	71305	
D 52 M2-6:2 FTS	429.00 > 81.00	3.814	3.815	-0.001	0.995	1047925	1.02	86.0	13941	
D 56 13C4 PFOA	417.00 > 372.00	3.834	3.834	0.0	1.000	6230016	1.23	98.6	64150	
58 Perfluorooctanoic acid	413.00 > 369.00	3.834	3.834	0.0	1.000	15982	0.003068 Target=3.05	43.7		M
	413.00 > 169.00	3.834	3.834	0.0	1.000	6234	2.56(1.53-4.58)	59.0		M
* 57 13C2 PFOA	415.00 > 370.00	3.834	3.834	0.0		6057595	1.25	62452		

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 61 13C4 PFOS	503.00 > 80.00	4.201	4.201	0.0	1.096	2116572	1.19	100.0	24678	
D 63 13C5 PFNA	468.00 > 423.00	4.217	4.209	0.008	1.100	6090006	1.26	101	66929	
D 71 13C8 FOSA	506.00 > 78.00	4.532	4.532	0.0	1.182	4221436	1.41	113	42688	
72 Perfluorooctanesulfonamide	498.00 > 78.00	4.532	4.532	0.0	1.000	8124	0.002396		171	
D 74 13C2 PFDA	515.00 > 470.00	4.560	4.559	0.001	1.189	6041542	1.25	100	60464	
75 Perfluorodecanoic acid	513.00 > 469.00	4.569	4.559	0.010	1.002	35746	0.007234 Target=8.80		331	
	513.00 > 169.00	4.560	4.559	0.001	1.000	4170	8.57(4.40-13.19)		75.9	
D 76 M2-8:2 FTS	529.00 > 81.00	4.569	4.559	0.010	1.192	1815479	1.13	94.6	24236	
D 78 d3-NMeFOSAA	573.00 > 419.00	4.718	4.718	0.0	1.231	2658140	1.30	104	19677	
D 82 13C2 PFUnA	565.00 > 520.00	4.872	4.872	0.0	1.271	5908427	1.27	102	58352	
D 83 d5-NEtFOSAA	589.00 > 419.00	4.882	4.882	0.0	1.273	2726615	1.34	108	36045	
D 97 13C2 PFDoA	615.00 > 570.00	5.156	5.156	0.0	1.345	6565215	1.30	104	62558	
105 Perfluorotetradecanoic acid	713.00 > 169.00	5.658	5.649	0.009	1.000	1256	0.002511 Target=1.13		34.0	
	713.00 > 219.00	5.658	5.649	0.009	1.000	994	1.26(0.57-1.70)		33.0	
D 104 13C2 PFTeDA	715.00 > 670.00	5.658	5.649	0.009	1.476	5086131	1.10	87.7	54868	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_025.d

Injection Date: 10-Jun-2021 07:32:20

Instrument ID: A15

Lims ID: MB 320-496408/1-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 14

Worklist Smp#: 2

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

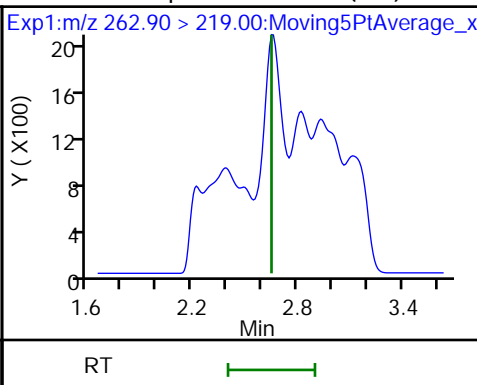
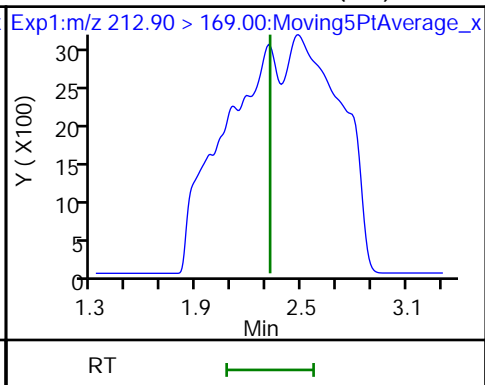
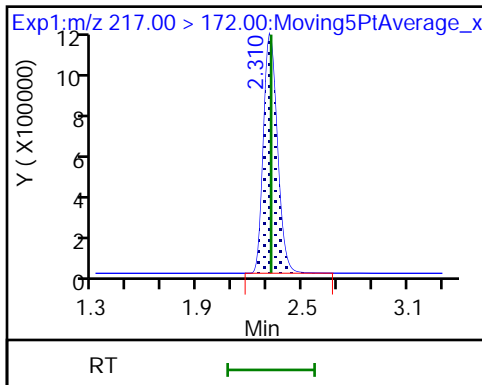
Method: PFAS+\_A15

Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid (ND)

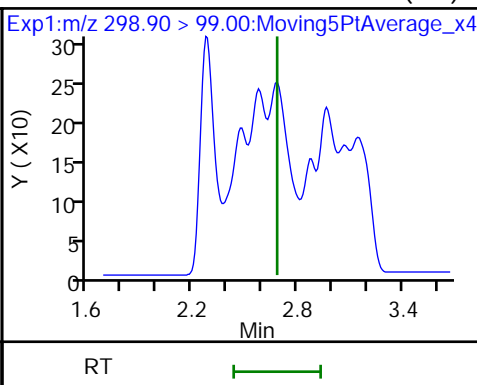
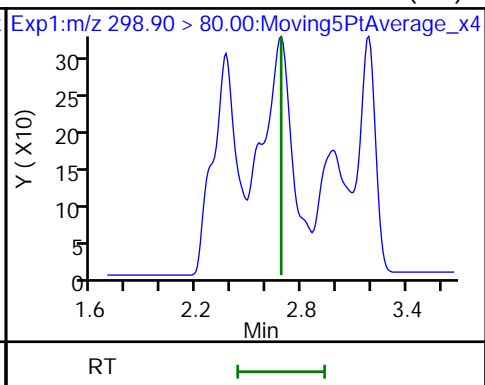
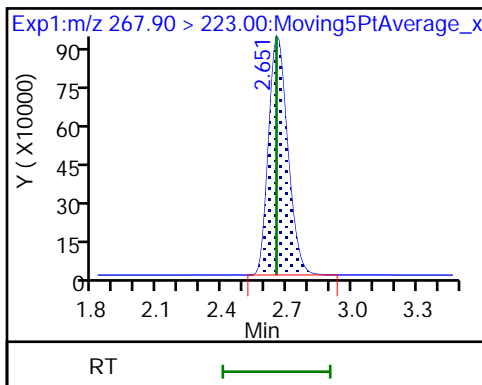
18 Perfluoropentanoic acid (ND)



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid (ND)

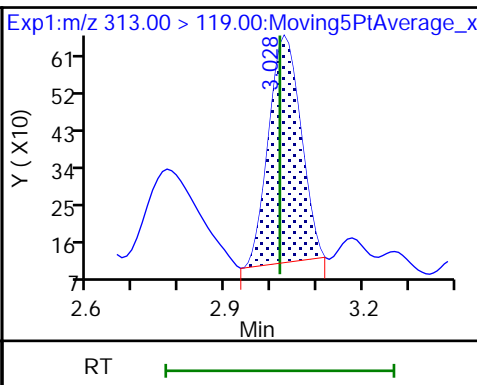
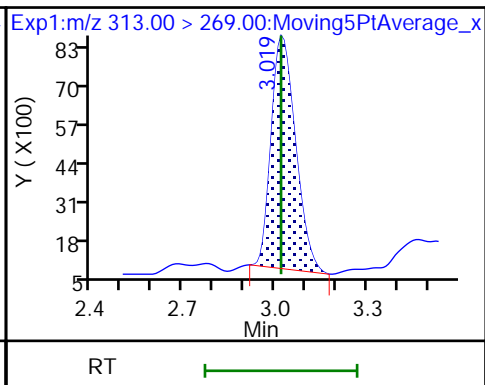
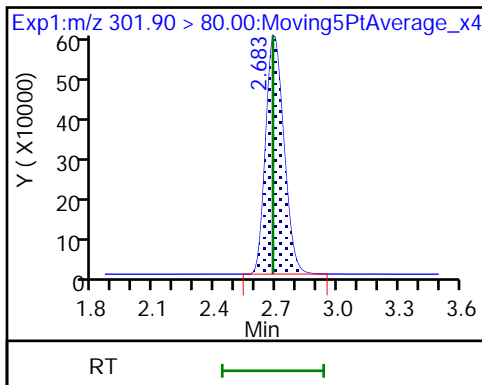
20 Perfluorobutanesulfonic acid (ND)



D 21 13C3 PFBS

29 Perfluorohexanoic acid

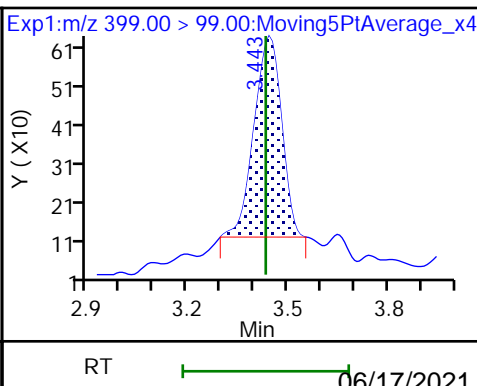
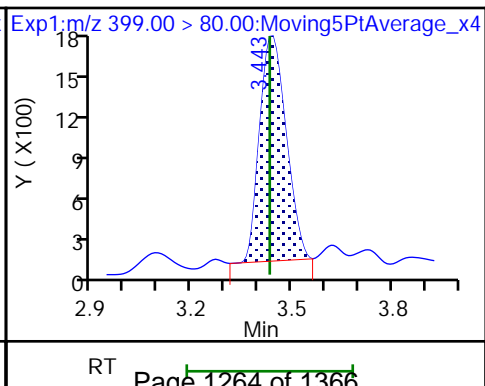
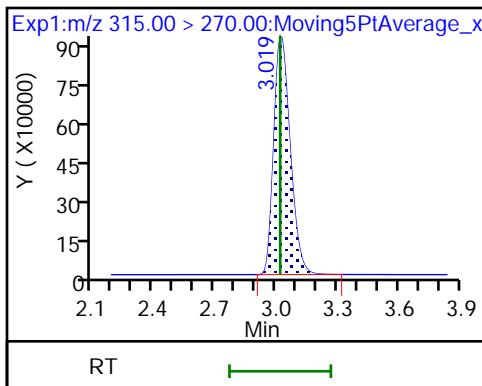
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

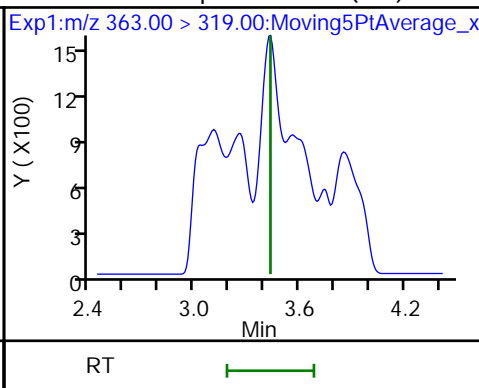
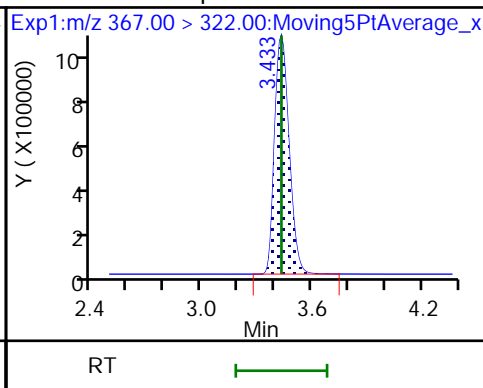
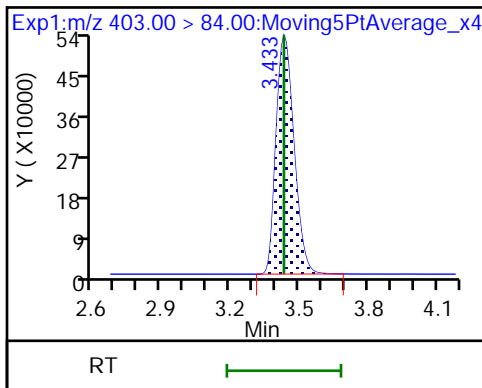
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

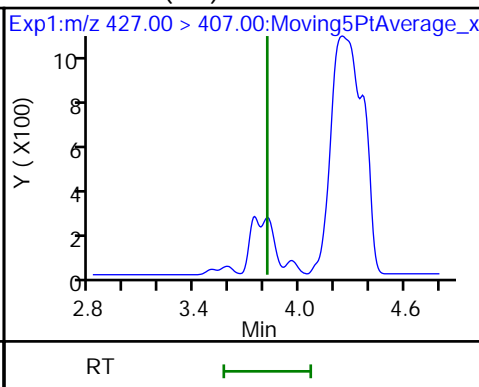
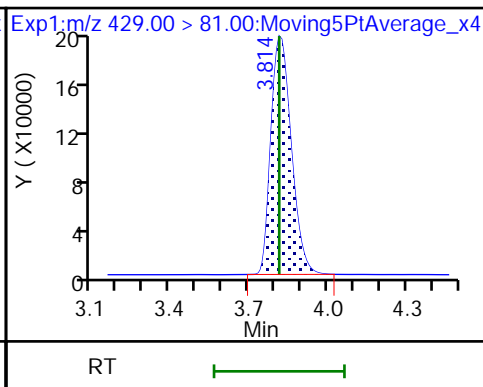
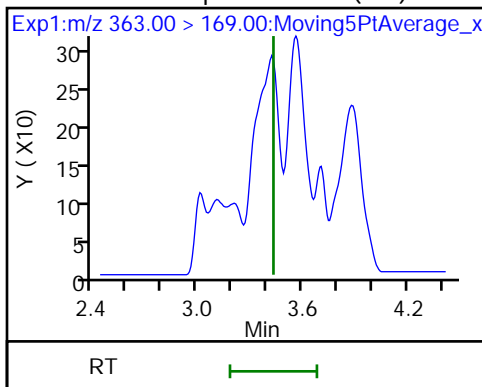
36 Perfluoroheptanoic acid (ND)



36 Perfluoroheptanoic acid (ND)

D 52 M2-6:2 FTS

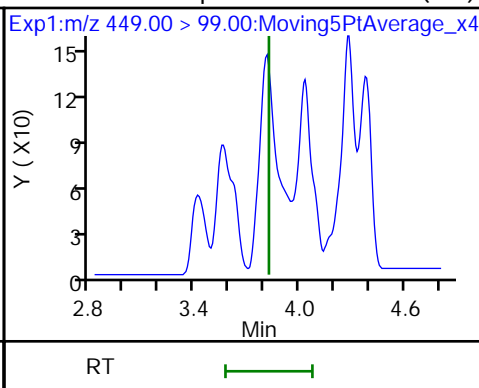
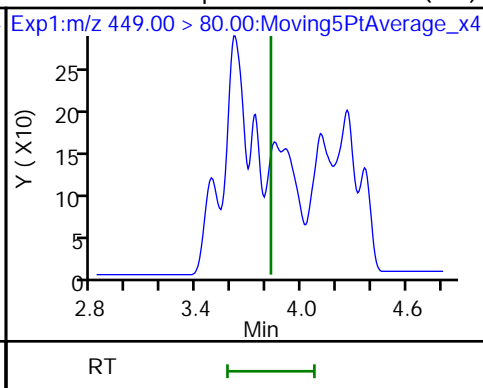
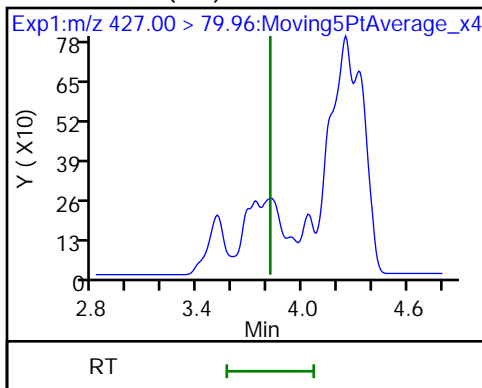
53 6:2 FTS (ND)



53 6:2 FTS (ND)

54 Perfluoroheptanesulfonic acid (ND)

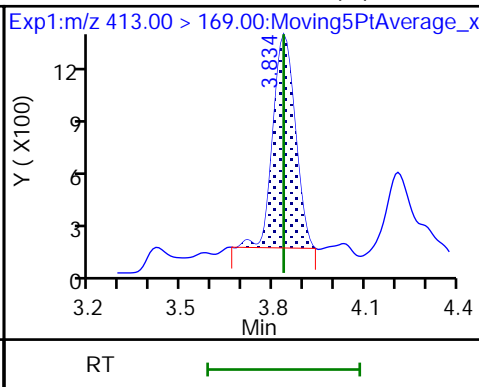
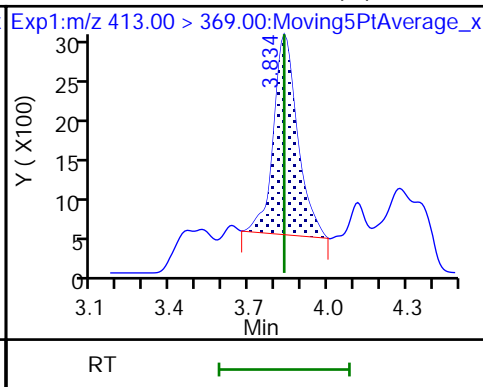
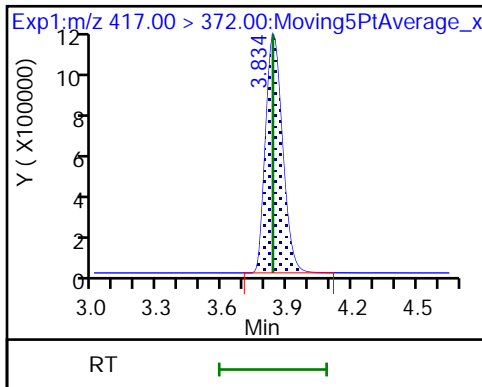
54 Perfluoroheptanesulfonic acid (ND)



D 56 13C4 PFOA

58 Perfluorooctanoic acid (M)

58 Perfluorooctanoic acid (M)

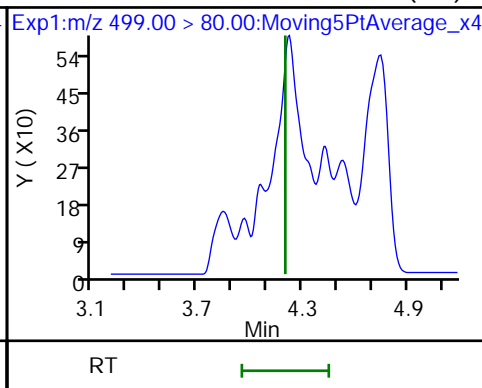
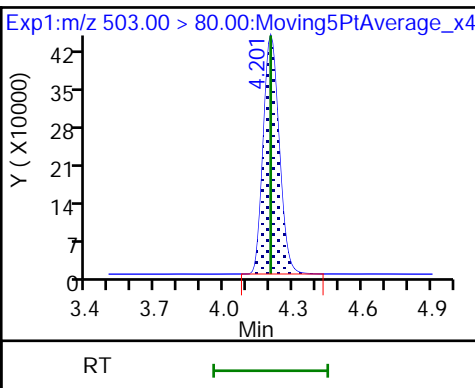
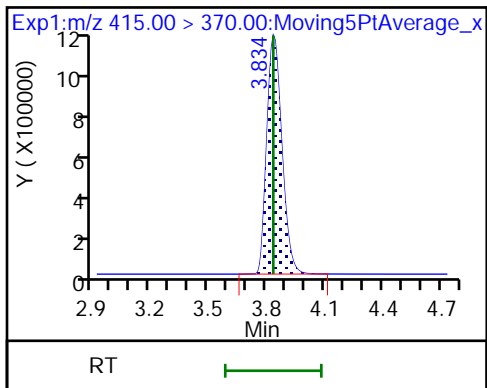




\* 57 13C2 PFOA

D 61 13C4 PFOS

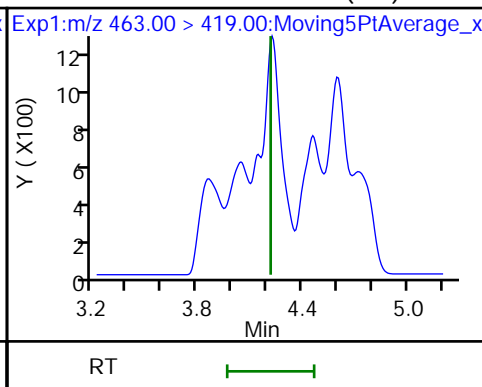
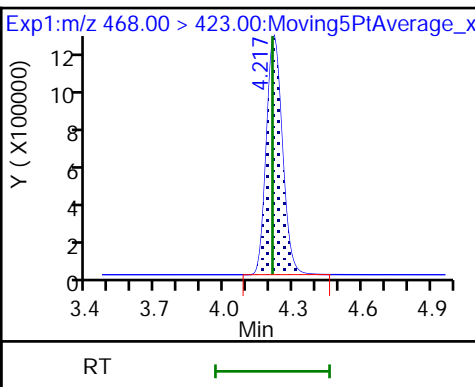
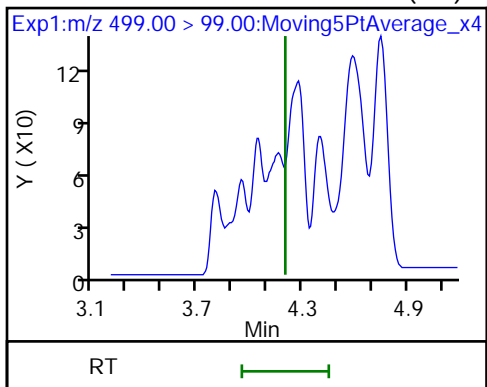
62 Perfluorooctanesulfonic acid (ND)



62 Perfluorooctanesulfonic acid (ND)

D 63 13C5 PFNA

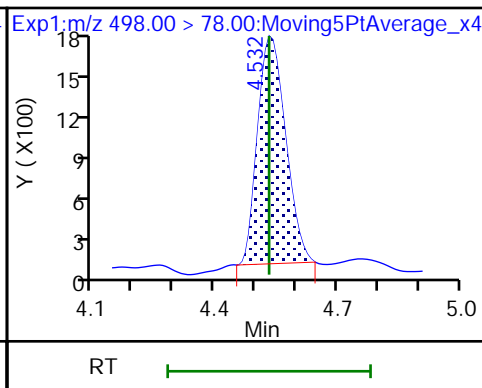
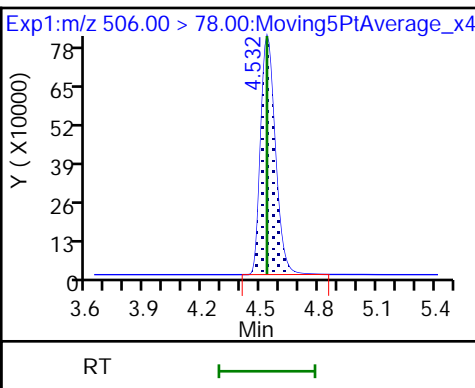
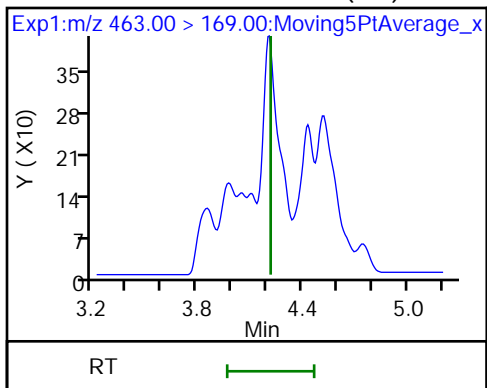
64 Perfluorononanoic acid (ND)



64 Perfluorononanoic acid (ND)

D 71 13C8 FOSA

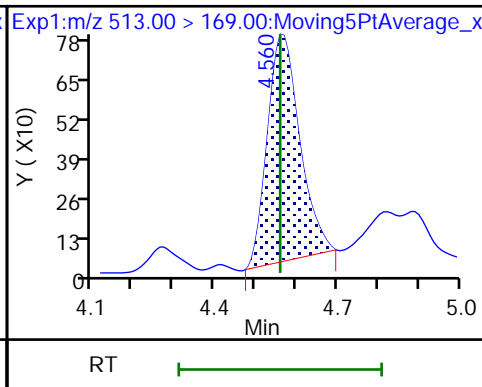
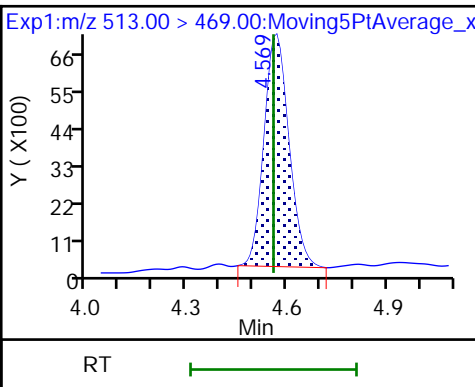
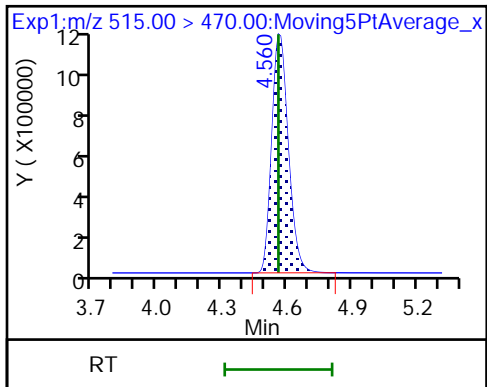
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

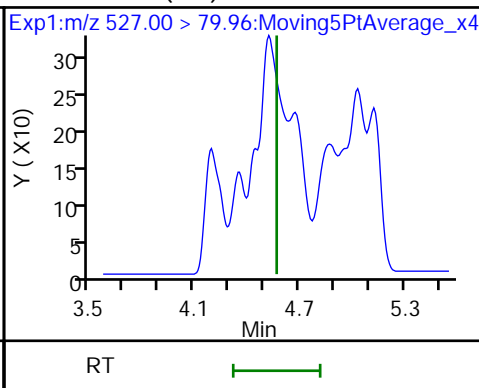
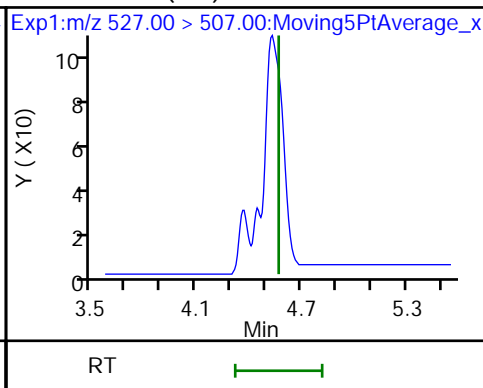
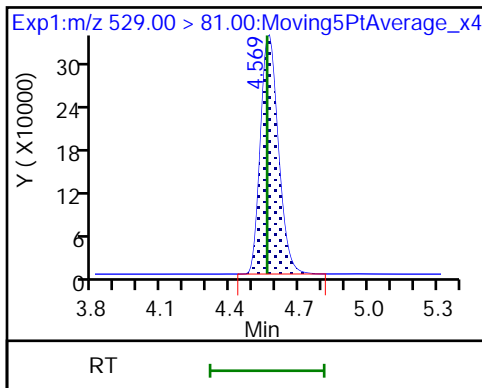
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS (ND)

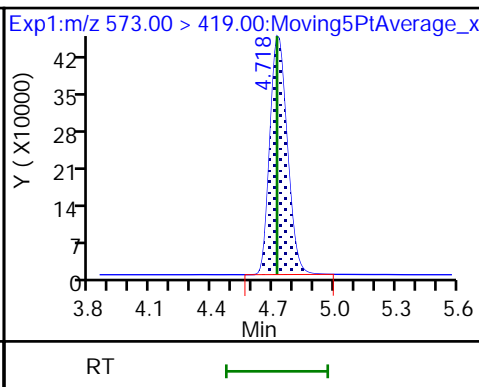
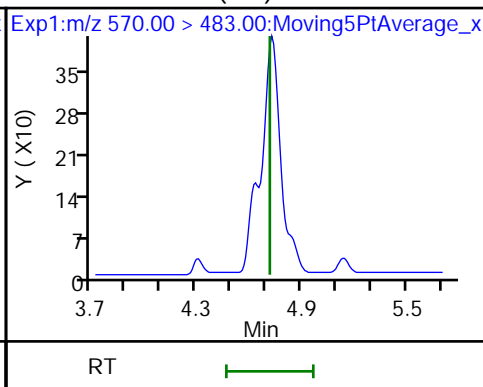
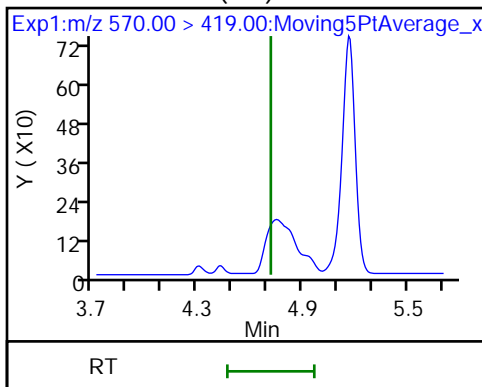
77 8:2 FTS (ND)



79 NMeFOSAA (ND)

79 NMeFOSAA (ND)

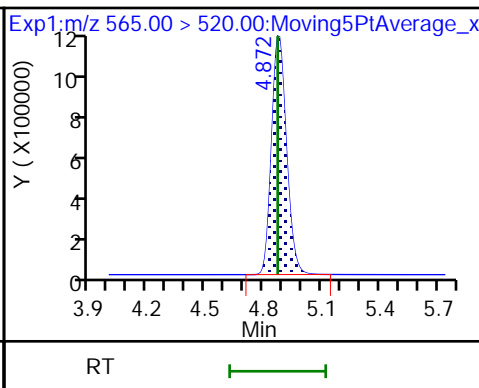
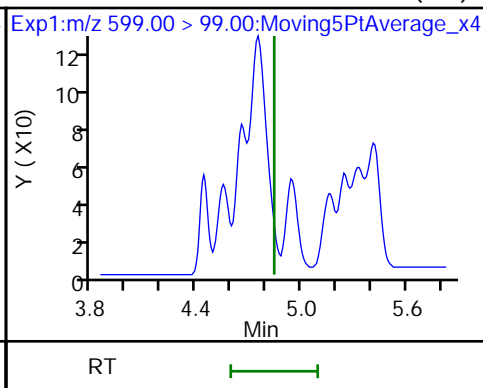
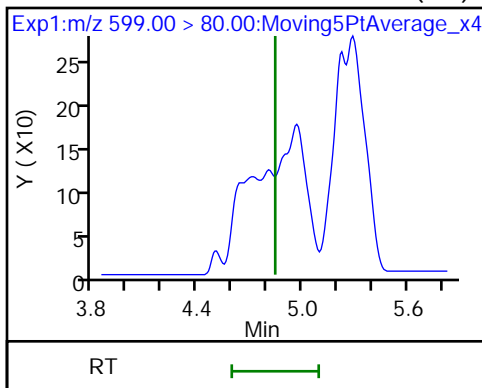
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid (ND)

80 Perfluorodecanesulfonic acid (ND)

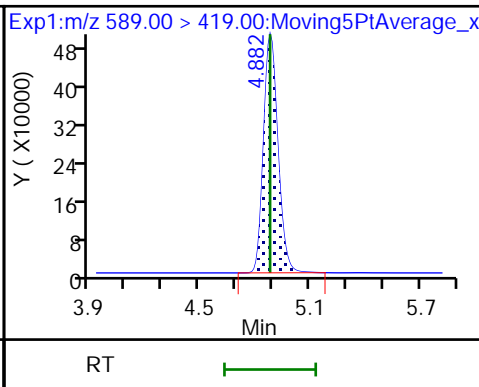
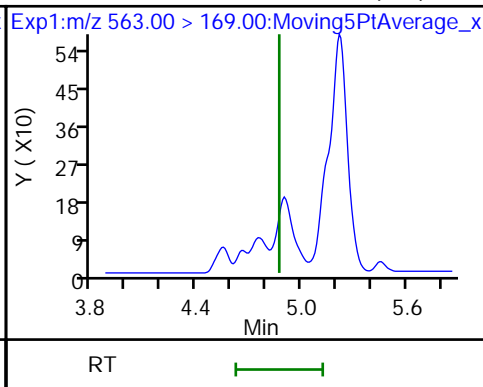
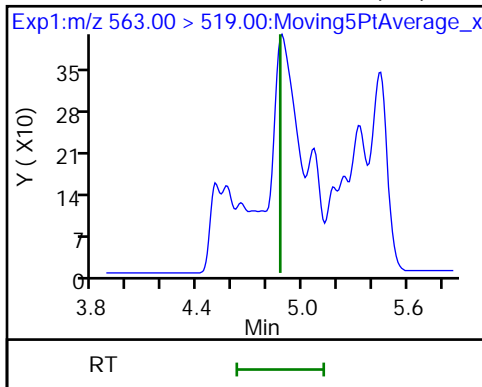
D 82 13C2 PFUnA



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

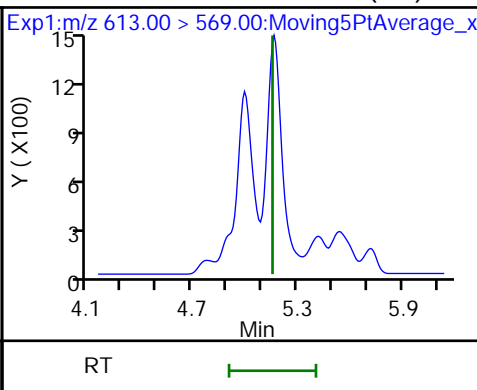
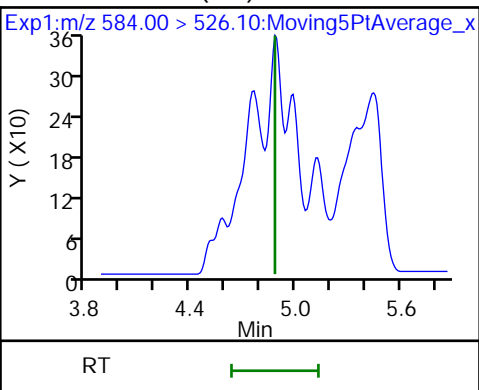
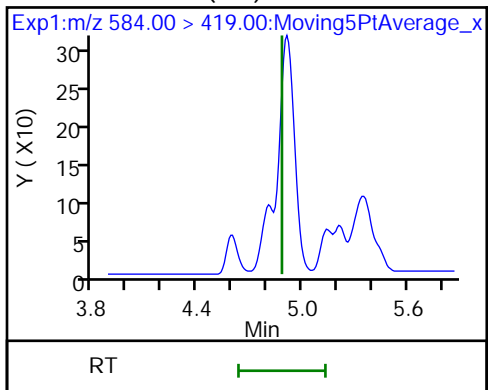
D 83 d5-NEtFOSAA



84 NEtFOSAA (ND)

84 NEtFOSAA (ND)

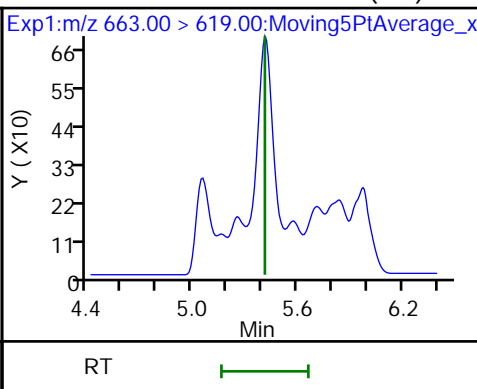
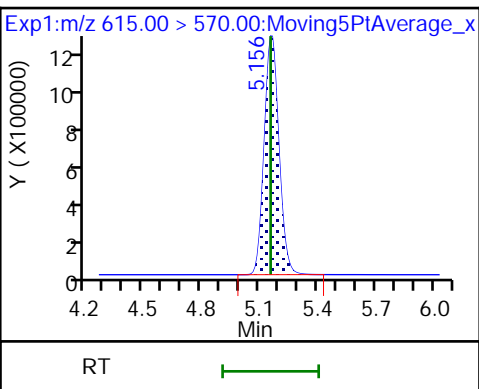
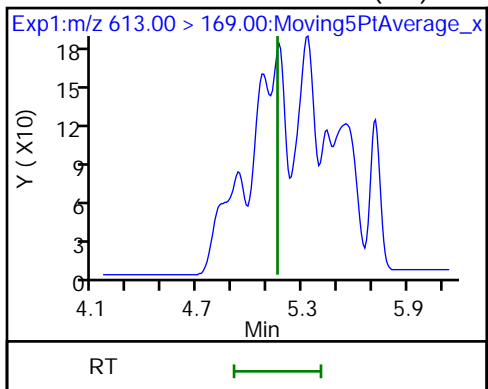
98 Perfluorododecanoic acid (ND)



98 Perfluorododecanoic acid (ND)

D 97 13C2 PFDaA

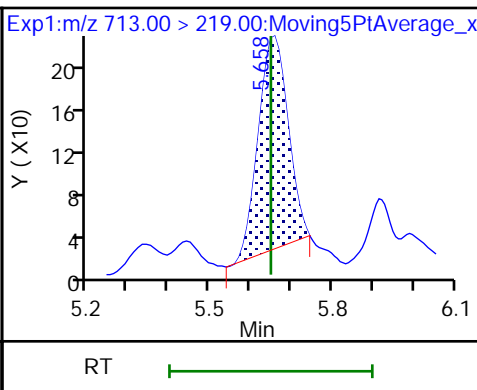
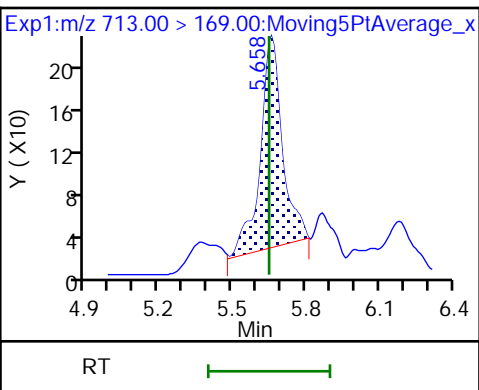
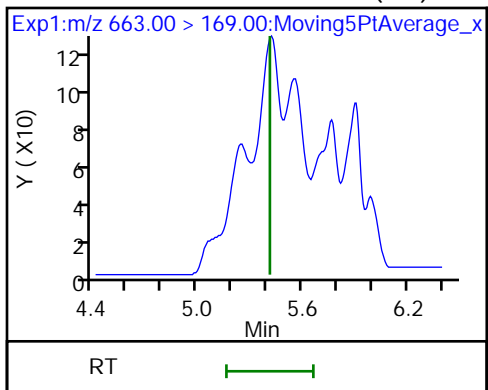
103 Perfluorotridecanoic acid (ND)



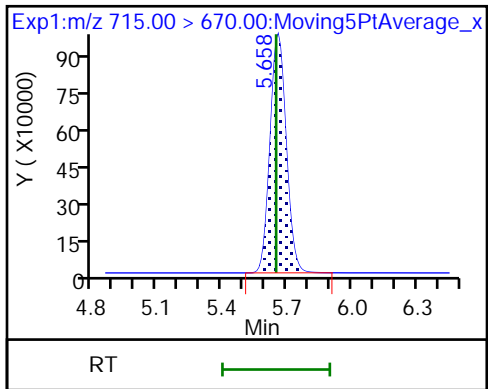
103 Perfluorotridecanoic acid (ND)

105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid



D 104 13C2 PFTeDA



Eurofins TestAmerica, Sacramento

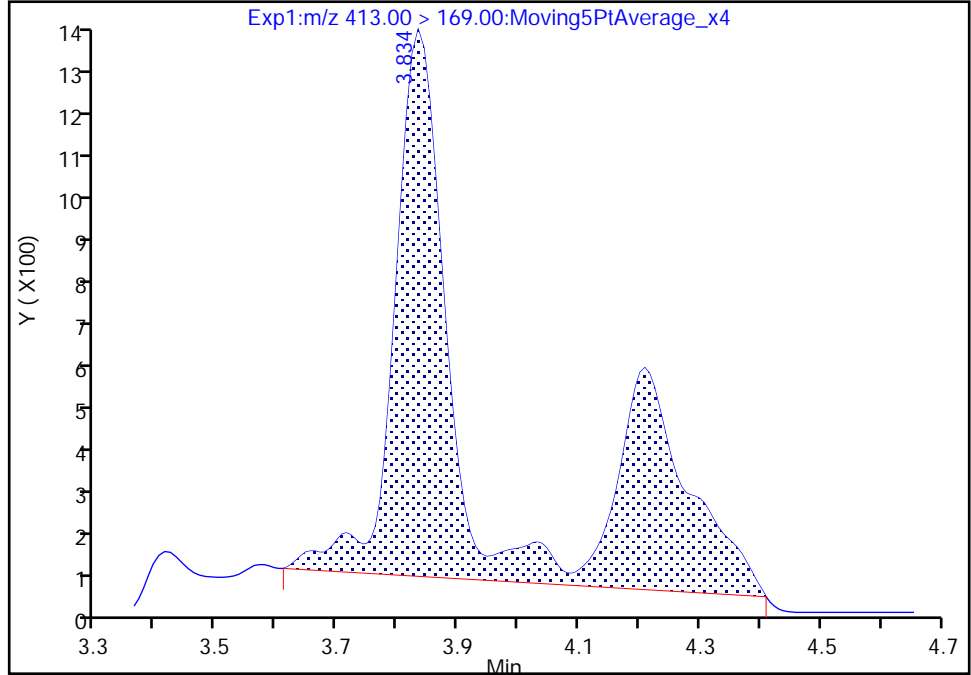
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_025.d  
Injection Date: 10-Jun-2021 07:32:20 Instrument ID: A15  
Lims ID: MB 320-496408/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 14 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

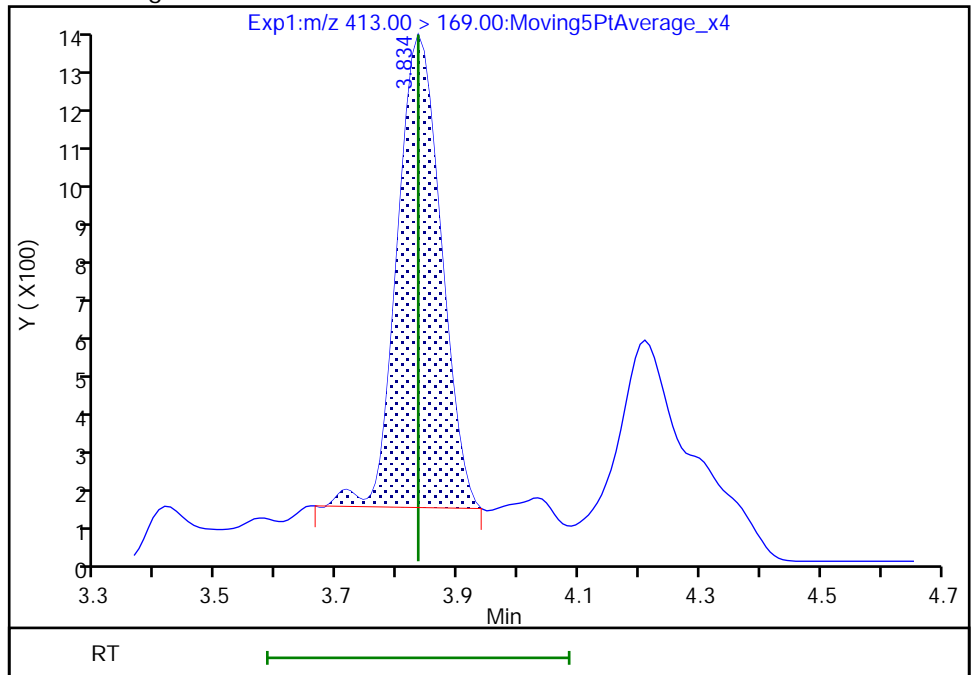
RT: 3.83  
Area: 12024  
Amount: 0.003306  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 6234  
Amount: 0.003068  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndee, 11-Jun-2021 07:47:44  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

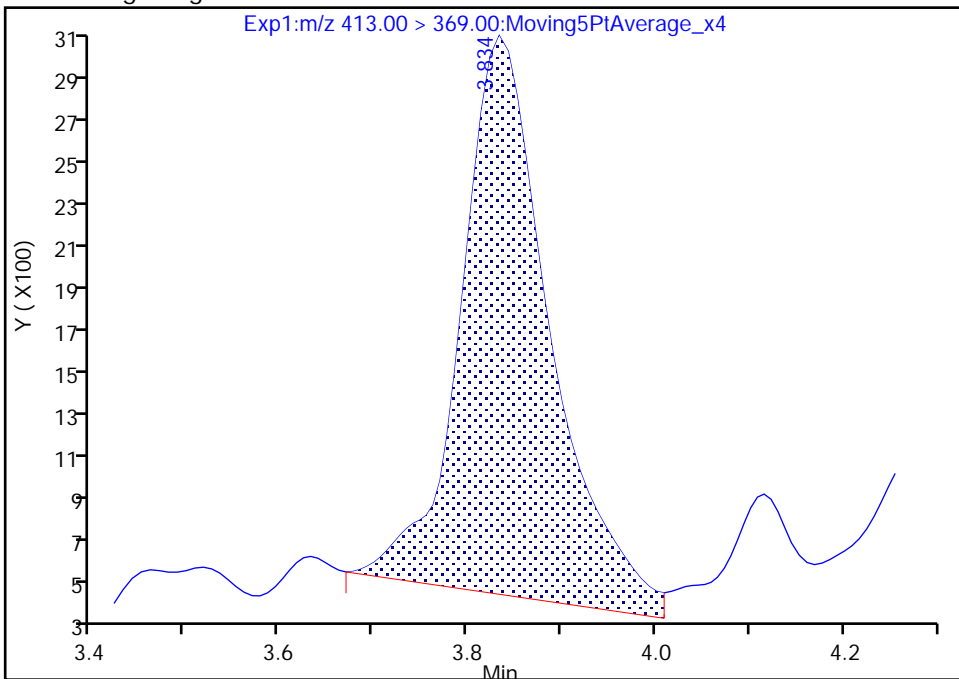
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_025.d  
Injection Date: 10-Jun-2021 07:32:20 Instrument ID: A15  
Lims ID: MB 320-496408/1-A  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 14 Worklist Smp#: 2  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

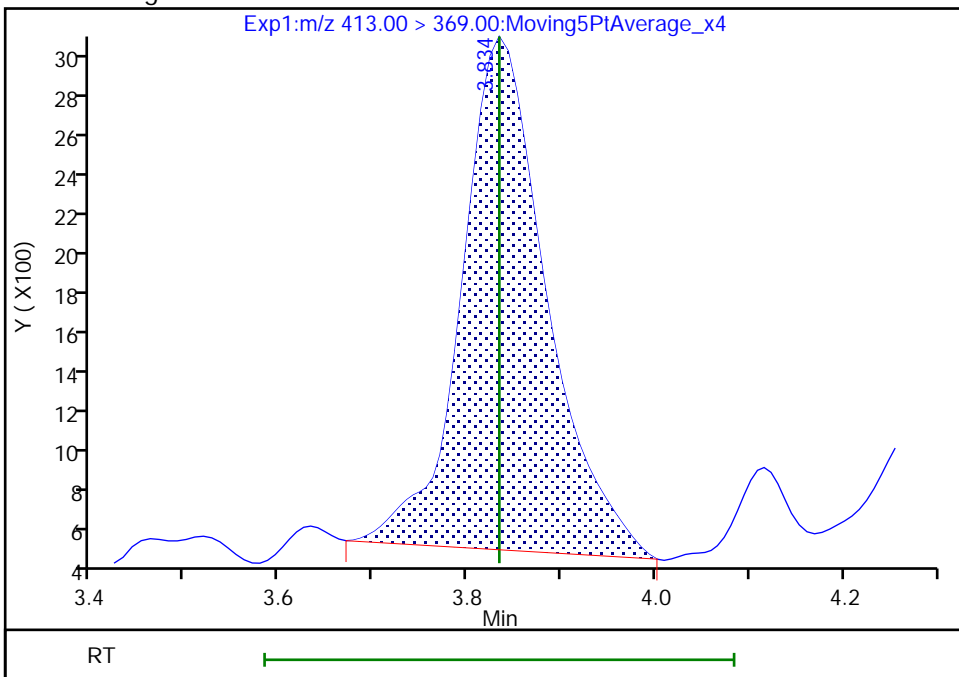
RT: 3.83  
Area: 17220  
Amount: 0.003306  
Amount Units: ng/ml

Processing Integration Results



RT: 3.83  
Area: 15982  
Amount: 0.003068  
Amount Units: ng/ml

Manual Integration Results



Reviewer: sorndeek, 11-Jun-2021 07:47:47

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 320-497061/1  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_004.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 06/10/2021 04:20  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		0.050	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		0.050	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		0.050	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.050	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.050	
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.050	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		0.050	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		0.050	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		0.050	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		0.050	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		0.050	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.050	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		0.050	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		0.050	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		0.050	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		0.050	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		0.050	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.50	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.50	
27619-97-2	6:2 FTS	ND		0.50	
39108-34-4	8:2 FTS	ND		0.50	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 320-497061/1  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_004.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 06/10/2021 04:20  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	106		25-150
STL01893	13C5 PFPeA	97		25-150
STL00993	13C2 PFHxA	98		25-150
STL01892	13C4 PFHpA	101		25-150
STL00990	13C4 PFOA	98		25-150
STL00995	13C5 PFNA	99		25-150
STL00996	13C2 PFDA	99		25-150
STL00997	13C2 PFUnA	104		25-150
STL00998	13C2 PFDoA	105		25-150
STL02116	13C2 PFTeDA	93		25-150
STL02337	13C3 PFBS	101		25-150
STL00994	18O2 PFHxS	105		25-150
STL00991	13C4 PFOS	102		25-150
STL01056	13C8 FOSA	106		25-150
STL02118	d3-NMeFOSAA	111		25-150
STL02117	d5-NEtFOSAA	117		25-150
STL02279	M2-6:2 FTS	103		25-150
STL02280	M2-8:2 FTS	115		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_004.d  
 Lims ID: CCB  
 Client ID:  
 Sample Type: CCB  
 Inject. Date: 10-Jun-2021 04:20:31 ALS Bottle#: 50 Worklist Smp#: 1  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: CCB (03)  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:53:16 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 07:53:16  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120805.b\2021.06.09\_A15\_PFC+\_D\_059.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.750	0.765	-0.015	0.324	858	0.002813		2.5	
D 9 13C4 PFBA	217.00 > 172.00	2.319	2.319	0.0	0.604	7256602	1.33	106	79981	
D 17 13C5 PFPeA	267.90 > 223.00	2.661	2.661	0.0	0.693	6235292	1.21	96.7	64004	
D 21 13C3 PFBS	301.90 > 80.00	2.694	2.682	0.012	0.701	4242345	1.18	101	24021	
D 27 M2-4:2 FTS	329.00 > 81.00	2.992	2.984	0.008	0.779	1380291	1.44	123	15004	
29 Perfluorohexanoic acid	313.00 > 269.00	3.028	3.019	0.009	1.000	32707	0.005834	Target=13.70	65.8	
	313.00 > 119.00	3.037	3.019	0.018	1.003	2933		11.15(6.85-20.55)	11.4	
D 28 13C2 PFHxA	315.00 > 270.00	3.028	3.019	0.009	0.788	6255401	1.23	98.0	75697	
31 PFO3OA	311.10 > 85.20	3.116	3.087	0.029	1.029	256	0.001483		4.9	
D 32 13C3 HFPO-DA	287.00 > 169.00	3.156	3.156	0.0	0.821	1031256	1.14	91.0	22563	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.442	3.433	0.009	1.000	12516	0.004208	Target=3.52	137	
	399.00 > 99.00	3.442	3.433	0.009	1.000	2998		4.17(1.76-5.27)	39.3	
D 38 18O2 PFHxS	403.00 > 84.00	3.442	3.433	0.009	0.896	3180609	1.24	105	34378	
D 37 13C4 PFHpA	367.00 > 322.00	3.433	3.433	0.0	0.893	6359037	1.27	101	115815	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
46 6:2 FTUCA										
356.86 > 292.90	3.553	3.536	0.017	0.995	2729	0.000449	Target=13.99	44.1		
356.86 > 243.00	3.527	3.536	-0.009	0.988	293		9.31(7.00-20.99)	12.2		
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.545	3.536	0.009	0.922	5971227	1.37		109	287280	
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.571	3.562	0.008	0.929	429494	1.60		128	5983	
53 6:2 FTS										
427.00 > 407.00	3.824	3.814	0.010	1.000	6902	0.002802	Target=2.13	26.2		
427.00 > 79.96	3.833	3.814	0.019	1.002	3070		2.25(1.07-3.20)	11.0		
D 52 M2-6:2 FTS										
429.00 > 81.00	3.824	3.814	0.010	0.995	1420032	1.22		103	18750	
* 57 13C2 PFOA										
415.00 > 370.00	3.843	3.834	0.009		6848578	1.25		84395		
58 Perfluorooctanoic acid										
413.00 > 369.00	3.843	3.834	0.009	1.000	12896	0.002203	Target=2.92	15.2		M
413.00 > 169.00	3.843	3.834	0.009	1.000	5462		2.36(1.46-4.38)	47.9		M
\$ 55 13C8 PFOA										
421.00 > 376.00	3.843	3.834	0.009	1.000	7542343	1.18		94.4	57840	
D 56 13C4 PFOA										
417.00 > 372.00	3.843	3.834	0.009	1.000	7001460	1.23		98.0	61111	
59 TAF										
442.90 > 85.00	4.209	4.116	0.093	1.095	260	0.003000		4.9		
\$ 60 13C8 PFOS										
507.00 > 99.00	4.209	4.201	0.008	1.095	677144	1.13		94.6	10922	
D 61 13C4 PFOS										
503.00 > 80.00	4.209	4.201	0.008	1.095	2448314	1.22		102	27134	
D 63 13C5 PFNA										
468.00 > 423.00	4.225	4.217	0.008	1.099	6735375	1.23		98.7	93561	
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.338	4.331	0.007	1.129	7075533	1.31		105	133652	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.354	4.347	0.008	1.133	389602	1.58		126	11573	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.179	4466751	1.32		106	40749	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	2291	0.000639		58.2		
D 74 13C2 PFDA										
515.00 > 470.00	4.569	4.559	0.010	1.189	6723199	1.23		98.5	85415	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.569	0.0	1.189	2485915	1.37		115	30879	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.728	4.718	0.010	1.230	3206227	1.39		111	25979	
D 82 13C2 PFUnA										
565.00 > 520.00	4.882	4.872	0.010	1.270	6869146	1.31		104	107850	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.891	4.882	0.009	1.273	3349171	1.46		117	36316	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 85 d7-N-MeFOSE-M	623.00 > 59.00	4.976	4.967	0.009	1.295	1792922	1.30	104	6893	
D 87 d-N-MeFOSA-M	515.00 > 169.00	5.005	4.995	0.010	1.302	1248321	1.23	98.7	355	
D 88 13C-10:2 FTCA	558.86 > 493.90	5.005	4.995	0.010	1.302	9136900	1.44	115	418597	
D 91 13C-10:2 FTUCA	578.80 > 493.90	5.014	5.005	0.009	1.305	295718	1.59	127	6761	
D 94 d9-N-EtFOSE-M	639.00 > 59.00	5.146	5.137	0.009	1.339	2027645	1.32	106	9965	
D 97 13C2 PFDaA	615.00 > 570.00	5.165	5.156	0.009	1.344	7503203	1.32	105	81508	
D 96 d-N-EtFOSA-M	531.00 > 169.00	5.174	5.165	0.009	1.346	1218438	1.23	98.1	2732	
D 100 13C2 10:2 FTS	633.00 > 612.00	5.182	5.174	0.008	1.349	2143691	1.47	122	70140	
101 10:2 FTS	627.00 > 607.00	5.191	5.183	0.008	1.002	9648	0.003573 Target=1.46		496	
	627.00 > 79.96	5.191	5.183	0.008	1.002	6410	1.51(0.73-2.20)		58.1	
D 104 13C2 PFTeDA	715.00 > 670.00	5.668	5.658	0.010	1.475	6071804	1.16	92.6	68897	
105 Perfluorotetradecanoic acid	713.00 > 169.00	5.658	5.658	0.0	0.998	1071	0.001794 Target=1.05		25.6	M
	713.00 > 219.00	5.658	5.658	0.0	0.998	720	1.49(0.53-1.58)		24.7	M
D 106 13C2 PFHxDA	815.00 > 770.00	6.105	6.085	0.020	1.589	5690947	1.42	113	33156	
107 Perfluorohexadecanoic acid	813.00 > 769.00	6.105	6.095	0.010	1.000	50767	-0.001368 Target=7.68		115	
	813.00 > 169.00	6.095	6.095	0.0	0.998	6552	7.75(3.84-11.51)		153	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC+\_LL0\_00002

Amount Added: 1.00

Units: mL

Data File: \\chromf\sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_004.d

Injection Date: 10-Jun-2021 04:20:31

Instrument ID: A15

Lims ID: CCB

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 50

Worklist Smp#: 1

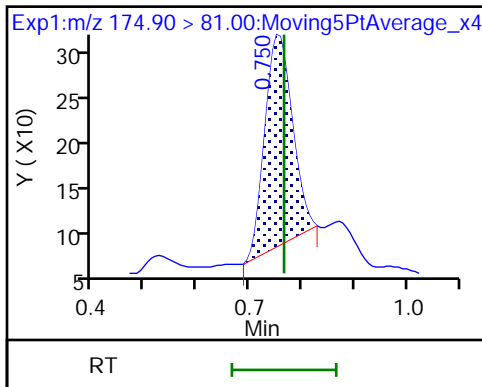
Injection Vol: 20.0 ul

Dil. Factor: 1.0000

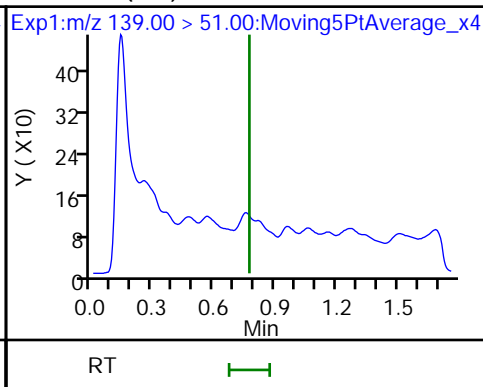
Method: PFAS+\_A15

Limit Group: LC PFC ICAL

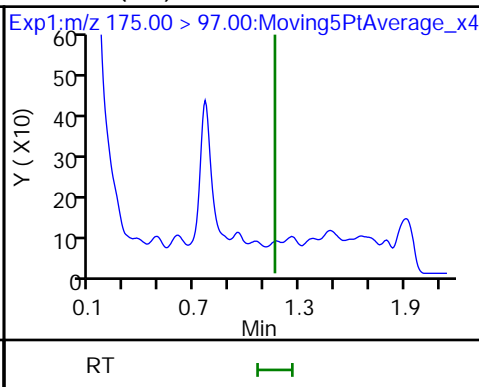
1 DFSA



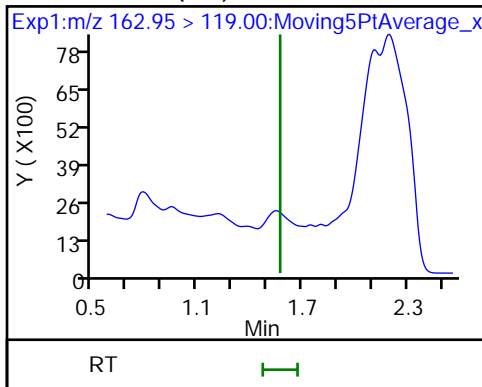
2 MMF (ND)



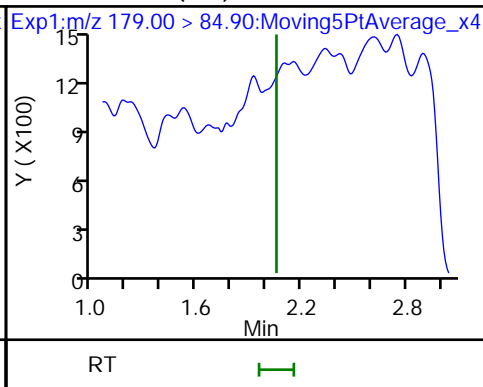
3 MTP (ND)



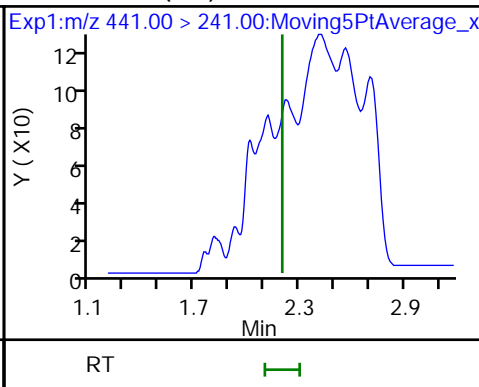
4 PPF Acid (ND)



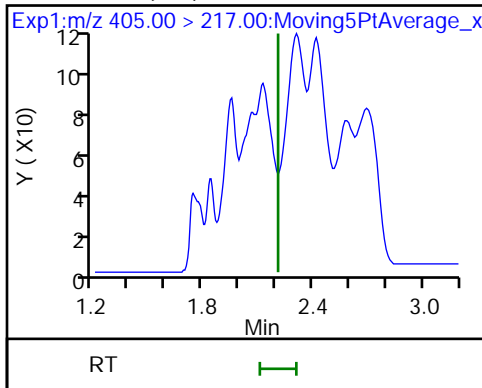
5 PFMOAA (ND)



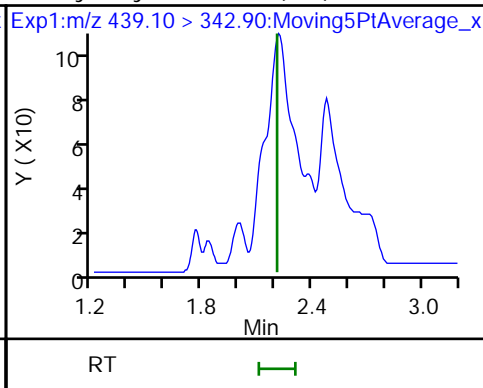
6 R-PSDA (ND)



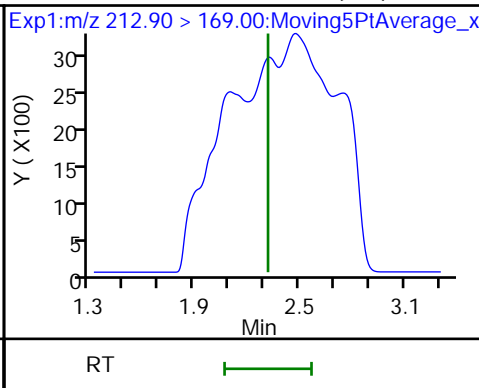
7 R-EVE (ND)



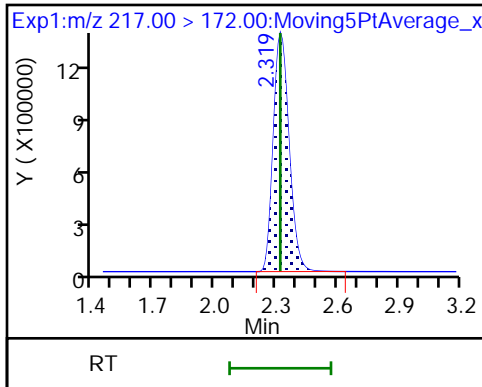
8 Hydrolyzed PSDA (ND)



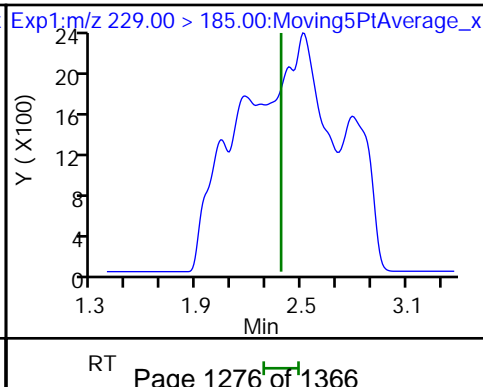
10 Perfluorobutanoic acid (ND)



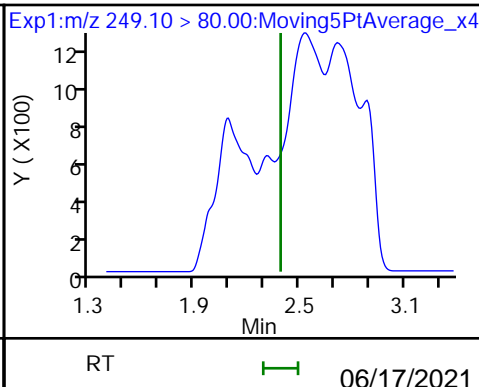
D 9 13C4 PFBA

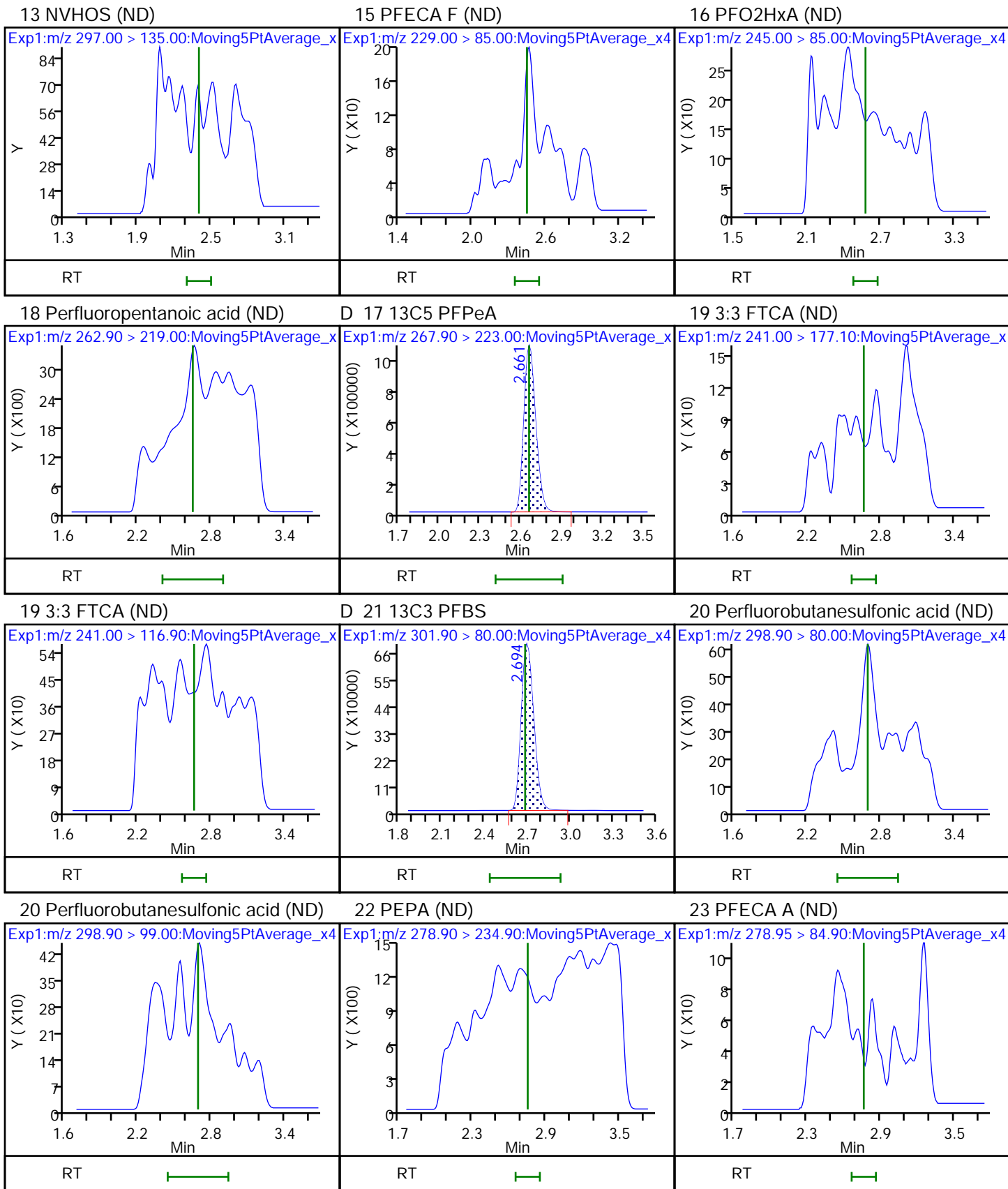


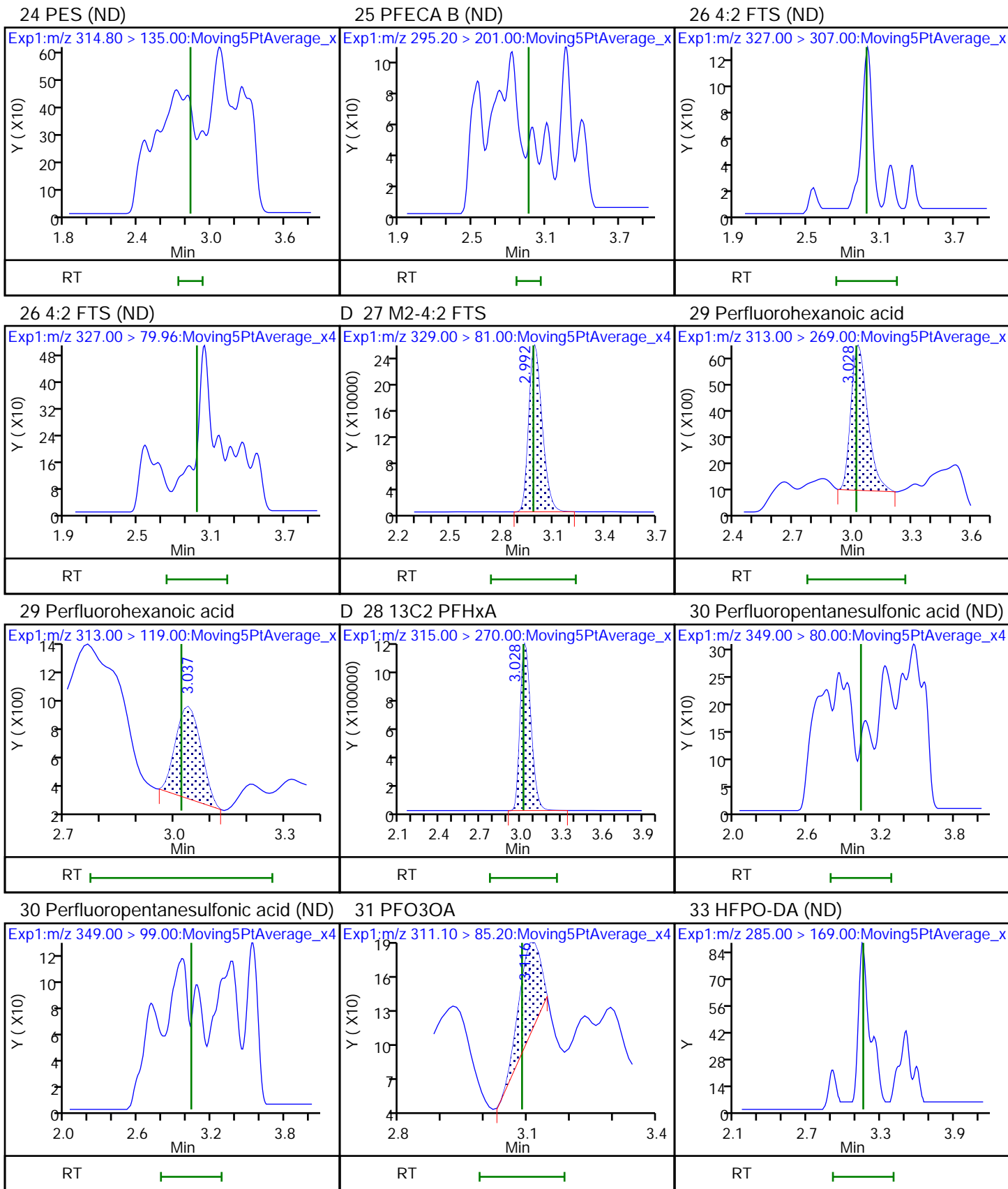
11 PMPA (ND)

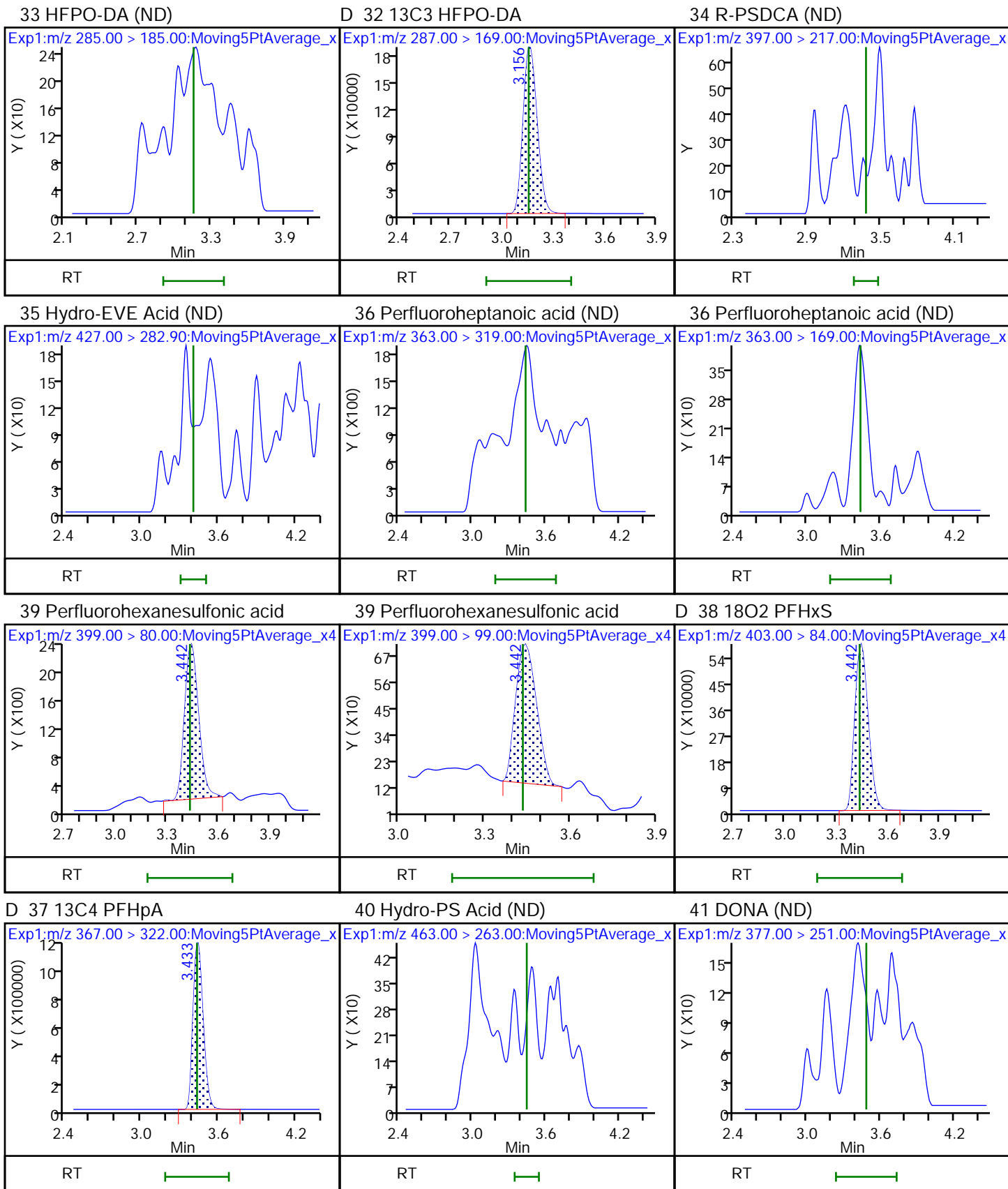


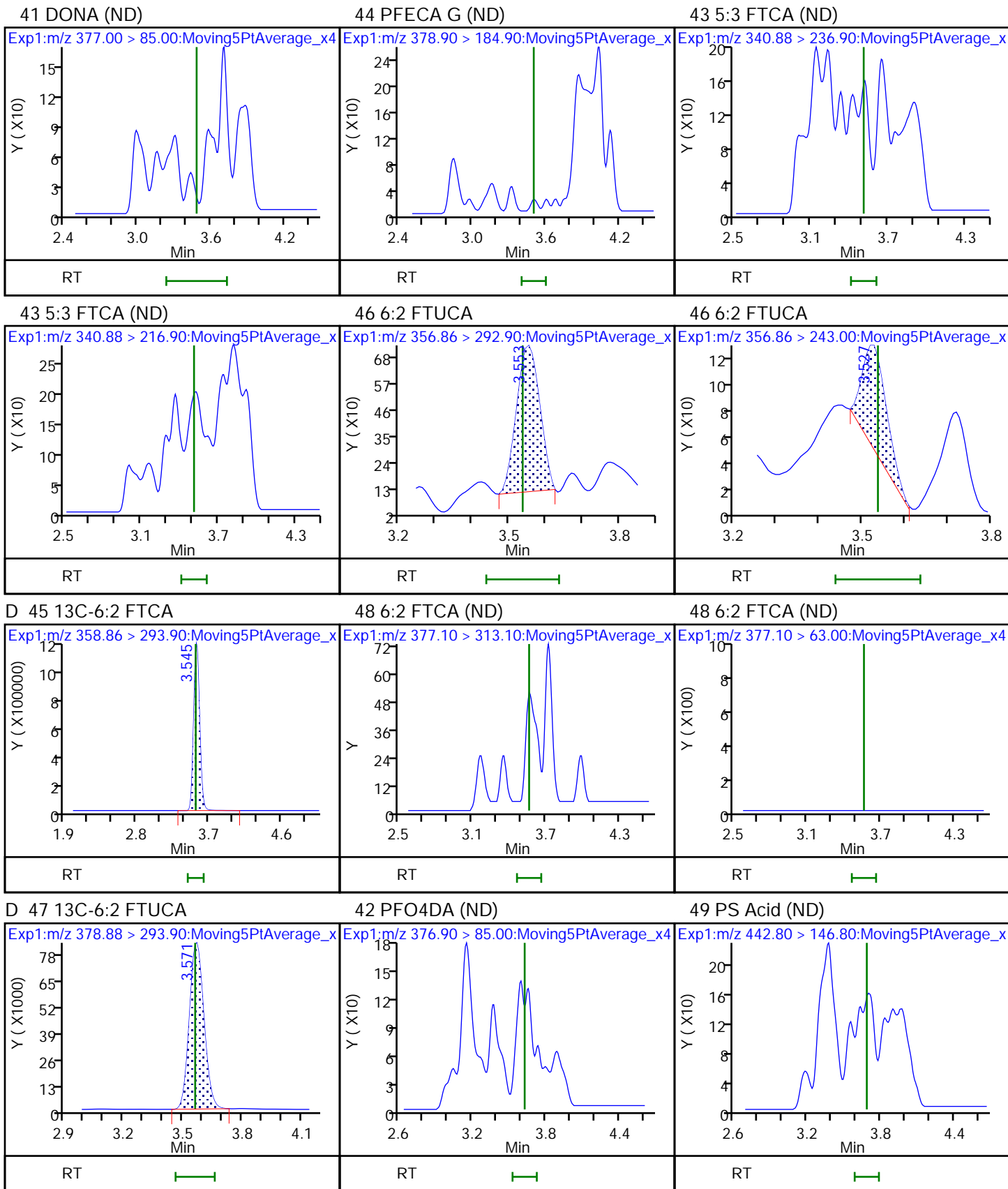
12 PFPrS (ND)

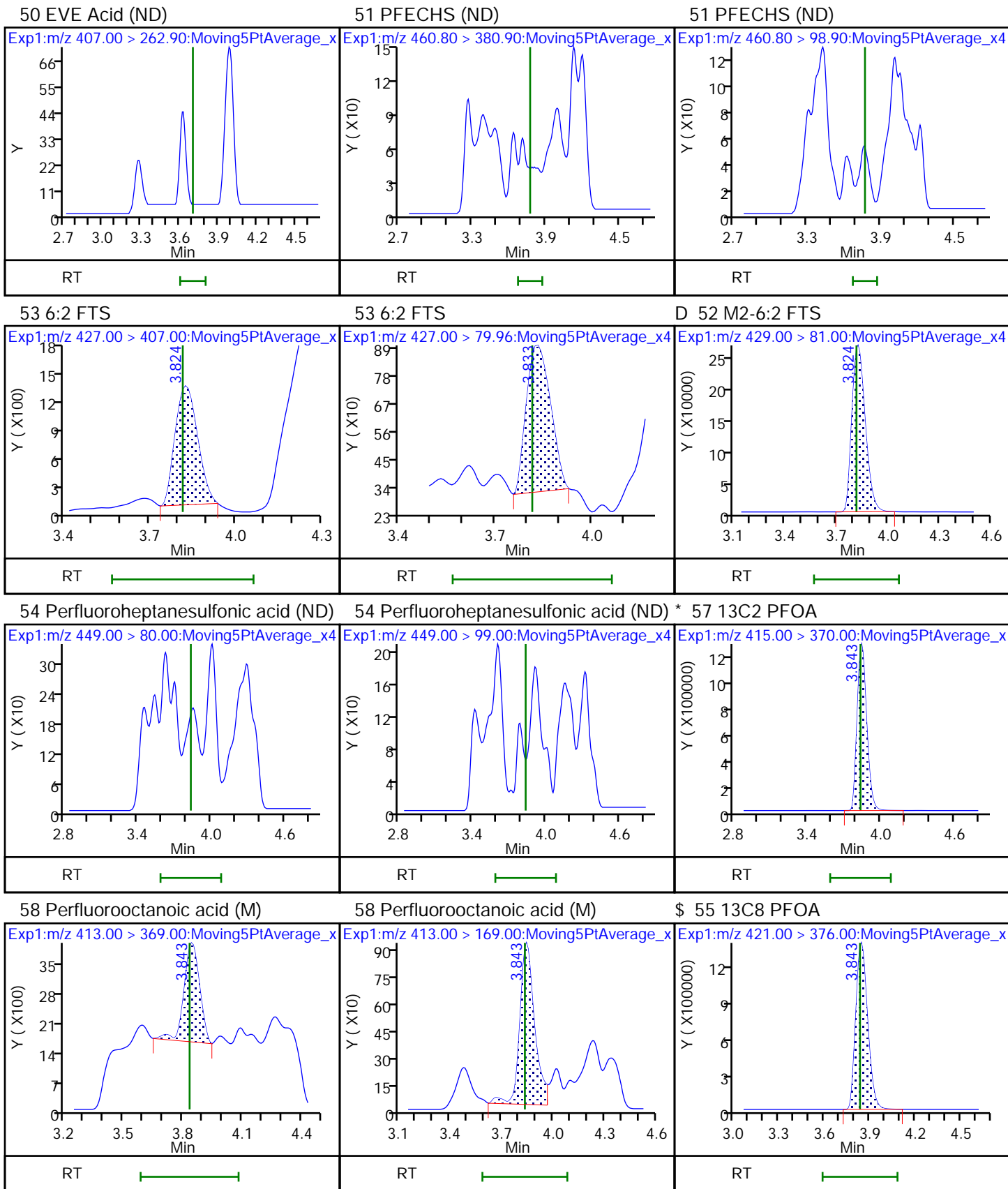










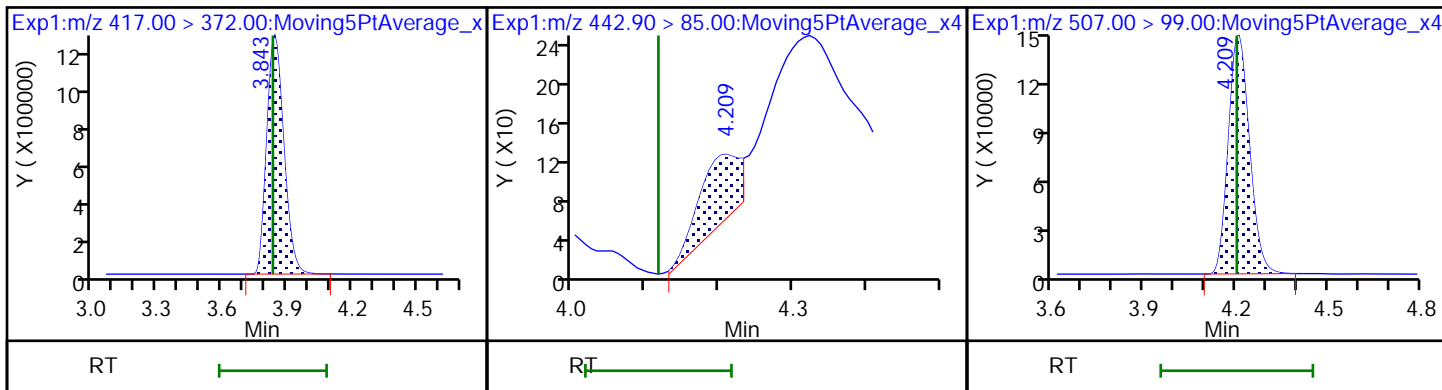




D 56 13C4 PFOA

59 TAF

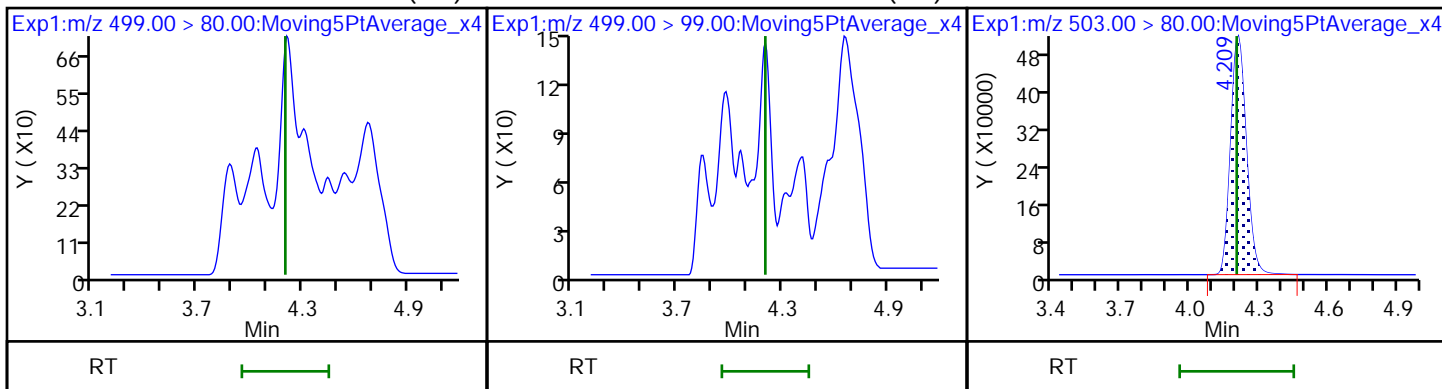
\$ 60 13C8 PFOS



62 Perfluorooctanesulfonic acid (ND)

62 Perfluorooctanesulfonic acid (ND)

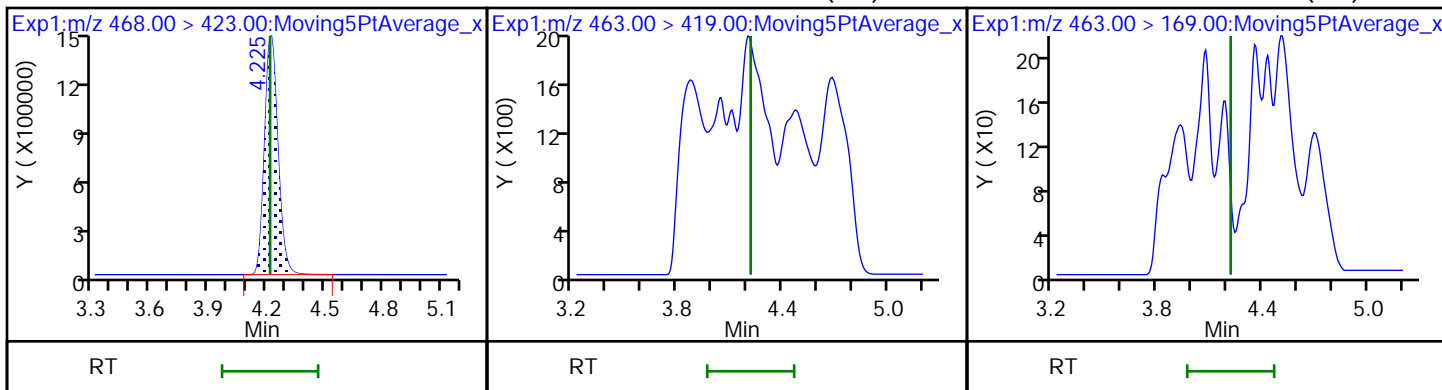
D 61 13C4 PFOS



D 63 13C5 PFNA

64 Perfluorononanoic acid (ND)

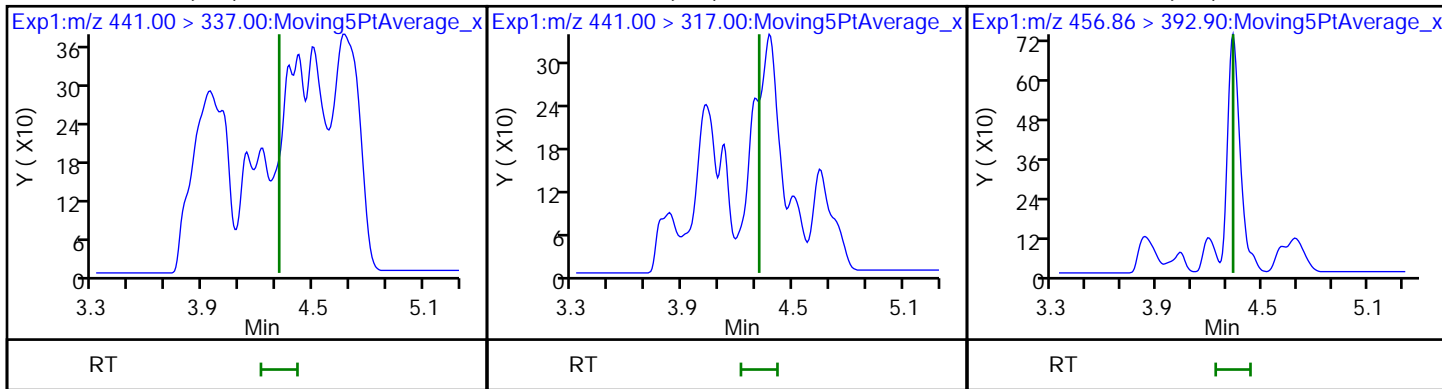
64 Perfluorononanoic acid (ND)

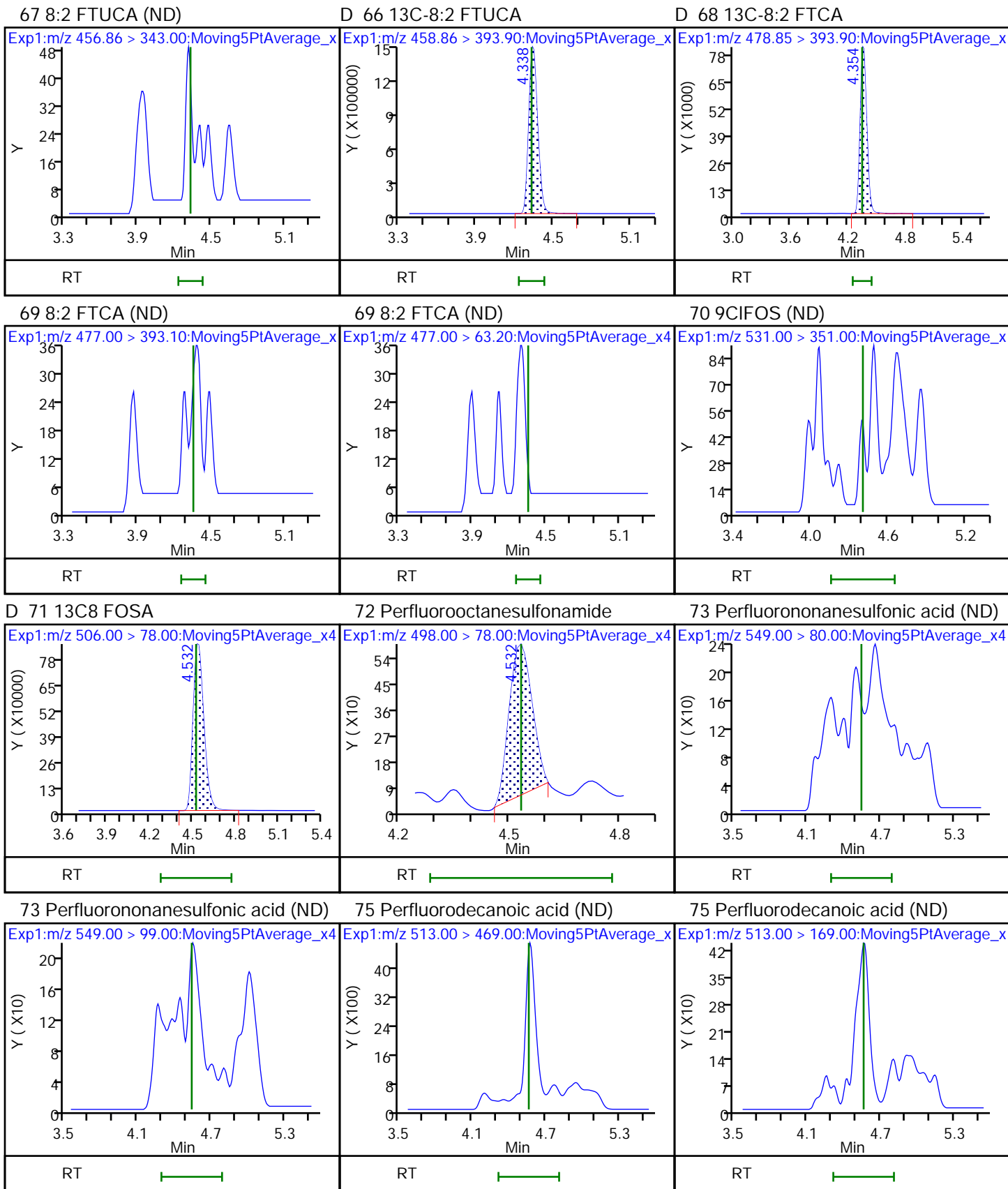


65 7:3 FTCA (ND)

65 7:3 FTCA (ND)

67 8:2 FTUCA (ND)

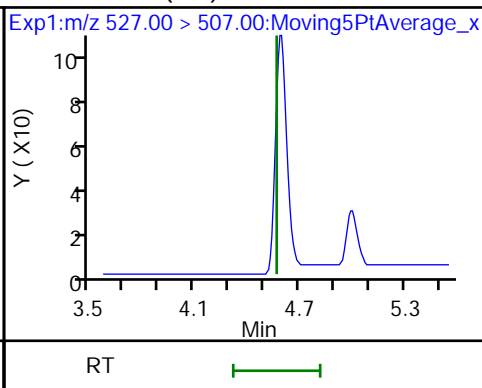
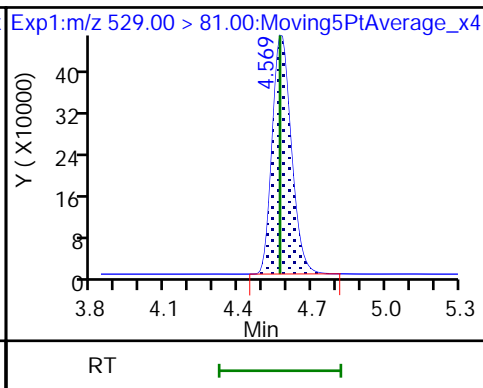
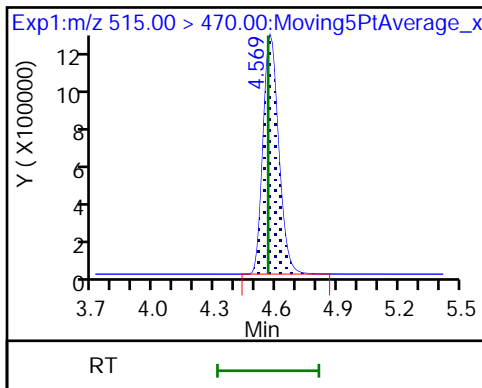




D 74 13C2 PFDA

D 76 M2-8:2 FTS

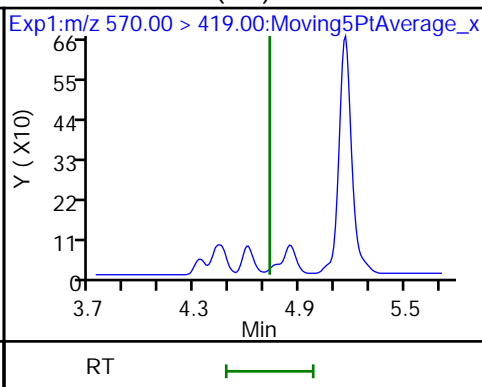
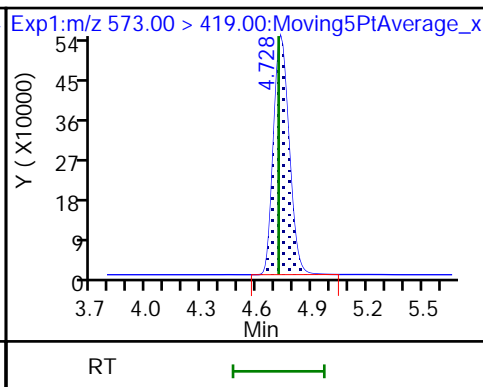
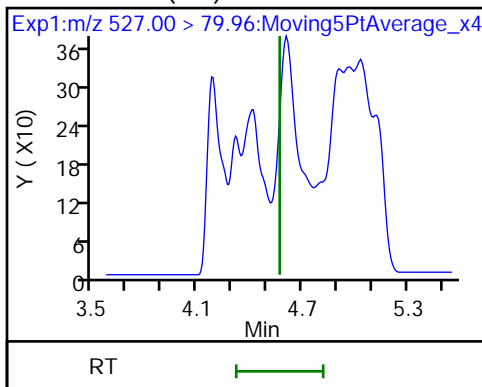
77 8:2 FTS (ND)



77 8:2 FTS (ND)

D 78 d3-NMeFOSAA

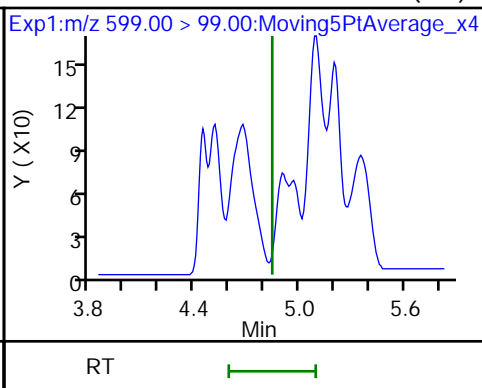
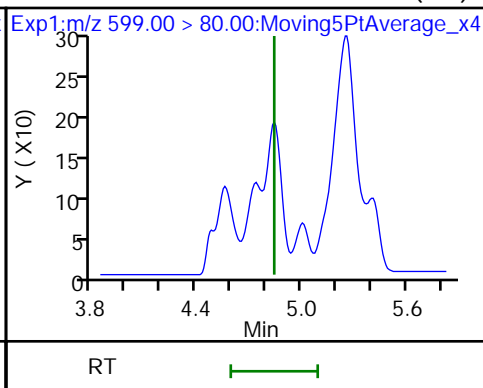
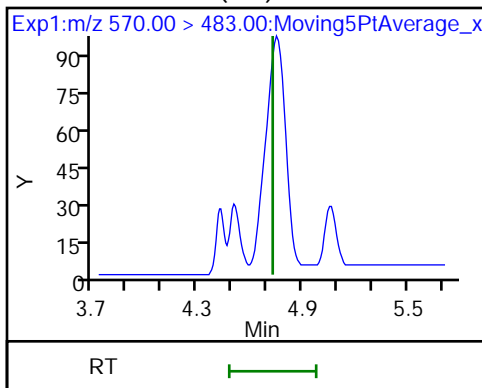
79 NMeFOSAA (ND)



79 NMeFOSAA (ND)

80 Perfluorodecanesulfonic acid (ND)

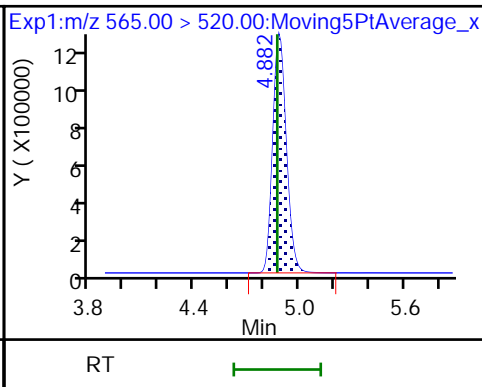
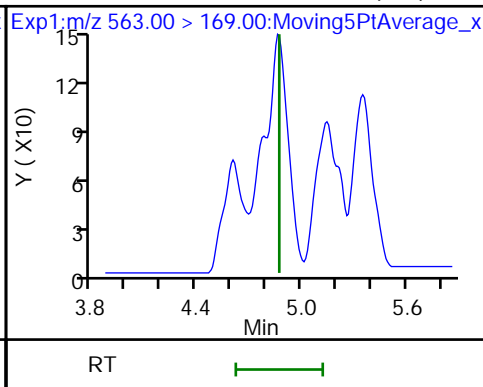
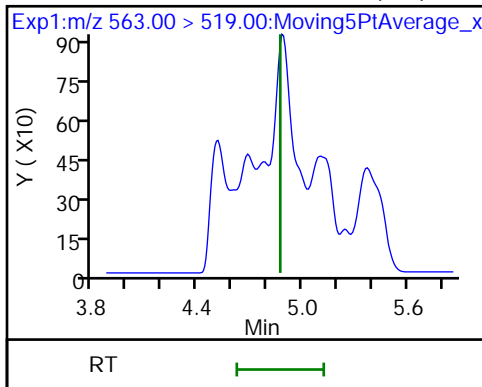
80 Perfluorodecanesulfonic acid (ND)



81 Perfluoroundecanoic acid (ND)

81 Perfluoroundecanoic acid (ND)

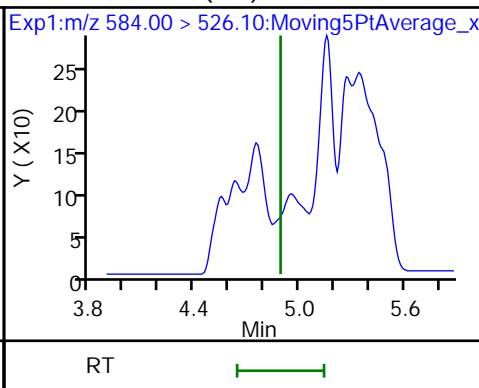
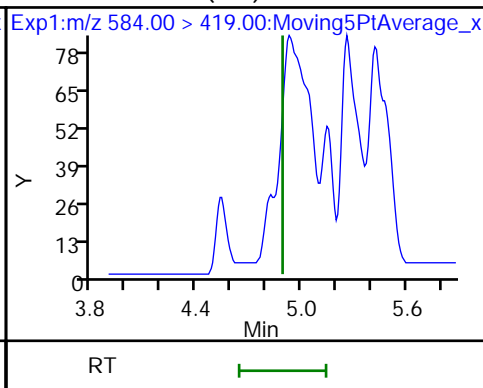
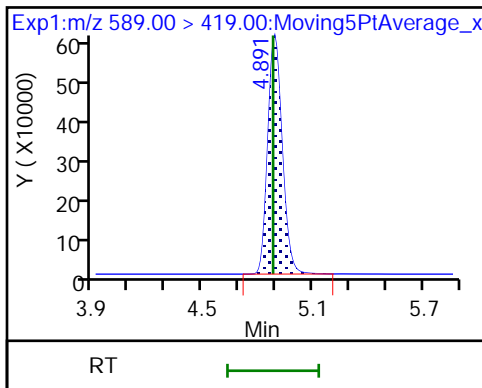
D 82 13C2 PFCUnA



D 83 d5-NEtFOSAA

84 NEtFOSAA (ND)

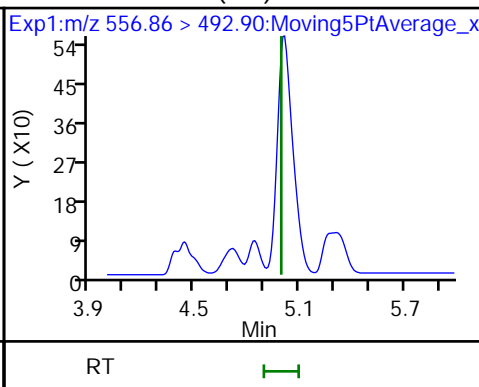
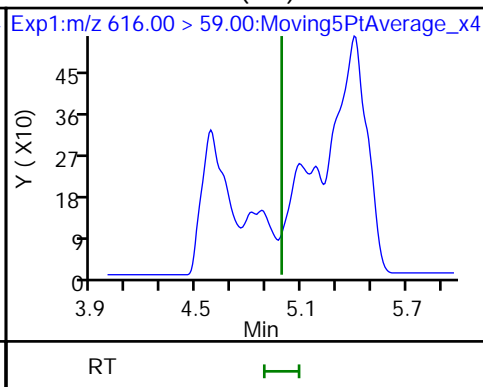
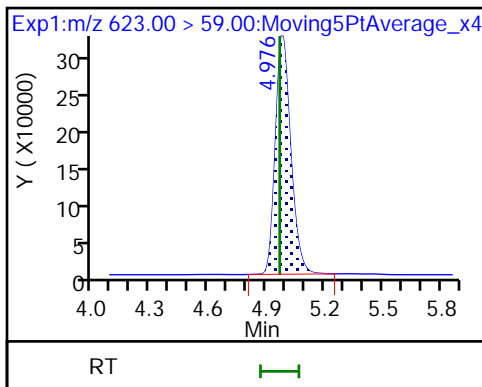
84 NEtFOSAA (ND)



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M (ND)

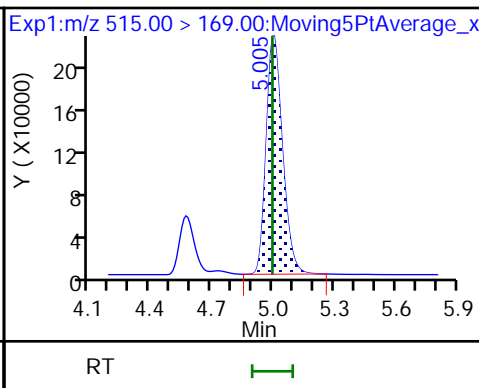
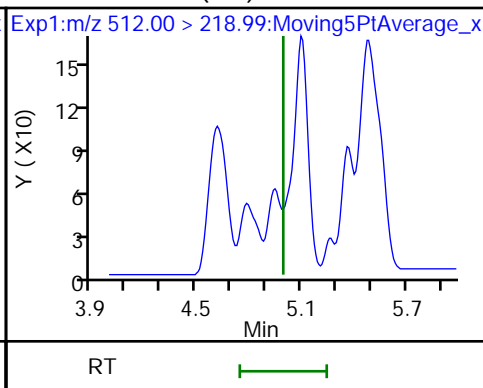
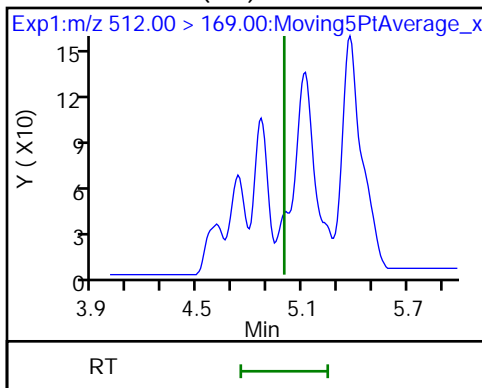
89 10:2 FTUCA (ND)



90 NMeFOSA (ND)

90 NMeFOSA (ND)

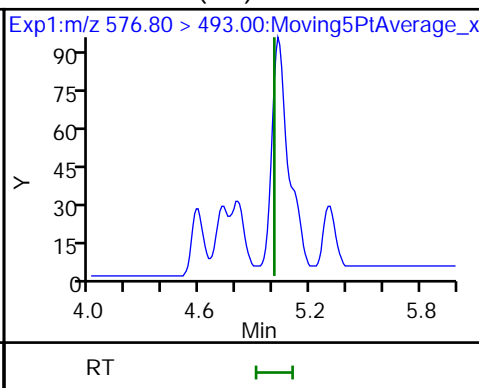
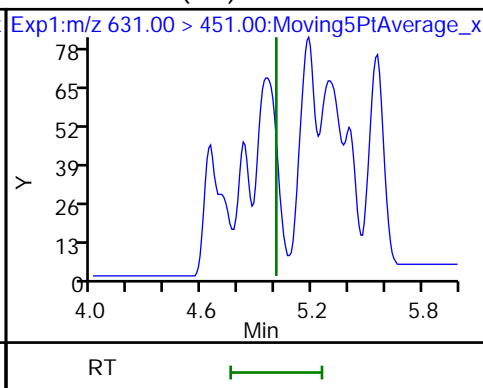
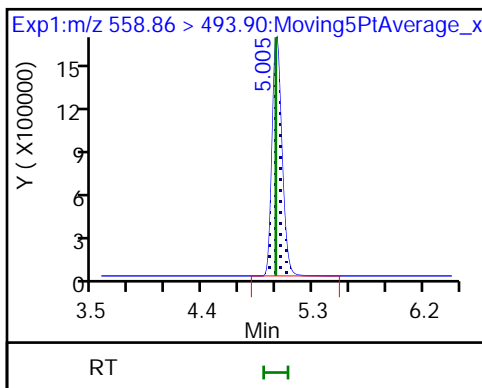
D 87 d-N-MeFOSA-M



D 88 13C-10:2 FTCA

93 11C1FOS (ND)

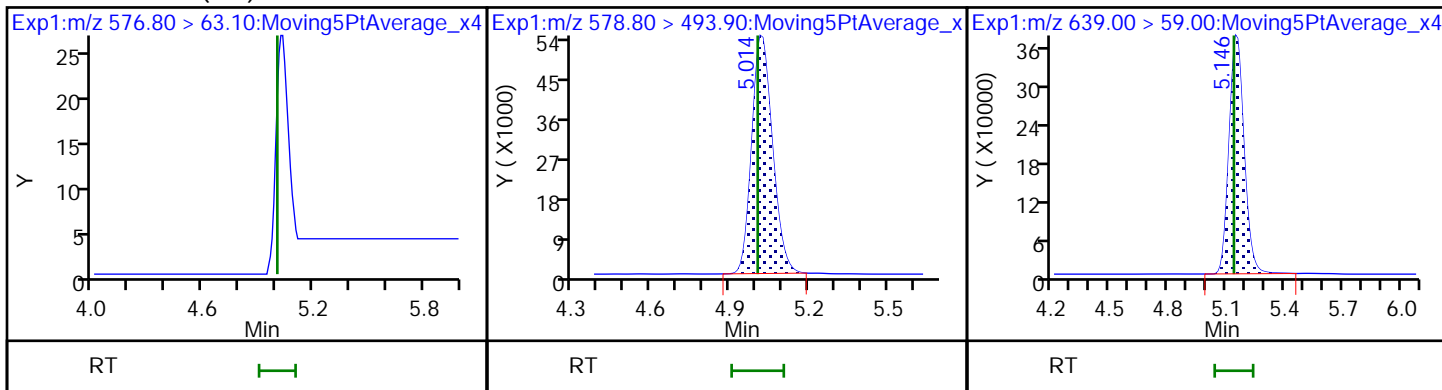
92 10:2 FTCA (ND)



92 10:2 FTCA (ND)

D 91 13C-10:2 FTUCA

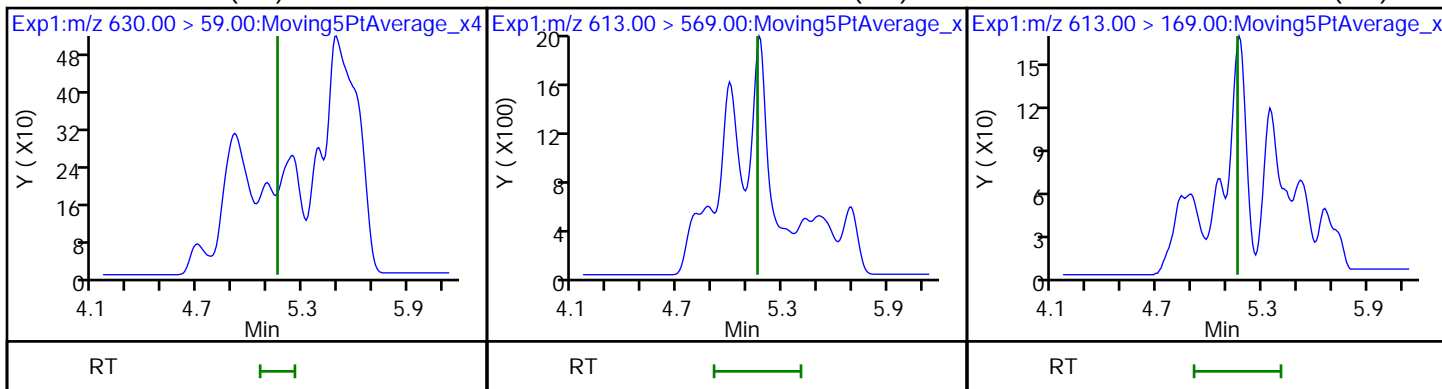
D 94 d9-N-EtFOSE-M



95 N-EtFOSE-M (ND)

98 Perfluorododecanoic acid (ND)

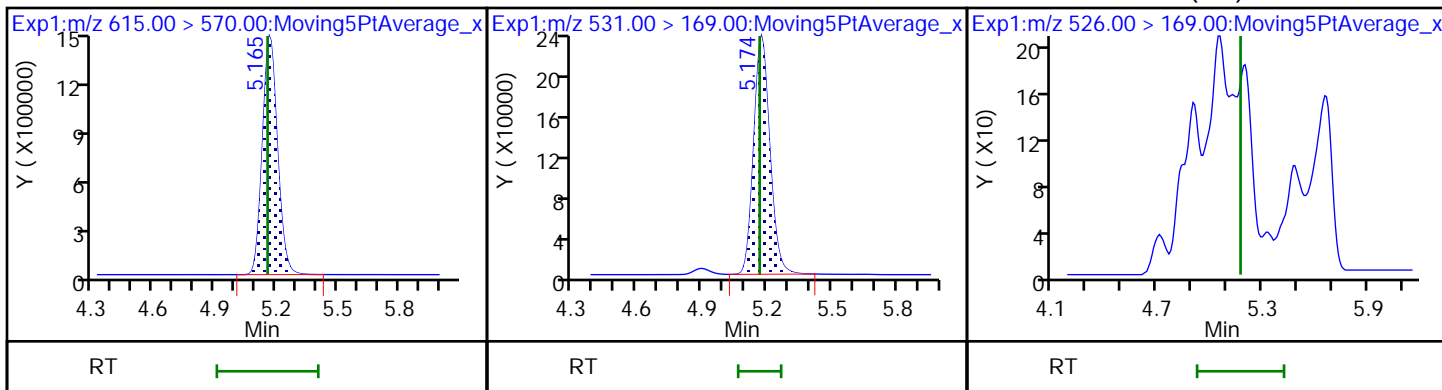
98 Perfluorododecanoic acid (ND)



D 97 13C2 PFDoA

D 96 d-N-EtFOSA-M

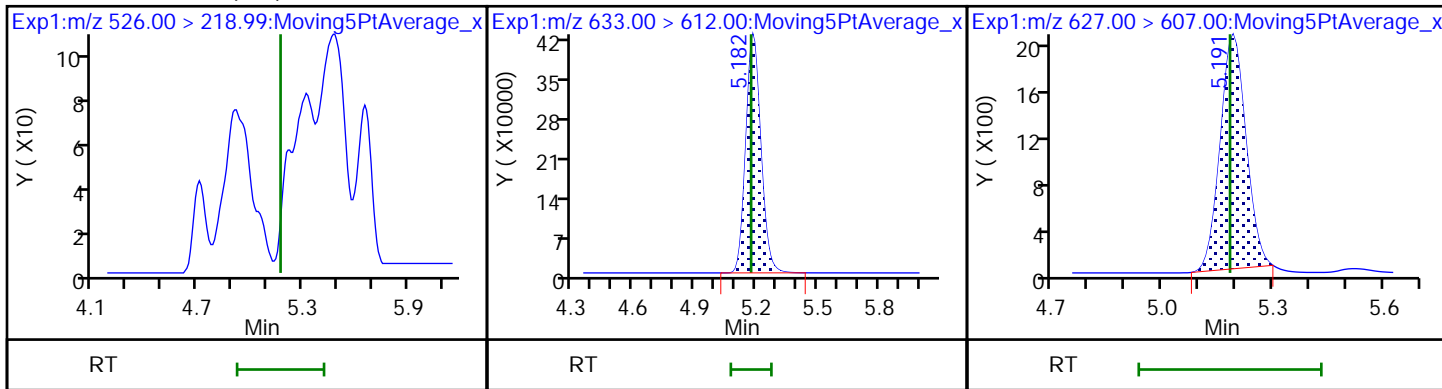
99 N-EtFOSA-M (ND)



99 N-EtFOSA-M (ND)

D 100 13C2 10:2 FTS

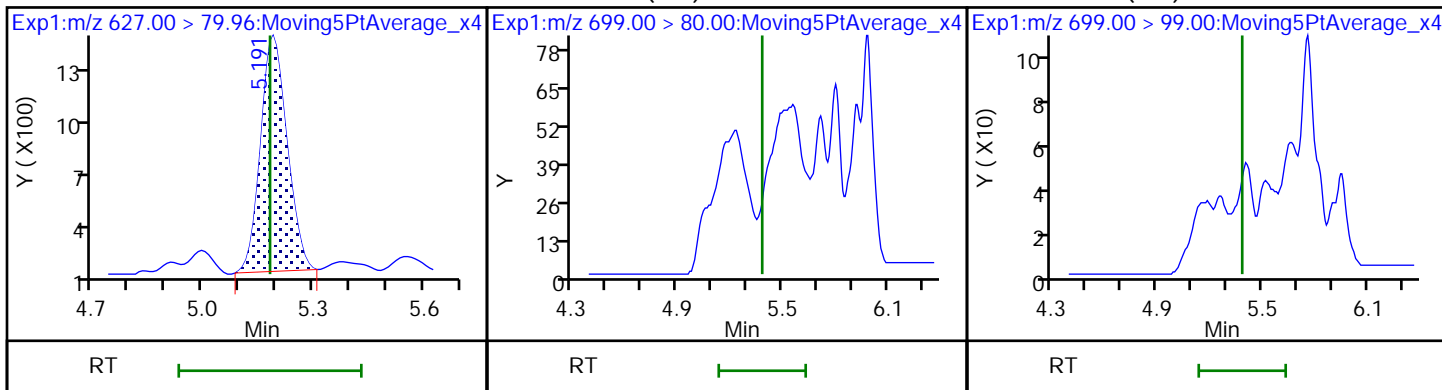
101 10:2 FTS



101 10:2 FTS

102 PFDoS (ND)

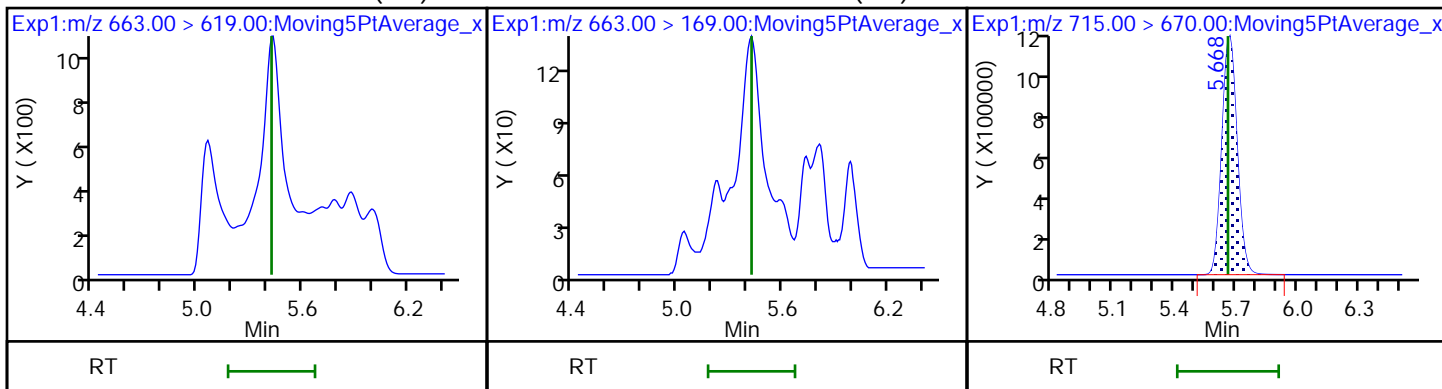
102 PFDoS (ND)



103 Perfluorotridecanoic acid (ND)

103 Perfluorotridecanoic acid (ND)

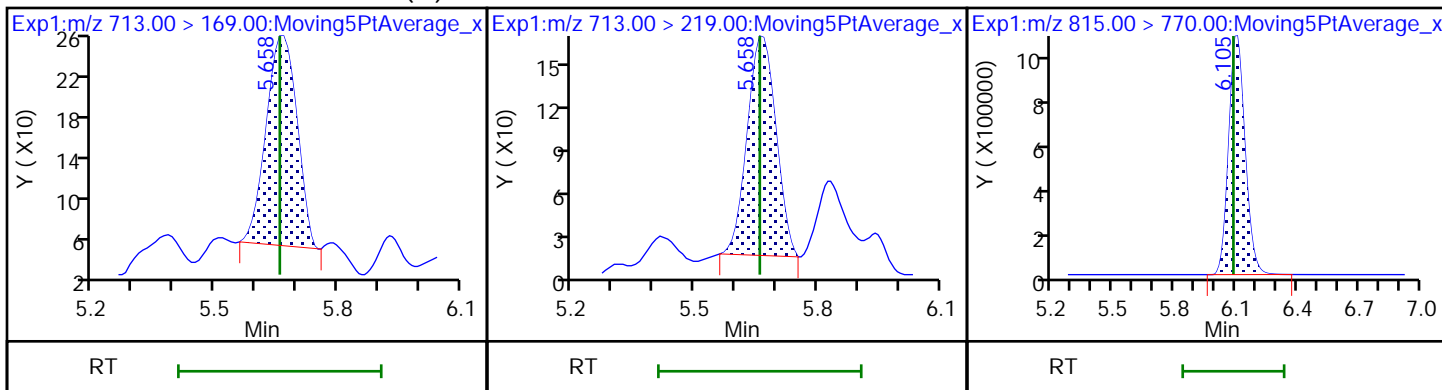
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid (M)

105 Perfluorotetradecanoic acid

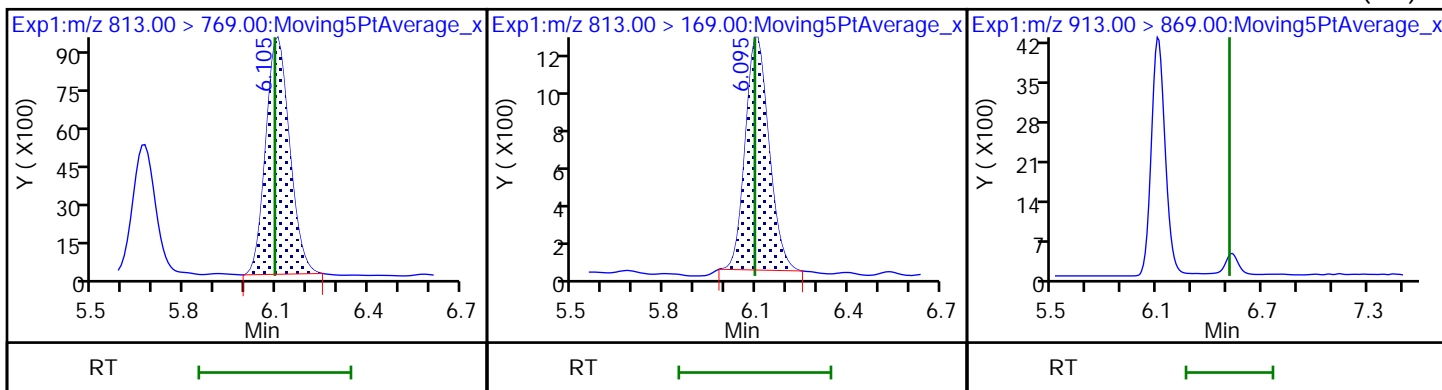
D 106 13C2 PFHxDA



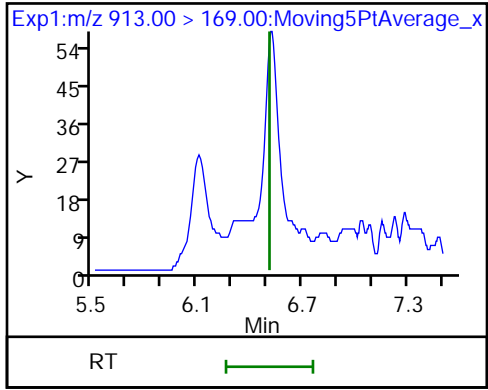
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid (ND)



108 Perfluorooctadecanoic acid (ND)



Eurofins TestAmerica, Sacramento

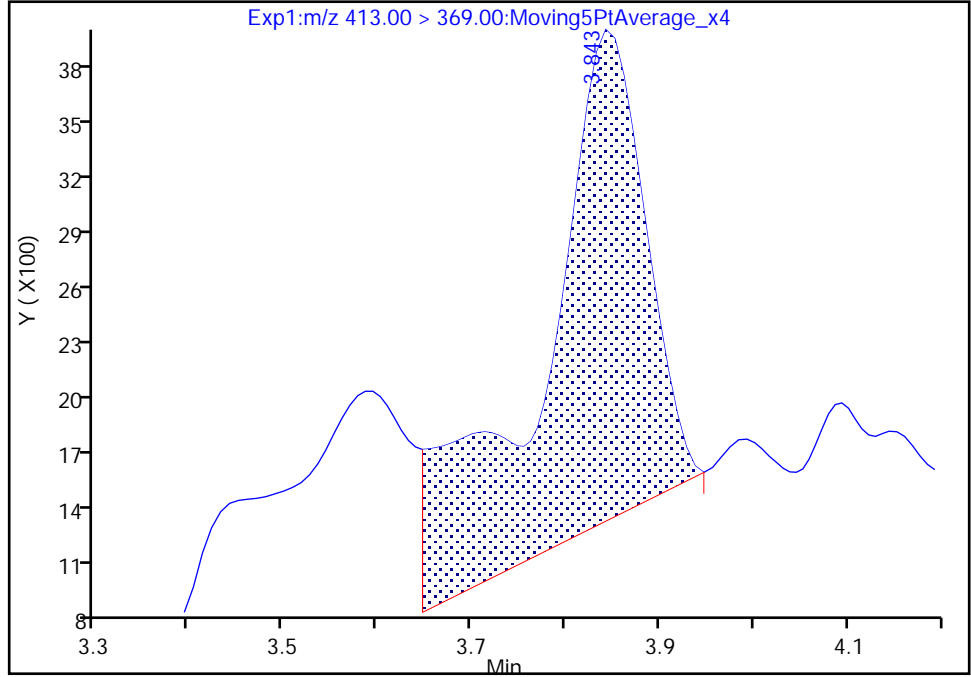
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_004.d  
Injection Date: 10-Jun-2021 04:20:31 Instrument ID: A15  
Lims ID: CCB  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 50 Worklist Smp#: 1  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

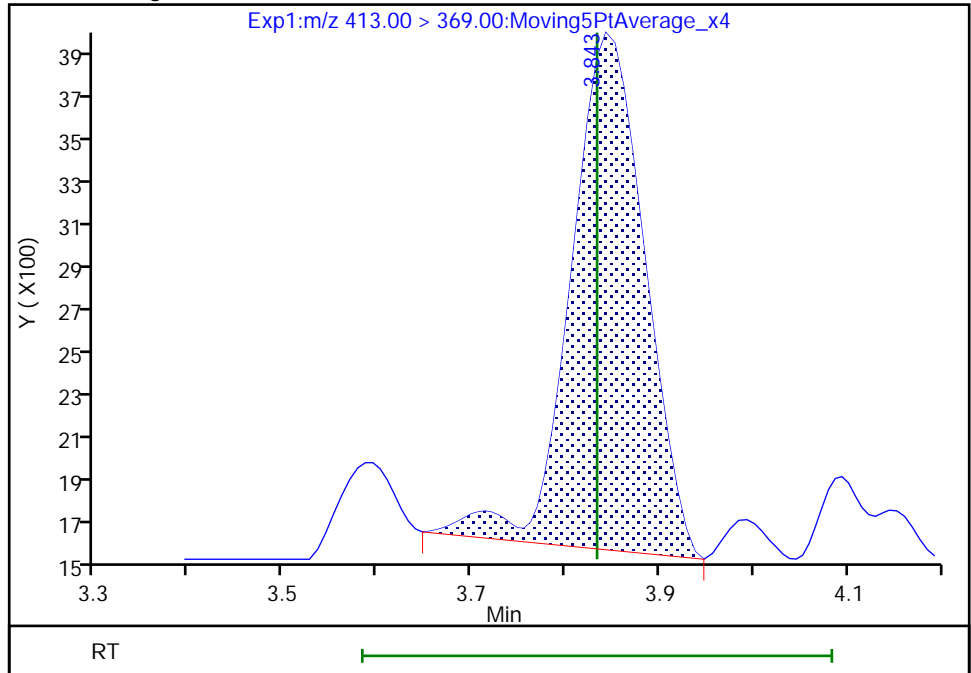
RT: 3.84  
Area: 20813  
Amount: 0.003556  
Amount Units: ng/ml

Processing Integration Results



RT: 3.84  
Area: 12896  
Amount: 0.002203  
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 07:52:46  
Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins TestAmerica, Sacramento

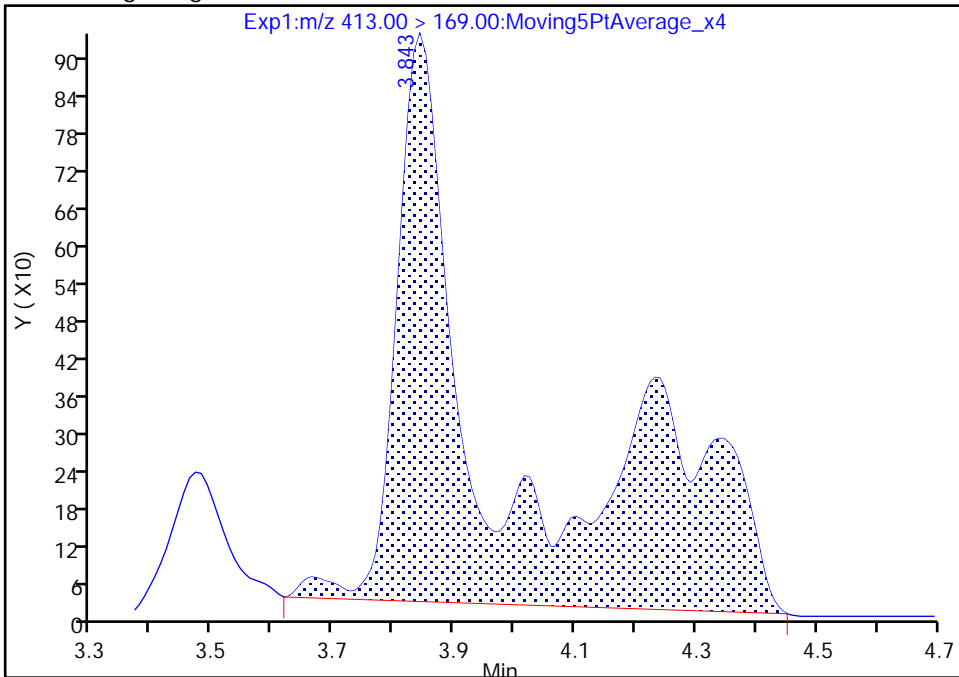
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_004.d  
 Injection Date: 10-Jun-2021 04:20:31 Instrument ID: A15  
 Lims ID: CCB  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 50 Worklist Smp#: 1  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm ( 3.00um) Detector: EXP1

58 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

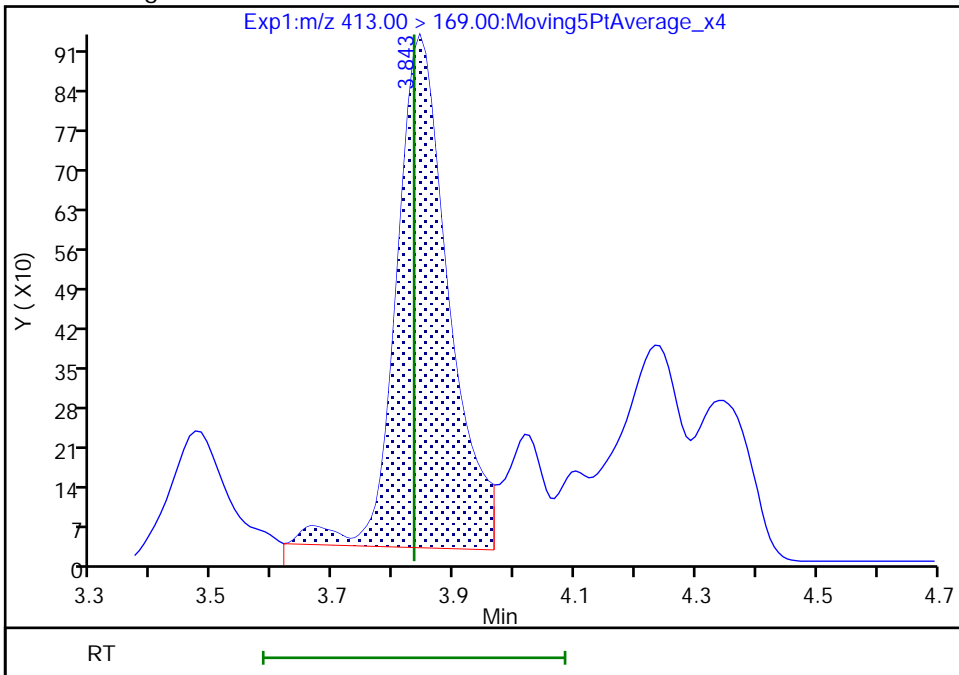
RT: 3.84  
 Area: 11072  
 Amount: 0.003556  
 Amount Units: ng/ml

Processing Integration Results



RT: 3.84  
 Area: 5462  
 Amount: 0.002203  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 07:52:50

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins TestAmerica, Sacramento

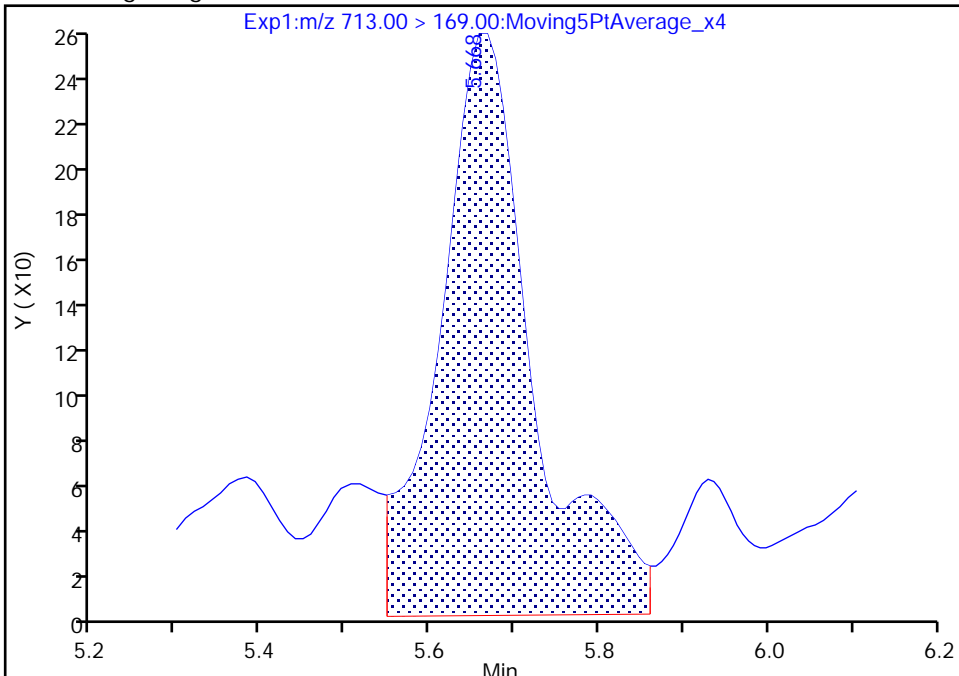
Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_004.d  
 Injection Date: 10-Jun-2021 04:20:31 Instrument ID: A15  
 Lims ID: CCB  
 Client ID:  
 Operator ID: SACINSTA15 ALS Bottle#: 50 Worklist Smp#: 1  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
 Column: Gemini C18 3um 3mm x 50 mm (3.0um) Detector: EXP1

105 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

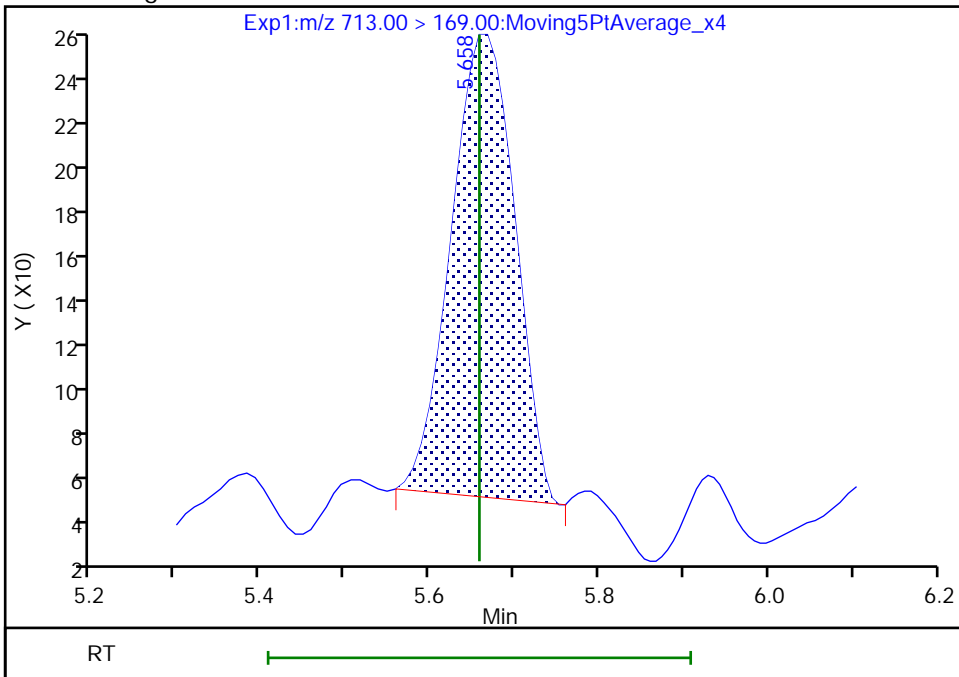
RT: 5.67  
 Area: 1955  
 Amount: 0.003274  
 Amount Units: ng/ml

Processing Integration Results



RT: 5.66  
 Area: 1071  
 Amount: 0.001794  
 Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 11-Jun-2021 07:53:12  
 Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: ICB 320-494451/9  
 Matrix: Water Lab File ID: 2021.06.01\_A15\_PFC+\_ICAL\_011.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 06/01/2021 15:11  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 494451 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	ND		0.050	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		0.050	
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		0.050	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.050	
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.050	
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.050	
335-76-2	Perfluorodecanoic acid (PFDA)	ND		0.050	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		0.050	
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		0.050	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		0.050	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		0.050	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.050	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		0.050	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		0.050	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		0.050	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		0.050	
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		0.050	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.50	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.50	
27619-97-2	6:2 FTS	ND		0.50	
39108-34-4	8:2 FTS	ND		0.50	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: ICB 320-494451/9  
 Matrix: Water Lab File ID: 2021.06.01\_A15\_PFC+\_ICAL\_011.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 06/01/2021 15:11  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 494451 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	104		25-150
STL01893	13C5 PFPeA	95		25-150
STL00993	13C2 PFHxA	94		25-150
STL01892	13C4 PFHpA	98		25-150
STL00990	13C4 PFOA	99		25-150
STL00995	13C5 PFNA	98		25-150
STL00996	13C2 PFDA	97		25-150
STL00997	13C2 PFUnA	101		25-150
STL00998	13C2 PFDoA	100		25-150
STL02116	13C2 PFTeDA	87		25-150
STL02337	13C3 PFBS	98		25-150
STL00994	18O2 PFHxS	96		25-150
STL00991	13C4 PFOS	96		25-150
STL01056	13C8 FOSA	94		25-150
STL02118	d3-NMeFOSAA	97		25-150
STL02117	d5-NEtFOSAA	103		25-150
STL02279	M2-6:2 FTS	108		25-150
STL02280	M2-8:2 FTS	105		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_011.d  
 Lims ID: ICB  
 Client ID:  
 Sample Type: ICB  
 Inject. Date: 01-Jun-2021 15:11:21 ALS Bottle#: 8 Worklist Smp#: 9  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: ICB (3)  
 Misc. Info.: Plate: 4 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 02-Jun-2021 14:56:30 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1673

First Level Reviewer: melnikv Date: 02-Jun-2021 10:53:06  
 Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 DFSA	174.90 > 81.00	0.750	0.764	-0.014	0.322	1051	0.003576		2.9	
2 MMF	139.00 > 51.00	0.771	0.764	0.007	0.331	944	0.002183		0.7	
5 PFMOAA	179.00 > 84.90	2.127	2.084	0.043	0.913	4835	0.002628		0.9	
D 9 13C4 PFBA	217.00 > 172.00	2.330	2.338	-0.008	0.599	7466695	1.30	104	96008	
10 Perfluorobutanoic acid	212.90 > 169.00	2.490	2.338	0.152	1.069	7094	0.001255		3.5	
D 17 13C5 PFPeA	267.90 > 223.00	2.672	2.682	-0.010	0.687	6458166	1.19	95.2	56469	
D 21 13C3 PFBS	301.90 > 80.00	2.705	2.716	-0.011	0.695	4295824	1.14	97.7	27690	
D 27 M2-4:2 FTS	329.00 > 81.00	3.018	3.018	0.0	0.776	1220631	1.21	104	11306	
D 28 13C2 PFHxA	315.00 > 270.00	3.057	3.056	0.001	0.786	6289045	1.17	93.7	66285	
29 Perfluorohexanoic acid	313.00 > 269.00	3.057	3.056	0.001	1.000	29018	0.005149	Target=13.89	53.3	M
	313.00 > 119.00	3.077	3.056	0.021	1.006	2055		14.12(6.95-20.84)	20.4	M
D 32 13C3 HFPO-DA	287.00 > 169.00	3.197	3.197	0.0	0.822	1046974	1.10	87.8	31264	
D 38 18O2 PFHxS	403.00 > 84.00	3.481	3.480	0.001	0.895	3048731	1.13	95.9	50453	
D 37 13C4 PFHpA	367.00 > 322.00	3.471	3.480	-0.009	0.892	6491741	1.23	98.3	70338	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
39 Perfluorohexanesulfonic acid										R
399.00 > 80.00	3.481	3.480	0.001	1.000	15167	0.005320	Target=3.50	185		R
399.00 > 99.00	3.471	3.480	-0.009	0.997	2617		5.80(1.75-5.25)	28.2		
D 45 13C-6:2 FTCA										
358.86 > 293.90	3.587	3.595	-0.008	0.922	5605527	1.22		97.6	281100	
46 6:2 FTUCA										
356.86 > 292.90	3.587	3.595	-0.008	0.996	5026	0.001065	Target=14.03	40.8		
356.86 > 243.00	3.610	3.595	0.015	1.002	528		9.52(7.02-21.05)	23.2		
D 47 13C-6:2 FTUCA										
378.88 > 293.90	3.602	3.618	-0.016	0.926	333704	1.18		94.7	4652	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.871	3.871	0.0	0.995	1569166	1.29		108	23654	
* 57 13C2 PFOA										
415.00 > 370.00	3.890	3.891	0.0		7201220	1.25			89264	
D 56 13C4 PFOA										
417.00 > 372.00	3.890	3.891	0.0	1.000	7426638	1.24		98.9	104133	
\$ 55 13C8 PFOA										
421.00 > 376.00	3.890	3.891	0.0	1.000	7894786	1.17		93.9	75950	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.890	3.891	0.0	1.000	20546	0.003309	Target=2.87	20.0		
413.00 > 169.00	3.881	3.891	-0.009	0.998	6414		3.20(1.43-4.30)	49.6		
59 TAF										
442.90 > 85.00	4.248	4.177	0.071	1.092	1666	0.0181			28.1	
D 61 13C4 PFOS										
503.00 > 80.00	4.255	4.262	-0.007	1.094	2424127	1.15		96.3	29072	
\$ 60 13C8 PFOS										
507.00 > 99.00	4.255	4.262	-0.007	1.094	673396	1.07		89.5	13037	
D 63 13C5 PFNA										
468.00 > 423.00	4.270	4.276	-0.006	1.098	7046668	1.23		98.2	108581	
65 7:3 FTCA										
441.00 > 337.00	4.377	4.377	0.0	0.991	15065	0.0106	Target=1.21	74.1		R
441.00 > 317.00	4.370	4.377	-0.007	0.989	7416		2.03(0.60-1.81)	53.9		R
67 8:2 FTUCA										
456.86 > 392.90	4.409	4.402	0.007	1.004	16387	0.003185	Target=35.28	135		
456.86 > 343.00	4.409	4.402	0.007	1.004	474		34.57(17.64-52.92)	30.3		
D 66 13C-8:2 FTUCA										
458.86 > 393.90	4.394	4.402	-0.008	1.129	6597124	1.16		92.8	126841	
D 68 13C-8:2 FTCA										
478.85 > 393.90	4.416	4.416	0.0	1.135	231539	0.8915		71.3	4395	
D 71 13C8 FOSA										
506.00 > 78.00	4.559	4.558	0.001	1.172	4169141	1.17		94.0	44167	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.550	4.558	-0.008	0.998	1838	0.000549			23.9	
D 74 13C2 PFDA										
515.00 > 470.00	4.625	4.634	-0.009	1.189	6948288	1.21		96.8	106163	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.625	4.644	-0.019	1.189	2406230	1.26		105	30757	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.794	4.793	0.001	1.232	2953311	1.22		97.5	30344	
79 NMeFOSAA										
570.00 > 419.00	4.804	4.803	0.001	1.002	14403	0.008241	Target=0.83		110	
570.00 > 483.00	4.804	4.803	0.001	1.002	20589		0.70(0.42-1.25)		240	
D 82 13C2 PFUnA										
565.00 > 520.00	4.947	4.956	-0.009	1.272	7001155	1.27		101	93837	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.957	4.956	0.001	1.274	3118433	1.29		103	41277	
84 NEtFOSAA										
584.00 > 419.00	4.976	4.966	0.010	1.004	17297	0.009677	Target=0.77		275	
584.00 > 526.10	4.976	4.966	0.010	1.004	23260		0.74(0.39-1.16)		185	
D 85 d7-N-MeFOSE-M										
623.00 > 59.00	4.985	4.994	-0.009	1.281	1780638	1.23		98.3	8661	
D 87 d-N-MeFOSA-M										
515.00 > 169.00	5.014	5.013	0.001	1.289	1183374	1.11		89.0	330	
D 88 13C-10:2 FTCA										
558.86 > 493.90	5.076	5.076	0.0	1.305	7469976	1.12		89.4	218740	
89 10:2 FTUCA										
556.86 > 492.90	5.086	5.076	0.010	1.002	38115	0.005574			255	
93 11CIFOS										
631.00 > 451.00	5.086	5.086	0.0	1.195	7655	0.001403			129	
D 91 13C-10:2 FTUCA										
578.80 > 493.90	5.076	5.096	-0.020	1.305	303615	1.55		124	4290	
D 94 d9-N-EtFOSE-M										
639.00 > 59.00	5.155	5.155	0.0	1.325	2013942	1.25		99.9	11791	
D 96 d-N-EtFOSA-M										
531.00 > 169.00	5.181	5.181	0.0	1.332	1232778	1.18		94.4	3139	
99 N-EtFOSA-M										
526.00 > 169.00	5.199	5.190	0.009	1.003	589	0.000576	Target=1.61		7.2	R
526.00 > 218.99	5.190	5.190	0.0	1.002	997		0.59(0.80-2.41)		18.9	R
D 97 13C2 PFDoA										
615.00 > 570.00	5.234	5.242	-0.008	1.345	7461404	1.25		99.7	133837	
D 100 13C2 10:2 FTS										
633.00 > 612.00	5.251	5.259	-0.008	1.350	1941303	1.27		105	61496	
101 10:2 FTS										
627.00 > 607.00	5.260	5.268	-0.008	1.002	13064	0.005343	Target=1.46		373	
627.00 > 79.96	5.260	5.268	-0.008	1.002	10040		1.30(0.73-2.19)		112	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.743	5.751	-0.008	1.476	6022451	1.09		87.3	80776	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.743	5.751	-0.008	1.000	2874	0.004853	Target=1.07		93.2	R
713.00 > 219.00	5.759	5.751	0.008	1.003	1588		1.81(0.53-1.60)		54.2	
D 106 13C2 PFHxDA										
815.00 > 770.00	6.201	6.210	-0.009	1.594	4266030	1.01		80.9	30753	

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Perfluorohexadecanoic acid										
813.00 > 769.00	6.210	6.210	0.0	1.002	55265	0.004165	Target=7.49		111	
813.00 > 169.00	6.210	6.210	0.0	1.002	5378		10.28(3.75-11.24)		89.8	
108 Perfluorooctadecanoic acid										
913.00 > 869.00	6.693	6.693	0.0	1.079	12177	0.005877	Target=9.70		31.0	
913.00 > 169.00	6.693	6.693	0.0	1.079	1236		9.85(4.85-14.55)		29.8	

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

**Reagents:**

LCPFC+\_LL0\_00002

Amount Added: 1.00

Units: mL



Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_011.d

Injection Date: 01-Jun-2021 15:11:21

Instrument ID: A15

Lims ID: ICB

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 8

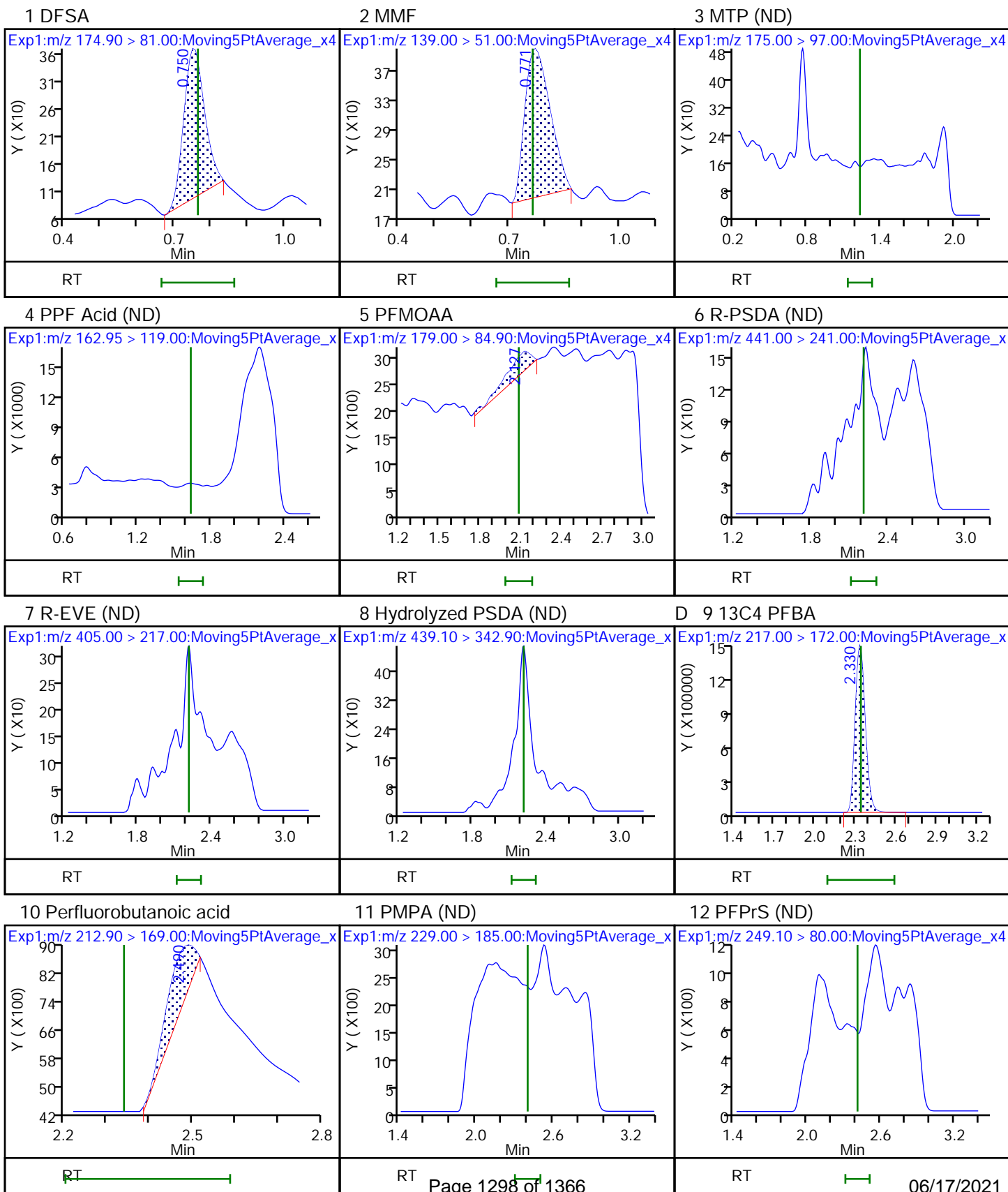
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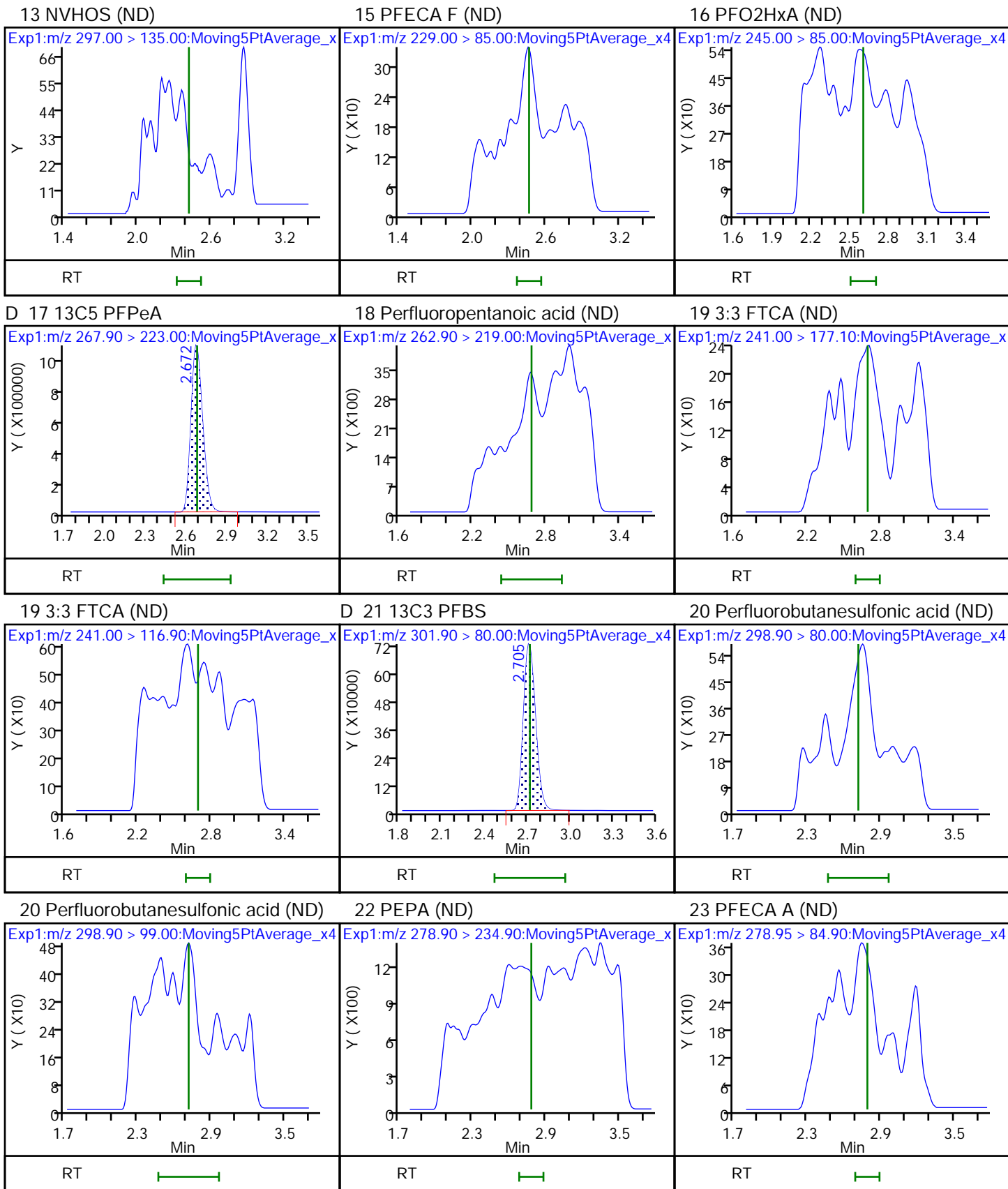
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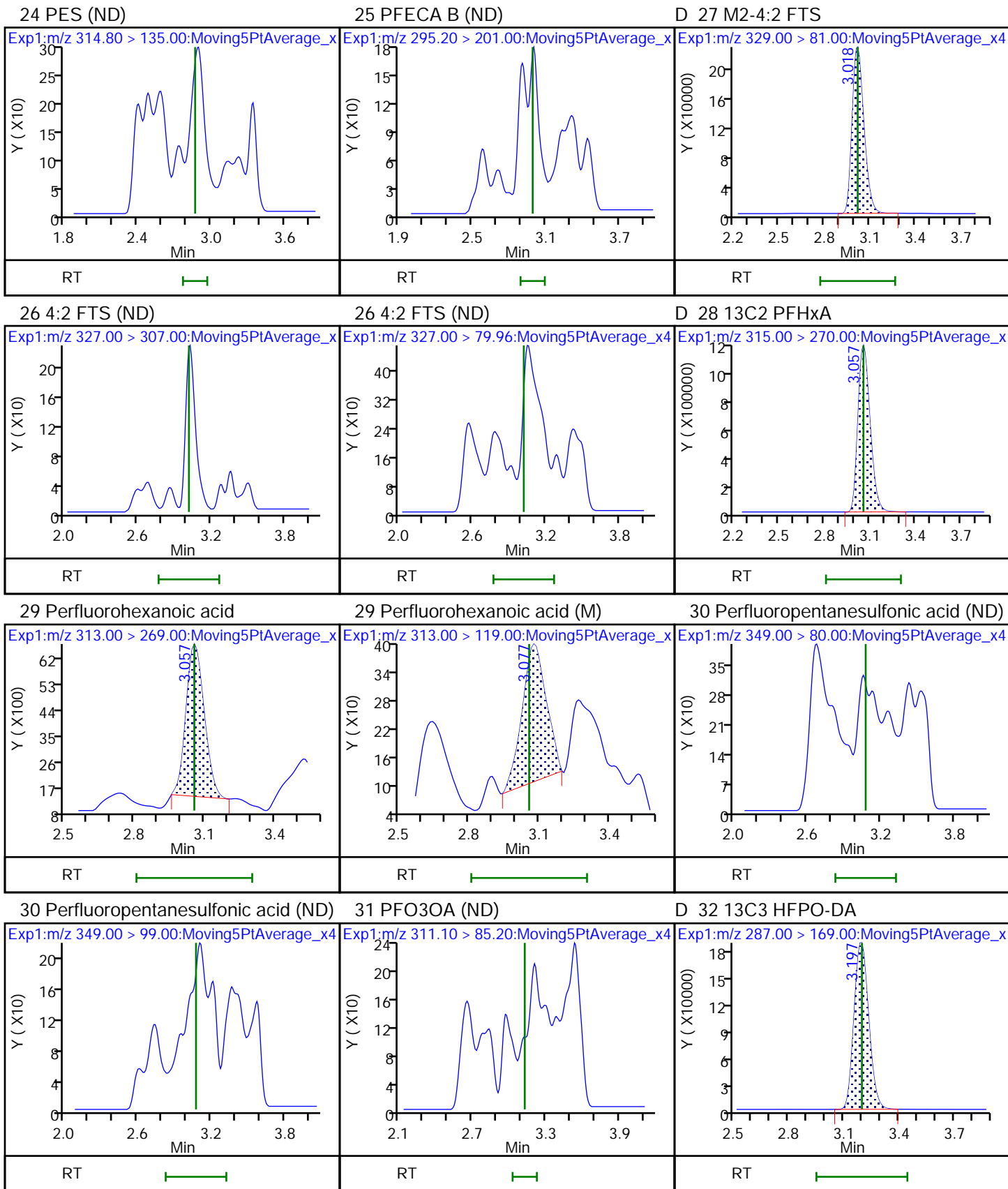
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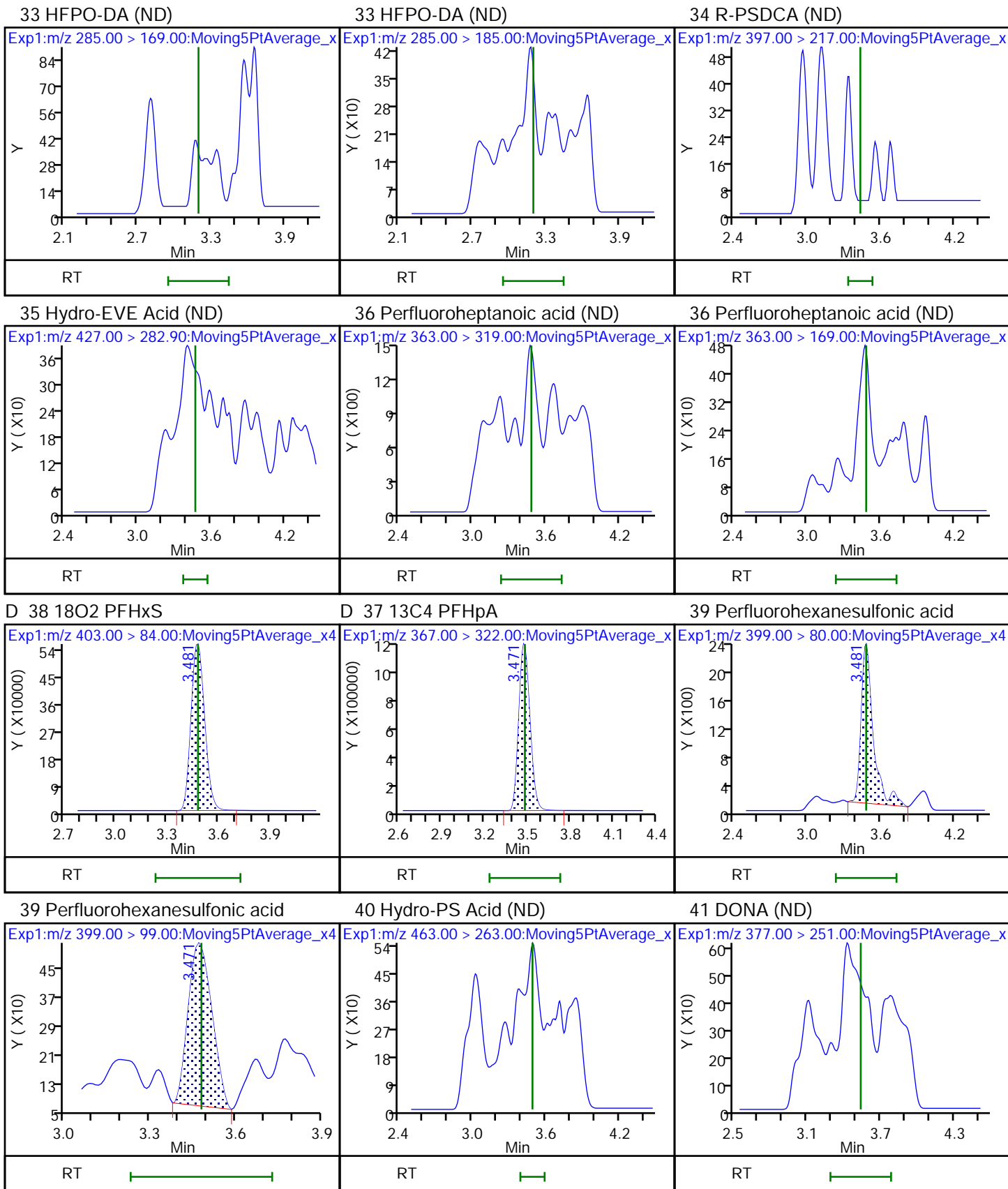
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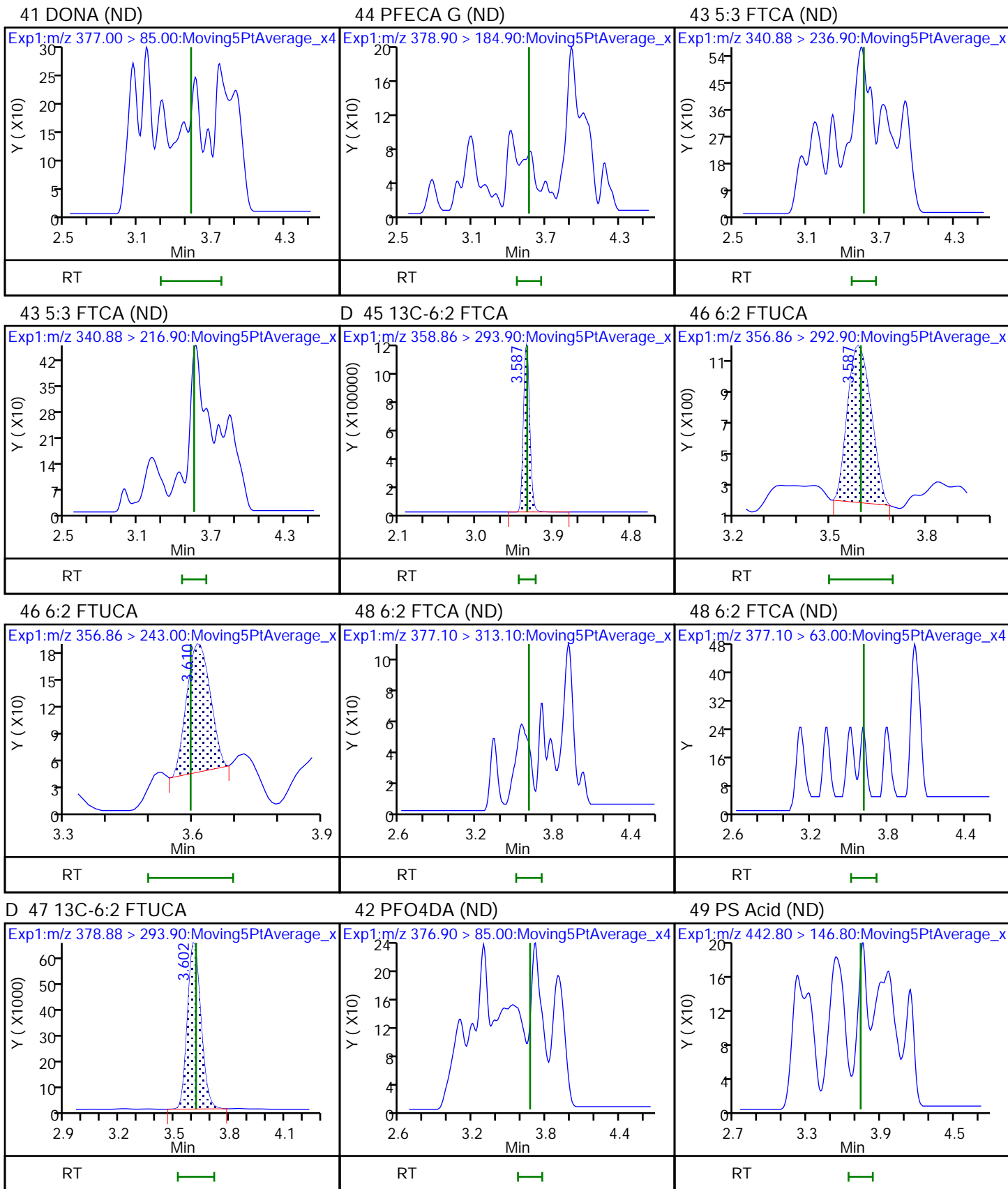
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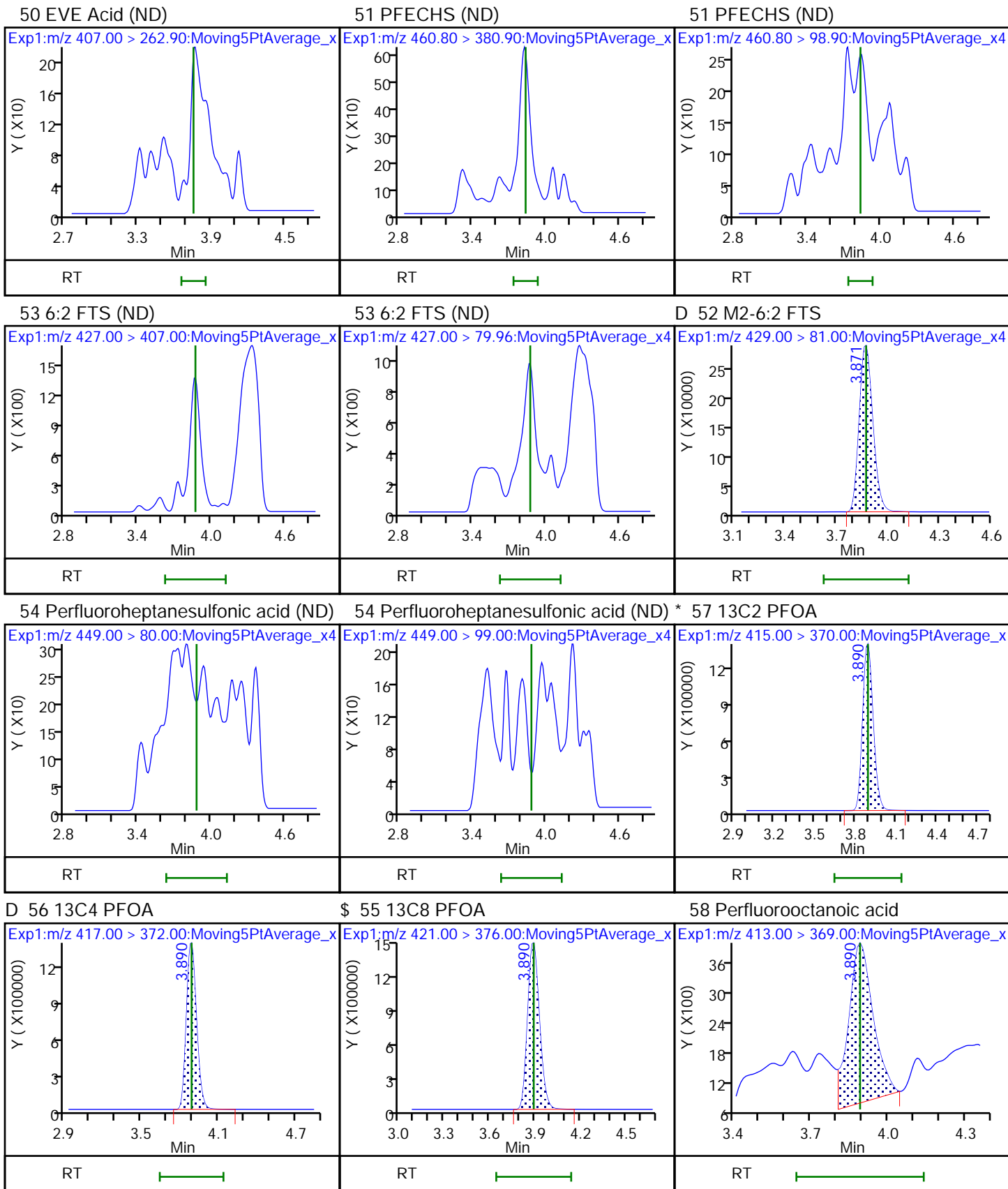


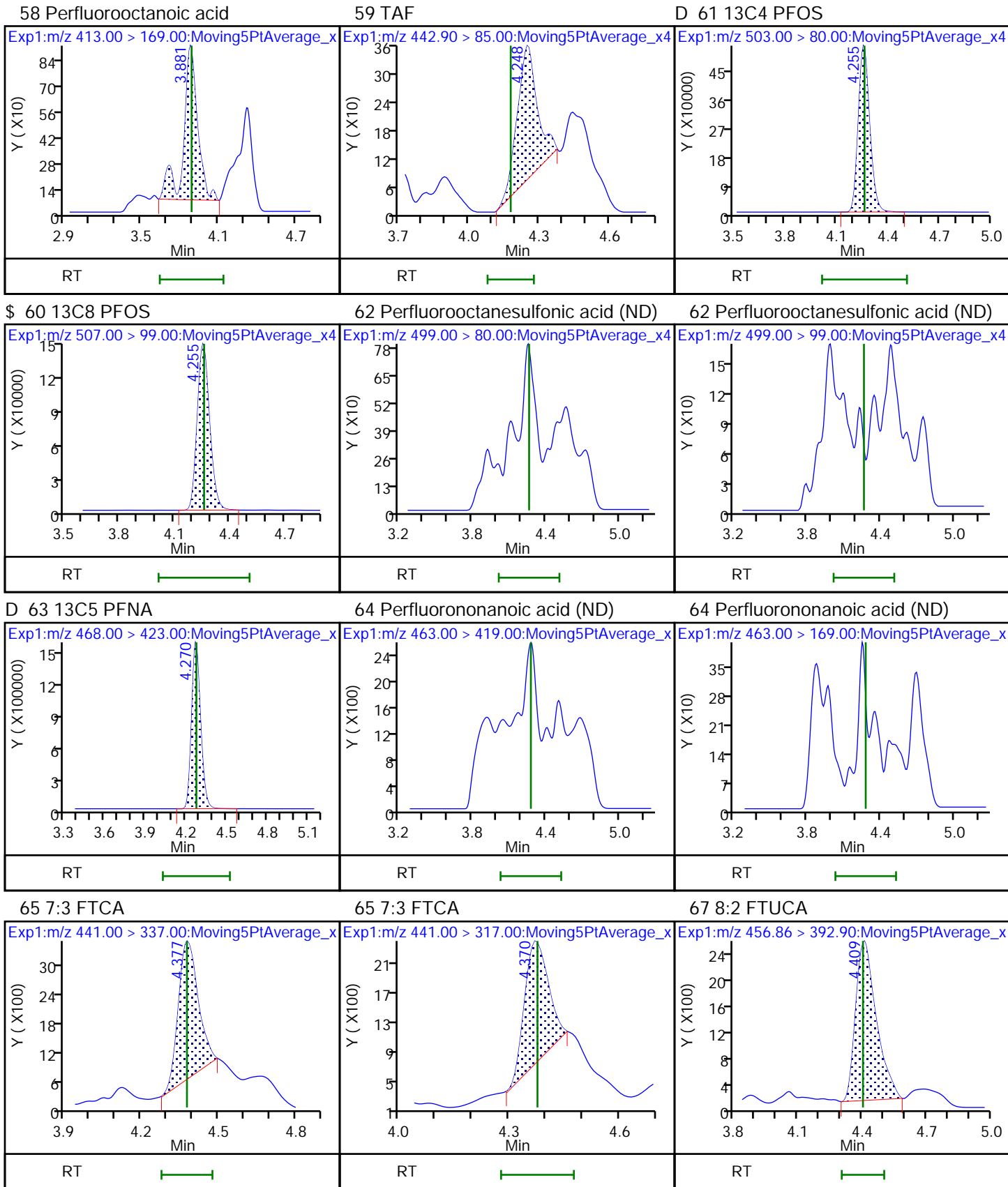


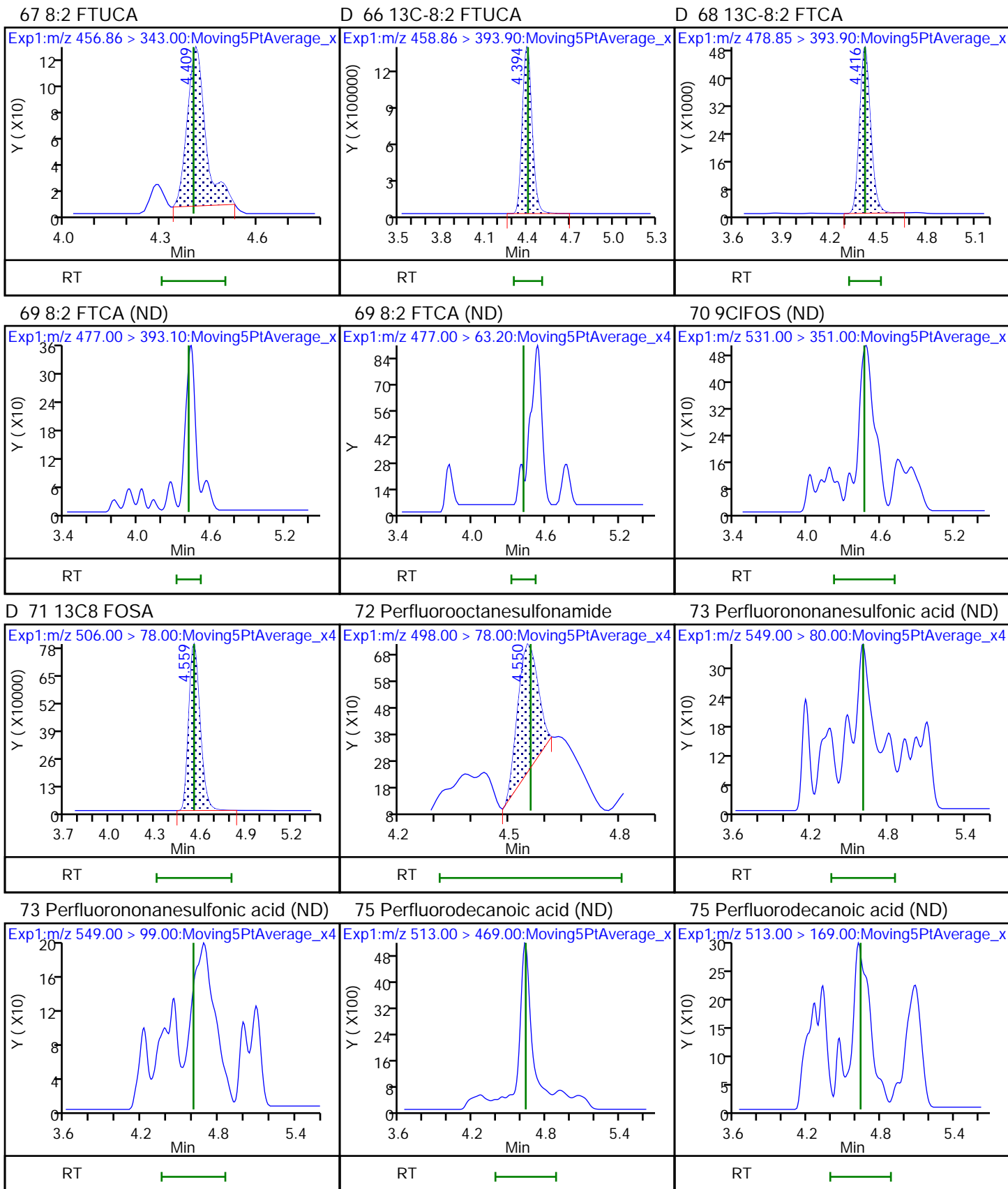










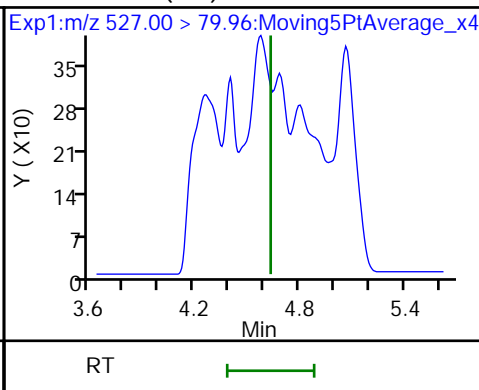
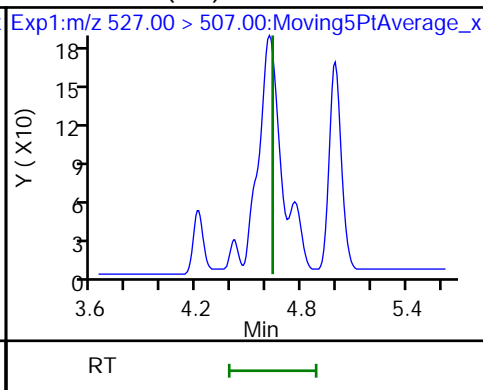
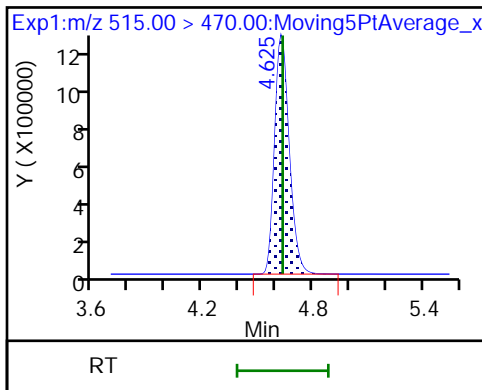




D 74 13C2 PFDA

77 8:2 FTS (ND)

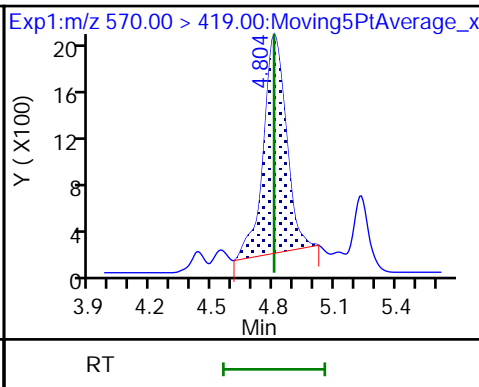
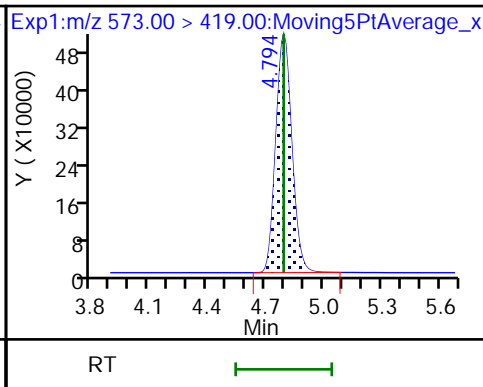
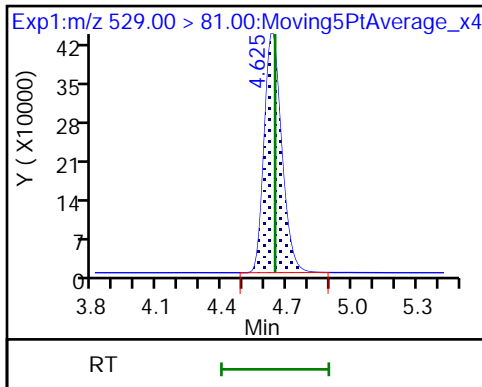
77 8:2 FTS (ND)



D 76 M2-8:2 FTS

D 78 d3-NMeFOSAA

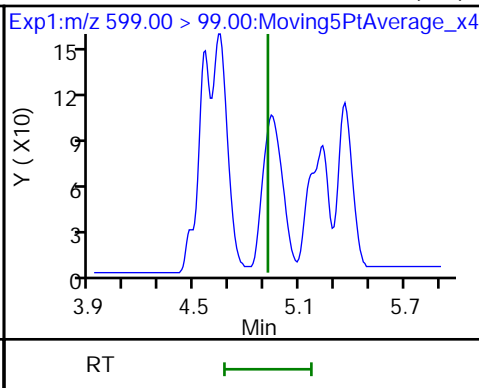
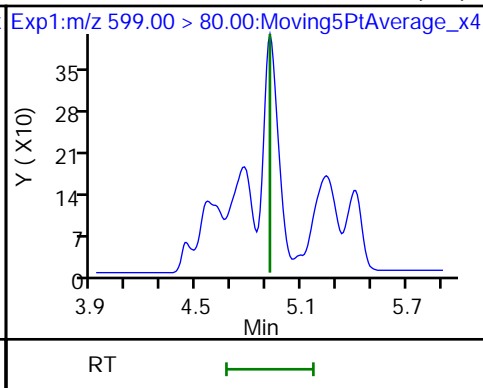
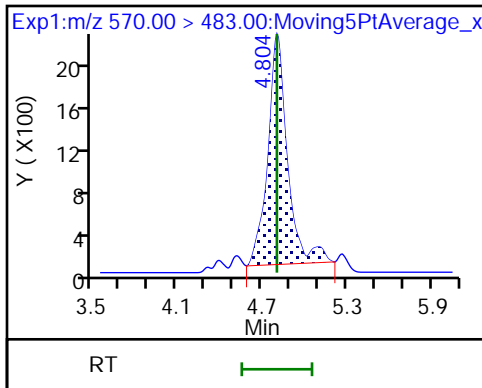
79 NMeFOSAA



79 NMeFOSAA

80 Perfluorodecanesulfonic acid (ND)

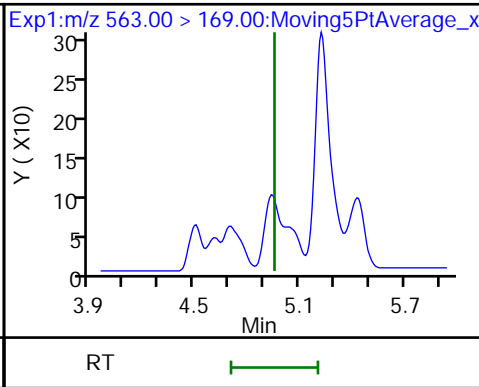
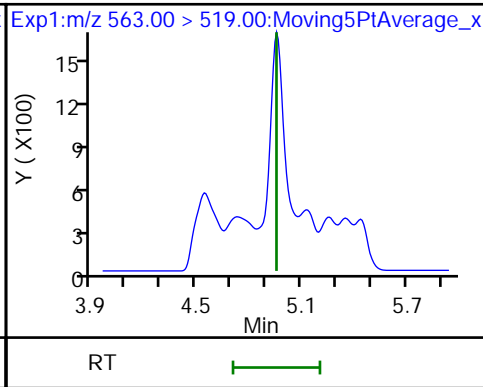
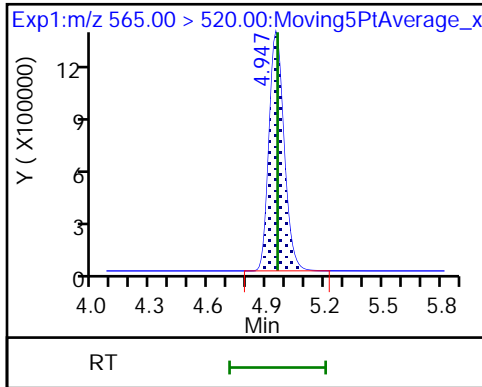
80 Perfluorodecanesulfonic acid (ND)



D 82 13C2 PFUnA

81 Perfluoroundecanoic acid (ND)

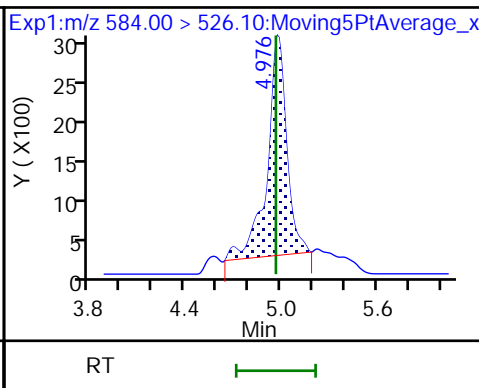
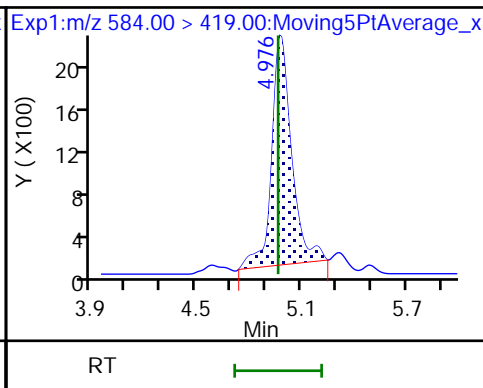
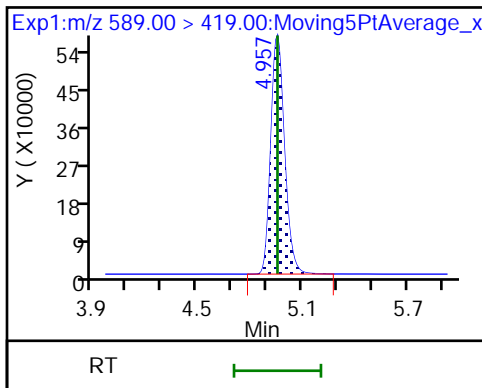
81 Perfluoroundecanoic acid (ND)



D 83 d5-NEtFOSAA

84 NEtFOSAA

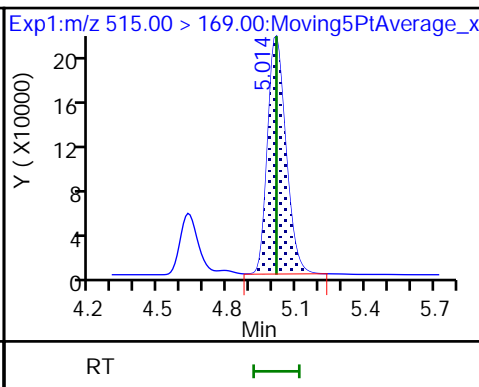
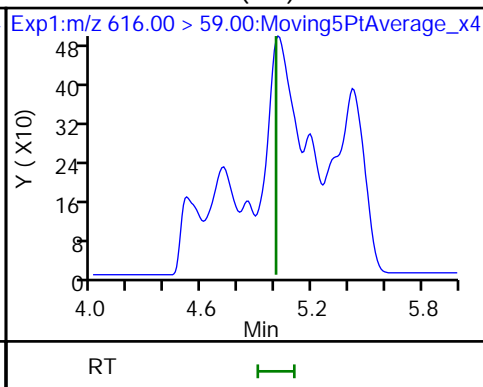
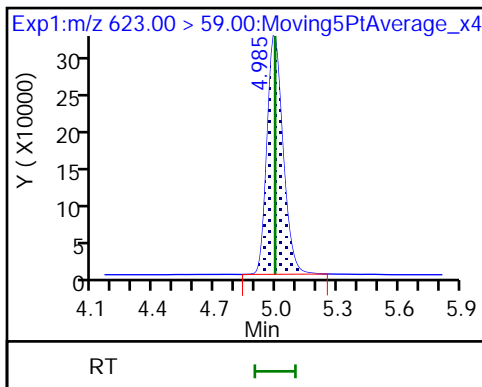
84 NEtFOSAA



D 85 d7-N-MeFOSE-M

86 N-MeFOSE-M (ND)

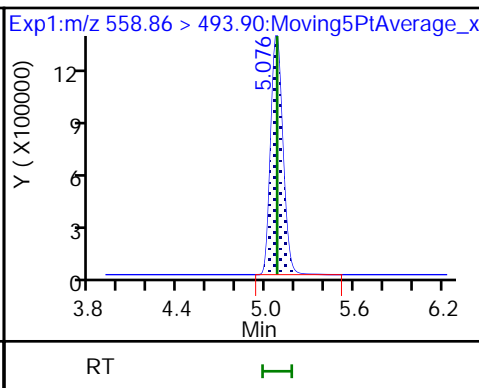
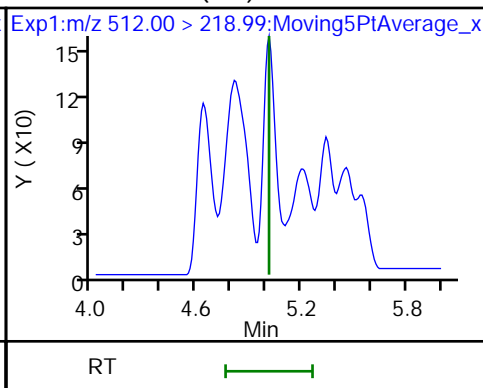
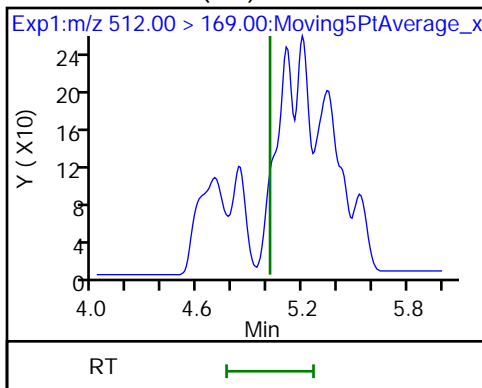
D 87 d-N-MeFOSA-M



90 NMeFOSA (ND)

90 NMeFOSA (ND)

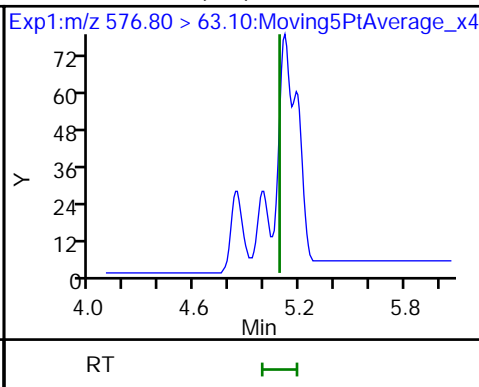
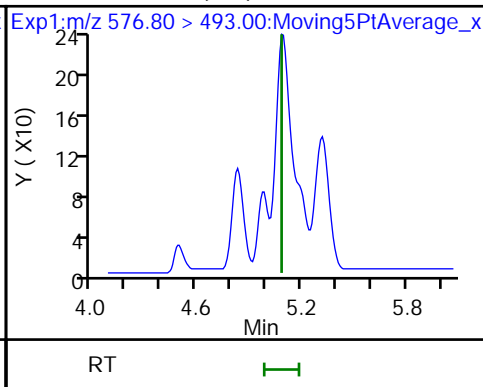
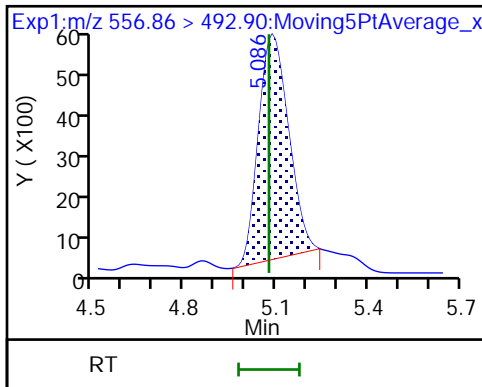
D 88 13C-10:2 FTCA

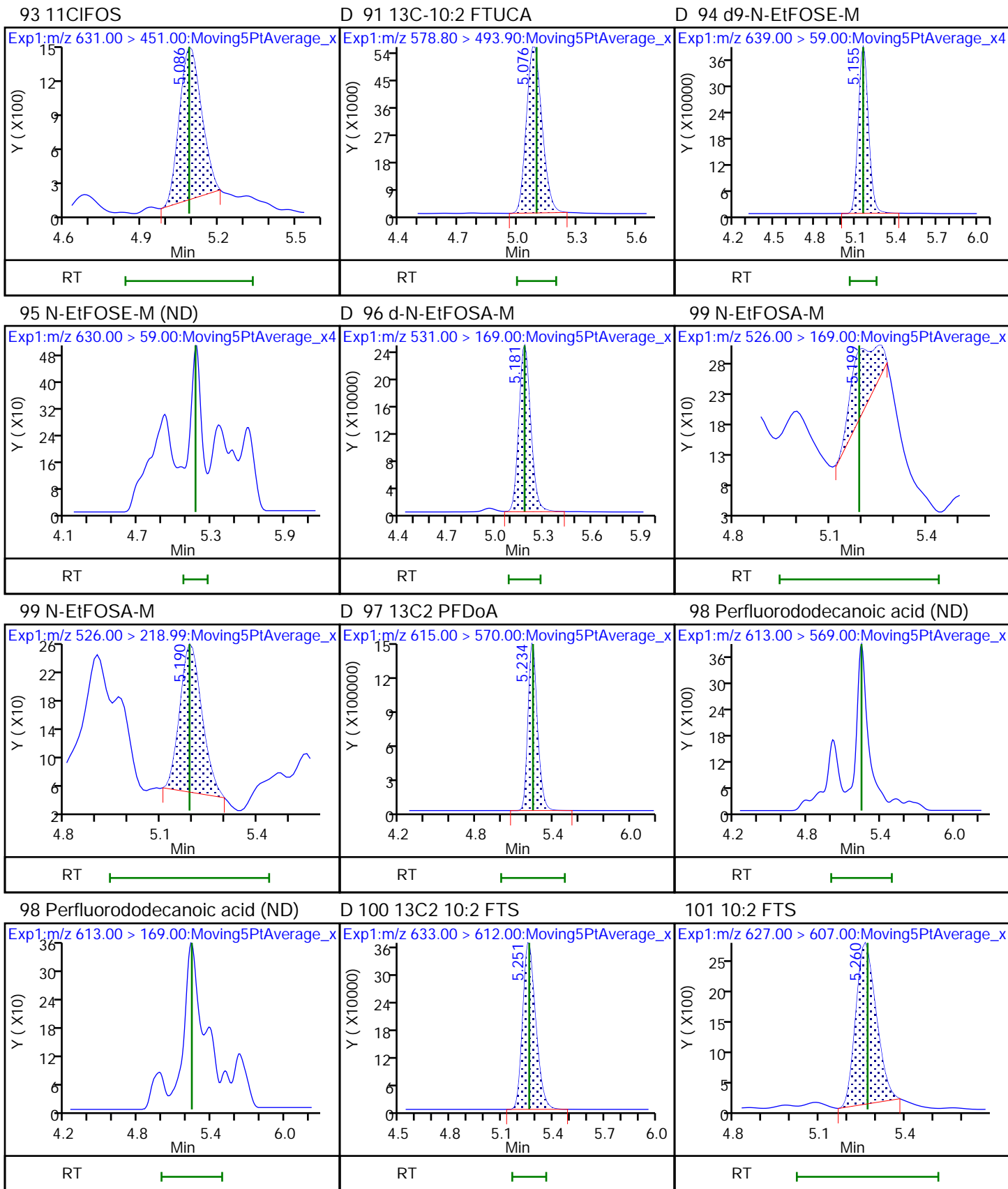


89 10:2 FTUCA

92 10:2 FTCA (ND)

92 10:2 FTCA (ND)

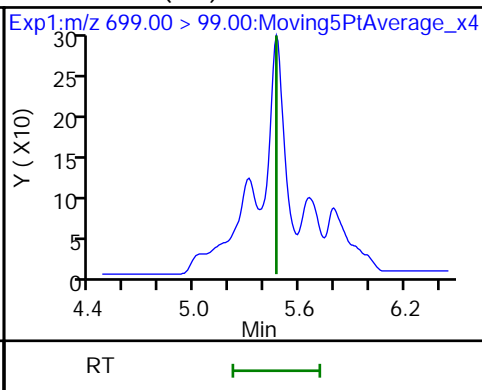
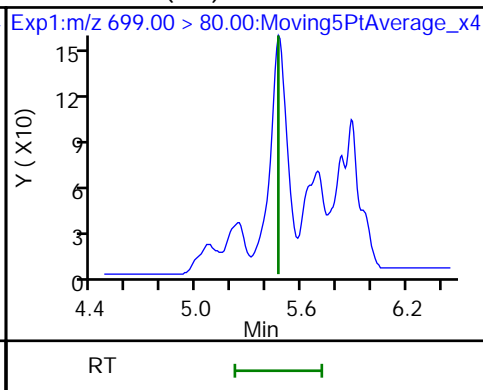
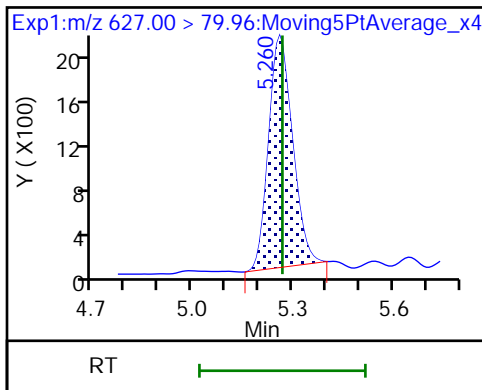




101 10:2 FTS

102 PFDoS (ND)

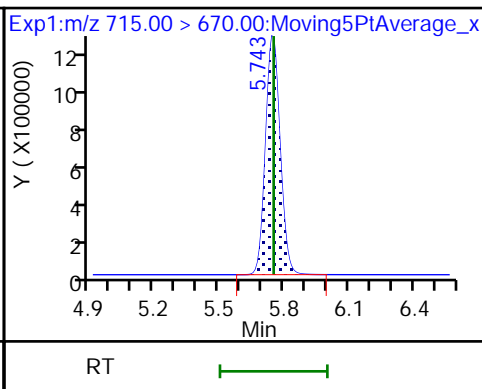
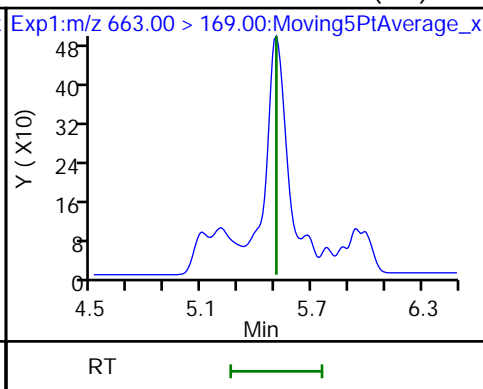
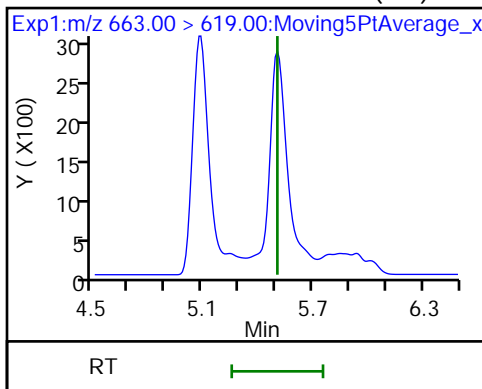
102 PFDoS (ND)



103 Perfluorotridecanoic acid (ND)

103 Perfluorotridecanoic acid (ND)

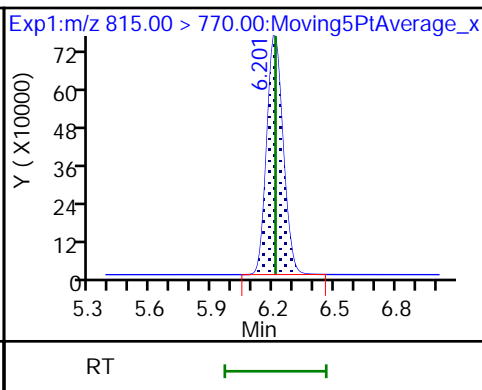
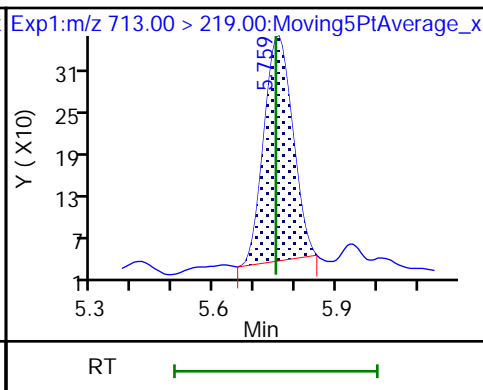
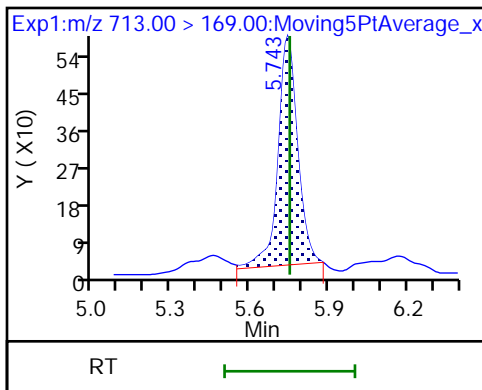
D 104 13C2 PFTeDA



105 Perfluorotetradecanoic acid

105 Perfluorotetradecanoic acid

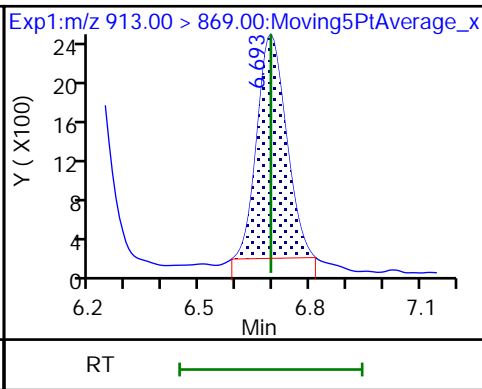
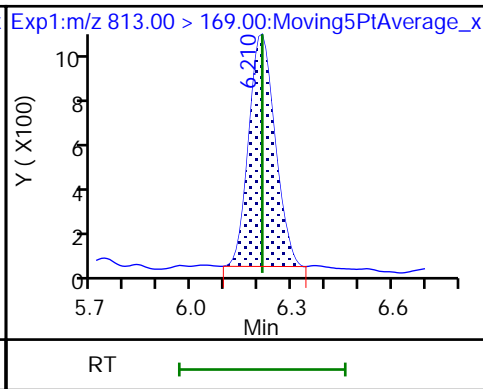
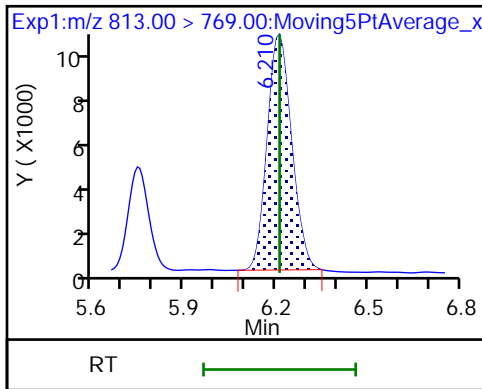
D 106 13C2 PFHxDA



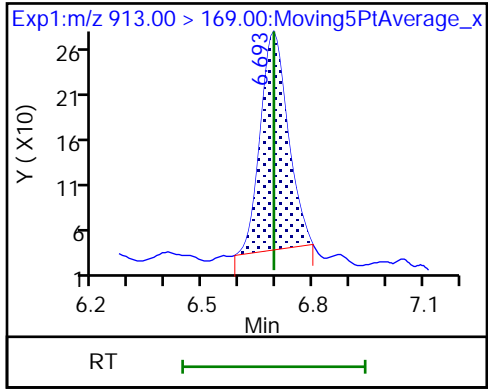
107 Perfluorohexadecanoic acid

107 Perfluorohexadecanoic acid

108 Perfluorooctadecanoic acid



108 Perfluorooctadecanoic acid



Eurofins TestAmerica, Sacramento

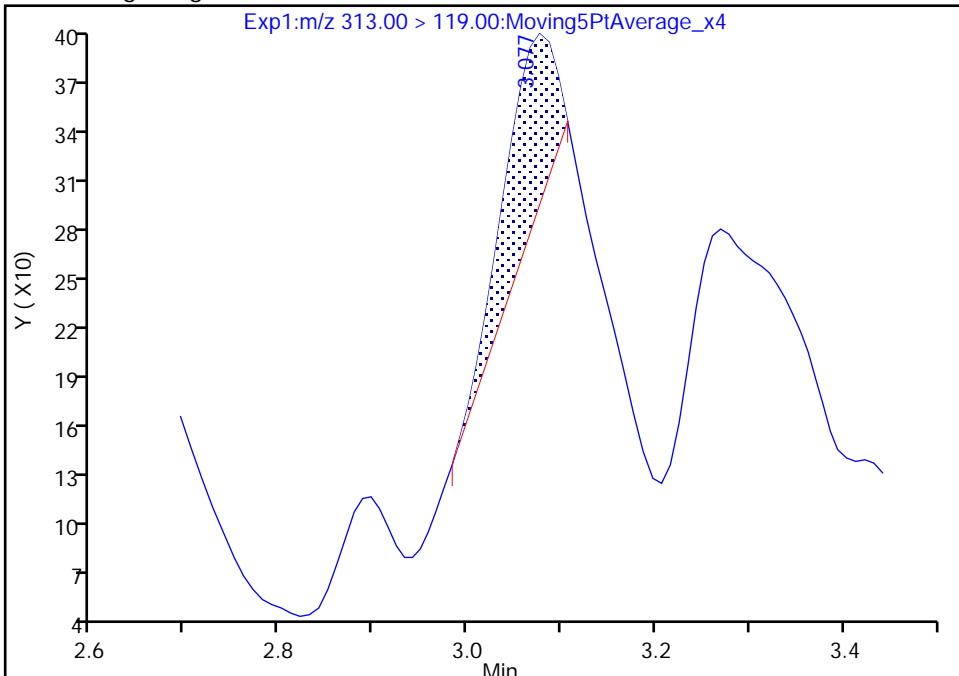
Data File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_011.d  
Injection Date: 01-Jun-2021 15:11:21 Instrument ID: A15  
Lims ID: ICB  
Client ID:  
Operator ID: SACINSTA15 ALS Bottle#: 8 Worklist Smp#: 9  
Injection Vol: 20.0 ul Dil. Factor: 1.0000  
Method: PFAS+\_A15 Limit Group: LC PFC ICAL  
Column: Gemini C18 3um 3mm x 50 mm (3.00um) Detector: EXP1

29 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

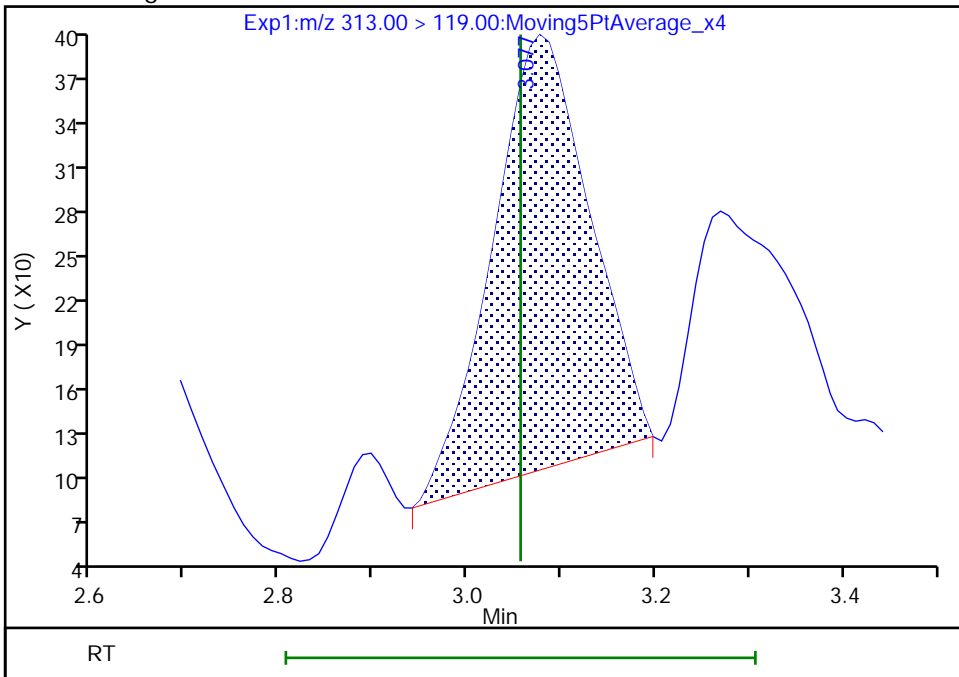
RT: 3.08  
Area: 408  
Amount: 0.005149  
Amount Units: ng/ml

Processing Integration Results



RT: 3.08  
Area: 2055  
Amount: 0.005149  
Amount Units: ng/ml

Manual Integration Results



Reviewer: melnikv, 02-Jun-2021 10:51:27  
Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 320-496405/2-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_008.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 04:56  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	41.2		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	39.7		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	39.5		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	40.9		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	44.1		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	43.3		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	36.3		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	44.0		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	40.6		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	47.4		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	39.1		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	35.3		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	34.5		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	39.5		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	39.6		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	38.5		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	39.9		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	38.5		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	38.7		5.0	
27619-97-2	6:2 FTS	37.8		5.0	
39108-34-4	8:2 FTS	42.5		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 320-496405/2-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_008.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 04:56  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	103		25-150
STL01893	13C5 PFPeA	100		25-150
STL00993	13C2 PFHxA	102		25-150
STL01892	13C4 PFHpA	107		25-150
STL00990	13C4 PFOA	100		25-150
STL00995	13C5 PFNA	101		25-150
STL00996	13C2 PFDA	103		25-150
STL00997	13C2 PFUnA	88		25-150
STL00998	13C2 PFDoA	101		25-150
STL02116	13C2 PFTeDA	95		25-150
STL02337	13C3 PFBS	109		25-150
STL00994	18O2 PFHxS	110		25-150
STL00991	13C4 PFOS	102		25-150
STL01056	13C8 FOSA	109		25-150
STL02118	d3-NMeFOSAA	103		25-150
STL02117	d5-NEtFOSAA	109		25-150
STL02279	M2-6:2 FTS	96		25-150
STL02280	M2-8:2 FTS	108		25-150



Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_008.d  
 Lims ID: LCS 320-496405/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 10-Jun-2021 04:56:59 ALS Bottle#: 2 Worklist Smp#: 5  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: lcs 320-496405/2-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:24:40 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:27:29  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	4672045	1.03		103	6312	
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	5997774	1.29		103	48225	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.652	2.650	0.002	1.000	4545183	0.99		99.2	12805	
D 17 13C5 PFPeA										
267.90 > 223.00	2.652	2.661	-0.009	0.692	5463473	1.25		99.9	52684	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.682	0.002	0.700	3874962	1.27		109	39980	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.693	-0.009	1.000	3323539	0.8818	Target=2.41	99.7	30489	
298.90 > 99.00	2.684	2.693	-0.009	1.000	1441643		2.31(1.20-3.61)		15803	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.019	-0.001	1.000	4891729	0.9878	Target=13.85	98.8	10546	
313.00 > 119.00	3.018	3.019	-0.001	1.000	343578		14.24(6.92-20.77)		2735	
D 28 13C2 PFHxA										
315.00 > 270.00	3.018	3.019	-0.001	0.787	5526061	1.28		102	55932	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.003	4937209	1.02	Target=3.98	102	14239	
363.00 > 169.00	3.433	3.433	0.0	1.003	1272094		3.88(1.99-5.97)		14632	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	2269566	0.8618	Target=3.33	94.7	43569	
399.00 > 99.00	3.433	3.433	0.0	1.000	672659		3.37(1.66-4.99)		11192	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2816181	1.30		110	47199	
D 37 13C4 PFHpA										
367.00 > 322.00	3.423	3.433	-0.010	0.893	5709525	1.34		107	65523	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										
427.00 > 407.00	3.815	3.814	0.001	1.000	1839553	0.9458	Target=2.13	99.8	8330	
427.00 > 79.96	3.815	3.814	0.001	1.000	869842		2.11(1.07-3.20)		4218	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.814	0.001	0.995	1121216	1.14		95.9	20828	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6060825	1.25		100	56186	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		5808974	1.25			71789	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.824	3.834	-0.010	0.912	1945786	0.9864	Target=4.85	104	18215	
449.00 > 99.00	3.824	3.834	-0.010	0.912	432007		4.50(2.43-7.28)		9996	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	5592167	1.10	Target=2.90	110	16442	
413.00 > 169.00	3.834	3.834	0.0	1.000	1888655		2.96(1.45-4.35)		18425	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.002	1923699	0.9891	Target=5.77	107	13270	
499.00 > 99.00	4.193	4.201	-0.008	1.000	333685		5.77(2.88-8.65)		8837	
D 61 13C4 PFOS										
503.00 > 80.00	4.193	4.201	-0.008	1.094	2065804	1.22		102	18926	
D 63 13C5 PFNA										
468.00 > 423.00	4.209	4.217	-0.008	1.098	5829090	1.26		101	81267	
64 Perfluorononanoic acid										
463.00 > 419.00	4.209	4.217	-0.008	1.000	4997149	1.08	Target=8.24	108	16294	
463.00 > 169.00	4.209	4.217	-0.008	1.000	630980		7.92(4.12-12.36)		7785	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.523	0.009	1.182	3915824	1.37		109	41652	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	3140080	1.00		99.8	40403	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.559	4.559	0.0	1.000	4416668	0.9071	Target=8.21	90.7	23189	
513.00 > 169.00	4.559	4.559	0.0	1.000	507988		8.69(4.10-12.31)		2775	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	5952983	1.29		103	76467	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.559	4.569	-0.010	1.189	1989305	1.29		108	23441	
77 8:2 FTS										
527.00 > 507.00	4.559	4.569	-0.010	1.000	2761508	1.06	Target=2.42	111	65800	
527.00 > 79.96	4.559	4.569	-0.010	1.000	1161612		2.38(1.21-3.63)		10991	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2508643	1.28		103	20405	
79 NMeFOSAA										
570.00 > 419.00	4.718	4.729	-0.011	1.000	1428286	0.9621	Target=0.83	96.2	16084	
570.00 > 483.00	4.718	4.729	-0.011	1.000	1661253		0.86(0.41-1.24)		37574	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.843	4.843	0.0	1.155	1363881	0.9628	Target=3.21	99.9	14121	
599.00 > 99.00	4.843	4.843	0.0	1.155	412701		3.30(1.60-4.81)		12729	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.872	4.872	0.0	1.000	3974234	1.10	Target=7.61	110	28634	
563.00 > 169.00	4.872	4.872	0.0	1.000	475725		8.35(3.80-11.41)		7441	
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	4898184	1.10		87.8	53421	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2646849	1.36		109	27281	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.891	0.0	1.002	1468832	0.9681	Target=0.77	96.8	29122	
584.00 > 526.10	4.882	4.891	-0.009	1.000	1921368		0.76(0.38-1.15)		12758	
D 97 13C2 PFDaA										
615.00 > 570.00	5.156	5.156	0.0	1.345	6120865	1.27		101	91754	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.156	5.156	0.0	1.000	5517416	1.01	Target=7.78	101	32985	
613.00 > 169.00	5.156	5.156	0.0	1.000	665225		8.29(3.89-11.67)		14258	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.412	5.422	-0.010	1.050	5380393	1.18	Target=6.20	118	37199	
663.00 > 169.00	5.412	5.422	-0.010	1.050	846774		6.35(3.10-9.30)		15867	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.658	0.0	1.476	5279833	1.19		94.9	59501	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.658	0.0	1.000	507392	0.9773	Target=1.03	97.7	13814	
713.00 > 219.00	5.658	5.658	0.0	1.000	494156		1.03(0.51-1.54)		15697	

**QC Flag Legend**

Processing Flags

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_008.d

Injection Date: 10-Jun-2021 04:56:59

Instrument ID: A15

Lims ID: LCS 320-496405/2-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 2

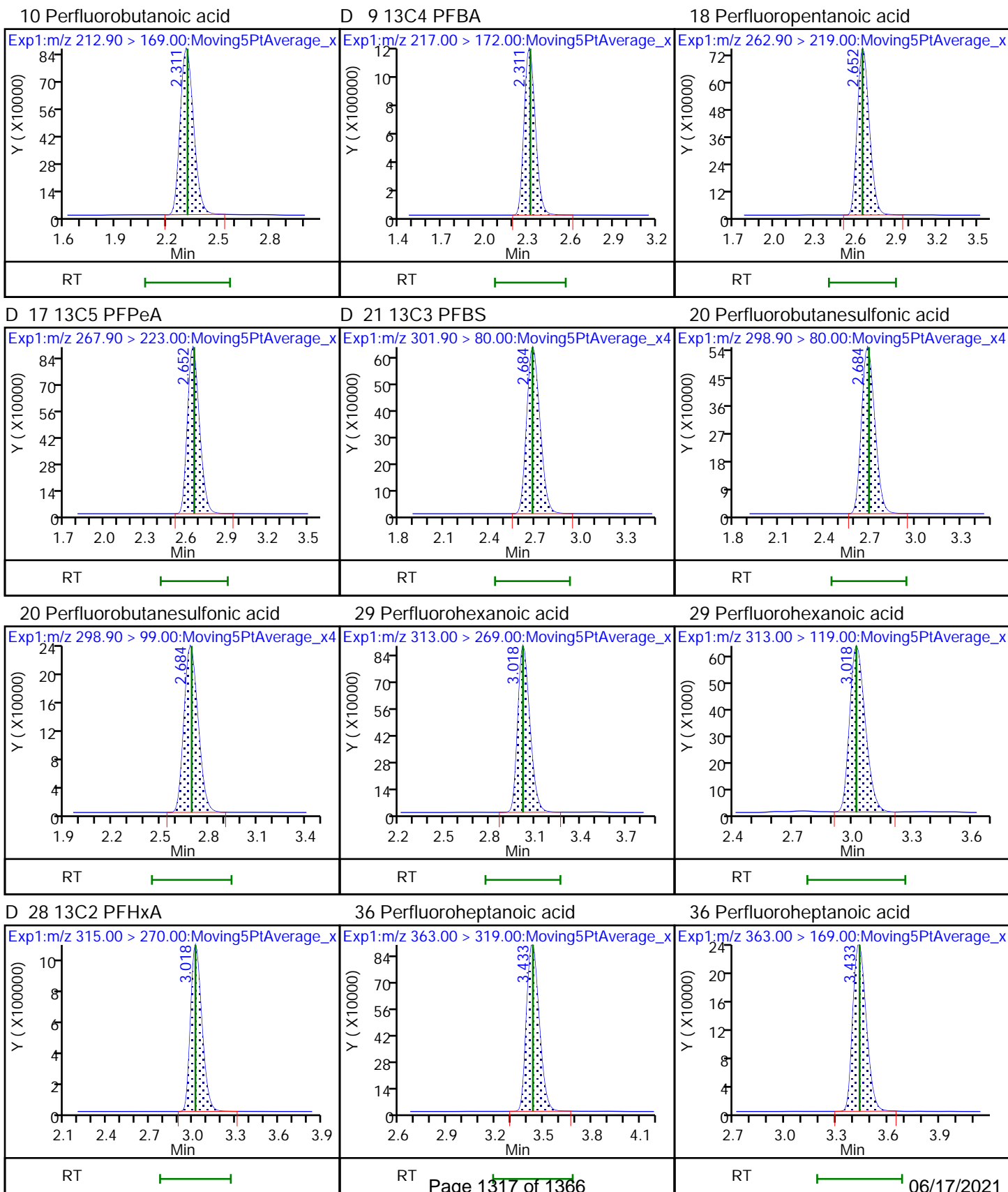
Worklist Smp#: 5

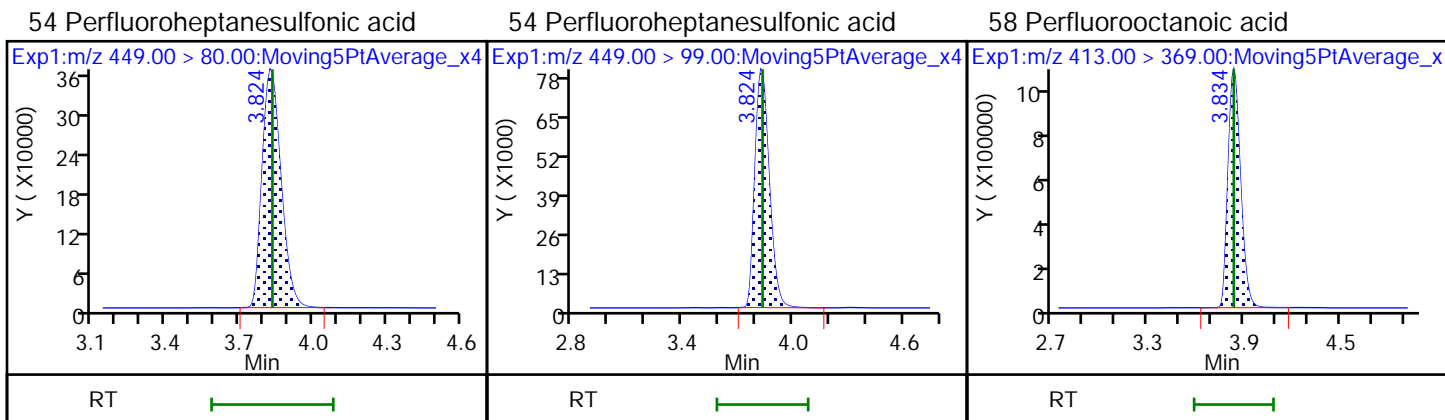
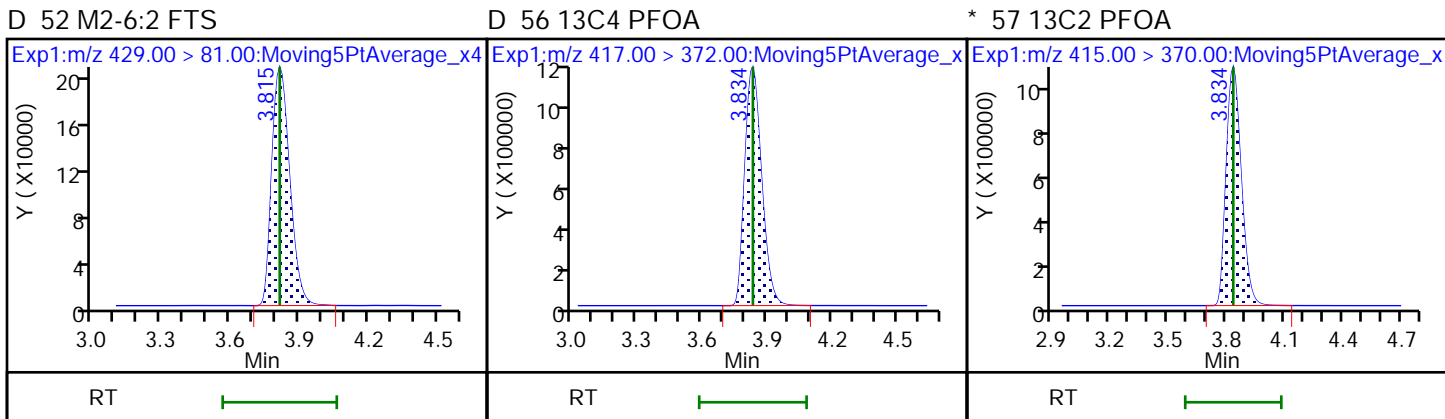
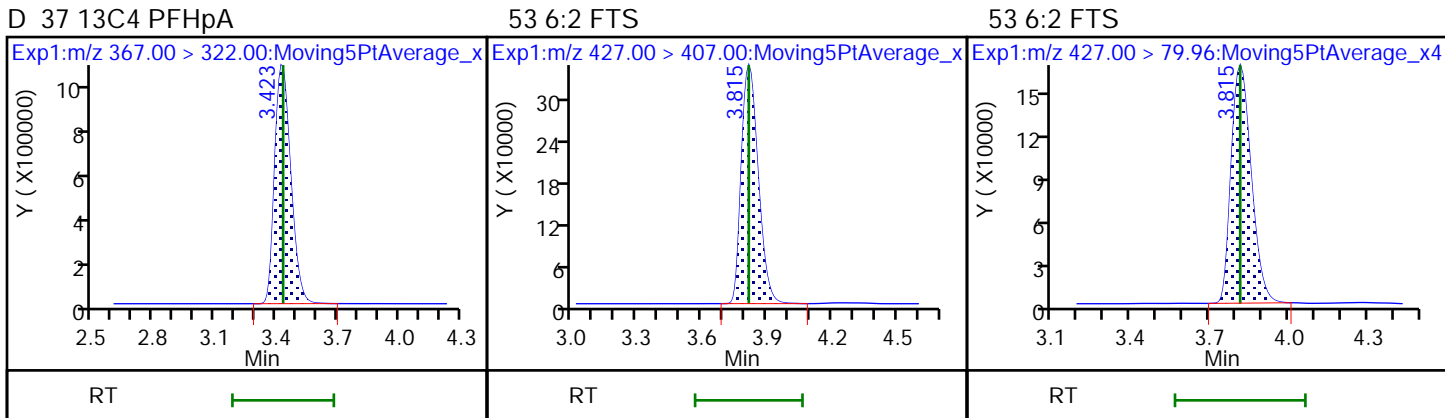
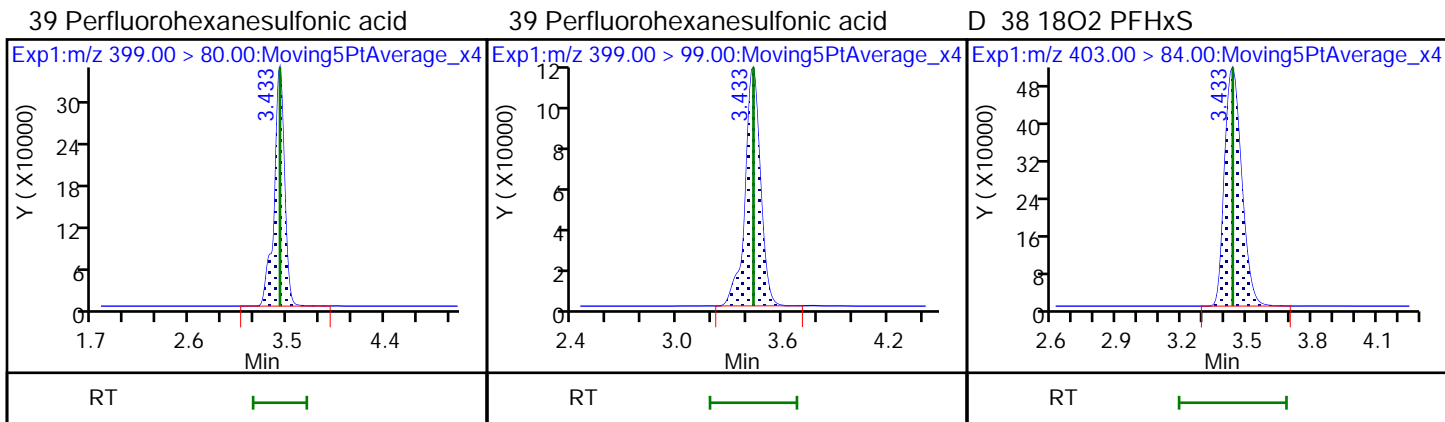
Injection Vol: 20.0 ul

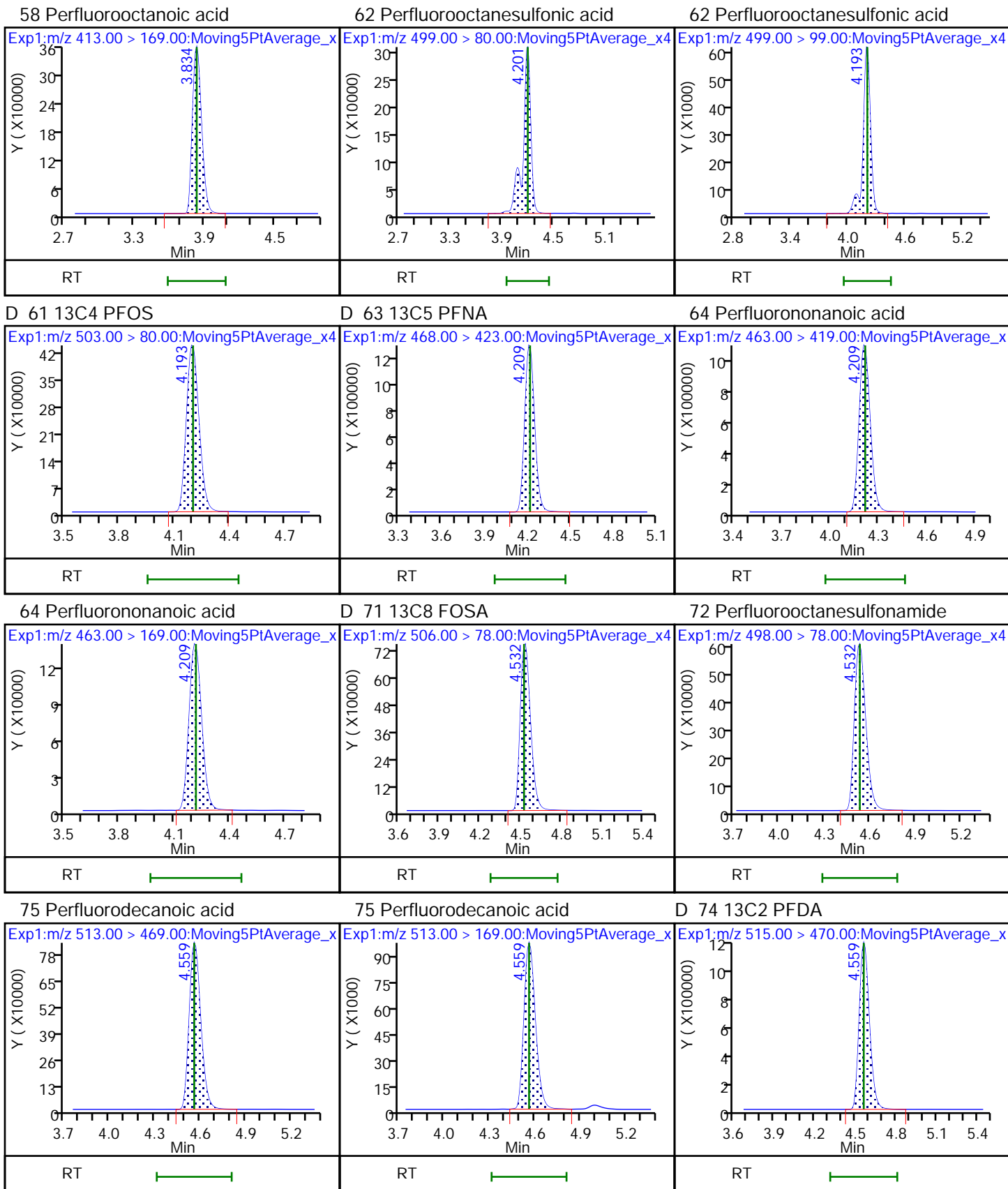
Dil. Factor: 1.0000

Method: PFAS+\_A15

Limit Group: LC PFC ICAL



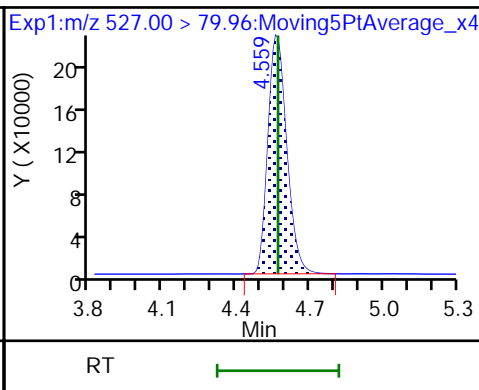
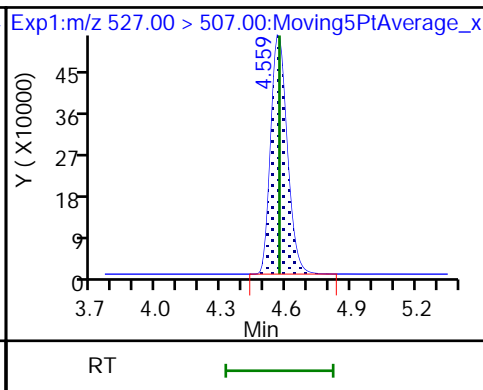
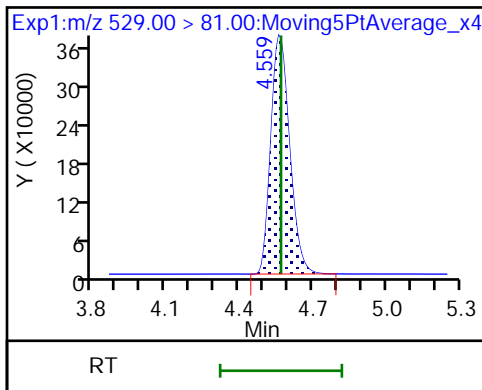




D 76 M2-8:2 FTS

77 8:2 FTS

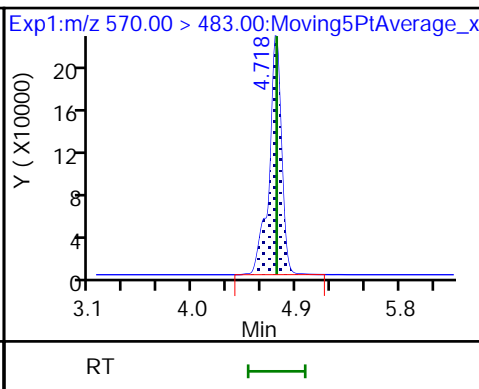
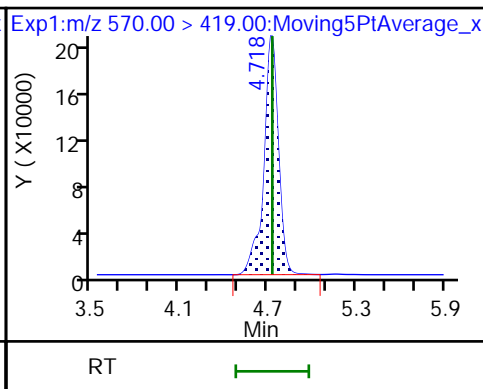
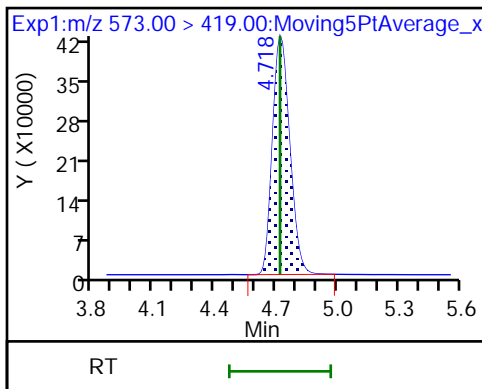
77 8:2 FTS



D 78 d3-NMeFOSAA

79 NMeFOSAA

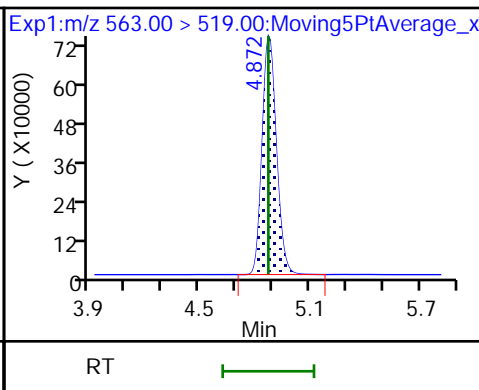
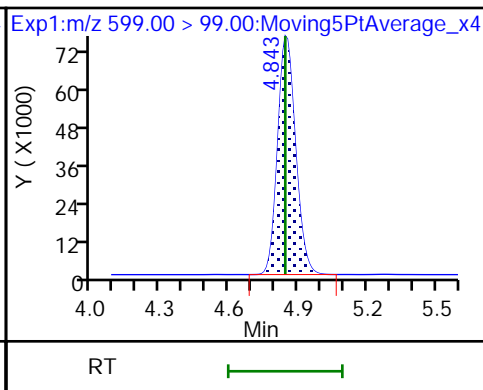
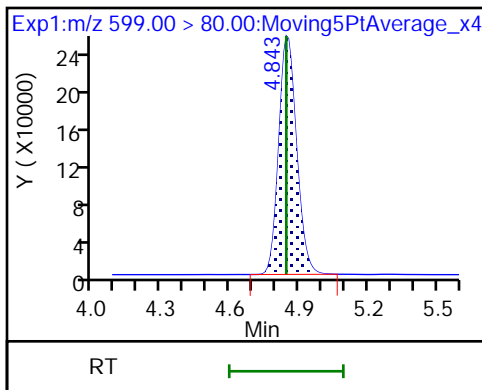
79 NMeFOSAA



80 Perfluorodecanesulfonic acid

80 Perfluorodecanesulfonic acid

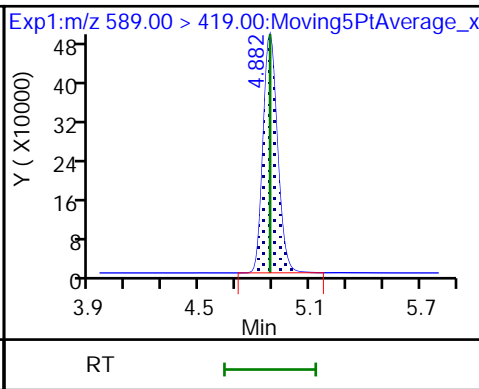
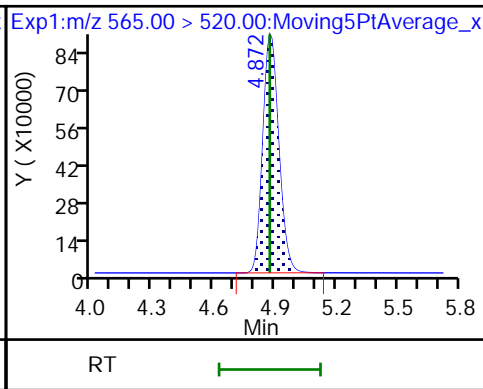
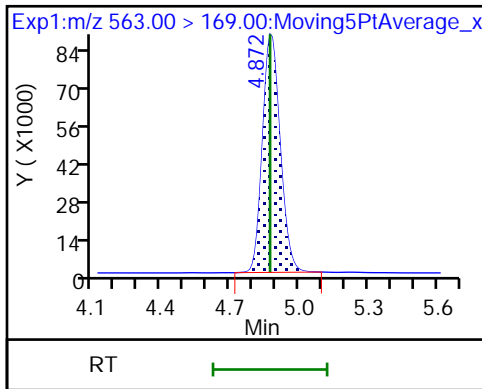
81 Perfluoroundecanoic acid

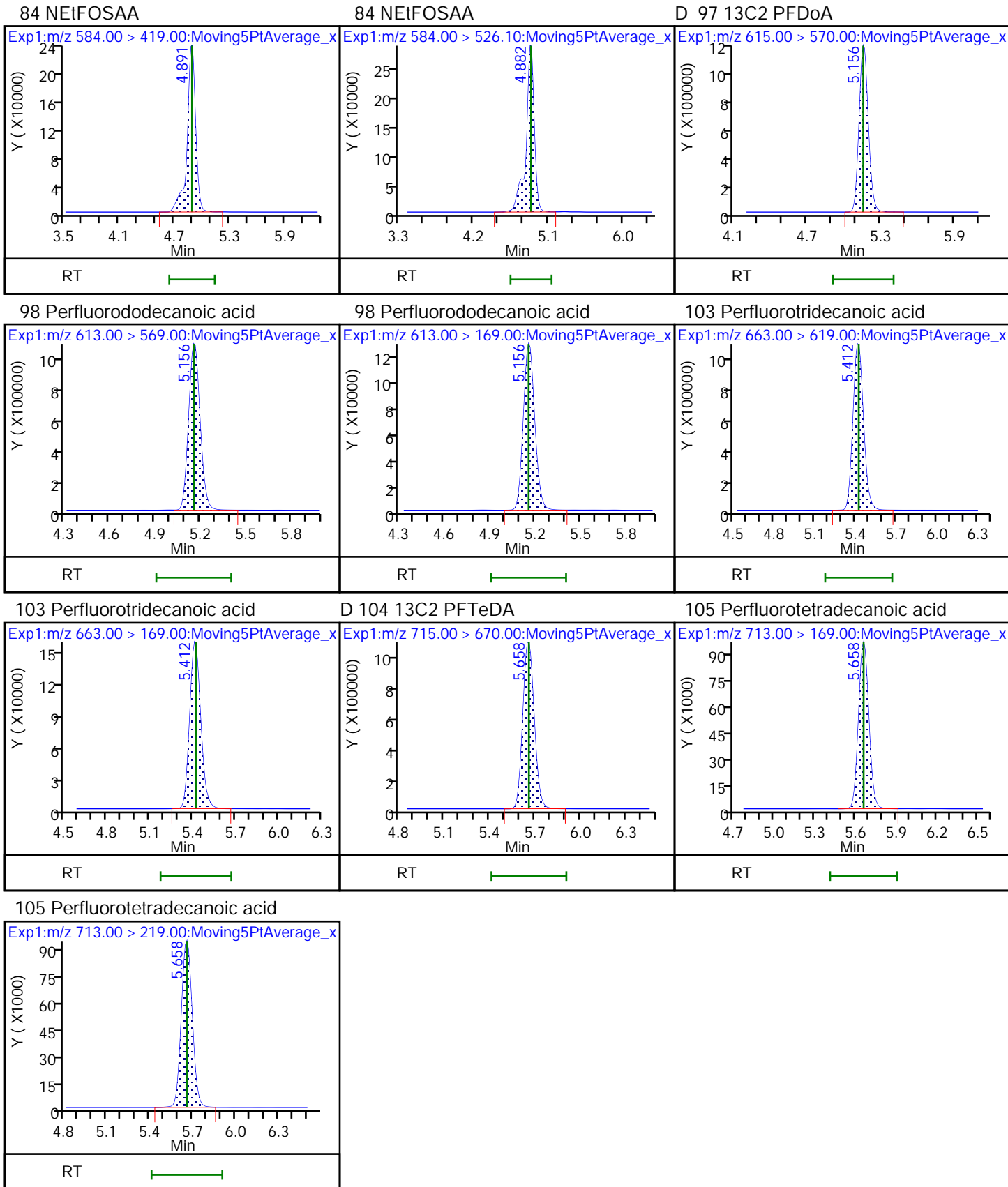


81 Perfluoroundecanoic acid

D 82 13C2 PFUnA

D 83 d5-NEtFOSAA







FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 320-496408/2-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_026.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:41  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	40.7		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	40.5		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	42.8		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	41.5		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	41.8		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	42.5		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	38.1		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	39.2		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	40.6		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	43.1		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	41.0		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	38.7		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	35.8		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	44.0		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	41.4		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	41.0		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	40.1		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	38.8		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	41.3		5.0	
27619-97-2	6:2 FTS	38.3		5.0	
39108-34-4	8:2 FTS	42.0		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 320-496408/2-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_026.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:41  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	98		25-150
STL01893	13C5 PFPeA	95		25-150
STL00993	13C2 PFHxA	92		25-150
STL01892	13C4 PFHpA	98		25-150
STL00990	13C4 PFOA	94		25-150
STL00995	13C5 PFNA	95		25-150
STL00996	13C2 PFDA	92		25-150
STL00997	13C2 PFUnA	89		25-150
STL00998	13C2 PFDoA	100		25-150
STL02116	13C2 PFTeDA	83		25-150
STL02337	13C3 PFBS	97		25-150
STL00994	18O2 PFHxS	102		25-150
STL00991	13C4 PFOS	95		25-150
STL01056	13C8 FOSA	102		25-150
STL02118	d3-NMeFOSAA	95		25-150
STL02117	d5-NEtFOSAA	99		25-150
STL02279	M2-6:2 FTS	74		25-150
STL02280	M2-8:2 FTS	84		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_026.d  
 Lims ID: LCS 320-496408/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 10-Jun-2021 07:41:26 ALS Bottle#: 15 Worklist Smp#: 3  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: lcs 320-496408/2-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:48:08 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:48:08  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.309	2.319	-0.010	0.602	6186257	1.22	97.8	45475	
10 Perfluorobutanoic acid	212.90 > 169.00	2.309	2.319	-0.010	1.000	4764435	1.02	102	6252	
18 Perfluoropentanoic acid	262.90 > 219.00	2.650	2.650	0.0	1.000	4814836	1.01	101	18325	
D 17 13C5 PFPeA	267.90 > 223.00	2.650	2.650	0.0	0.691	5666047	1.19	94.9	42031	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.682	2.683	-0.001	1.000	3520872	0.9677	Target=2.31	109	30284
	298.90 > 99.00	2.682	2.683	-0.001	1.000	1547519		2.28(1.15-3.46)		16838
D 21 13C3 PFBS	301.90 > 80.00	2.682	2.683	-0.001	0.699	3740546	1.12	96.6	47160	
29 Perfluorohexanoic acid	313.00 > 269.00	3.019	3.018	0.001	1.000	5208427	1.07	Target=13.85	107	15059
	313.00 > 119.00	3.019	3.018	0.001	1.000	377423		13.80(6.93-20.78)		6286
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.018	0.001	0.787	5435743	1.15	92.0	62115	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.433	3.433	0.0	1.000	2390800	0.8955	Target=3.47	98.4	30561
	399.00 > 99.00	3.433	3.433	0.0	1.000	705916		3.39(1.73-5.20)		10370
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.895	2855014	1.21	102	75261	
D 37 13C4 PFHpA	367.00 > 322.00	3.423	3.433	-0.010	0.893	5716407	1.23	98.2	47733	
36 Perfluoroheptanoic acid	363.00 > 319.00	3.423	3.433	-0.010	1.000	5017287	1.04	Target=4.00	104	16858
	363.00 > 169.00	3.423	3.433	-0.010	1.000	1352422		3.71(2.00-6.00)		20793

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.815	0.001	0.995	946349	0.8802		74.1	10293	
53 6:2 FTS										
427.00 > 407.00	3.816	3.815	0.001	1.000	1573770	0.9587	Target=1.95	101	7308	
427.00 > 79.96	3.816	3.815	0.001	1.000	819911		1.92(0.98-2.93)		4112	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.826	3.824	0.002	0.912	2218417	1.10	Target=4.90	115	21892	
449.00 > 99.00	3.826	3.824	0.002	0.912	471203		4.71(2.45-7.35)		9838	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6212315	1.17		93.9	60437	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.834	0.001	1.000	5428079	1.05	Target=3.05	105	18877	
413.00 > 169.00	3.835	3.834	0.001	1.000	1974634		2.75(1.53-4.58)		60890	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		6343616	1.25			69069	
D 61 13C4 PFOS										
503.00 > 80.00	4.194	4.201	-0.007	1.094	2114112	1.14		95.4	27918	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.194	4.201	-0.007	1.000	2061515	1.04	Target=5.72	112	18091	
499.00 > 99.00	4.194	4.201	-0.007	1.000	363758		5.67(2.86-8.58)		16290	
D 63 13C5 PFNA										
468.00 > 423.00	4.210	4.209	0.001	1.098	6022999	1.19		95.3	70652	
64 Perfluorononanoic acid										
463.00 > 419.00	4.210	4.217	-0.007	1.000	5071007	1.06	Target=7.63	106	26373	
463.00 > 169.00	4.210	4.217	-0.007	1.000	630683		8.04(3.81-11.44)		7640	
D 71 13C8 FOSA										
506.00 > 78.00	4.534	4.532	0.002	1.182	3966766	1.27		102	40002	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.534	4.532	0.002	1.000	3196029	1.00		100	38304	
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	5821073	1.15		92.1	85414	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.561	4.559	0.002	1.000	4529224	0.9513	Target=8.80	95.1	32227	
513.00 > 169.00	4.561	4.559	0.002	1.000	539577		8.39(4.40-13.19)		2756	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.561	4.559	0.002	1.189	1693565	1.01		84.2	17807	
77 8:2 FTS										
527.00 > 507.00	4.561	4.569	-0.008	1.000	2322444	1.05	Target=2.30	110	55159	
527.00 > 79.96	4.561	4.569	-0.008	1.000	1082524		2.15(1.15-3.45)		8963	
79 NMeFOSAA										
570.00 > 419.00	4.720	4.718	0.002	1.000	1451542	0.9711	Target=0.82	97.1	8857	
570.00 > 483.00	4.720	4.718	0.002	1.000	1694042		0.86(0.41-1.23)		25763	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.720	4.718	0.002	1.231	2525879	1.18		94.6	19592	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.846	4.843	0.003	1.155	1485314	1.02	Target=3.11	106	16392	
599.00 > 99.00	4.846	4.843	0.003	1.155	479843		3.10(1.55-4.66)		12852	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 82 13C2 PFUnA										
565.00 > 520.00	4.874	4.872	0.002	1.271	5432689	1.11		89.1	78285	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.874	4.872	0.002	1.000	3919692	0.9792	Target=8.61	97.9	32096	
563.00 > 169.00	4.874	4.872	0.002	1.000	514452		7.62(4.30-12.91)		8729	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.882	0.002	1.274	2626565	1.24		98.9	22908	
84 NEtFOSAA										
584.00 > 419.00	4.884	4.882	0.002	1.000	1553931	1.03	Target=0.75	103	49910	
584.00 > 526.10	4.884	4.882	0.002	1.000	1992559		0.78(0.37-1.12)		72260	
D 97 13C2 PFDaA										
615.00 > 570.00	5.159	5.156	0.003	1.345	6580563	1.25		99.8	97893	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.159	5.156	0.003	1.000	5942029	1.02	Target=8.71	102	42489	
613.00 > 169.00	5.159	5.156	0.003	1.000	700576		8.48(4.35-13.06)		14966	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.416	5.412	0.004	1.050	5263485	1.08	Target=6.09	108	40868	
663.00 > 169.00	5.416	5.412	0.004	1.050	866529		6.07(3.05-9.14)		16300	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.651	5.649	0.002	1.000	509562	1.03	Target=1.13	103	16199	
713.00 > 219.00	5.651	5.649	0.002	1.000	477248		1.07(0.57-1.70)		13010	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.651	5.649	0.002	1.474	5049884	1.04		83.1	48776	

**QC Flag Legend**

Processing Flags

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_026.d

Injection Date: 10-Jun-2021 07:41:26

Instrument ID: A15

Lims ID: LCS 320-496408/2-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 15

Worklist Smp#: 3

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

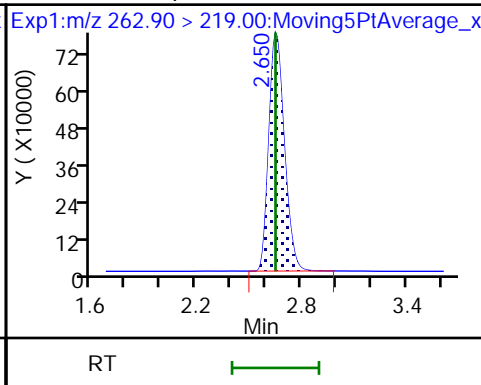
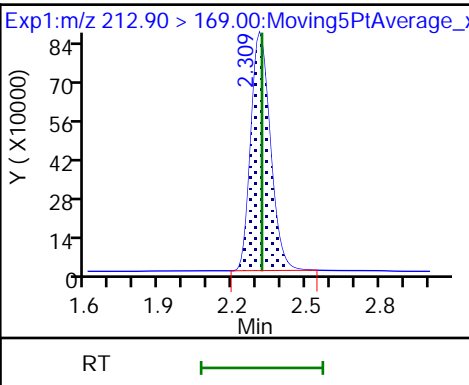
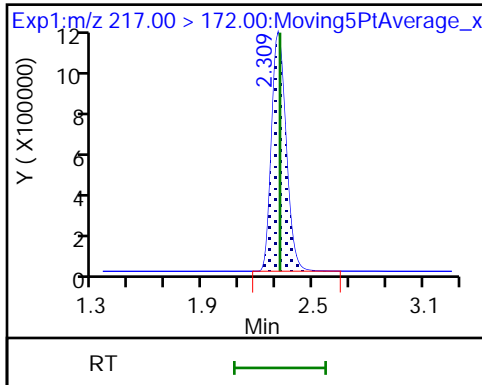
Method: PFAS+\_A15

Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

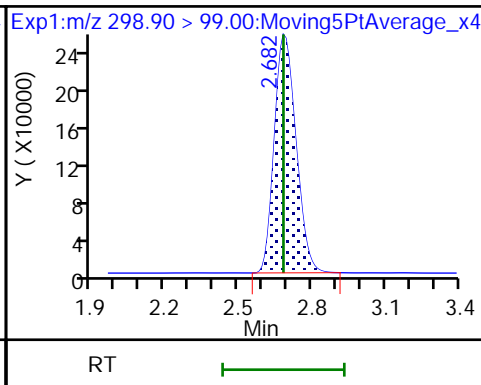
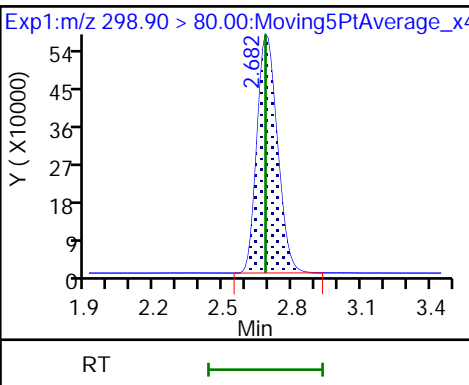
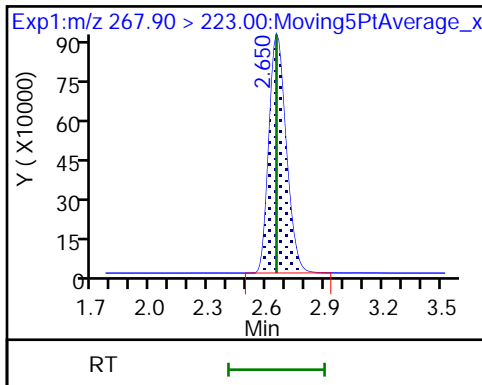
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

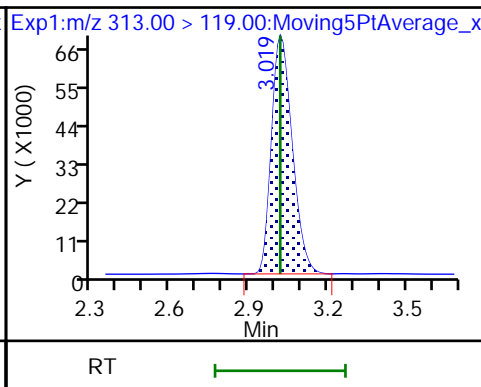
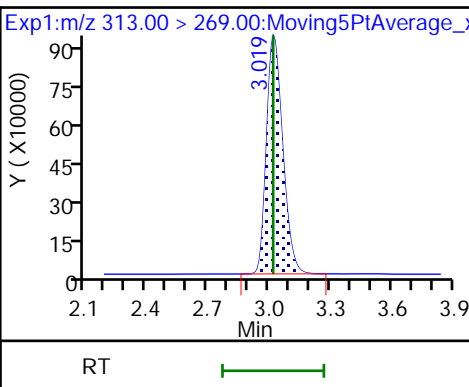
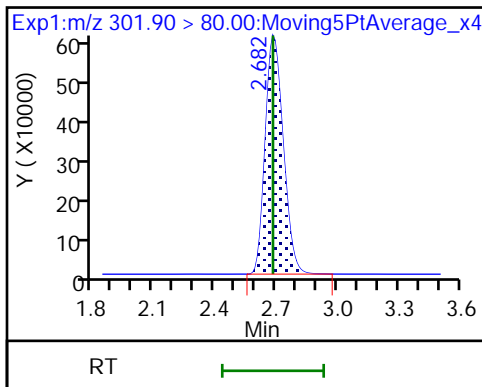
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

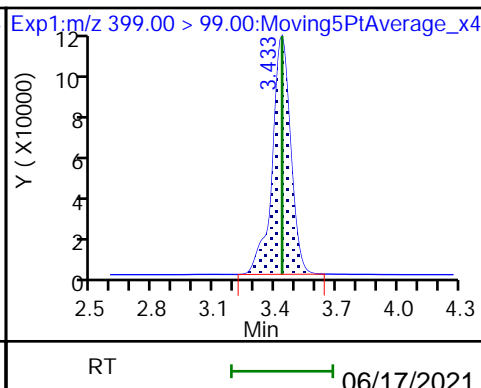
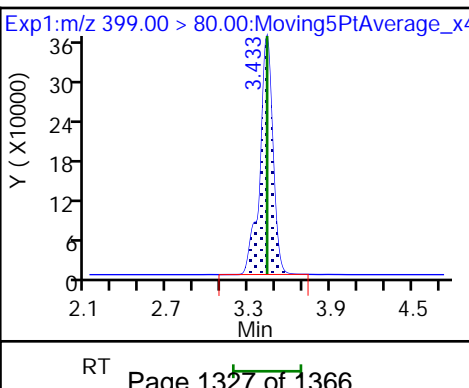
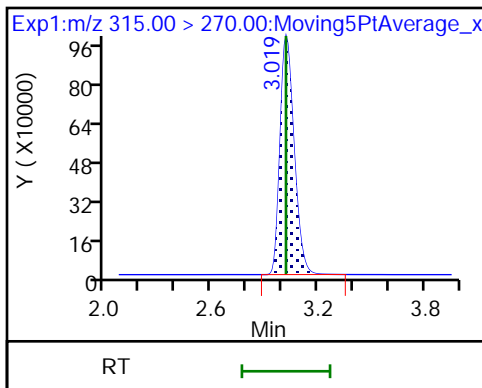
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

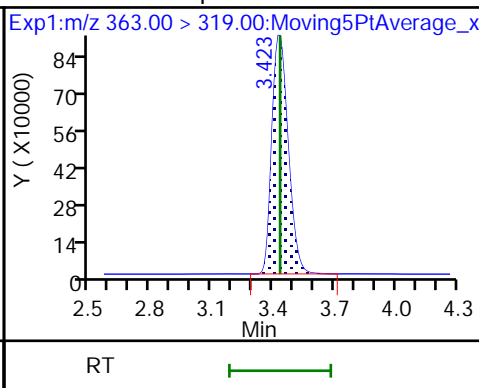
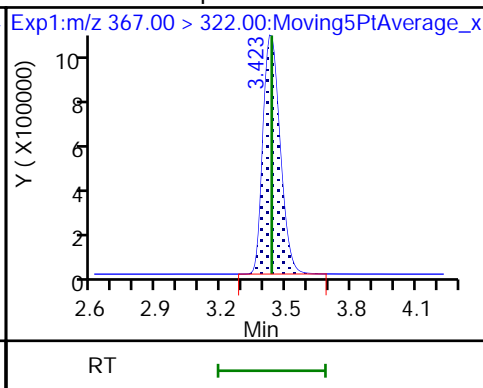
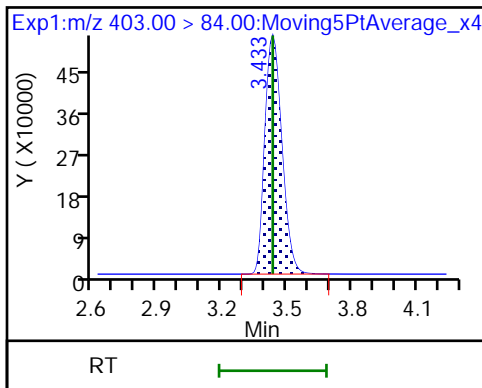
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

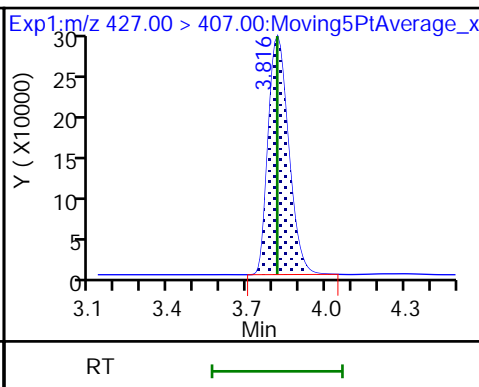
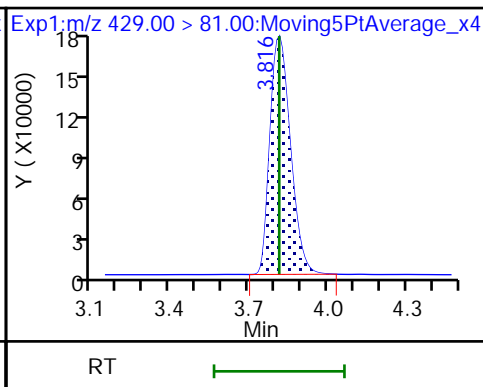
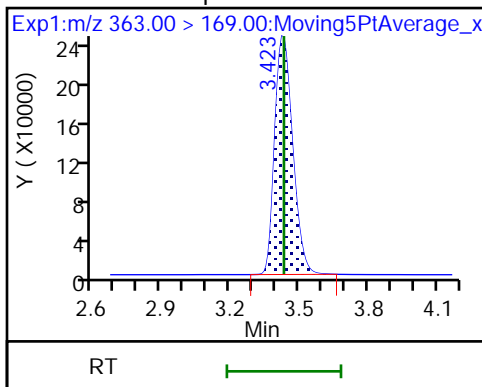
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

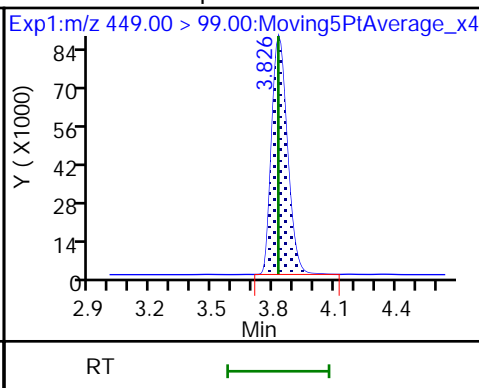
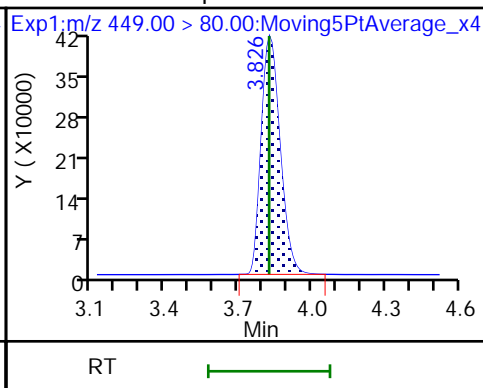
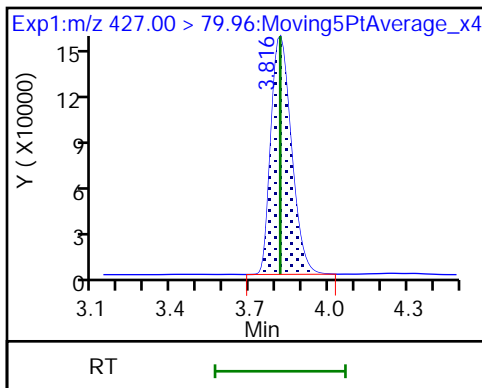
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid

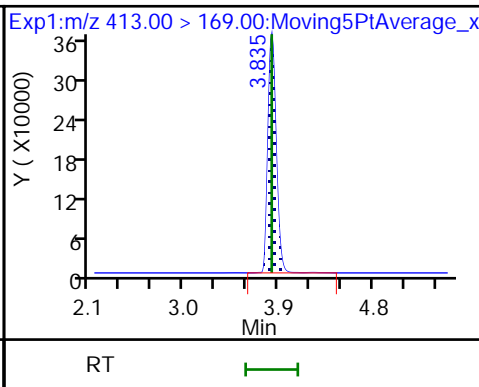
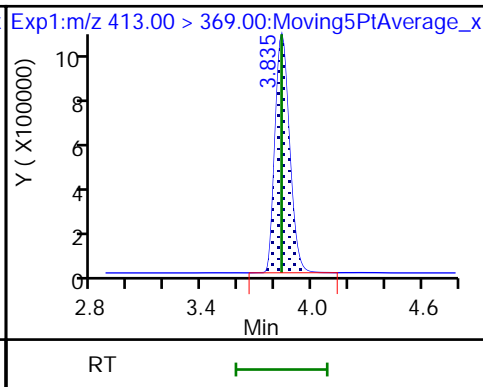
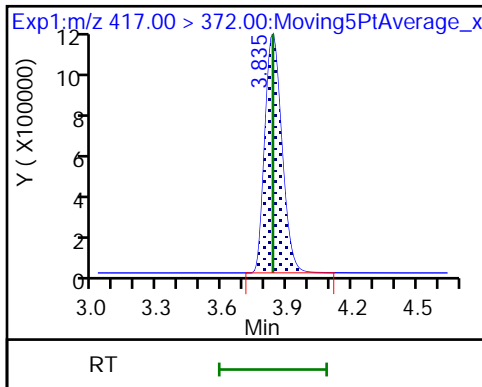
54 Perfluoroheptanesulfonic acid



D 56 13C4 PFOA

58 Perfluorooctanoic acid

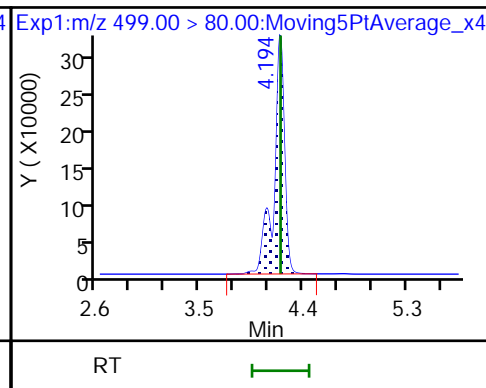
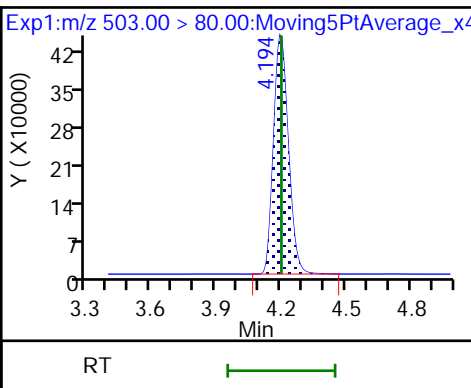
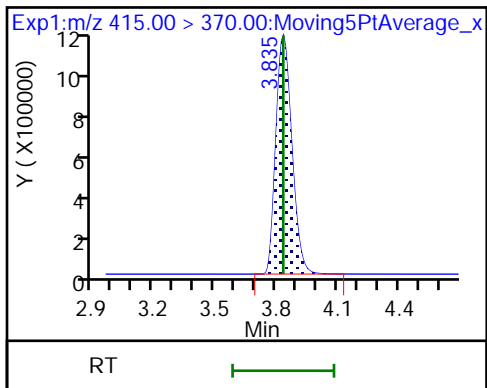
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

D 61 13C4 PFOS

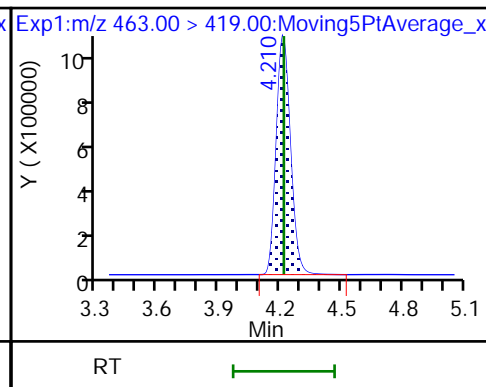
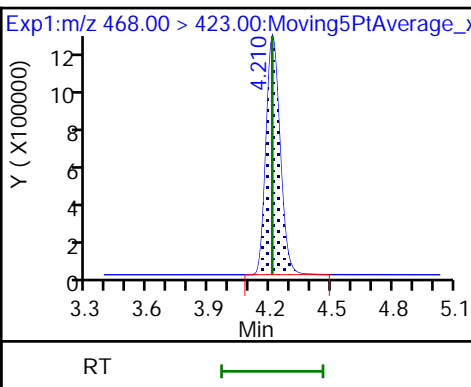
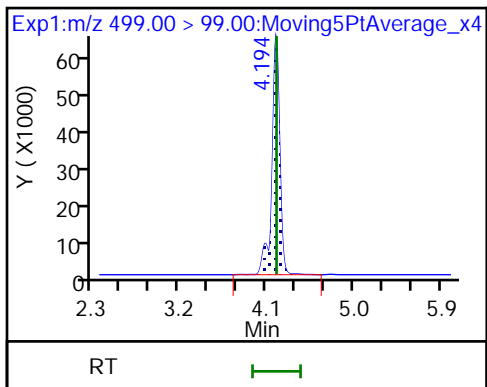
62 Perfluorooctanesulfonic acid



62 Perfluorooctanesulfonic acid

D 63 13C5 PFNA

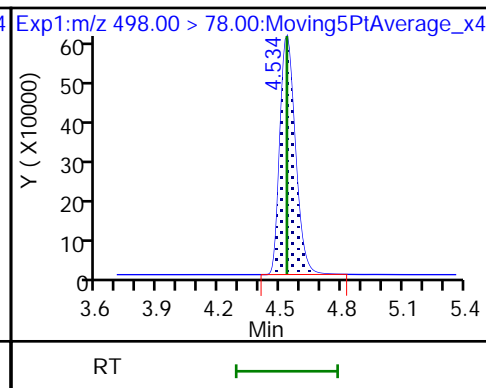
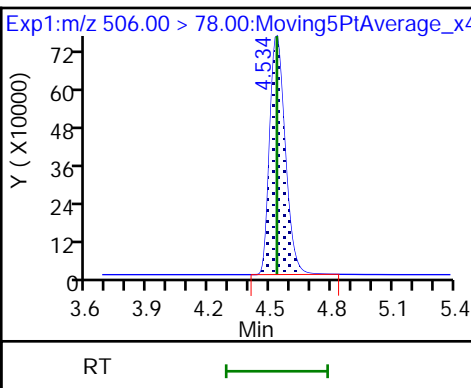
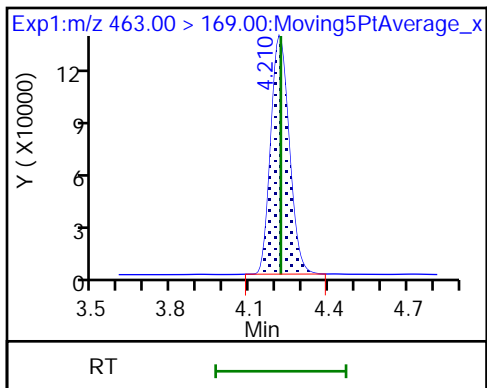
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

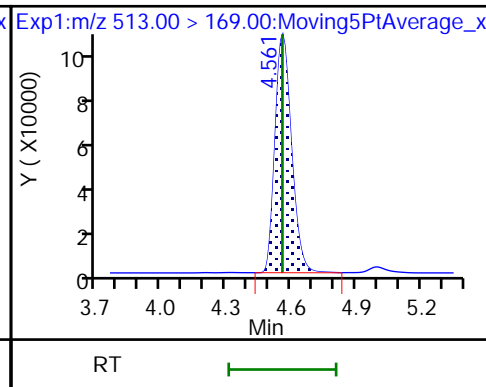
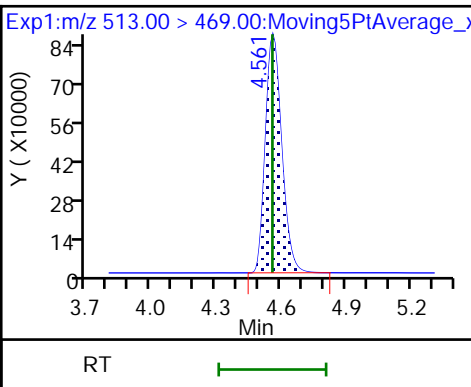
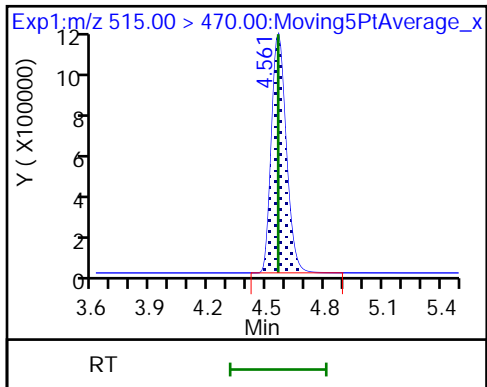
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

75 Perfluorodecanoic acid

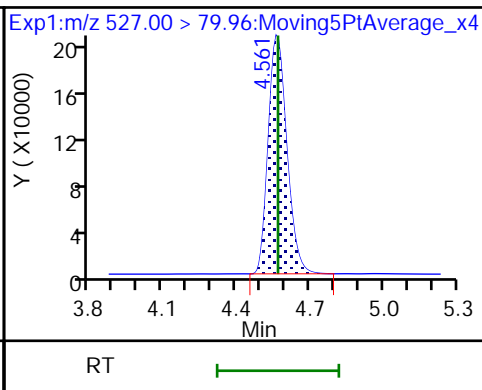
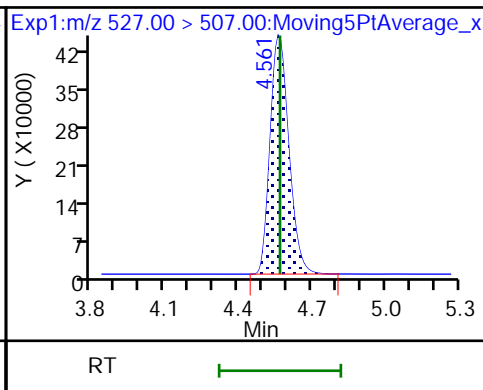
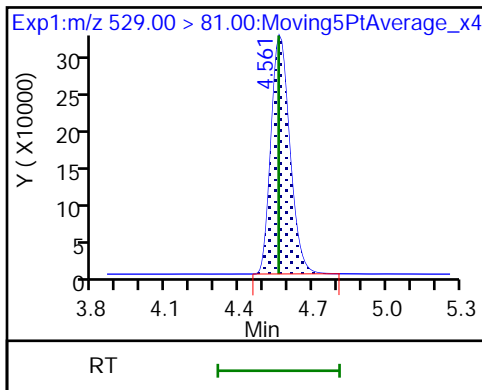




D 76 M2-8:2 FTS

77 8:2 FTS

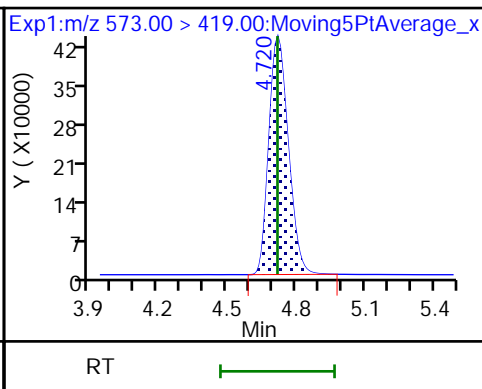
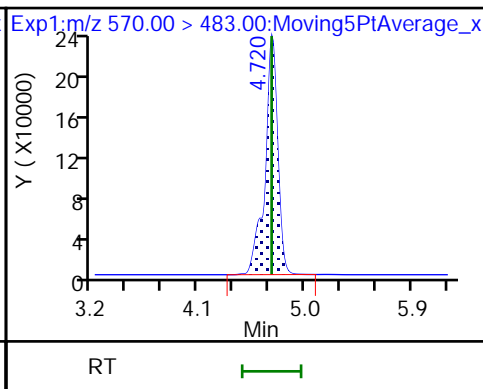
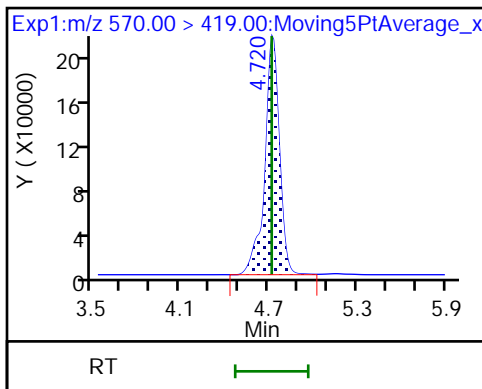
77 8:2 FTS



79 NMeFOSAA

79 NMeFOSAA

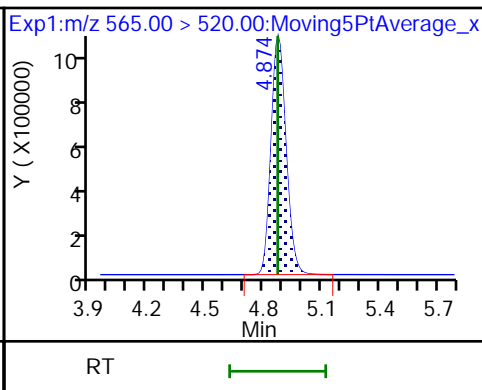
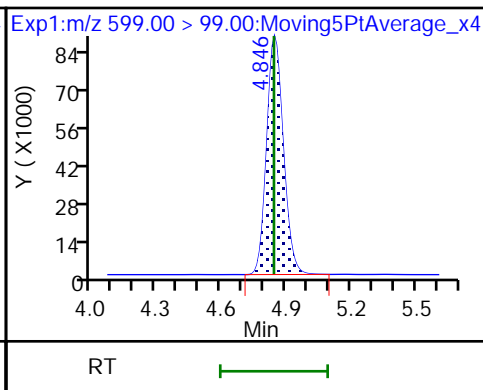
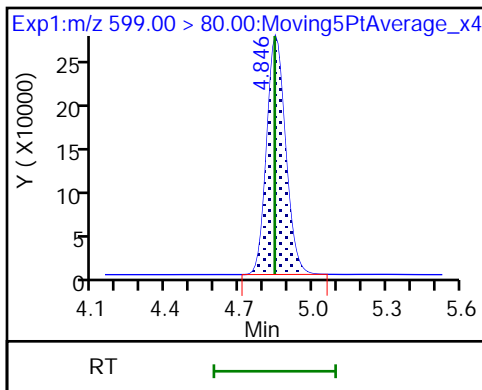
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid

80 Perfluorodecanesulfonic acid

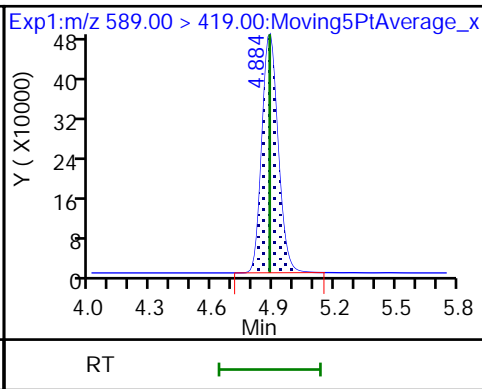
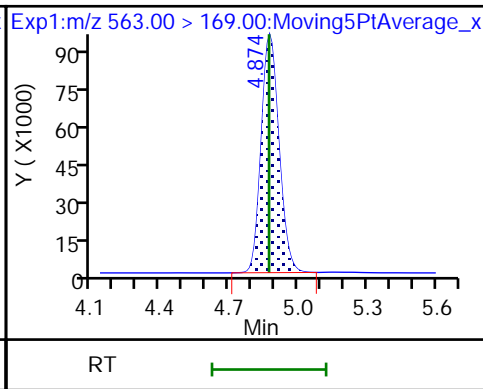
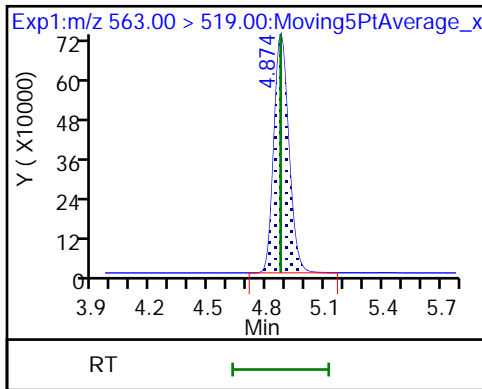
D 82 13C2 PFUnA

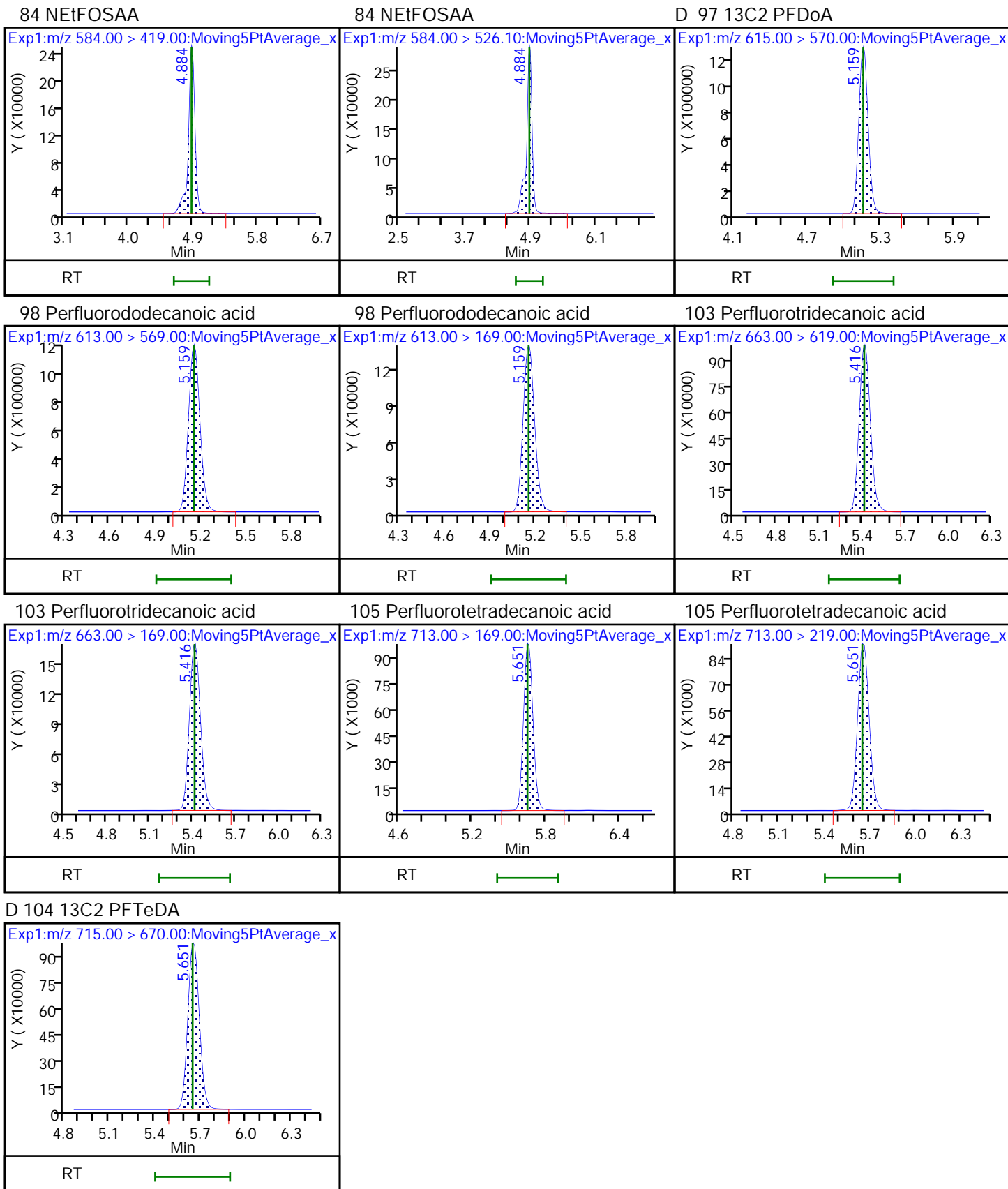


81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

D 83 d5-NEtFOSAA





FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 320-496405/3-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_009.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 05:06  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	40.6		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	38.4		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	39.3		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	40.5		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	41.2		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	39.5		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	35.7		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	42.5		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	41.1		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	39.3		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	40.9		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	35.8		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	33.5		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	39.6		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	37.9		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	36.4		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	37.7		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	37.6		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	38.4		5.0	
27619-97-2	6:2 FTS	40.2		5.0	
39108-34-4	8:2 FTS	39.2		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 320-496405/3-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_009.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:41  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 05:06  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497061 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	100		25-150
STL01893	13C5 PFPeA	102		25-150
STL00993	13C2 PFHxA	100		25-150
STL01892	13C4 PFHpA	106		25-150
STL00990	13C4 PFOA	99		25-150
STL00995	13C5 PFNA	103		25-150
STL00996	13C2 PFDA	100		25-150
STL00997	13C2 PFUnA	84		25-150
STL00998	13C2 PFDoA	102		25-150
STL02116	13C2 PFTeDA	93		25-150
STL02337	13C3 PFBS	107		25-150
STL00994	18O2 PFHxS	108		25-150
STL00991	13C4 PFOS	102		25-150
STL01056	13C8 FOSA	110		25-150
STL02118	d3-NMeFOSAA	101		25-150
STL02117	d5-NEtFOSAA	108		25-150
STL02279	M2-6:2 FTS	89		25-150
STL02280	M2-8:2 FTS	99		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_009.d  
 Lims ID: LCSD 320-496405/3-A  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 10-Jun-2021 05:06:08 ALS Bottle#: 3 Worklist Smp#: 6  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: lcsd 320-496405/3-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 08:24:40 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1656

First Level Reviewer: mongkols Date: 11-Jun-2021 08:37:57  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_006.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluorobutanoic acid										
212.90 > 169.00	2.311	2.319	-0.008	1.000	4571784	1.02		102	6363	
D 9 13C4 PFBA										
217.00 > 172.00	2.311	2.319	-0.008	0.603	5950597	1.25		100	47646	
18 Perfluoropentanoic acid										
262.90 > 219.00	2.651	2.650	0.001	1.000	4623685	0.9609		96.1	12223	
D 17 13C5 PFPeA										
267.90 > 223.00	2.651	2.661	-0.010	0.691	5739839	1.28		102	45203	
D 21 13C3 PFBS										
301.90 > 80.00	2.684	2.682	0.002	0.700	3910606	1.25		107	36047	
20 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.684	2.693	-0.009	1.000	3408935	0.8962	Target=2.41	101	31402	
298.90 > 99.00	2.684	2.693	-0.009	1.000	1458348		2.34(1.20-3.61)		15089	
29 Perfluorohexanoic acid										
313.00 > 269.00	3.018	3.019	-0.001	1.000	4909043	0.9822	Target=13.85	98.2	14464	
313.00 > 119.00	3.018	3.019	-0.001	1.000	351840		13.95(6.92-20.77)		3080	
D 28 13C2 PFHxA										
315.00 > 270.00	3.018	3.019	-0.001	0.787	5577190	1.25		100	50962	
36 Perfluoroheptanoic acid										
363.00 > 319.00	3.433	3.433	0.0	1.000	4975325	1.01	Target=3.98	101	16877	
363.00 > 169.00	3.433	3.433	0.0	1.000	1301828		3.82(1.99-5.97)		15956	
39 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.433	3.433	0.0	1.000	2232128	0.8378	Target=3.33	92.1	22748	
399.00 > 99.00	3.433	3.433	0.0	1.000	671459		3.32(1.66-4.99)		13498	
D 38 18O2 PFHxS										
403.00 > 84.00	3.433	3.433	0.0	0.895	2848965	1.28		108	43472	
D 37 13C4 PFHpA										
367.00 > 322.00	3.433	3.433	0.0	0.895	5808349	1.33		106	66619	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 6:2 FTS										
427.00 > 407.00	3.816	3.814	0.002	1.000	1869288	1.01	Target=2.13	106	7036	
427.00 > 79.96	3.816	3.814	0.002	1.000	878591		2.13(1.07-3.20)		4432	
D 52 M2-6:2 FTS										
429.00 > 81.00	3.816	3.814	0.002	0.995	1071508	1.06		89.3	16266	
D 56 13C4 PFOA										
417.00 > 372.00	3.835	3.834	0.001	1.000	6141534	1.23		98.7	66307	
* 57 13C2 PFOA										
415.00 > 370.00	3.835	3.834	0.001		5965031	1.25			60938	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.835	3.834	0.001	0.913	2007960	0.9899	Target=4.85	104	21761	
449.00 > 99.00	3.835	3.834	0.001	0.913	431999		4.65(2.43-7.28)		6658	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.835	3.834	0.001	1.000	5288588	1.03	Target=2.90	103	13937	
413.00 > 169.00	3.835	3.834	0.001	1.000	1889868		2.80(1.45-4.35)		69023	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.202	4.201	0.001	1.000	1892734	0.9464	Target=5.77	102	15036	
499.00 > 99.00	4.202	4.201	0.001	1.000	332617		5.69(2.88-8.65)		12311	
D 61 13C4 PFOS										
503.00 > 80.00	4.202	4.201	0.001	1.096	2124264	1.22		102	23593	
D 63 13C5 PFNA										
468.00 > 423.00	4.218	4.217	0.001	1.100	6133843	1.29		103	85749	
64 Perfluorononanoic acid										
463.00 > 419.00	4.218	4.217	0.001	1.000	4801847	0.9883	Target=8.24	98.8	15462	
463.00 > 169.00	4.218	4.217	0.001	1.000	653938		7.34(4.12-12.36)		11478	
D 71 13C8 FOSA										
506.00 > 78.00	4.534	4.523	0.011	1.182	4040352	1.37		110	52142	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.534	4.532	0.002	1.000	3055877	0.9418		94.2	45279	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.571	4.559	0.012	1.002	4325535	0.8917	Target=8.21	89.2	24173	
513.00 > 169.00	4.561	4.559	0.002	1.000	492424		8.78(4.10-12.31)		2508	
D 74 13C2 PFDA										
515.00 > 470.00	4.561	4.559	0.002	1.189	5931180	1.25		99.8	70227	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.571	4.569	0.002	1.192	1873114	1.19		99.1	23418	
77 8:2 FTS										
527.00 > 507.00	4.571	4.569	0.002	1.000	2396753	0.9802	Target=2.42	102	55729	
527.00 > 79.96	4.571	4.569	0.002	1.000	1095034		2.19(1.21-3.63)		11417	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.719	4.718	0.001	1.231	2522857	1.26		101	16430	
79 NMeFOSAA										
570.00 > 419.00	4.730	4.729	0.001	1.002	1402809	0.9396	Target=0.83	94.0	51791	
570.00 > 483.00	4.730	4.729	0.001	1.002	1698536		0.83(0.41-1.24)		38912	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.855	4.843	0.012	1.155	1327021	0.9110	Target=3.21	94.5	17722	
599.00 > 99.00	4.855	4.843	0.012	1.155	426725		3.11(1.60-4.81)		9892	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.874	4.872	0.002	0.998	3765116	1.06	Target=7.61	106	28190	
563.00 > 169.00	4.884	4.872	0.012	1.000	456251		8.25(3.80-11.41)		7734	
D 82 13C2 PFUnA										
565.00 > 520.00	4.884	4.872	0.012	1.274	4809769	1.05		83.9	54871	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.884	4.882	0.002	1.274	2692430	1.35		108	24949	
84 NEtFOSAA										
584.00 > 419.00	4.894	4.891	0.003	1.002	1480379	0.9592	Target=0.77	95.9	58754	
584.00 > 526.10	4.894	4.891	0.003	1.002	1913018		0.77(0.38-1.15)		34931	
D 97 13C2 PFDaA										
615.00 > 570.00	5.159	5.156	0.003	1.345	6328075	1.28		102	86924	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.159	5.156	0.003	1.000	5778867	1.03	Target=7.78	103	37037	
613.00 > 169.00	5.168	5.156	0.012	1.002	650776		8.88(3.89-11.67)		13733	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.417	5.422	-0.005	1.050	4619528	0.9834	Target=6.20	98.3	27722	
663.00 > 169.00	5.417	5.422	-0.005	1.050	810565		5.70(3.10-9.30)		16816	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.661	5.658	0.003	1.476	5299515	1.16		92.8	53987	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.661	5.658	0.003	1.000	533100	1.02	Target=1.03	102	20523	
713.00 > 219.00	5.661	5.658	0.003	1.000	497886		1.07(0.51-1.54)		15963	

**QC Flag Legend**

Processing Flags

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120793.b\2021.06.09\_A15\_PFC+\_E\_009.d

Injection Date: 10-Jun-2021 05:06:08

Instrument ID: A15

Lims ID: LCSD 320-496405/3-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 3

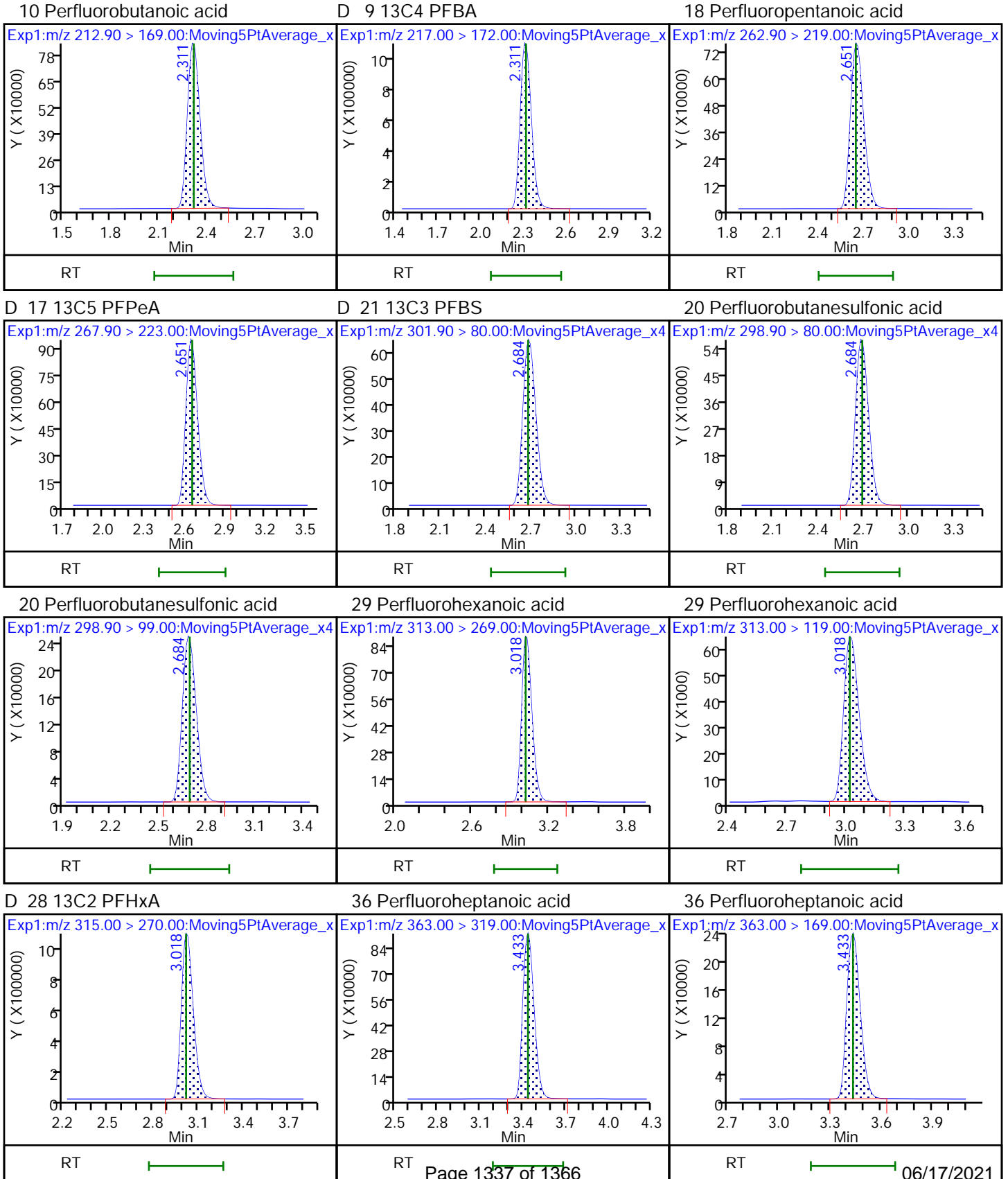
Worklist Smp#: 6

Injection Vol: 20.0 ul

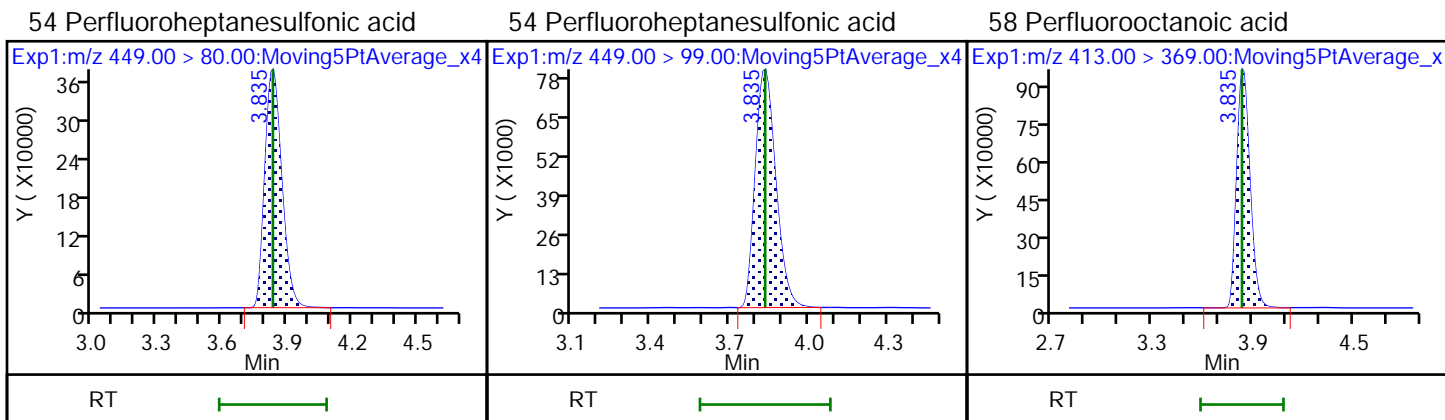
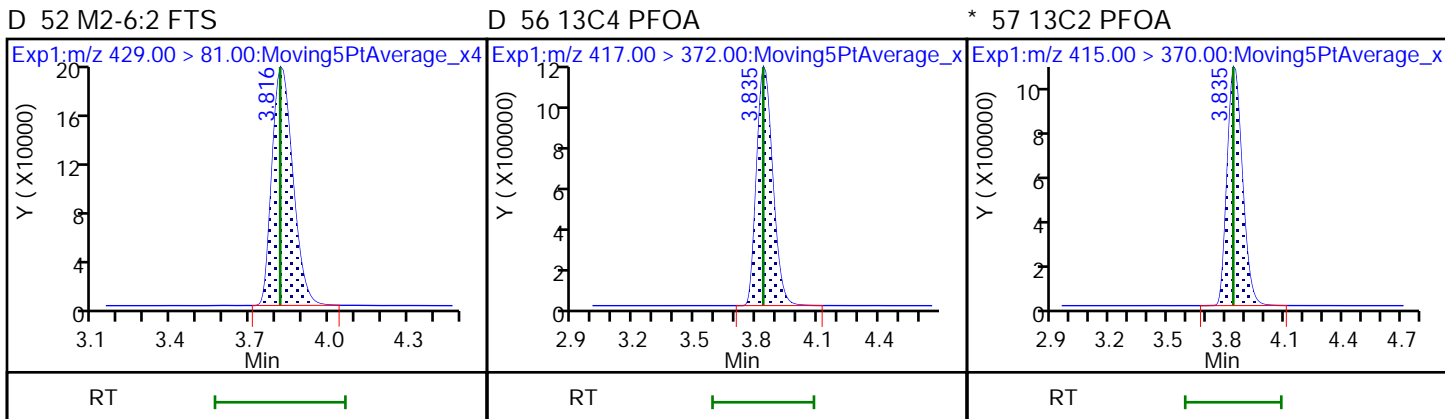
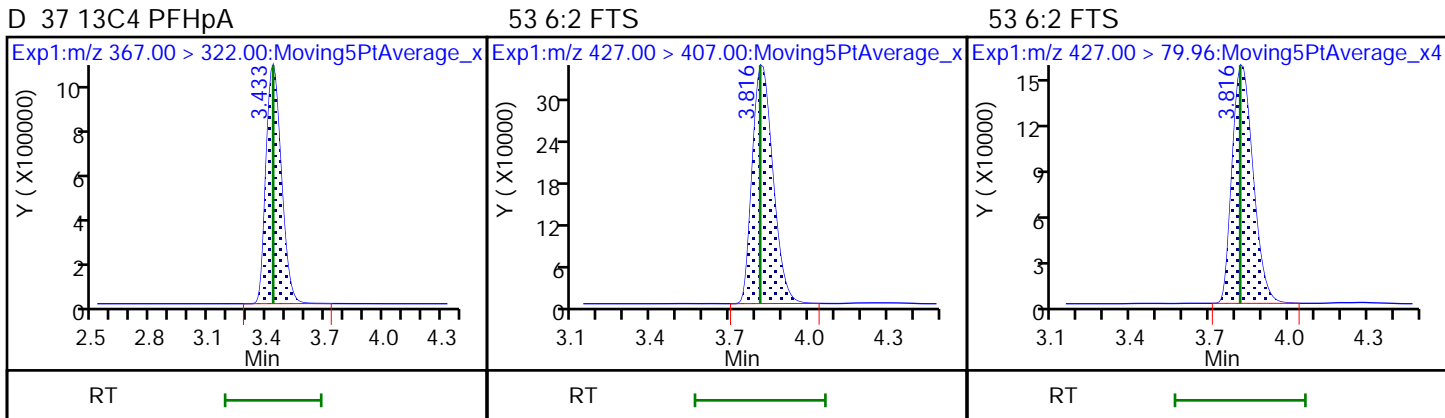
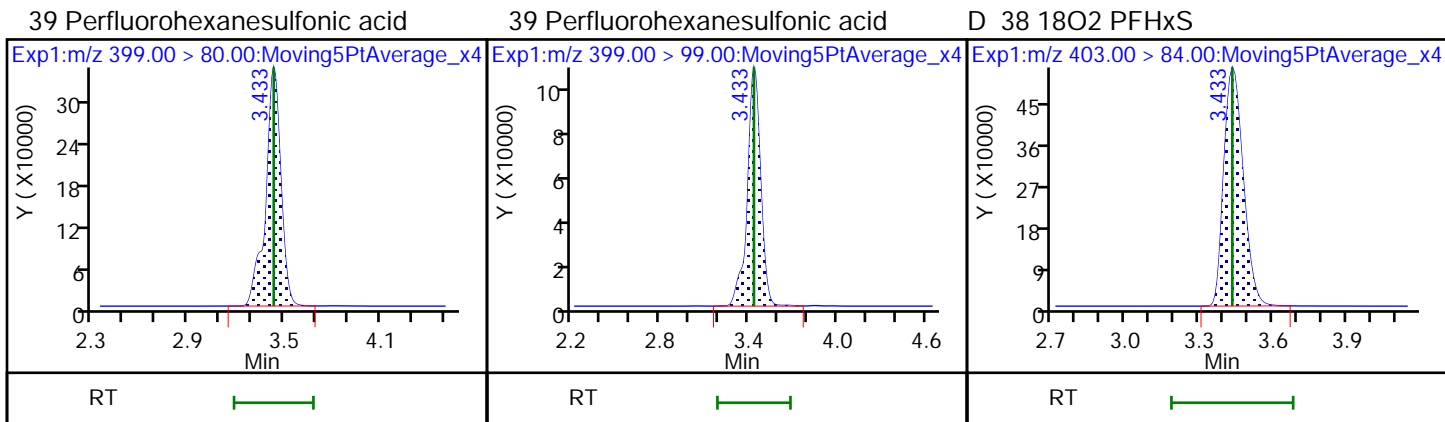
Dil. Factor: 1.0000

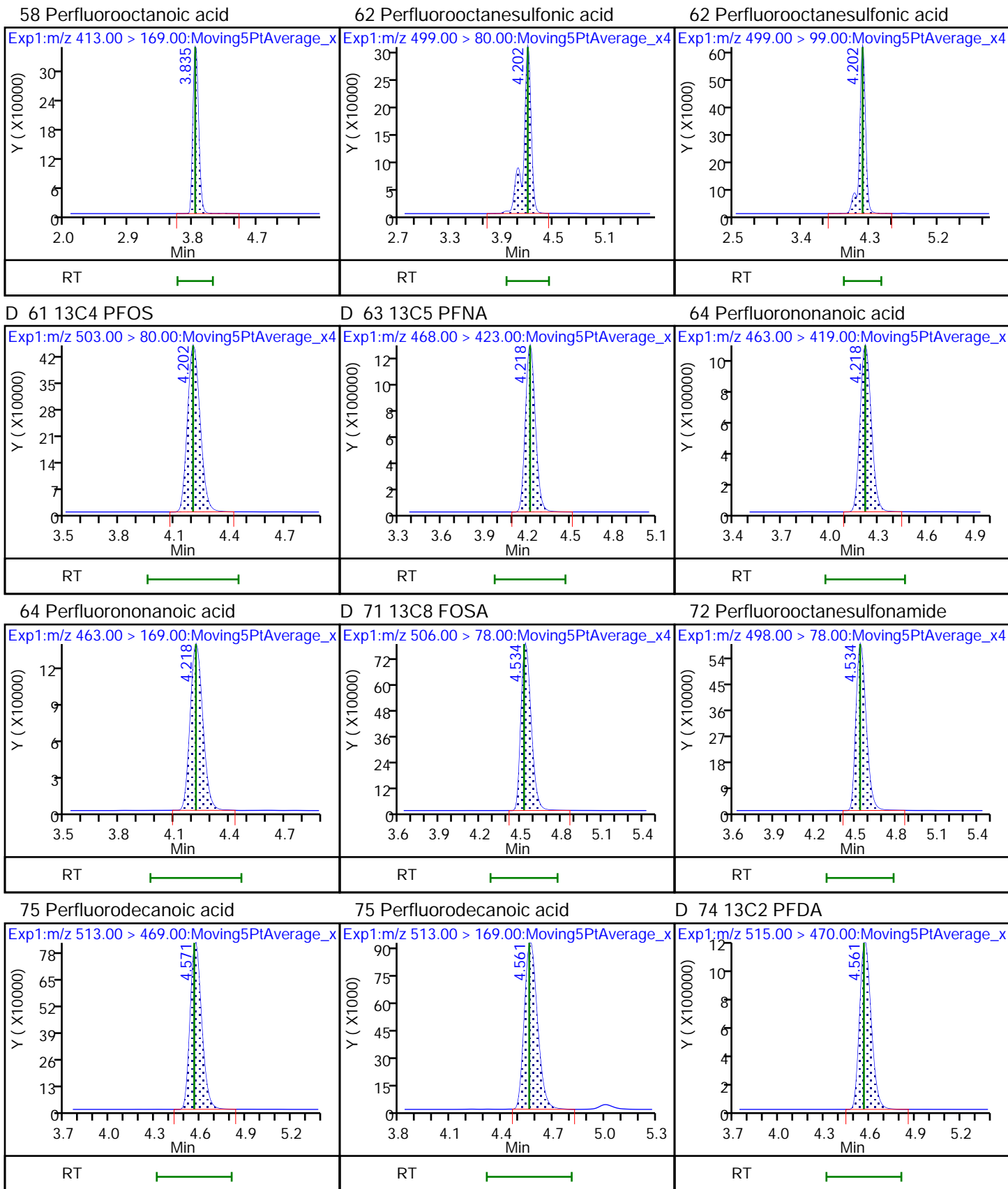
Method: PFAS+\_A15

Limit Group: LC PFC ICAL





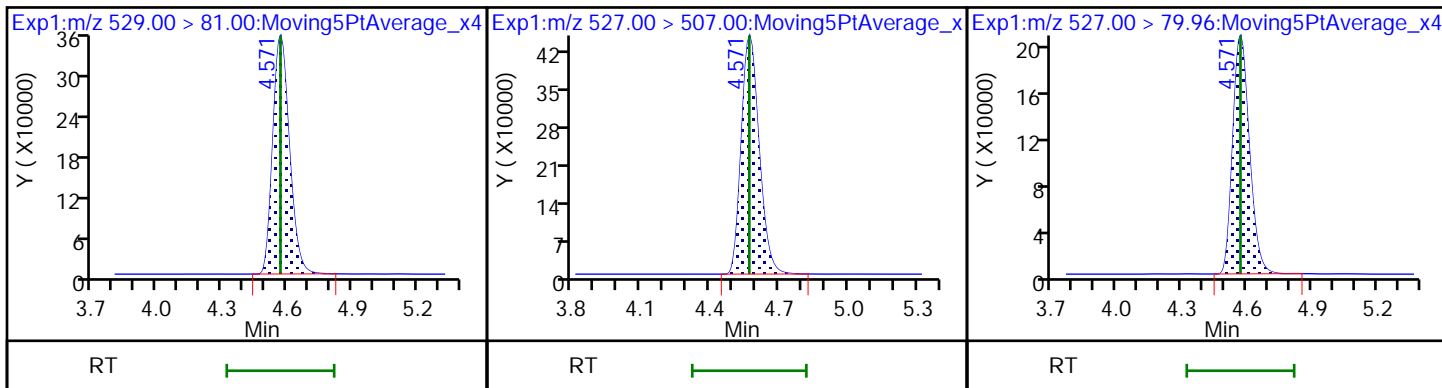




D 76 M2-8:2 FTS

77 8:2 FTS

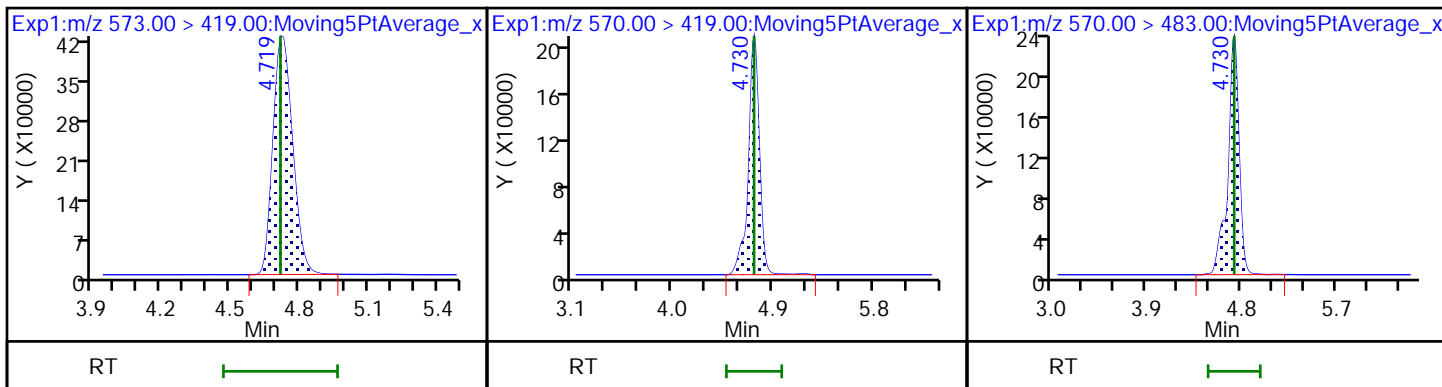
77 8:2 FTS



D 78 d3-NMeFOSAA

79 NMeFOSAA

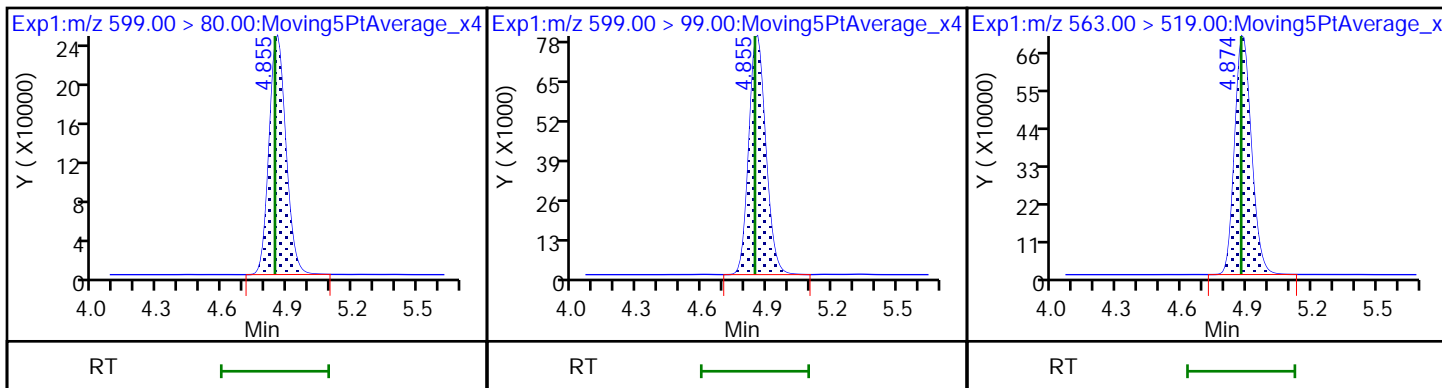
79 NMeFOSAA



80 Perfluorodecanesulfonic acid

80 Perfluorodecanesulfonic acid

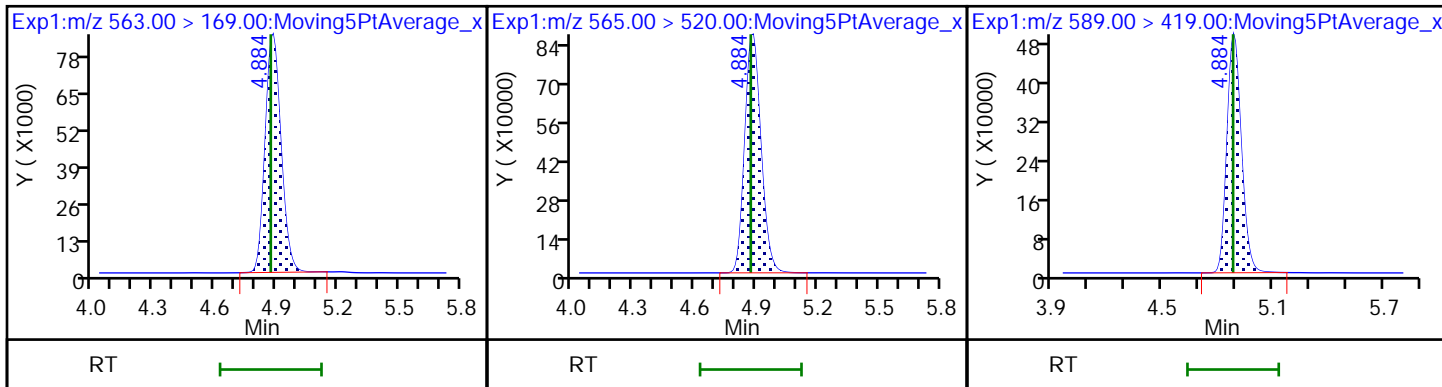
81 Perfluoroundecanoic acid

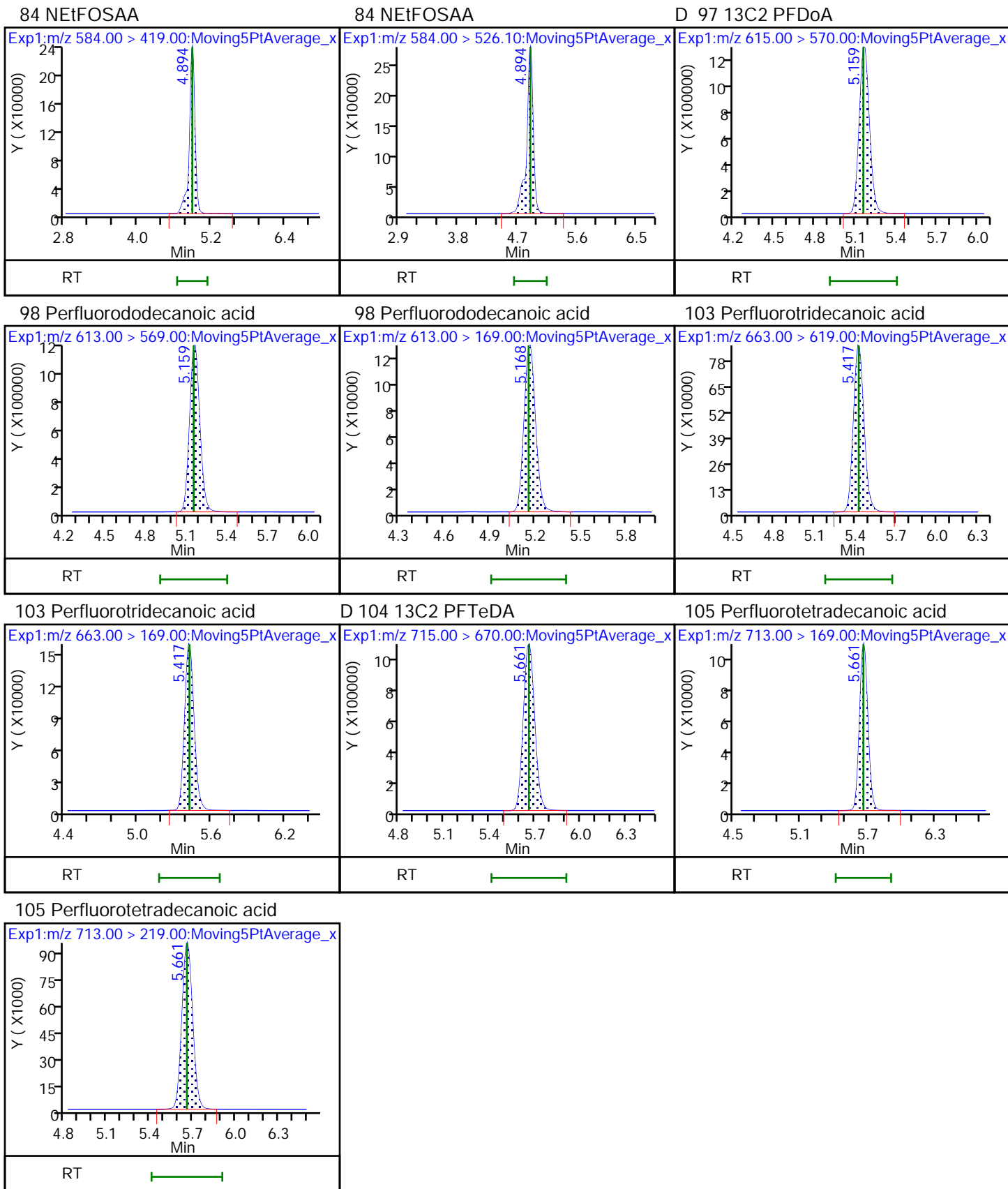


81 Perfluoroundecanoic acid

D 82 13C2 PFUnA

D 83 d5-NEtFOSAA





FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 320-496408/3-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_027.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:50  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
375-22-4	Perfluorobutanoic acid (PFBA)	41.1		5.0	
2706-90-3	Perfluoropentanoic acid (PFPeA)	39.7		2.0	
307-24-4	Perfluorohexanoic acid (PFHxA)	42.4		2.0	
375-85-9	Perfluoroheptanoic acid (PFHpA)	43.9		2.0	
335-67-1	Perfluorooctanoic acid (PFOA)	42.7		2.0	
375-95-1	Perfluorononanoic acid (PFNA)	42.1		2.0	
335-76-2	Perfluorodecanoic acid (PFDA)	40.6		2.0	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	39.1		2.0	
307-55-1	Perfluorododecanoic acid (PFDoA)	38.3		2.0	
72629-94-8	Perfluorotridecanoic acid (PFTriA)	40.6		2.0	
376-06-7	Perfluorotetradecanoic acid (PFTeA)	42.5		2.0	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	37.1		2.0	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	34.6		2.0	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	38.9		2.0	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	37.6		2.0	
335-77-3	Perfluorodecanesulfonic acid (PFDS)	36.8		2.0	
754-91-6	Perfluorooctanesulfonamide (FOSA)	39.0		2.0	
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	37.9		5.0	
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	38.9		5.0	
27619-97-2	6:2 FTS	38.5		5.0	
39108-34-4	8:2 FTS	42.1		2.0	

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 320-496408/3-A  
 Matrix: Water Lab File ID: 2021.06.09\_A15\_PFC+\_E\_027.d  
 Analysis Method: 537 (modified) Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 06/08/2021 04:52  
 Sample wt/vol: 250 (mL) Date Analyzed: 06/10/2021 07:50  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20 (uL) GC Column: Gemini C18 3x50 ID: 3 (mm)  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 497065 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	100		25-150
STL01893	13C5 PFPeA	99		25-150
STL00993	13C2 PFHxA	95		25-150
STL01892	13C4 PFHpA	99		25-150
STL00990	13C4 PFOA	98		25-150
STL00995	13C5 PFNA	102		25-150
STL00996	13C2 PFDA	92		25-150
STL00997	13C2 PFUnA	94		25-150
STL00998	13C2 PFDoA	105		25-150
STL02116	13C2 PFTeDA	86		25-150
STL02337	13C3 PFBS	102		25-150
STL00994	18O2 PFHxS	108		25-150
STL00991	13C4 PFOS	105		25-150
STL01056	13C8 FOSA	107		25-150
STL02118	d3-NMeFOSAA	94		25-150
STL02117	d5-NEtFOSAA	105		25-150
STL02279	M2-6:2 FTS	75		25-150
STL02280	M2-8:2 FTS	88		25-150

Eurofins TestAmerica, Sacramento  
Target Compound Quantitation Report

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_027.d  
 Lims ID: LCSD 320-496408/3-A  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 10-Jun-2021 07:50:33 ALS Bottle#: 16 Worklist Smp#: 4  
 Injection Vol: 20.0 ul Dil. Factor: 1.0000  
 Sample Info: lcsd 320-496408/3-a  
 Misc. Info.: Plate: 5 Rack: 1  
 Operator ID: SACINSTA15 Instrument ID: A15  
 Method: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\PFAS+\_A15.m  
 Limit Group: LC PFC ICAL  
 Last Update: 11-Jun-2021 07:48:21 Calib Date: 01-Jun-2021 15:02:11  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Sacramento\ChromData\A15\20210601-120198.b\2021.06.01\_A15\_PFC+\_ICAL\_010.d  
 Column 1 : Gemini C18 3um 3mm x 50 mm ( 3.00 mm) Det: EXP1  
 Process Host: CTX1682

First Level Reviewer: sorndeek Date: 11-Jun-2021 07:48:21  
 Ratio Calibration: CCV Sample: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_024.d

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 9 13C4 PFBA	217.00 > 172.00	2.311	2.319	-0.008	0.603	6281116	1.25	99.9	38366	
10 Perfluorobutanoic acid	212.90 > 169.00	2.311	2.319	-0.008	1.000	4883424	1.03	103	6666	
18 Perfluoropentanoic acid	262.90 > 219.00	2.651	2.650	0.001	1.000	4895641	0.99	99.2	15253	
D 17 13C5 PFPeA	267.90 > 223.00	2.651	2.650	0.001	0.691	5886532	1.24	99.2	41935	
20 Perfluorobutanesulfonic acid	298.90 > 80.00	2.694	2.683	0.011	1.004	3541585	0.9270	Target=2.31	105	31795
	298.90 > 99.00	2.683	2.683	0.0	1.000	1482274		2.39(1.15-3.46)		17139
D 21 13C3 PFBS	301.90 > 80.00	2.683	2.683	0.0	0.700	3927948	1.19	102	45703	
29 Perfluorohexanoic acid	313.00 > 269.00	3.019	3.018	0.001	1.000	5275498	1.06	Target=13.85	106	16161
	313.00 > 119.00	3.019	3.018	0.001	1.000	369064		14.29(6.93-20.78)		5559
D 28 13C2 PFHxA	315.00 > 270.00	3.019	3.018	0.001	0.787	5556822	1.18	94.6	42133	
39 Perfluorohexanesulfonic acid	399.00 > 80.00	3.433	3.433	0.0	1.000	2429762	0.8648	Target=3.47	95.0	62687
	399.00 > 99.00	3.433	3.433	0.0	1.000	685121		3.55(1.73-5.20)		12309
D 38 18O2 PFHxS	403.00 > 84.00	3.433	3.433	0.0	0.896	3004351	1.28	108	55653	
D 37 13C4 PFHpA	367.00 > 322.00	3.433	3.433	0.0	0.896	5705619	1.23	98.7	47524	
36 Perfluoroheptanoic acid	363.00 > 319.00	3.433	3.433	0.0	1.000	5294570	1.10	Target=4.00	110	17398
	363.00 > 169.00	3.433	3.433	0.0	1.000	1313170		4.03(2.00-6.00)		16132

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	3.815	3.815	0.0	0.995	945706	0.8856		74.6	10246	
53 6:2 FTS										
427.00 > 407.00	3.815	3.815	0.0	1.000	1578374	0.9621	Target=1.95	101	7766	
427.00 > 79.96	3.815	3.815	0.0	1.000	809816		1.95(0.98-2.93)		4076	
54 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.834	3.824	0.010	0.913	2153333	0.9731	Target=4.90	102	18335	
449.00 > 99.00	3.834	3.824	0.010	0.913	445356		4.84(2.45-7.35)		10439	
D 56 13C4 PFOA										
417.00 > 372.00	3.834	3.834	0.0	1.000	6414088	1.22		97.6	62485	
58 Perfluorooctanoic acid										
413.00 > 369.00	3.834	3.834	0.0	1.000	5723103	1.07	Target=3.05	107	21522	
413.00 > 169.00	3.834	3.834	0.0	1.000	2009095		2.85(1.53-4.58)		52979	
* 57 13C2 PFOA										
415.00 > 370.00	3.834	3.834	0.0		6300778	1.25			53175	
D 61 13C4 PFOS										
503.00 > 80.00	4.201	4.201	0.0	1.096	2317447	1.26		105	23430	
62 Perfluorooctanesulfonic acid										
499.00 > 80.00	4.201	4.201	0.0	1.000	2051338	0.9402	Target=5.72	101	21861	
499.00 > 99.00	4.201	4.201	0.0	1.000	347395		5.90(2.86-8.58)		10688	
D 63 13C5 PFNA										
468.00 > 423.00	4.217	4.209	0.008	1.100	6384430	1.27		102	84065	
64 Perfluorononanoic acid										
463.00 > 419.00	4.217	4.217	0.0	1.000	5324064	1.05	Target=7.63	105	21856	
463.00 > 169.00	4.217	4.217	0.0	1.000	711168		7.49(3.81-11.44)		8296	
D 71 13C8 FOSA										
506.00 > 78.00	4.532	4.532	0.0	1.182	4161471	1.34		107	44811	
72 Perfluorooctanesulfonamide										
498.00 > 78.00	4.532	4.532	0.0	1.000	3259990	0.9754		97.5	31115	
D 74 13C2 PFDA										
515.00 > 470.00	4.559	4.559	0.0	1.189	5804856	1.16		92.5	60545	
75 Perfluorodecanoic acid										
513.00 > 469.00	4.569	4.559	0.010	1.002	4821723	1.02	Target=8.80	102	47785	
513.00 > 169.00	4.559	4.559	0.0	1.000	525396		9.18(4.40-13.19)		2585	
D 76 M2-8:2 FTS										
529.00 > 81.00	4.569	4.559	0.010	1.192	1764568	1.06		88.4	21950	
77 8:2 FTS										
527.00 > 507.00	4.569	4.569	0.0	1.000	2421783	1.05	Target=2.30	110	91189	
527.00 > 79.96	4.569	4.569	0.0	1.000	1065390		2.27(1.15-3.45)		11152	
79 NMeFOSAA										
570.00 > 419.00	4.729	4.718	0.011	1.002	1404633	0.9484	Target=0.82	94.8	10373	
570.00 > 483.00	4.729	4.718	0.011	1.002	1685195		0.83(0.41-1.23)		38745	
D 78 d3-NMeFOSAA										
573.00 > 419.00	4.718	4.718	0.0	1.231	2502656	1.18		94.4	28422	
80 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.853	4.843	0.010	1.155	1461012	0.9193	Target=3.11	95.4	19615	
599.00 > 99.00	4.853	4.843	0.010	1.155	473629		3.08(1.55-4.66)		14684	



Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 82 13C2 PFUnA										
565.00 > 520.00	4.872	4.872	0.0	1.271	5707479	1.18		94.3	62220	
81 Perfluoroundecanoic acid										
563.00 > 519.00	4.882	4.872	0.010	1.002	4105803	0.9763	Target=8.61	97.6	35397	
563.00 > 169.00	4.882	4.872	0.010	1.002	488840		8.40(4.30-12.91)		6075	
D 83 d5-NEtFOSAA										
589.00 > 419.00	4.882	4.882	0.0	1.273	2777519	1.32		105	19188	
84 NEtFOSAA										
584.00 > 419.00	4.891	4.882	0.009	1.002	1547632	0.9721	Target=0.75	97.2	24900	
584.00 > 526.10	4.891	4.882	0.009	1.002	1975698		0.78(0.37-1.12)		22615	
98 Perfluorododecanoic acid										
613.00 > 569.00	5.165	5.156	0.009	1.000	5878516	0.9576	Target=8.71	95.8	47360	
613.00 > 169.00	5.165	5.156	0.009	1.000	721846		8.14(4.35-13.06)		11582	
D 97 13C2 PFDoA										
615.00 > 570.00	5.165	5.156	0.009	1.347	6906885	1.32		105	79695	
103 Perfluorotridecanoic acid										
663.00 > 619.00	5.412	5.412	0.0	1.048	5203569	1.01	Target=6.09	101	38960	
663.00 > 169.00	5.412	5.412	0.0	1.048	878751		5.92(3.05-9.14)		15003	
105 Perfluorotetradecanoic acid										
713.00 > 169.00	5.658	5.649	0.009	1.000	542011	1.06	Target=1.13	106	13083	
713.00 > 219.00	5.658	5.649	0.009	1.000	520300		1.04(0.57-1.70)		16694	
D 104 13C2 PFTeDA										
715.00 > 670.00	5.658	5.649	0.009	1.476	5188020	1.07		86.0	47465	

**QC Flag Legend**

Processing Flags

Data File: \\chromfs\Sacramento\ChromData\A15\20210609-120794.b\2021.06.09\_A15\_PFC+\_E\_027.d

Injection Date: 10-Jun-2021 07:50:33

Instrument ID: A15

Lims ID: LCSD 320-496408/3-A

Client ID:

Operator ID: SACINSTA15

ALS Bottle#: 16

Worklist Smp#: 4

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

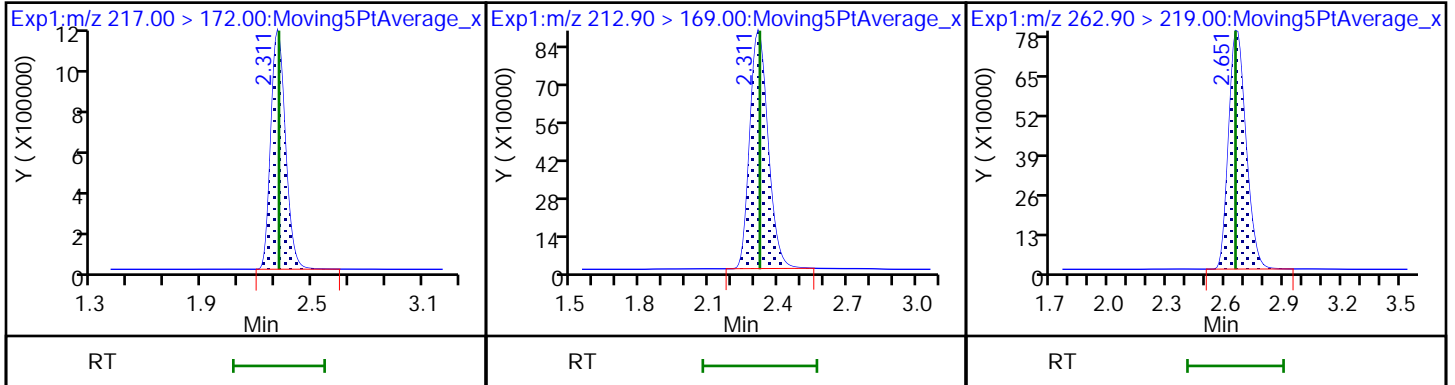
Method: PFAS+\_A15

Limit Group: LC PFC ICAL

D 9 13C4 PFBA

10 Perfluorobutanoic acid

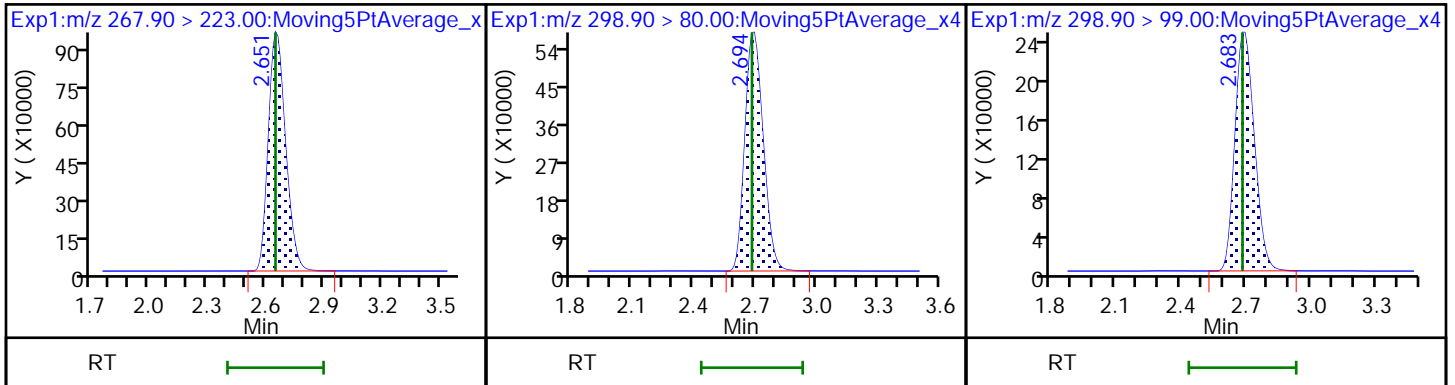
18 Perfluoropentanoic acid



D 17 13C5 PFPeA

20 Perfluorobutanesulfonic acid

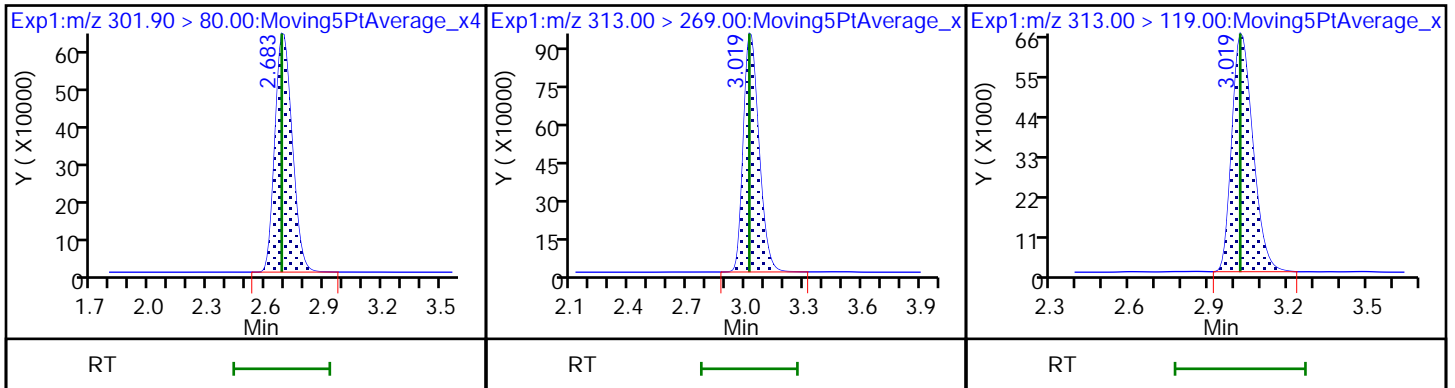
20 Perfluorobutanesulfonic acid



D 21 13C3 PFBS

29 Perfluorohexanoic acid

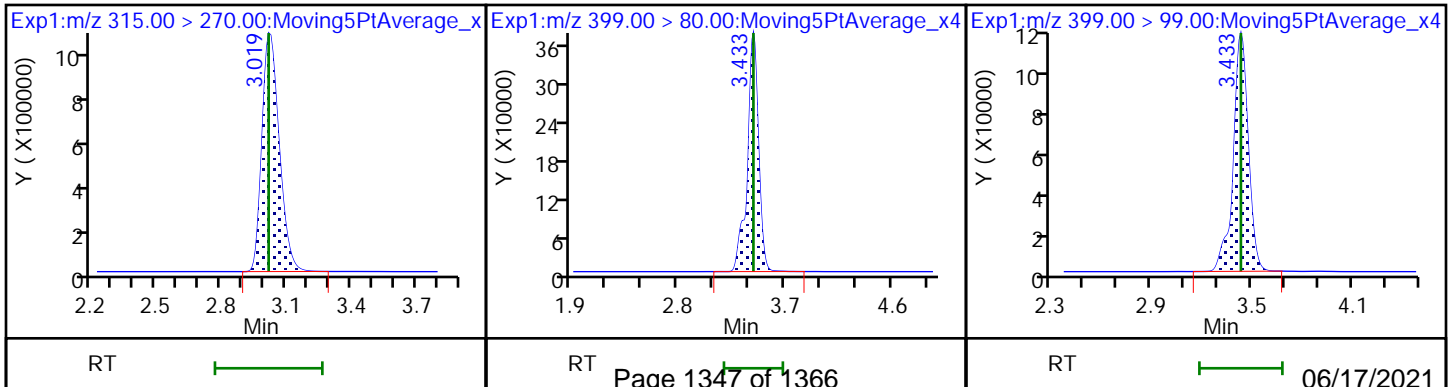
29 Perfluorohexanoic acid



D 28 13C2 PFHxA

39 Perfluorohexanesulfonic acid

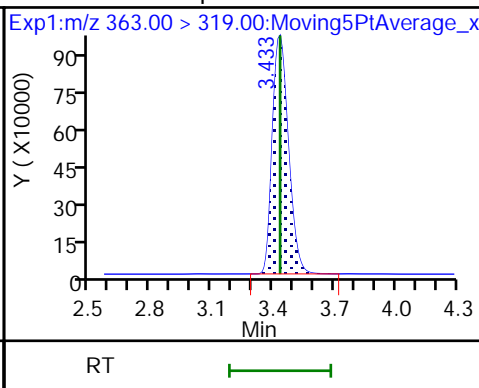
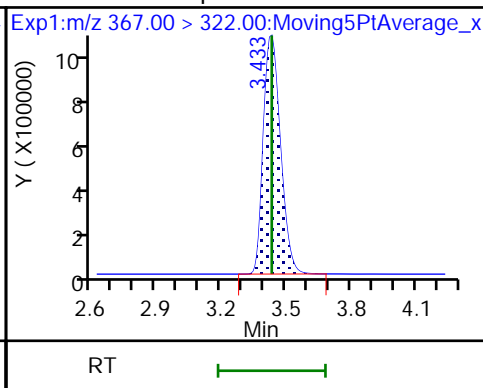
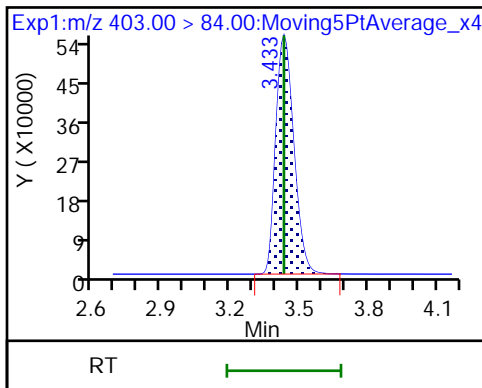
39 Perfluorohexanesulfonic acid



D 38 18O2 PFHxS

D 37 13C4 PFHpA

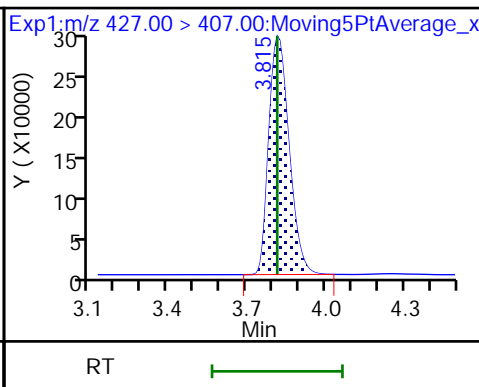
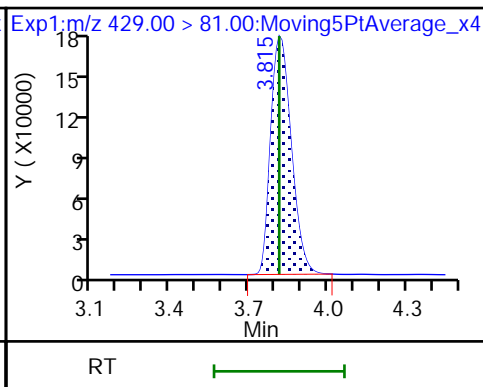
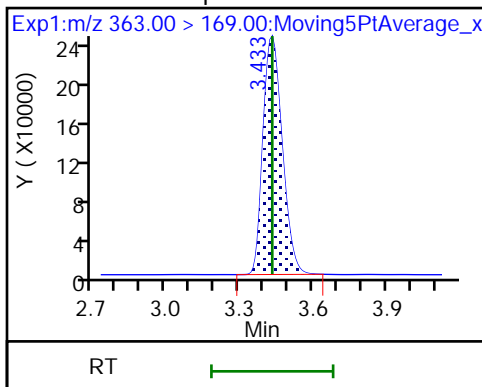
36 Perfluoroheptanoic acid



36 Perfluoroheptanoic acid

D 52 M2-6:2 FTS

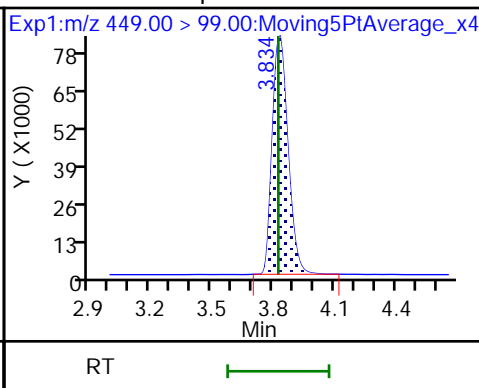
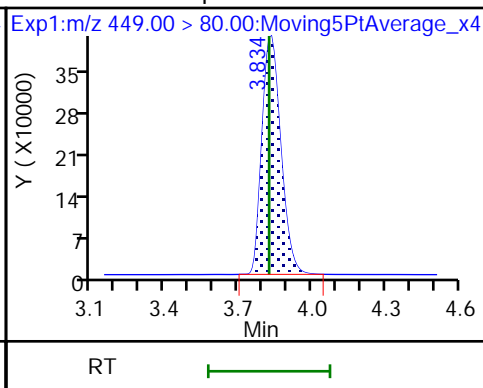
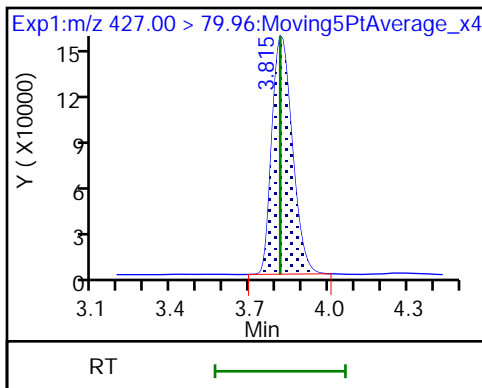
53 6:2 FTS



53 6:2 FTS

54 Perfluoroheptanesulfonic acid

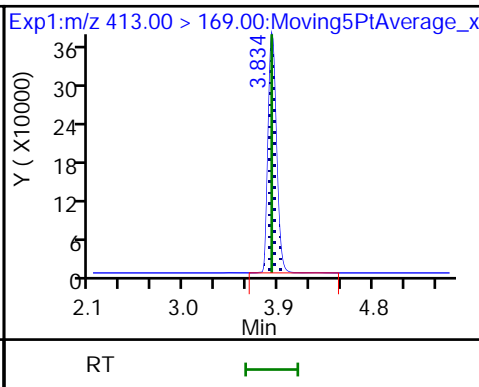
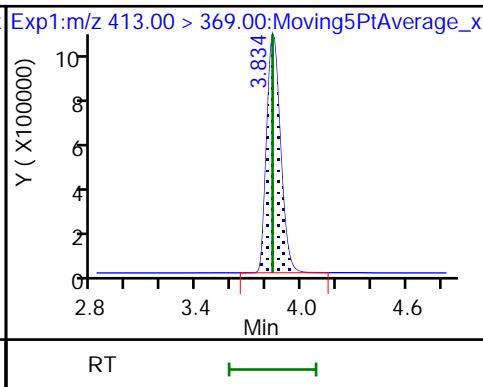
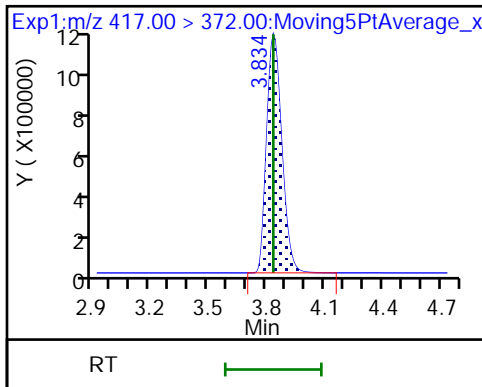
54 Perfluoroheptanesulfonic acid



D 56 13C4 PFOA

58 Perfluorooctanoic acid

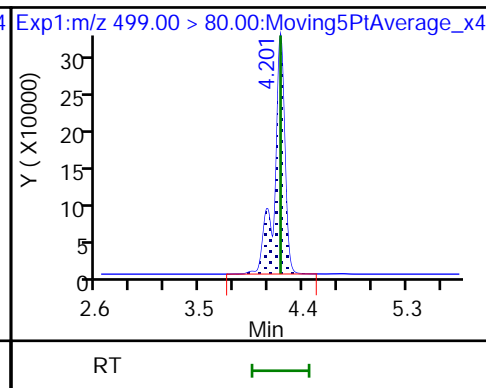
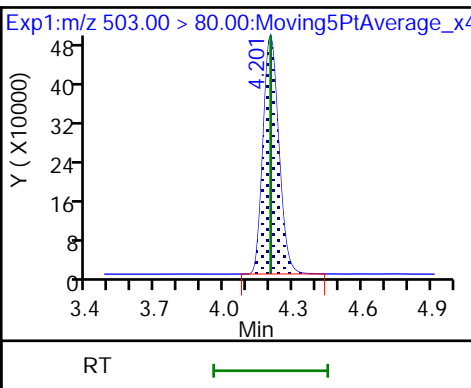
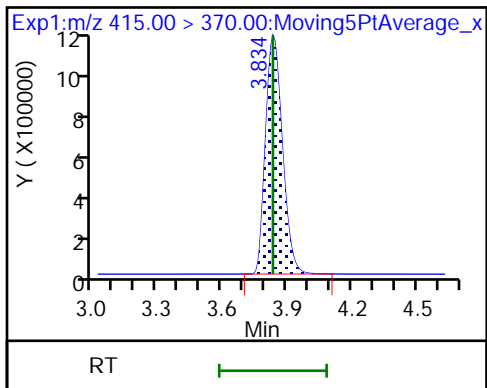
58 Perfluorooctanoic acid



\* 57 13C2 PFOA

D 61 13C4 PFOS

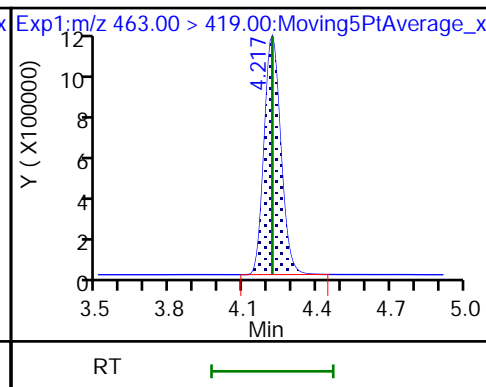
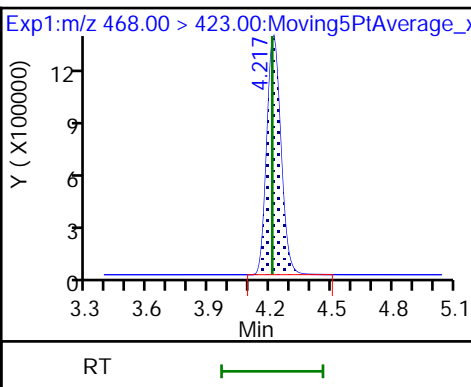
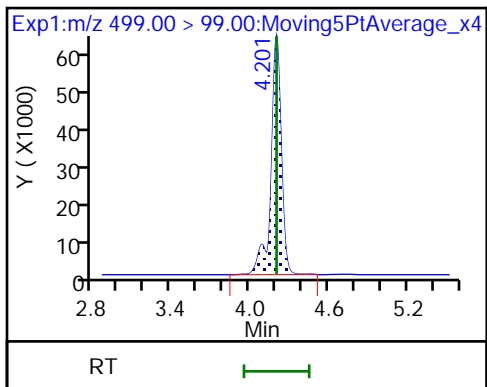
62 Perfluorooctanesulfonic acid



62 Perfluorooctanesulfonic acid

D 63 13C5 PFNA

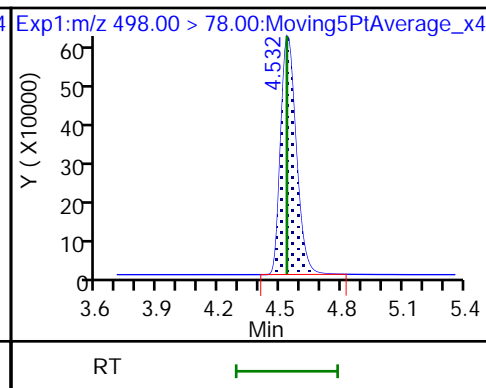
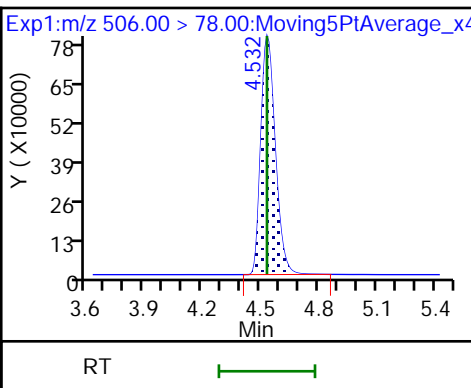
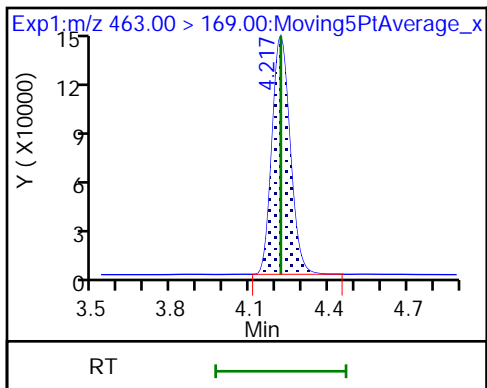
64 Perfluorononanoic acid



64 Perfluorononanoic acid

D 71 13C8 FOSA

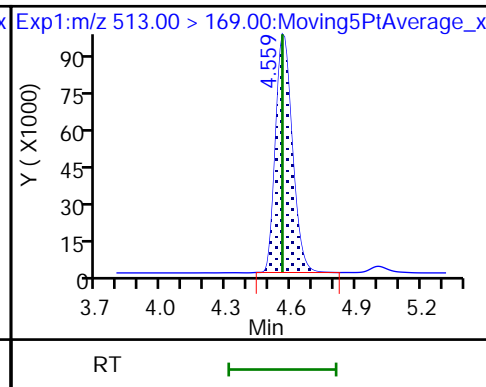
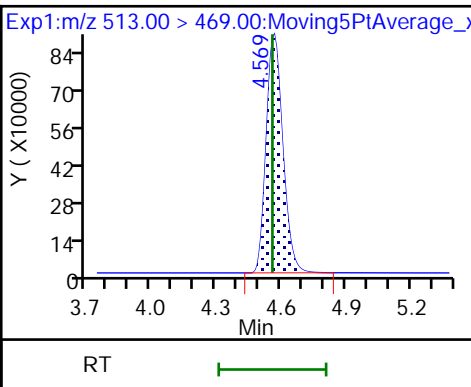
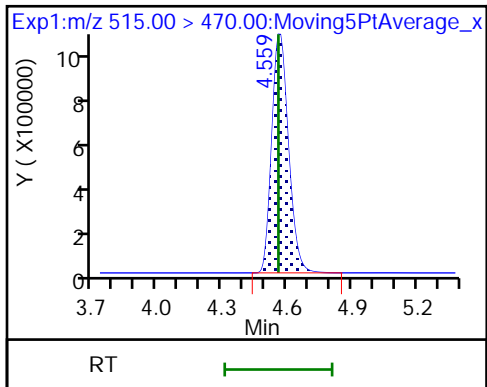
72 Perfluorooctanesulfonamide



D 74 13C2 PFDA

75 Perfluorodecanoic acid

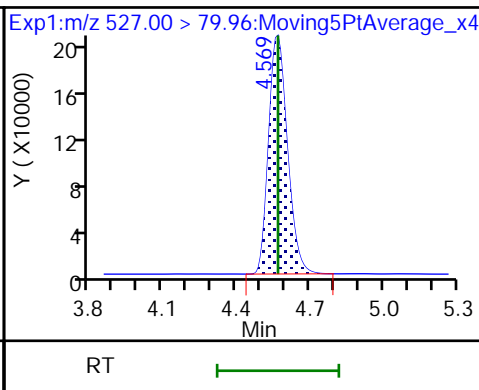
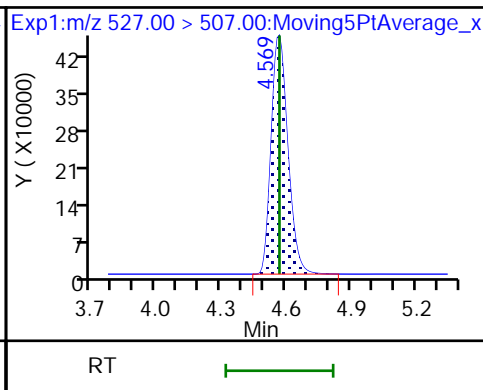
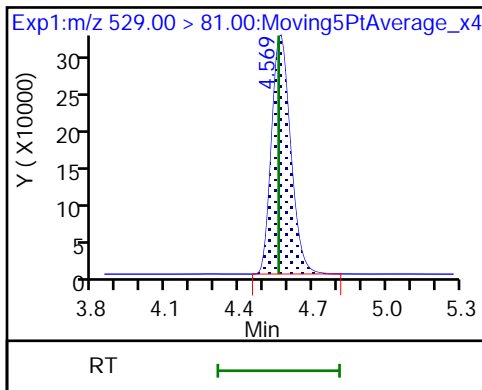
75 Perfluorodecanoic acid



D 76 M2-8:2 FTS

77 8:2 FTS

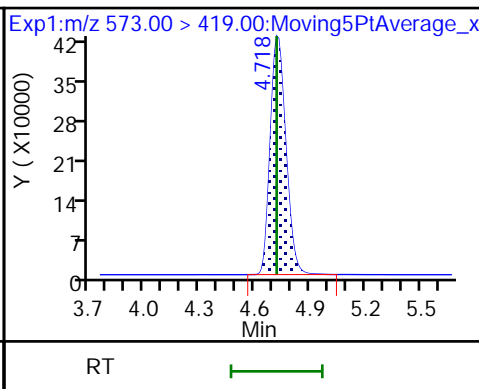
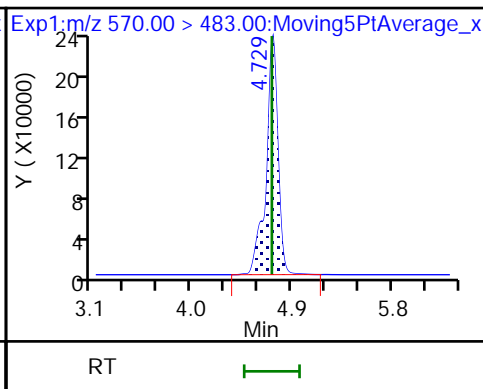
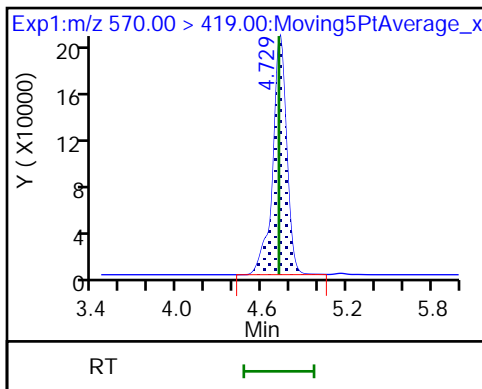
77 8:2 FTS



79 NMeFOSAA

79 NMeFOSAA

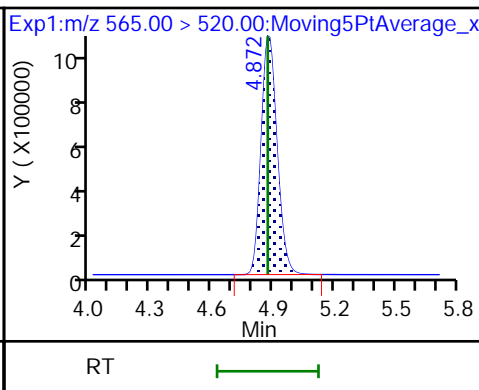
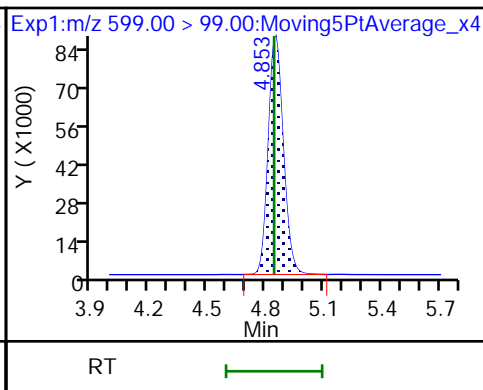
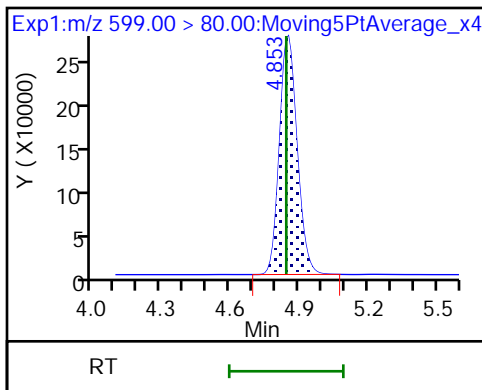
D 78 d3-NMeFOSAA



80 Perfluorodecanesulfonic acid

80 Perfluorodecanesulfonic acid

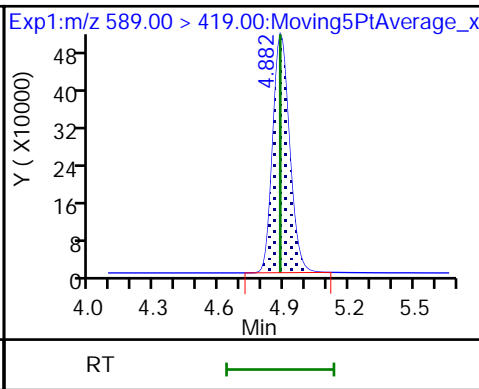
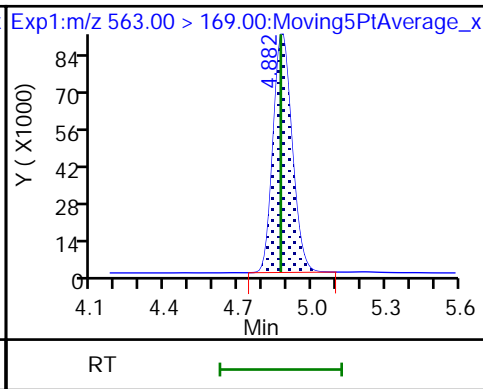
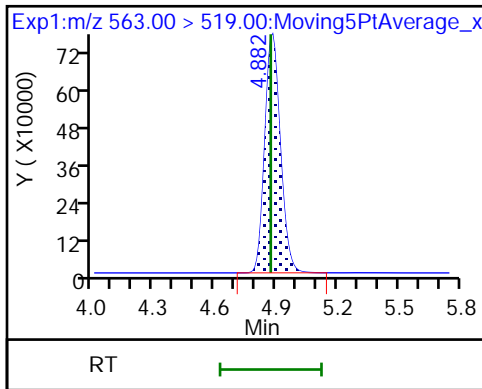
D 82 13C2 PFUnA

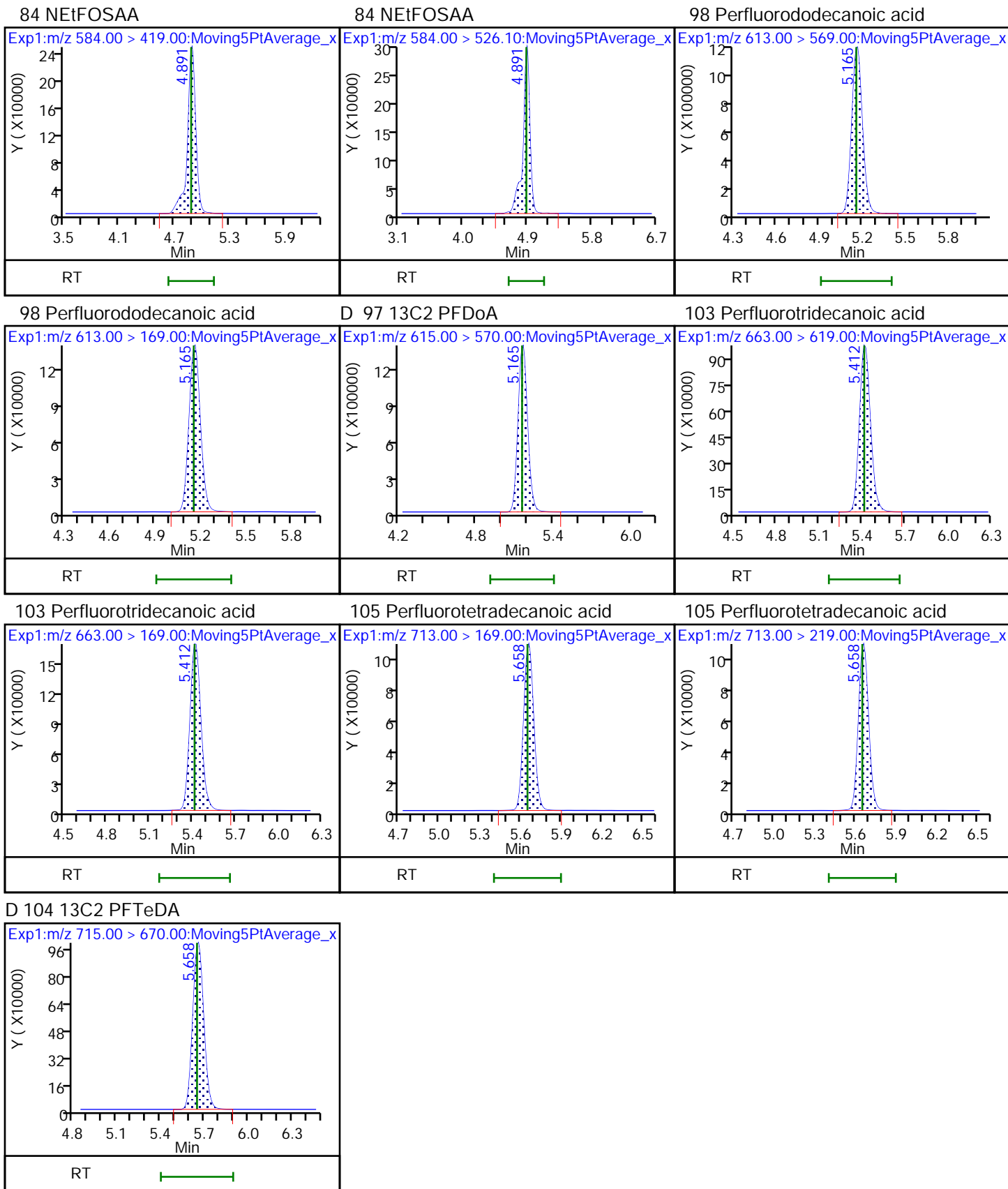


81 Perfluoroundecanoic acid

81 Perfluoroundecanoic acid

D 83 d5-NEtFOSAA





LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A15 Start Date: 06/01/2021 14:07

Analysis Batch Number: 494451 End Date: 06/01/2021 15:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-494451/2		06/01/2021 14:07	1	2021.06.01_A15_PFC+ ICAL_004.d	Gemini C18 3x50 3(mm)
IC 320-494451/3		06/01/2021 14:16	1	2021.06.01_A15_PFC+ ICAL_005.d	Gemini C18 3x50 3(mm)
IC 320-494451/4		06/01/2021 14:25	1	2021.06.01_A15_PFC+ ICAL_006.d	Gemini C18 3x50 3(mm)
IC 320-494451/5 ICIS		06/01/2021 14:34	1	2021.06.01_A15_PFC+ ICAL_007.d	Gemini C18 3x50 3(mm)
IC 320-494451/6		06/01/2021 14:43	1	2021.06.01_A15_PFC+ ICAL_008.d	Gemini C18 3x50 3(mm)
IC 320-494451/7		06/01/2021 14:53	1	2021.06.01_A15_PFC+ ICAL_009.d	Gemini C18 3x50 3(mm)
IC 320-494451/8		06/01/2021 15:02	1	2021.06.01_A15_PFC+ ICAL_010.d	Gemini C18 3x50 3(mm)
ICB 320-494451/9		06/01/2021 15:11	1	2021.06.01_A15_PFC+ ICAL_011.d	Gemini C18 3x50 3(mm)
ICV 320-494451/10		06/01/2021 15:20	1	2021.06.01_A15_PFC+ ICAL_012.d	Gemini C18 3x50 3(mm)
ZZZZZ		06/01/2021 15:29	1		Gemini C18 3x50 3(mm)

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A15 Start Date: 06/10/2021 04:20

Analysis Batch Number: 497061 End Date: 06/10/2021 07:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-497061/1		06/10/2021 04:20	1	2021.06.09_A15_PFC+ E 004.d	Gemini C18 3x50 3(mm)
CCVL 320-497061/2		06/10/2021 04:29	1	2021.06.09_A15_PFC+ E 005.d	Gemini C18 3x50 3(mm)
CCV 320-497061/3 CCVIS		06/10/2021 04:38	1	2021.06.09_A15_PFC+ E 006.d	Gemini C18 3x50 3(mm)
MB 320-496405/1-A		06/10/2021 04:47	1	2021.06.09_A15_PFC+ E 007.d	Gemini C18 3x50 3(mm)
LCS 320-496405/2-A		06/10/2021 04:56	1	2021.06.09_A15_PFC+ E 008.d	Gemini C18 3x50 3(mm)
LCSD 320-496405/3-A		06/10/2021 05:06	1	2021.06.09_A15_PFC+ E 009.d	Gemini C18 3x50 3(mm)
320-74597-1	BH20210604-2N-25	06/10/2021 05:15	1	2021.06.09_A15_PFC+ E 010.d	Gemini C18 3x50 3(mm)
320-74597-2	BH20210604-2N-50	06/10/2021 05:24	1	2021.06.09_A15_PFC+ E 011.d	Gemini C18 3x50 3(mm)
320-74597-3	BH20210604-2N-75	06/10/2021 05:33	1	2021.06.09_A15_PFC+ E 012.d	Gemini C18 3x50 3(mm)
320-74597-4	BH20210604-2S-25	06/10/2021 05:42	1	2021.06.09_A15_PFC+ E 013.d	Gemini C18 3x50 3(mm)
320-74597-5	BH20210604-2S-50	06/10/2021 05:51	1	2021.06.09_A15_PFC+ E 014.d	Gemini C18 3x50 3(mm)
320-74597-6	BH20210604-2S-75	06/10/2021 06:00	1	2021.06.09_A15_PFC+ E 015.d	Gemini C18 3x50 3(mm)
320-74597-7	BH20210604-3N-25	06/10/2021 06:10	1	2021.06.09_A15_PFC+ E 016.d	Gemini C18 3x50 3(mm)
ZZZZZ		06/10/2021 06:19	1		Gemini C18 3x50 3(mm)
CCV 320-497061/15		06/10/2021 06:28	1	2021.06.09_A15_PFC+ E 018.d	Gemini C18 3x50 3(mm)
320-74597-8	BH20210604-3N-50	06/10/2021 06:37	1	2021.06.09_A15_PFC+ E 019.d	Gemini C18 3x50 3(mm)
320-74597-9	BH20210604-3N-75	06/10/2021 06:46	1	2021.06.09_A15_PFC+ E 020.d	Gemini C18 3x50 3(mm)
320-74597-10	BH20210604-3S-25	06/10/2021 06:55	1	2021.06.09_A15_PFC+ E 021.d	Gemini C18 3x50 3(mm)
ZZZZZ		06/10/2021 07:04	1		Gemini C18 3x50 3(mm)
CCV 320-497061/20		06/10/2021 07:14	1	2021.06.09_A15_PFC+ E 023.d	Gemini C18 3x50 3(mm)



LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Instrument ID: A15 Start Date: 06/10/2021 07:23

Analysis Batch Number: 497065 End Date: 06/10/2021 10:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-497065/1		06/10/2021 07:23	1	2021.06.09_A15_PFC+ E 024.d	Gemini C18 3x50 3(mm)
MB 320-496408/1-A		06/10/2021 07:32	1	2021.06.09_A15_PFC+ E 025.d	Gemini C18 3x50 3(mm)
LCS 320-496408/2-A		06/10/2021 07:41	1	2021.06.09_A15_PFC+ E 026.d	Gemini C18 3x50 3(mm)
LCSD 320-496408/3-A		06/10/2021 07:50	1	2021.06.09_A15_PFC+ E 027.d	Gemini C18 3x50 3(mm)
320-74597-11	BH20210604-3S-50	06/10/2021 07:59	1	2021.06.09_A15_PFC+ E 028.d	Gemini C18 3x50 3(mm)
320-74597-12	BH20210604-3RAW	06/10/2021 08:08	1	2021.06.09_A15_PFC+ E 029.d	Gemini C18 3x50 3(mm)
320-74597-13	BH20210604-PREGAC	06/10/2021 08:17	1	2021.06.09_A15_PFC+ E 030.d	Gemini C18 3x50 3(mm)
320-74597-14	BH20210604-POSTGAC	06/10/2021 08:27	1	2021.06.09_A15_PFC+ E 031.d	Gemini C18 3x50 3(mm)
320-74597-15	BH20210604-1N-25	06/10/2021 08:36	1	2021.06.09_A15_PFC+ E 032.d	Gemini C18 3x50 3(mm)
320-74597-16	BH20210604-1N-50	06/10/2021 08:45	1	2021.06.09_A15_PFC+ E 033.d	Gemini C18 3x50 3(mm)
320-74597-17	BH20210604-1N-75	06/10/2021 08:54	1	2021.06.09_A15_PFC+ E 034.d	Gemini C18 3x50 3(mm)
ZZZZZ		06/10/2021 09:03	1		Gemini C18 3x50 3(mm)
CCV 320-497065/13		06/10/2021 09:12	1	2021.06.09_A15_PFC+ E 036.d	Gemini C18 3x50 3(mm)
320-74597-18	BH20210604-1S-25	06/10/2021 09:21	1	2021.06.09_A15_PFC+ E 037.d	Gemini C18 3x50 3(mm)
320-74597-19	BH20210604-1S-50	06/10/2021 09:31	1	2021.06.09_A15_PFC+ E 038.d	Gemini C18 3x50 3(mm)
320-74597-20	BH20210604-1S-75	06/10/2021 09:40	1	2021.06.09_A15_PFC+ E 039.d	Gemini C18 3x50 3(mm)
320-74597-30	BH20210604-3S-75	06/10/2021 09:49	1	2021.06.09_A15_PFC+ E 040.d	Gemini C18 3x50 3(mm)
ZZZZZ		06/10/2021 09:58	1		Gemini C18 3x50 3(mm)
CCV 320-497065/19		06/10/2021 10:07	1	2021.06.09_A15_PFC+ E 042.d	Gemini C18 3x50 3(mm)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496405 Batch Start Date: 06/08/21 04:41 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	LCMPFC_IDA+00047
MB 320-496405/1		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
LCS 320-496405/2		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
LCSD 320-496405/3		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
320-74597-A-1	BH20210604-2N-25	3535, 537 (modified)	T	306.99 g	27.53 g	279.5 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-2	BH20210604-2N-50	3535, 537 (modified)	T	302.63 g	27.17 g	275.5 mL	10.0 mL	7.8 SU	500 uL
320-74597-A-3	BH20210604-2N-75	3535, 537 (modified)	T	306.10 g	27.41 g	278.7 mL	10.0 mL	7.8 SU	500 uL
320-74597-A-4	BH20210604-2S-25	3535, 537 (modified)	T	274.17 g	27.39 g	246.8 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-5	BH20210604-2S-50	3535, 537 (modified)	T	307.04 g	27.21 g	279.8 mL	10.0 mL	7.2 SU	500 uL
320-74597-A-6	BH20210604-2S-75	3535, 537 (modified)	T	299.78 g	27.25 g	272.5 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-7	BH20210604-3N-25	3535, 537 (modified)	T	284.89 g	27.89 g	257 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-8	BH20210604-3N-50	3535, 537 (modified)	T	295.36 g	27.95 g	267.4 mL	10.0 mL	7.2 SU	500 uL
320-74597-A-9	BH20210604-3N-75	3535, 537 (modified)	T	308.10 g	27.24 g	280.9 mL	10.0 mL	7.8 SU	500 uL
320-74597-A-10	BH20210604-3S-25	3535, 537 (modified)	T	296.71 g	27.45 g	269.3 mL	10.0 mL	7.8 SU	500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC+SP(A+B) 00002	LCPFC-IS+ 00043	AnalysisComment			
MB 320-496405/1		3535, 537 (modified)			500 uL	Chlorine N.D.			
LCS 320-496405/2		3535, 537 (modified)		500 uL	500 uL	Chlorine N.D.			
LCSD 320-496405/3		3535, 537 (modified)		500 uL	500 uL	Chlorine N.D.			
320-74597-A-1	BH20210604-2N-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-2	BH20210604-2N-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-3	BH20210604-2N-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

537 (modified)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496405 Batch Start Date: 06/08/21 04:41 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC+SP(A+B) 00002	LCPFC-IS+ 00043	AnalysisComment			
320-74597-A-4	BH20210604-2S-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-5	BH20210604-2S-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-6	BH20210604-2S-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-7	BH20210604-3N-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-8	BH20210604-3N-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-9	BH20210604-3N-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-10	BH20210604-3S-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

537 (modified)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496405 Batch Start Date: 06/08/21 04:41 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Batch Notes	
Balance ID	QA-081
Batch Comment	Eurofins labels match client IDs. EMG 6/08/21 50mL Centrifuge tubes: 210203058 QC Trizma lot: SLBX0
First End time	06/08/2021 11:00
H2O ID	6/07/21
Manifold ID	BT
Methanol ID	2526970
Sodium Hydroxide ID	2502806
pH Indicator ID	2629-990
Pipette/Syringe/Dispenser ID	i33417h
Analyst ID - Reagent Drop	EMG
Analyst ID - IS Reagent Drop	EMG
Analyst ID - IS Reagent Drop Witness	HK
Rinse Solvent Lot	2523039
Rinse Solvent Name	30:70 MeOH/H2O
Solvent Lot #	2512168
Solvent Name	0.3% NH4OH/MeOH
SPE Cartridge Lot ID	C03699-1
SPE Cartridge Type	Strata PFAS (WAX/GCB), 500 mg
First Start time	06/08/2021 04:41

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496408 Batch Start Date: 06/08/21 04:52 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	LCMPFC_IDA+00047
MB 320-496408/1		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
LCS 320-496408/2		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
LCSD 320-496408/3		3535, 537 (modified)				250 mL	10.0 mL	7.0 SU	500 uL
320-74597-A-11	BH20210604-3S-50	3535, 537 (modified)	T	313.99 g	27.29 g	286.7 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-12	BH20210604-3RAW	3535, 537 (modified)	T	313.41 g	27.24 g	286.2 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-13	BH20210604-PREGA C	3535, 537 (modified)	T	314.34 g	27.87 g	286.5 mL	10.0 mL	7.8 SU	500 uL
320-74597-A-14	BH20210604-POSTG AC	3535, 537 (modified)	T	305.18 g	27.24 g	277.9 mL	10.0 mL	7.2 SU	500 uL
320-74597-A-15	BH20210604-1N-25	3535, 537 (modified)	T	292.60 g	27.49 g	265.1 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-16	BH20210604-1N-50	3535, 537 (modified)	T	303.17 g	27.34 g	275.8 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-17	BH20210604-1N-75	3535, 537 (modified)	T	299.92 g	27.20 g	272.7 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-18	BH20210604-1S-25	3535, 537 (modified)	T	291.79 g	27.66 g	264.1 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-19	BH20210604-1S-50	3535, 537 (modified)	T	290.62 g	27.55 g	263.1 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-20	BH20210604-1S-75	3535, 537 (modified)	T	299.81 g	27.57 g	272.2 mL	10.0 mL	7.5 SU	500 uL
320-74597-A-30	BH20210604-3S-75	3535, 537 (modified)	T	282.40 g	27.17 g	255.2 mL	10.0 mL	7.2 SU	500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC+SP(A+B) 00002	LCPFC-IS+ 00043	AnalysisComment			
MB 320-496408/1		3535, 537 (modified)			500 uL	Chlorine N.D.			
LCS 320-496408/2		3535, 537 (modified)		500 uL	500 uL	Chlorine N.D.			
LCSD 320-496408/3		3535, 537 (modified)		500 uL	500 uL	Chlorine N.D.			
320-74597-A-11	BH20210604-3S-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-12	BH20210604-3RAW	3535, 537 (modified)	T		500 uL	Chlorine N.D.			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496408 Batch Start Date: 06/08/21 04:52 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC+SP(A+B) 00002	LCPFC-IS+ 00043	AnalysisComment			
320-74597-A-13	BH20210604-PREGA C	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-14	BH20210604-POSTG AC	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-15	BH20210604-1N-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-16	BH20210604-1N-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-17	BH20210604-1N-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-18	BH20210604-1S-25	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-19	BH20210604-1S-50	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-20	BH20210604-1S-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			
320-74597-A-30	BH20210604-3S-75	3535, 537 (modified)	T		500 uL	Chlorine N.D.			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

537 (modified)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 320-74597-1

SDG No.: \_\_\_\_\_

Batch Number: 496408 Batch Start Date: 06/08/21 04:52 Batch Analyst: Gomez, Eric M

Batch Method: 3535 Batch End Date: 06/08/21 11:00

Batch Notes	
Balance ID	QA-081
Batch Comment	Eurofins labels match client IDs. EMG 6/08/21 50mL Centrifuge tubes: 210203058. QC Trizma lot: SLBX
First End time	06/08/2021 11:00
H2O ID	6/07/21
Manifold ID	DH
Methanol ID	2526970
Sodium Hydroxide ID	2502806
pH Indicator ID	2629-990
Pipette/Syringe/Dispenser ID	i33417h
Analyst ID - Reagent Drop	EMG
Analyst ID - IS Reagent Drop	EMG
Analyst ID - IS Reagent Drop Witness	HK
Rinse Solvent Lot	2523039
Rinse Solvent Name	30:70 MeOH/H2O
Solvent Lot #	2512168
Solvent Name	0.3% NH4OH/MeOH
SPE Cartridge Lot ID	C03699-1
SPE Cartridge Type	Strata PFAS (WAX/GCB), 500 mg
First Start time	06/08/2021 04:52

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents



# Albany Chain of Custody Record

## #224

<b>Client Information</b>		Lab PM: Stone, Judy L		Carrier Tracking No(s): 480-161298-35463.1	
Company: ARCADIS U.S. Inc		E-Mail: Judy.Stone@Eurofinset.com		Page: 1 of 4	
Address: 855 Route 146 Suite 210		City: Clifton Park		Job #:	
State: NY, Zip: 12065		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes:	
Phone: 518-402-9813(Tel)		Callout ID: 137349		M - Hexane	
Email: benjamin.powers@arcadis.com		Project #: 48020960		N - None	
Project Name: Stewart ANGB - Butterhill #336089		SSOW#:		O - AsNaO2	
Site:		Due Date Requested:		P - Na2O4S	
		TAT Requested (days):		Q - Na2SO3	
		Sample Date		R - Na2SO3	
		Sample Time		S - H2SO4	
		Sample Type (C=Comp, G=grab)		T - TSP Dodecahydrate	
		Matrix (W=water, S=solid, O=soil)		U - Acetone	
		Preservation Code:		V - MCAA	
				W - pH 4-5	
				X - EDTA	
				Y - EDTA	
				Z - other (Specify)	
				Other:	
				Field Filtered Sample (Yes or No)	
				Perform MS/MSD (Yes or No)	
				PFAS, DL, DW - PFAS, UCMR List (6)	
				PFAS, DA - PFAS, Standard List (21 Analytes) - SAC	
				Total Number of Containers	
				Special Instructions/Note:	
				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
				Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months	
				Special Instructions/QC Requirements:	
				Empty Kit Relinquished by:	
				Relinquished by: Benjamin Powers	
				Relinquished by: Kim	
				Relinquished by:	
				Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
				Custody Seal No: 1479422, 1479421, 1479426	
				Cooler Temperature(s) °C and Other Remarks: 0.6, 2.6, 2.6	

#224

Ben Powers  
315-412-3479

COC No: 480-161298-35463.2  
Page: Page 2 of 4  
Job #:

Carrier Tracking No(s):  
State of Origin:

Lab PM: Stone, Judy L  
E-Mail: Judy.Stone@Eurofinset.com

Company: ARCADIS U.S. Inc  
Address: 855 Route 146 Suite 210  
City: Clifton Park  
State, Zip: NY, 12065  
Phone: 518-402-9813(Tel)  
Email: benjamin.powers@arcadis.com  
Project Name: Stewart ANGB - Butterhill #336089  
Site: Butterhill

Due Date Requested:  
TAT Requested (days): Standard  
Compliance Project:  Yes  No  
PO #:   
Callout ID: 137349  
WO #:  
Project #: 48020960  
SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=BIOTISSUE, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFS, Standard List (21 Analytes) - SAC	PFS_DL_DW - PFS, UCMR List (6)	Total Number of Containers	Special Instructions/Note:
BH20210604-1-RAW	6/04		G	Water	NY	NY			2	
BH20210604-2-RAW			G	Water	NY	NY			2	
BH20210604-3-RAW		1045	G	Water	NY	NY			2	
BH20210604-PREGAC		0918	G	Water	NY	NY			2	
BH20210604-POST GAC		0911	G	Water	NY	NY			2	
BH20210604-1N-25		0930	G	Water	NY	NY			2	
BH20210604-1N-50		0931	G	Water	NY	NY			2	
BH20210604-1N-75		0932	G	Water	NY	NY			2	
BH20210604-1S-25		0939	G	Water	NY	NY			2	
BH20210604-1S-50		0940	G	Water	NY	NY			2	
BH20210604-1S-75		0941	G	Water	NY	NY			2	

Preservation Codes:  
A - HCL  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Amchlor  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
Other:  
M - Hexane  
N - None  
O - AsNaO2  
P - Na2O4S  
Q - Na2SO3  
R - Na2S2O3  
S - H2SO4  
T - TSP Dodecahydrate  
U - Acetone  
V - MCAA  
W - pH 4.5  
Z - other (specify)

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Relinquished by: *Ben Powers* Date: 6/4/2021 1258 Company: Arcadis  
Relinquished by: *Ben Powers* Date: 6-4-2021 1700 Company: EETA  
Relinquished by: *Ben Powers* Date: 6-5-21 09:10 Company: E-TASA

Custody, Seals Intact:  Yes  No  
Custody Seal No.: 1479422, 1479421, 1479426  
Cooler Temperature(s) °C and Other Remarks: 0.6, 2.6, 2.8

<b>Client Information</b>		Lab PM: Stone, Judy L	Carrier Tracking No(s): 480-161298-35463.3
Client Contact: Benjamin Powers		E-Mail: Judy.Stone@Eurofinset.com	Page: Page 3 of 4
Company: ARCADIS U.S. Inc		Job #:	
Address: 855 Route 146 Suite 210		Analysis Requested:	
City: Clifton Park		Preservation Codes:	
State/Zip: NY, 12065		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 518-402-9813(Tel)		Other:	
Email: benjamin.powers@arcadis.com		Total Number of containers	
Project Name: Stewart ANGB - Butterhill #336089		Special Instructions/Note:	
Site: Butterhill			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	PFC IDA - PFS, Standard List (21 Analytes) - SAC	PFS DI - DW - PFS, UCMR List (6)	Analysis Requested	Special Instructions/Note
BH20210604 - PRE-GAC	6/04	0916	G	Water	N	N	Y			
BH20210604 - 1 MID		0935	G	Water	N	N	Y			
BH20210604 - 1 POST		0943	G	Water	N	N	Y			
BH20210604 - 2 MID		0957	G	Water	N	N	Y			
BH20210604 - 2 POST		1007	G	Water	N	N	Y			
BH20210604 - 3 MID		1017	G	Water	N	N	Y			
BH20210604 - 3 POST		1036	G	Water	N	N	Y			
BH20210604 - POST GAC		0908	G	Water	N	N	Y			
BH20210604 - POST GAC (DUP)		0912	G	Water	N	N	Y			
BH20210604 - POST GAC M.S		0905	G	Water	N	Y	Y			
BH20210604 - POST GAC MSD		0919	G	Water	N	Y	Y			

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Relinquished by: <i>Benjamin Powers</i>	Date/Time: 6/4/2021 12:58	Company: Arcadis	Received by: <i>TR Kuber</i>	Date/Time: 6-4-2021 12:58	Company: EEM
Relinquished by: <i>TR Kuber</i>	Date/Time: 6-4-2021 12:00	Company: EETA	Received by: <i>dm</i>	Date/Time: 6-5-21 109:10	Company: EETASFC
Relinquished by: <i>TR Kuber</i>	Date/Time: 6/4/2021 14:79:42.6	Company: EETA	Received by: <i>dm</i>	Date/Time: 6-5-21 109:10	Company: EETASFC

Cooler Temperature(s) °C and Other Remarks: 0.6, 2.6, 3.0, 6

containers lists sample 10 as BH2021-1 Post 11, 10999 and labeled according to Coc. M 6-5-21



# Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 320-74597-1

**Login Number: 74597**  
**List Number: 1**  
**Creator: Oropeza, Salvador**

**List Source: Eurofins TestAmerica, Sacramento**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1479421/1479426/1479422
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not on page 1 and 4
There are no discrepancies between the sample IDs on the containers and the COC.	False	No: IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento  
880 Riverside Parkway  
West Sacramento, CA 95605  
Tel: (916)373-5600

Laboratory Job ID: 320-74597-1

Client Project/Site: Stewart ANGB - Butterhill #336089

For:

New York State D.E.C.  
625 Broadway  
12th Floor  
Albany, New York 12233-7017

Attn: Mr. Dave Chiusano



Authorized for release by:

6/17/2021 2:28:05 PM

Rebecca Jones, Project Management Assistant I  
[Rebecca.Jones@Eurofinset.com](mailto:Rebecca.Jones@Eurofinset.com)

Designee for

Judy Stone, Senior Project Manager  
(484)685-0868  
[Judy.Stone@Eurofinset.com](mailto:Judy.Stone@Eurofinset.com)

### LINKS

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results through  
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Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	9
Isotope Dilution Summary . . . . .	34
QC Sample Results . . . . .	37
QC Association Summary . . . . .	46
Lab Chronicle . . . . .	49
Certification Summary . . . . .	54
Method Summary . . . . .	55
Sample Summary . . . . .	56
Chain of Custody . . . . .	57
Receipt Checklists . . . . .	61

# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Job ID: 320-74597-1

### Laboratory: Eurofins TestAmerica, Sacramento

#### Narrative

#### Job Narrative 320-74597-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/5/2021 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 0.6° C and 2.6° C.

#### Receipt Exceptions

The COC lists sample ID BH20210604-1 POST, while 1 of the 2 containers for the sample list the ID as BH2021-1 POST. Logged and labeled according to the COC.BH20210604-1POST (320-74597-23).

#### LCMS

Method WS-LC-0025 Att1: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: BH20210604-POSTGAC (320-74597-28[MSD]) and (LCS 320-497181/2-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: BH20210604-2N-75 (320-74597-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-496405.

Method 3535: The following samples were preserved with trizma: BH20210604-2N-25 (320-74597-1), BH20210604-2N-50 (320-74597-2), BH20210604-2N-75 (320-74597-3), BH20210604-2S-25 (320-74597-4), BH20210604-2S-50 (320-74597-5), BH20210604-2S-75 (320-74597-6), BH20210604-3N-25 (320-74597-7), BH20210604-3N-50 (320-74597-8), BH20210604-3N-75 (320-74597-9) and BH20210604-3S-25 (320-74597-10). Thus, the MB, LCS and LCSD also contain trizma.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-496408.

Method 3535: The following samples was/were preserved with trizma: BH20210604-3S-50 (320-74597-11), BH20210604-3RAW (320-74597-12), BH20210604-PREGAC (320-74597-13), BH20210604-POSTGAC (320-74597-14), BH20210604-1N-25 (320-74597-15), BH20210604-1N-50 (320-74597-16), BH20210604-1N-75 (320-74597-17), BH20210604-1S-25 (320-74597-18), BH20210604-1S-50 (320-74597-19), BH20210604-1S-75 (320-74597-20) and BH20210604-3S-75 (320-74597-30). Thus, the MB, LCS and LCSD also contain trizma.

Method 3535: The following sample was yellow prior to extraction: BH20210604-3N-25 (320-74597-7).

Method 3535: The following samples contained floating particulates in the sample bottle prior to extraction: BH20210604-2S-25 (320-74597-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-2N-25

## Lab Sample ID: 320-74597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2N-50

## Lab Sample ID: 320-74597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.6		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2N-75

## Lab Sample ID: 320-74597-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-25

## Lab Sample ID: 320-74597-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.2		2.0		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		2.0		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-50

## Lab Sample ID: 320-74597-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-2S-75

## Lab Sample ID: 320-74597-6

No Detections.

## Client Sample ID: BH20210604-3N-25

## Lab Sample ID: 320-74597-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.8		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.9		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3N-50

## Lab Sample ID: 320-74597-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.6		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		1.9		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-3N-75

Lab Sample ID: 320-74597-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.2		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3S-25

Lab Sample ID: 320-74597-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.6		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3S-50

Lab Sample ID: 320-74597-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.1		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-3RAW

Lab Sample ID: 320-74597-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-PREGAC

Lab Sample ID: 320-74597-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.3		1.7		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-POSTGAC

Lab Sample ID: 320-74597-14

No Detections.

## Client Sample ID: BH20210604-1N-25

Lab Sample ID: 320-74597-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.0		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.5		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1N-50

Lab Sample ID: 320-74597-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-1N-75

Lab Sample ID: 320-74597-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.8		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-25

Lab Sample ID: 320-74597-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.5		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-50

Lab Sample ID: 320-74597-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.9		1.9		ng/L	1		537 (modified)	Total/NA

## Client Sample ID: BH20210604-1S-75

Lab Sample ID: 320-74597-20

No Detections.

## Client Sample ID: BH20210604-PRE-GAC

Lab Sample ID: 320-74597-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.1		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA

## Client Sample ID: BH20210604-1MID

Lab Sample ID: 320-74597-22

No Detections.

## Client Sample ID: BH20210604-1POST

Lab Sample ID: 320-74597-23

No Detections.

## Client Sample ID: BH20210604-2MID

Lab Sample ID: 320-74597-24

No Detections.

## Client Sample ID: BH20210604-2POST

Lab Sample ID: 320-74597-25

No Detections.

## Client Sample ID: BH20210604-3MID

Lab Sample ID: 320-74597-26

No Detections.

## Client Sample ID: BH20210604-3POST

Lab Sample ID: 320-74597-27

No Detections.

## Client Sample ID: BH20210604-POSTGAC

Lab Sample ID: 320-74597-28

No Detections.

## Client Sample ID: BH20210604-POSTGAC (DUP)

Lab Sample ID: 320-74597-29

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-25**

**Lab Sample ID: 320-74597-1**

Date Collected: 06/04/21 09:53

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.5</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.6</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.4</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:15	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C5 PFPeA	101		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C2 PFHxA	105		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C4 PFHpA	109		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C4 PFOA	102		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C5 PFNA	109		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C2 PFDA	104		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C2 PFUnA	96		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C2 PFDoA	110		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C2 PFTeDA	103		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C3 PFBS	105		25 - 150	06/08/21 04:41	06/10/21 05:15	1
18O2 PFHxS	113		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C4 PFOS	111		25 - 150	06/08/21 04:41	06/10/21 05:15	1
13C8 FOSA	116		25 - 150	06/08/21 04:41	06/10/21 05:15	1
d3-NMeFOSAA	119		25 - 150	06/08/21 04:41	06/10/21 05:15	1
d5-NEtFOSAA	121		25 - 150	06/08/21 04:41	06/10/21 05:15	1
M2-6:2 FTS	105		25 - 150	06/08/21 04:41	06/10/21 05:15	1
M2-8:2 FTS	108		25 - 150	06/08/21 04:41	06/10/21 05:15	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-50**

**Lab Sample ID: 320-74597-2**

Date Collected: 06/04/21 09:54

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.6</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.5</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:24	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C5 PFPeA	100		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C4 PFHpA	99		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C4 PFOA	97		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C5 PFNA	95		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C2 PFDA	94		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C2 PFUnA	87		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C2 PFDoA	100		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C2 PFTeDA	90		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C3 PFBS	101		25 - 150	06/08/21 04:41	06/10/21 05:24	1
18O2 PFHxS	102		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C4 PFOS	104		25 - 150	06/08/21 04:41	06/10/21 05:24	1
13C8 FOSA	114		25 - 150	06/08/21 04:41	06/10/21 05:24	1
d3-NMeFOSAA	98		25 - 150	06/08/21 04:41	06/10/21 05:24	1
d5-NEtFOSAA	108		25 - 150	06/08/21 04:41	06/10/21 05:24	1
M2-6:2 FTS	104		25 - 150	06/08/21 04:41	06/10/21 05:24	1
M2-8:2 FTS	105		25 - 150	06/08/21 04:41	06/10/21 05:24	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-75**

**Lab Sample ID: 320-74597-3**

Date Collected: 06/04/21 09:55

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.3</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:33	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C5 PFPeA	92		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFHpA	100		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFOA	95		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C5 PFNA	102		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFDA	96		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFUnA	94		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFDoA	103		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C2 PFTeDA	90		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C3 PFBS	97		25 - 150	06/08/21 04:41	06/10/21 05:33	1
18O2 PFHxS	102		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C4 PFOS	99		25 - 150	06/08/21 04:41	06/10/21 05:33	1
13C8 FOSA	106		25 - 150	06/08/21 04:41	06/10/21 05:33	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:41	06/10/21 05:33	1
d5-NEtFOSAA	111		25 - 150	06/08/21 04:41	06/10/21 05:33	1
M2-6:2 FTS	154	*5+	25 - 150	06/08/21 04:41	06/10/21 05:33	1
M2-8:2 FTS	115		25 - 150	06/08/21 04:41	06/10/21 05:33	1



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-25**

**Lab Sample ID: 320-74597-4**

Date Collected: 06/04/21 10:01

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.2</b>		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.1</b>		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
6:2 FTS	ND		5.1		ng/L		06/08/21 04:41	06/10/21 05:42	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:41	06/10/21 05:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C5 PFPeA	102		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C2 PFHxA	97		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C4 PFHpA	106		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C4 PFOA	100		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C5 PFNA	102		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C2 PFDA	96		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C2 PFUnA	87		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C2 PFDoA	93		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C2 PFTeDA	83		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C3 PFBS	107		25 - 150	06/08/21 04:41	06/10/21 05:42	1
18O2 PFHxS	105		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C4 PFOS	98		25 - 150	06/08/21 04:41	06/10/21 05:42	1
13C8 FOSA	106		25 - 150	06/08/21 04:41	06/10/21 05:42	1
d3-NMeFOSAA	95		25 - 150	06/08/21 04:41	06/10/21 05:42	1
d5-NEtFOSAA	104		25 - 150	06/08/21 04:41	06/10/21 05:42	1
M2-6:2 FTS	102		25 - 150	06/08/21 04:41	06/10/21 05:42	1
M2-8:2 FTS	100		25 - 150	06/08/21 04:41	06/10/21 05:42	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-50**

**Lab Sample ID: 320-74597-5**

Date Collected: 06/04/21 10:03

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.9</b>		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:41	06/10/21 05:51	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 05:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C5 PFPeA	99		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C4 PFHpA	100		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C4 PFOA	95		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C5 PFNA	99		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C2 PFDA	94		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C2 PFUnA	93		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C2 PFDoA	101		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C2 PFTeDA	89		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C3 PFBS	104		25 - 150	06/08/21 04:41	06/10/21 05:51	1
18O2 PFHxS	103		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C4 PFOS	100		25 - 150	06/08/21 04:41	06/10/21 05:51	1
13C8 FOSA	107		25 - 150	06/08/21 04:41	06/10/21 05:51	1
d3-NMeFOSAA	96		25 - 150	06/08/21 04:41	06/10/21 05:51	1
d5-NEtFOSAA	106		25 - 150	06/08/21 04:41	06/10/21 05:51	1
M2-6:2 FTS	88		25 - 150	06/08/21 04:41	06/10/21 05:51	1
M2-8:2 FTS	96		25 - 150	06/08/21 04:41	06/10/21 05:51	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2S-75**

**Lab Sample ID: 320-74597-6**

Date Collected: 06/04/21 10:05

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:00	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	110		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C5 PFPeA	102		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C2 PFHxA	99		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C4 PFHpA	106		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C4 PFOA	104		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C5 PFNA	102		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C2 PFDA	103		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C2 PFUnA	98		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C2 PFDoA	113		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C2 PFTeDA	110		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C3 PFBS	104		25 - 150	06/08/21 04:41	06/10/21 06:00	1
18O2 PFHxS	103		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C4 PFOS	104		25 - 150	06/08/21 04:41	06/10/21 06:00	1
13C8 FOSA	111		25 - 150	06/08/21 04:41	06/10/21 06:00	1
d3-NMeFOSAA	105		25 - 150	06/08/21 04:41	06/10/21 06:00	1
d5-NEtFOSAA	110		25 - 150	06/08/21 04:41	06/10/21 06:00	1
M2-6:2 FTS	87		25 - 150	06/08/21 04:41	06/10/21 06:00	1
M2-8:2 FTS	100		25 - 150	06/08/21 04:41	06/10/21 06:00	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-25**

**Lab Sample ID: 320-74597-7**

Date Collected: 06/04/21 10:13

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.8</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.0</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.4</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
6:2 FTS	ND		4.9		ng/L		06/08/21 04:41	06/10/21 06:10	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	87		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C5 PFPeA	98		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C4 PFHpA	101		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C4 PFOA	100		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C5 PFNA	96		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C2 PFDA	94		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C2 PFUnA	91		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C2 PFDoA	99		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C2 PFTeDA	87		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C3 PFBS	98		25 - 150	06/08/21 04:41	06/10/21 06:10	1
18O2 PFHxS	100		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C4 PFOS	98		25 - 150	06/08/21 04:41	06/10/21 06:10	1
13C8 FOSA	103		25 - 150	06/08/21 04:41	06/10/21 06:10	1
d3-NMeFOSAA	93		25 - 150	06/08/21 04:41	06/10/21 06:10	1
d5-NEtFOSAA	105		25 - 150	06/08/21 04:41	06/10/21 06:10	1
M2-6:2 FTS	96		25 - 150	06/08/21 04:41	06/10/21 06:10	1
M2-8:2 FTS	95		25 - 150	06/08/21 04:41	06/10/21 06:10	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-50**

**Lab Sample ID: 320-74597-8**

Date Collected: 06/04/21 10:14

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.8</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>1.9</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:41	06/10/21 06:37	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C5 PFPeA	102		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFHxA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFHpA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFOA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C5 PFNA	104		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFDA	96		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFUnA	92		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFDoA	94		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C2 PFTeDA	88		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C3 PFBS	106		25 - 150	06/08/21 04:41	06/10/21 06:37	1
18O2 PFHxS	112		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C4 PFOS	105		25 - 150	06/08/21 04:41	06/10/21 06:37	1
13C8 FOSA	107		25 - 150	06/08/21 04:41	06/10/21 06:37	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:41	06/10/21 06:37	1
d5-NEtFOSAA	108		25 - 150	06/08/21 04:41	06/10/21 06:37	1
M2-6:2 FTS	99		25 - 150	06/08/21 04:41	06/10/21 06:37	1
M2-8:2 FTS	96		25 - 150	06/08/21 04:41	06/10/21 06:37	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-75**

**Lab Sample ID: 320-74597-9**

Date Collected: 06/04/21 10:15

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.2</b>		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.0</b>		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:41	06/10/21 06:46	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:41	06/10/21 06:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C5 PFPeA	94		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFHxA	97		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFHpA	101		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFOA	96		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C5 PFNA	100		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFDA	91		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFUnA	96		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFDoA	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C2 PFTeDA	89		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C3 PFBS	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
18O2 PFHxS	98		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C4 PFOS	100		25 - 150	06/08/21 04:41	06/10/21 06:46	1
13C8 FOSA	104		25 - 150	06/08/21 04:41	06/10/21 06:46	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:41	06/10/21 06:46	1
d5-NEtFOSAA	111		25 - 150	06/08/21 04:41	06/10/21 06:46	1
M2-6:2 FTS	90		25 - 150	06/08/21 04:41	06/10/21 06:46	1
M2-8:2 FTS	93		25 - 150	06/08/21 04:41	06/10/21 06:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-25**

**Lab Sample ID: 320-74597-10**

Date Collected: 06/04/21 10:31

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.6</b>		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:41	06/10/21 06:55	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:41	06/10/21 06:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C5 PFPeA	101		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C2 PFHxA	96		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C4 PFHpA	104		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C4 PFOA	103		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C5 PFNA	102		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C2 PFDA	91		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C2 PFUnA	97		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C2 PFDoA	104		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C2 PFTeDA	87		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C3 PFBS	105		25 - 150	06/08/21 04:41	06/10/21 06:55	1
18O2 PFHxS	108		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C4 PFOS	102		25 - 150	06/08/21 04:41	06/10/21 06:55	1
13C8 FOSA	107		25 - 150	06/08/21 04:41	06/10/21 06:55	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:41	06/10/21 06:55	1
d5-NEtFOSAA	116		25 - 150	06/08/21 04:41	06/10/21 06:55	1
M2-6:2 FTS	85		25 - 150	06/08/21 04:41	06/10/21 06:55	1
M2-8:2 FTS	95		25 - 150	06/08/21 04:41	06/10/21 06:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-50**

**Lab Sample ID: 320-74597-11**

Date Collected: 06/04/21 10:32

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 07:59	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 07:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C5 PFPeA	103		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFHxA	97		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFHpA	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFOA	98		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C5 PFNA	103		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFDA	95		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFUnA	96		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFDoA	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C2 PFTeDA	91		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C3 PFBS	101		25 - 150	06/08/21 04:52	06/10/21 07:59	1
18O2 PFHxS	106		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C4 PFOS	102		25 - 150	06/08/21 04:52	06/10/21 07:59	1
13C8 FOSA	105		25 - 150	06/08/21 04:52	06/10/21 07:59	1
d3-NMeFOSAA	97		25 - 150	06/08/21 04:52	06/10/21 07:59	1
d5-NEtFOSAA	110		25 - 150	06/08/21 04:52	06/10/21 07:59	1
M2-6:2 FTS	85		25 - 150	06/08/21 04:52	06/10/21 07:59	1
M2-8:2 FTS	91		25 - 150	06/08/21 04:52	06/10/21 07:59	1



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3RAW**

**Lab Sample ID: 320-74597-12**

Date Collected: 06/04/21 10:45

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.4</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.9</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>3.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>1.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.0</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.3</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:08	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:08	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C5 PFPeA	102		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFHxA	100		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFOA	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C5 PFNA	109		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFDA	105		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFUnA	88		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFDoA	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C2 PFTeDA	103		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C3 PFBS	105		25 - 150	06/08/21 04:52	06/10/21 08:08	1
18O2 PFHxS	111		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C4 PFOS	100		25 - 150	06/08/21 04:52	06/10/21 08:08	1
13C8 FOSA	106		25 - 150	06/08/21 04:52	06/10/21 08:08	1
d3-NMeFOSAA	95		25 - 150	06/08/21 04:52	06/10/21 08:08	1
d5-NEtFOSAA	103		25 - 150	06/08/21 04:52	06/10/21 08:08	1
M2-6:2 FTS	89		25 - 150	06/08/21 04:52	06/10/21 08:08	1
M2-8:2 FTS	97		25 - 150	06/08/21 04:52	06/10/21 08:08	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-PREGAC**

**Lab Sample ID: 320-74597-13**

Date Collected: 06/04/21 09:18

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.2</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.7</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.9</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.1</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.3</b>		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
6:2 FTS	ND		4.4		ng/L		06/08/21 04:52	06/10/21 08:17	1
8:2 FTS	ND		1.7		ng/L		06/08/21 04:52	06/10/21 08:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	90		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C5 PFPeA	101		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C2 PFHxA	101		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C4 PFHpA	107		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C4 PFOA	100		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C5 PFNA	105		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C2 PFDA	103		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C2 PFUnA	100		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C2 PFDoA	109		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C2 PFTeDA	100		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C3 PFBS	108		25 - 150	06/08/21 04:52	06/10/21 08:17	1
18O2 PFHxS	102		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C4 PFOS	107		25 - 150	06/08/21 04:52	06/10/21 08:17	1
13C8 FOSA	111		25 - 150	06/08/21 04:52	06/10/21 08:17	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:52	06/10/21 08:17	1
d5-NEtFOSAA	112		25 - 150	06/08/21 04:52	06/10/21 08:17	1
M2-6:2 FTS	94		25 - 150	06/08/21 04:52	06/10/21 08:17	1
M2-8:2 FTS	98		25 - 150	06/08/21 04:52	06/10/21 08:17	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-14**

**Date Collected: 06/04/21 09:11**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:27	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C5 PFPeA	102		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C2 PFHxA	99		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C4 PFHpA	106		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C4 PFOA	103		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C5 PFNA	105		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C2 PFDA	104		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C2 PFUnA	97		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C2 PFDoA	108		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C2 PFTeDA	94		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C3 PFBS	103		25 - 150	06/08/21 04:52	06/10/21 08:27	1
18O2 PFHxS	107		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C4 PFOS	105		25 - 150	06/08/21 04:52	06/10/21 08:27	1
13C8 FOSA	108		25 - 150	06/08/21 04:52	06/10/21 08:27	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:52	06/10/21 08:27	1
d5-NEtFOSAA	109		25 - 150	06/08/21 04:52	06/10/21 08:27	1
M2-6:2 FTS	86		25 - 150	06/08/21 04:52	06/10/21 08:27	1
M2-8:2 FTS	100		25 - 150	06/08/21 04:52	06/10/21 08:27	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-25**

**Lab Sample ID: 320-74597-15**

Date Collected: 06/04/21 09:30

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.0</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.1</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.4</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>3.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:52	06/10/21 08:36	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 08:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C5 PFPeA	102		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C2 PFHxA	99		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C4 PFOA	102		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C5 PFNA	102		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C2 PFDA	99		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C2 PFUnA	96		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C2 PFDoA	102		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C2 PFTeDA	102		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C3 PFBS	104		25 - 150	06/08/21 04:52	06/10/21 08:36	1
18O2 PFHxS	103		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C4 PFOS	103		25 - 150	06/08/21 04:52	06/10/21 08:36	1
13C8 FOSA	110		25 - 150	06/08/21 04:52	06/10/21 08:36	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:52	06/10/21 08:36	1
d5-NEtFOSAA	106		25 - 150	06/08/21 04:52	06/10/21 08:36	1
M2-6:2 FTS	89		25 - 150	06/08/21 04:52	06/10/21 08:36	1
M2-8:2 FTS	103		25 - 150	06/08/21 04:52	06/10/21 08:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-50**

**Lab Sample ID: 320-74597-16**

Date Collected: 06/04/21 09:31

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.1</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.9</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>1.9</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
6:2 FTS	ND		4.5		ng/L		06/08/21 04:52	06/10/21 08:45	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:45	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	98		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C5 PFPeA	102		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFHxA	100		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFHpA	108		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFOA	103		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C5 PFNA	103		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFDA	98		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFUnA	94		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFDoA	104		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C2 PFTeDA	97		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C3 PFBS	107		25 - 150				06/08/21 04:52	06/10/21 08:45	1
18O2 PFHxS	111		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C4 PFOS	110		25 - 150				06/08/21 04:52	06/10/21 08:45	1
13C8 FOSA	112		25 - 150				06/08/21 04:52	06/10/21 08:45	1
d3-NMeFOSAA	100		25 - 150				06/08/21 04:52	06/10/21 08:45	1
d5-NEtFOSAA	111		25 - 150				06/08/21 04:52	06/10/21 08:45	1
M2-6:2 FTS	84		25 - 150				06/08/21 04:52	06/10/21 08:45	1
M2-8:2 FTS	101		25 - 150				06/08/21 04:52	06/10/21 08:45	1

# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1N-75**

**Lab Sample ID: 320-74597-17**

Date Collected: 06/04/21 09:32

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>3.3</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.2</b>		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:52	06/10/21 08:54	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 08:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C5 PFPeA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFHxA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFHpA	105		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFOA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C5 PFNA	101		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFDA	98		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFUnA	93		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFDoA	107		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C2 PFTeDA	89		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C3 PFBS	102		25 - 150	06/08/21 04:52	06/10/21 08:54	1
18O2 PFHxS	109		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C4 PFOS	104		25 - 150	06/08/21 04:52	06/10/21 08:54	1
13C8 FOSA	110		25 - 150	06/08/21 04:52	06/10/21 08:54	1
d3-NMeFOSAA	100		25 - 150	06/08/21 04:52	06/10/21 08:54	1
d5-NEtFOSAA	110		25 - 150	06/08/21 04:52	06/10/21 08:54	1
M2-6:2 FTS	88		25 - 150	06/08/21 04:52	06/10/21 08:54	1
M2-8:2 FTS	94		25 - 150	06/08/21 04:52	06/10/21 08:54	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-25**

**Lab Sample ID: 320-74597-18**

Date Collected: 06/04/21 09:39

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.5</b>		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
6:2 FTS	ND		4.7		ng/L		06/08/21 04:52	06/10/21 09:21	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:21	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	106		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C5 PFPeA	97		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C2 PFHxA	99		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C4 PFOA	102		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C5 PFNA	110		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C2 PFDA	95		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C2 PFUnA	95		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C2 PFDoA	106		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C2 PFTeDA	100		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C3 PFBS	108		25 - 150	06/08/21 04:52	06/10/21 09:21	1
18O2 PFHxS	110		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C4 PFOS	105		25 - 150	06/08/21 04:52	06/10/21 09:21	1
13C8 FOSA	111		25 - 150	06/08/21 04:52	06/10/21 09:21	1
d3-NMeFOSAA	83		25 - 150	06/08/21 04:52	06/10/21 09:21	1
d5-NEtFOSAA	99		25 - 150	06/08/21 04:52	06/10/21 09:21	1
M2-6:2 FTS	89		25 - 150	06/08/21 04:52	06/10/21 09:21	1
M2-8:2 FTS	96		25 - 150	06/08/21 04:52	06/10/21 09:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-50**

**Lab Sample ID: 320-74597-19**

Date Collected: 06/04/21 09:40

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.9</b>		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
6:2 FTS	ND		4.8		ng/L		06/08/21 04:52	06/10/21 09:31	1
8:2 FTS	ND		1.9		ng/L		06/08/21 04:52	06/10/21 09:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C5 PFPeA	100		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C2 PFHxA	98		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C4 PFHpA	105		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C4 PFOA	103		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C5 PFNA	104		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C2 PFDA	98		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C2 PFUnA	95		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C2 PFDoA	105		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C2 PFTeDA	100		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C3 PFBS	110		25 - 150	06/08/21 04:52	06/10/21 09:31	1
18O2 PFHxS	112		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C4 PFOS	105		25 - 150	06/08/21 04:52	06/10/21 09:31	1
13C8 FOSA	117		25 - 150	06/08/21 04:52	06/10/21 09:31	1
d3-NMeFOSAA	107		25 - 150	06/08/21 04:52	06/10/21 09:31	1
d5-NEtFOSAA	111		25 - 150	06/08/21 04:52	06/10/21 09:31	1
M2-6:2 FTS	91		25 - 150	06/08/21 04:52	06/10/21 09:31	1
M2-8:2 FTS	93		25 - 150	06/08/21 04:52	06/10/21 09:31	1



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-75**

**Lab Sample ID: 320-74597-20**

**Date Collected: 06/04/21 09:41**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
6:2 FTS	ND		4.6		ng/L		06/08/21 04:52	06/10/21 09:40	1
8:2 FTS	ND		1.8		ng/L		06/08/21 04:52	06/10/21 09:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	102		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C5 PFPeA	104		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C2 PFHxA	100		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C4 PFHpA	110		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C4 PFOA	105		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C5 PFNA	102		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C2 PFDA	104		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C2 PFUnA	96		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C2 PFDoA	108		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C2 PFTeDA	89		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C3 PFBS	106		25 - 150	06/08/21 04:52	06/10/21 09:40	1
18O2 PFHxS	113		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C4 PFOS	109		25 - 150	06/08/21 04:52	06/10/21 09:40	1
13C8 FOSA	115		25 - 150	06/08/21 04:52	06/10/21 09:40	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:52	06/10/21 09:40	1
d5-NEtFOSAA	112		25 - 150	06/08/21 04:52	06/10/21 09:40	1
M2-6:2 FTS	90		25 - 150	06/08/21 04:52	06/10/21 09:40	1
M2-8:2 FTS	99		25 - 150	06/08/21 04:52	06/10/21 09:40	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-PRE-GAC**

**Lab Sample ID: 320-74597-21**

**Date Collected: 06/04/21 09:16**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.1</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>3.8</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>2.6</b>		2.0		ng/L		06/09/21 19:29	06/10/21 10:33	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	116		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C5 PFNA	113		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C4 PFOA	113		70 - 130				06/09/21 19:29	06/10/21 10:33	1
13C4 PFOS	123		70 - 130				06/09/21 19:29	06/10/21 10:33	1
18O2 PFHxS	127		25 - 150				06/09/21 19:29	06/10/21 10:33	1
13C3 PFBS	97		25 - 150				06/09/21 19:29	06/10/21 10:33	1

**Client Sample ID: BH20210604-1MID**

**Lab Sample ID: 320-74597-22**

**Date Collected: 06/04/21 09:35**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 10:52	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	119		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C5 PFNA	110		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C4 PFOA	117		70 - 130				06/09/21 19:29	06/10/21 10:52	1
13C4 PFOS	117		70 - 130				06/09/21 19:29	06/10/21 10:52	1
18O2 PFHxS	129		25 - 150				06/09/21 19:29	06/10/21 10:52	1
13C3 PFBS	103		25 - 150				06/09/21 19:29	06/10/21 10:52	1

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

**Date Collected: 06/04/21 09:43**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	129		25 - 150				06/09/21 19:29	06/10/21 11:10	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

Date Collected: 06/04/21 09:43

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)**

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	114		25 - 150	06/09/21 19:29	06/10/21 11:10	1
13C4 PFOA	109		70 - 130	06/09/21 19:29	06/10/21 11:10	1
13C4 PFOS	123		70 - 130	06/09/21 19:29	06/10/21 11:10	1
18O2 PFHxS	131		25 - 150	06/09/21 19:29	06/10/21 11:10	1
13C3 PFBS	106		25 - 150	06/09/21 19:29	06/10/21 11:10	1

**Client Sample ID: BH20210604-2MID**

**Lab Sample ID: 320-74597-24**

Date Collected: 06/04/21 09:57

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	126		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C5 PFNA	116		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C4 PFOA	115		70 - 130	06/09/21 19:29	06/10/21 11:29	1
13C4 PFOS	120		70 - 130	06/09/21 19:29	06/10/21 11:29	1
18O2 PFHxS	129		25 - 150	06/09/21 19:29	06/10/21 11:29	1
13C3 PFBS	104		25 - 150	06/09/21 19:29	06/10/21 11:29	1

**Client Sample ID: BH20210604-2POST**

**Lab Sample ID: 320-74597-25**

Date Collected: 06/04/21 10:07

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 11:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	120		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C5 PFNA	115		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C4 PFOA	109		70 - 130	06/09/21 19:29	06/10/21 11:47	1
13C4 PFOS	119		70 - 130	06/09/21 19:29	06/10/21 11:47	1
18O2 PFHxS	125		25 - 150	06/09/21 19:29	06/10/21 11:47	1
13C3 PFBS	107		25 - 150	06/09/21 19:29	06/10/21 11:47	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3MID**

**Lab Sample ID: 320-74597-26**

Date Collected: 06/04/21 10:17

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	123		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C5 PFNA	116		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C4 PFOA	114		70 - 130				06/09/21 19:29	06/10/21 12:06	1
13C4 PFOS	130		70 - 130				06/09/21 19:29	06/10/21 12:06	1
18O2 PFHxS	127		25 - 150				06/09/21 19:29	06/10/21 12:06	1
13C3 PFBS	102		25 - 150				06/09/21 19:29	06/10/21 12:06	1

**Client Sample ID: BH20210604-3POST**

**Lab Sample ID: 320-74597-27**

Date Collected: 06/04/21 10:36

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 12:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	128		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C5 PFNA	123		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C4 PFOA	113		70 - 130				06/09/21 19:29	06/10/21 12:24	1
13C4 PFOS	124		70 - 130				06/09/21 19:29	06/10/21 12:24	1
18O2 PFHxS	124		25 - 150				06/09/21 19:29	06/10/21 12:24	1
13C3 PFBS	107		25 - 150				06/09/21 19:29	06/10/21 12:24	1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	125		25 - 150				06/09/21 19:29	06/10/21 13:01	1
13C5 PFNA	117		25 - 150				06/09/21 19:29	06/10/21 13:01	1
13C4 PFOA	117		70 - 130				06/09/21 19:29	06/10/21 13:01	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)**

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	124		70 - 130	06/09/21 19:29	06/10/21 13:01	1
18O2 PFHxS	127		25 - 150	06/09/21 19:29	06/10/21 13:01	1
13C3 PFBS	104		25 - 150	06/09/21 19:29	06/10/21 13:01	1

**Client Sample ID: BH20210604-POSTGAC (DUP)**

**Lab Sample ID: 320-74597-29**

Date Collected: 06/04/21 09:12

Matrix: Water

Date Received: 06/05/21 09:10

**Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 13:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	116		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C5 PFNA	116		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C4 PFOA	110		70 - 130	06/09/21 19:29	06/10/21 13:56	1
13C4 PFOS	121		70 - 130	06/09/21 19:29	06/10/21 13:56	1
18O2 PFHxS	124		25 - 150	06/09/21 19:29	06/10/21 13:56	1
13C3 PFBS	102		25 - 150	06/09/21 19:29	06/10/21 13:56	1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

Date Collected: 06/04/21 10:34

Matrix: Water

Date Received: 06/05/21 09:10

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1

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# Client Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

**Date Collected: 06/04/21 10:34**

**Matrix: Water**

**Date Received: 06/05/21 09:10**

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
6:2 FTS	ND		4.9		ng/L		06/08/21 04:52	06/10/21 09:49	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:52	06/10/21 09:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C5 PFPeA	103		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFHxA	95		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFHpA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFOA	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C5 PFNA	99		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFDA	101		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFUnA	95		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFDoA	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C2 PFTeDA	89		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C3 PFBS	107		25 - 150				06/08/21 04:52	06/10/21 09:49	1
18O2 PFHxS	108		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C4 PFOS	104		25 - 150				06/08/21 04:52	06/10/21 09:49	1
13C8 FOSA	113		25 - 150				06/08/21 04:52	06/10/21 09:49	1
d3-NMeFOSAA	93		25 - 150				06/08/21 04:52	06/10/21 09:49	1
d5-NEtFOSAA	114		25 - 150				06/08/21 04:52	06/10/21 09:49	1
M2-6:2 FTS	78		25 - 150				06/08/21 04:52	06/10/21 09:49	1
M2-8:2 FTS	94		25 - 150				06/08/21 04:52	06/10/21 09:49	1

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-74597-1	BH20210604-2N-25	93	101	105	109	102	109	104	96
320-74597-2	BH20210604-2N-50	89	100	96	99	97	95	94	87
320-74597-3	BH20210604-2N-75	89	92	96	100	95	102	96	94
320-74597-4	BH20210604-2S-25	101	102	97	106	100	102	96	87
320-74597-5	BH20210604-2S-50	101	99	96	100	95	99	94	93
320-74597-6	BH20210604-2S-75	110	102	99	106	104	102	103	98
320-74597-7	BH20210604-3N-25	87	98	96	101	100	96	94	91
320-74597-8	BH20210604-3N-50	88	102	100	100	100	104	96	92
320-74597-9	BH20210604-3N-75	95	94	97	101	96	100	91	96
320-74597-10	BH20210604-3S-25	101	101	96	104	103	102	91	97
320-74597-11	BH20210604-3S-50	99	103	97	101	98	103	95	96
320-74597-12	BH20210604-3RAW	91	102	100	104	97	109	105	88
320-74597-13	BH20210604-PREGAC	90	101	101	107	100	105	103	100
320-74597-14	BH20210604-POSTGAC	101	102	99	106	103	105	104	97
320-74597-15	BH20210604-1N-25	89	102	99	104	102	102	99	96
320-74597-16	BH20210604-1N-50	98	102	100	108	103	103	98	94
320-74597-17	BH20210604-1N-75	98	101	98	105	101	101	98	93
320-74597-18	BH20210604-1S-25	106	97	99	104	102	110	95	95
320-74597-19	BH20210604-1S-50	103	100	98	105	103	104	98	95
320-74597-20	BH20210604-1S-75	102	104	100	110	105	102	104	96
320-74597-30	BH20210604-3S-75	99	103	95	99	104	99	101	95
LCS 320-496405/2-A	Lab Control Sample	103	100	102	107	100	101	103	88
LCS 320-496408/2-A	Lab Control Sample	98	95	92	98	94	95	92	89
LCSD 320-496405/3-A	Lab Control Sample Dup	100	102	100	106	99	103	100	84
LCSD 320-496408/3-A	Lab Control Sample Dup	100	99	95	99	98	102	92	94
MB 320-496405/1-A	Method Blank	95	99	94	101	96	99	97	94
MB 320-496408/1-A	Method Blank	103	101	92	104	99	101	100	102

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOFOS (25-150)	d5NEFOFOS (25-150)
320-74597-1	BH20210604-2N-25	110	103	105	113	111	116	119	121
320-74597-2	BH20210604-2N-50	100	90	101	102	104	114	98	108
320-74597-3	BH20210604-2N-75	103	90	97	102	99	106	100	111
320-74597-4	BH20210604-2S-25	93	83	107	105	98	106	95	104
320-74597-5	BH20210604-2S-50	101	89	104	103	100	107	96	106
320-74597-6	BH20210604-2S-75	113	110	104	103	104	111	105	110
320-74597-7	BH20210604-3N-25	99	87	98	100	98	103	93	105
320-74597-8	BH20210604-3N-50	94	88	106	112	105	107	100	108
320-74597-9	BH20210604-3N-75	99	89	99	98	100	104	99	111
320-74597-10	BH20210604-3S-25	104	87	105	108	102	107	100	116
320-74597-11	BH20210604-3S-50	101	91	101	106	102	105	97	110
320-74597-12	BH20210604-3RAW	97	103	105	111	100	106	95	103
320-74597-13	BH20210604-PREGAC	109	100	108	102	107	111	99	112
320-74597-14	BH20210604-POSTGAC	108	94	103	107	105	108	100	109
320-74597-15	BH20210604-1N-25	102	102	104	103	103	110	99	106
320-74597-16	BH20210604-1N-50	104	97	107	111	110	112	100	111
320-74597-17	BH20210604-1N-75	107	89	102	109	104	110	100	110
320-74597-18	BH20210604-1S-25	106	100	108	110	105	111	83	99
320-74597-19	BH20210604-1S-50	105	100	110	112	105	117	107	111

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# Isotope Dilution Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDaA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-74597-20	BH20210604-1S-75	108	89	106	113	109	115	99	112
320-74597-30	BH20210604-3S-75	104	89	107	108	104	113	93	114
LCS 320-496405/2-A	Lab Control Sample	101	95	109	110	102	109	103	109
LCS 320-496408/2-A	Lab Control Sample	100	83	97	102	95	102	95	99
LCSD 320-496405/3-A	Lab Control Sample Dup	102	93	107	108	102	110	101	108
LCSD 320-496408/3-A	Lab Control Sample Dup	105	86	102	108	105	107	94	105
MB 320-496405/1-A	Method Blank	105	87	104	100	98	104	99	113
MB 320-496408/1-A	Method Blank	104	88	101	109	100	113	104	108

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)	
		M262FTS (25-150)	M282FTS (25-150)
320-74597-1	BH20210604-2N-25	105	108
320-74597-2	BH20210604-2N-50	104	105
320-74597-3	BH20210604-2N-75	154 *5+	115
320-74597-4	BH20210604-2S-25	102	100
320-74597-5	BH20210604-2S-50	88	96
320-74597-6	BH20210604-2S-75	87	100
320-74597-7	BH20210604-3N-25	96	95
320-74597-8	BH20210604-3N-50	99	96
320-74597-9	BH20210604-3N-75	90	93
320-74597-10	BH20210604-3S-25	85	95
320-74597-11	BH20210604-3S-50	85	91
320-74597-12	BH20210604-3RAW	89	97
320-74597-13	BH20210604-PREGAC	94	98
320-74597-14	BH20210604-POSTGAC	86	100
320-74597-15	BH20210604-1N-25	89	103
320-74597-16	BH20210604-1N-50	84	101
320-74597-17	BH20210604-1N-75	88	94
320-74597-18	BH20210604-1S-25	89	96
320-74597-19	BH20210604-1S-50	91	93
320-74597-20	BH20210604-1S-75	90	99
320-74597-30	BH20210604-3S-75	78	94
LCS 320-496405/2-A	Lab Control Sample	96	108
LCS 320-496408/2-A	Lab Control Sample	74	84
LCSD 320-496405/3-A	Lab Control Sample Dup	89	99
LCSD 320-496408/3-A	Lab Control Sample Dup	75	88
MB 320-496405/1-A	Method Blank	100	102
MB 320-496408/1-A	Method Blank	86	95

### Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDaA = 13C2 PFDaA
- PFTDA = 13C2 PFTeDA



# Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 320-74597-1

Project/Site: Stewart ANGB - Butterhill #336089

C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 PFOSA = 13C8 FOSA  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C4PFHA	PFNA	PFOA	PFOS	PFHxS	C3PFBS
		(25-150)	(25-150)	(70-130)	(70-130)	(25-150)	(25-150)
320-74597-21	BH20210604-PRE-GAC	116	113	113	123	127	97
320-74597-22	BH20210604-1MID	119	110	117	117	129	103
320-74597-23	BH20210604-1POST	129	114	109	123	131	106
320-74597-24	BH20210604-2MID	126	116	115	120	129	104
320-74597-25	BH20210604-2POST	120	115	109	119	125	107
320-74597-26	BH20210604-3MID	123	116	114	130	127	102
320-74597-27	BH20210604-3POST	128	123	113	124	124	107
320-74597-28	BH20210604-POSTGAC	125	117	117	124	127	104
320-74597-28 MS	BH20210604-POSTGAC	124	119	119	128	127	102
320-74597-28 MSD	BH20210604-POSTGAC	122	123	114	131 *5+	127	112
320-74597-29	BH20210604-POSTGAC (DUP)	116	116	110	121	124	102
LCS 320-497181/2-A	Lab Control Sample	132	122	123	132 *5+	131	112
MB 320-497181/1-A	Method Blank	134	129	126	129	132	114

### Surrogate Legend

C4PFHA = 13C4 PFHpA  
 PFNA = 13C5 PFNA  
 PFOA = 13C4 PFOA  
 PFOS = 13C4 PFOS  
 PFHxS = 18O2 PFHxS  
 C3PFBS = 13C3 PFBS

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-496405/1-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
6:2 FTS	ND		5.0		ng/L		06/08/21 04:41	06/10/21 04:47	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:41	06/10/21 04:47	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	95		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C5 PFPeA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFHxA	94		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFHpA	101		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFOA	96		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C5 PFNA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFDA	97		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFUnA	94		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFDoA	105		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C2 PFTeDA	87		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C3 PFBS	104		25 - 150	06/08/21 04:41	06/10/21 04:47	1
18O2 PFHxS	100		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C4 PFOS	98		25 - 150	06/08/21 04:41	06/10/21 04:47	1
13C8 FOSA	104		25 - 150	06/08/21 04:41	06/10/21 04:47	1
d3-NMeFOSAA	99		25 - 150	06/08/21 04:41	06/10/21 04:47	1
d5-NEtFOSAA	113		25 - 150	06/08/21 04:41	06/10/21 04:47	1
M2-6:2 FTS	100		25 - 150	06/08/21 04:41	06/10/21 04:47	1
M2-8:2 FTS	102		25 - 150	06/08/21 04:41	06/10/21 04:47	1

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496405/2-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.2		ng/L		103	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.5		ng/L		99	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.9		ng/L		102	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	44.1		ng/L		110	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.3		ng/L		108	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	36.3		ng/L		91	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	47.4		ng/L		118	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	39.1		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.3		ng/L		100	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.5		ng/L		95	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.5		ng/L		104	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	39.6		ng/L		107	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	38.5		ng/L		100	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	39.9		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.5		ng/L		96	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.7		ng/L		97	76 - 136
6:2 FTS	37.9	37.8		ng/L		100	59 - 175
8:2 FTS	38.3	42.5		ng/L		111	75 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	103		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	102		25 - 150
13C4 PFHpA	107		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	103		25 - 150
13C2 PFUnA	88		25 - 150
13C2 PFDoA	101		25 - 150
13C2 PFTeDA	95		25 - 150
13C3 PFBS	109		25 - 150
18O2 PFHxS	110		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	109		25 - 150
d3-NMeFOSAA	103		25 - 150
d5-NEtFOSAA	109		25 - 150

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# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496405/2-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	96		25 - 150
M2-8:2 FTS	108		25 - 150

**Lab Sample ID: LCSD 320-496405/3-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Perfluorobutanoic acid (PFBA)	40.0	40.6		ng/L		102	76 - 136	1	30	
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	71 - 131	3	30	
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	73 - 133	1	30	
Perfluoroheptanoic acid (PFHpA)	40.0	40.5		ng/L		101	72 - 132	1	30	
Perfluorooctanoic acid (PFOA)	40.0	41.2		ng/L		103	70 - 130	7	30	
Perfluorononanoic acid (PFNA)	40.0	39.5		ng/L		99	75 - 135	9	30	
Perfluorodecanoic acid (PFDA)	40.0	35.7		ng/L		89	76 - 136	2	30	
Perfluoroundecanoic acid (PFUnA)	40.0	42.5		ng/L		106	68 - 128	4	30	
Perfluorododecanoic acid (PFDoA)	40.0	41.1		ng/L		103	71 - 131	1	30	
Perfluorotridecanoic acid (PFTriA)	40.0	39.3		ng/L		98	71 - 131	19	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	40.9		ng/L		102	70 - 130	5	30	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.8		ng/L		101	67 - 127	2	30	
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.5		ng/L		92	59 - 119	3	30	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.6		ng/L		104	76 - 136	0	30	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.9		ng/L		102	70 - 130	4	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	36.4		ng/L		94	71 - 131	6	30	
Perfluorooctanesulfonamide (FOSA)	40.0	37.7		ng/L		94	73 - 133	6	30	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	76 - 136	2	30	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.4		ng/L		96	76 - 136	1	30	
6:2 FTS	37.9	40.2		ng/L		106	59 - 175	6	30	
8:2 FTS	38.3	39.2		ng/L		102	75 - 135	8	30	

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	100		25 - 150
13C5 PFPeA	102		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	106		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	84		25 - 150
13C2 PFDoA	102		25 - 150

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCSD 320-496405/3-A**  
**Matrix: Water**  
**Analysis Batch: 497061**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496405**

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
13C2 PFTeDA	93		25 - 150
13C3 PFBS	107		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	102		25 - 150
13C8 FOSA	110		25 - 150
d3-NMeFOSAA	101		25 - 150
d5-NEtFOSAA	108		25 - 150
M2-6:2 FTS	89		25 - 150
M2-8:2 FTS	99		25 - 150

**Lab Sample ID: MB 320-496408/1-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
6:2 FTS	ND		5.0		ng/L		06/08/21 04:52	06/10/21 07:32	1
8:2 FTS	ND		2.0		ng/L		06/08/21 04:52	06/10/21 07:32	1

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	103		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C5 PFPeA	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFHxA	92		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFHpA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFOA	99		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C5 PFNA	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFDA	100		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFUnA	102		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C2 PFDoA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: MB 320-496408/1-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFTeDA	88		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C3 PFBS	101		25 - 150	06/08/21 04:52	06/10/21 07:32	1
18O2 PFHxS	109		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C4 PFOS	100		25 - 150	06/08/21 04:52	06/10/21 07:32	1
13C8 FOSA	113		25 - 150	06/08/21 04:52	06/10/21 07:32	1
d3-NMeFOSAA	104		25 - 150	06/08/21 04:52	06/10/21 07:32	1
d5-NEtFOSAA	108		25 - 150	06/08/21 04:52	06/10/21 07:32	1
M2-6:2 FTS	86		25 - 150	06/08/21 04:52	06/10/21 07:32	1
M2-8:2 FTS	95		25 - 150	06/08/21 04:52	06/10/21 07:32	1

**Lab Sample ID: LCS 320-496408/2-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Perfluorobutanoic acid (PFBA)	40.0	40.7		ng/L		102	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	40.5		ng/L		101	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.8		ng/L		107	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	41.5		ng/L		104	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	41.8		ng/L		105	70 - 130
Perfluorononanoic acid (PFNA)	40.0	42.5		ng/L		106	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	38.1		ng/L		95	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	39.2		ng/L		98	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		102	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	43.1		ng/L		108	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	41.0		ng/L		103	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	38.7		ng/L		109	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.8		ng/L		98	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	44.0		ng/L		115	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	41.4		ng/L		112	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	41.0		ng/L		106	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	40.1		ng/L		100	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.8		ng/L		97	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.3		ng/L		103	76 - 136
6:2 FTS	37.9	38.3		ng/L		101	59 - 175
8:2 FTS	38.3	42.0		ng/L		110	75 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	98		25 - 150
13C5 PFPeA	95		25 - 150

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-496408/2-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

<u>Isotope Dilution</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
13C2 PFHxA	92		25 - 150
13C4 PFHpA	98		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	100		25 - 150
13C2 PFTeDA	83		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	95		25 - 150
13C8 FOSA	102		25 - 150
d3-NMeFOSAA	95		25 - 150
d5-NEtFOSAA	99		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	84		25 - 150

**Lab Sample ID: LCSD 320-496408/3-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

<u>Analyte</u>	<u>Spike</u> <u>Added</u>	<u>LCSD</u> <u>Result</u>	<u>LCSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec.</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
Perfluorobutanoic acid (PFBA)	40.0	41.1		ng/L		103	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131	2	30
Perfluorohexanoic acid (PFHxA)	40.0	42.4		ng/L		106	73 - 133	1	30
Perfluoroheptanoic acid (PFHpA)	40.0	43.9		ng/L		110	72 - 132	6	30
Perfluorooctanoic acid (PFOA)	40.0	42.7		ng/L		107	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	42.1		ng/L		105	75 - 135	1	30
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		102	76 - 136	7	30
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	71 - 131	6	30
Perfluorotridecanoic acid (PFTriA)	40.0	40.6		ng/L		101	71 - 131	6	30
Perfluorotetradecanoic acid (PFTeA)	40.0	42.5		ng/L		106	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	35.4	37.1		ng/L		105	67 - 127	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.6		ng/L		95	59 - 119	3	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.9		ng/L		102	76 - 136	12	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.6		ng/L		101	70 - 130	10	30
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		95	71 - 131	11	30
Perfluorooctanesulfonamide (FOSA)	40.0	39.0		ng/L		98	73 - 133	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.9		ng/L		95	76 - 136	2	30

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCSD 320-496408/3-A**  
**Matrix: Water**  
**Analysis Batch: 497065**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 496408**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	40.0	38.9		ng/L		97	76 - 136	6	30
6:2 FTS	37.9	38.5		ng/L		101	59 - 175	0	30
8:2 FTS	38.3	42.1		ng/L		110	75 - 135	0	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	100		25 - 150
13C5 PFPeA	99		25 - 150
13C2 PFHxA	95		25 - 150
13C4 PFHpA	99		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	105		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	102		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	105		25 - 150
13C8 FOSA	107		25 - 150
d3-NMeFOSAA	94		25 - 150
d5-NEtFOSAA	105		25 - 150
M2-6:2 FTS	75		25 - 150
M2-8:2 FTS	88		25 - 150

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-497181/1-A**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		06/09/21 19:29	06/10/21 09:38	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	134		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C5 PFNA	129		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C4 PFOA	126		70 - 130	06/09/21 19:29	06/10/21 09:38	1
13C4 PFOS	129		70 - 130	06/09/21 19:29	06/10/21 09:38	1
18O2 PFHxS	132		25 - 150	06/09/21 19:29	06/10/21 09:38	1
13C3 PFBS	114		25 - 150	06/09/21 19:29	06/10/21 09:38	1

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# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-497181/2-A**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanesulfonic acid (PFBS)	17.7	15.9		ng/L		90	72 - 151
Perfluoroheptanoic acid (PFHpA)	20.0	17.3		ng/L		87	71 - 138
Perfluorohexanesulfonic acid (PFHxS)	18.2	16.6		ng/L		91	73 - 157
Perfluorononanoic acid (PFNA)	20.0	17.6		ng/L		88	73 - 147
Perfluorooctanesulfonic acid (PFOS)	18.6	14.9		ng/L		80	70 - 130
Perfluorooctanoic acid (PFOA)	20.0	17.4		ng/L		87	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFHpA	132		25 - 150
13C5 PFNA	122		25 - 150
13C4 PFOA	123		70 - 130
13C4 PFOS	132	*5+	70 - 130
18O2 PFHxS	131		25 - 150
13C3 PFBS	112		25 - 150

**Lab Sample ID: 320-74597-28 MS**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: BH20210604-POSTGAC**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanesulfonic acid (PFBS)	ND		15.6	14.4		ng/L		93	72 - 151
Perfluoroheptanoic acid (PFHpA)	ND		17.6	15.4		ng/L		87	71 - 138
Perfluorohexanesulfonic acid (PFHxS)	ND		16.1	14.1		ng/L		88	73 - 157
Perfluorononanoic acid (PFNA)	ND		17.6	16.4		ng/L		93	73 - 147
Perfluorooctanesulfonic acid (PFOS)	ND		16.4	13.0		ng/L		79	70 - 130
Perfluorooctanoic acid (PFOA)	ND		17.6	15.4		ng/L		87	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFHpA	124		25 - 150
13C5 PFNA	119		25 - 150
13C4 PFOA	119		70 - 130
13C4 PFOS	128		70 - 130
18O2 PFHxS	127		25 - 150
13C3 PFBS	102		25 - 150

**Lab Sample ID: 320-74597-28 MSD**  
**Matrix: Water**  
**Analysis Batch: 496915**

**Client Sample ID: BH20210604-POSTGAC**  
**Prep Type: Total/NA**  
**Prep Batch: 497181**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS)	ND		15.3	14.0		ng/L		92	72 - 151	3	30
Perfluoroheptanoic acid (PFHpA)	ND		17.3	16.0		ng/L		92	71 - 138	4	30
Perfluorohexanesulfonic acid (PFHxS)	ND		15.8	13.9		ng/L		88	73 - 157	1	30

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# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: 320-74597-28 MSD**

**Client Sample ID: BH20210604-POSTGAC**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 496915**

**Prep Batch: 497181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	ND		17.3	14.9		ng/L		86	73 - 147	10	30
Perfluorooctanesulfonic acid (PFOS)	ND		16.1	12.2		ng/L		76	70 - 130	6	20
Perfluorooctanoic acid (PFOA)	ND		17.3	15.9		ng/L		92	70 - 130	3	20
	<b>MSD MSD</b>										
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
13C4 PFHpA	122		25 - 150								
13C5 PFNA	123		25 - 150								
13C4 PFOA	114		70 - 130								
13C4 PFOS	131	*5+	70 - 130								
18O2 PFHxS	127		25 - 150								
13C3 PFBS	112		25 - 150								

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS

### Prep Batch: 496405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-1	BH20210604-2N-25	Total/NA	Water	3535	
320-74597-2	BH20210604-2N-50	Total/NA	Water	3535	
320-74597-3	BH20210604-2N-75	Total/NA	Water	3535	
320-74597-4	BH20210604-2S-25	Total/NA	Water	3535	
320-74597-5	BH20210604-2S-50	Total/NA	Water	3535	
320-74597-6	BH20210604-2S-75	Total/NA	Water	3535	
320-74597-7	BH20210604-3N-25	Total/NA	Water	3535	
320-74597-8	BH20210604-3N-50	Total/NA	Water	3535	
320-74597-9	BH20210604-3N-75	Total/NA	Water	3535	
320-74597-10	BH20210604-3S-25	Total/NA	Water	3535	
MB 320-496405/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-496405/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-496405/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Prep Batch: 496408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-11	BH20210604-3S-50	Total/NA	Water	3535	
320-74597-12	BH20210604-3RAW	Total/NA	Water	3535	
320-74597-13	BH20210604-PREGAC	Total/NA	Water	3535	
320-74597-14	BH20210604-POSTGAC	Total/NA	Water	3535	
320-74597-15	BH20210604-1N-25	Total/NA	Water	3535	
320-74597-16	BH20210604-1N-50	Total/NA	Water	3535	
320-74597-17	BH20210604-1N-75	Total/NA	Water	3535	
320-74597-18	BH20210604-1S-25	Total/NA	Water	3535	
320-74597-19	BH20210604-1S-50	Total/NA	Water	3535	
320-74597-20	BH20210604-1S-75	Total/NA	Water	3535	
320-74597-30	BH20210604-3S-75	Total/NA	Water	3535	
MB 320-496408/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-496408/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-496408/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 496915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-21	BH20210604-PRE-GAC	Total/NA	Water	WS-LC-0025	497181
320-74597-22	BH20210604-1MID	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-23	BH20210604-1POST	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-24	BH20210604-2MID	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-25	BH20210604-2POST	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-26	BH20210604-3MID	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-27	BH20210604-3POST	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-28	BH20210604-POSTGAC	Total/NA	Water	Att1 WS-LC-0025	497181
320-74597-29	BH20210604-POSTGAC (DUP)	Total/NA	Water	Att1 WS-LC-0025	497181
MB 320-497181/1-A	Method Blank	Total/NA	Water	Att1 WS-LC-0025	497181

Eurofins TestAmerica, Sacramento

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS (Continued)

### Analysis Batch: 496915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-497181/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-28 MS	BH20210604-POSTGAC	Total/NA	Water	WS-LC-0025 Att1	497181
320-74597-28 MSD	BH20210604-POSTGAC	Total/NA	Water	WS-LC-0025 Att1	497181

### Analysis Batch: 497061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-1	BH20210604-2N-25	Total/NA	Water	537 (modified)	496405
320-74597-2	BH20210604-2N-50	Total/NA	Water	537 (modified)	496405
320-74597-3	BH20210604-2N-75	Total/NA	Water	537 (modified)	496405
320-74597-4	BH20210604-2S-25	Total/NA	Water	537 (modified)	496405
320-74597-5	BH20210604-2S-50	Total/NA	Water	537 (modified)	496405
320-74597-6	BH20210604-2S-75	Total/NA	Water	537 (modified)	496405
320-74597-7	BH20210604-3N-25	Total/NA	Water	537 (modified)	496405
320-74597-8	BH20210604-3N-50	Total/NA	Water	537 (modified)	496405
320-74597-9	BH20210604-3N-75	Total/NA	Water	537 (modified)	496405
320-74597-10	BH20210604-3S-25	Total/NA	Water	537 (modified)	496405
MB 320-496405/1-A	Method Blank	Total/NA	Water	537 (modified)	496405
LCS 320-496405/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	496405
LCSD 320-496405/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	496405

### Analysis Batch: 497065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-11	BH20210604-3S-50	Total/NA	Water	537 (modified)	496408
320-74597-12	BH20210604-3RAW	Total/NA	Water	537 (modified)	496408
320-74597-13	BH20210604-PREGAC	Total/NA	Water	537 (modified)	496408
320-74597-14	BH20210604-POSTGAC	Total/NA	Water	537 (modified)	496408
320-74597-15	BH20210604-1N-25	Total/NA	Water	537 (modified)	496408
320-74597-16	BH20210604-1N-50	Total/NA	Water	537 (modified)	496408
320-74597-17	BH20210604-1N-75	Total/NA	Water	537 (modified)	496408
320-74597-18	BH20210604-1S-25	Total/NA	Water	537 (modified)	496408
320-74597-19	BH20210604-1S-50	Total/NA	Water	537 (modified)	496408
320-74597-20	BH20210604-1S-75	Total/NA	Water	537 (modified)	496408
320-74597-30	BH20210604-3S-75	Total/NA	Water	537 (modified)	496408
MB 320-496408/1-A	Method Blank	Total/NA	Water	537 (modified)	496408
LCS 320-496408/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	496408
LCSD 320-496408/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	496408

### Prep Batch: 497181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74597-21	BH20210604-PRE-GAC	Total/NA	Water	PFAS Prep	
320-74597-22	BH20210604-1MID	Total/NA	Water	PFAS Prep	
320-74597-23	BH20210604-1POST	Total/NA	Water	PFAS Prep	
320-74597-24	BH20210604-2MID	Total/NA	Water	PFAS Prep	
320-74597-25	BH20210604-2POST	Total/NA	Water	PFAS Prep	
320-74597-26	BH20210604-3MID	Total/NA	Water	PFAS Prep	
320-74597-27	BH20210604-3POST	Total/NA	Water	PFAS Prep	
320-74597-28	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	
320-74597-29	BH20210604-POSTGAC (DUP)	Total/NA	Water	PFAS Prep	
MB 320-497181/1-A	Method Blank	Total/NA	Water	PFAS Prep	

Eurofins TestAmerica, Sacramento

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## LCMS (Continued)

### Prep Batch: 497181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-497181/2-A	Lab Control Sample	Total/NA	Water	PFAS Prep	
320-74597-28 MS	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	
320-74597-28 MSD	BH20210604-POSTGAC	Total/NA	Water	PFAS Prep	

- 1
- 2
- 3
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# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2N-25**

**Lab Sample ID: 320-74597-1**

Date Collected: 06/04/21 09:53

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			279.5 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 05:15	K1S	TAL SAC

**Client Sample ID: BH20210604-2N-50**

**Lab Sample ID: 320-74597-2**

Date Collected: 06/04/21 09:54

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			275.5 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 05:24	K1S	TAL SAC

**Client Sample ID: BH20210604-2N-75**

**Lab Sample ID: 320-74597-3**

Date Collected: 06/04/21 09:55

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			278.7 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 05:33	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-25**

**Lab Sample ID: 320-74597-4**

Date Collected: 06/04/21 10:01

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			246.8 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 05:42	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-50**

**Lab Sample ID: 320-74597-5**

Date Collected: 06/04/21 10:03

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			279.8 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 05:51	K1S	TAL SAC

**Client Sample ID: BH20210604-2S-75**

**Lab Sample ID: 320-74597-6**

Date Collected: 06/04/21 10:05

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			272.5 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 06:00	K1S	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-3N-25**

**Lab Sample ID: 320-74597-7**

Date Collected: 06/04/21 10:13

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			257 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 06:10	K1S	TAL SAC

**Client Sample ID: BH20210604-3N-50**

**Lab Sample ID: 320-74597-8**

Date Collected: 06/04/21 10:14

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			267.4 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 06:37	K1S	TAL SAC

**Client Sample ID: BH20210604-3N-75**

**Lab Sample ID: 320-74597-9**

Date Collected: 06/04/21 10:15

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			280.9 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 06:46	K1S	TAL SAC

**Client Sample ID: BH20210604-3S-25**

**Lab Sample ID: 320-74597-10**

Date Collected: 06/04/21 10:31

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.3 mL	10.0 mL	496405	06/08/21 04:41	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497061	06/10/21 06:55	K1S	TAL SAC

**Client Sample ID: BH20210604-3S-50**

**Lab Sample ID: 320-74597-11**

Date Collected: 06/04/21 10:32

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			286.7 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 07:59	K1S	TAL SAC

**Client Sample ID: BH20210604-3RAW**

**Lab Sample ID: 320-74597-12**

Date Collected: 06/04/21 10:45

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			286.2 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:08	K1S	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Client Sample ID: BH20210604-PREGAC

Lab Sample ID: 320-74597-13

Date Collected: 06/04/21 09:18

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			286.5 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:17	K1S	TAL SAC

## Client Sample ID: BH20210604-POSTGAC

Lab Sample ID: 320-74597-14

Date Collected: 06/04/21 09:11

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			277.9 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:27	K1S	TAL SAC

## Client Sample ID: BH20210604-1N-25

Lab Sample ID: 320-74597-15

Date Collected: 06/04/21 09:30

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			265.1 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:36	K1S	TAL SAC

## Client Sample ID: BH20210604-1N-50

Lab Sample ID: 320-74597-16

Date Collected: 06/04/21 09:31

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			275.8 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:45	K1S	TAL SAC

## Client Sample ID: BH20210604-1N-75

Lab Sample ID: 320-74597-17

Date Collected: 06/04/21 09:32

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			272.7 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 08:54	K1S	TAL SAC

## Client Sample ID: BH20210604-1S-25

Lab Sample ID: 320-74597-18

Date Collected: 06/04/21 09:39

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			264.1 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 09:21	K1S	TAL SAC



# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-1S-50**

**Lab Sample ID: 320-74597-19**

Date Collected: 06/04/21 09:40

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			263.1 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 09:31	K1S	TAL SAC

**Client Sample ID: BH20210604-1S-75**

**Lab Sample ID: 320-74597-20**

Date Collected: 06/04/21 09:41

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			272.2 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 09:40	K1S	TAL SAC

**Client Sample ID: BH20210604-PRE-GAC**

**Lab Sample ID: 320-74597-21**

Date Collected: 06/04/21 09:16

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 10:33	D1R	TAL SAC

**Client Sample ID: BH20210604-1MID**

**Lab Sample ID: 320-74597-22**

Date Collected: 06/04/21 09:35

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 10:52	D1R	TAL SAC

**Client Sample ID: BH20210604-1POST**

**Lab Sample ID: 320-74597-23**

Date Collected: 06/04/21 09:43

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 11:10	D1R	TAL SAC

**Client Sample ID: BH20210604-2MID**

**Lab Sample ID: 320-74597-24**

Date Collected: 06/04/21 09:57

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 11:29	D1R	TAL SAC

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

**Client Sample ID: BH20210604-2POST**

**Lab Sample ID: 320-74597-25**

Date Collected: 06/04/21 10:07

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 11:47	D1R	TAL SAC

**Client Sample ID: BH20210604-3MID**

**Lab Sample ID: 320-74597-26**

Date Collected: 06/04/21 10:17

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 12:06	D1R	TAL SAC

**Client Sample ID: BH20210604-3POST**

**Lab Sample ID: 320-74597-27**

Date Collected: 06/04/21 10:36

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 12:24	D1R	TAL SAC

**Client Sample ID: BH20210604-POSTGAC**

**Lab Sample ID: 320-74597-28**

Date Collected: 06/04/21 09:08

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 13:01	D1R	TAL SAC

**Client Sample ID: BH20210604-POSTGAC (DUP)**

**Lab Sample ID: 320-74597-29**

Date Collected: 06/04/21 09:12

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	497181	06/09/21 19:29	FX	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			496915	06/10/21 13:56	D1R	TAL SAC

**Client Sample ID: BH20210604-3S-75**

**Lab Sample ID: 320-74597-30**

Date Collected: 06/04/21 10:34

Matrix: Water

Date Received: 06/05/21 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			255.2 mL	10.0 mL	496408	06/08/21 04:52	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			497065	06/10/21 09:49	K1S	TAL SAC

### Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Eurofins TestAmerica, Sacramento

# Accreditation/Certification Summary

Client: New York State D.E.C.  
 Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

## Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2 FTS
537 (modified)	3535	Water	8:2 FTS
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorobutanesulfonic acid (PFBS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluoroheptanoic acid (PFHpA)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorononanoic acid (PFNA)

# Method Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-74597-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
WS-LC-0025 Att1	Fluorinated Alkyl Substances	TAL-SAC	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
PFAS Prep	Preparation, Direct Inject PFAS	TAL-SAC	TAL SAC

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

#### Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Stewart ANGB - Butterhill #336089


Job ID: 320-74597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74597-1	BH20210604-2N-25	Water	06/04/21 09:53	06/05/21 09:10	
320-74597-2	BH20210604-2N-50	Water	06/04/21 09:54	06/05/21 09:10	
320-74597-3	BH20210604-2N-75	Water	06/04/21 09:55	06/05/21 09:10	
320-74597-4	BH20210604-2S-25	Water	06/04/21 10:01	06/05/21 09:10	
320-74597-5	BH20210604-2S-50	Water	06/04/21 10:03	06/05/21 09:10	
320-74597-6	BH20210604-2S-75	Water	06/04/21 10:05	06/05/21 09:10	
320-74597-7	BH20210604-3N-25	Water	06/04/21 10:13	06/05/21 09:10	
320-74597-8	BH20210604-3N-50	Water	06/04/21 10:14	06/05/21 09:10	
320-74597-9	BH20210604-3N-75	Water	06/04/21 10:15	06/05/21 09:10	
320-74597-10	BH20210604-3S-25	Water	06/04/21 10:31	06/05/21 09:10	
320-74597-11	BH20210604-3S-50	Water	06/04/21 10:32	06/05/21 09:10	
320-74597-12	BH20210604-3RAW	Water	06/04/21 10:45	06/05/21 09:10	
320-74597-13	BH20210604-PREGAC	Water	06/04/21 09:18	06/05/21 09:10	
320-74597-14	BH20210604-POSTGAC	Water	06/04/21 09:11	06/05/21 09:10	
320-74597-15	BH20210604-1N-25	Water	06/04/21 09:30	06/05/21 09:10	
320-74597-16	BH20210604-1N-50	Water	06/04/21 09:31	06/05/21 09:10	
320-74597-17	BH20210604-1N-75	Water	06/04/21 09:32	06/05/21 09:10	
320-74597-18	BH20210604-1S-25	Water	06/04/21 09:39	06/05/21 09:10	
320-74597-19	BH20210604-1S-50	Water	06/04/21 09:40	06/05/21 09:10	
320-74597-20	BH20210604-1S-75	Water	06/04/21 09:41	06/05/21 09:10	
320-74597-21	BH20210604-PRE-GAC	Water	06/04/21 09:16	06/05/21 09:10	
320-74597-22	BH20210604-1MID	Water	06/04/21 09:35	06/05/21 09:10	
320-74597-23	BH20210604-1POST	Water	06/04/21 09:43	06/05/21 09:10	
320-74597-24	BH20210604-2MID	Water	06/04/21 09:57	06/05/21 09:10	
320-74597-25	BH20210604-2POST	Water	06/04/21 10:07	06/05/21 09:10	
320-74597-26	BH20210604-3MID	Water	06/04/21 10:17	06/05/21 09:10	
320-74597-27	BH20210604-3POST	Water	06/04/21 10:36	06/05/21 09:10	
320-74597-28	BH20210604-POSTGAC	Water	06/04/21 09:08	06/05/21 09:10	
320-74597-29	BH20210604-POSTGAC (DUP)	Water	06/04/21 09:12	06/05/21 09:10	
320-74597-30	BH20210604-3S-75	Water	06/04/21 10:34	06/05/21 09:10	

# Albany Chain of Custody Record

## #2224



<b>Client Information</b>		Lab PM: Stone, Judy L	Carrier Tracking No(s): 480-161298-35463.1
Company: ARCADIS U.S. Inc		E-Mail: Judy.Stone@Eurofinset.com	State of Origin: Page 1 of 4
Address: 855 Route 146 Suite 210		Analysis Requested	
City: Clifton Park		 320-74597 Chain of Custody	
State, Zip: NY, 12065		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2SO4 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 518-402-9813(Tel)		Other: - DI Water K - EDTA L - EDA	
Email: benjamin.powers@arcadis.com		Total Number of Containers:	
Project Name: Stewart ANGB - Butterhill #336089		Special Instructions/Note:	
Site:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, On-waste, Soil, BT=TISSUE, A=Air)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	PFC, IDA - PFA's, Standard List (21 Analytes) - SAC	PFAS, DL, DW - PFA's, UCMR List (6)	Total Number of Containers	Special Instructions/Note
BK20210604-2N-25	6/10/21	0953	G	Water	NY	Y			2	
BK20210604-2N-50		0954	G	Water	NY	Y			2	
BK20210604-2N-75		0955	G	Water	NY	Y			2	
BK20210604-2S-25		1001	G	Water	NY	Y			2	
BK20210604-2S-50		1003	G	Water	NY	Y			2	
BK20210604-2S-75		1005	G	Water	NY	Y			2	
BK20210604-3N-25		1013	G	Water	NY	Y			2	
BK20210604-3N-50		1014	G	Water	NY	Y			2	
BK20210604-3N-75		1015	G	Water	NY	Y			2	
BK20210604-3S-25		1031	G	Water	NY	Y			2	
BK20210604-3S-50		1032	G	Water	NY	Y			2	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Special Instructions/QC Requirements:**

<b>Relinquished by:</b> <i>Benjamin Powers</i>		<b>Received by:</b> <i>Eric Kuller</i>	
<b>Relinquished by:</b> <i>Eric Kuller</i>		<b>Received by:</b> <i>Eric Kuller</i>	
<b>Relinquished by:</b> _____		<b>Received by:</b> _____	
Date/Time: 6/14/2021 12:58	Date/Time: 6-4-2021 12:58	Date/Time: 6-5-21 09:10	Date/Time: _____
Company: Arcadis	Company: Arcadis	Company: ETSI	Company: ETSI
Company: ETSI	Company: ETSI	Company: ETSI	Company: ETSI
Custody Seal No. 1479422, 1479421, 1479426		Cooler Temperature(s) °C and Other Remarks: 0.6, 3.6, 2.0	



**Albany**  
Chain of Custody Record

**#224**

**Albany**  
880 Riverside Parkway  
West Sacramento, CA 95605  
Phone: 916-373-5600 Fax: 916-372-1059

<b>Client Information</b>		Lab PM Stone, Judy L	Carrier Tracking No(s) 480-161298-35463.3
Client Contact Benjamin Powers		E-Mail Judy.Stone@Eurofinset.com	Page Page 3 of 4
Company ARCADIS U.S. Inc		PWSID	Job #
Address 855 Route 146 Suite 210		Analysis Requested	
City Clifton Park		Total Number of Containers	
State, Zip NY, 12065		PFAS DL DW - PFAS, UCMR List (6)	
Phone 518-402-9813(Tel)		PFAS IDA - PFAS, Standard List (21 Analytes) - SAC	
Email benjamin.powers@arcadis.com		Perform MS/MSD (Yes or No)	
Project Name Stewart ANGB - Butterhill #336089		Field Filtered Sample (Yes or No)	
Site Butterhill		Preservation Codes	
Due Date Requested:		M - Hexane	
TAT Requested (days):		N - None	
Compliance Project: $\Delta$ Yes $\Delta$ No		O - AsNaO2	
PO #	Callout ID: 137349	P - Na2O4S	
WO #		Q - Na2SO3	
		R - Na2SO3	
		S - H2SO4	
		T - TSP Dodecahydrate	
		U - Acetone	
		V - MCAA	
		W - pH 4-5	
		L - EDTA	
		Z - other (specify)	
		Other:	
Sample Identification		Special Instructions/Note:	
BH20210604 - PRE-GAC	Sample Date: 6/04	Sample Time: 0916	Sample Matrix: Water
BH20210604 - 1 MID	Sample Date: 6/04	Sample Time: 0935	Sample Matrix: Water
BH20210604 - 1 POST	Sample Date: 6/04	Sample Time: 0943	Sample Matrix: Water
BH20210604 - 2 MID	Sample Date: 6/04	Sample Time: 0957	Sample Matrix: Water
BH20210604 - 2 POST	Sample Date: 6/04	Sample Time: 1007	Sample Matrix: Water
BH20210604 - 3 MID	Sample Date: 6/04	Sample Time: 1017	Sample Matrix: Water
BH20210604 - 3 POST	Sample Date: 6/04	Sample Time: 1036	Sample Matrix: Water
BH20210604 - POST GAC	Sample Date: 6/04	Sample Time: 0908	Sample Matrix: Water
BH20210604 - POST GAC (DUP)	Sample Date: 6/04	Sample Time: 0912	Sample Matrix: Water
BH20210604 - POST GAC MS	Sample Date: 6/04	Sample Time: 0905	Sample Matrix: Water
BH20210604 - POST GAC MSD	Sample Date: 6/04	Sample Time: 0919	Sample Matrix: Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	
Relinquished by: <i>Benjamin Powers</i>		Date: 6/4/2021 12:58	
Relinquished by: <i>Tracy Miller</i>		Date: 6-5-21 10:10	
Relinquished by: <i>Tracy Miller</i>		Date: 6-5-21 10:10	
Custody Seals Intact: $\Delta$ (Yes) $\Delta$ (No)		Cooler Temperature(s) °C and Other Remarks: 0.6, 2.6, 2.0, 6	
Custody Seal No.: 1479422, 1479421, 1479426		Company: EETA	
Container lists sample 10 as BH2021-1 Post 11, 1090 and labels accordingly to COC, No 6-5-21		Company: EETA	



<b>Client Information</b>		Lab PM Stone, Judy L	Carrier Tracking No(s) 480-161298-35463.4
Client Contact: Benjamin Powers		E-Mail: Judy.Stone@Eurofinset.com	Page: Page 4 of 4
Company: ARCADIS U.S. Inc		PWSID:	Job #:
Address: 855 Route 146 Suite 210		Analysis Requested	
City: Clifton Park		Total Number of containers	
State, Zip: NY, 12065		PFAS, DL, DW - PFAS, UCMR List (6)	
Phone: 518-402-9813(Tel)		PFC, IDA - PFAS, Standard List (21 Analytes) - SAC	
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Perform MS/MSD (Yes or No)	
PO #: Callout ID: 137349		Field Filtered Sample (Yes or No)	
WO #:		Preservation Code:	
Project #: 48020960		Matrix (W=water, S=solid, O=oil, A=air)	
SSOW#:		Sample Type (C=comp, G=grab)	
Email: benjamin.powers@arcadis.com		Sample Time	
Project Name: Stewart ANGB - Butterhill #336089		Sample Date	
Site:		Sample Date	
<b>Sample Identification</b>		Sample Date	
BH2020604-35-75		6/6/21 1034 G	
Water		Water	
Water		Water	
Water		Water	
Water		Water	
Water		Water	
6-4-2021		6-4-2021	
<b>Possible Hazard Identification</b>		Special Instructions/Note:	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note:	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by:		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: <i>Benjamin Powers</i>		Special Instructions/QC Requirements:	
Date/Time: 6/4/2021 12:58		Received by: <i>Jim Kuller</i>	
Date/Time: 6-4-2021 1700		Date/Time: 6-5-21 0910	
Date/Time:		Date/Time:	
Company: <i>Arcadis</i>		Company: <i>EETA</i>	
Company: <i>EETA</i>		Company: <i>EIASAC</i>	
Company:		Company:	
Custody Seal No.: 1479422, 1479421, 1479426		Cooler Temperature(s) °C and Other Remarks: 2.6, 2.6, 0.6	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

# Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 320-74597-1

**Login Number: 74597**

**List Source: Eurofins TestAmerica, Sacramento**

**List Number: 1**

**Creator: Oropeza, Salvador**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1479421/1479426/1479422
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not on page 1 and 4
There are no discrepancies between the sample IDs on the containers and the COC.	False	No: IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

